



EMERGEN

OPERATIONAL AND MODELLING INPUTS

A.1.4 CLIMATE AND SITE

Climate and site inputs are identical for both the Proposed Building and Reference Building, as shown in

Table 8: Climate and site inputs

PARAMETER	INPUT
Climate file	AUS_WA_Hyden.956270_TMYx.2007-2021
Climate file location	Hyden, WA, AUS
Source	Climate.OneBuilding
Building orientation	297° CCW

A.1.5 INTERNAL LOADS AND PROFILES

Occupancy densities, internal heat gains, lighting power densities and operating profiles have been adopted in accordance with NCC 2022 Specification 35 for J1V3 modelling. As this assessment adopts a building-fabric-only approach, identical inputs have been applied to the Proposed and Reference Buildings. The adopted inputs are summarised in Table 9.

The operating profiles applied are defined in NCC Specification 35 and are therefore not repeated in this report.

Table 9: Occupancy, internal heat gains and lighting power density inputs (NCC 2022 Specification 35)

PARAMETER	INPUT	NCC REFERENCE
Occupant density (m ² /person)	Class 9b – Public / Assembly: 4 Class 5 – Office: 10 Class 6 – Retail / Shop: 5 Class 6 – Restaurant / Café: 1	Clause D2D18(a) Table D2D18 Area per person according to use
Equipment density (W/m ² or W/room)	Class 9b – School / Childcare: 5 Class 5 – Office: 11 Class 6 – Retail / Shop: 5 Class 6 – Restaurant / Café: 11	Clause S35C2(1)(b)(ii) Table S35C2I Internal heat gains for appliances and equipment
Lighting power density (W/m ²)	Class 9b – Public / Assembly: 8.0 Class 5 – Office: 4.5 Class 6 – Retail / Shop: 14.0 Class 6 – Restaurant / Café: 14.0	Clause J7D3(2)(a) Table J7D3a Maximum illumination power density
Occupants and hot meals heat gain (W)	Other: 75 sensible & 55 latent Eating: 80 sensible & 80 latent	Clause S35C2(1)(b)(i) Table S35C2n Internal heat gains for occupants and hot meals

A.1.6 HVAC

Heating and cooling energy demand for the Proposed and Reference Building models has been derived from simulated zone sensible heating and cooling loads, using identical conditioning setpoint temperatures and operating schedules applied at the zone level in accordance with Clause S35C2(1)(a) of NCC 2022 Specification 35.





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Detailed HVAC system design, including plant configuration, fan energy, and outside air ventilation, has not been explicitly modelled, as services are not being assessed under this pathway and are assumed to be identical for the Proposed and Reference Buildings. This approach ensures that differences in simulated energy consumption are attributable solely to changes in building fabric performance.

Table 10: Modelled HVAC inputs

HVAC DETAILS	
Cooling setpoint (°C)	24
Heating setpoint (°C)	21

A.1.7 THERMAL COMFORT CONDITIONS

Thermal comfort has been assessed using Predicted Mean Vote (PMV) indices derived from simulated zone conditions. Zone conditioning has been modelled using idealised control to maintain setpoint temperatures during occupied periods, representing a consistent conditioning assumption for both the Proposed and Reference Buildings. Under this approach, differences in thermal comfort outcomes reflect the influence of building fabric performance on internal thermal conditions rather than HVAC system response characteristics.

Simulations were undertaken using a 10-minute timestep, with comfort metrics reported at an hourly interval. Clothing insulation values are seasonally adjusted in accordance with Table 12.

Table 11: Thermal comfort condition inputs

THERMAL COMFORT CONDITIONS		
Clothing level (Clo)	Warmer months (January–February & October–December)	Cooler months (April–September)
	0.6	0.9
Activity level (W)	130	
Air velocity (m/s)	0.1	





APPENDIX 2 – THERMAL ENVELOPE MARK-UP

[REFER OVERLEAF]





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APPENDIX 3 – THERMAL CONSTRUCTION - GENERAL

Excerpt from the NCC, Volume One - Part J4D3

Thermal Construction - General

- 1) Where required, insulation must comply AS/NZS 4859.1 and be installed so that it –
 - a) Abuts or overlaps adjoining insulation other than at supporting members such as studs, noggings, joists, furring channels and the like where the insulation must be against the member; and
 - b) Forms a continuous barrier with ceilings, walls, bulkheads, floors or the like that inherently contribute to the thermal barrier; and
 - c) Does not affect the safe or effective operation of a domestic service or fitting.
- 2) Where required, reflective insulation must be installed with –
 - a) The necessary airspace, to achieve the required R-Value between a reflective side of the reflective insulation and a building lining or cladding; and
 - b) The reflective insulation closely fitted against any penetration, door or window opening; and
 - c) The reflective insulation adequately supported by framing members; and
 - d) Each adjoining sheet of roll membrane being –
 - i) Overlapped not less than 50 mm; or
 - ii) Taped together.
- 3) Where required, bulk insulation must be installed so that –
 - a) It maintains its position and thickness, other than where it crosses roof battens, water pipes, electrical cabling or the like; and
 - b) In a ceiling, where there is no bulk insulation or reflective insulation in the wall beneath, it overlaps the wall by not less than 50mm.
- 4) Roof, ceiling, wall and floor materials, and associated surfaces are deemed to have the thermal properties listed in Specification 36
- 5) The required Total R-Value and Total System U-Value, including allowance for thermal bridging, must be –
 - a) Calculated in accordance with AS/NZS 4859.2 for a roof or floor; or
 - b) Determined in accordance with Specification 37 for wall-glazing construction; or
 - c) Determined in accordance with Specification 39 or Section 3.5 of CIBSE Guide A for soil or sub-floor spaces.







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Report on
Geotechnical Investigation at
36 Marshall Street, Hyden WA

For
Hyden Progress Association

Reference: GI862725PG_Rev0

Date: 31 December 2025



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Quality Information

Document Geotechnical Investigation for
 36 Marshall Street, Hyden WA

Project Ref GI862725PG_Rev0

Date 31 December 2025

Prepared for Hyden Progress Association

Revision History

Rev.	Date	Details	Prepared by	Authorised	
				Name/Position	Signature
0	31/12/2025	Final Issue	HA	Mohammad Amzad Hossain Sr Geotechnical Engineer	

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Appendix A: Site Plan and Site Layout Plan

Appendix B: Bore hole Logs, DCP and Field Permeability Test (FPT) Certificates

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Appendix D: Site Photograph

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1.0 INTRODUCTION

Perth Geotechnics (PG) has carried out a geotechnical investigation at 36 Marshall Street, Hyden WA in order to provide a site investigation report in accordance with AS 1726-2017. The project was engaged by Mr. Tyron Utley on behalf of Hyden Progress Association (the client).

The total site area is 3,938m² and the proposed development at the site will be multifunctional community and visitor centre.

The site location map is shown below figure.

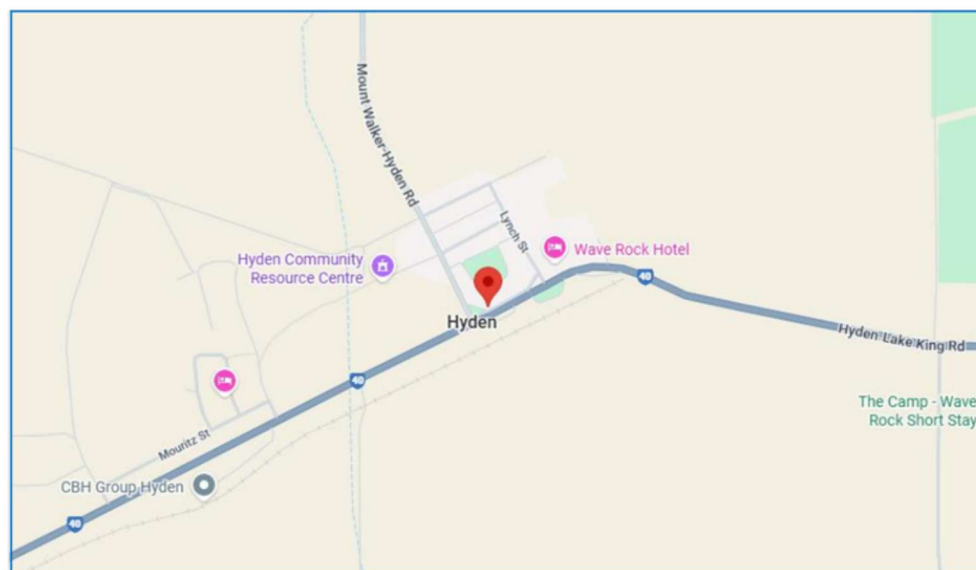


Figure 1: The site location map (source: Google map).

This report has to read or implement in full. No partial implementation of this report is allowed. It should be noted that our investigation does not include environmental and acid sulphate assessment.

The geotechnical investigation consisted of a desktop study, site investigation, site classification, stormwater drainage recommendation, earthworks recommendation, bearing capacity, design parameters, site sub-soil class assignment and earthquake hazard factor.

2.0 OBJECTIVES

The objectives of the investigation are following:

- Desktop study and available information.
- The factual data (field test results), including borehole logs as per AS1726.
- Interpretation of the subsurface conditions across the site.
- Groundwater table information if it is encountered.
- Site classification in accordance with AS2870-2011,
- Recommendation on stormwater drainage disposal.
- Recommendations on remedial works including earthworks, site preparations and compaction requirements.
- Recommendation on geotechnical design parameters.

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- Recommendation on design parameters for retaining structure.
- Site sub-soil class and earthquake classifications as per AS1170.
- Recommendation on the type of suitable foundation.
- Recommendation on allowable bearing capacity and settlement analysis.
- Recommendation on design parameters for road pavement.

3.0 DESKTOP STUDY

3.1 Site History

A review of Landgate Information and aerial photography of the site indicates that the site is situated in a mix commercial and residential area.

3.2 Groundwater Information

Groundwater table was not observed at any of the boreholes up to the investigation depth of 1.7m below ground level. There is no record found regarding the depth of groundwater of this property address into department of water map.

4.0 SITE INVESTIGATION

The geotechnical site investigation was undertaken on 12 November 2025 in the full-time presence of a geotechnical engineer from PG. The site investigation comprised of following:

- Site walkover and taking photograph.
- Excavation of six (6) bore holes (BH1 to BH6) by machine auger up to a depth of 2.0 m or refusal.
- Logging of the site soil profile as per AS1726.
- Conducting six (6) Dynamic Cone Penetrometer (DCP1 to DCP6) tests adjacent to boreholes to a depth of 2.0 m or refusal.
- Conduct soil sampling for laboratory testing, which includes:
 - Particle Size Distribution (PSD)
 - Atterberg Limits Test or PI test
- Conducting two (2) Field Permeability Tests (FPT1 and FPT2) by Guelph permeameter.
- Recording of the locations of BH, DCP and FPT by handheld GPS.

A site plan showing the locations of the Bore hole, DCP and Field Permeability Tests are provided in Appendix A.

4.1 Site Location and General Description

The site is located at 36 Marshall Street, Hyden WA. Currently there are two sheds at eastern side of the site which will be demolished before construction commence. Rest of the site currently using as a hardstand area. There are few medium size trees at the site and site level is found mostly flat. The site is bounded by McPherson Street at western side, Marshall Street at southern side and other two sides commercial properties. The site photograph was taken during the field investigation are shown in Appendix D.

4.2 Bore Hole Logs

A total of six (6) Bore holes (BH1 to BH6) were excavated across the site by using machine auger to a depth of 2.0 m or refusal.

Boreholes BH1 to BH6 revealed similar soil profile and consists of

0.0 - 0.2 m: Sandy Gravelly CLAY- low plasticity, yellowish brown, brown, dry, very stiff to hard, fine to coarse grained gravel, fine to medium grained sand, overlying

0.2 – 1.7 m Gravelly Sandy CLAY- medium plasticity, yellowish brown, pale grey, brown, dry to moist, stiff to hard, fine to medium grained sand, fine to coarse grained gravel.

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Groundwater table was not observed at any of the boreholes up to the investigation depth of 1.7m below ground level. Boreholes BH1 to BH6 were terminated at a depth of 1.5 m, 1.7 m, 1.7 m, 1.5 m, 1.5 m and 1.6 m respectively due to auger refusal on hard clay layer. Bore Hole logs are attached in Appendix B to this report.

4.3 Dynamic Cone Penetrometers (DCP) Test

Six (6) Dynamic Cone Penetrometer tests (DCP1 to DCP6) were conducted adjacent to borehole locations. All DCP tests were conducted to a depth of 2.0 m or refusal. The tests were conducted in accordance with test method AS1289.6.3.2, Ref Table 6.4.6.1 (A) & (B) HB 160-2006. DCP tests revealed that the site is in stiff to hard condition.

The DCP test certificates are attached to this report in Appendix B.

4.4 Field Permeability Test

Two (2) Field permeability tests (FPT1 and FPT2) were conducting by using Guelph permeameter as per ASTM D 5126 – 90 at two locations. The tests were conducted to a depth of 1.0 m below ground level. The Guelph Permeameter is a constant head device that operates on the Mariotte siphon principle. It provides a straightforward way of determining the field saturated hydraulic conductivity, matrix flux potential and the soil sorptivity in the field.

Field Permeability tests report is attached in Appendix B and summary is presented in Table 1.

Table 1. Summary of Field Permeability Test Results

Permeability Test ID	Co-ordinates (GDA94)		Permeability Rate		Soil Description	Test Depth (m)
	Easting	Northing	cm/sec	m/day		
FPT1	50 675 132	6 408 216	5.4×10^{-5}	0.047	Gravelly Sandy Clay	1.0
FPT2	50 675 181	6 408 200	8.0×10^{-5}	0.070	Gravelly Sandy Clay	1.0

The coefficient of permeability or hydraulic conductivity of the site varies from 0.047 to 0.07 m/day.

5.0 GEOTECHNICAL LABORATORY TEST

Laboratory tests were conducted at 'Western Geotechnical Laboratory Services, a NATA accredited soil testing laboratory located at Welshpool WA. The following geotechnical laboratory tests were undertaken:

- Particle Size Distribution (PSD, Test Method: AS 1289 3.6.1)
- Atterberg Limits Test or PI test (Test Method AS1289. 3.9.2, 3.2.1, 3.3.1, 3.4.1)

The laboratory test results are summarised in Table 2. Laboratory test certificates are included in Appendix C.

Table 2. Summary of Laboratory Test Results

Soil Sample Location	BH2 (0.2 – 1.3) m
Particle Size Distribution (PSD)	
Sand (%)	-
Percent Fines < 75µm (%)	40
Atterberg Limit Test or PI Test	
Liquid Limit (%)	31
Plastic Limit (%)	14
Plasticity Index (%)	17
Linear Shrinkage (%)	9

It was observed from the laboratory test results that the medium reactive clay has 40 percent (%) fines or clay material.

6.0 ENGINEERING CONSIDERATIONS AND RECOMMENDATIONS

6.1 Inferred Subsurface Conditions

The following generalised subsurface profile can be inferred based on the site investigation data:

Sandy Gravelly CLAY (CL)/ Gravelly Sandy CLAY (CI)

The dominant clay layer consists of low to medium plasticity, yellowish brown, brown, pale grey, dry to moist, stiff to hard, fine to medium grained sand, fine to coarse grained gravel, extending from the surface to the depth up to 1.7 m, terminated depth.

6.2 Groundwater Level

Groundwater table was not observed at any of the boreholes up to the investigation depth of 1.7m below ground level. There is no record found regarding the depth of groundwater of this property address into department of water map.

6.3 Inferred Geotechnical Design Parameters

Geotechnical design parameters for the site were inferred on the basis of the site investigation data, generalised subsoil units and are presented in Table 3.

Table 3. Inferred Geotechnical Design Parameters for Generalised Subsoil Model

Depth (m)	Soil Layer Description	γ (kN/m ³)	ϕ' (°)	E' (MPa)	c_u/c' (kN/m ³)	ν'
0.0 – 1.8	Gravelly Sandy CLAY (CL-CI) Stiff to hard	18	25	30	100/5	0.3

Notes:

γ = Bulk unit weight of soil, ϕ' = Effective friction angle, E' = Drained Young's Modulus, c_u = Undrained shear strength, c' = Drained cohesion, ν' = Drained Poisson's Ratio.

Depth and thickness provided in the table should be considered as valid for a generalised subsoil model only. Bore hole logs can be reviewed for better understanding.

6.4 Geotechnical Design Parameters for Retaining Structures

Earth pressure parameters for the design of retaining structures are presented in Table 4. These parameters should be considered as preliminary.

Table 4. Geotechnical Design Parameters for Retaining Structures

Material type	γ (kN/m ³)	ϕ' (degrees)	K_0	Wall friction, $\delta = 0^\circ$	
				K_a	K_p
Loose Sand	16	28	0.51	0.34	2.85
Medium Dense to Dense Sand	18	35	0.44	0.28	3.54

Notes: γ = Bulk unit weight, ϕ' = Effective friction angle, K_0 = Coefficient of earth pressure at rest, K_a = Coefficient of drained active earth pressure, K_p = Coefficient of drained passive earth pressure.

6.5 Site Classification

Based on the subsurface surrounding site conditions observed during the field investigation, and the laboratory test results the site is classified as '**M**' site classification in accordance with the definitions provided in Australian Standard AS2870-2011. The characteristic surface movement can be considered $20 < Y_s \leq 40$ mm. The soil suction change of 2.5 m is considering in this case.

The site can be reclassified to '**S**' classification by conducting the remedial measures or site preparation as describe at Section 6.7. The characteristic surface movement can be considered up to ($0 < Y_s \leq 20$ mm) in accordance with the definitions provided in Australian Standard AS2870-2011.

General definition of 'Site Class' is shown in Table 5 (Source: AS 2870-2011).

Table 5. General Definition of Site Class (Source: AS 2870-2011)

Site Class	Soil Description	Characteristic Surface Movement, Y_s (mm)
A	Most SAND and ROCK sites with little or no ground movement due to moisture content variation	little or no ground movement
S	Slightly reactive clayey or silty SAND, which will cause slight ground movement due to moisture content variation	$0 < Y_s \leq 20$
M	Moderately reactive clayey or silty soil which will cause moderate ground movement due to moisture content variation	$20 < Y_s \leq 40$
H1	Highly reactive clayey or silty soil which will cause high ground moved due to moisture content variation	$40 < Y_s \leq 60$
H2	Highly reactive clayey or silty soil which will cause high ground moved due to moisture content variation	$60 < Y_s \leq 75$
E	Extremely reactive clayey or silty soil which will cause extreme ground movement due to moisture content variation	$Y_s > 75$
P	Problematic sites, consisted of soft soils, soft clay or silt or loose sand; landfills, mine subsidence, collapsing soils, very reactive soils, subjected to erosion and sites which cannot be classified as A to E.	-

6.6 Earthquake Design Factor and Sub-Soil Class

Australian Standard AS1170.4-2007 Structural Design Actions Part 4 "Earthquake actions in Australia" is recommended for earthquake consideration. AS1170.4-2007 outlines the design criteria required for a structure in consideration of the risk of being subjected to earthquake loads. Earthquake design factors for the site are summarized in Table 6.

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Table 6. Earthquake Design Factors

Factor/Class	Value/Name	Ref. AS1170.4- 2007
Hazard Factor (z), Hyden Zone	0.07 – 0.08	Section 3 Table 3.2
Site sub-soil class	Class C _e – Shallow Soil	Section 4 Clause 4.1

6.7 Earthworks

This section discusses the recommended remedial measures with procedures and site preparation across the site.

6.7.1 Structural Fill or Non Reactive Fill

Suitable materials for structural fill shall be a clean sand fill. The fill material at compaction should comprise sand that is free from oversized material (i.e. material > 75 mm in any dimension), contains less than 5% fines (material passing 0.075 mm sieve), free from foreign material, organic material or other deleterious material. It should also be free from industrial waste, solid waste, or construction and demolition debris.

6.7.2 Recommended Remedial Measures

Earthworks should be carried out in general accordance with the Australian Standard AS 3798-2007 "Guidelines on Earthworks for Commercial and Residential Developments". The following are the recommended remedial measures to be followed during preparation of the site areas within the proposed development footprints:

- Remove and grab all trees from the site, including root masses and tree stumps.
- Clear uncontrolled fill, grasses, paved materials, demolition debris, concrete slabs, strip footings, pond lining, soft clay or other deleterious and organic material and stockpile separately and then remove from the site.
- **For site class 'S'**, prepare a sand pad of **700mm** over reactive clay and compact as per AS 3798.
- Compact /proof roll the exposed surface, with required number of passes (a minimum of 6 passes) of a vibratory roller to a dense state, i.e., to 95% of MMDD in accordance with AS1289.5.2.1. Add moisture as needed during the compaction. Compaction must not be attempted if the exposed ground is saturated or groundwater is at excavation level.
- Backfill the site with clean sand (select fill). Place the sand material in lifts not exceeding 300 mm in loose thickness and compact the lift using a vibratory compactor to 95% of its modified maximum dry density in accordance with AS1289.5.2.1. The material at compaction should be moisture conditioned within -1% to +2% of its optimum moisture content. Follow the same procedure of lift and compaction up to the finished ground level.
- Subgrade (or backfill lifts/layers) at carpark, driveway, hardstand area, access road areas shall be compacted to 98% of MMDD in accordance with AS1289.5.2.1. Add moisture as needed during the compaction.
- Undertake necessary excavation to the required depth for the proposed shallow foundation, raft, pad and strip footing. Footing bases should be comprised of a minimum of 700 mm thick sand pad. Temporary excavation up to 1 m depth can be conducted with a maximum dry slope angle of 1V: 1.5H. It is highly recommended to undertake a series of DCP tests at each footing base to ensure that the ground beneath the footing, at least to 1 m depth, does not comprise loose sands or other deleterious, clay or weak materials. Hand held compactor can be used if the base ground is not in dense state.
- Care will need to be taken when compacting in the vicinity of existing structures to avoid damage from excessive vibrations.

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- The Owner needs attention regarding the CSIRO publication in Building Technology File Number 18 from "Guide to Home Owners on Foundation Maintenance and Footing Performance".

It is highly recommended that during the course of construction to verify site preparation and compaction prior to pouring of concrete checked by a geotechnical engineer.

6.8 Bearing Capacity

As discussed in Section 6.7.2, all footing bases should be comprised of a minimum of 300 mm thick sand pad overlies on dense or stiff to very stiff material, to a minimum depth of 1 m below the footing excavation level.

The allowable bearing pressures are estimated (Table 7) to limit settlements to less than or equal to 25 mm and provide a minimum factor of safety of 2.0 against general bearing capacity failure. These bearing pressures do not consider eccentric and inclined loading conditions and interaction effects (i.e., loadings from adjacent foundations). Furthermore, the calculations assume that the areas beneath the pad and strip foundations have been compacted to a density ratio of 95% modified compaction, MMDD, and are founded at least 0.5 m to 1.0 m below final ground level.

Table 7. Allowable Bearing Pressures for Typical Strip and Pad Footings

Embedment Depth (m)	Footing Type	Footing Width (m)	Allowable Bearing Pressure (kPa)	Estimated Settlement (mm)
0.5	Strip	0.5	80	20
		1	100	20
		1.5	120	25
0.5	Pad	1	100	20
		2	130	20
		3	160	25

6.9 Excavatability

The stiff to hard states of the in-situ soils suggest that the materials should be excavatable with standard earthmoving equipment (e.g. 8 to 20 tonne excavator). Temporary excavation up to 1 m depth can be conducted with a maximum dry slope angle of 2H:1V.

6.10 Stormwater Drainage

The site is generally comprising of gravelly sandy clay up to the investigation depth. Groundwater table was not observed at any of the boreholes up to the investigation depth of 1.7m below ground level. It is found from field permeability test that the coefficient of permeability or hydraulic conductivity of the site varies from 0.047 to 0.07 m/day.

Onsite disposal of stormwater via soakwell is not appropriate for this site. We recommend to disposal of stormwater or roof runoff to offsite of the property or to the council drain. The drainage system has to fulfil the requirements of local shire.

6.11 California Bearing Ratio (CBR)

The subgrade of the driveway/ access road areas shall be prepared as per the general guidelines set out in Section 6.7.2 and compacted to a density ratio of **98% MMDD**.

We recommend a design CBR value of 5% can be considered for this project.

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7.0 REFERENCES

Australian Standard AS1170.4-2007, "Earthquake Actions in Australia".

Australian Standard AS 1726-1993, "Geotechnical Site Investigations".

Australian Standard AS 2870-2011, "Residential Slabs and Footings".

Australian Standard AS 3798-2007, "Guidelines on Earthworks for Commercial and Residential Developments".

Standards Australia, Hand Book HB 160-2006 "Soil Testing".

Perth Ground Atlas onlineversion, <https://maps.water.wa.gov.au/#/webmap/gwm>, Department of Environment, WA.

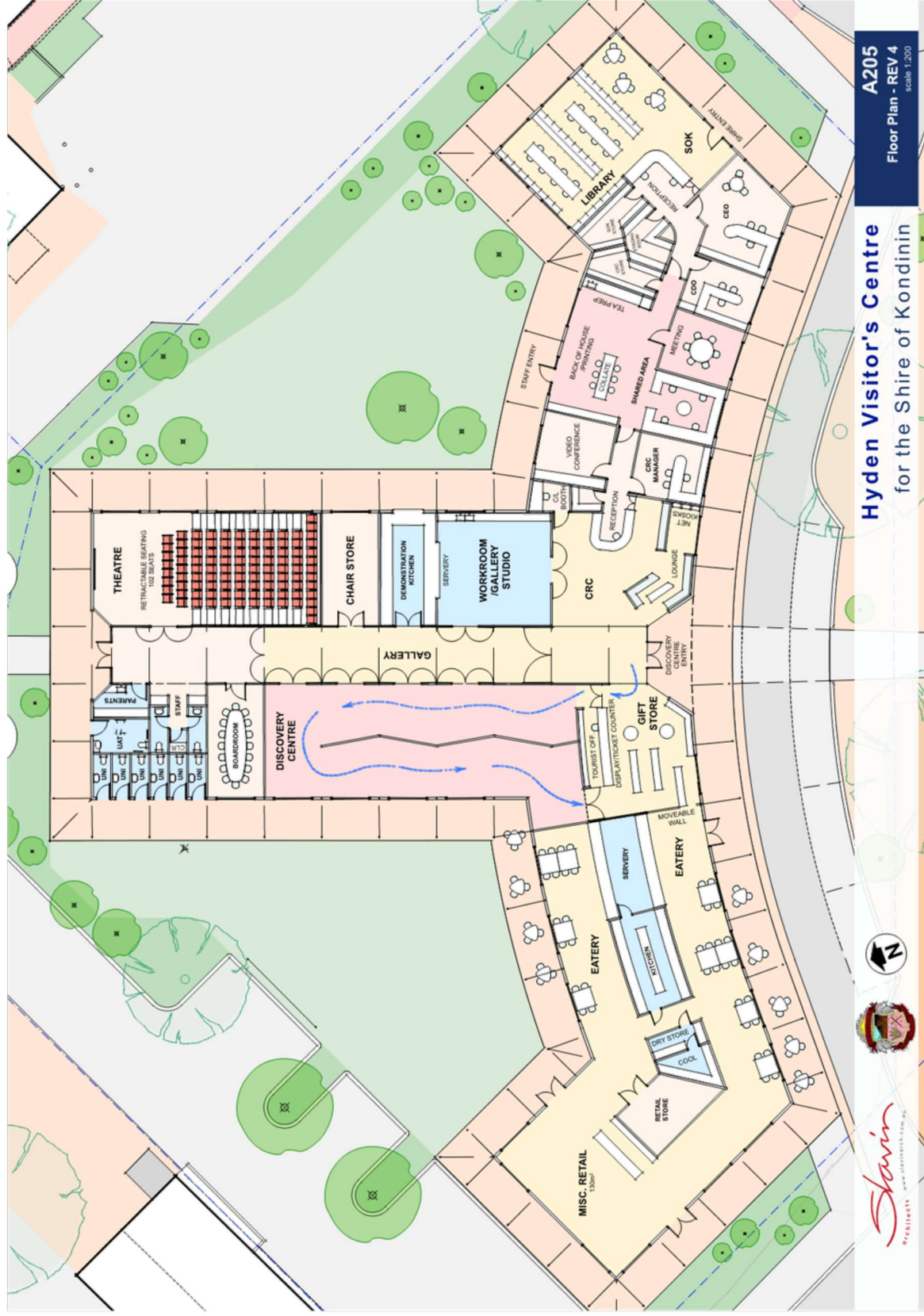
CSIRO publication "*Guide to Home Owners on Foundation Maintenance and Footing Performance*" in Building Technology File Number 18.

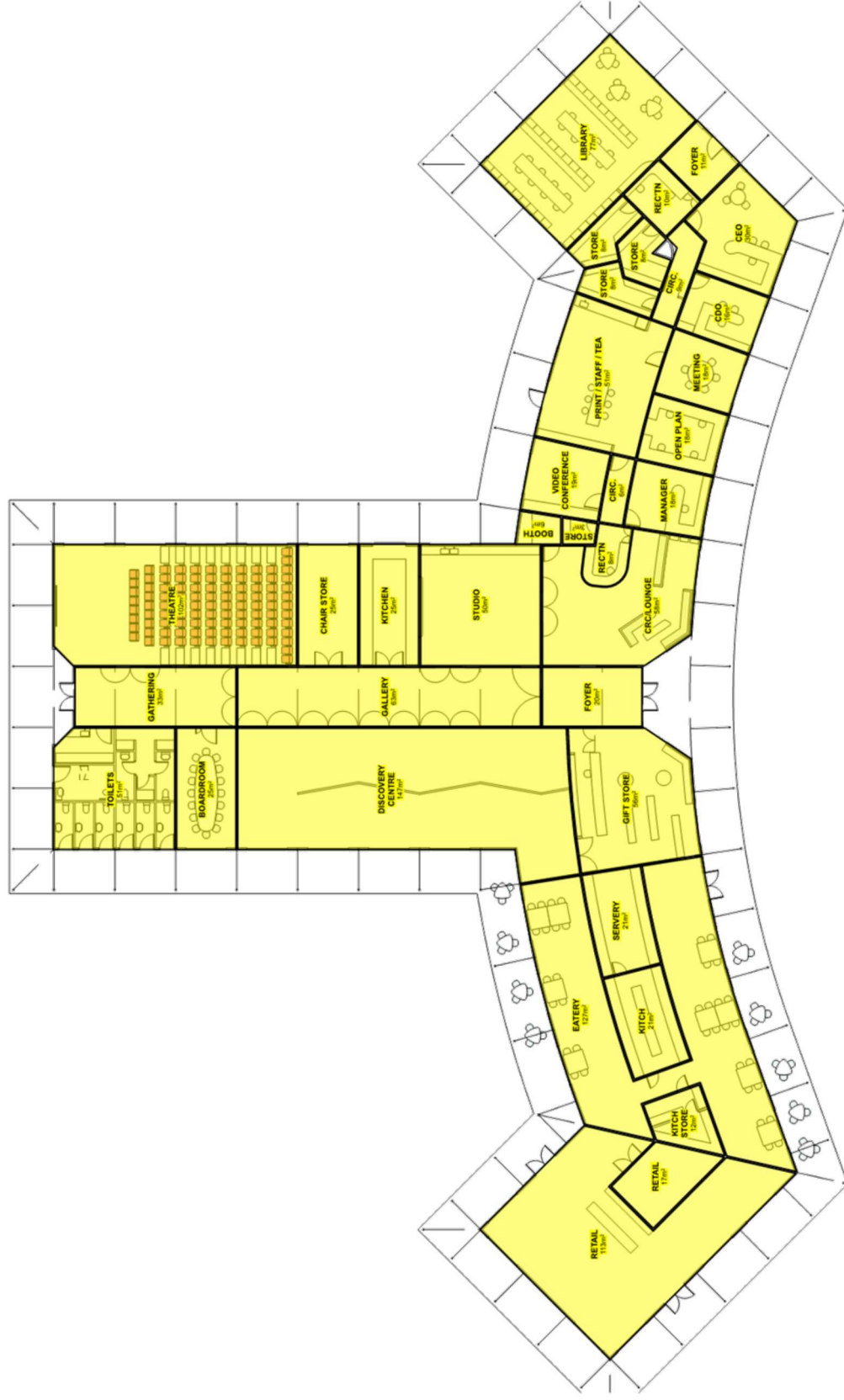
Slavin Architects architectural drawings, Hyden Visitor's Centre Plan - REV 4.



APPENDIX – A
SITE PLAN AND SITE LAYOUT PLAN







W010 - 2204



APPENDIX – B

BORE HOLE LOGS, DCP & FIELD PERMEABILITY TEST CERTIFICATES

Scale (m)		Depth (m)	GWT (m)	Sampling Type/Depth	Graphic Log	UCS Symbol	Sample ID	Soil Description	Moisture Condition	Density	Remarks/Field observations
	0.2				CL			Sandy Gravelly CLAY- low plasticity, yellowish brown, brown, fine to coarse grained gravel, fine to medium grained sand	D	H-VSt	
	0.5				CI			Gravelly Sandy CLAY- medium plasticity, yellowish brown, pale grey, brown, fine to medium grained sand, fine to coarse grained gravel	D	St-VSt	
	1.0								SM	St-VSt	
	1.5							Terminated at a depth of 1.5m due to auger refusal on hard clay	SM	H	
	2.0										
	3.0										
	4.0										
	5.0										

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BORE HOLE LOG

Reference: G1862725PG
Project: Geotechnical Investigation
Location: 36 Marshall Street, Hyden WA
Easting: 50 675 160
Northing: 6 408 242
Sampling Type: B - Bulk Sample

Client: Hyden Progress Association
Bore Hole ID: BH1
Date Commenced: 12/11/2025
Equipment Type: Machine Auger
Logged By: HA
Checked By: MH

Remarks:
 Sampling Type:
 B - Bulk Sample ((Disturbed)),
 U - Undisturbed Sample

Moisture Condition:
 D - Dry, M - Moist, W - Wet
 SM - Slightly Moist
 = Water Table

Density:
 VL = Very Loose, L = Loose,
 MD = Medium Dense
 D = Dense, VD = Very Dense

VS = Very Soft
F = Firm
St = Stiff

VSt = Very Stiff
H = Hard
R = Refusal

Perth Geotechnics

BORE HOLE LOG

Perth Geotechnics

ABN: 74 660 182 061

Tel: 08 6396 2675; M: 0430 130 677

PO Box 165, Gosnells WA 6990

E: info@perthgeotechnics.com.au

www.perthgeotechnics.com.au

Reference:	GI862725PG	Client:	Hyden Progress Association
Project:	Geotechnical Investigation	Bore Hole ID:	BH2
Location:	36 Marshall Street, Hyden WA	Date Commenced:	12/11/2025
Easting:	50 675 152	Equipment Type:	Machine Auger
Northing:	6 408 204	Logged By:	HA
Sampling Type:	B - Bulk Sample	Checked By:	MH

Scale (m)	Depth (m)	GWT (m)	Sampling Type/Depth	Graphic Log	UCS Symbol	Sample ID	Soil Description	Moisture Condition	Density	Remarks/Field observations
	0.2				CL		Sandy Gravelly CLAY- low plasticity, yellowish brown, brown, fine to coarse grained gravel, fine to medium grained sand	D-M	H-VSt	
	0.5				CI		Gravelly Sandy CLAY- medium plasticity, grey, brown, dark grey, fine to coarse grained gravel, fine to medium grained sand	M	St-VSt	
	1.0							M	St-VSt	
	1.3									
	1.5									
	1.7							M	VSt-H	
	2.0						Terminated at a depth of 1.7m due to auger refusal on hard clay			
	3.0									
	4.0									
	5.0									

Remarks:	Moisture Condition:	Density:	
Sampling Type:	D - Dry, M - Moist, W - Wet	VL = Very Loose, L = Loose,	VS = Very Soft
B - Bulk Sample (Disturbed),	SM - Slightly Moist	MD = Medium Dense	F = Firm
U - Undisturbed Sample	▽ = Water Table	D = Dense, VD = Very Dense	St = Stiff
			VSt = Very Stiff
			H = Hard
			R = Refusal

Scale (m)		Depth (m)	GWT (m)	Sampling Type/Depth	Graphic Log	UCS Symbol	Sample ID	Soil Description	Moisture Condition	Density	Remarks/Field observations
0.2						CL		Sandy Gravelly CLAY- low plasticity, yellowish brown, brown, fine to coarse grained gravel, fine to medium grained sand	D-M	H-VSt	
0.5						CI		Gravelly Sandy CLAY- medium plasticity, grey, brown, dark grey, fine to coarse grained gravel, fine to medium grained sand	M	St-VSt	
1.0									M	St-VSt	
1.5									M	VSt-H	
1.7								Terminated at a depth of 1.7m due to auger refusal on hard clay			
2.0											
3.0											
4.0											
5.0											

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BORE HOLE LOG

Reference: G1862725PG
Project: Geotechnical Investigation
Location: 36 Marshall Street, Hyden WA
Easting: 50 675 129
Northing: 6 408 222
Sampling Type: B - Bulk Sample

Client: Hyden Progress Association
Bore Hole ID: BH3
Date Commenced: 12/11/2025
Equipment Type: Machine Auger
Logged By: HA
Checked By: MH

Remarks:
 Sampling Type:
 B - Bulk Sample ((Disturbed)),
 U - Undisturbed Sample

Moisture Condition:
 D - Dry, M - Moist, W - Wet
 SM - Slightly Moist
 = Water Table

Density:
 VL = Very Loose, L = Loose,
 MD = Medium Dense
 D = Dense, VD = Very Dense

VS = Very Soft
F = Firm
St = Stiff

VSt = Very Stiff
H = Hard
R = Refusal

Scale (m)		Depth (m)	GWT (m)	Sampling Type/Depth	Graphic Log	UCS Symbol	Sample ID	Soil Description	Moisture Condition	Density	Remarks/Field observations
0.2					CL			Sandy Gravelly CLAY- low plasticity, yellowish brown, brown, fine to coarse grained gravel, fine to medium grained sand	D	H-VSt	
0.5					CI			Gravelly Sandy CLAY- medium plasticity, yellowish brown, grey, brown, fine to medium grained sand, fine to coarse grained gravel,	D	St-VSt	
1.0									SM	St-VSt	
1.5								Terminated at a depth of 1.5m due to auger refusal on hard clay	SM	H	
2.0											
3.0											
4.0											
5.0											

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BORE HOLE LOG

Reference: G1862725PG
Project: Geotechnical Investigation
Location: 36 Marshall Street, Hyden WA
Easting: 50 675 160
Northing: 6 408 221
Sampling Type: B - Bulk Sample

Client: Hyden Progress Association
Bore Hole ID: BH4
Date Commenced: 12/11/2025
Equipment Type: Machine Auger
Logged By: HA
Checked By: MH

Remarks:
 Sampling Type:
 B - Bulk Sample ((Disturbed)),
 U - Undisturbed Sample

Moisture Condition:
 D - Dry, M - Moist, W - Wet
 SM - Slightly Moist
 = Water Table

Density:
 VL = Very Loose, L = Loose,
 MD = Medium Dense
 D = Dense, VD = Very Dense

VS = Very Soft
F = Firm
St = Stiff

VSt = Very Stiff
H = Hard
R = Refusal

Scale (m)		Depth (m)	GWT (m)	Sampling Type/Depth	Graphic Log	UCS Symbol	Sample ID	Soil Description	Moisture Condition	Density	Remarks/Field observations
	0.2				CL			Sandy Gravelly CLAY- low plasticity, yellowish brown, brown, fine to coarse grained gravel, fine to medium grained sand	D	H-VSt	
	0.5				CI			Gravelly Sandy CLAY- medium plasticity, yellowish brown, pale grey, brown, fine to medium grained sand, fine to coarse grained gravel	D	St-VSt	
	1.0								SM	St-VSt	
	1.5							Terminated at a depth of 1.5m due to auger refusal on hard clay	SM	VSt-H	
	2.0										
	3.0										
	4.0										
	5.0										

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BORE HOLE LOG

Reference: G1862725PG
Project: Geotechnical Investigation
Location: 36 Marshall Street, Hyden WA
Easting: 50 675 171
Northing: 6 408 232
Sampling Type: B - Bulk Sample

Client: Hyden Progress Association
Bore Hole ID: BH5
Date Commenced: 12/11/2025
Equipment Type: Machine Auger
Logged By: HA
Checked By: MH

Remarks:
 Sampling Type:
 B - Bulk Sample ((Disturbed)),
 U - Undisturbed Sample

Moisture Condition:
 D - Dry, M - Moist, W - Wet
 SM - Slightly Moist
 = Water Table

Density:
 VL = Very Loose, L = Loose,
 MD = Medium Dense
 D = Dense, VD = Very Dense

VS = Very Soft
F = Firm
St = Stiff

VSt = Very Stiff
H = Hard
R = Refusal

Scale (m)		Depth (m)	GWT (m)	Sampling Type/Depth	Graphic Log	UCS Symbol	Sample ID	Soil Description	Moisture Condition	Density	Remarks/Field observations
0.2						CL		Sandy Gravelly CLAY- low plasticity, yellowish brown, brown, fine to coarse grained gravel, fine to medium grained sand	D-M	H-VSt	
0.5						CI		Gravelly Sandy CLAY- medium plasticity, grey, brown, fine to medium grained sand, fine to coarse grained gravel	M	St-VSt	
1.0									M	St-VSt	
1.5									M	VSt-H	
1.6								Terminated at a depth of 1.6m due to auger refusal on hard clay			
2.0											
3.0											
4.0											
5.0											

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Perth Geotechnics

BORE HOLE LOG

Reference: G1862725PG
Project: Geotechnical Investigation
Location: 36 Marshall Street, Hyden WA
Easting: 50 675 187
Northing: 6 408 192
Sampling Type: B - Bulk Sample

Client: Hyden Progress Association
Bore Hole ID: BH6
Date Commenced: 12/11/2025
Equipment Type: Machine Auger
Logged By: HA
Checked By: MH

Remarks:
 Sampling Type:
 B - Bulk Sample ((Disturbed),
 U - Undisturbed Sample

Moisture Condition:
 D - Dry, M - Moist, W - Wet
 SM - Slightly Moist
 = Water Table

Density:
 VL = Very Loose, L = Loose,
 MD = Medium Dense
 D = Dense, VD = Very Dense

VS = Very Soft
F = Firm
St = Stiff

VSt = Very Stiff
H = Hard
R = Refusal



DYNAMIC CONE PENETROMETER (DCP) TEST CERTIFICATE

(AS 1289.6.3.2)

Correlation of Sand Density - Table 6.4.6.1 (A) & (B) HB 160-2006

Client	Hyden Progress Association	Project	Geotechnical Investigation
Reference	GI862725PG	Location	36 Marshall Street, Hyden WA
Date Tested	12/11/2025	Tested By	HA

References:	DCP1	DCP2	DCP3	DCP4	DCP5
Depth below ground level test commenced	Penetration Resistance - Blows/100mm & Density Classification				
0-100	15 (H)	12 (H)	12 (H)	12 (H)	13 (H)
100-200	14 (H)	10 (VSt)	10 (VSt)	10 (VSt)	12 (H)
200-300	10 (VSt)	12 (H)	9 (VSt)	10 (VSt)	10 (VSt)
300-400	8 (VSt)	7 (VSt)	9 (VSt)	9 (VSt)	8 (VSt)
400-500	8 (VSt)	6 (VSt)	6 (VSt)	6 (VSt)	7 (VSt)
500-600	5 (VSt)	6 (VSt)	4 (St)	5 (VSt)	6 (VSt)
600-700	7 (VSt)	5 (VSt)	4 (St)	4 (St)	7 (VSt)
700-800	6 (VSt)	5 (VSt)	5 (VSt)	5 (VSt)	5 (VSt)
800-900	4 (St)	4 (St)	4 (St)	4 (St)	5 (VSt)
900-1000	5 (VSt)	4 (St)	5 (VSt)	5 (VSt)	4 (St)
1000-1100	4 (St)	5 (VSt)	4 (St)	4 (St)	5 (VSt)
1100-1200	5 (VSt)	4 (St)	3 (St)	5 (VSt)	5 (VSt)
1200-1300	4 (St)	3 (St)	4 (St)	6 (VSt)	4 (St)
1300-1400	4 (St)	5 (VSt)	5 (VSt)	8 (VSt)	6 (VSt)
1400-1500	11 (H)	5 (VSt)	6 (VSt)	11 (H)	10 (VSt)
1500-1600	-	6 (VSt)	8 (VSt)	-	-
1600-1700	-	10 (VSt)	11 (H)	-	-
1700-1800	-	-	-	-	-
1800-1900	-	-	-	-	-
1900-2000	-	-	-	-	-

Remarks: R= Refusal/ Hard

Table A: H = Hard >10, VSt = Very Stiff, 5 – 10, St = Stiff, 3 – 4, F = Firm, 1 – 2, S = Soft, 0 – 1, VS = Very Soft < 1

Table B: VD = Very Dense > 8, D = Dense, 4 – 8, MD = Medium Dense, 2 – 3, L = Loose, 1 – 2, VL = Very Loose < 1



DYNAMIC CONE PENETROMETER (DCP) TEST CERTIFICATE

(AS 1289.6.3.2)

Correlation of Sand Density - Table 6.4.6.1 (A) & (B) HB 160-2006

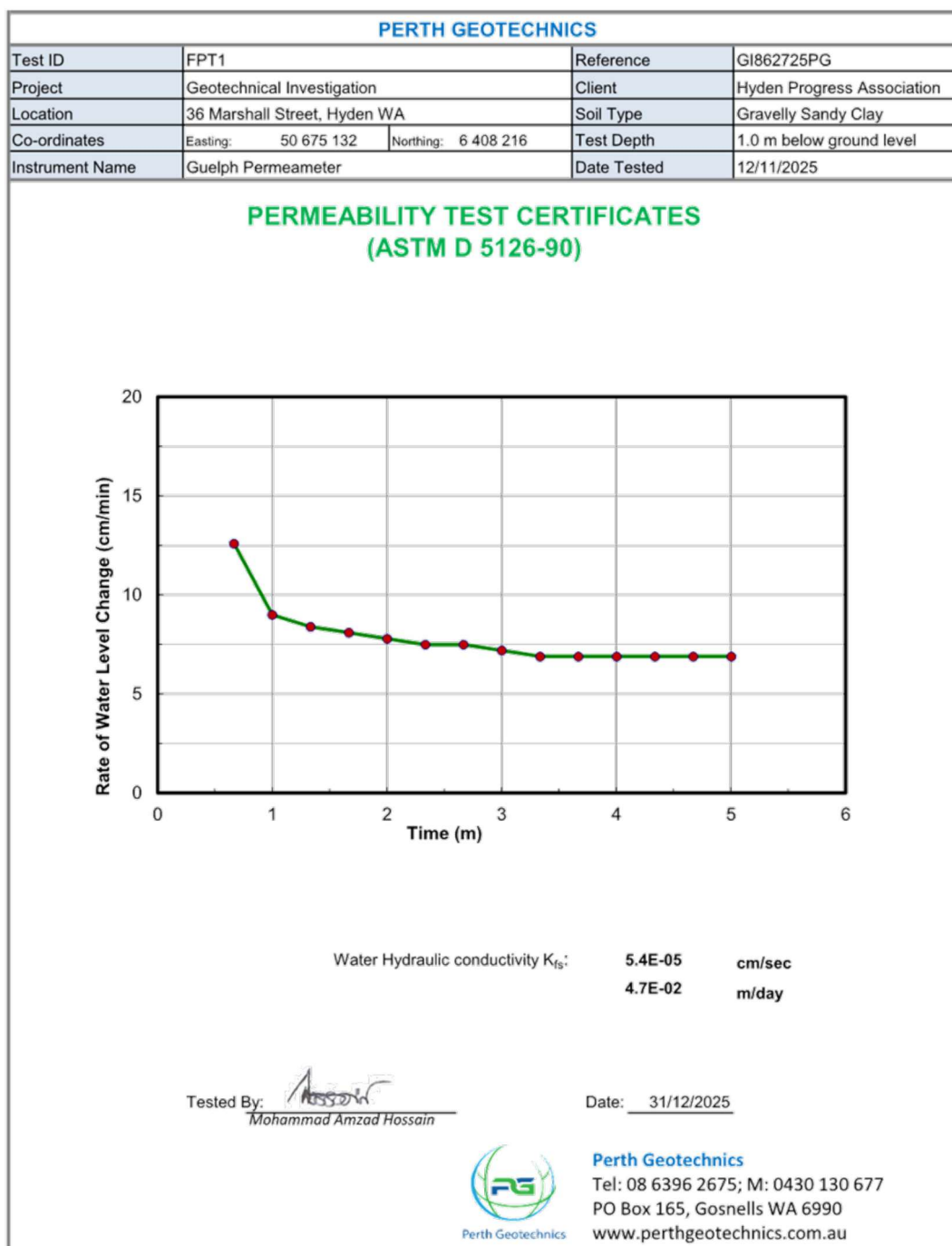
Client	Hyden Progress Association	Project	Geotechnical Investigation
Reference	GI862725PG	Location	36 Marshall Street, Hyden WA
Date Tested	12/11/2025	Tested By	HA

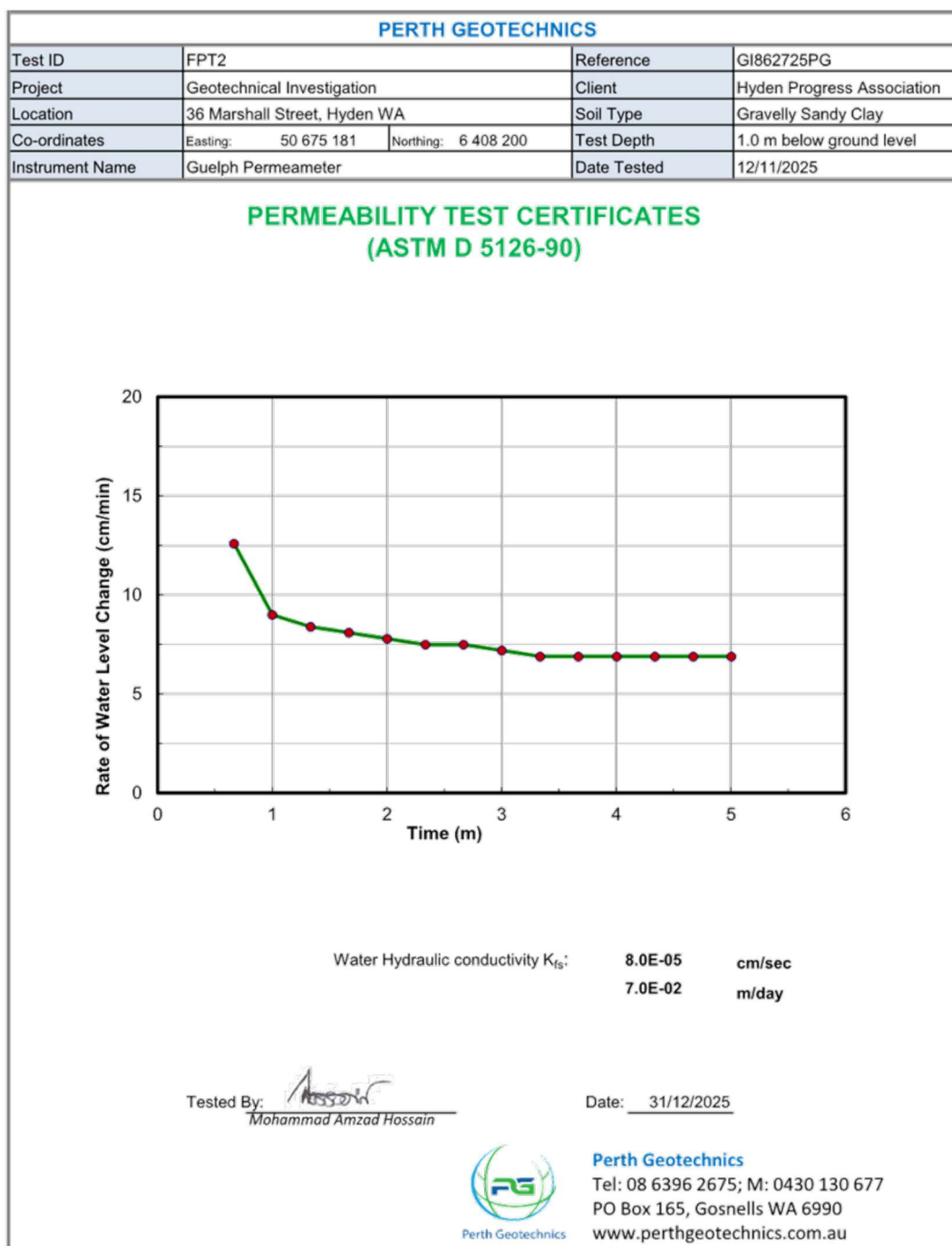
References:	DCP6	DCP7	DCP8	DCP9	DCP10
Depth below ground level test commenced	Penetration Resistance - Blows/100mm & Density Classification				
0-100	11 (H)				
100-200	10 (VSt)				
200-300	9 (VSt)				
300-400	8 (VSt)				
400-500	7 (VSt)				
500-600	6 (VSt)				
600-700	5 (VSt)				
700-800	4 (St)				
800-900	4 (St)				
900-1000	5 (VSt)				
1000-1100	5 (VSt)				
1100-1200	6 (VSt)				
1200-1300	4 (St)				
1300-1400	7 (VSt)				
1400-1500	8 (VSt)				
1500-1600	11 (H)				
1600-1700	-				
1700-1800	-				
1800-1900	-				
1900-2000	-				

Remarks: R= Refusal/ Hard

Table A: H = Hard >10, VSt = Very Stiff, 5 – 10, St = Stiff, 3 – 4, F = Firm, 1 – 2, S = Soft, 0 - 1, VS = Very Soft < 1

Table B: VD = Very Dense > 8, D = Dense, 4 – 8, MD = Medium Dense, 2 – 3, L = Loose, 1 – 2, VL = Very Loose < 1







APPENDIX – C
LABORATORY TEST CERTIFICATES



SOIL | AGGREGATE | CONCRETE | CRUSHING

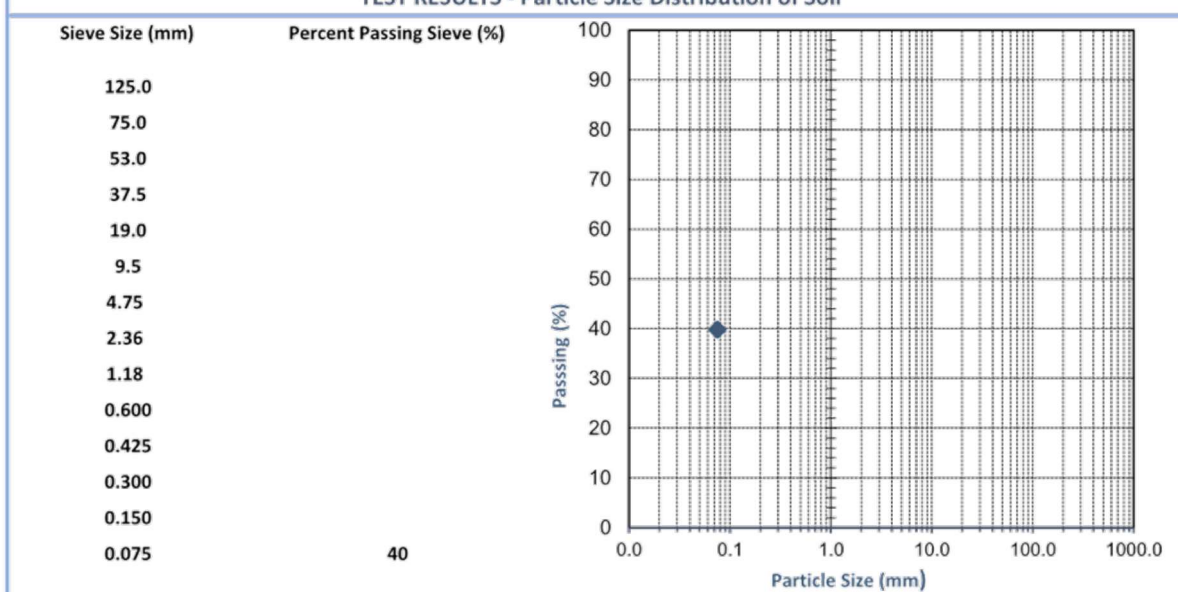
TEST REPORT - AS 1289.3.9.2, 3.2.1, 3.3.2, 3.4.1 & 3.6.1

Client:	Perth Geotechnics	Ticket No.	S19538
Client Address:	PO Box 165, Gosnells	Report No.	WG25.20400_1_PSDPI
Project:	Material Assessment	Sample No.	WG25.20400
Location:	31 Marshall Street, Hyden	Date Sampled:	Not Specified
Sample Identification:	BH2 (0.2-1.3m)	Date Tested:	19/11 - 20/11/2025

Sampling Method:

Sampled by Client, Tested as Received

TEST RESULTS - Particle Size Distribution of Soil



TEST RESULTS - Consistency Limits (Casagrande)

AS 1289.3.9.2	AS 1289.3.2.1	AS 1289.3.3.2	AS 1289.3.4.1		
Liquid Limit (%)	Plastic Limit (%)	Plastic Index (%)	Linear Shrinkage (%)	Mould Length (mm)	Condition of Dry Specimen:
31	14	17	9	250	Cracked, Curled
Method of Preparation: Dry Sieved			History of Sample: Oven Dried <50°C		

Comments: Clients request for the % fines of material passing 0.075mm only.

Approved Signatory:

Name: Danielle Reynolds
Date: 21/November/2025



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APPENDIX – D
SITE PHOTOGRAPH



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Photo 01: Site is looking from McPherson Street, Hyden WA



Photo 02: Subsurface probing by hand auger at Borehole BH6 location

Project: Geotechnical Investigation
Location: 36 Marshall Street, Hyden WA
Client: Hyden Progress Association

Page 1 of 2
Ref: G1862725PG
Date: 21/12/2025



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Photo 03: Subsurface probing by hand auger at Borehole BH2 location



Photo 04: Soil from borehole location BH2

Project: Geotechnical Investigation
Location: 36 Marshall Street, Hyden WA
Client: Hyden Progress Association

Page 2 of 2
Ref: GIB62725PG
Date: 21/12/2025



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Photo 05: Soil from Borehole BH3 location



Photo 06: Conducting Dynamic Cone Penetrometer test at DCP1 location

Project: Geotechnical Investigation
Location: 36 Marshall Street, Hyden WA
Client: Hyden Progress Association

Page 3 of 3
Ref: G1862725PG
Date: 21/12/2025



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 PO Box 165, Gosnells WA 6990
 E: info@perthgeotechnics.com.au
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Date: 15/05/2026

Our Ref: LT921826PG

To
 Site Architecture

RE: Laboratory tests for Sand pit and Stockpile samples, Hyden WA.

The tested soil/rock samples were supplied by the client, see below the summary of laboratory test results.

Table 2. Summary of Geotechnical Laboratory Test Results for Soil

Sample ID	Gravel (%)	Sand (%)	Fines (%)	LL (%)	PL (%)	PI (%)	LS (%)	Soil Class (AS1726)
Koolami Paddock 9 Pit	1	79	20	27	19	8	3	Low Plasticity Clayey SAND (SC)
Kent Mouritz Sand Pit	1	87	12	20	NP	NP	0	Sand trace clay (SP)
Stockpile sample_ SP1	74	22	4	17	14	3	1	Sandy Gravel (GP) trace clay
Stockpile sample_ SP2	0	93	7	20	NP	NP	0	Sand (SP)

Note: LL= Liquid Limit, PL = Plastic Limit, PI = Plasticity Index, LS = Linear Shrinkage, Non-Plastic= NP

3.0 CONCLUSIONS & RECOMMENDATIONS

Koolami Paddock 9 pit, is not recommended for any engineering fill, can be used for garden bed, landscape area.

Stockpile sample_ SP1, can be used for driveway, carpark, hardstand area etc.

Kent Mouritz Sand Pit and Stockpile sample_ SP2, can be considered as engineering fill/ fill materials for sand pad and concrete and plaster work.

Appendix: Soil samples photographs and Laboratory test certificates.

For and on behalf of Perth Geotechnics.

Mohammad Amzad Hossain
 B Eng. (Civil), MIEAust, MAGS, MIEB
 Sr Geotechnical Engineer



Perth Geotechnics

Perth Geotechnics

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Photo 01: Soil samples for Laboratory tests



Photo 02: Soil Sample_ Koolami Paddock 9 Pit

Project: Laboratory Test Report of Soil samples
 Location: Various locations
 Client: Site Architecture

Page 1 of 2
 Ref: L7921528PG
 Date: 15/05/2026



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Photo 01: Stockpile sample_ SP1



Photo 02: Soil Sample_ Kent Mouritz Sand Pit

Project: Laboratory Test Report of Soil samples
Location: Various locations
Client: Site Architecture

Page 2 of 2
Ref: L7921828PG
Date: 15/05/2026



SOIL | AGGREGATE | CONCRETE | CRUSHING

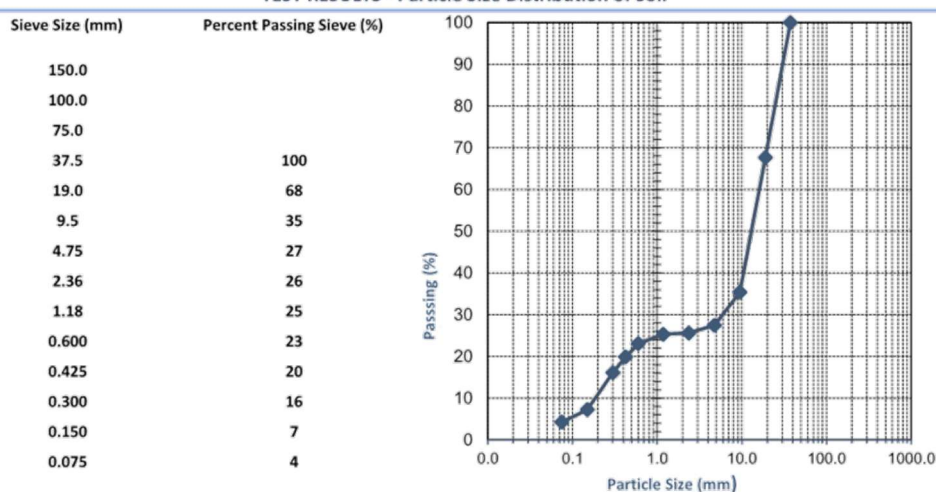
TEST REPORT - AS 1289.3.9.2, 3.2.1, 3.3.2, 3.4.1 & 3.6.1

Client:	Perth Geotechnics	Ticket No.	S21235
Client Address:	PO Box 165, Gosnells	Report No.	WG26.5455_1_PSDPI
Project:	Material Assessment	Sample No.	WG26.5455
Location:	Hyden	Date Sampled:	Not Specified
Sample Identification:	SP1	Date Tested:	13/04 - 14/04/2026

Sampling Method:

Sampled by Client, Tested as Received

TEST RESULTS - Particle Size Distribution of Soil



TEST RESULTS - Consistency Limits (Casagrande)

AS 1289.3.9.2		AS 1289.3.2.1	AS 1289.3.3.2	AS 1289.3.4.1		
Liquid Limit (%)	Retained on 425µm (%)	Plastic Limit (%)	Plastic Index (%)	Linear Shrinkage (%)	Mould Length (mm)	Condition of Dry Specimen:
17	44	14	3	1	250	-

Method of Preparation: Dry Sieved

History of Sample: Oven Dried <50°C

Comments: Clients request for the % fines of material passing 0.075mm only.

Approved Signatory:

Name: Danielle Reynolds

Date: 16/April/2026



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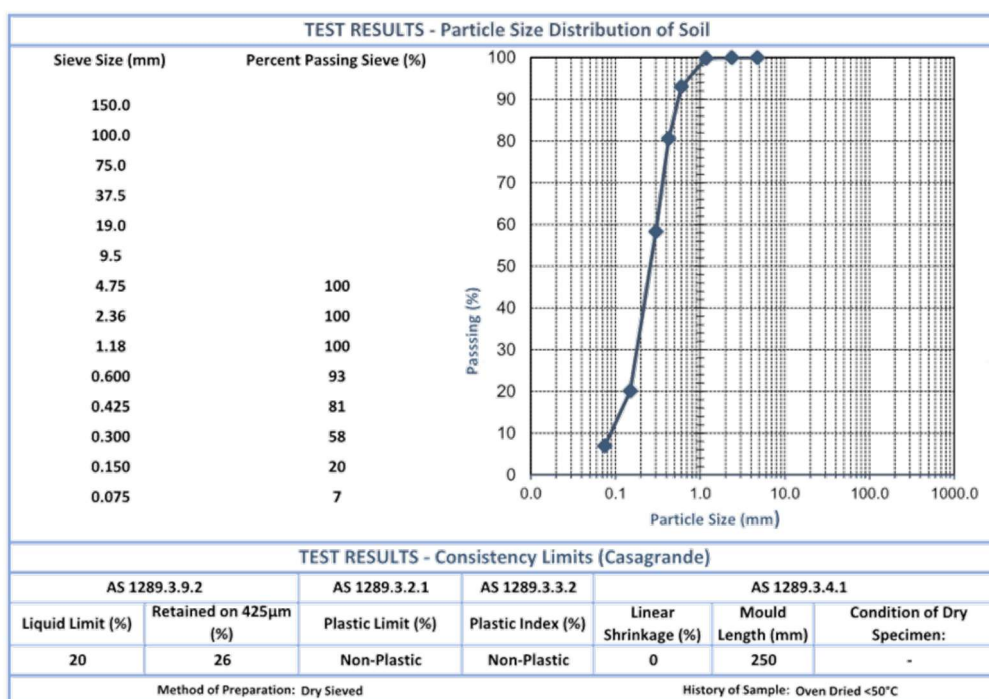
SOIL | AGGREGATE | CONCRETE | CRUSHING

TEST REPORT - AS 1289.3.9.2, 3.2.1, 3.3.2, 3.4.1 & 3.6.1

Client:	Perth Geotechnics	Ticket No.	S21235
Client Address:	PO Box 165, Gosnells	Report No.	WG26.5456_1_PSDPI
Project:	Material Assessment	Sample No.	WG26.5456
Location:	Hyden	Date Sampled:	Not Specified
Sample Identification:	SP2	Date Tested:	13/04 - 14/04/2026

Sampling Method:

Sampled by Client, Tested as Received



Comments: Clients request for the % fines of material passing 0.075mm only.

Approved Signatory:

Name: Danielle Reynolds
Date: 16/April/2026



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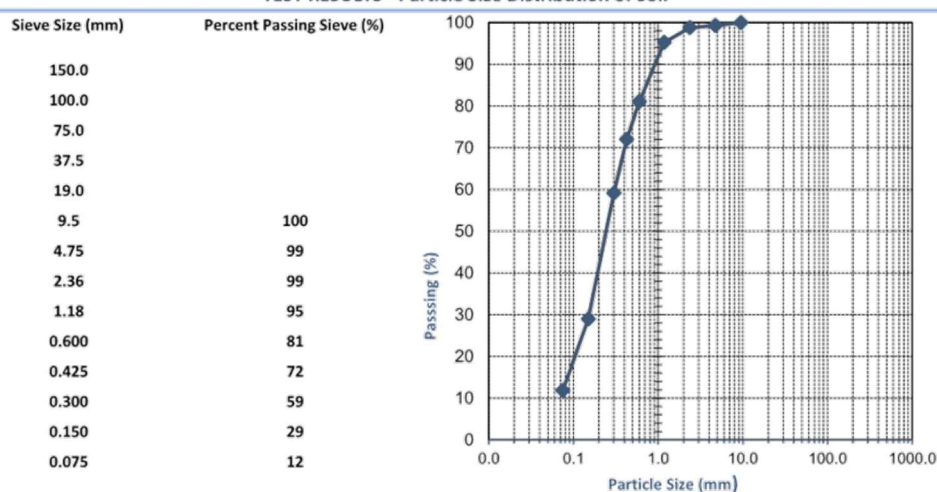
TEST REPORT - AS 1289.3.9.2, 3.2.1, 3.3.2, 3.4.1 & 3.6.1

Client:	Perth Geotechnics	Ticket No.	S21235
Client Address:	PO Box 165, Gosnells	Report No.	WG26.5457_1_PSDPI
Project:	Material Assessment	Sample No.	WG26.5457
Location:	Hyden	Date Sampled:	Not Specified
Sample Identification:	Sand Pit - 32.3241600, 118.747083, MSK 325.3m	Date Tested:	13/04 - 14/04/2026

Sampling Method:

Sampled by Client, Tested as Received

TEST RESULTS - Particle Size Distribution of Soil



TEST RESULTS - Consistency Limits (Casagrande)

AS 1289.3.9.2		AS 1289.3.2.1	AS 1289.3.3.2	AS 1289.3.4.1		
Liquid Limit (%)	Retained on 425µm (%)	Plastic Limit (%)	Plastic Index (%)	Linear Shrinkage (%)	Mould Length (mm)	Condition of Dry Specimen:
20	40	Non-Plastic	Non-Plastic	0	250	-

Method of Preparation: Dry Sieved

History of Sample: Oven Dried <50°C

Comments: Clients request for the % fines of material passing 0.075mm only.

Approved Signatory:

Name: Danielle Reynolds

Date: 16/April/2026



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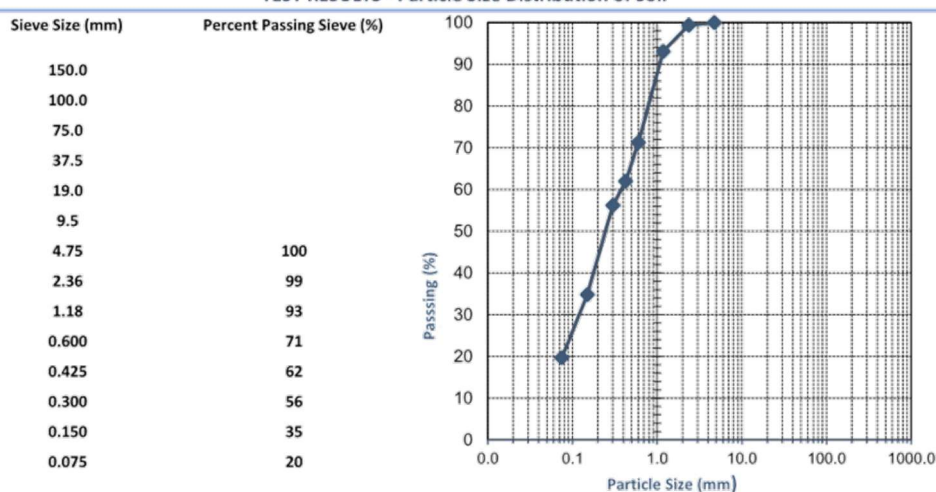
TEST REPORT - AS 1289.3.9.2, 3.2.1, 3.3.2, 3.4.1 & 3.6.1

Client:	Perth Geotechnics	Ticket No.	S21235
Client Address:	PO Box 165, Gosnells	Report No.	WG26.5458_1_PSDPI
Project:	Material Assessment	Sample No.	WG26.5458
Location:	Hyden	Date Sampled:	Not Specified
Sample Identification:	Paddock 9 Pit - 32.3930517, 118.8887733, MSL 327.5m	Date Tested:	13/04 - 14/04/2026

Sampling Method:

Sampled by Client, Tested as Received

TEST RESULTS - Particle Size Distribution of Soil



TEST RESULTS - Consistency Limits (Casagrande)

AS 1289.3.9.2		AS 1289.3.2.1	AS 1289.3.3.2	AS 1289.3.4.1		
Liquid Limit (%)	Retained on 425µm (%)	Plastic Limit (%)	Plastic Index (%)	Linear Shrinkage (%)	Mould Length (mm)	Condition of Dry Specimen:
27	45	19	8	3	250	-

Method of Preparation: Dry Sieved

History of Sample: Oven Dried <50°C

Comments: Clients request for the % fines of material passing 0.075mm only.

Approved Signatory:

Name: Danielle Reynolds

Date: 16/April/2026



Accreditation No. 20599
Accredited for compliance
with ISO/IEC 17025 - Testing

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235 Bank Street, Welshpool WA 6106

08 9472 3465

www.wgls.com.au



Project : Katter Kich Wave Rock Discovery Centre
Meeting : Meeting 1 Startup Meeting – Minutes
Time / Date: 21st January 2026 – 10:00 am
Location: Teams

**Attendees:**

Tyron Utley	TU	Hyden Progress Association	HPA
Gerard Lynch	GL	Hyden Progress Association	HPA
Monique Brown	MB	Hyden Progress Association	HPA

Bruce Wright	BW	Shire of Kondinin	SoK
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Michael Tyler-Hare	MTH	SITE Architecture Studio	SITE
Stephen Hart	SH	SITE Architecture Studio	SITE

Apologies:

Juliet Grist	JG	Rural & Regional Economic Solutions	RRE
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Note – All items in Red are new items discussed within meeting

ITEM	MINUTES	ACTION	BY DATE
1.0	PROJECT TEAM	ALL	
1.1	Lines of communication for the project: Principal – Hyden Progress Association Secretary – Tyron Utley (Primary Contact) President – Gerard Lynch Community Resource Centre Chair – Monique Brown Local Government – Shire of Kondinin CEO - BW Project Manager (Funding & Procurement) – Rural & Regional Economic Solutions Contact - JG Lead Consultant/ Architect - SITE Project Director and Primary Contact – SH Project Leader– MTH Note - CC all above on PCG related correspondence. Consultants As per consultant section Other	NOTE	
2.0	BRIEF & PROJECT OBJECTIVES		
2.1	Summary of key outcomes as documented in RFQ listed below: • Design & Documentation Development of a new Discovery Centre in Hyden's town Centre • Discovery Centre to include: ○ Shire Administration and Community Service Areas ○ Community Resource Centre (inc Library) ○ Lecture Theatre/ Small Performance Space ○ Art Studio ○ Exhibition, Interpretative and Visitor Experience Spaces ○ Associated External Works	NOTE	

Project : Katter Kich Wave Rock Discovery Centre
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ITEM	MINUTES	ACTION	BY DATE
2.2	<u>Program</u> See below proposed program/ key dates for the delivery of the project as per RFQ: Key Dates: - Initial Concept Design – end February 2026 - Final Concept Design - end March 2026 - D&C Tender Documentation – end June 2026 - Practical Completion - 2029 Program based on best outcome for federal & state government funding. Regional Services Infrastructure (September). JG to confirm. Potentially target deliverables against Grant Application vs what can be done after. SITE to provide detailed program. Include Review/ Milestones (April to May) & November to December are busy periods to be avoided for consultation ideally. DA application requirements TBC – requires early engagement with planning team.	NOTE JG NOTE SITE BW	
2.2	<u>Budget</u> Anticipated Project Budget as per RFQ: \$11,000,000.00 ex GST for the Total Project Cost. Max Budget Cap - \$11m – ideally would like to see less due to Grant Application requirements. SITE to provide assumed (extra over) construction costs for review/ confirmation.	NOTE	
2.3	<u>Scope of Services</u> As per the RFQ Documents, and SITE submission, the scope is to complete a fully detailed documentation set suitable for a D&C Tender. Assumed Novation of consultant team to D&C Contractor following completion of the above.	NOTE	
2.4	<u>Scope of Works</u> Detailed Scope of Works to be developed based on the Key Outcomes. The scope of works will be reduced from the previous scheme to align with the project budget. SITE will produce an initial draft Schedule of Accommodation (SoA) for discussion and initial cost estimate by the QS. This will need to be refined and reviewed through the design process. HPA to issue through excel spreadsheet of rooms to be used as a base for the SoA	SITE TU	
2.5	<u>Briefing Information Required</u> To be confirmed in detail. Currently the below is based on other similar projects - Geotechnical Reports (provided) - Land Survey obtained from previous design process (provided) - Any information on existing services.	NOTE	

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3.0	CONSULTATION																									
3.1	<u>Stakeholder Engagement</u> Relevant Organisations • HPA • Local Government (Shire of Kondinin) • Local Community Groups (TBC) • Exhibition Designer • ECI Contractor (Devlyn) Existing Working group has been established. From this point would be more effective for HPA to manage this internally and provide feedback to the design team as needed.	NOTE																								
3.2	<u>Consultants</u> Nominal Consultant team listed below as per RFQ response: <table><tr><td>Structural</td><td>ADG</td></tr><tr><td>Civil</td><td>ADG</td></tr><tr><td>Mechanical</td><td>SMWC</td></tr><tr><td>Hydraulic</td><td>CHD</td></tr><tr><td>Electrical</td><td>Focus WA</td></tr><tr><td>Landscape</td><td>MORO</td></tr><tr><td>Quantity Surveyor</td><td>HWA</td></tr><tr><td>Building Certifier</td><td>Comply West</td></tr><tr><td>Land Surveyor</td><td>Not required</td></tr><tr><td>ESD</td><td>Emergen</td></tr><tr><td>Interpretative/ Exhibition</td><td>TBC (by HPA) – possibly Multistory to be discussed (SITE to reissue Multistory capability statement for review) Creative Spaces are a potential option.</td></tr><tr><td>Geotech</td><td>Perth Geotechnics (by HPA)</td></tr></table> Currently there is no allowance for Acoustic, Bushfire, Town Planner, or AV Consultants. If required SITE will obtain quotes for approval for HPA before proceeding.	Structural	ADG	Civil	ADG	Mechanical	SMWC	Hydraulic	CHD	Electrical	Focus WA	Landscape	MORO	Quantity Surveyor	HWA	Building Certifier	Comply West	Land Surveyor	Not required	ESD	Emergen	Interpretative/ Exhibition	TBC (by HPA) – possibly Multistory to be discussed (SITE to reissue Multistory capability statement for review) Creative Spaces are a potential option.	Geotech	Perth Geotechnics (by HPA)	SITE/ HPA <
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ITEM	MINUTES	ACTION	BY DATE
4.5	<u>Structure</u> To be tracked and updated against brief in future revisions of minutes as project develops. Rammed Earth a preferred option. (indicative soil profile of local) To be discussed with Devlyn	NOTE	
4.6	<u>Mechanical Services</u> To be tracked and updated against brief in future revisions of minutes as project develops.		
4.7	<u>Electrical Services</u> To be tracked and updated against brief in future revisions of minutes as project develops. Information on current supply to the site requested. Western Power information from green dome (assumed 80A 3 phase). HPA to provide details on the unipillar to SITE for the electrical consultant to review and advise.	TU/ SITE	
4.8	<u>Hydraulic Services</u> To be tracked and updated against brief in future revisions of minutes as project develops.		
	<u>Landscape</u> To be tracked and updated against brief in future revisions of minutes as project develops. HPA to provide local planting information. Noting draught & flooding issues to the area (up to 300mm rain).	TU	
4.9	<u>Risks</u> Identify any risks to be included in PDP report & discussed in Workshops ie. - Planning & Approvals - Budget (Funding) - Program - Buildability & Construction		
4.10	<u>Other</u> Contract – Client Architect Agreement to be prepared by SITE and issued by Tuesday next week. (27 th January).	SITE	
5.0	NEXT MEETING		
	Next meeting: Site Inspection & Full Team Start Up (On site) – Timing TBC by SITE. Prefer after 2nd February. SITE advise the Friday the 6 th February would be ideal. Target to arrive 11am and leave by 3pm.	SITE	

Distribution: All nominated
Author: Michael Tyler-Hare **Date:** 21/01/2026

Project : Katter Kich Wave Rock Discovery Centre
Meeting : Meeting 2 Startup Meeting – Minutes
Time / Date: 6 February 2026 - 8.30 – 10:30 am
Location: Hyden

**Attendees:**

Tyron Utley	TU	Hyden Progress Association	HPA
Gerard Lynch	GL	Hyden Progress Association	HPA
Monique Brown	MB	Hyden Progress Association	HPA
 Bruce Wright	 BW	 Shire of Kondinin	 SoK
Michael Tyler-Hare	MTH	SITE Architecture Studio	SITE
Stephen Hart	SH	SITE Architecture Studio	SITE
 Paul Sawyer	 PS	 AMASS	 AM
Kieran Ward	KW	AMASS	AM
Paul Jeffs	PJ	Focus Consulting	FC
Jono Marshall	JM	MORO	MO
Scott Watson	SW	Multistory	M

Apologies:

Juliet Grist	JG	Rural & Regional Economic Solutions	RRE
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ITEM	MINUTES	ACTION	BY DATE
	- Community Resource Centre (inc Library) - Lecture Theatre/ Small Performance Space - Art Studio - Exhibition, Interpretative and Visitor Experience Spaces - Associated External Works		
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2.2	<u>Budget</u> Anticipated Project Budget as per RFQ: \$11,000,000.00 ex GST for the Total Project Cost.		
2.3	<u>Scope of Services</u> As per the RFQ Documents, and SITE submission, the scope is to complete a fully detailed documentation set suitable for a D&C Tender. Assumed Novation of consultant team to D&C Contractor following completion of the above.		
2.4	<u>Scope of Works</u> Schedule of Accommodation (SoA) to be tabled and discussed the SoA is slightly more (200m2) than the QS has indicated in their initial review of the budget during the preparation of our response to the RFQ		
2.5	<u>Briefing Information Required</u> To be confirmed in detail. Currently the below is based on other similar projects Town stormwater system details		
3.0	CONSULTATION		
3.1	<u>Stakeholder Engagement</u> Relevant Organisations - HPA - Local Government (Shire of Kondinin) - Local Community Groups – Mike Ward - Exhibition Designer – status of phase 1 fee approval - ECI Contractor (Devlyn)		
3.1	Discussion with Mike Ward		
4.0	GENERAL PRINCIPLES		
4.1	<u>Procurement & Program</u> SITE will produce detailed program for issue next week breaking down submission points, proposed meetings and activities to achieve a end of June D&C Tender Date.		
4.2	<u>Budget</u> The initial advice from the QS is that the rough area of the building should be approx. 800m2 to achieve the \$11m budget. The current SoA indicates just over 1000m2.		

Project : Katter Kich Wave Rock Discovery Centre
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Location: Hyden

ITEM	MINUTES	ACTION	BY DATE
	Group to discuss a reduction/ staging of scope vs an increase in the budget.		
4.3	<u>Site planning</u>		
4.4	<u>Architecture</u> SITE Architecture note the initial desire to use rammed earth as a feature material.		
4.5	<u>Risks</u> Identify any risks to be included in PDP report & discussed in Workshops ie. - Planning & Approvals - Budget (Funding) - Program - Buildability & Construction		
5.0	CONSULTANTS		
5.1	<u>Structural engineering (SE)</u> SE have reviewed the geotechnical report		
5.2	<u>Electrical consultant</u>		
5.3	<u>Hydraulic consultant</u>		
5.4	<u>Mechanical consultant</u>		
5.5	<u>Quantity surveyor</u>		
5.6	<u>Landscape Architect</u>		
5.7	<u>Building surveyor</u>		
5.8	<u>Energy</u>		
5.9	<u>Civil engineer</u>		
5.10	<u>Exhibition consultant</u>		
6.0	OTHER Contract – Client Architect Agreement tabled and discussed in confidence.	SITE	
7.0	NEXT MEETING		
	Next meeting: Proposed Fortnightly PCG Meetings via Teams		

Distribution: All nominated
Author: Michael Tyler-Hare **Date:** 05/02/2026