

APPENDIX J

BEALE PARK REDEVELOPMENT

SPEARWOOD, WA.

OPTIONS STUDIES REPORT

ISSUE DATE : 11/11/2021

REVISION : A

SUMMARY

This report tracks the various design options and studies for the Beale Park development in chronological order. Feedback and comments from the City, stakeholders and consultants are recorded against the concept drawings issued, which are tabulated below. Tabulated drawings are attached as appendices, with each appendix referencing appendices as categorised in the table below.

Indication has been made in the table below, of two significant hold points in the concept design process, which are as follows:

- The Site Planning Options Analysis Presentation (to the City’s Executive Committee and elected members) which occurred on the 17th August 2021.
 - The confirmation of Beale Park as an existing cockatoo roosting site presented an additional but significant challenge to the redevelopment of the reserve. Efforts were made to adapt the redevelopment master plan and proposed clubhouse concept design to minimise the impact of this redevelopment on the existing cockatoo roosting site by minimising tree removals. Bollig Design Group produced 2 new concept design options for the proposed clubhouse at the City’s request, which aimed to preserve as many existing trees as possible. This presented a fork in the road with regards to the progress of the concept design of the redevelopment.
 - The Site Planning Option Analysis Presentation marks a critical point at which a direction for the project was required, along with feedback and support from the City’s ExCo and elected members.
 - Ultimately, layout option 3 in the Site Planning Options Analysis Presentation obtained principal support.
- Community Consultation commencing 8th November 2021.
 - This community consultation period marks a critical point at which the master plan (specifically, the soccer pitch layout) and concept design is supported by the Cockburn Soccer Club as well as the City and can proceed to the community consultation phase.

CURRENT DRAWINGS

- SK01 PROPOSED CLUBHOUSE PLAN_REV B (Appendix R)
- SK06 PROPOSED SITE PLAN_REV K (Appendix S)
- SK08 ELEVATIONS_REV A (Appendix Q)

Notes :

1. CoC – City of Cockburn; Feedback and comments shown in red italics.
2. CSC – Cockburn Soccer Club ; Feedback and comments shown in blue italics.
3. WTP – WT Partnership; Feedback and comments shown in green italics.
4. Savills – Savills Project Management
5. BDG – Bollig Design Group.

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APPENDIX	ISSUE DATE	DRAWING NUMBER	DESCRIPTION	FEEDBACK / COMMENTS
A	N/A	Preliminary Concept Master Plan	- Masterplan prepared by PGA. - Not issued by BDG.	CSC requests : - Provision of a larger first aid room. Extra space to be utilised by club for physio, rehabilitation, recovery activities and laundry space. - A coaches' review and meeting room. BDG comments : - Masterplan not aligning with CoC Spatial Requirements Table. CoC feedback : - Preliminary masterplan included additional external storage for other user groups. This has changed and facility is now catering only for CSC. - Include internal furniture store room for clubroom and function space in updated design. - Only one office space required now. - Include external UAT in proposed club facility. - Explore CSC requested provision of a larger first aid room considering number of pitches at the reserve. - Separate coaches' review and meeting room not necessary. - Spaces are to be multi-purpose.
	20/11/2021	BEALE PK FLOOR PLAN & ELEVATION HAND SKETCH 2020 11 20	Hand sketched concept plans and elevations to address previous CoC feedback.	BDG comments : - Bin store incorporated within building, but can be externalised as a separate structure which is more common and this space can be used to secure mechanical plant. 2 shower included in Umpire's to accommodate both male and female umpires. - Subdivision of the hall needs to be considered in terms of direction and cost. Any use of concertina or acoustic operable walls will be costly. - Office has been made larger than briefed to accommodate requested coaches briefing, but actual cost will be cheaper in building a regular shape than cutting into the building and reducing area. - External design with skillion roofs allow the incorporation of operable highlight windows that will provide cross ventilation and purge hot air. - The external infill is proposed to be face brick incorporating three dimensional brick designs by the artists. CoC Feedback : - Office area to be reduced to 25sqm. - Include 30sqm community meeting room space. - Create T shaped internal foyer space to resolve access issues to both sections of the function space when hired separately. - Club bar area to stop at end of club function space area. - Small bar area to be provided to the shared function space area. - Additional shared commercial kitchen space to be added. - Switch first aid to where laundry and bin store is and shift laundry closer to UAT. - Relocate toilets to where offices are currently. - Relocate office to where first aid is currently to allow access directly out to main playing field area. - Bin store to be removed to front area adjacent carpark. - Divider wall to be positioned to provide two function room spaces, one facing east and the other facing west.
	3/12/2021	BEALE PARK CONCEPT DESIGN STUDY HAND SKETCH 2_2020 12 03	Hand sketched concept clubhouse plan to address previous CoC feedback.	BDG comments : - Kiosk has been located off a breezeway which enhances weather protected year around usage, with roller shutter at either end to increase security. CoC feedback : - Consider removal of breezeway as it is not really required. - Relocate kiosk to have external servery access, possibly to the eastern façade. - Remove the proposed cool room. We will only consider dry kitchen storage space for this facility (with fridges and freezers).

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B				- Reduce the size of the bar; it looks as though it is bigger than the kitchen. - Explore opportunities to have access into kitchen areas through both the clubroom and function room spaces (shared kitchen space arrangement). - Increase the size of the first aid room to provide additional space for their rehabilitation / injury recovery activities. - Ensure external access for umpire's room. - Clubroom does not appear to have direct access to a furniture store. - Consider extending lobby area to provide an eastern and western facility entrance. Currently, access to facility toilets by spectators requires them to enter the building via the northern entrance, so would have to walk all the way around. - Provide 2 potential design options, one with a breezeway and one without, to discuss with CSC. WTP comments : - The internal area excluding the Breezeway is 1,018sqm versus a budget area of 964sqm. This option is marginally over budget in this regard. There is a separate allowance of 652sqm for Canopies, of which the Breezeway takes up 64sqm. - In general and based on the sketches of the design, it appears to be on track, budget wise.
	4/12/2021	BEALE PARK CONCEPT DESIGN STUDY HAND SKETCH 3_2020 12 04	Hand sketched concept clubhouse plan to address previous CoC feedback.	BDG comments : - Access to lobby provided from east and west is provided in this revision, however these are potential points of security breach. CoC feedback : - Advice noted. Access to lobby from east and west required to allow access to toilets by groups not hiring function rooms.
	7/12/2021	BEALE PK SOCCER PITCH LAYOUT PLAN_STUDY 1	Preliminary soccer pitch layout issued for review.	BDG comments : - DLGSC requires 6m wide technical area for pitches side by side. Current Beale Park pitch layout does not allow for this. This sketch does not allow for this 6m technical area. - It is unlikely that we can provide this required technical area for every field, but we may be able to allow this for the two main senior's playing field. - This will affect the location and cover of the new sports ground lighting which is shared between pitches. The fields to the east of Beale Park will get closer to the existing embankment; More earthworks may be required to re-contour the embankment along Sussex St.
C	14/12/2021	SK01 PLAN	SK01 sketch plan without breezeway to be presented to CSC.	N/A
		SK02 PLAN OPTION 1	This sketch option kept as back up option (not presented to CSC).	N/A
	13/01/2021	SK01 PLAN_REV 1	- Updated clubhouse concept plan issued with changes as discussed in meeting on 12 /1/2021. - First aid room and external store location switched. - External store area increased. - Bar area increased.	CoC feedback - Incorporate a new "Residents Association Store" area with external access (approx 10m2) - Incorporate a new second sporting / community group storage area with external access (approx 20m2). - Increase the size of external store area to 30-35m2 - Increase the size of Store 1 to 18-20m2 by extending into lobby space - Remove service duct between change rooms. Pipework and services to be installed within the wall cavity. Utilise space for expanding external store and change rooms - Incorporate internal storage space of approx 5m2 within the Office area footprint for things such as merchandise - Add communications cupboard within lobby utilising available wall space (7-8m2). This space will need to house all CCTV, communications, PV (inclusive of space for future batteries), security equipment, etc. - Ensure allowances made for plant and equipment area to be incorporated into the roof. Consider and incorporate access area with appropriate space - Consider positioning of change rooms, with focus to be on eastern side of the building, servicing the majority of pitches - Consider location of laundry. This space does not need to be a standalone, separate room. This could be combined as

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				<i>part of the first aid room or another appropriately serviced area. Do not combine laundry with any store rooms as this will take up valuable storage space. Laundry is considered a low priority by the City.</i> <i>There has been some discussion internally about possibly reducing the number of change rooms from 6 to 4, to assist with finding the space for some of the above additions, especially the extra storage as a priority. Prepare alternative layout with 4 change rooms.</i>
D	18/01/2021	SOCCER PITCH LAYOUT PLAN_STUDY 2-SK02-L1_REV B	SK02-L1 - Larger soccer pitch layout. 1 x full soccer pitch (105 x 63m). - South-west 100 x 60m pitch can fit 4 x (40 x 30m) soccer pitches. Refer to SK02-L2. - However, north-west 93 x 55m pitch can only fit 2 x (55 x 43m) pitches. Refer to SK02-L2. - Retaining shown in green between proposed carpark – Indicative only, to be worked out in design development. - Accessible ramp required to get from carpark level to pitch run-off level. - Retaining shown in green to south-west corner of verandah to the proposed clubhouse – Indicative only, to be worked out in design development. - Accessible ramp required to get from verandah level down to playground level. - Masterplan proposed carpark layout modified to suit new soccer pitch layout, achieving 182 bays.	BDG comments : - Existing levels to north-west pitch area to remain unchanged as discussed. - Indicative FFL for the proposed clubhouse: 3.74; To match up to existing levels at north west corner of proposed clubhouse. - Some level changes are required to car park area to reduce retaining length between carpark and full soccer pitch. Indicative retaining shown in green. Refer to SK02-L3. CoC feedback (A4 - 2054-SOCCER PITCH LAYOUT PLAN_STUDY 2-SK02-L1_REV B) : <i>Avoid tree removal to perimeter of reserve.</i> <i>Avoid tree removal near existing playground.</i>
		SOCCER PITCH LAYOUT PLAN_STUDY 2-SK02-L2_REV B	- Soccer pitch layout with modified junior pitches overlaid onto west pitch area. - Existing 58 x 40m soccer pitch had to be shortened to 55 x 43.5m to fit.	
		SOCCER PITCH LAYOUT PLAN_STUDY 2-SK02-L3_REV B	Soccer pitch layout with existing junior pitches overlaid onto west pitch area.	
		SOCCER PITCH LAYOUT PLAN_STUDY 2-SK03	More detailed plan of proposed soccer club area.	
		SOCCER PITCH LAYOUT PLAN_STUDY 2-SK04	Sections through proposed clubhouse and carpark area.	
		SOCCER PITCH LAYOUT PLAN_STUDY 2-SK05	Sections through proposed clubhouse and carpark area.	
E	9/02/2021	SK01 PLAN_STUDY 1_REV 2	6 changerooms – 3 x facing east; 3 x facing west. - This plan is approximately 4m longer than the previous Rev 1 option, not taking into account the office merchandising store and entry area. - Some carbays facing the entry are likely to be lost as the building extends northward. Extending south is not possible as the 100 x 60m southern pitch cannot be relocated further south.	BDG comments : - All changerooms facing east : 6 changerooms facing east does not make for an efficient and compact building footprint. The building becomes too long and not only encroaches into the carparking area, but also into the southern soccer pitch. The soccer pitch cannot be pushed further south due to existing embankments. - We considered a different changeroom layout for a more efficient overall plan, but this was abandoned as they were no gains to be made and the changerooms work better in their current layout. CoC feedback : <i>Study 1 and Study 4 are the two preferred options we would like to proceed with, with a few minor changes. The changes are to be applied across both Study 1 and Study 4.</i> <i>“Office” to be labelled as “Club Office”.</i> <i>“Str 1” to be labelled “Club External Str 1”</i> <i>Removed external access to Str 2 and re-label as “Furniture Str 1”.</i> <i>Remove external access to Str 3 and re-label “Furniture Str 2”.</i>

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				○ Increase area of First Aid & Laundry room to min. 15sqm. ○ "Str 4" to be re-labelled "Summer Group Str". ○ "External Str" to be labelled "Club External Str 2". ○ Increase size of Umpire's by extending external wall in line with External Store. ○ Move Southern wall of Residential Association Store to align with south end of building. Change swing door access to roller shutter.
		SK01 PLAN_STUDY 2_REV 2	• 6 changerooms – 4 x facing east; 2 x facing west as per scheduled comments. • Approximately 6m longer than the previous Rev 1 option, not taking into account the office merchandising store and entry area. • Some carbays facing the entry are likely to be lost for the as per Study 1. • This plan can be modified to have 4 changerooms only, facing east. Ancillary rooms will be located to the west side of the building behind store 3 and the kitchen. Overall building length would be approximately 64m – 3m longer than the Rev 1 option.	
		SK01 PLAN_STUDY 3_REV 2	• Layout with 4 changerooms, 2 to the east, and 2 facing south. South facing changerooms are a compromise for reasons elaborated in item 4. • The 2 south facing changerooms now face the playground which was originally relocated from its masterplan location to avoid facing the west facing changerooms. • Approximately fits the Rev 1 option footprint.	
	10/02/2021	SK01 PLAN_STUDY 4_REV 2	• Modified version of Study 1 but with 4 changerooms. • Study 4 is shorter than the Rev1 version, approximately 2.5m shorter.	
F	16/02/2021	SK02-L1_SOCCER PITCH LAYOUT_STUDY 3_SITE PLAN_REV C	• N/A	BDG comments : • The cockatoo roosting trees have been left as is, pending further feedback. • The electrical consultant will have to advice at a later stage if the locations of the new light poles are appropriate as it's not just the size of the soccer pitches which is a factor in the demolition of trees, but also the location and requirements of the new light poles.
G	22/02/2021	SK01 PLAN_STUDY 1_REV 3	• Clubhouse concept plan updated as per CoC comments to previous issue.	CoC Feedback : • These changes are to be applied across both the 6 and 4 changeroom options. ○ Change "Club Ext. Str 1" to "Furniture Str 1". Provide lobby access in lieu of external access. ○ Remove redundant double door to Club Room. ○ Increase size of User Group Str to 8 – 10sqm & shift SMSB to Comms room wall. ○ Change "Furn. Str 1" to "Summer Group Store". External access in lieu of lobby access. ○ Change "Summer Group Str" to "First Aid & Laundry" for closer access to changeroom. ○ Change "First Aid & Laundry" to "Club External Store 1". ○ Remove UAT amenity in Umpire's & provide 3 individually partitioned showers with privacy doors and 2 WCs. ○ Divide Residential Association Store space with chain link fencing.
		SK01 PLAN_STUDY 4_REV 3	• N/A	
H	25/02/2021	SK02-L1_SOCCER PITCH LAYOUT_STUDY 3_SITE PLAN_REV D	• Issued in response to Black Cockatoo Assessment report. • The "preferred" soccer pitch layout with larger	BDG comments : • SK02-L1 - Soccer pitch sizes have been adjusted to allow for a larger width pedestrian aisle between run-off lines and the club room verandah.

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			pitch sizes.	- It is likely that universal access will be required here but will require further advice (and review) from a certifier at a later stage. - At this stage, there seems to be no requirement for the distances between multi-pitch layouts to be accessible. - Please note that the existing tree proposed to be retained, located north of the clubroom has a very large TPZ. Some of the proposed lighting pole locations will be likely be within the TPZs of existing trees. We may need further advice from the arboriculture consultant if we are proposing construction within the TPZs and SRZs of existing retained trees.
		SK02-L4_Soccer PITCH LAYOUT_STUDY 3_SITE PLAN	- Issued in response to Black Cockatoo Assessment report. - The hypothetical soccer pitch layout, if existing west carpark and trees lining it are kept to reduce tree removal.	CSC feedback : <i>The club have indicated that they are in support of the City pursuing the SK02-L4 layout option for the purposes of federal referral and helping to reduce environmental impact.</i> <i>The club advised that the main priority for them is ensuring they get at least one senior pitch at the regulation 105m x 68m, and one additional pitch at the regulation 100m x 63m for NPL junior matches.</i> COC response : <i>It was clarified to CFC that based on the amount of playing space available and restrictions relating to retention of trees at the site other fields would likely be slightly undersized.</i> CSC feedback : <i>CSC advised that the club could work around that, provided that the fields meet the range in terms of length and width as per the attached sports dimensions guide from the DLGSCI website.</i>
I	4/03/2021	SK01 PLAN_STUDY 1_REV 4	Issued with changes as per CoC's feedback.	CSC feedback : <i>Preference is for 6 change room model to meet current and future sporting needs.</i> <i>To accommodate this, club is willing to consider the following reductions to help bring the overall building footprint size down:</i> <i>Reducing the size of each change room to approximately 50m2.</i> <i>Reducing the size of the combined clubroom / function room space to 270-275m2.</i> <i>Reducing the size of the meeting room and club office slightly (maybe 20m2 and 25m2 respectively).</i> <i>The club have asked if we could also make the following adjustments:</i> <i>Relocate the roof access area away from their storage areas, possibly to over near the external UAT?</i> <i>Increase the size of Club External Store 1 by shifting the wall line into vacant roof access space.</i> <i>Shift the laundry area out of the first aid room and into the back of the Club External Store 2 area.</i> <i>Increase the size of the first aid room by shifting the wall line into the space behind it within Club External Store 2 area. This will allow for two trainers to be providing treatment within the space on training nights and better meet their operational needs.</i> <i>The club have also suggested swapping around the locations of the Resident's Association Store and Summer Group store area.</i> <i>More ideal locations for both areas.</i> <i>Resident's Association Store will then be closer to front of the facility and meeting room area which they are most likely to frequent.</i> <i>The summer group store located towards the south of the building will be more central to the site and better service multiple playing fields.</i> Savills requests updated cost estimate based on this issue of drawings. WTP feedback is as follows: <i>Original Cost Plan: \$9.44M. Includes 328m2 Changing Rooms. No Kitchen (Kiosk Only) and 652m2 of verandah.</i> <i>Option 1 Cost Plan: \$10.21M. Includes 442m2 Changing Rooms. New Kitchen (57m2) and 208m2 verandah.</i> <i>Option 4 Cost Plan: \$9.31M. Includes 252m2 Changing Rooms. New Kitchen (41m2) and 211 verandah.</i> <i>The introduction of the kitchen does not give a like for like comparison as well as the verandah's (the current areas are assumed as not clear on the sketches.</i> <i>Please note, these are still in Functional Area format which will require a full elemental cost plan to verify the final values.</i>

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				- Note that the original cost plan from August 2020 did not include for escalation and therefore neither did the options to show a like for like comparison. - Given the current market pricing issues we are experiencing across the board, we will need to consider and apply an escalation allowance. For the time being, I am recommending around 5% depending on materials selected and time of proposed tender. CoC feedback : - A number of savings have been identified across the two latest site layout options relating to the level of site works, cut and fill, retaining walls, tree removal, and temporary facilities which will need to be reflected within the cost option analysis. - WTP to update above cost estimate based on these savings.
		SK01 PLAN_STUDY 4_REV 4	Issued with changes as per CoC's feedback.	
J	8/04/2021	SK02-L4_SOCCER PITCH LAYOUT_STUDY 3_SITE PLAN_REV A	Soccer pitch layout updated to address previous CSC & CoC feedback.	
K	12/04/2021	SK01 PLAN_STUDY 1_REV 5	Building area reduced to achieve as close as per CoC request.	BDG comments : - It is difficult to achieve exact areas without a total redesign so what we have done is reduced the areas whilst maintaining functionality. - The impact is to the rear of the building with a component sticking out based upon the suggestions made. - This is not a good solution especially from a CPTED stand point. - We suggest that for maintenance the roof access proposed is the best solution however we may need to consider external ladder access instead to square up the building. - As a result of these changes store 2 has reduced in size, not increased, if we maintain the size of store 1 and increase the first aid room. - The briefed areas and uses have expanded but we have a limited footprint which dictates a linear building. - There is a competing interest of wants vs dollars/cost. CoC feedback : - CoC are willing to consider the following reductions in floor area: - Slight reduction in size of meeting room and club office - Minor reduction in the overall size of the kitchen - Reduction of summer group store area to square up southern end of building from a CPTED point of view is acceptable. - Reduction in size of Club External Str 2 to accommodate expanded first aid room is acceptable as per current Rev 5 version. - The Resident's Association is a little too large now. If there is any opportunity to reduce the size of this space we would like to explore it, even if that means creating a secondary internal User Group Store, or slightly larger single internal User Group store with cages separating into two spaces.
L	29/04/2021	SK01 PLAN_STUDY 1_REV 6	Issued with changes as per CoC's previous feedback.	BDG comments : - Store rooms only have been modified. - The meeting room, office and kitchen remain unchanged. - Reducing these rooms could possibly result in deep alcoves / doglegs on the external envelope of the building, something which the City isn't keen on, considering the feedback regarding the summer group store. - Reduction of overall building area would ideally come from making the building length shorter, but this would just make the aforementioned rooms awkwardly skinny. CSC feedback : - Would it be possible to provide direct external access into the main male, and female toilets so that users don't have to use the foyer? From a functional and cleaning perspective of the building, it would be preferred to have direct access to those toilets from externals also.

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				<i>Can we specify roller doors for all external store areas to match Club External Store 2? This includes the Residents' Association Store, Summer Group Store, and Club External Store 1.</i>
M	5/05/2021	SK01 PLAN_STUDY 1_REV 7	Issued with changes as per CoC’s previous feedback.	BDG comments : - The provision of external access direct into the WC's will have a knock on effect in that it will increase the area of the WC's by the size of the access space required and create another security risk in terms of a potential break in point. - Our recommendation is to not do this but we shall make the changes as requested. CoC feedback : <i>We have this provision at other facilities - while posing any additional security risk, suitably rated doors and CCTV mitigate the risk.</i>
		SK02-L4_SOCCER PITCH LAYOUT_STUDY 3_SITE PLAN_REV D	Issued with changes as per CoC’s previous feedback.	BDG comments : - The combination of previous and latest tree surveys and land surveys have been a bit confusing as the tree identification numbers have changed between the original tree survey to the latest. - Bear in mind that Strategen's report references the earlier tree survey but doesn't actually identify trees by number. - Total trees to be cleared based on the new land survey are now 13.
N	27/05/2021	Single Storey Option	- New clubhouse design options as per CoC’s request, to reduce impact of existing trees on site. - New options designed to avoid trees and TPZs.	BDG comments : - The single storey option will require us to reuse the northern most building i.e. gut it and make good or just reuse the footprint and start again. - The downside of this option is that it encroaches right up to the overrun line which is dangerous.
		GROUND FLOOR PLAN BEALE PARK FACILITY DESIGN STUDY 2 LEVEL BUILDING OPTION		BDG comments : - This other option is a two storey option which actually works better as it avoids encroaching on overruns (only a minor one) but it will require a lift and splits the kitchen and kiosk. - The kiosk area is larger and would potentially become a minor food prep area. - We provided a similar arrangement to this for the City of South Perth’s Manning facility and it works fine. - Obviously, there will be cost increases with a lift, stairs, balcony, suspended slabs etc.
		FIRST FLOOR PLAN BEALE PARK FACILITY DESIGN STUDY 2 LEVEL BUILDING OPTION		
O	31/05/2021	SK01 PLAN - OPTION 1	New clubhouse design options overlaid onto site plan.	BDG comments : Option 1 still interferes with one tree which may be a roosting tree it is a little difficult to identify as they all clumped together.
		SK02 GROUND FLOOR PLAN - OPTION 2		BDG comments : Option 2 being two storeys has a smaller foot print as is less likely to impact trees but it is clearly more expensive with a lift, stairs, balcony and suspended slab. I look forward to the feedback.
		SK03 FIRST FLOOR PLAN - OPTION 2		
SITE PLANNING OPTIONS ANALYSIS PRESENTATION 17/08/2021				
—	20/09/2021	SK02-L4_SOCCER PITCH LAYOUT_STUDY 3_SITE PLAN_REV D (refer to Appendix M).	This soccer pitch layout is based on a proposed pitch layout by Josh Byrne & Associates, as per CoC request (Option 3 as presented in the Site Planning Options Analysis Presentation).	CoC comments : <i>Based on the attached 2054-SK02-L4_SOCCER PITCH LAYOUT_STUDY 3_SITE PLAN_REV D layout prepared by Bollig Design Group, the following needs to be considered:</i> <i>The three eastern pitches (70 x 50 - Mini Roos U11) and southern pitch (88 x 54m) need to be increased in size to meet the minimum senior soccer pitch dimensions if possible, which are identified in the sports field dimensions and requirements document.</i> <i>Length (touchline): Minimum 90m, maximum 120m</i> <i>Width (goal line): Minimum 45m, maximum 90m</i> <i>No pitches should be proposed to be made any smaller than they currently are as this will not meet the sporting club's requirements. The current field dimensions are captured within the attached sports field dimensions document and soccer pitch layout Rev D.</i> <i>There appears to be space available on the eastern boundary to extend the length of the eastern pitches. Whilst the</i>

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				current fields appear to conflict with the TPZ's based on the aerial imagery and feature survey, the reality on site is that there is actually ample space there to be able to retain the existing eastern pitch boundaries as they are. - If the dimensions of the main senior pitch need to be adjusted or reduced slightly to accommodate the appropriate pitch sizes to the east and south, this would be preferred rather than making those pitches smaller. - There also appears to be space available between the new clubrooms building footprint and main senior pitch. Can we please consider this interface between the spectator viewing area and main pitch, and investigate the integration of the soccer dugouts to maximise the amount of active sporting space. - Aerial image shows what the pitch layout and dimensions were back in 2013, when the pitches were slightly bigger, but they didn't have the correct run offs. The club have commented that the old pitch dimensions better met their needs than the current pitch dimensions. BDG feedback : - We were able to fulfill the size requirements for the soccer pitches to the east of the clubhouse, we were unable to do so with the soccer pitches to the west as the current pitch sizes do not take into account runoffs and tree removal limitations. - We will now reduce the length of the soccer pitches to the east from 100m to 93m to try and maintain current soccer pitch sizes to the west. We originally provided larger pitches to the east because it was our understanding that these were the priority pitches for competition.
P	20/09/2021	SK06 L5_SOCKER PITCH LAYOUT_STUDY 1_SITE PLAN_REV E	Soccer pitch layout issued to Savills, only.	N/A
		SK06 L5_SOCKER PITCH LAYOUT_STUDY 1_SITE PLAN_REV F	Soccer pitch layout issued with changes as per previous CoC comments.	BDG comments : The floor plan of the building is now a lot longer, and this will affect the soccer pitch layout to the south-west.
		SK06 L5_SOCKER PITCH LAYOUT_STUDY 1_SITE PLAN_REV G	Soccer pitch layout issued to Savills, only.	N/A
		SK06 L5_SOCKER PITCH LAYOUT_STUDY 1_SITE PLAN_REV H	Soccer pitch layout issued with graphical changes as requested by Savills.	BDG comments : - Locations of the existing pitches are an approximation through overlaying an image and are not surveyed features. CoC feedback : - CSC provided positive feedback & we can proceed to community consultation. - BDG to prepare draft package of information for review before preparation of final presentation documents. - We suggest this include proposed field layouts as per revision H but only with proposed pitches.
Q	1/11/2021	SK01 PROPOSED CLUBHOUSE PLAN_REV A	Proposed clubhouse floor plan with further concept development on verandah areas.	N/A
		SK08 ELEVATIONS_REV A	Coloured elevations.	N/A
		SK06 PROPOSED SITE PLAN 1000_REV I	Soccer pitch layout at scale 1 : 1000.	CoC feedback : Require graphical and diagrammatic site plan for presentation during community consultation meeting.
		SK07 PROPOSED SITE PLAN 200_REV C	Site plan at scale 1 : 200.	N/A
R	3/11/2021	SK01 PROPOSED CLUBHOUSE PLAN_REV B	Preliminary floor plan issued with minor annotation amendment.	
		SK06 PROPOSED SITE PLAN_REV J	Preliminary site plan layout issued with graphical changes as requested by Savills.	CoC feedback : Adjust legend text size.
S	4/11/2021	SK06 PROPOSED SITE PLAN_REV K	Preliminary site plan layout issued with graphical changes as requested by Savills.	CoC feedback : Approved for use in community consultation meeting.
COMMUNITY CONSULTATION (COMMENCING 8/11/2021)				

APPENDIX K

BEALE PARK REDEVELOPMENT, SPEARWOOD

EXTERNAL FINISHES SCHEDULE

Job 2054 _ 14/11/2024

ISSUE FOR PRELIMINARY DESIGN REPORT

THIS SCHEDULE IS TO BE READ IN CONJUNCTION WITH THE PROJECT SPECIFICATION & DRAWINGS.

1.	STEELWORK EXPOSED	
	LOCATION	SELECTION
1a.	Shroud main entries, kiosk, rear of store	Mild steel plate with top curves. 12mm thickness <u>Type 2: 2 coat system – galvanised steel</u> Sweep abrasive blast 1 st Coat: 250 - 295 microns Wattyl Epinamel DTM985 2 nd Coat: 100 - 165 microns Wattyl Poly U630 HB Satin Colour : To match Dulux Duratec powdercoat “Zeus Black”.
2.	WINDOWS & DOORS	
	LOCATION	SELECTION
2a.	- Aluminium window & door frames. - Aluminium louvres	Dulux Duratec Powdercoat Zeus Black (Matt) 90088702
2b.	External Door Frame - Steel	3 coats semi-gloss enamel exterior paint Colour : Dulux Black SG6G9 LRV value : 3
2c.	External door leaf – solid core timber	PAINTED SOLID CORE DOORS WITH 0.48 STEEL EXTERIOR LINING 3 COATS ENAMEL PAINT FINISH: SEMI GLOSS DULUX- “BUSHLAND GREY” P1345 Corridor passage and first aid, roof access and uat. Female and male, change rooms, umpire room
2d.	External roller shutters	Colorbond Dune
2e.	Glazing	Viridian – SolTech low-e glass toughened laminated glazing. Colour: Neutral. Thickness: 10mm or to code requirements and certified by supplier.
2f.	Glazing visual indicators	Refer to energy efficiency report for minimum U-Value and SHGC required. Translucent film glazing decals. Refer to internal finishes schedule. Decals to be applied on to internal side of glazing.
3.	WALLS	
	LOCATION	SELECTION
3a.	Split faced Vertico blockwork	Australbricks Vertigo 390x 216 x 190 mm with anti-graffiti coating. Format : stack bond Mortar : Pewter/ charcoal.
3b.	Blockwork	Midland Estilo Nero Azul face brick 230 x 110 x 76mm with anti-graffiti coating. Format : Stretcher bond. Mortar : Black
3c.	- Metal wall sheeting “DIST” - Flashings & cappings	0.55 BMT Metroll Mac Distinction Finish : Colorbond Monument 0.6mm BMT to match roof sheeting.
3d.	Compressed fibre cement panelling system “CFC”	12mm thick Exotec façade panel system. Finish : Pre-painted yellow to match Cockburn City Soccer Club colours in polyurethane paint.
3e.	Plywood sheet cladding “PLY”	12.5mm thick, 1200 x 2400mm Ariaply prefinished plywood feature panel in Blackbutt. Fixing method : ShadowFIX.
4	ROOFING & RAINWATER GOODS	
	LOCATION	SELECTION
4a.	MAIN ROOF “DIST”	
	Roof sheeting	0.55mm BMT Metroll Mac Distinction Finish : Colorbond Monument

	Flashings & cappings	0.60mm BMT to match roof sheeting.
	Roof cowls & vents	To match roof sheeting.
	Box gutters	Colorbond sheeting to match main roof sheeting.
	Eaves gutter	Revolution Roofing Mosman Gutter to match roof sheeting.
4b.	MAIN ROOF "CUST"	
	Parapet sheeting	0.60 BMT Lysaght Custom Orb Finish : Colorbond Manor Red
	Flashings & cappings	0.60mm BMT to match parapet sheeting.
4c.	VERANDAH ROOF "DIST"	
	Roof sheeting	0.55 BMT Metroll Mac Distinction Finish : Colorbond Manar Red
	Flashings & cappings	To match box gutter.
	Eaves gutter	Revolution Roofing Mosman Gutter with shark nose flashing profile over to match roof sheeting.
	Exposed rainwater pipes	<u>Type 2: 2 coat system – galvanised steel</u> Sweep abrasive blast 1 st Coat: 250 - 295 microns Wattyl Epinamel DTM985 2 nd Coat: 100 - 165 microns Wattyl Poly U630 HB Satin Colour : To match Dulux Duratec powdercoat "Zeus Black". No paintwork shall be undertaken without the written approval of the Architect.
5	SOFFIT	
5a.	Plywood sheet cladding "PLY"	12.5mm thick, 1200 x 2400mm Ariaply prefinished plywood feature panel in Blackbutt. Fixing method : ShadowFIX.
5b.	Compressed fibre cement panelling system "CFC"	12mm thick Exotec soffit panel system. Finish : Pre-painted white in polyurethane paint.
6.	MISCELLANEOUS METALWORK	
	LOCATION	SELECTION
6b.	CRIMSAFE SECURITY SCREEN MESH	DULUX DURATEC POWDERCOAT FINISH 2MM MAX APERTURE (BAL 12.5) COLOUR : "ZEUS BLACK " 90088702M (MATT)
6c.	Bicycle rack	Surface mount "Cora bike racks" or equal approved with galvanised fixing to A.S. Bike racks all installed to manufacturers Specification and instruction.
6d.	BIN STORE GATE	DULUX DURATEC POWDERCOAT FINISH COLOUR : "ZEUS BLACK " 90088702M (MATT)
6e.	Rollershutter	Mirage Doors or equal approved. Steel roller shutter. Refer schedules for sizes Electric operation 0.8mm thick steel Powdercoated Dulux Duratec: Colour: Zeus Black (Matt Finish) 900-88702
6f.	Balustrade /Handrail	balustrade / single inline handrail Moddex handrail or equal approved with galvanised finish in compliance with as 1428.1
6g.	Tactile indicators	Dtac Warning tactile Colour: Classic black urethane R11 Grip UV stabilised Supplier: ABS West Ph:1800 644 162 or equal approved

APPENDIX L

BEALE PARK SPORTING & COMMUNITY FACILITY

City of Cockburn

SCHEDULE 1

PRELIMINARY

General Interior Finishes Schedule

DOES **NOT** INCLUDE APPLIANCES TO KITCHEN, KIOSK & BARS

JOB NUMBER 2054

C2 CLIENT REVIEW

15.11.2024

Prepared by Bollig Design Group

REVISION HISTORY		
REVISION	DATE	ISSUE
PTE	21.04.2023	PRE TENDER ESTIMATE
C1	26.05.2023	CLIENT REVIEW
T1	13.10.2023	ISSUE FOR TENDER
C2	15.11.223	CLIENT REVIEW

NOTE TO CONTRACTOR:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO:
 - a) CHECK LOCATIONS
 - b) QUANTITIES
 - c) CLARIFY & CONFIRM IN WRITING ANY DISCREPANCIES, WITH THE ARCHITECT PRIOR TO ORDERING & /or MANUFACTURE.
2. CONTRACTOR MUST ALLOW ADEQUATE LEAD TIME FOR ORDERS OF INDENT PRODUCTS AND AS PER ARCHITECTURAL SPECIFICATION OR AS PER RECOMMENDED LEAD TIMES SPECIFIED IN THIS INTERIOR FINISHES SCHEDULE.
3. LOCATIONS ARE INDICATIVE ONLY. REFER TO ARCHITECTURAL DRAWINGS FOR SPECIFIC LOCATIONS.
4. SUBSTITUTIONS ARE NOT PERMITTED TO ANY PRODUCTS SELECTED IN THE INTERIOR FINISHES SCHEDULE, UNLESS THE PROPOSED PRODUCT HAS BEEN SUPERSEDED.
IF SO, THE PROPOSED SUBSTITUTED PRODUCT MUST BE OF EQUAL REPLACEMENT, SAMPLE TO BE PROVIDED TO THE ARCHITECT & APPROVED BY BOLLIG DESIGN GROUP PRIOR TO ANY ORDER OR MANUFACTURE.
5. ANY NOMINATED SUPPLY/ INSTALLER NOTED AS PREFERRED SUPPLIER BY THE CLIENT IN THE INTERIORS SCHEDULE, MUST NOT BE SUBSTITUTED.

ROOM NAMES

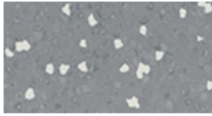
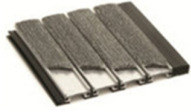
ROOM No	ROOM NAMES			ROOM No	ROOM NAMES		
R-01	MAIN ENTRY LOBBY			R-15	BAR 1		
R-02				R-16	BAR 2		
R-03	CLUB OFFICE			R-17			
R-03a				R-18	KITCHEN		
R-04	FEMALE AMENITIES			R-19	KIOSK		
R-04a	FEMALE AMENITIES AIR LOCK			R-20	CHANGEROOM 1 & SHOWER / TOILET AREA		
R-05	MALE AMENITIES			R-21	CHANGEROOM 2 & SHOWER / TOILET AREA		
R-05a	MALE AMENITIES AIR LOCK			R-22	CHANGEROOM 3 & SHOWER / TOILET AREA		
R-06	UAT / SHOWER 1 - INTERNAL			R-23	CHANGEROOM 4 & SHOWER / TOILET AREA		
R-07	CLEANER			R-24	CHANGEROOM 5 & SHOWER / TOILET AREA		
R-08				R-25	CHANGEROOM 6 & SHOWER / TOILET AREA		
R-09	STORE 1(FURNITURE) - INTERNAL			R-26	UAT / SHOWER 2 - EXTERNAL		
R-10	COMMS			R-27	UMPIRE CHANGEROOM & SHOWER / TOILET AREA		
R-11				R-28	STORE 2		
R-12				R-29	STORE 3		
R-13	CLUB ROOM			R-30	STORE 4		
R-14	FUNCTION ROOM			R-31	FIRST AID ROOM		

ROOM INDEX

	DESCRIPTION	PAGE		DESCRIPTION	PAGE		DESCRIPTION	PAGE	
	TABLE OF MATERIALS			<u>CEILING FINISHES</u>	20,21,22		<u>INTERNAL AMENITIES, FIRST AID, UMPIRE FITTINGS</u>	37,38,39,40	
	<u>FLOOR FINISHES</u>	5,6		<u>DOOR PAINT, PC, INTERNAL ROLLER SHUTTERS</u>	23,		<u>CHANGEROOM TOILET /SHOWER PARTITIONS</u>	41	
	<u>WALL FINISH</u>	7		<u>OPERABLE WALLS, DECALS</u>	24		<u>GENERAL AMENITIES TOILET PARTITIONS, FOLDING SHOWER SEAT</u>	42	
	<u>CEILING FINISH</u>	8		<u>JOINERY</u>	25,26,27		<u>LOOSE FURNITURE, WHITEBOARD, NOTICEBOARD</u>	43	
	<u>ROLLER SHUTTERS, KICKPLATES, DOOR PAINT, OPERABLE WALLS</u>	9		<u>MOTORISED RETRACTABLE SCREENS, ROLLER BLINDS</u>	28		<u>LED SCREEN + BRACKET FIXING + SHELVING</u>	44	
	<u>JOINERY FINISHES</u>	10		<u>CLEANER SHELVING</u>	29		<u>RETRACTABLE MOTORISED PROJECTOR SCREENS + OVERHEAD PROJECTOR</u>	45	
	FINISHES SCHEDULE			<u>KITCHEN, KIOSK FITTINGS</u>	30				
	<u>FLOOR FINISHES</u>	11,12,13 14,15,16		<u>EXTERNAL UAT / SHOWER FITTINGS</u>	31,32,33				
	<u>WALL FINISHES</u>	17,18,19		<u>INTERNAL UAT WITH SHOWER</u>	34,35,36				

TABLE OF MATERIALS

FLOOR FINISHES SELECTION

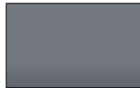
<u>V01</u> <u>SHEET VINYL P3 /R10 SLIP RATING</u>	<u>V02</u> <u>SHEET VINYL P3 /R10 SLIP RATING</u>	<u>V03</u> <u>SHEET VINYL & COVED SKIRTING</u> <u>P4 /R11 SLIP RATING</u>	<u>V04</u> <u>SHEET VINYL & COVED SKIRTING</u> <u>P5 /R12 SLIP RATING</u>	<u>SC1</u> <u>PAINTED CONCRETE FLOOR FINISH</u>
MAKE: FORBO SURESTEP STAR R10 CODE: 176952 COLOUR: MERCURY P3 / R10 	MAKE: FORBO SPHERA SD ANTISTAT/ STATIC DISSIPATIVE HOMOGENEOUS CONDUCTIVE VINYL CODE: SD 550005 COLOUR: DARK NEUTRAL GREY 	MAKE: FORBO SAFESTEP R11 CODE: 174952 COLOUR: ELEPHANT P4 / R11 	MAKE: FORBO SAFESTEP R12 CODE: 175952 COLOUR: ELEPHANT P5 / R12 	HEAVY DUTY EPOXY PROTECTIVE COATING EPILOX HS COLOUR: KOALA GREY (N45) REFER TO ALLDURO SPECIFICATION FOR ANTI SLIP FINISH IF REQUIRED  KOALA GREY (N45)
AVAIL FROM (FORBO) FLOORSPEC PTY LTD CONTACT: 0417 960 509	AVAIL FROM (FORBO) FLOORSPEC PTY LTD CONTACT: 0417 960 509	AVAIL FROM (FORBO) FLOORSPEC PTY LTD CONTACT: 0417 960 509	AVAIL FROM (FORBO) FLOORSPEC PTY LTD CONTACT: 0417 960 509	
<u>EM1</u> <u>ENTRY MAT - CARPET</u>	<u>EM2</u> <u>ENTRY MAT -RAILS</u>	<u>T01</u> <u>FLOOR TILE – P3 / R10</u>	<u>T03</u> <u>FLOOR TILE – P4 / R11</u>	<u>T02</u> <u>FLOOR TILE – P4 / R11</u>
FORBO CORAL BRUSH 9mm THICK COLOUR: HURRICANE GREY WITH CLEAR ALUMINIUM TRANSITION ANGLE EDGE TRIM 	<u>ENTRY MAT TO SIT IN RECESSED WELL</u> PEDILUXE ENTRANCE MAT 17mm DEEP CLOSED SPINE TREADS: BRUSH INSERT COLOUR: DARK GREY RAILS: MILL FINISHED ALUMINIUM 	SIZE: 300 X 600mm VITRIFIED / RECTIFIED PORCELAIN FLOOR TILE MAKE: VAUCLUSE COLOUR: BOSSA NOVA GROUT: DARK GREY P3 / R10 MATT 	SIZE: 300 X 300mm VITRIFIED / RECTIFIED PORCELAIN FLOOR TILE MAKE: VAUCLUSE COLOUR: BOSSA NOVA GROUT: DARK GREY P4 / R11 NON-SLIP (GRIP/EXTERNAL) 	SIZE: 300 X 600mm VITRIFIED / RECTIFIED PORCELAIN FLOOR TILE MAKE: VAUCLUSE COLOUR: BOSSA NOVA GROUT: DARK GREY P4 / R11 NON-SLIP (GRIP/EXTERNAL) 
AVAIL FROM (FORBO) FLOORSPEC PTY LTD CONTACT: 0417 960 509	AVAIL FROM ABS WEST BIBRA LAKE CONTACT: 08 9314 4000	AVAIL FROM EUROPEAN CERAMICS OSBORNE PARK CONTACT: 08 6240 0100	AVAIL FROM EUROPEAN CERAMICS OSBORNE PARK CONTACT: 08 6240 0100	AVAIL FROM EUROPEAN CERAMICS OSBORNE PARK CONTACT: 08 6240 0100

FLOOR FINISHES SELECTION

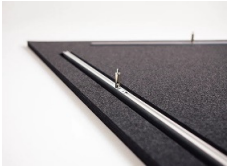
CPT01 CARPET TILE - SQUARE	CPT02 CARPET TILE - PLANK	SK1 TILED SKIRTING use floor tile T01	SK2 TILED SKIRTING use floor tile T03
SIZE: 500mm X 500mm X 5mm THICK CARPET TILE MAKE: INTERFACE COMPOSURE NEUTRALS COLOUR: INTREPID CODE: 2483 – 005- 000 WITH CLEAR ALUMINIUM TRANSITION EDGE TRIM BETWEEN CARPET TILE + PORCELAIN TILE 	INTERFACE AERIAL COLLECTION plank carpet tiles LAY: herringbone SIZE: 250mm X 1000mm AERIAL FLYING COLOURS: CARPET TILE COLOUR: AE315 TOPAZ/ EMERALD WITH CLEAR ALUMINIUM TRANSITION EDGE TRIM BETWEEN CARPET TILE + PORCELAIN TILE 	TILED SKIRTING SIZE: 150mm X 600mm VITRIFIED / RECTIFIED PORCELAIN FLOOR TILE MAKE: VAUCLUSE COLOUR: BOSSA NOVA GROUT: DARK GREY P3 / R10 MATT 	TILED SKIRTING SIZE: 150mm X 300mm VITRIFIED / RECTIFIED PORCELAIN FLOOR TILE MAKE: VAUCLUSE COLOUR: BOSSA NOVA GROUT: DARK GREY P4 / R11 NON-SLIP (GRIP/EXTERNAL) 
AVAIL FROM INTERFACE CARPETS OSBORNE PARK CONTACT: 0403 093 346	AVAIL FROM INTERFACE CARPETS OSBORNE PARK CONTACT: 0403 093 346	AVAIL FROM EUROPEAN CERAMICS OSBORNE PARK CONTACT: 08 6240 0100	AVAIL FROM EUROPEAN CERAMICS OSBORNE PARK CONTACT: 08 6240 0100

SK3 SKIRTING – PAINTED PREPRIMED HMR MDF	SK4 SKIRTING – ALUMINIUM POWDER COATED WITH RUBBER GASKET	SK5 SKIRTING – POWDER COATED ALUMINIUM DUCTED SKIRTING	SC2 PAINTED CLEAR SEALER TO CONCRETE FLOOR	
SKIRTING – PAINTED PREPRIMED HMR MDF NOM 100mm HIGH X 18mm WITH 30mm SPLAY, DULUX AQUANAMEL COLOUR: DULUX DOMINO SG6G8 	CONCEALED SCREW FIXED ALUMINIUM POWDER COATED SKIRTING WITH RUBBER GASKET. ALUMIN COLOUR: BLACK POWDERCOAT RUBBER GASKET: BLACK EXTERNAL PVC CORNERS: BLACK 	ALUMINIUM DUCTED SKIRTING POWDER COATED BLACK 150mm X 50mm 	CLEAR SEALER TO CONCRETE FLOOR WATER BASED LOW VOC PRODUCT REFER TO MAIN ARCHITECTURAL SPECIFICATION 	 <

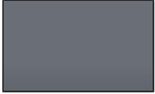
WALL FINISHES SELECTION

<u>WT1</u> CERAMIC WALL TILE	<u>WT2</u> FEATURE CERAMIC WALL TILE ABOVE COUNTER TO BAR	<u>P01</u> PAINT FINISH – FEATURE COLOUR DRY AREAS	<u>P02</u> PAINT FINISH - GENERAL DRY AREAS	<u>P03</u> PAINT FINISH - GENERAL WET AREAS
GLOSS CERAMIC RECTIFIED WALL TILE SIZE: 300mm X 600mm COLOUR: GLOSS WHITE GROUT: LIGHT GREY EXTERNAL CORNERS OF TILED WALLS TO HAVE TILE BAT TRIM SQUARE PROFILE IN WHITE ALUMINIUM FINISH. 	GLOSS CERAMIC FEATURE SPLASHBACK TILE SIZE: 100mm X 100mm COLOUR: BLUE/GREEN GROUT: BLACK CODE: TE-MZGL-17G GLOSS FINISH / NON-RECTIFIED 	DULUX COLOUR: WHITE EXCHANGE HALF SW1B4 DULUX ENVIRO 2 INTERIOR LOW SHEEN FINISH / LOW VOC 	DULUX COLOUR: WHITE EXCHANGE QUARTER SW1 DULUX ENVIRO 2 INTERIOR LOW SHEEN FINISH / LOW VOC 	DULUX COLOUR: WHITE EXCHANGE QUARTER SW1 DULUX ENVIRO 2 WITH ANTI MOULD INHIBITORS INTERIOR LOW SHEEN FINISH / LOW VOC 
AVAIL FROM EUROPEAN CERAMICS OSBORNE PARK CONTACT: 08 6240 0100	AVAIL FROM TILES EXPO OSBORNE PARK CONTACT: 08 328 8111	DULUX	DULUX	DULUX
MECH AIR GRILLES	<u>FWP1</u> BAR FRONT CLADDING	<u>P04</u> PAINT FINISH - FEATURE WET AREA	<u>DECALS & GLAZING FILM</u>	
REFER TO SPECIFICATION FOR DETAILS OF CEILING & WALL AIR GRILLES. POWDERCOAT COLOUR TO BE SELECTED & APPROVED BY ARCHITECT.	18mm LAMINATED MR E0 MDF BOARDS ON SPLIT BATTENS LAMINEX 18mm STRUCTURAL MR E0 MDF – MOISTURE RESISTANT & IMPACT RESISTANT WITH A MELAMINE SURFACE BOTH SIDES LAMINATE: LAMINEX RAW BIRCHPLY 8910 WITH BLACK ABS EDGING. ALUMINIUM BLACK POWDERCOATED FINISHING ANGLE SURROUND TO ALL EXPOSED EDGES OF BOARDS TO BE FITTED ONTO GYPROCK LINED WALL AS PER DETAILED DRAWING TO CONCEAL GAP TO REAR OF BOARDS. 	DULUX COLOUR: COLOUR: TRISTAN CODE: SN4H5 DULUX ENVIRO 2 WITH ANTI MOULD INHIBITORS INTERIOR LOW SHEEN FINISH / LOW VOC 		

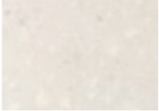
CEILING FINISHES SELECTION

MECH AIR GRILLES	PC01 CEILING PAINT ON MR PLASTERBOARD FPB (MR) WET AREAS	PC01 CEILING PAINT ON <u>IMPACTCHECK</u> MR PLASTERBOARD FPB (MR) WET AREAS	PC02 CEILING PAINT ON PLASTERBOARD FPB & ACOUSTIC PLASTERBOARD APB DRY AREAS	CO CUSTOM ORB
REFER TO SPECIFICATION FOR DETAILS OF CEILING & WALL AIR GRILLES. POWDERCOAT COLOUR TO BE SELECTED & APPROVED BY ARCHITECT.	DULUX COLOUR: CEILING WHITE <u>DULUX ENVIRO 2 WITH ANTI MOULD</u> <u>INHIBITORS</u> INTERIOR LOW SHEEN FINISH / LOW VOC 	DULUX COLOUR: CEILING WHITE <u>DULUX ENVIRO 2 WITH ANTI MOULD</u> <u>INHIBITORS</u> INTERIOR LOW SHEEN FINISH / LOW VOC 	DULUX COLOUR: CEILING WHITE <u>DULUX ENVIRO 2</u> INTERIOR FLAT / LOW VOC 	LYSAGHT COLORBOND CUSTOM ORB STANDARD COLOUR RANGE COLOUR: SURFMIST 
	DULUX	DULUX	DULUX	LYSAGHT
AP01 <u>ACOUSTIC PANEL</u>	PC03 PAINTED OPEN CEILING AREA & ALL EXPOSED SERVICES, SUPPORT FRAMING ETC IN HALLS			
<u>ACOUSTIC PANEL</u> 24mm THICK AUTEX HORIZON RECTANGULAR PANELS COLOUR: OPERA SUSPENDED FROM UNDERSIDE OF ROOF WITH HORIZON PROPRIETARY SUSPENSION SYSTEM USING OPTION EXTRA LONG SUSPENSION CABLING (UP TO 3m AVAIL FROM AUTEX). <u>SUSPENSION METHOD 2</u> (RAHVAS + RAFFPC + RAFNEX2420) 	DULUX COLOUR: DULUX BLACK CODE: SG6G9 <u>DULUX ENVIRO 2</u> INTERIOR FLAT / LOW VOC 	-----	-----	
AVAIL FROM AUTEX WA CONTACT: 08 9355 1911	DULUX			

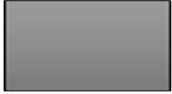
ROLLER SHUTTERS, KICKPLATES, PAINT TO DOORS & FRAMES & OPERABLE WALLS

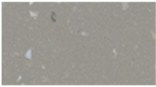
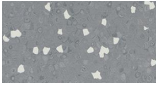
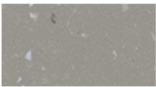
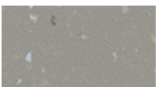
<u>DPT1</u> <u>INTERNAL DOOR PAINT</u>	<u>DPT2</u> <u>INTERNAL PAINT TO DOOR FRAMES</u>	<u>PCT1</u> <u>POWDERCOAT</u>	<u>RS</u> <u>ROLLER SHUTTER</u>	<u>INTERNAL KICKPLATES</u>
<u>PAINT FINISH TO INTERNAL TIMBER DOORS</u> COLOUR: TRISTAN CODE: SN4H5 DULUX AQUANAMEL SEMI GLOSS PAINT FINISH: SEMI GLOSS / LOW VOC 	<u>PAINT FINISH TO INTERNAL STEEL DOOR FRAMES ONLY OF PAINTED INTERNAL TIMBER DOORS & INTERNAL KITCHEN / KIOSK DOOR</u> COLOUR: DULUX BLACK CODE: SG6G9 DULUX AQUANAMEL SEMI GLOSS PAINT FINISH: SEMI GLOSS / LOW VOC 	POWDERCOAT FINISH TO INTERNAL ALUMINIUM DOORS & WINDOW FRAMES <u>ALUMINIUM FRAMING POWDERCOAT</u> DULUX DURATEC ZEUS COLOUR: BLACK MATT FINISH 90Z9202M 	INTERNAL ROLLER SHUTTER POWDER COAT FINSH <u>ALUMINIUM FRAMING POWDERCOAT</u> DULUX DURATEC ZEUS COLOUR: BLACK MATT FINISH 90Z9202M 	<u>KICKPLATES</u> 300mm HIGH LINISHED STAINLESS STEEL ON TIMBER DOORS <u>INTERNAL TIMBER DOORS AS PER DOOR/ WINDOW DRAWING SCHEDULE TO HAVE A 300mm HIGH LINISHED STAINLESS STEEL KICKPLATE</u> 
<u>OW1</u> <u>OPERABLE WALL FINISHES</u>				
<u>ACOUSTIC FABRIC LINING TO OPERABLE WALL</u> 4mm THICK AUTEX VERTIFACE LINING FABRIC COLOUR 1: BEEHIVE FABRIC COLOUR 2: OCTANE FABRIC COLOUR 3: SPEARMINT BLACK POWDERCOAT SKIRTING AND FRAMING IF APPLICABLE 				
AVAIL FROM AUTEX WA CONTACT: 08 9355 1911				

JOINERY FINISHES SELECTION

SOLID SURFACE PRODUCT-VANITY	LAMINATE / MELAMINE FINISH	CABINET DOOR PULLS	INTERNAL SERVERY OPENING SURROUND FRAME	SERVERY COUNTERTOP, KITCHEN BENCHTOPS
ACRYLIC SOLID SURFACE PRODUCT 20mm THICK EVOSTONE CLASSIC RANGE COLOUR: "EVEREST"  AVAILABLE FROM GALVINS	LAMINATE: LAMINEX SEASONED OAK 	CABINET DOOR PULLS ZANDA (OR EQUALLY APPROVED) STAINLESS STEEL D PULLS CODE: 6100 128mm CENTRES / 138mm OVERALL LENGTH  AVAILABLE FROM ZANDA	LAMINATE: LAMINEX BLACK NATURAL FINISH 	COUNTERTOP: TYPE 304 STAINLESS STEEL SATIN FINISH, ALL CORNERS WELDED AND POLISHED SMOOTH 

SCHEDULE OF FINISHES

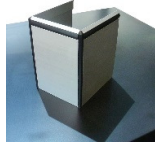
FLOOR FINISH – VITRIFIED PORCELAIN TILE				BEALE PARK SPORTING & COMMUNITY FACILITY			
CODE	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION	
T01	VITRIFIED FLOOR TILE P3/ R10 SLIP RATING NATURAL FINISH <i>TO ACHIEVE CURRENT AUSTRALIAN SLIP RESISTANCE STANDARDS 4586 - 2013</i>	SIZE:300 X 600mm VITRIFIED / RECTIFIED PORCELAIN FLOOR TILE MAKE: VAUCLUSE COLOUR: BOSSA NOVA GROUT: DARK GREY P3 / R10 MATT	MID GREY	 P3 / R10 300 X 600mm	EUROPEAN CERAMICS	R-01	MAIN ENTRY LOBBY
						R-02	
						R-04	FEMALE AMENITIES
						R-05	MALE AMENITIES
						R-07	CLEANER
						R-08	
						R-13	CLUBROOM - border
						R-14	FUNCTION ROOM - border
T02	VITRIFIED FLOOR TILE WET AREAS P4 / R11 SLIP RATING GRIP FINISH <i>TO ACHIEVE CURRENT AUSTRALIAN SLIP RESISTANCE STANDARDS 4586 - 2013</i>	SIZE:300 X 600mm VITRIFIED / RECTIFIED PORCELAIN FLOOR TILE MAKE: VAUCLUSE COLOUR: BOSSA NOVA GROUT: DARK GREY P4 / R11 NON-SLIP (GRIP/EXTERNAL)	MID GREY	 P4 / R11 300 X 600mm	EUROPEAN CERAMICS	R-06	UAT / SHOWER 1 - INTERNAL
						R-13	CLUBROOM - border at bar
						R-14	FUNCTION ROOM - border at bar
T03	VITRIFIED FLOOR TILE WET AREAS P4 / R11 SLIP RATING GRIP FINISH <i>TO ACHIEVE CURRENT AUSTRALIAN SLIP RESISTANCE STANDARDS 4586 - 2013</i>	SIZE:300 X 300mm VITRIFIED / RECTIFIED PORCELAIN FLOOR TILE MAKE: VAUCLUSE COLOUR: BOSSA NOVA GROUT: DARK GREY P4 / R11 NON-SLIP (GRIP/EXTERNAL)	MID GREY	 P4 / R11 300 X 300mm	EUROPEAN CERAMICS	R-20	CHANGEROOM 1 SHOWER / TOILET AREA
						R-21	CHANGEROOM 2 SHOWER / TOILET AREA
						R-22	CHANGEROOM 3 SHOWER / TOILET AREA
						R-23	CHANGEROOM 4 SHOWER / TOILET AREA
						R-24	CHANGEROOM 5 SHOWER / TOILET AREA
						R-25	CHANGEROOM 6 SHOWER / TOILET AREA
						R-26	UAT /SHOWER 2 – EXTERNAL

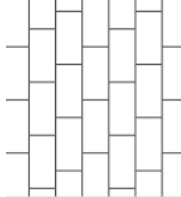
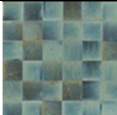
FLOOR FINISH – VITRIFIED PORCELAIN TILE + VINYL + CARPET TILE				BEALE PARK SPORTING & COMMUNITY FACILITY			
CODE	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION	
V01	SHEET VINYL P3 /R10 SLIP RATING <i>TO ACHIEVE CURRENT AUSTRALIAN SLIP RESISTANCE STANDARDS 4586 - 2013</i>	MAKE: FORBO SURESTEP STAR R10 CODE: 176952 COLOUR: MERCURY P3 / R10	MID GREY	 P3 / R10	FORBO	R-09	FURNITURE STORE 1
						R-11	
						R-17	
V02	SHEET VINYL P3 /R10 SLIP RATING <i>TO ACHIEVE CURRENT AUSTRALIAN SLIP RESISTANCE STANDARDS 4586 - 2013</i>	MAKE: FORBO SPHERA SD ANTISTAT/ STATIC DISSIPATIVE HOMOGENEOUS CONDUCTIVE VINYL CODE: SD 550005 COLOUR: DARK NEUTRAL GREY	DARK GREY	 ANTISTAT/ STATIC DISSIPATIVE	FORBO	R-10	COMMS
V03	SHEET VINYL & COVED SKIRTING P4 /R11 SLIP RATING <i>TO ACHIEVE CURRENT AUSTRALIAN SLIP RESISTANCE STANDARDS 4586 - 2013</i>	MAKE: FORBO SAFESTEP R11 CODE: 174952 COLOUR: ELEPHANT P4 / R11	MID GREY	 P4 / R11	FORBO	R-15	BAR 1
						R-16	BAR 2
						R-19	KIOSK
V04	SHEET VINYL & COVED SKIRTING P5 /R12 SLIP RATING <i>TO ACHIEVE CURRENT AUSTRALIAN SLIP RESISTANCE STANDARDS 4586 - 2013</i>	MAKE: FORBO SAFESTEP R12 CODE: 175952 COLOUR: ELEPHANT P5 / R12 FLOOR FINISH & COVED SKIRTING	MID GREY	 P5 / R12	FORBO	R-18	KITCHEN
CPT01	CARPET TILE SQUARE	SIZE: 500mm X 500mm X 5mm THICK CARPET TILE MAKE: INTERFACE COMPOSURE NEUTRALS COLOUR: INTREPID CODE: 2483 – 005- 000 WITH CLEAR ALUMINIUM TRANSITION EDGE TRIM BETWEEN CARPET TILE + PORCELAIN TILE	NEUTRAL GREYS		INTERFACE	R-02	MEETING ROOM
						R-03	CLUB OFFICE
						R-03A	CLUB OFFICE STORE

FLOOR FINISH – CARPET TILE				BEALE PARK SPORTING & COMMUNITY FACILITY			
CODE	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION	
CPT02	CARPET TILE PLANK	INTERFACE AERIAL COLLECTION plank carpet tiles LAY: herringbone SIZE: 250mm X 1000mm AERIAL FLYING COLOURS: CARPET TILE COLOUR 3: AE315 TOPAZ/ EMERALD WITH CLEAR ALUMINIUM TRANSITION EDGE TRIM BETWEEN CARPET TILE + PORCELAIN TILE			INTERFACE	R-13	CLUB ROOM
						R-14	FUNCTION ROOM

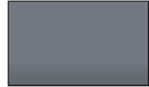
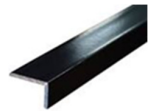
FLOOR FINISH – ENTRY MAT + SEALED CONCRETE FINISH				BEALE PARK SPORTING & COMMUNITY FACILITY			
CODE	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION	
EM1	ENTRY MAT - CARPET	ENTRY MAT FORBO CORAL BRUSH 9mm THICK COLOUR: HURRICANE GREY WITH CLEAR ALUMINIUM TRANSITION ANGLE EDGE TRIM	DARK GREY		FORBO	R-13	CLUB ROOM
						R-14	FUNCTION ROOM
EM2	ENTRY MAT - RAILS	ENTRY MAT TO SIT IN RECESSED WELL PEDILUXE ENTRANCE MAT 17mm DEEP CLOSED SPINE TREADS: BRUSH INSERT COLOUR: DARK GREY RAILS: MILL FINISHED ALUMINIUM			ABS WEST	R-01	LOBBY
						R-08	
SC1	PAINTED CONCRETE <i>TO ACHIEVE CURRENT AUSTRALIAN SLIP RESISTANCE STANDARDS 4586 - 2013</i>	HEAVY DUTY EPOXY PROTECTIVE COATING EPILOX HS COLOUR: KOALA GREY (N45) REFER TO ALLDURO SPECIFICATION FOR ANTI SLIP FINISH IF REQUIRED REFER TO <u>ALLDURO SPECIFICATION</u> IN MAIN ARCHITECTURAL SPECIFICATION FOR CONCRETE WATERPROOFING, FINAL COATINGS & ANTISLIP TOP FINISH <u>APPLICATION</u> - AS PER AUSTRALIAN STANDARDS. <i>* FLOOR FINISH TO ACHIEVE CURRENT AUSTRALIAN SLIP RESISTANCE STANDARDS 4586 - 2013</i>	KOALA GREY	 KOALA GREY (N45)	ALLDURO	R-12	
						R-20	CHANGE ROOM 1
						R-21	CHANGEROOM 2
						R-22	CHANGE ROOM 3
						R-23	CHANGEROOM 4
						R-24	CHANGE ROOM 5
						R-25	CHANGEROOM 6
						R-28	STORE 2
						R-29	STORE 3
						R-30	STORE 4
						R-31	FIRST AID ROOM
SC2	CLEAR SEALER TO CONCRETE	CLEAR SEALER TO CONCRETE FLOOR WATER BASED LOW VOC PRODUCT REFER TO MAIN ARCHITECTURAL SPECIFICATION	CLEAR FINISH				

FLOOR FINISH – SKIRTINGS				BEALE PARK SPORTING & COMMUNITY FACILITY			
CODE	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION	
SK1	TILED SKIRTING USING FLOOR TILE T01	TILED SKIRTING use floor tile T01 SIZE: 150mm X 600mm VITRIFIED / RECTIFIED PORCELAIN FLOOR TILE MAKE: VAUCLUSE COLOUR: BOSSA NOVA GROUT: DARK GREY P3 / R10 MATT	MID GREY	150mm x 600mm 	EUROPEAN CERAMICS	R-06	UAT / SHOWER 1 - INTERNAL
						R-07	CLEANER
SK2	TILED SKIRTING USING FLOOR TILE T03	TILED SKIRTING – use floor tile T03 SIZE: 150mm X 300mm VITRIFIED / RECTIFIED PORCELAIN FLOOR TILE MAKE: VAUCLUSE COLOUR: BOSSA NOVA GROUT: DARK GREY P4 / R11 NON-SLIP (GRIP/EXTERNAL) <u>NOTE</u> ARIS OR FACTORY EDGE FINISH TO TILE WHERE THERE IS NO TILING ABOVE SKIRTING ON WALL	MID GREY	150mm X 300mm 	EUROPEAN CERAMICS	R-04	FEMALE AMENITIES AIR LOCK
						R-05	MALE AMENITIES AIR LOCK
						R-06	UAT / SHOWER 1 - INTERNAL
						R-20	CHANGEROOM 1 & SHOWER / TOILETS
						R-21	CHANGEROOM 2 & SHOWER / TOILETS
						R-22	CHANGE ROOM & SHOWER / TOILETS
						R-23	CHANGEROOM 4 & SHOWER TOILETS
						R-24	CHANGEROOM 5 & SHOWER / TOILETS
						R-25	CHANGEROOM 6 & SHOWER / TOILETS
						R-26	UAT / SHOWER 2 - EXTERNAL
						R-27	UMPIRE CHANGEROOM & SHOWER / TOILETS

FLOOR FINISH – SKIRTINGS				BEALE PARK SPORTING & COMMUNITY FACILITY			
CODE	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION	
SK3	MDF SKIRTING PAINTED	SKIRTING – PAINTED PREPRIMED HMR MDF NOM 100mm HIGH X 18mm WITH 30mm SPLAY, DULUX AQUANAMEL COLOUR: DULUX DOMINO SG6G8 REFER TO ARCHITECTURAL SPECIFICATION. PAINT SYSTEM IN ACCORDANCE WITH PAINT MANUFACTURERS SPECIFICATION.	COLOUR: DULUX DOMINO SG6G8 SEMI GLOSS FINISH			R-03a	CLUB OFFICE STORE
						R-09	FURNITURE STORE 1
						R-10	COMMS
						R-11	
						R-17	
SK4	ALUMINIUM SKIRTING	CONCEALED SCREW FIXED ALUMINIUM POWDER COATED SKIRTING WITH RUBBER GASKET. ALUMIN COLOUR: BLACK POWDERCOAT RUBBER GASKET: BLACK EXTERNAL PVC CORNERS: BLACK				R-01	MAIN ENTRY LOBBY
						R-08	
						R-13	CLUB ROOM
						R-14	FUNCTION ROOM
SK5	DUCTED SKIRTING	SKIRTING – POWDER COATED ALUMINIUM DUCTED SKIRTING ALUMINIUM DUCTED SKIRTING POWDER COATED BLACK 150mm X 50mm				R-02	
						R-03	CLUB OFFICE
	NO SKIRTING	-----	-----	-----	-----	R-12	
						R-28	STORE 2
						R-29	STORE 3
						R-30	STORE 4

WALL FINISH – CERAMIC TILE				BEALE PARK SPORTING & COMMUNITY FACILITY			
CODE	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION	
WT1	CERAMIC WALL TILE	GLOSS CERAMIC RECTIFIED WALL TILE SIZE: 300mm X 600mm COLOUR: GLOSS WHITE GROUT: LIGHT GREY LAY: VERTICAL BRICKBOND TRIM: EXTERNAL CORNERS OF TILED WALLS TO HAVE TILE BAT TRIM SQUARE PROFILE IN WHITE ALUMINIUM FINISH.	GLOSS WHITE LIGHT GREY GROUT WHITE ALUMINIUM EXPOSED CORNER GUARDS	 TILING TO WALLS ABOVE 100mm HIGH SKIRTING TILE 		R-04	FEMALE AMENITIES
						R-05	MALE AMENITIES
						R-06	UAT / SHOWER 1 - INTERNAL
						R-15	BAR 1
						R-16	BAR 2
						R-18	KITCHEN
						R-19	KIOSK
						R-20	CHANGEROOM 1 SHOWER / TOILETS
						R-21	CHANGEROOM 2 SHOWER / TOILETS
						R-22	CHANGE ROOM SHOWER / TOILETS
						R-23	CHANGEROOM 4 SHOWER TOILETS
						R-24	CHANGEROOM 5 SHOWER / TOILETS
						R-25	CHANGEROOM 6 SHOWER / TOILETS
						R-26	UAT / SHOWER 2 - EXTERNAL
						R-27	UMPIRE CHANGEROOM SHOWER / TOILETS
	CERAMIC WALL TILE <u>SPLASHBACK</u>	<u>SPLASH BACK TILES TO BASIN / TROUGH</u> GLOSS CERAMIC RECTIFIED WALL TILE SIZE: 300mm X 600mm COLOUR: GLOSS WHITE GROUT: LIGHT GREY LAY: VERTICAL STACKBOND	GLOSS WHITE LIGHT GREY GROUT	 SPLASH BACK TILES TO BASIN / TROUGH		R-07	CLEANER
						R-30	
WT2	FEATURE CERAMIC WALL TILE	GLOSS CERAMIC FEATURE SPLASHBACK TILE SIZE: 100mm X 100mm COLOUR: BLUE/GREEN GROUT: BLACK CODE: TE-MZGL-17G GLOSS FINISH / NON-RECTIFIED		 SPLASH BACK TILES ABOVE COUNTER FACING PUBLIC	TILES EXPO OSBORNE PARK	R-15	BAR 1 - SPLASHBACK
						R-16	BAR 2 - SPLASHBACK

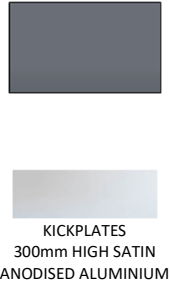
WALL FINISH – WALL PAINT				BEALE PARK SPORTING & COMMUNITY FACILITY			
CODE	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION	
P01	PAINT FINISH TO WALLS – DRY AREAS	<u>PAINT FINISH – FEATURE COLOUR</u> DULUX ENVIRO 2 REFER TO ARCHITECTURAL SPECIFICATION PAINT SYSTEM & IN ACCORDANCE WITH PAINT MANUFACTURERS SPECIFICATION FOR PREP COATS & PAINT FINISH INTERIOR LOW SHEEN FINISH / LOW VOC	DULUX COLOUR: WHITE EXCHANGE HALF SW1B4		DULUX	R-01	MAIN ENTRY LOBBY
						R-08	
						R-13	CLUB ROOM
						R-14	FUNCTION ROOM
P02	PAINT FINISH TO WALLS – DRY AREAS	<u>PAINT FINISH</u> DULUX ENVIRO 2 REFER TO ARCHITECTURAL SPECIFICATION PAINT SYSTEM & IN ACCORDANCE WITH PAINT MANUFACTURERS SPECIFICATION FOR PREP COATS & PAINT FINISH INTERIOR LOW SHEEN FINISH / LOW VOC	DULUX COLOUR: WHITE EXCHANGE QUARTER SW1		DULUX	R-02	
						R-03	CLUB OFFICE
						R-03a	
						R-09	FURNITURE STORE 1
						R-10	COMMS
						R-11	
						R-17	
P03	PAINT FINISH TO WALLS – WET AREAS	<u>PAINT FINISH WITH ANTI MOULD INHIBITORS</u> DULUX ENVIRO 2 REFER TO ARCHITECTURAL SPECIFICATION PAINT SYSTEM & IN ACCORDANCE WITH PAINT MANUFACTURERS SPECIFICATION FOR PREP COATS & PAINT FINISH INTERIOR LOW SHEEN FINISH / LOW VOC	DULUX COLOUR: WHITE EXCHANGE QUARTER SW1		DULUX	R-04	FEMALE AMENITIES AIR LOCK
						R-05	MALE AMENITIES AIR LOCK
						R-07	CLEANER
						R-12	
						R-20	CHANGEROOM 1
						R-21	CHANGEROOM 2
						R-22	CHANGEROOM 3
						R-23	CHANGEROOM 4
						R-24	CHANGEROOM 5
						R-25	CHANGEROOM 6
						R-27	UMPIRE CHANGEROOM
						R-28	STORE 2
						R-29	STORE 3
						R-30	STORE 4
						R-31	FIRST AID ROOM

WALL FINISH – FEATURE WALL PANELS & MECH AIR GRILLES				BEALE PARK SPORTING & COMMUNITY FACILITY			
CODE	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION	
P04	FEATURE PAINT FINISH TO WALLS – WET AREA	<u>PAINT FINISH WITH ANTI MOULD INHIBITORS</u> DULUX ENVIRO 2 REFER TO ARCHITECTURAL SPECIFICATION PAINT SYSTEM & IN ACCORDANCE WITH PAINT MANUFACTURERS SPECIFICATION FOR PREP COATS & PAINT FINISH INTERIOR LOW SHEEN FINISH / LOW VOC	DULUX COLOUR: TRISTAN CODE: SN4H5		DULUX	R-15	BAR 1
						R-16	BAR 2
FWP1	FEATURE WALL PANELS TO WALLS IN CLUB & FUNCTION ROOM IN FRONT OF SERVERY OPENING	<u>18mm LAMINATED MR E0 MDF BOARDS ON SPLIT BATTENS</u> LAMINEX 18mm STRUCTURAL MR E0 MDF – MOISTURE RESISTANT & IMPACT RESISTANT WITH A MELAMINE SURFACE BOTH SIDES LAMINATE: <u>LAMINEX RAW BIRCHPLY 8910</u> WITH BLACK ABS EDGING. BUTT JOIN PANEL BOARDS UNDER SERVERY COUNTER TO LARGER SERVERY OPENING. ALUMINIUM BLACK POWDERCOATED FINISHING ANGLE SURROUND TO ALL EXPOSED EDGES OF BOARDS TO BE FITTED ONTO GYPROCK LINED WALL AS PER DETAILED DRAWING TO CONCEAL GAP TO REAR OF BOARDS.		 		R-13	CLUB ROOM
						R-14	FUNCTION ROOM
MECH AIR GRILLES	MECHANICAL AIR - WALL GRILLES	REFER TO SPECIFICATION FOR DETAILS OF CEILING & WALL AIR GRILLES. POWDERCOAT COLOUR TO BE SELECTED & APPROVED BY ARCHITECT.	COLOUR SELECTION TO BE CONFIRMED WITH ARCHITECT FOR APPROVAL				THROUGHOUT BUILDING INTERNALLY
							BLACK POWDERCOAT FINISH TO MECH AIR GRILLES IN CLUB & FUNCTION ROOMS
INTERNAL FILM TO GLAZING	TRANSLUCENT FILM	1200mm WIDE BAND 400mm OFF AFFL TO 1800mm HIGH OVERALL 3M TRANSLUCENT FILM DUSTED CRYSTAL OVER GLAZING FACING CORRIDOR LOBBY				R-02	
						R-03	CLUB OFFICE
DECALS	TO EXTERNAL GLAZING	DECALS TO ALL EXTERNAL GLAZING AS PER AUSTRALIAN STANDARDS, WINDOW & DOOR SCHEDULE DRAWINGS & ARCHITECTURAL SPECIFICATION					

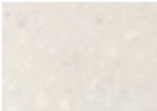
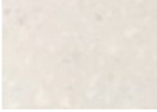
CEILING FINISH – PAINT ON PLASTERBOARD				BEALE PARK SPORTING & COMMUNITY FACILITY			
CODE	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION	
PC01	CEILING PAINT ON MR PLASTERBOARD FPB (MR) WET AREAS	<u>MOISTURE RESISTANT MR - PLASTERBOARD CEILING - PAINT FINISH</u> DULUX ENVIRO 2 WITH ANTI MOULD INHIBITORS REFER TO ARCHITECTURAL SPECIFICATION PAINT SYSTEM & IN ACCORDANCE WITH PAINT MANUFACTURERS SPECIFICATION FOR PREP COATS & PAINT FINISH	DULUX COLOUR: CEILING WHITE INTERIOR LOW SHEEN FINISH / LOW VOC			R-04	FEMALE AMENITIES
						R-05	MALE AMENITIES
						R-06	UAT / SHOWER 1 - INTERNAL
						R-07	CLEANER
						R-15	BAR 1
						R-16	BAR 2
						R-18	KITCHEN
						R-19	KIOSK
	CEILING PAINT ON <u>IMPACTCHECK</u> MR PLASTERBOARD FPB (MR) WET AREAS	<u>MOISTURE RESISTANT MR - IMPACTCHECK GYPROCK/ PB CEILING - PAINT FINISH</u> DULUX ENVIRO 2 WITH ANTI MOULD INHIBITORS REFER TO ARCHITECTURAL SPECIFICATION PAINT SYSTEM & IN ACCORDANCE WITH PAINT MANUFACTURERS SPECIFICATION FOR PREP COATS & PAINT FINISH	DULUX COLOUR: CEILING WHITE INTERIOR LOW SHEEN FINISH / LOW VOC			R-26	UAT / SHOWER 2 - EXTERNAL
						R-27	UMPIRE CHANGEROOM & SHOWER / TOILET AREA
						R-31	FIRST AID ROOM
PC02	CEILING PAINT ON PLASTERBOARD, FPB DRY AREAS	<u>PLASTERBOARD CEILING PAINT FINISH</u> AS PER RCP DRAWINGS - DULUX ENVIRO 2 REFER TO ARCHITECTURAL SPECIFICATION PAINT SYSTEM & IN ACCORDANCE WITH PAINT MANUFACTURERS SPECIFICATION FOR PREP COATS & PAINT FINISH	DULUX COLOUR: CEILING WHITE PAINT FINISH: FLAT / LOW VOC		DULUX	R-01	MAIN ENTRY LOBBY
						R-02	
						R-03	CLUB OFFICE
						R-03a	
						R-04a	FEMALE AMENITIES AIR LOCK
						R-05a	MALE AMENITIES AIR LOCK
						R-08	CORRIDOR
						R-09	FURNITURE STORE 1- INTERNAL
						R-10	COMMS
						R-11	
						R-17	

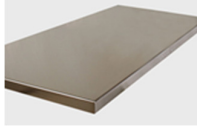
CEILING FINISH – PAINT IN OPEN CEILING AREA				BEALE PARK SPORTING & COMMUNITY FACILITY			
CODE	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION	
PC03	PAINTED OPEN CEILING AREA	PAINTED OPEN CEILING AREA & ALL EXPOSED SERVICES, SUPPORT FRAMING ETC IN HALLS DULUX ENVIRO 2 INTERIOR FLAT / LOW VOC	DULUX COLOUR: DULUX BLACK CODE: SG6G9			R-13	CLUB ROOM
						R-14	FUNCTION ROOM
NO PAINT	NO CEILING EXPOSED TO UNDERSIDE OF ROOF	-----	-----	-----	-----	R-12	RESIDENTS ASSOCIATION STORE
						R-28	STORE 2
						R-29	STORE 3
						R-30	STORE 4

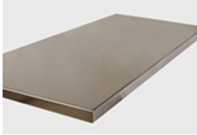
CEILING FINISH – ACOUSTIC PANELS + CUSTOM ORB + NO CEILINGS				BEALE PARK SPORTING & COMMUNITY FACILITY			
CODE	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION	
AP01	SUSPENDED ACOUSTIC PANELS	ACOUSTIC PANEL 24mm THICK AUTEX HORIZON RECTANGULAR PANELS COLOUR: OPERA SUSPENDED FROM UNDERSIDE OF ROOF WITH HORIZON PROPRIETARY SUSPENSION SYSTEM. NOTE: BUILDER TO ORDER OPTION EXTRA LONG SUSPENSION CABLING (UP TO 3m AVAIL FROM AUTEX). SUSPENSION METHOD 2 (RAHVAS + RAFFPC + RAFNEX2420)	AUTEX CUBE COLOUR: OPERA		AUTEX	R-13	CLUB ROOM
						R-14	FUNCTION ROOM
CO	CUSTOM ORB	LYSAGHT COLORBOND CUSTOM ORB STANDARD COLOUR RANGE COLOUR: SURFMIST	COLORBOND SURFMIST		LYSAGHT	R-20	CHANGEROOM 1 & SHOWER / TOILET AREA
						R-21	CHANGEROOM 2 & SHOWER / TOILET AREA
						R-22	CHANGEROOM 3 & SHOWER / TOILET AREA
						R-23	CHANGEROOM 4 & SHOWER / TOILET AREA
						R-24	CHANGEROOM 5 & SHOWER / TOILET AREA
						R-25	CHANGEROOM 6 & SHOWER / TOILET AREA
MECH AIR GRILLES	MECHANICAL AIR - CEILING GRILLES	REFER TO SPECIFICATION FOR DETAILS OF CEILING & WALL AIR GRILLES. POWDERCOAT COLOUR TO BE SELECTED & APPROVED BY ARCHITECT	COLOUR SELECTION TO BE CONFIRMED WITH ARCHITECT FOR APPROVAL				THROUGHOUT BUILDING INTERNALLY

PAINT - DOORS & FRAMES + POWDER COAT + ROLLER SHUTTERS				BEALE PARK SPORTING & COMMUNITY FACILITY			
CODE	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION	
DPT1	INTERNAL DOOR PAINT	<u>PAINT FINISH TO INTERNAL TIMBER DOORS</u> DULUX AQUANAMEL SEMI GLOSS REFER TO ARCHITECTURAL SPECIFICATION PAINT SYSTEM & IN ACCORDANCE WITH PAINT MANUFACTURERS SPECIFICATION FOR PREP COATS & PAINT FINISH <u>INTERNAL TIMBER DOORS</u> TO HAVE A 300mm LINISHED STAINLESS STEEL KICKPLATE FIXED WITH COUNTERSUNK SCREW FIXINGS. <i>REFER TO DOOR DRAWING SCHEDULE</i>	COLOUR: DULUX TRISTAN CODE: SN4H5 PAINT FINISH: SEMI GLOSS / LOW VOC		DULUX		THROUGHOUT AS PER DOOR SCHEDULE DRAWINGS <u>TIMBER INTERNAL DOORS</u>
DPT2	STEEL FRAME PAINT ONLY TO INTERNAL PAINTED TIMBER DOORS	<u>PAINT FINISH TO INTERNAL STEEL DOOR FRAMES</u> <u>ONLY OF PAINTED INTERNAL TIMBER DOORS</u> <u>&</u> <u>TO DOOR FACE OF KITCHEN / KIOSK FACING - PUBLIC SIDE OF KIOSK</u> DULUX AQUANAMEL SEMI GLOSS REFER TO ARCHITECTURAL SPECIFICATION PAINT SYSTEM & IN ACCORDANCE WITH PAINT MANUFACTURERS SPECIFICATION FOR PREP COATS & PAINT FINISH <i>REFER TO DOOR SCHEDULE & EXTERIOR FINISHES SCHEDULE</i>	COLOUR: DULUX BLACK CODE: SG6G9 PAINT FINISH: SEMI GLOSS / LOW VOC		DULUX		THROUGHOUT AS PER DOOR SCHEDULE DRAWINGS <u>ALL STEEL FRAMES</u> TO INTERNAL TIMBER DOORS <u>&</u> TO DOOR FACE OF KITCHEN / KIOSK FACING, PUBLIC SIDE OF KIOSK
PCT1	POWDERCOAT FINISH TO INTERNAL ALUMINIUM DOORS & WINDOW FRAMES	<u>ALUMINIUM FRAMING POWDERCOAT</u> DULUX DURATEC ZEUS COLOUR: BLACK MATT FINISH 90Z9202M	MATT BLACK		DULUX		THROUGHOUT AS PER DRAWINGS
RS	INTERNAL ROLLER SHUTTER POWDER COAT FINSH	<u>ALUMINIUM FRAMING POWDERCOAT</u> DULUX DURATEC ZEUS COLOUR: BLACK MATT FINISH 90Z9202M	MATT BLACK		DULUX	R-15	BAR 1
						R-16	BAR 2
EXTERNAL SERVERY OPENING		REFER TO EXTERIOR FINISHES SCHEDULE					

OPERABLE WALLS + GLAZING DECALS				BEALE PARK SPORTING & COMMUNITY FACILITY			
CODE	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION	
OW 1	OPERABLE WALL WITH ACOUSTIC FABRIC LINING	<u>ACOUSTIC FABRIC LINED FACING TO OPERABLE WALL</u> 4mm THICK AUTEX VERTIFACE VELOUR FINISH FABRIC COLOUR 1: BEEHIVE FABRIC COLOUR 2: OCTANE FABRIC COLOUR 3: SPEARMINT	FABRIC COLOUR 1: BEEHIVE FABRIC COLOUR 2: OCTANE FABRIC COLOUR 3: SPEARMINT	 FABRIC COLOUR 1: BEEHIVE  FABRIC COLOUR 2: OCTANE  FABRIC COLOUR 3: SPEARMINT	AUTEX	R-13	CLUB ROOM
						R-14	FUNCTION ROOM
DECALS	DECALS TO GLAZING & GLAZED DOORS	200mm WIDE BAND OF DECALS TO EXTERNAL & INTERNAL GLAZED WINDOWS, GLAZED PATITIONS AND GLAZED DOORS AS PER AUSTRALIAN STANDARDS AND CODES.	DESIGN TO BE CONFIRMED WITH THE CITY OF COCKBURN			R-01	MAIN ENTRY LOBBY
						R-02	
						R-03	CLUB OFFICE
						R-13	CLUB ROOM
						R-14	FUNCTION ROOM
							OTHER INTERNAL AND EXTERNALLY GLAZED DOORS & WALLS

JOINERY TO AMENITIES + MEETING ROOM + FIRST AID ROOM			BEALE PARK SPORTING & COMMUNITY FACILITY			
CODE	DESCRIPTION	DETAILS	FINISH COLOUR	SUPPLIER / NOTES	LOCATION	
	AMENITIES VANITY BENCHTOP (NO CUPBOARDS UNDER)	<u>VANITY BENCHTOP –</u> <u>20mm THICK SOLID SURFACE</u> – HYGIENIC & WATERPROOF EVOSTONE SCREW FIXED TO HOT DIPPED GALVANISED STEEL SUBFRAMING PAINTED BLACK WITH STEEL PAINT AS RECOMMENDED BY DULUX. MITRE EDGE OF PRODUCT WITH SLIGHT ARRIS AND POLISH. REFER TO MANUFACTURERS SPECIFICATION FOR DETAILS.		AVAILABLE FROM GALVINS	R-02	
					R-04	FEMALE AMENITIES
					R-05	MALE AMENITIES
	FIRST AID BENCHTOP & CUPBOARDS MEETING ROOM BENCHTOP & CUPBOARDS	<u>BENCHTOP –</u> <u>20mm THICK SOLID SURFACE</u> EVOSTONE – SOLID SURFACE PRODUCT: EVOSTONE CLASSIC RANGE COLOUR: “EVEREST”		AVAILABLE FROM GALVINS	R-02	
					R-31	FIRST AID ROOM
		<u>LAMINATED CUPBOARD DOORS, DRAWERS & KICKBOARD</u> LAMINEX STRUCTURAL MR E0 MDF – MOISTURE RESISTANT & IMPACT RESISTANT WITH A MELAMINE SURFACE BOTH SIDES LAMINATE: <u>SEASONED OAK</u> WITH MATCHING ABS EDGING. GRAIN OF LAMINATE TO RUN IN VERTICAL DIRECTION CUPBOARD DOORS TO BE LOCKABLE –		LAMINATE: LAMINEX SEASONED OAK <i>ALL CUPBOARDS DOORS AND DRAWERS TO BE SOFT CLOSING WITH HEAVY DUTY RUNNERS TO DRAWERS CUPBOARD DOORS & DRAWERS TO BE LOCKABLE</i>		
		CABINET DOOR PULLS ZANDA (OR EQUALLY APPROVED) STAINLESS STEEL D PULLS CODE 6100 128mm CENTRES / 138mm OVERALL LENGTH				
	JOINERY TO CLEANERS ROOM	<u>LAMINATED CUPBOARD DOORS, KICKBOARD</u> LAMINEX STRUCTURAL MR E0 MDF – MOISTURE RESISTANT & IMPACT RESISTANT WITH A MELAMINE SURFACE BOTH SIDES LAMINATE: <u>SEASONED OAK</u> WITH MATCHING ABS EDGING. GRAIN OF LAMINATE TO RUN IN VERTICAL DIRECTION CUPBOARD DOORS TO BE LOCKABLE –		LAMINATE: LAMINEX SEASONED OAK <i>ALL CUPBOARDS DOORS TO BE SOFT CLOSING AND TO BE LOCKABLE</i>	R-07	CLEANERS ROOM
		CABINET DOOR PULLS ZANDA (OR EQUALLY APPROVED) STAINLESS STEEL D PULLS CODE 6522 320mm CENTRES / 330mm OVERALL LENGTH				

JOINERY TO KIOSK			BEALE PARK SPORTING & COMMUNITY FACILITY			
CODE	DESCRIPTION	DETAILS	FINISH COLOUR	SUPPLIER / NOTES	LOCATION	
	KIOSK KITCHEN BENCHTOP & CUPBOARDS	STAINLESS STEEL BENCHTOPS & INTERNAL SHELVES IN LOWER BENCH CUPBOARDS TYPE 304 STAINLESS STEEL SATIN FINISH, REFER TO ARCHITECTURAL DRAWINGS AND ARCHITECTURAL SPECIFICATION FOR FULL DETAILS		TYPE 304 STAINLESS STEEL SATIN FINISH	R-19	KIOSK
		LAMINATED CUPBOARD DOORS OVER STAINLESS STEEL SUBFRAMING. LAMINATED CUPBOARD DOORS, DRAWERS LAMINEX STRUCTURAL MR E0 MDF – MOISTURE RESISTANT & IMPACT RESISTANT WITH A MELAMINE SURFACE BOTH SIDES LAMINATE: <u>SEASONED OAK</u> WITH MATCHING ABS EDGING. GRAIN OF LAMINATE TO RUN IN VERTICAL DIRECTION CUPBOARD DOORS TO BE LOCKABLE –		LAMINATE: LAMINEX SEASONED OAK ALL CUPBOARDS DOORS AND DRAWERS TO BE SOFT CLOSING WITH HEAVY DUTY RUNNERS TO DRAWERS CUPBOARD DOORS & DRAWERS TO BE LOCKABLE		
		CABINET DOOR PULLS ZANDA (OR EQUALLY APPROVED) STAINLESS STEEL D PULLS CODE 6100 128mm CENTRES / 138mm OVERALL LENGTH *CUPBOARD DOORS TO BE LOCKED – EACH CUPBOARD WITH DIFFERENT SET KEYS FOR EACH USER GROUP. *ALL CUPBOARDS AND DRAWERS TO BE SOFT CLOSING WITH HEAVY DUTY RUNNERS TO DRAWERS				

JOINERY TO BAR + JOINERY TO CLUB / FUNCTION ROOMS			BEALE PARK SPORTING & COMMUNITY FACILITY			
CODE	DESCRIPTION	DETAILS	FINISH COLOUR	CODE	LOCATION	
	INTERNAL SERVERY OPENING SURROUND FRAME	LAMINATED BOARD SURROUND FRAME WITH STAINLESS STEEL COUNTERTOP (SSCT) FRAME SURROUND: 18mm HMR MDF LAMINATED BOARD WITH MATCHING 1mm THICK MATCHING ABS EDGING SURROUND IN LAMINATE: LAMINEX BLACK NATURAL FINISH	 STAINLESS STEEL  BLACK LAMINATE	TYPE 304 STAINLESS STEEL SATIN FINISH LAMINATE: LAMINEX BLACK NATURAL FINISH	R-15	BAR 1
					R-16	BAR 2
	BAR BENCHTOPS & SHELVES UNDER	<u>STAINLESS STEEL BENCHTOPS</u> COUNTERTOP FINISH: TYPE 304 STAINLESS STEEL SATIN FINISH, ALL CORNERS WELDED AND POLISHED SMOOTH INTERNAL SHELVES : IN LOWER BENCH CUPBOARDS STAINLESS STEEL TYPE 304 STAINLESS STEEL SATIN FINISH <i>REFER TO ARCHITECTURAL DRAWINGS AND ARCHITECTURAL SPECIFICATION FOR FULL DETAILS</i>		TYPE 304 STAINLESS STEEL SATIN FINISH		

ALSO REFER TO WALL FINISHES FOR JOINERY CLADDING TO UNDERSIDE OF SERVERY BARS.

MOTORISED RETRACTABLE VISUAL SCREENS + WINDOW BLINDS				BEALE PARK SPORTING & COMMUNITY FACILITY			
CODE	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION	
MVS 01	AV SCREEN: MOTORISED VISUAL SCREENS	CONCEALED IN CEILING MOTORISED DROP DOWN VISUAL SCREEN <i>REFER TO AUDIOVISUAL SPECIFICATION - BUILDER TO INSTALL</i>			REFER TO AV SPECIFICATION	R-13	CLUB ROOM
						R-14	FUNCTION ROOM
BLINDS	GENERAL INFO INTERNAL WINDOW BLINDS	<u>TRANSLUCENT SINGLE ROLLER BLIND -SINGLE & DOUBLE WIDTHS</u> <u>ALL UPPER SECTION</u> OF GLAZING - EXTENT AS NOTED ON DRAWINGS TO HAVE MOTORISED BLINDS <u>ALL LOWER SECTION</u> OF GLAZING - EXTENT AS NOTED ON DRAWINGS TO HAVE MANUAL OPERATED BLINDS <u>NO BLINDS</u> TO EXTERNAL DOORS & HIGHLIGHT WINDOW ABOVE - ENSURE BLINDS TO WINDOWS ABOVE EXIT DOORS/HIGHLIGHT WINDOWS ARE MANUFACTURED TO <u>NOT EXTEND/DROP</u> BEYOND ALUMINIUM GLAZING FRAME & <u>OBSCURE EMERGENCY EXIT SIGNS</u> LOCATED IN THIS ZONE. REFER TO DRAWINGS FOR EXTENT & WIDTHS OF BLINDS	BLACK FABRIC ALL BLACK COMPONENTRY	 <u>NO BLINDS</u> TO EXTERNAL DOORS & HIGHLIGHT WINDOWS ABOVE DOORS	VEROSOL BLINDS		SEE BELOW
BLIND B01	INTERNAL <u>MOTORISED</u> ROLLER BLINDS SINGLE & DOUBLE WIDTHS	<u>MOTORISED OPERATION SYSTEM OVER EXTERNAL WINDOWS - UPPER SECTION OF GLAZING</u> SYSTEM: VEROSOL AMBIENCE MOTORISED 240 VOLT SINGLE BLIND FABRIC: VEROSOL 202 SILVERSCREEN PERFORMANCE SEMI TRANSPARENT 2% OPENNESS – COLOUR: BLACK 0050 BASE RAIL: FLAT BLACK ALUMINIUM COLOUR: ALL BLACK COMPONENTRY REMOTE CONTROL RTS	BLACK FABRIC ALL BLACK COMPONENTRY BLACK PELMET		VEROSOL BLINDS	R-02	
						R-03	CLUB OFFICE
						R-13	CLUB ROOM
						R-14	FUNCTION ROOM
BLIND B02	INTERNAL <u>MANUAL</u> ROLLER BLINDS SINGLE & DOUBLE WIDTHS	<u>MANUAL OPERATION TO WINDOWS – LOWER SECTION OF GLAZING</u> SYSTEM: VEROSOL AMBIENCE SINGLE MANUAL CHAIN OPERATED ROLLER WITH TENSIONER FABRIC: VEROSOL 202 SILVERSCREEN PERFORMANCE SEMI TRANSPARENT 2% OPENNESS – COLOUR: BLACK 0050 BASE RAIL: FLAT BLACK ALUMINIUM COLOUR: ALL BLACK COMPONENTRY	BLACK FABRIC ALL BLACK COMPONENTRY BLACK PELMET		VEROSOL BLINDS	R-02	
						R-03	CLUB OFFICE
						R-13	CLUB ROOM
						R-14	FUNCTION ROOM

CLEANER SHELVING				BEALE PARK SPORTING & COMMUNITY FACILITY			
CODE	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION	
1.0	SHELVING	<u>SHELVING IN CLEANERS ROOM</u> FRAME: PREFABRICATED ELECTRO GALVANISED METAL FRAME UNIT WITH ADJUSTABLE MESH SHELVING SUITABLE FOR CLEANING PRODUCT STORAGE. TOP SHELF TO BE MAX 1800mm HIGH 450mm DEEP X LENGTH TO FIT DEXION LONGSPAN 2 PC BEAMS & UPRIGHTS ZINC COATED MESH SHELVES (SHELF DECK) or equally approved	POWDERCOATED BEAMS & UPRIGHTS <i>with</i> ZINC COATED MESH SHELVES	 EXTENT OF LENGTHS AS PER ARCHITECTURAL DRAWINGS	DEXION		IN NOMINATED ROOMS CLIENT TO CONFIRM
2.0	OVERHEAD SHELVING	<u>OVERHEAD STAINLESS-STEEL WALL MOUNTED SHELVING</u> SS BRACKET SOLID WALL SHELF 1.2mm THICK SS BRACKETS WITH 1.2mm THICK SHELF WITH SAFETY EDGE. 300mm W x 900mm L REFER TO ARCHITECTURAL DRAWINGS	STAINLESS STEEL		SIMPLY STAINLESS OR EQUALLY APPROVED	R-07	CLEANER

KITCHEN / KIOSK – FITTINGS				BEALE PARK SPORTING & COMMUNITY FACILITY			
CODE	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION	
1.0	PAPER HAND TOWEL DISPENSER	<u>OPTION 1: KIMBERLY CLARK – PAPER TOWEL</u> PROFESSIONAL AQUARIUS OPTIMUM PAPER HAND TOWEL DISPENSER CODE: 70250 <i>LOCATED NEXT TO ALL SINKS AND HAND BASINS</i>	WHITE	KIMBERLY CLARK 		R-18	KITCHEN
		<u>OPTION 2: PAPER TOWEL DISPENSER</u> BTX-04-014 CONTOUR TYPE #304 STAINLESS STEEL SURFACE MOUNT / CONCEALED FIX SIZE: 348mm X H 280mm W X 125mm D INTERFOLD OR INTERLEAVED PAPER TOWELS	STAINLESS STEEL	BRITEX 		R-19	KIOSK
2.0	SOAP DISPENSER FOR HANDBASIN <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	<u>OPTION 1: KIMBERLY CLARK – SOAP DISPENSER</u> WHITE AQUARIUS HAND CLEANSING DISPENSER CODE: 69480 <i>LOCATED NEXT TO ALL SINKS AND HAND BASINS</i>	WHITE	KIMBERLY CLARK 		R-18	KITCHEN
		<u>OPTION 2: METLAM</u> ML6005_SS VERTICAL SOAP DISPENSER IN STAINLESS STEEL TYPE #304 STAINLESS STEEL SURFACE MOUNT / CONCEALED FIX / PLASTIC INNER BOTTLE LOCKABLE HINGED LID / PUSH UP SOAP DISPENSER 1000ml REMOVABLE RESERVOIR <i>A Commercial Grade Liquid Soap with a Viscosity range of 1,000 – 5,000 cps (centipoises) and a PH level between 6.50 – 9.00 should be used in this dispenser to ensure the dispenser performs at an optimal level.</i>	STAINLESS STEEL	METLAM 		R-19	KIOSK

EXTERNAL UAT / SHOWER – FITTINGS				BEALE PARK SPORTING & COMMUNITY FACILITY			
ITEM	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION	
1.0	ACCESSIBLE GRAB RAIL <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	BRITEX BACKREST + GRABRAILS VANDAL RESISTANT STAINLESS-STEEL BACKREST WITH 90° RHS GRAB RAIL SET CODE: BTX-BRC-R90 <i>BUILDER TO REFER TO ARCHITECTURAL DRAWINGS FOR CORRECT HANDING OF RAIL</i>	STAINLESS STEEL RAILS STAINLESS STEEL BACKREST	 FOR SS TOILET PAN	BRITEX	R-26	UAT / SHOWER 2 - EXTERNAL
2.0	ACCESSIBLE SHOWER GRAB RAIL <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	CUSTOM MADE BRITEX SHOWER GRABRAILS SATIN STAINLESS-STEEL FINISH 32mm DIAMETER WITH 60mm CLEARANCE BETWEEN GRAB & WALL CONCEALED MOUNTING FLANGES SNAP FLANGE COVERS LENGTH: <i>BUILDER TO REFER TO ARCHITECTURAL DRAWINGS FOR CORRECT HANDING OF RAIL</i>	STAINLESS STEEL	No image	BRITEX		
3.0	ACCESSIBLE FOLDING SHOWER SEAT <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	BRITEX ACCESSIBLE FOLDING SHOWER SEAT CODE: BTX-11-024 960mmL X 400mm W X 295mm H 13mm WHITE COMPACT LAMINATE SINGLE PIECE SEAT WITH DRAINAGE SLATS & WITH 25mm STAINLESS STEEL TUBING	WHITE SEAT SS TUBING		BRITEX		
4.0	ACCESSIBLE SHOWER CURTAIN TRACK <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	AL 16C CURTAIN TRACK SYSTEM 1600mm HIGH X 1200mm WIDTH ALUMINIUM ANODISED SHOWER TRACK CEILING SUPPORTS – (CUT TO SUIT) HOOKS INCLUDED & FLAME & MOULD RESISTANT CURTAINS INCLUDED	ANODISED ALUMINIUM		RYNAT		
5.0	SHOWER SOAP HOLDER <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	SURFACE MOUNTED SOAP DISH ML231S SOAP DISH WITH DRAIN SATIN STAINLESS STEEL FINISH	STAINLESS STEEL SATIN FINISH		BRITEX		

EXTERNAL UAT / SHOWER – FITTINGS				BEALE PARK SPORTING & COMMUNITY FACILITY			
ITEM	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION	
6.0	SOAP DISPENSER FOR HANDBASIN <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	OPTION 1: KIMBERLY CLARK STAINLESS STEEL HAND SOAP PROFESSIONAL SKINCARE DISPENSER CODE: 6341 SIZE: 264mm H X 124mm W X 129mm D	STAINLESS STEEL	KIMBERLY CLARK 		R-26	UAT / SHOWER 2 - EXTERNAL
		OPTION 2: METLAM ML6005_SS VERTICAL SOAP DISPENSER IN STAINLESS STEEL TYPE #304 STAINLESS STEEL SURFACE MOUNT / CONCEALED FIX / PLASTIC INNER BOTTLE LOCKABLE HINGED LID / PUSH UP SOAP DISPENSER 1000ml REMOVABLE RESERVOIR <i>A Commercial Grade Liquid Soap with a Viscosity range of 1,000 – 5,000 cps (centipoises) and a PH level between 6.50 – 9.00 should be used in this dispenser to ensure the dispenser performs at an optimal level.</i>	STAINLESS STEEL	METLAM 			
7.0	TOILET TISSUE HOLDER <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	STAINLESS STEEL DOUBLE ROLL TOILET PAPER DISPENSER BRITEX CODE: BTX-06-060 SIZE: 280mm W x 135mm H x 130mm D CONCEALED FIX HOLDS 2 X STANDARD TOILET ROLLS	STAINLESS STEEL	BRITEX 			
8.0	PAPER TOWEL DISPENSER <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	OPTION 1: KIMBERLY CLARK STAINLESS STEEL PROFESSIONAL OPTIMUM HAND TOWEL DISPENSER CODE: 4950	STAINLESS STEEL	KIMBERLY CLARK 			
		OPTION 2; PAPER TOWEL DISPENSER BTX-04-014 CONTOUR TYPE #304 STAINLESS STEEL SURFACE MOUNT / CONCEALED FIX SIZE: 348mm X H 280mm W X 125mm D INTERFOLD OR INTERLEAVED PAPER TOWELS	STAINLESS STEEL	BRITEX 			

EXTERNAL UAT / SHOWER – FITTINGS				BEALE PARK SPORTING & COMMUNITY FACILITY			
ITEM	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION	
9.0	SHELF <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	SHELF STAINLESS STEEL 304 GRADE BRUSHED SATIN FINISH WITH ANTI THEFT WALL FIXINGS 400mm LONG X 128mm WIDE	STAINLESS STEEL		BRITEX	R-26	UAT / SHOWER 2 - EXTERNAL
10.0	MIRROR <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	ANTI VANDAL MIRROR POLISHED 304 STAINLESS-STEEL MIRROR WITH NYLON BACKING IN STAINLESS STEEL CHANNEL FRAME PREDRILLED FIXING HOOKS AT CORNERS HEAVY-DUTY STAINLESS-STEEL SCREWS CODE: BTX-07-032 OVERALL DIMENSIONS: 450mm W X 1000mm H X 7.5mm D	STAINLESS STEEL POLISHED	 OVERALL DIMENSIONS: 450mm W X 1000mm H X 7.5mm D	BRITEX		
11.0	WALL HOOK <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	WALL HOOK BTX-10-034 CONCEALED FIXED SATIN FINISH ROBE HOOK 50mm X 50mm X 48mm D	STAINLESS STEEL SATIN FINISH		BRITEX		
12.0	BABY CHANGE TABLE <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	KOALA KARE BABY CHANGING STATION VERTICAL SURFACE MOUNTED MODEL: KB 301	GREY 01 POLY PROP		KOALABEAR SUPPLIERS		

INTERNAL UAT WITH SHOWER - FITTINGS				BEALE PARK SPORTING & COMMUNITY FACILITY			
ITEM	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION	
1.0	ACCESSIBLE TOILET GRAB RAIL <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	UNIVERSAL TOILET GRAB RAIL SS 90° FLUSH MOUNT WRAP AROUND GRAB RAIL (EITHER RH OR LH) CODE: BTR-01-034 LHS or BTR-01-036 RHS <i>BUILDER TO REFER TO ARCHITECTURAL DRAWINGS FOR CORRECT HANDING OF RAIL</i> OVERALL LENGTH 2125MM (CENTRE TO CENTRE AT ENDS) RAIL STANDOFF 60mm CONCEALED MOUNT FIXING 32mm DIAM X 1.2mm TYPE 304L STAINLESS STEEL WITH 75mm CONCEALED CLAM FLANGES	STAINLESS STEEL RAIL	 TO SUIT ENWARE IFO TOILET ONLY TO BE RESELECTED IF TOILET SELECTED BY HYDRAULIC CONSULTANT CHANGES	BRITEX	R-06	UAT / SHOWER 1 - INTERNAL
2.0	ACCESSIBLE SHOWER GRAB RAIL <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	CUSTOM MADE SHOWER GRABRAILS BRITEX SATIN STAINLESS-STEEL FINISH 32mm DIAMETER WITH 60mm CLEARANCE BETWEEN GRAB & WALL CONCEALED MOUNTING FLANGES SNAP FLANGE COVERS LENGTH: <i>BUILDER TO REFER TO ARCHITECTURAL DRAWINGS FOR CORRECT HANDING OF RAIL</i>	STAINLESS STEEL	No image	BRITEX		
3.0	ACCESSIBLE FOLDING SHOWER SEAT <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	ACCESSIBLE FOLDING SHOWER SEAT BRITEX CODE: BTX-11-024 960mmL X 400mm W X 295mm H 13mm WHITE COMPACT LAMINATE SINGLE PIECE SEAT WITH DRAINAGE SLATS & WITH 25mm STAINLESS STEEL TUBING	WHITE SEAT SS TUBING		BRITEX		

INTERNAL UAT WITH SHOWER - FITTINGS				BEALE PARK SPORTING & COMMUNITY FACILITY		
ITEM	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION
4.0	ACCESSIBLE SHOWER CURTAIN TRACK <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	AL 16C CURTAIN TRACK SYSTEM 1600mm HIGH X 1200mm WIDTH ALUMINIUM ANODISED SHOWER TRACK CEILING SUPPORTS – (CUT TO SUIT) HOOKS INCLUDED & FLAME & MOULD RESISTANT CURTAINS INCLUDED	ANODISED ALUMINIUM		RYNAT	R-06 UAT / SHOWER 1 - INTERNAL
5.0	SOAP DISPENSER FOR HANDBASIN <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	OPTION 1: KIMBERLY CLARK – SOAP DISPENSER WHITE AQUARIUS HAND CLEANSING DISPENSER CODE: 69480	WHITE		KIMBERLY CLARK	
		OPTION 2: KIMBERLY CLARK STAINLESS STEEL HAND SOAP PROFESSIONAL SKINCARE DISPENSER CODE: 6341 SIZE: 264mm H X 124mm W X 129mm D	STAINLESS STEEL		KIMBERLY CLARK	
6.0	TOILET TISSUE HOLDER <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	STAINLESS STEEL DOUBLE ROLL TOILET PAPER DISPENSER BRITEX CODE: BTX-06-060 SIZE: 280mm W x 135mm H x 130mm D CONCEALED FIX HOLDS 2 X STANDARD TOILET ROLLS	STAINLESS STEEL		BRITEX	
7.0	PAPER HAND TOWEL DISPENSER <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	OPTION 1: KIMBERLY CLARK – PAPER TOWEL PROFESSIONAL AQUARIUS OPTIMUM PAPER HAND TOWEL DISPENSER CODE: 70250	WHITE		KIMBERLY CLARK	
		OPTION 2: PAPER TOWEL DISPENSER BTX-04-014 CONTOUR TYPE #304 STAINLESS STEEL SURFACE MOUNT / CONCEALED FIX SIZE: 348mm X H 280mm W X 125mm D INTERFOLD OR INTERLEAVED PAPER TOWELS	STAINLESS STEEL			

INTERNAL UAT WITH SHOWER - FITTINGS				BEALE PARK SPORTING & COMMUNITY FACILITY			
ITEM	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION	
8.0	BABY CHANGE TABLE <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	<u>KOALA KARE BABY CHANGING STATION</u> VERTICAL SURFACE MOUNTED MODEL: KB 301	GREY 01 POLY PROP		KOALABEAR SUPPLIERS	R-06	UAT / SHOWER 1 - INTERNAL
9.0	MIRROR <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	<u>MIRROR WITHOUT SHELF SS FRAMED</u> SATIN FINISH 304 STAINLESS-STEEL CHANNEL FRAMED GLASS MIRROR WITH 6mm THICK SAFETY GLASS VINYL BACKED. PREDRILLED FIXING HOLES AT CORNERS HEAVY-DUTY STAINLESS-STEEL SCREWS CODE: BTX-07-031 O/A DIMENSIONS: 450mm W x 1000mm H x 7.5mm D	SATIN FINISH STAINLESS STEEL FRAME SAFETY GLASS	 O/A DIMENSIONS: 450mm W x 1000mm H x 7.5mm D	BRITEX		
10.0	WALL HOOK <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	<u>WALL HOOK</u> BTX-10-034 CONCEALED FIXED SATIN FINISH ROBE HOOK 50mm X 50mm X 48mm D	STAINLESS STEEL SATIN FINISH		BRITEX		
11.0	SHOWER SOAP HOLDER <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	<u>SURFACE MOUNTED SOAP DISH</u> ML231S SOAP DISH WITH DRAIN SATIN STAINLESS STEEL FINISH	STAINLESS STEEL SATIN FINISH		BRITEX		
12.0	HAND DRYER <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	<u>ASI JD MACDONALD</u> HDABWHTSG AUTOBEAM AUTOMATIC HAND DRYER – WHITE WITH SILVER GLOSS NOZZLE (HDABWHTSG)	WHITE		<u>ASI JD MACDONALD</u>		

GENERAL INTERNAL MALE & FEMALE AMENITIES + FIRST AID + UMPIRE - FITTINGS				BEALE PARK SPORTING & COMMUNITY FACILITY			
ITEM	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION	
1.0	ACCESSIBLE GRAB RAIL AMBULANT TOILET <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	<u>AMBULANT TOILET GRAB RAIL</u> TO BE SUPPLIED AND INSTALLED BY TOILET PARTITION COMPANY <i>TO BE PROVIDED WITH FULLY COMPLIANT GRABRAILS TO AUSTRALIAN STANDARDS AS1428.1-2009</i> NOTE: BUILDER TO INSTALL WALL MOUNTED MATCHING GRABRAIL IN AMBULANT CUBICLE	STAINLESS STEEL RAIL		TOILET PARTITION COMPANY	R-04	FEMALE AMENITIES
						R-05	MALE AMENITIES
						R-20	CHANGEROOM 1 SHOWER / TOILET AREA
						R-21	CHANGEROOM 2 SHOWER / TOILET AREA
						R-22	CHANGEROOM 3 SHOWER / TOILET AREA
						R-23	CHANGEROOM 4 SHOWER / TOILET AREA
						R-24	CHANGEROOM 5 SHOWER / TOILET AREA
						R-25	CHANGEROOM 6 SHOWER / TOILET AREA
						R-27	UMPIRE CHANGEROOM SHOWER / TOILET AREA
2.0	TOILET TISSUE HOLDER FOR ALL TOILETS INCLUDING AMBULANT TOILETS <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	<u>STAINLESS STEEL DOUBLE ROLL TOILET PAPER DISPENSER</u> BRITEX CODE: BTX-06-060 SIZE: 280mm W x 135mm H x 130mm D CONCEALED FIX HOLDS 2 X STANDARD TOILET ROLLS	STAINLESS STEEL		BRITEX	R-04	FEMALE AMENITIES
						R-05	MALE AMENITIES
						R-20	CHANGEROOM 1 SHOWER / TOILET AREA
						R-21	CHANGEROOM 2 SHOWER / TOILET AREA
						R-22	CHANGEROOM 3 SHOWER / TOILET AREA
						R-23	CHANGEROOM 4 SHOWER / TOILET AREA
						R-24	CHANGEROOM 5 SHOWER / TOILET AREA
						R-25	CHANGEROOM 6 SHOWER / TOILET AREA
						R-27	UMPIRE CHANGEROOM SHOWER / TOILET AREA

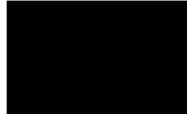
GENERAL INTERNAL MALE & FEMALE AMENITIES + FIRST AID + UMPIRE - FITTINGS				BEALE PARK SPORTING & COMMUNITY FACILITY				
ITEM	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION		
3.0	PAPER HAND TOWEL DISPENSER	<u>OPTION 1: KIMBERLY CLARK – PAPER TOWEL</u> PROFESSIONAL AQUARIUS OPTIMUM PAPER HAND TOWEL DISPENSER CODE: 70250	WHITE	KIMBERLY CLARK 		R-31	FIRST AID ROOM	
		<u>OPTION 2; PAPER TOWEL DISPENSER</u> BTX-04-014 CONTOUR TYPE #304 STAINLESS STEEL SURFACE MOUNT / CONCEALED FIX SIZE: 348mm X H 280mm W X 125mm D INTERFOLD OR INTERLEAVED PAPER TOWELS	STAINLESS STEEL	BRITEX 				
4.0	SOAP DISPENSER FOR HANDBASIN FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed	<u>OPTION 1: KIMBERLY CLARK – SOAP DISPENSER</u> WHITE AQUARIUS HAND CLEANSING DISPENSER CODE: 69480	WHITE	KIMBERLY CLARK 		R-04	FEMALE AMENITIES	
		<u>OPTION 2: METLAM</u> ML6005_SS VERTICAL SOAP DISPENSER IN STAINLESS STEEL TYPE #304 STAINLESS STEEL SURFACE MOUNT / CONCEALED FIX / PLASTIC INNER BOTTLE LOCKABLE HINGED LID / PUSH UP SOAP DISPENSER 1000ml REMOVABLE RESERVOIR <i>A Commercial Grade Liquid Soap with a Viscosity range of 1,000 – 5,000 cps (centipoises) and a PH level between 6.50 – 9.00 should be used in this dispenser to ensure the dispenser performs at an optimal level.</i>	STAINLESS STEEL	METLAM 		R-05	MALE AMENITIES	
						R-20	CHANGEROOM 1 SHOWER / TOILET AREA	
						R-21	CHANGEROOM 2 SHOWER / TOILET AREA	
						R-22	CHANGEROOM 3 SHOWER / TOILET AREA	
						R-23	CHANGEROOM 4 SHOWER / TOILET AREA	
						R-24	CHANGEROOM 5 SHOWER / TOILET AREA	
						R-25	CHANGEROOM 6 SHOWER / TOILET AREA	
						R-27	UMPIRE CHANGEROOM SHOWER / TOILET AREA	
		R-31	FIRST AID ROOM					

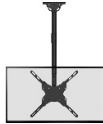
GENERAL INTERNAL MALE & FEMALE AMENITIES + FIRST AID + UMPIRE - FITTINGS				BEALE PARK SPORTING & COMMUNITY FACILITY			
ITEM	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION	
5.0	HAND DRYER <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	<u>ASI JD MACDONALD</u> HDABWHTSG AUTOBEAM AUTOMATIC HAND DRYER – WHITE WITH SILVER GLOSS NOZZLE (HDABWHTSG)	WHITE		<u>ASI JD MACDONALD</u>	R-04	FEMALE AMENITIES
						R-05	MALE AMENITIES
						R-20	CHANGEROOM 1 SHOWER / TOILET AREA
						R-21	CHANGEROOM 2 SHOWER / TOILET AREA
						R-22	CHANGEROOM 3 SHOWER / TOILET AREA
						R-23	CHANGEROOM 4 SHOWER / TOILET AREA
						R-24	CHANGEROOM 5 SHOWER / TOILET AREA
						R-25	CHANGEROOM 6 SHOWER / TOILET AREA
						R-27	UMPIRE CHANGEROOM SHOWER / TOILET AREA
6.0	MIRROR	<u>MIRROR SS FRAMED</u> SATIN FINISH 304 STAINLESS-STEEL CHANNEL FRAMED GLASS MIRROR WITH 6mm THICK SAFETY GLASS VINYL BACKED. PREDRILLED FIXING HOLES AT CORNERS HEAVY-DUTY STAINLESS-STEEL SCREWS CODE: BTX-07-019 O/A DIMENSIONS: 610mm X 1000mm	SATIN FINISH STAINLESS STEEL FRAME SAFETY GLASS	 O/A DIMENSIONS: 610mm X 1000mm	BRITEX	R-04	FEMALE AMENITIES
						R-05	MALE AMENITIES
						R-20	CHANGEROOM 1 SHOWER / TOILET AREA
						R-21	CHANGEROOM 2 SHOWER / TOILET AREA
						R-22	CHANGEROOM 3 SHOWER / TOILET AREA
						R-23	CHANGEROOM 4 SHOWER / TOILET AREA
						R-24	CHANGEROOM 5 SHOWER / TOILET AREA
						R-25	CHANGEROOM 6 SHOWER / TOILET AREA
						R-27	UMPIRE CHANGEROOM SHOWER / TOILET AREA
						R-31	FIRST AID ROOM

GENERAL INTERNAL MALE & FEMALE AMENITIES + FIRST AID + UMPIRE - FITTINGS				BEALE PARK SPORTING & COMMUNITY FACILITY				
ITEM	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER		LOCATION	
7.0	ALUMINIUM BENCH SEATING	<u>ALUMINIUM BENCH SEATING</u> DOUBLE PLANK (2 x 250mm planks) 500mm WIDE X 450mm HIGH MARINE GRADE ANODISED ALUMINIUM WITH SAFETY END CAPS & ROUNDED EDGES FRAME:316 STAINLESS STEEL FRAME BOLTED TO WALL WITH LEG SUPPORT FIXED TO GROUND.	ALUMINIUM		FELTON OR SIMILAR		R-20	CHANGEROOM 1
							R-21	CHANGEROOM 2
							R-22	CHANGEROOM 3
							R-23	CHANGEROOM 4
							R-24	CHANGEROOM 5
							R-25	CHANGEROOM 6
							R-27	UMPIRE CHANGEROOM
8.0	WALL HOOKS	<u>WALL HOOKS</u> MODEL: BTX-10-046 BRITEX CONSEALED SCREW FIXED SATIN FINISH STAINLESS STEEL WITH RUBBER BUMPER 52mmW X 150mm H X 84mm D INDIVIDUAL HOOKS SCREW FIXED TO TIMBER BACKING STRIP. JARRAH, CLEAR SEALED	STAINLESS STEEL SATIN FINISH		BRITEX		R-20	CHANGEROOM 1
							R-21	CHANGEROOM 2
							R-22	CHANGEROOM 3
							R-23	CHANGEROOM 4
							R-24	CHANGEROOM 5
							R-25	CHANGEROOM 6
							R-27	UMPIRE CHANGEROOM

CHANGEROOMS - TOILET + SHOWER PARTITIONS			BEALE PARK SPORTING & COMMUNITY FACILITY			
ITEM	DESCRIPTION	DETAILS + FINISH COLOUR	NOTES	SUPPLIER	LOCATION	
10.0	TOILET & SHOWER PARTITIONS	FULL SPECIFICATION TO BE PROVIDED TO ARCHITECT FOR APPROVAL	ALL EXTERNAL STAINLESS STEEL TO BE ELECTROPOLISHED	AQUALOO OR EQUALLY APPROVED		ALL ROOMS LISTED BELOW IN CHART
		<u>AQUALOO CONTEMPORARY OR EQUALLY APPROVED</u> TOILET & SHOWER PARTITIONING SYSTEM WITH CLEAR ANODISED ALUMINIUM ROUND HEADRAIL AND <u>COMPACT LAMINATE</u> CONSTRUCTION INCLUDING REBATE PROFILE – 1. HEIGHT OVERALL 2100MM HIGH BOTTOM OPENING NO HIGHER THAN 150MM IN HEIGHT 2. 13mm LAMINEX SELECTION COMPACT LAMINATE CONSTRUCTION WITH REBATE PRIVACY PROFILE SPLASH NIB AND SHOWER SEAT TO BE INCLUDED 3. <u>AMBULANT TOILET GRAB RAIL + HOOK</u> TO BE SUPPLIED & INSTALLED BY TOILET PARTITION COMPANY <u>SUPPLIER TO SUPPLY & INSTALL ALL AMBULANT TOILET GRABRAILS AND ACCESSORIES TO AS1428.1-2009</u>				
10.0.a	<u>CHANGE ROOMS</u> PARTITION WITH TOILETS & SHOWERS	1 X AMBULANT TOILET CUBICLE 1 X STANDARD TOILET CUBICLE 3 X SHOWERS WITH BENCH SEATS <u>SUPPLIER TO SUPPLY & INSTALL ALL AMBULANT TOILET GRABRAILS AND ACCESSORIES TO AS1428.1-2009</u>	COMPACT LAMINATE DOORS WITH REBATE & SHOWER BENCH SEAT: COLOUR: LAMINEX TORNADO COMPACT LAMINATE DIVISION WALLS & NIBS: COLOUR: LAMINEX SEASONED OAK		R-20	CHANGEROOM 1 SHOWER / TOILET AREA
					R-21	CHANGEROOM 2 SHOWER / TOILET AREA
					R-22	CHANGEROOM 3 SHOWER / TOILET AREA
					R-23	CHANGEROOM 4 SHOWER / TOILET AREA
					R-24	CHANGEROOM 5 SHOWER / TOILET AREA
					R-25	CHANGEROOM 6 SHOWER / TOILET AREA
10.0.b	<u>UNISEX UMPIRE CHANGEROOM ROOM</u> PARTITION WITH TOILETS & SHOWERS	1 X AMBULANT TOILET CUBICLE 1 X STANDARD TOILET CUBICLE 2 X SHOWERS WITH BENCH SEATS <u>SUPPLIER TO SUPPLY & INSTALL ALL AMBULANT TOILET GRABRAILS AND ACCESSORIES TO AS1428.1-2009</u>	COMPACT LAMINATE DOORS WITH REBATE & SHOWER BENCH SEAT: <u>COLOUR: LAMINEX TORNADO</u> COMPACT LAMINATE DIVISION WALLS & NIBS: <u>COLOUR: LAMINEX SEASONED OAK</u>		R-27	UMPIRE CHANGEROOM SHOWER / TOILET AREA

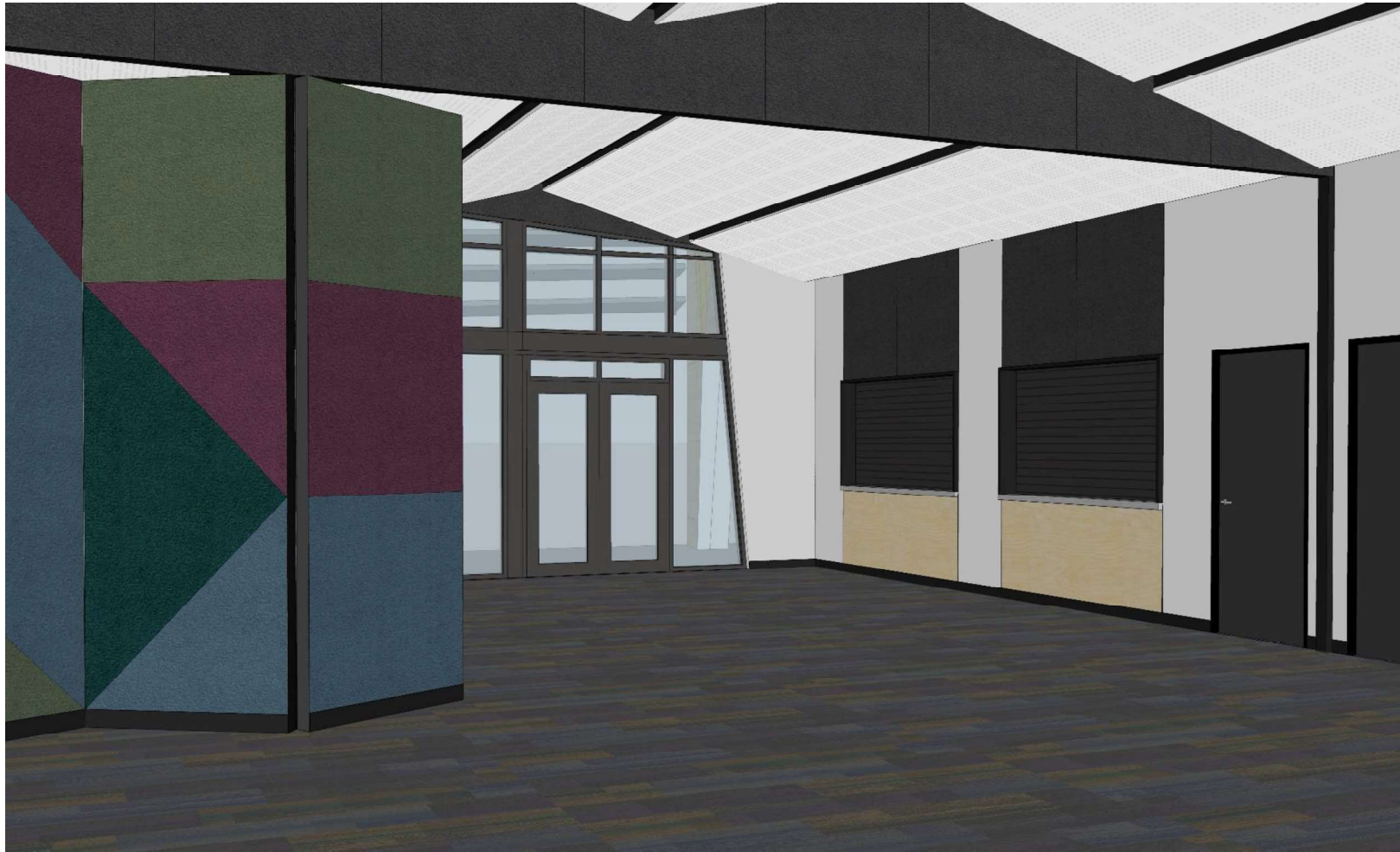
GENERAL AMENITIES - TOILET PARTITIONS				BEALE PARK SPORTING & COMMUNITY FACILITY		
ITEM	DESCRIPTION	DETAILS + FINISH COLOUR		NOTES	LOCATION	
10.0.c	MALE AMENITIES	1 X AMBULANT TOILET CUBICLE 1 X STANDARD TOILET CUBICLE		COMPACT LAMINATE DOORS WITH REBATE : <u>COLOUR: LAMINEX TORNADO</u> COMPACT LAMINATE DIVISION WALLS & NIBS: <u>COLOUR: LAMINEX SEASONED OAK</u>	R-05	MALE AMENITIES
	TOILET PARTITIONS	<u>SUPPLIER TO SUPPLY & INSTALL ALL AMBULANT TOILET GRABRAILS AND ACCESSORIES.TO AS1428.1-2009</u>				
	MALE AMENITIES	2 X URINAL PRIVACY PARTITIONS WALL MOUNT 900mm		COMPACT LAMINATE PRIVACY URINAL PARTITION: <u>COLOUR: LAMINEX SEASONED OAK</u>	R-05	MALE AMENITIES
	URINAL PARTITION	<u>SUPPLIER TO SUPPLY & INSTALL ALL ACCESSORIES.</u>				
10.0.d	FEMALE AMENITIES	1 X AMBULANT TOILET CUBICLE 3 X STANDARD TOILET CUBICLES		COMPACT LAMINATE DOORS WITH REBATE : <u>COLOUR: LAMINEX TORNADO</u> COMPACT LAMINATE DIVISION WALLS & NIBS: <u>COLOUR: LAMINEX SEASONED OAK</u>	R-04	FEMALE AMENITIES
	TOILET PARTITIONS	<u>SUPPLIER TO SUPPLY & INSTALL ALL AMBULANT TOILET GRABRAILS AND ACCESSORIES.TO AS1428.1-2009</u>				
ITEM	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION
11.0	ACCESSIBLE SHOWER GRAB RAIL <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	<u>CUSTOM MADE SHOWER GRABRAILS</u> BRITEX SATIN STAINLESS-STEEL FINISH 32mm DIAMETER WITH 60mm CLEARANCE BETWEEN GRAB & WALL CONCEALED MOUNTING FLANGES SNAP FLANGE COVERS LENGTH: <i>BUILDER TO REFER TO ARCHITECTURAL DRAWINGS FOR CORRECT HANDING OF RAIL</i>	STAINLESS STEEL	No image	BRITEX	R-20 CHANGEROOM 1 SHOWER / TOILET AREA R-21 CHANGEROOM 2 SHOWER / TOILET AREA R-22 CHANGEROOM 3 SHOWER / TOILET AREA R-23 CHANGEROOM 4 SHOWER / TOILET AREA R-24 CHANGEROOM 5 SHOWER / TOILET AREA
12.0	FOLDING SHOWER SEAT <i>FULLY COMPLIANT WITH AUSTRALIAN STANDARDS AS1428.1-2009 when correctly installed</i>	<u>FOLDING SHOWER SEAT</u> BRITEX CODE: BTX-11-023 355mmL X 315mm W X 205mm H 13mm WHITE COMPACT LAMINATE SINGLE PIECE SEAT WITH DRAINAGE SLATS & WITH 25mm STAINLESS STEEL TUBING FRAME	WHITE SEAT SS TUBING		BRITEX	R-25 CHANGEROOM 6 SHOWER / TOILET AREA R-27 UMPIRE CHANGEROOM SHOWER / TOILET AREA

LOOSE FURNITURE + NOTICEBOARD + WHITEBOARD				BEALE PARK SPORTING & COMMUNITY FACILITY			
ITEM	DESCRIPTION	DETAILS	FINISH COLOUR	IMAGE	SUPPLIER	LOCATION	
C	CHAIRS	STACKABLE NUMBERS TO BE CONFIRMED <i>ONE ADULT CHAIR PER SQUARE METRE IN FUNCTION ROOM</i>				R-13	CLUB ROOM
						R-14	FUNCTION ROOM
MCT	MOBILE CHAIR TROLLEY	ONE TROLLEY PER 100 CHAIRS				R-13	CLUB ROOM
						R-14	FUNCTION ROOM
T	FOLDING TABLES	LAMINATED FLIP TOP TABLES ON CASTORS NUMBERS TO BE CONFIRMED <i>TO SUIT NUMBER OF CHAIRS PLUS ADDITIONAL 2 X EXTRA TABLES</i>				R-13	CLUB ROOM
						R-14	FUNCTION ROOM
WB	WHITE BOARD	WHITE BOARD HEAVY DUTY WHITE PORCELAIN WHITEBOARD WITH CERAMIC STEEL SURFACE POWDERCOAT MATT BLACK FINISH FRAME SURROUND WITH CONCEALED FIXINGS TOTAL 1 X WHITE BOARD PER ROOM SIZE: TO BE CONFIRMED BY CLIENT	POWDERCOAT MATT BLACK FINISH FRAME SURROUND			R-02	
						R-03	CLUB OFFICE
						R-20	CHANGEROOM 1
						R-21	CHANGEROOM 2
						R-22	CHANGEROOM 3
						R-23	CHANGEROOM 4
						R-24	CHANGEROOM 5
						R-25	CHANGEROOM 6
						R-27	UMPIRE CHANGEROOM
NB	NOTICEBOARD / PINUP	NOTICE BOARD / PINBOARD AUTEX COMPOSITION ACOUSTIC FABRIC ON A SUITABLE MDF BACKING SUBSTRATE WITH A MATT BLACK POWDERCOATED ALUMINIUM ANGLE SQUARE EDGE FRAME SURROUND CONCEALED FIXINGS COLOUR OF FABRIC: NOIR DIMENSIONS: 900mm H x 1200mm L	BLACK ACOUSTIC FABRIC BACKING POWDERCOAT MATT BLACK FINISH FRAME SURROUND			R-01	MAIN ENTRY LOBBY

LED SCREENS + BRACKET FIXINGS + DISPLAY CABINETS + SHELVING				BEALE PARK SPORTING & COMMUNITY FACILITY			
LED	TV SCREEN	TO BE SELECTED NUMBERS TO BE CONFIRMED LED / BLUETOOTH / WITH TILT CAPABLE WALL BRACKET OR CEILING MOUNT POLE BRACKET FIXING – TO BE CONFIRMED BY CLIENT (FREE TO AIR PROGRAMS DIGITAL TROPHY DISPLAY)	BLACK BRACKET FIXING TO LED DISPLAY SCREENS			R-01	MAIN ENTRY LOBBY
						R-03	CLUB OFFICE
						R-13	CLUB ROOM
						R-14	FUNCTION ROOM
	WALL BRACKET FOR LED SCREEN	BUILDER TO SUPPLY ADDITIONAL STEEL SUBFRAMING TO REAR OF PLASTERBOARD “NICHE” IN WALLS TO WHICH THE LED TV SCREENS ARE TO BE MOUNTED. BUILDER TO INSTALL APPROPRIATE BRACKET FIXING AS SPECIFIED & SUPPLIED BY THE AV CONTRACTOR	BLACK BRACKET FIXING TO LED DISPLAY SCREENS			R-02	
						R-03	CLUB OFFICE
						R-01	MAIN ENTRY LOBBY
	CEILING HUNG POLE BRACKET FOR LED SCREEN	TO BE CONFIRMED BY CLIENT BUILDER TO INSTALL APPROPRIATE BRACKET FIXING AS SPECIFIED & SUPPLIED BY THE AV CONTRACTOR	BLACK BRACKET FIXING TO LED DISPLAY SCREENS			R-13	CLUB ROOM
						R-14	FUNCTION ROOM
S	HEAVY DUTY SHELVING	DEXION ULTIMA LONGSPAN DEPTH 450mm & 600mm HEIGHT 1800mm SHELVING WIDTH: REFER TO ARCHITECTURAL PLAN DRAWINGS PC STEEL SHELVES	COLOUR: FROM STANDARD RANGE		DEXION		CLIENT TO CONFIRM LOCATION

RETRACTABLE MOTORISED PROJECTOR SCREENS + OVERHEAD PROJECTOR				BEALE PARK SPORTING & COMMUNITY FACILITY			
LED	RETRACTABLE MOTORISED PROJECTOR SCREENS	TO BE CONFIRMED AND SELECTED BY CLIENT				R-13	CLUB ROOM
						R-14	FUNCTION ROOM
OP	OVERHEAD PROJECTOR SCREEN	TO BE CONFIRMED AND SELECTED BY CLIENT				R-13	CLUB ROOM
						R-14	FUNCTION ROOM

APPENDIX M



BEALE PARK REDEVELOPMENT

PROPOSED CLUB ROOM FACILITY - INTERNAL CLUB ROOM PERSPECTIVE FACING EAST



BEALE PARK REDEVELOPMENT

PROPOSED CLUB ROOM – EXTERNAL PERSPECTIVE OF NORTH-EAST VIEW

APPENDIX N

REPORT

BPA ENGINEERING

BEALE PARK REDEVELOPMENT SPEARWOOD

121239.01R01

May 2022





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FIGURE 1: TEST LOCATION PLAN

FIGURE 2: COLUMN LOAD VS SETTLEMENT PLOT BASED ON THE CPT RESULTS

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APPENDIX A: HAND AUGER, PSP TEST RESULTS AND PHOTOGRAPHS, CPT PLOTS

APPENDIX B: LABORATORY TEST CERTIFICATES



1 INTRODUCTION

This report presents the results of a geotechnical investigation carried out at Beale Park in Spearwood, WA. We understand from the project brief provided, that redevelopment of the existing Beale Park in Spearwood is proposed and will comprise:

- Construction of a new single storey centrally located Clubroom facility with six unisex change rooms and increased storage areas.
- Construction of a new car parking extension with 105 car park bays located in the northern portion of the site.
- Construction of seventeen (17) new light poles - 25 m high poles at the western soccer fields and 35 m high poles at the eastern soccer fields.

This investigation was carried out at the requested by BPA Engineering. Terms of reference for this investigation were provided in ATC Williams P/L (ATCW) proposal 121239.01P01 dated 7 December 2021. Authorisation to proceed with the investigation was received from Aaron Murray of BPA Engineering in an email dated 31 March 2022.

The objectives of this investigation were to ascertain the following:

- Subsurface conditions and groundwater levels (if encountered),
- Site classification in accordance with AS 2870 [1],
- Site subsoil classification in accordance with AS 1170.4 [2],
- Site preparation requirements (earthworks), construction considerations and suitability of the excavated material to be used as backfill,
- Foundation design criteria and advice on suitable foundation options including allowable bearing pressure and settlement estimates for the proposed building strip and pad footing design(s) and light pole footings,
- Subgrade CBR for flexible pavement design by others,
- Provide information on possible soil corrosion issues, and
- Soil permeability and suitability of site for on-site disposal of stormwater (if granular soils are encountered).

2 SITE DESCRIPTION AND GEOLOGY

The study site comprises existing playing fields and supporting infrastructure and is located in Spearwood, WA. The site is bounded by Spearwood Avenue to the south, Hamilton Street to the west, Kent Street to the north and Sussex Street to the east. The site has a total area of approximately 6 ha.

At the time of the investigation, the site was covered by grass and mature trees and occupied with an existing clubroom building located in the centre portion of the site. Two existing asphalt covered car parking areas were also located to the north adjacent to Kent Street and to the west adjacent to Hamilton Street. Two existing single storey community storage facility was also located to the north of the existing clubroom building.

The available geological map for the area indicates that the site is to be underlain by windblown sand derived from Tamala Limestone overlying shallow limestone.

The Perth Groundwater Atlases (1st and 2nd Editions [3, 4]) indicate groundwater levels at the site to be between 1.5 m AHD and 0.8 m AHD respectively.

The Perth Groundwater Atlas (Second Edition) indicates the site surface elevations to be approximately 4 m AHD.



3 FIELDWORK

3.1 Overview

The fieldwork comprised electric friction cone penetrometer (CPT) tests and hand auger (HA) boreholes throughout the site as presented on the Site Layout and Test Location Plan, **Figure 1**, attached.

The work was carried out on 11th & 14th April 2022 and details of the work carried out in each area of proposed development is presented below.

3.2 Proposed New Clubroom Building

In the area of the proposed New Clubroom building the following was carried out:

- Dial Before You Dig Search for the site, review of the existing site plans and engagement of a service locator to clear the proposed CPT, HA, and PSP testing location of any underground services,
- Three (3) hand auger boreholes advanced to depths of between 0.6 m (HA1) and 0.9 m (HA8 and HA9) – effective refusal to visually assess the subsurface conditions and obtain samples for laboratory testing,
- Three Perth Sand Penetrometer (PSP) tests, one adjacent to each borehole to depths of between 0.9 m and 1.05 m to determine the relative density of the subgrade.

3.3 Proposed Car Park Area

In the area of the proposed New Car Park the following was carried out:

- One (1) hand auger borehole (HA11) advanced to a depth of 1.8 m to visually assess the subsurface conditions and obtain samples for Standard Compaction and Soaked CBR laboratory testing,
- One (1) Perth Sand Penetrometer (PSP) test carried out adjacent to the borehole to a depth of 1.05 m to determine the relative density of the subgrade.

3.3 Proposed Light Poles

- Twenty (20) electric friction cone penetrometer (CPT) tests carried out, one at each light pole location to depths of between 1.29 m (CPT3) and 6.94 m (CPT12) – effective refusal on limestone,
- Eight (8) hand auger boreholes, carried out at selected light pole locations to depths of between 0.4 m (HA3) – effective refusal and 2.0 m (HA2, HA5 and HA10) to visually assess the subsurface conditions and obtain samples for laboratory testing at selected light pole locations, and
- Seven (7) Perth Sand Penetrometer (PSP) tests, one adjacent to each hand auger location to depths of between 0.6 m (HA5) and 1.05 m elsewhere to determine the relative density of the subgrade.

4 LABORATORY TESTING

The following laboratory tests were carried out on soil samples recovered from selected borehole and test pit locations across the site:

- | | |
|-----------------------------------|------|
| • Particle Size Distribution test | 2 no |
| • Standard Compaction | 1 no |
| • Soaked CBR at 98% SMDD | 1 no |
| • pH, Chloride and Sulphate | 1 no |

5 RESULTS OF THE INVESTIGATION

5.1 Detailed Results

The detailed results of the investigation are presented as follows:

- The Column Load vs Settlement Plot based on the CPT results is provided in **Figure 2**.
- The following is presented in **Appendix A**:
 - Borehole logs, photographs and PSP test results; and
 - CPT plots.
- The following is presented in **Appendix B**:
 - Laboratory test certificates.

5.2 Summary of Ground Conditions

5.2.1 Proposed Clubroom Building and Car Park area

- Topsoil:** Loose, fine and medium, grey/brown sand with silt was encountered all hand auger boreholes located within the Loose, fine and medium, grey/brown sand with silt was encountered all hand auger boreholes located within the proposed new building and car parking area to depths of between 0.1 m (HA9) and 0.2 m (HA11).
- Fill:** A layer of medium dense and dense fine and medium orange/brown sand/fill with limestone gravel and silt was encountered beneath the topsoil in all hand auger boreholes across the proposed building and car parking area to depths of between 0.5 m (HA1) and 1.3 m (HA11). The same material encountered in HA1 contained small pockets of clay between 0.2 m and 0.3 m depth.
- Sand:** Dense, fine and medium, orange sand with silt was encountered in all exploratory borehole across the proposed building and car parking area beneath the sand/fill layer to depths of between 0.55 m (HA1) and 1.5 m (HA11).
- Limestone:** Weakly cemented, cream, dry/moist limestone was encountered below the sand layer in all boreholes across the proposed building area to depths of between 0.6 m (HA1) and 0.9 m (HA8 and HA9). Hand auger refusal was met at these depths on hard limestone.
- Groundwater:** Groundwater was not encountered during the investigation in any of the hand auger boreholes located at these portions of the site.

5.2.2 Proposed Light Poles

- Topsoil:** Loose, fine and medium, grey/brown sand with silt was encountered all hand auger boreholes located at selected light pole locations, in the area of the western and eastern soccer fields, to depths of between 0.15 m (HA3) and 0.1 m (HA2 – HA12).
- Fill:** A layer of medium dense and dense fine and medium orange/brown sand/fill with limestone gravel and silt was encountered beneath the topsoil in all hand auger boreholes located at light pole locations to depths between 0.25 m (HA3) and 0.6 m (HA12).
- The CPT probes carried out at each light pole location indicate the presence of dense and very dense sand/fill with gravel to depths of between 0.3 m (CPTs 10-CPT 17a) and 0.9 m (CPT2).
- Sand:** Dense, fine and medium, orange sand with silt was encountered in all exploratory boreholes located at the selected light pole locations beneath the sand/fill layer to depths of between 0.35 m (HA3) and 2.0 m (HA2, HA5 and HA10).
- This material was also identified from the CPT plots and was generally medium dense



and dense to depths of between 0.5 m (CPT5) and approximately 2.4 m (CPT17a).

The sand encountered below 2.4 m in CPT4, 2.9 m in CPT7, 3.0 m in CPT 16, and 3.2 m in CPT12 and 15m) in CPT4 became loose at depths of between 3.1 m in CPT17a and CPT7 and 3.5 m and 5.4 m in CPTs 16 and 15 approximately after that to a full exploration depth. This density profile is typical of windblown sand infill to hollows between limestone pinnacles.

Limestone: Weakly cemented, cream, dry/moist limestone was encountered below the sand layer in all boreholes at selected light pole locations to depths of between 0.4 m (HA3) and 1.2 m (HA12).

An irregular subsurface profile of hard, weathered limestone was identified in all CPT probes CPT probes located at each light pole locations at depths of between 0.7 m (CPT8a) and 6.9 m (CPT12). Most of the probes terminated by refusal within 0.5 m of the rock surface. However, the CPT probes (CPT5, 6, 9 12, 14, 15, 16, 17) penetrated through the weathered limestone to a termination depth of between 1.76 m (CPT17) and 6.9 m (CPT12). The shallowest sub-crop was identified at 0.7 m depth at CPT 8a located at the southwest corner of the site and 1.3 m depth at CPT3 located in the centre portion of the site.

Groundwater: Groundwater was encountered during the investigation in CPT5, 6, 7, 9, 10, 12,15, 16 and 17a at depths of between 1.85 m (CPT5) and 2.15 m (CPT9) bgl (below ground level). This corresponds to elevations of between approximately 0.6 m - 0.9 m AHD.

The encountered subsurface conditions across the site were very uniform and consistent with the published geology map for the area.

6 LABORATORY TEST RESULTS

Selected soil samples recovered from selected hand auger boreholes were submitted for laboratory classification testing.

The results of particle size testing are shown in **TABLE 1**.

TABLE 1: PARTICLE SIZE TEST RESULTS

Location	Depth (m)	% Fine	% Sand	% Gravel	USC Class
HA02	1.0 – 2.0	5	95	-	SP
HA12	0.15 – 0.4	7	93	-	SP-SM

The results of compaction and soaked CBR testing are summarised in **TABLE 2**.

TABLE 2: COMPACTION AND SOAKED CBR

Location	Depth (m)	CBR* (%)	SMDD (t/m ³)	OMC (%)	USC Class
HA12	0.15 – 0.4	30	1.84	11.5	SP-SM

*98% SMDD

A soil sample obtained from HA12 (0.15 - 0.4m) was assessed for the purpose of soil exposure classification with respect to concrete durability.

The results of pH, SO₄ and Cl are summarised in **TABLE 3** below.

**TABLE 3: SOIL PH, SULFATE AND CHLORIDE CONTENT**

Hole ID	Depth (m)	pH	Sulfates SO ₄ (mg/kg)	Chloride Cl (mg/kg)	Soil Conditions
HA12	0.15 – 0.4	9.0	12	29	A1

7 CONCLUSIONS AND RECOMMENDATIONS

7.1 Site Classification

After site preparations are carried out in accordance with **Section 7.2**, the site is considered to be a **Class A** site in accordance with AS 2870-2011 [1].

The site sub-soil class is **Ce** (shallow soil site) in accordance with AS 1170.4-2007 [2].

7.2 Site Preparation and Construction Considerations

The following site preparation works are recommended to render the site suitable for the proposed development. Earthworks should be carried out in accordance with AS 3798 [6].

- Prior to site preparation earthworks commencing, the site of the proposed Clubroom building should be striped of asphalt, fill material, and any other unsuitable material and removed from site. All footings, leach drains, septic tanks, hardstand, soakwells, trees, and any other unsuitable material should also be excavated and removed from site.
- Light poles with pad footings founded at a minimum of 1 m depth, should be excavated to the underside of footing depth.
- The stripped areas should be proof compacted to a dry density ratio of at least 95% relative to Standard Maximum Dry Density (SMDD) in accordance with AS 3798 [6]. Any excavations to remove trees and tree roots should be backfilled with clean sand fill and also compacted to a minimum of 95% SMDD in accordance with AS 3798-2007 [6].
- The sand fill material encountered at the site (excavated for light pole locations or similar) is considered suitable for reuse. If the material is excavated it should be stockpiled separately for later use if required, subject to additional site inspection and additional laboratory testing.
- Any imported sands used to make up site levels should be clean with less than 5% fines and be free of oversize (material greater than 50 mm diameter). The sand fill should be placed in loose layers not exceeding 300 mm thickness and compacted to at least 95% SMDD in accordance with AS3798 [6].
- It is recommended that site preparation earthworks compaction is verified by Perth Sand Penetrometer (PSP) testing prior to footing construction, with the aim of meeting or exceeding 7 blows/300 mm in the depth range 150 mm to 450 mm below the compacted surface beneath the underside of the footings
- The site is generally suitable to support a slab on ground or shallow pad and strip footings of the single storey Club Room building, however, to avoid footings being founded partly on limestone and partly on sand, the following recommendations are made:
 - Assuming a limited number of limestone pinnacles and mostly sand:
 - Removal of limestone pinnacles with over excavation to 0.3 m (minimum) below footing level and replacement of backfill zone with compacted sand. This will minimize the possible differential settlements between footings placed on sand

and footings placed on rock (limestone).

- Assuming mostly limestone and limestone pinnacles with limited zones of sand:
- Excavate footings to limestone throughout, with removal of sand zones between limestone areas, and use blinding concrete to backfill deeper zones of loose sand between limestone, so as to prepare a zone of uniform support and depth for the subsequent standard footing preparation supported on limestone

7.3 Foundation Design

7.3.1 Proposed Clubroom Facility

Founding conditions at the proposed Clubroom are generally expected to comprise well compacted sand overlying shallow limestone. Provided the site preparation works detailed in **Section 7.2** are implemented, allowable bearing pressures of not greater than 150 kPa are considered appropriate for slab on ground edge beams and/or strip or pad footings associated with standard footing designs presented in AS2870-2011 [1]. Footing settlements are anticipated to be less than 10 mm.

In all instances, the base of footing excavations should be proof compacted using a plate compactor prior to the footing construction.

7.3.2 Proposed Light Poles

Assuming a minimum typical founding depth of 1 m for the light pole foundation bases, materials at footing level are expected to comprise limestone or Tamala Sands.

The majority of CPT probes indicate the Tamala sands to be dense, however CPT's 7,12,15,16 and 17 indicate the presence of weaker soil layers (loose sand) at depths typically below 2.4 m. Recorded tip resistances were between 0.3 MPa and 3.5 MPa.

Having completed the site preparation works detailed in **Section 7.2**, materials at foundation level should comprise either; proof compacted sand/fill, limestone or limestone with blinding concrete.

For footings constructed in sand/fill, allowable bearing pressures will generally be determined by settlement considerations. Empirical multipliers are applied to the CPT tip resistance to derive an estimate of elastic modulus for settlement estimation. Typically, a multiplier of 5 to 8 is applied to qc values in sands; however, it has been shown by seismic profiling and back analysis [7] that for the apparently loose layer of Tamala sand close to the underlying limestone, significantly higher multipliers are valid. This is inferred to be indicative of the effects of weak carbonate cementation between sand grains in otherwise fines depleted (winnowed) dune deposits.

For the purpose of settlement estimation, modulus multipliers of 6 and 15 have been adopted for the medium dense/dense sands and the loose sands respectively.

Figure 2 provides an indication of predicted pad footing settlements for various applied loads and bearing pressures for the conditions identified at CPT15.

In order to maintain foundation settlements within tolerable limits (<20 mm), allowable bearing pressures not greater than of 150 kPa are considered appropriate for the site. This assumes a minimum footing embedment depth of 1 m.

In all instances the base of footing excavations should be proof compacted using a plate compactor prior to footing construction. It is also recommended that the backfill over the pad footings is also compacted to at least 95% SMDD to aid footing support.



If pile footings are proposed for the site, it is recommended that location specific designs should be prepared by specialized piling contractors using the location specific CPT results presented in **Appendix A** of this report.

7.4 Subgrade CBR for Pavement Design

Following the completion of the site preparation work detailed in Section 7.2, subgrade is expected to comprise compacted sand or sand fill. For in-situ sands and sand fill proof compacted to at least 98% SMDD, a CBR value of 15% is considered appropriate pavement design.

7.5 Stormwater Drainage

Conventional soakwell drains or stormwater detention basins are expected to be suitable for the site conditions comprising deeper sands and limestone. In areas where shallow limestone or cap rock is present, soakwell bases should be over-excavated (as far as practical) at least approximately 0.5 m below the soakwell sump level, with the over-excavated zone backfilled with suitable coarse aggregate (blue metal or similar). Based on empirical correlation with sample particle size distribution data, a permeability in the order of 1×10^{-4} m/s is estimated for soakage in the orange sands encountered at the site.

Soakwells should be placed as far as possible from foundations. Exact distances will depend on depth of footings and soakwells but generally a line drawn downward and outward at a slope of 1H:1V from footing edges should not intersect a soakwell.

The design of soakwells should consider the possible reduction in infiltration due to clogging effects over time.

7.6 Exposure Classification

Chemical analysis of a sand sample was undertaken to determine the site exposure classification in accordance with AS 3600 [7]. Based on the test results, non-aggressive conditions are inferred and an exposure classification of **A1** is considered satisfactory for concrete buried within approximately 0.6 m of the site surface, refer to **Appendix B**.

7.7 Additional Site Inspections

It is recommended that a geotechnical engineer inspect the site during the site preparation works to ensure that the recommendations outlined in **Section 6.2** of this report are fully implemented.

8 CLOSURE

Your attention is drawn to the “Conditions of Investigation and Report” which are presented at the end of this report.



REFERENCES

- [1] AS 2870 (2011): Residential Slabs and Footings – Construction.
- [2] AS 1170.4 (2007): Structural Design Actions Part 4: Earthquake Actions in Australia.
- [3] Geological Survey of Western Australia. 1:100,000 Environmental Geology Series, Fremantle Sheet.
- [4] Water and Rivers Commission (1997): Perth Groundwater Atlas (1st Edition).
- [5] Department of Environment (200): Perth Groundwater Atlas (2nd Edition).
- [6] AS 3798 (2007): Guidelines on earthworks for commercial and residential development.
- [7] AS 3600 (2018): Concrete Structures.



CONDITIONS OF REPORT

1. This report must be read in its entirety.
2. This report has been prepared by ATCW for the purposes stated herein and ATCW's experience, having regard to assumptions that can reasonably be expected to make in accordance with sound professional principles. ATCW does not accept responsibility for the consequences of extrapolation, extension or transference of the findings and recommendations of this report to different sites, cases, or conditions.
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CONDITIONS OF GEOTECHNICAL INVESTIGATION

1. Geotechnical site investigation necessarily involves the investigation of the subsurface conditions at a site at a few isolated locations, and the interpretation and extrapolation of those conditions to elsewhere on the site not so investigated. This procedure has been adopted at the site that is the subject of this report and due care and skill has been applied in carrying out and reporting on the work. Thus, the findings, conclusions and comments contained in this report represent professional estimates and opinions and are not to be read as facts unless the context makes it clear to the contrary. In general, statements of fact are confined to statements as to what was done and/or what was observed. Other statements have been based on professional judgement.
2. The scope of the work has been planned in the absence of any fore knowledge of the site other than that stated in the report. Unless otherwise stated we consider that the number of locations investigated and the depths to which they have been investigated are reasonable bearing in mind the scale and nature of the project, and the defined purpose for which the investigation was undertaken.
3. We do not accept any responsibility for any variance between the interpreted and extrapolated conditions and those that are revealed by any means subsequently. Specific warning is also given that many factors, either natural or artificial, may render ground conditions different from those which pertained at the time of the investigation. Should there be revealed during the construction or at any other time any apparent difference from subsurface conditions described or assessed in this report, it is strongly recommended that such differences be brought to our attention so that its significance may be assessed, and appropriate advice given.



FIGURES

FILE: E:\ATC\2021\121239 BEALE PARK REDEVELOPMENT, SPEARWOOD\01 SITE INVESTIGATION\CADD\121239.01 SITE PLAN.DWG



LEGEND:

- CPT LOCATION
- HAND AUGER LOCATION

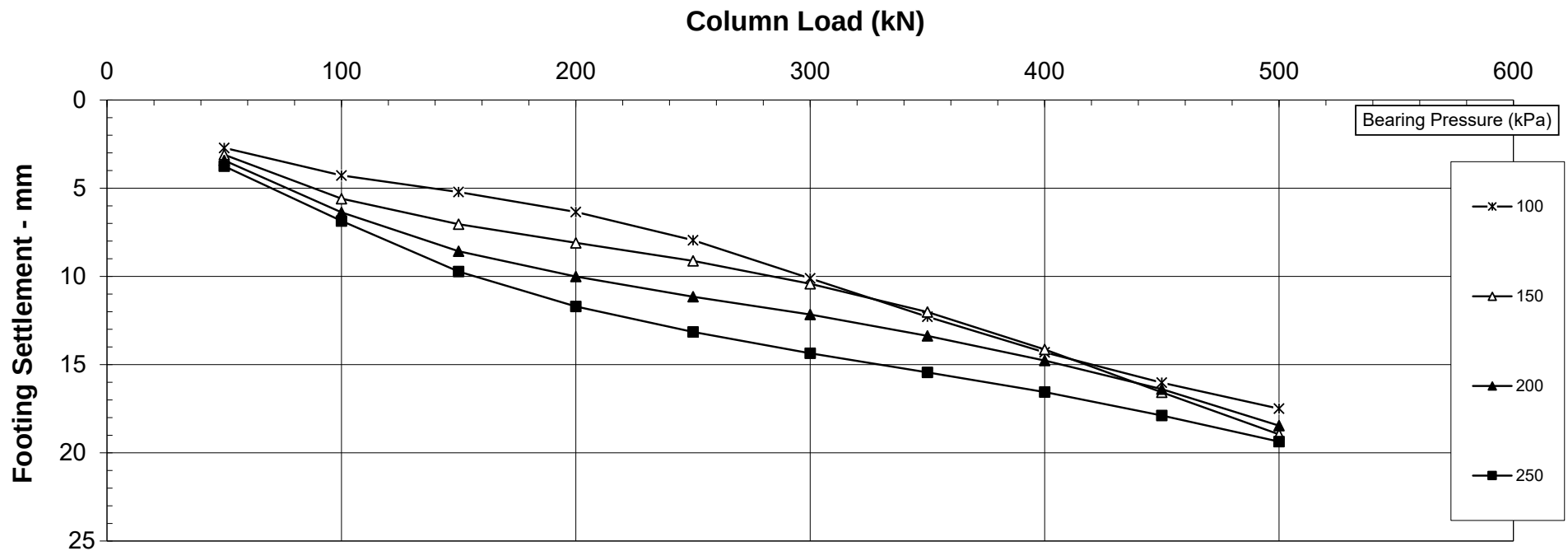
**Beale Park Redevelopment
Spearwood**

Site Layout and Test Location Plan

JOB No. 121239.01	REV No. 0	FIGURE 1
-------------------	-----------	----------

				SHEET OF		A.B.N. 64 005 931 288		www.atcwilliams.com.au	
				SHT SIZE					
				SCALE		1:2500			
				DATE	22/4/22				
				DESIGN					
				DRAWN	CJ				
				CHECKED	ZK				
REV	DESCRIPTION	DATE	DRWN	CHCK	APPROVED	PR	Perth T +61 8 9213 1600		perth@atcwilliams.com.au

Pad Footing Settlement for Various Column Loads and Bearing Pressures



Notes: The settlements are based on the Schmertmann calculation method
 Based on the cone resistance data from CPT 15
 The footing founding depth is 1m
 The footing aspect ratio is constant for all footings ($L/B = 1$)

E:\ATC\2021\121239 Beale Park Redevelopment, Spearwood\01 Site Investigation\Data and Calcs\[Schmertmann Settlement Calculation - Electronic Data Entry 15 (1).xslm]Column Load



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Beale Park Redevelopment

Date: 6/05/2022

Job No: 121239.01

FIGURE 2



APPENDICES



APPENDIX A – FIELD LOGS, PSP TEST RESULTS and CPT RESULTS

SOIL DESCRIPTION AND CLASSIFICATION NOTES AND ABBREVIATIONS USED ON LOGS

FIGURE A1

IDENTIFICATION AND CLASSIFICATION

GW		Well graded gravels, gravel sand mixtures, less than 5% fines
GP		Poorly graded gravels, gravel sand mixtures, less than 5% fines
GM		Silty gravels, gravel sand silt mixtures, 12-35% non-plastic fines
GC		Clayey gravels, gravel sand clay mixture, 12-35% plastic fines
SW		Well graded sands, gravelly sands, less than 5% fines
SP		Poorly graded sands, gravelly sands, less than 5% fines
SM		Silty sand, sand silt mixtures, 12-35% non-plastic fines
SC		Clayey sand, sand clay mixtures, 12-35% plastic fines
ML		Inorganic silts, very fine sands, rock flour, silty or clayey fine sands
CL-ML CL CI		Inorganic clays of low to medium plasticity, gravelly, sandy or silty clays, lean clays
OL		Organic silts and silty clays of low plasticity
MH		Inorganic silts, micaceous or diatomaceous fine sands or silts, plastic silts
CH		Inorganic clays of high plasticity, fat clays
OH		Organic clays of medium to high plasticity
Pt		Peat, highly organic soils
-		Fill
-		Topsoil

PARTICLE SIZE

Clay	Silt	Sand	Gravel	Cobbles	Boulders
	0.002	0.06	2	60	200
Particle size (mm)					
NOTE: 0.06 mm is about the smallest particle size visible to the naked eye. The 0.075mm sieve is used to represent this size in the laboratory.					

CONSISTENCY OF COHESIVE SOILS

Classification	Undrained shear strength (kPa)
Very soft	Less than 12.5
Soft	12.5 - 25
Firm	25 - 50
Stiff	50 - 100
Very stiff	100 - 200
Hard	More than 200

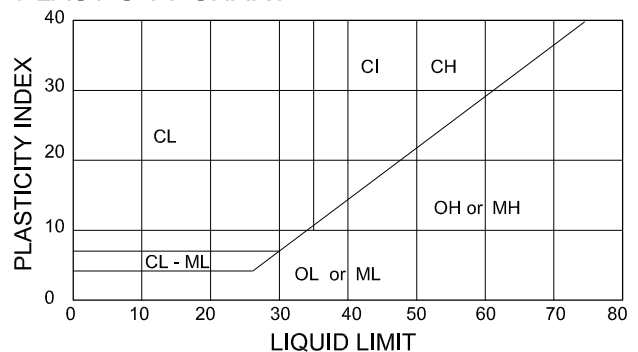
CONSISTENCY OF COHESIONLESS SOILS

Classification	Relative density (%)
Very loose	Less than 15
Loose	15 - 35
Medium dense	35 - 65
Dense	65 - 85
Very dense	More than 85

MOISTURE CONDITION OF COHESIVE SOILS

Symbol	Description
W	Field moisture content
W _p	Plastic limit

PLASTICITY CHART



NOTE: If in-situ tests and/or laboratory tests are not shown on the borelogs, classifications and descriptions are based on field identification procedures (AS 1726, Appendix A) including the use of pocket penetrometer for the fine grained soils, and on the ease and stability of drill holes or excavations in coarse grained soils.

NOTES AND ABBREVIATIONS

Sample Type	DS	Disturbed sample.
	BS	Bulk sample from excavation eg. Test pit.
	SPT	Standard Penetration Test sample. Open split tube, 51mm outside diameter.
	U (38,50,64)	Open tube sample of nominated diameter 38mm, 50mm or 64mm.
	NMLC	Core from a triple tube barrel, 52mm diameter.
	RC	Rock core.
Field Tests	SPT	N = the number of blows of a 63.5 kg hammer dropping 760mm required to drive the split tube sampler 300mm. If less than 300mm can be driven the blows and penetration achieved are noted.
	DCPT	Dynamic Cone Penetrometer Test. A 19mm pointed rod driven into the ground by a 9 kg hammer falling 508mm. The number of blows per 50mm penetration is recorded.
Sample Condition		Undisturbed
		Disturbed
		Sample lost. (For core runs it may not be clear where the loss occurred in the run. In these cases the total loss is shown at the bottom of the run.)
Groundwater		Observed groundwater level.
		Groundwater not observed means that the natural standing groundwater level was not or could not be measured, possibly due to a caving hole or to the use of wash water during the drilling operations.
		Groundwater not encountered means that the hole was dry after drilling.

ATC Williams



CLIENT BPA Engineering

JOB NAME Beale Park Redevelopment

JOB NUMBER 121239.01

JOB LOCATION SPEARWOOD

DATE 14-4-22

LOGGED BY CJ

CHECKED PR

R.L. SURFACE 4

DATUM AHD

EQUIPMENT Hand Auger

LOCATION 384618E 6447498.6N

REMARKS

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description: Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition	Sample Type	Sample condition	Perth Sand Penetrometer No. of blows for depth indicated by bar thickness
									0 3 6 9 12 15
	Not encountered				SP-SM	TOPSOIL Loose, fine and medium, grey brown sand with silt, moist/dry			
		3.5	0.5		SP-SM	FILL Dense, fine and medium, orange/brown with limestone gravel and silt, dry/moist with clayey sand pockets between 0.2 and 0.3 m			
					SP-SM	SAND Dense, fine and medium, orange with silt, dry/moist			
					SP	LIMESTONE Well cemented, cream, dry/moist Hand auger HA1 terminated at 0.6m			
		3.0	1.0						
		2.5	1.5						
		2.0	2.0						
		1.5	2.5						



CLIENT BPA Engineering

JOB NAME Beale Park Redevelopment

JOB NUMBER 121239.01

JOB LOCATION SPEARWOOD

DATE 14-4-22

LOGGED BY CJ

CHECKED PR

R.L. SURFACE 4

DATUM AHD

EQUIPMENT Hand Auger

LOCATION 384395E 6447681.7N

REMARKS

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description: Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition	Sample Type	Sample condition	Additional Observations
Not encountered		3.5	0.5		SP-SM	TOPSOIL Loose, fine and medium, grey brown sand with silt, moist/dry			
					SP-SM	FILL Medium dense, fine and medium, grey and orange with silt and limestone gravel, dry/moist			
					SP-SM	SAND Dense, fine and medium, orange with silt, dry/moist			
		3.0	1.0	with limestone gravel from 1 m					
		2.5	1.5						
		2.0	2.0	Hand auger HA10 terminated at 2m					
		1.5	2.5						

CLIENT BPA Engineering

JOB NAME Beale Park Redevelopment

JOB NUMBER 121239.01

JOB LOCATION SPEARWOOD

DATE 14-4-22

LOGGED BY CJ

CHECKED PR

R.L. SURFACE 4

DATUM AHD

EQUIPMENT Hand Auger

LOCATION 384723.9E 6447624.5N

REMARKS

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description: Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition	Sample Type	Sample condition	Perth Sand Penetrometer No. of blows for depth indicated by bar thickness
					SP-SM	TOPSOIL Loose, fine and medium, grey brown sand with silt, moist/dry			
					SP-SM	FILL Loose, fine and medium, grey and gery brown with silt and limestone gravel, dry/moist			
	Not encountered	3.5	0.5			medium dense			
		3.0	1.0						
		2.5	1.5		SP-SM	SAND Medium dense, fine and medium, orange with silt, dry/moist			
		2.0	2.0			Hand auger HA11 terminated at 1.8m			
		1.5	2.5						



CLIENT BPA Engineering

JOB NAME Beale Park Redevelopment

JOB NUMBER 121239.01

JOB LOCATION SPEARWOOD

DATE 14-4-22

LOGGED BY CJ

CHECKED PR

R.L. SURFACE 4

DATUM AHD

EQUIPMENT Hand Auger

LOCATION 384382.3E 6447394.3N

REMARKS

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description: Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition	Sample Type	Sample condition	Perth Sand Penetrometer No. of blows for depth indicated by bar thickness
									0 3 6 9 12 15
					SP-SM	TOPSOIL Loose, fine and medium, grey brown sand with silt, moist/dry			
					SP-SM	FILL Medium dense, fine and medium, grey and grey brown with silt and limestone gravel, dry/moist			
	Not encountered	3.5	0.5						
					SP-SM	SAND Dense, fine and medium, orange with silt, dry/moist			
		3.0	1.0						
					SP	LIMESTONE Weakly cemented, cream, dry/moist Hand auger HA12 terminated at 1.2m			
		2.5	1.5						
		2.0	2.0						
		1.5	2.5						



JOB LOCATION SPEARWOOD

DATUM AHD

LOCATION 384683E 6447537.9N

REMARKS

2020 TEST PIT 121239.01.GPJ GINT AUSTRALIA.GDT 8-5-22

CLIENT BPA Engineering

JOB NAME Beale Park Redevelopment

JOB NUMBER 121239.01

JOB LOCATION SPEARWOOD

DATE 14-4-22

LOGGED BY CJ

CHECKED PR

R.L. SURFACE 4

DATUM AHD

EQUIPMENT Hand Auger

LOCATION 384392.8E 6447287.3N

REMARKS

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description: Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition	Sample Type	Sample condition	Perth Sand Penetrometer No. of blows for depth indicated by bar thickness
Not encountered					SP-SM	TOPSOIL Loose, fine and medium, grey brown sand with silt, moist/dry			
					SP-SM	FILL Medium dense, fine and medium, grey and orange with silt and trace gravel, dry/moist			
					SP-SM	SAND Dense, fine and medium, orange with silt, dry/moist tree roots			
					SP	LIMESTONE Well cemented, cream, dry/moist Hand auger HA3 terminated at 0.4m			
		3.5	0.5						
		3.0	1.0						
		2.5	1.5						
		2.0	2.0						
		1.5	2.5						

CLIENT BPA Engineering

JOB NAME Beale Park Redevelopment

JOB NUMBER 121239.01

JOB LOCATION SPEARWOOD

DATE 14-4-22

LOGGED BY CJ

CHECKED PR

R.L. SURFACE 4

DATUM AHD

EQUIPMENT Hand Auger

LOCATION 386646E 6446972N

REMARKS

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description: Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition	Sample Type	Sample condition	Perth Sand Penetrometer No. of blows for depth indicated by bar thickness					
Not encountered		3.5	0.5		SP-SM	TOPSOIL Loose, fine and medium, grey brown sand with silt, moist/dry			0	1	2	3	4	5
					SP-SM	FILL Medium dense, fine and medium, grey and orange with silt and trace gravel, dry/moist								
					SP-SM	SAND Dense, fine and medium, orange with silt, dry/moist								
		3.0	1.0		SP	LIMESTONE Weakly cemented, cream, dry/moist Hand auger HA4 terminated at 1m								
		2.5	1.5											
		2.0	2.0											
		1.5	2.5											

CLIENT BPA Engineering

JOB NAME Beale Park Redevelopment

JOB NUMBER 121239.01

JOB LOCATION SPEARWOOD

DATE 14-4-22

LOGGED BY CJ

CHECKED PR

R.L. SURFACE 4

DATUM AHD

EQUIPMENT Hand Auger

LOCATION 385181.5E 6446933.9N

REMARKS

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description: Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition	Sample Type	Sample condition	Perth Sand Penetrometer No. of blows for depth indicated by bar thickness
					SP-SM	TOPSOIL Loose, fine and medium, grey brown sand with silt, moist/dry			
					SP-SM	FILL Medium dense, fine and medium, grey and orange with silt and trace gravel, dry/moist			
					SP-SM	SAND Dense, fine and medium, orange with silt, dry/moist			
		3.5	0.5						
		3.0	1.0						
		2.5	1.5						
		2.0	2.0						
						Hand auger HA5 terminated at 2m			
		1.5	2.5						

CLIENT BPA Engineering
JOB NUMBER 121239.01

JOB NAME Beale Park Redevelopment
JOB LOCATION SPEARWOOD

DATE 14-4-22 **LOGGED BY** CJ **CHECKED** PR **R.L. SURFACE** 4 **DATUM** AHD
EQUIPMENT Hand Auger **LOCATION** 3852215.4E 6447347.9N

REMARKS

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description: Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition	Sample Type	Sample condition	Perth Sand Penetrometer No. of blows for depth indicated by bar thickness
					SP-SM	TOPSOIL Loose, fine and medium, grey brown sand with silt, moist/dry			
					SP-SM	FILL Medium dense, fine and medium, grey and orange with silt and trace gravel, dry/moist			
					SP-SM	SAND Dense, fine and medium, orange with silt, dry/moist			
	Not encountered	3.5	0.5						
		3.0	1.0						
		2.5	1.5						
		2.0	2.0						
		1.5	2.5						
						Hand auger HA6 terminated at 1.8m			



JOB NAME Beale Park Redevelopment

JOB LOCATION SPEARWOOD

DATUM AHD

LOCATION 384917.8E 6447551.5N

REMARKS

2020 TEST PIT 121239.01.GPJ GINT AUSTRALIA.GDT 8-5-22

CLIENT BPA Engineering

JOB NAME Beale Park Redevelopment

JOB NUMBER 121239.01

JOB LOCATION SPEARWOOD

DATE 14-4-22

LOGGED BY CJ

CHECKED PR

R.L. SURFACE 4

DATUM AHD

EQUIPMENT Hand Auger

LOCATION 384695.3E 6447278.4N

REMARKS

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description: Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition	Sample Type	Sample condition	Perth Sand Penetrometer No. of blows for depth indicated by bar thickness
Not encountered		3.5	0.5		SP-SM TOPSOIL Loose, fine and medium, grey brown sand with silt, moist/dry				
					SP-SM FILL Medium dense, fine and medium, grey and orange with silt and trace gravel, dry/moist				
					SP-SM SAND Dense, fine and medium, orange with silt, dry/moist				
					SP LIMESTONE Weakly cemented, cream, dry/moist Hand auger HA8 terminated at 0.9m				
		3.0	1.0						
		2.5	1.5						
		2.0	2.0						
		1.5	2.5						

CLIENT BPA Engineering

JOB NAME Beale Park Redevelopment

JOB NUMBER 121239.01

JOB LOCATION SPEARWOOD

DATE 14-4-22

LOGGED BY CJ

CHECKED PR

R.L. SURFACE 4

DATUM AHD

EQUIPMENT Hand Auger

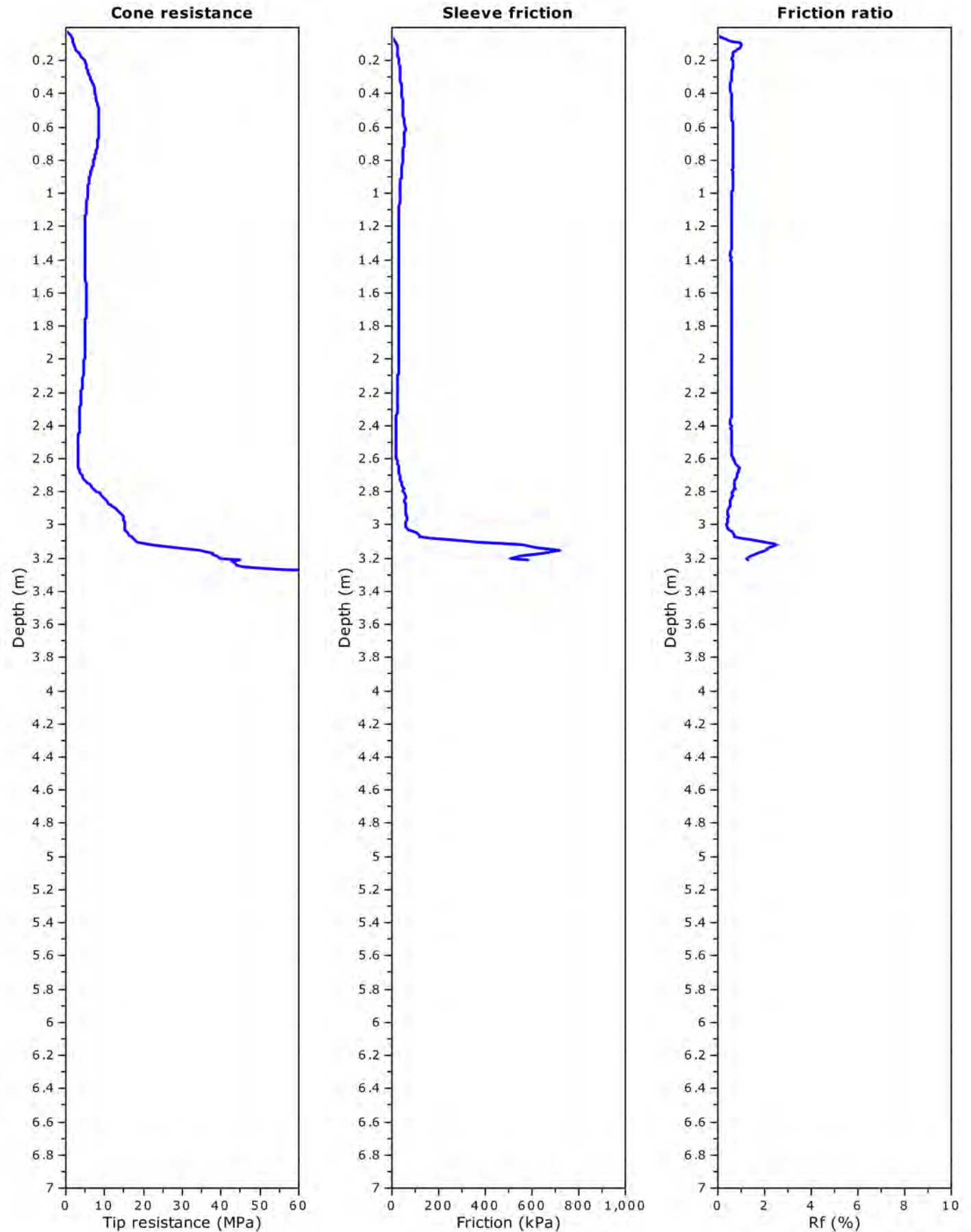
LOCATION 384585.7E 6447287.9N

REMARKS

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description: Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition	Sample Type	Sample condition	Perth Sand Penetrometer No. of blows for depth indicated by bar thickness
Not encountered	3.5	0.5			SP-SM	TOPSOIL Loose, fine and medium, grey brown sand with silt, moist/dry			
					SP-SM	FILL Medium dense, fine and medium, grey and orange with silt and limestone gravel, dry/moist			
					SP-SM	SAND Dense, fine and medium, orange with silt, dry/moist			
					SP	LIMESTONE Weakly cemented, cream, dry/moist Hand auger HA9 terminated at 0.9m			
		3.0	1.0						
		2.5	1.5						
		2.0	2.0						
		1.5	2.5						

Project: Beale Park Redevelopment (Project No.: 121239.01)
Location: Spearwood

Total depth: 3.31 m, Date: 11/04/2022
Cone Operator: Andrew

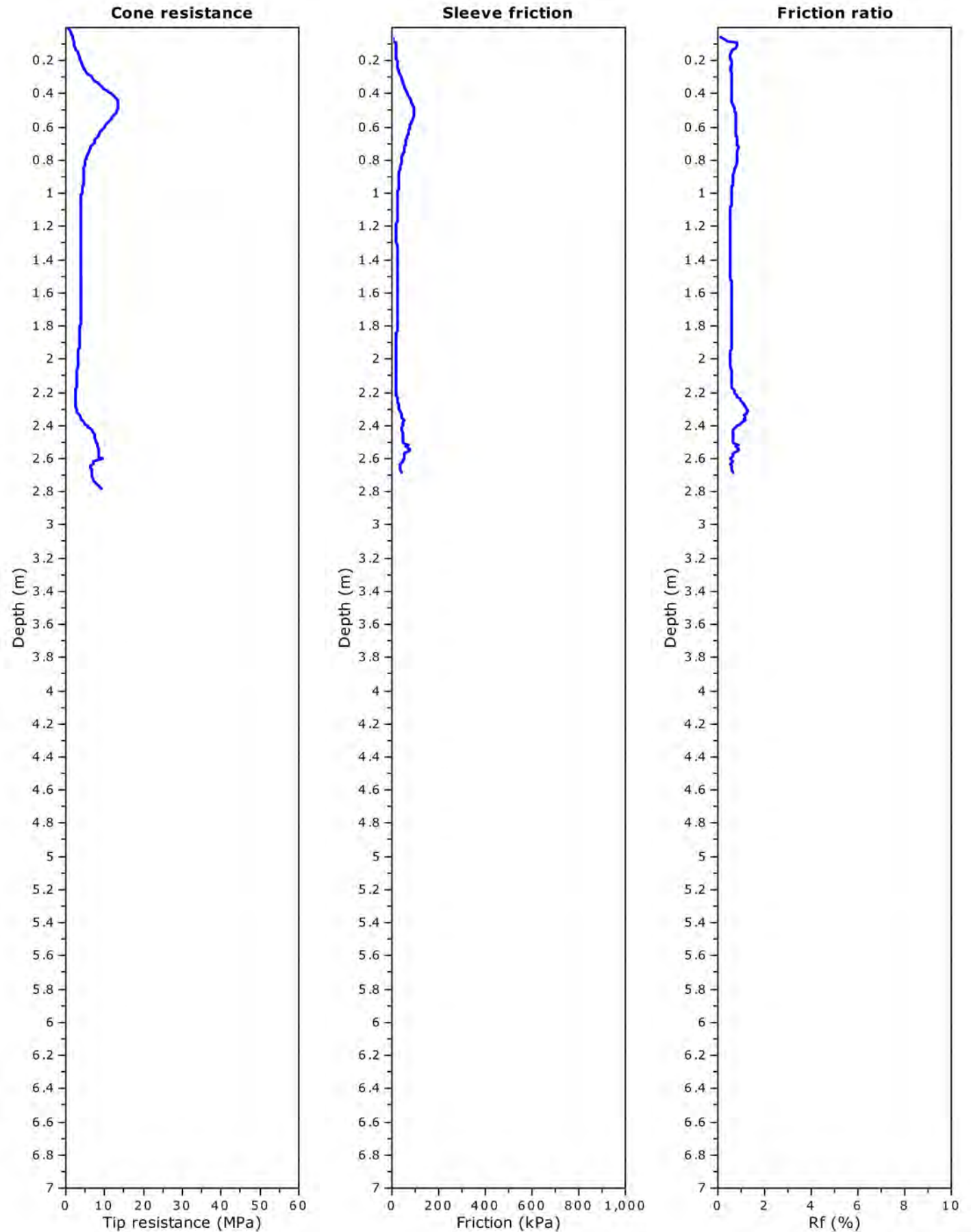


Project: Beale Park Redevelopment (Project No.: 121239.01)

Total depth: 2.78 m, Date: 11/04/2022

Location: Spearwood

Cone Operator: Andrew

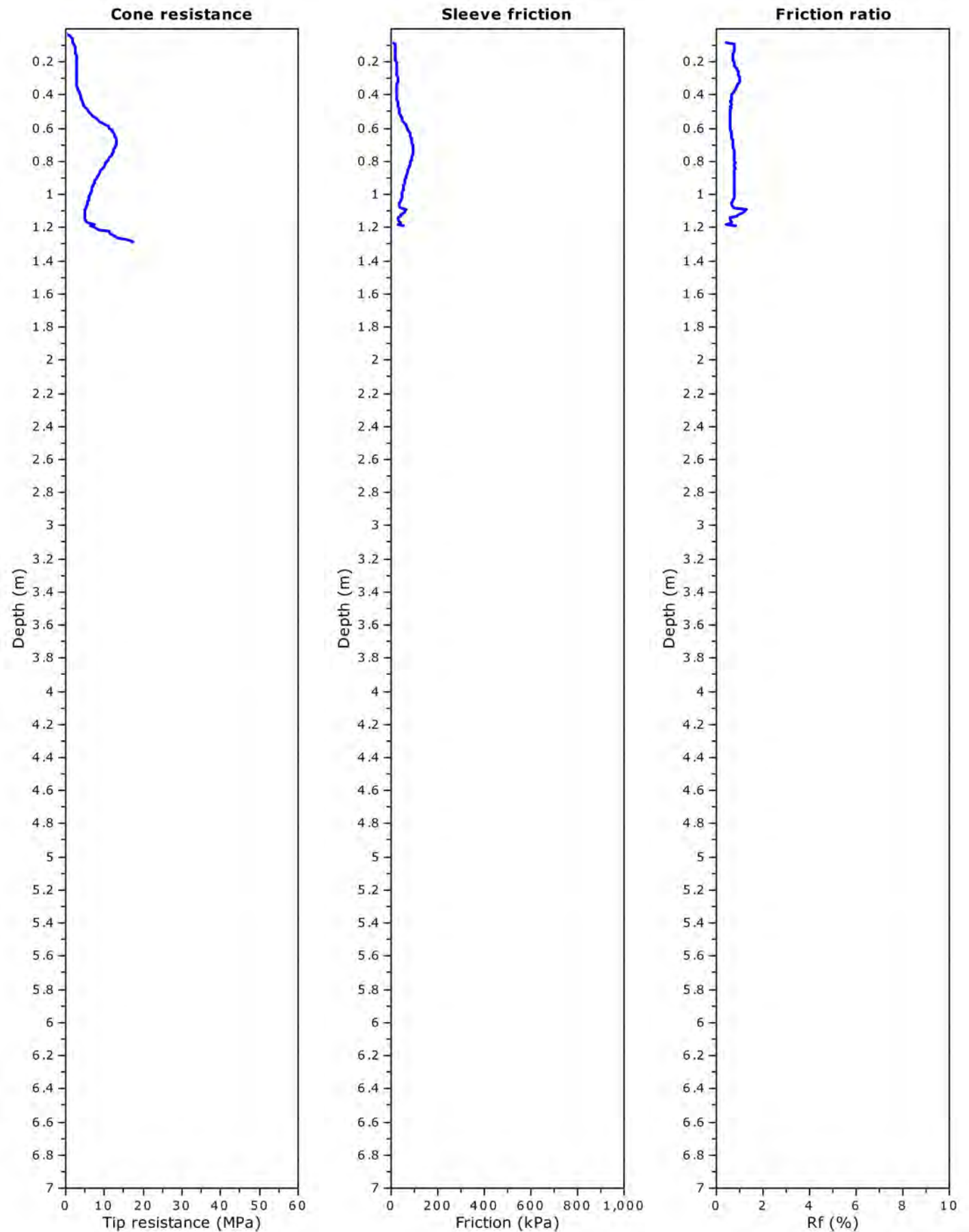


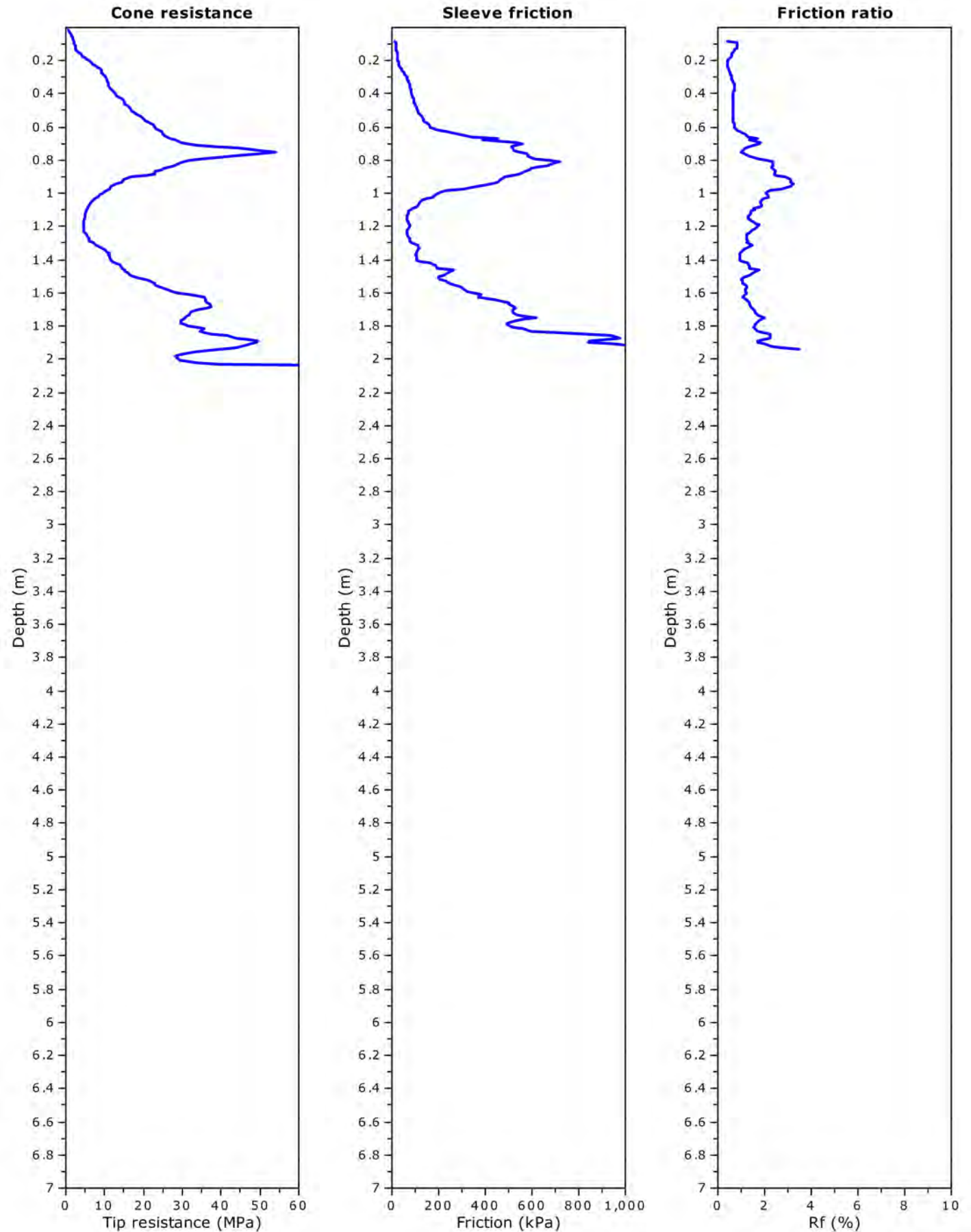
Project: Beale Park Redevelopment (Project No.: 121239.01)

Total depth: 1.29 m, Date: 11/04/2022

Location: Spearwood

Cone Operator: Andrew



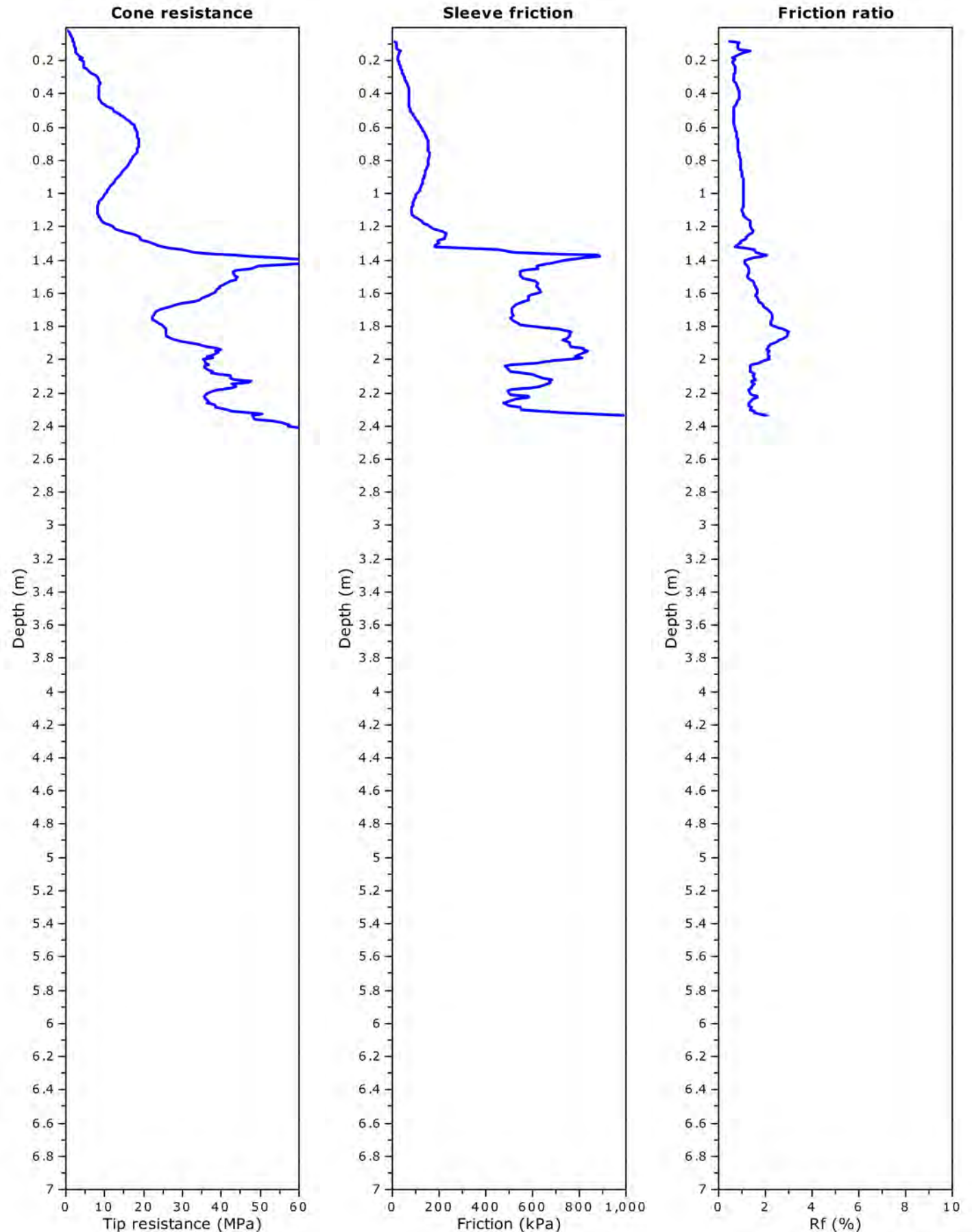


Project: Beale Park Redevelopment (Project No.: 121239.01)

Total depth: 2.44 m, Date: 11/04/2022

Location: Spearwood

Cone Operator: Andrew

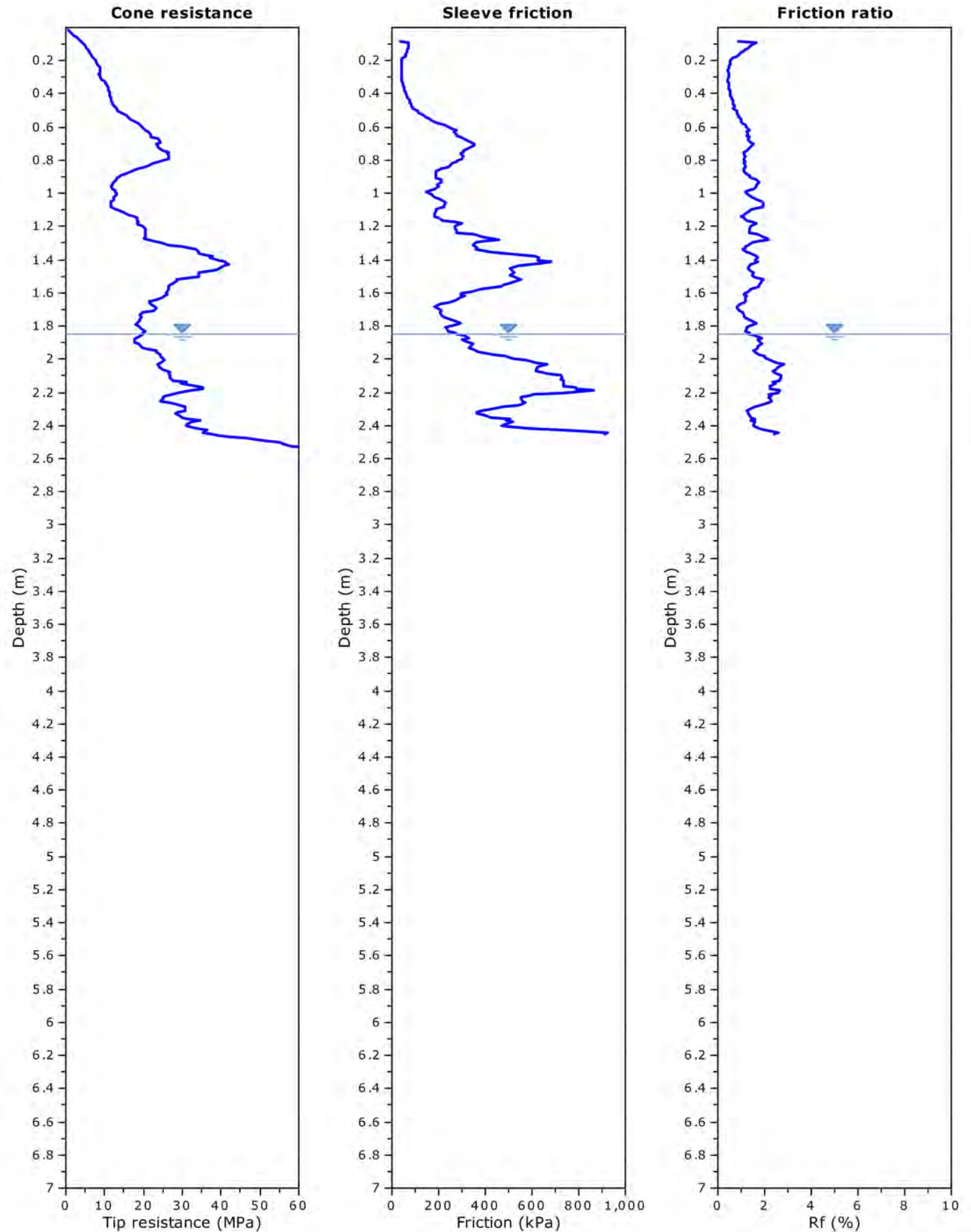


Project: Beale Park Redevelopment (Project No.: 121239.01)

Total depth: 2.55 m, Date: 11/04/2022

Location: Spearwood

Cone Operator: Andrew

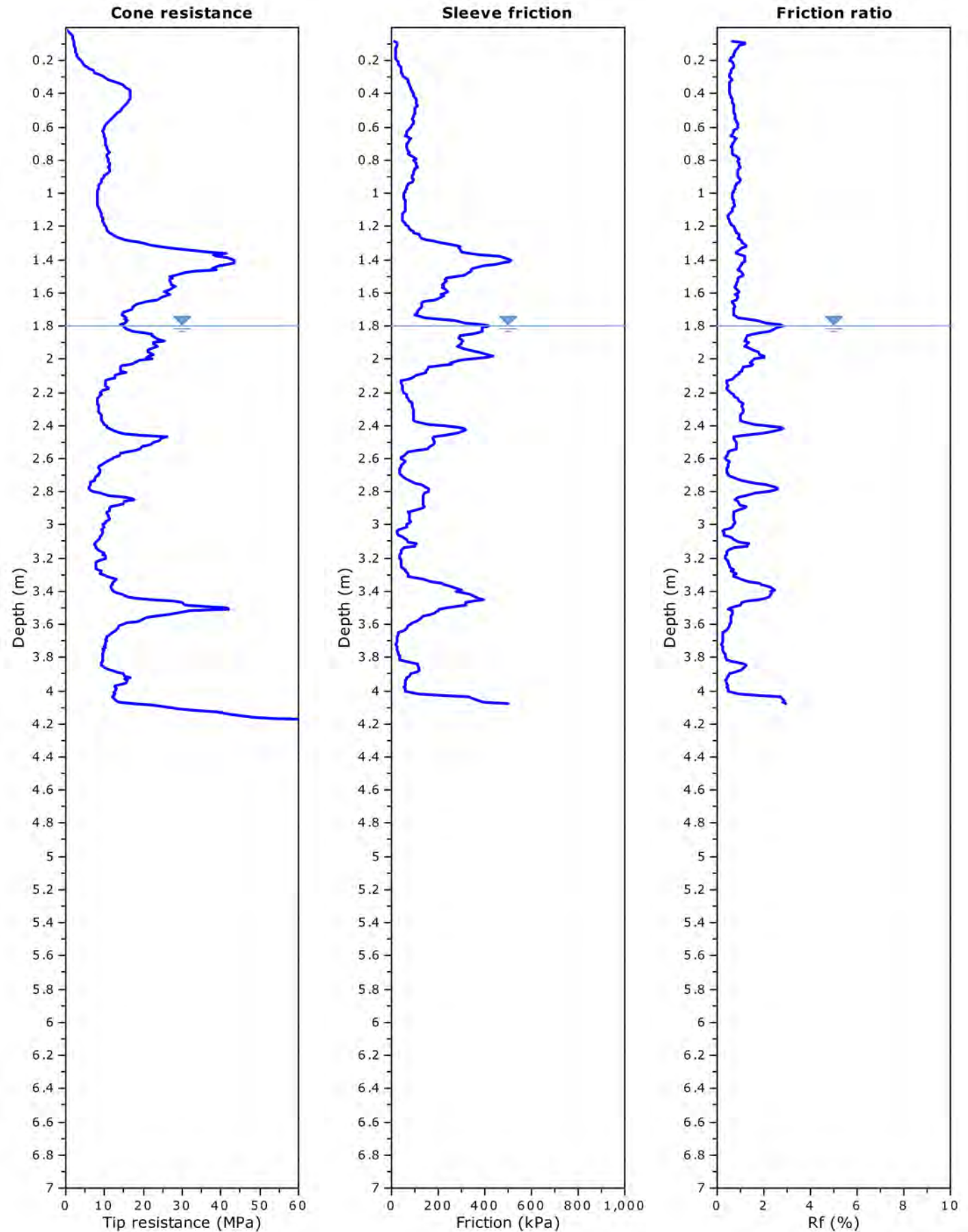


Project: Beale Park Redevelopment (Project No.: 121239.01)

Total depth: 4.18 m, Date: 11/04/2022

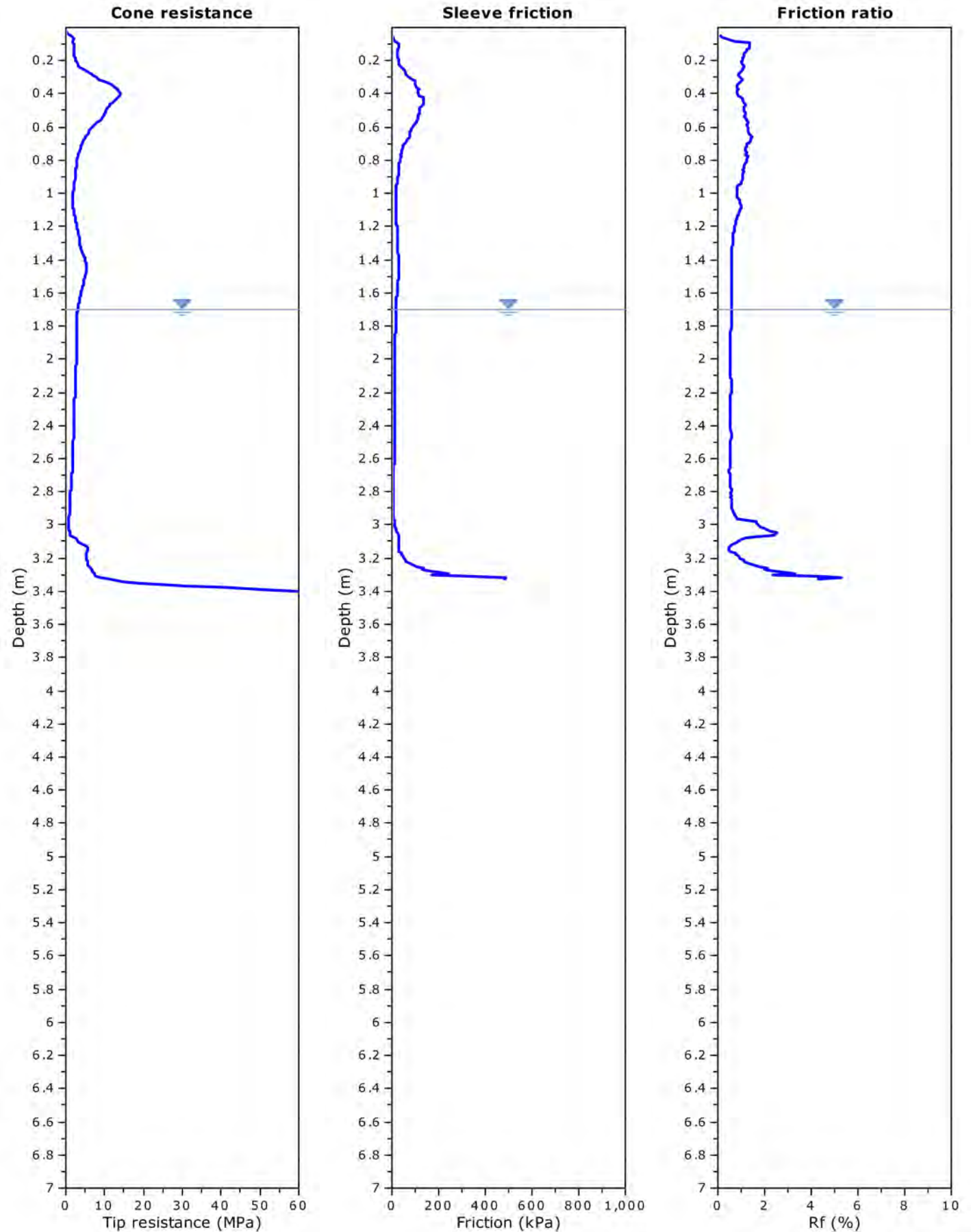
Location: Spearwood

Cone Operator: Andrew



Project: Beale Park Redevelopment (Project No.: 121239.01)
Location: Spearwood

Total depth: 3.43 m, Date: 11/04/2022
Cone Operator: Andrew

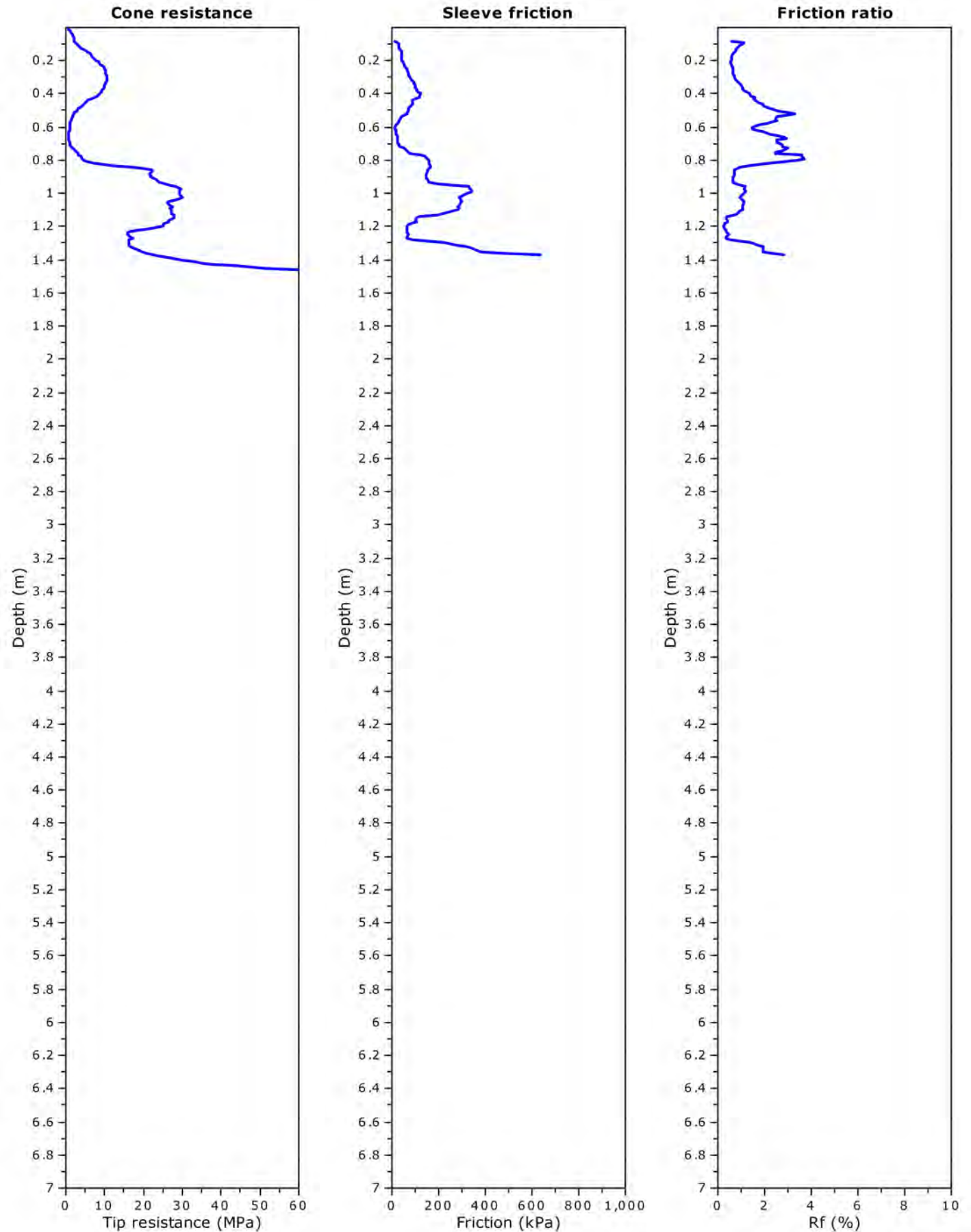


Project: Beale Park Redevelopment (Project No.: 121239.01)

Total depth: 1.47 m, Date: 11/04/2022

Location: Spearwood

Cone Operator: Andrew

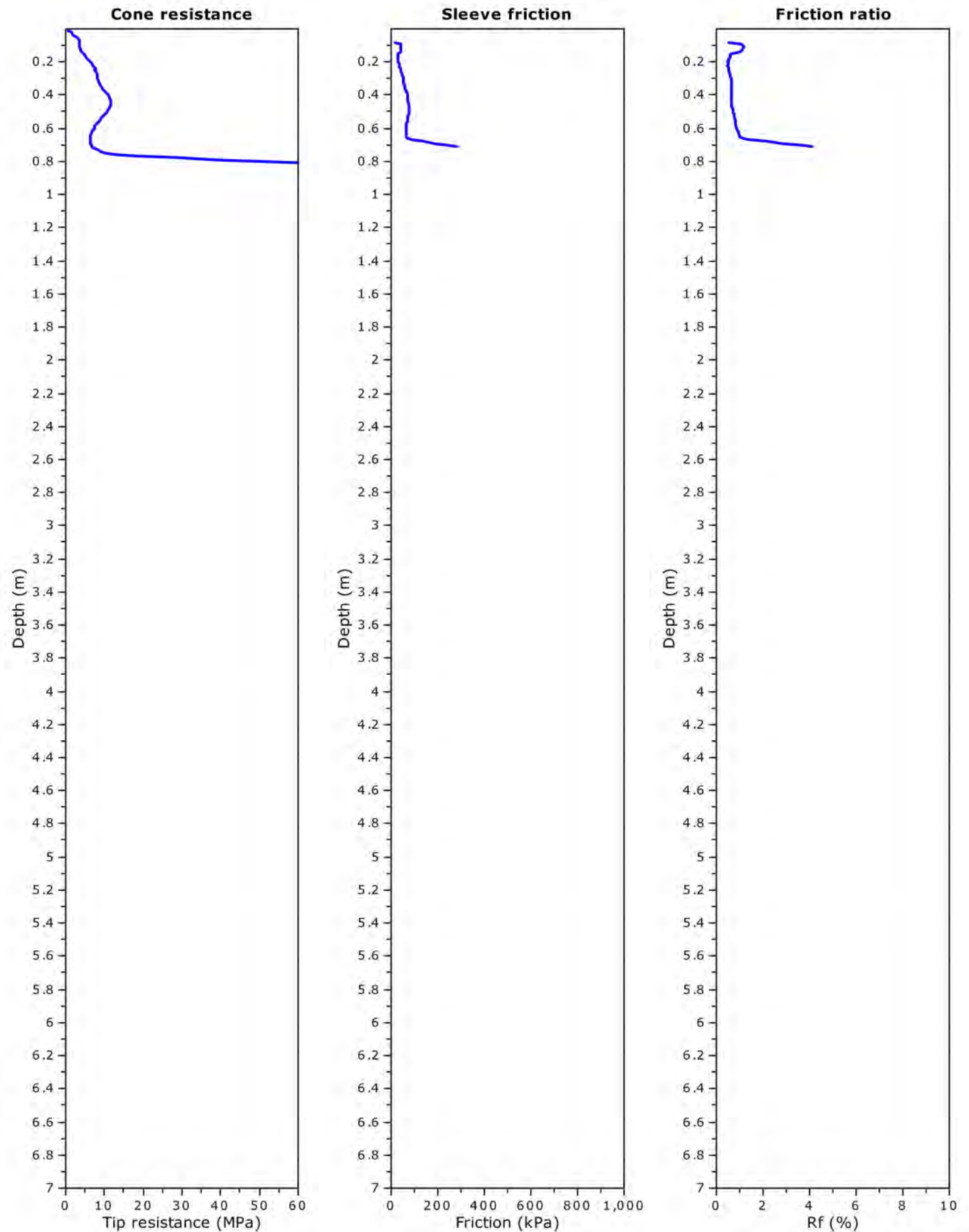


Project: Beale Park Redevelopment (Project No.: 121239.01)

Total depth: 0.81 m, Date: 11/04/2022

Location: Spearwood

Cone Operator: Andrew

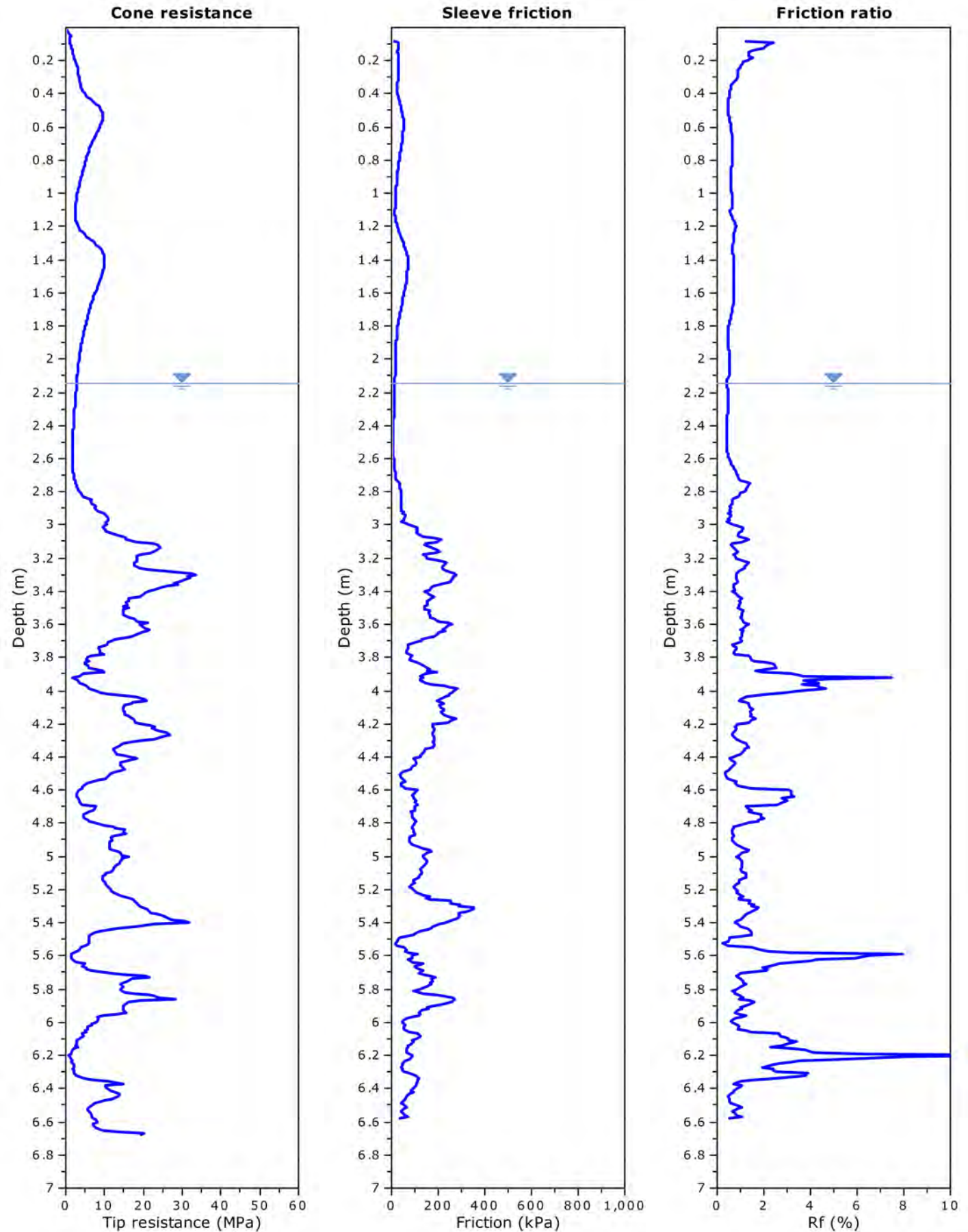


Project: Beale Park Redevelopment (Project No.: 121239.01)

Total depth: 6.68 m, Date: 11/04/2022

Location: Spearwood

Cone Operator: Andrew

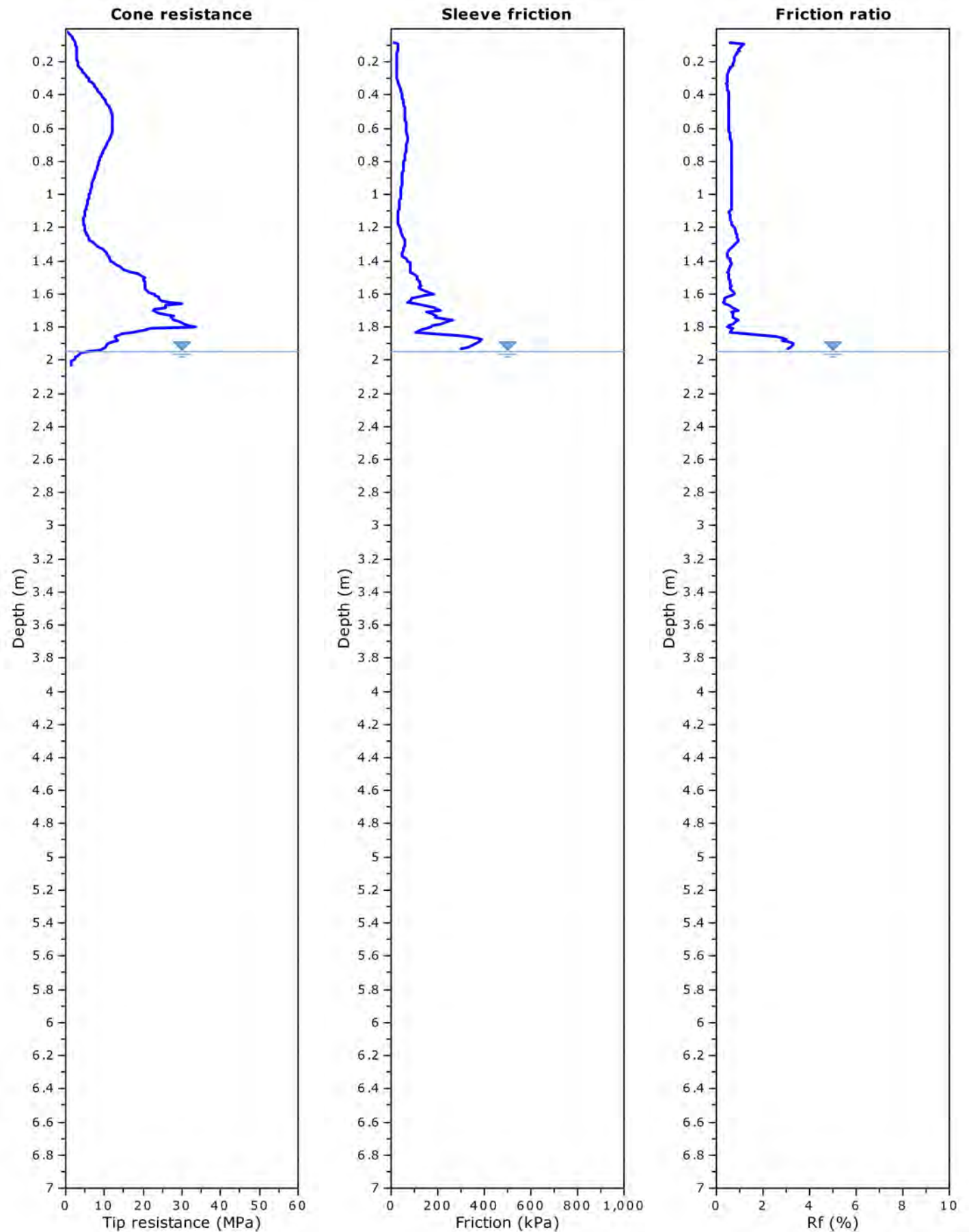


Project: Beale Park Redevelopment (Project No.: 121239.01)

Total depth: 2.03 m, Date: 11/04/2022

Location: Spearwood

Cone Operator: Andrew

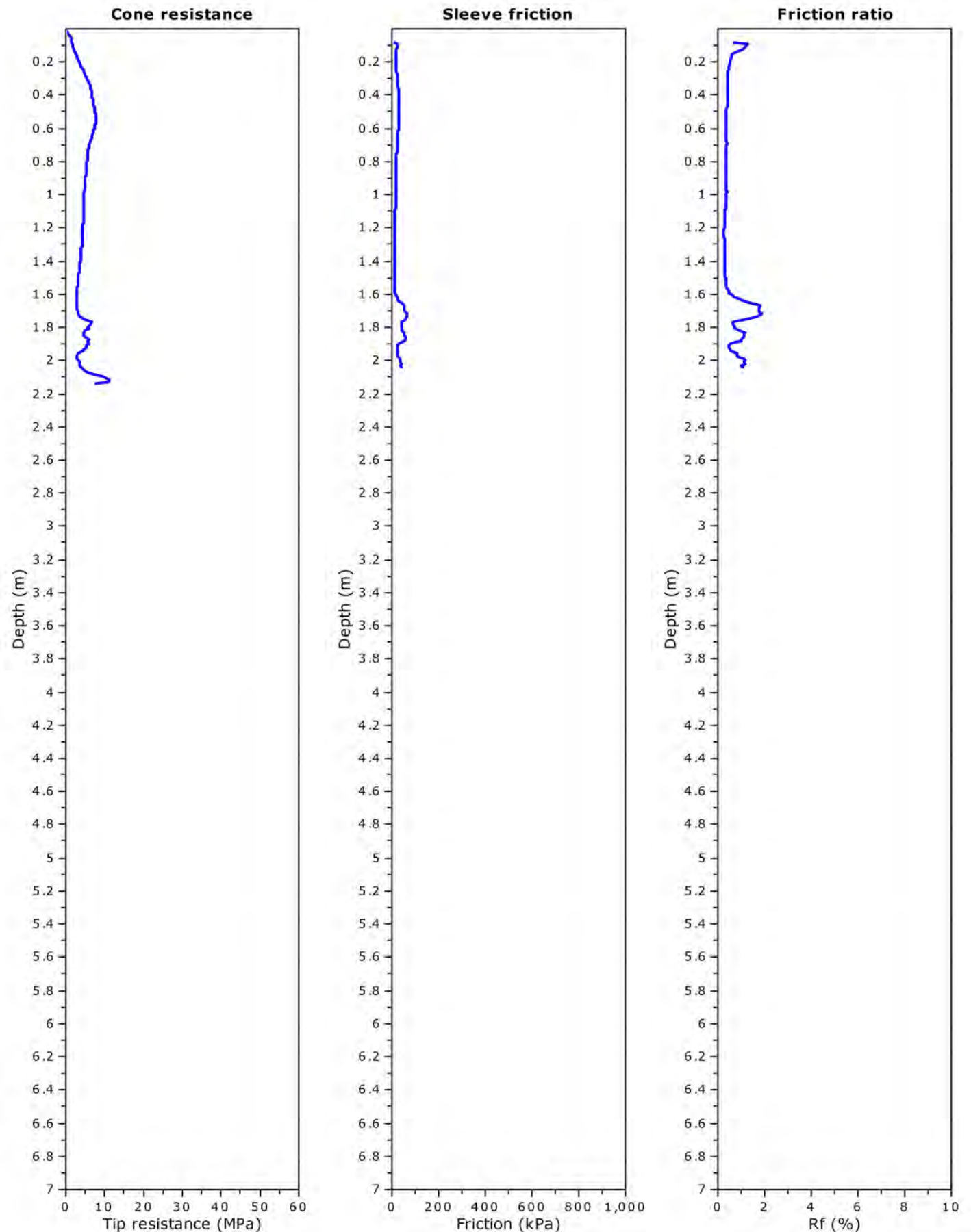


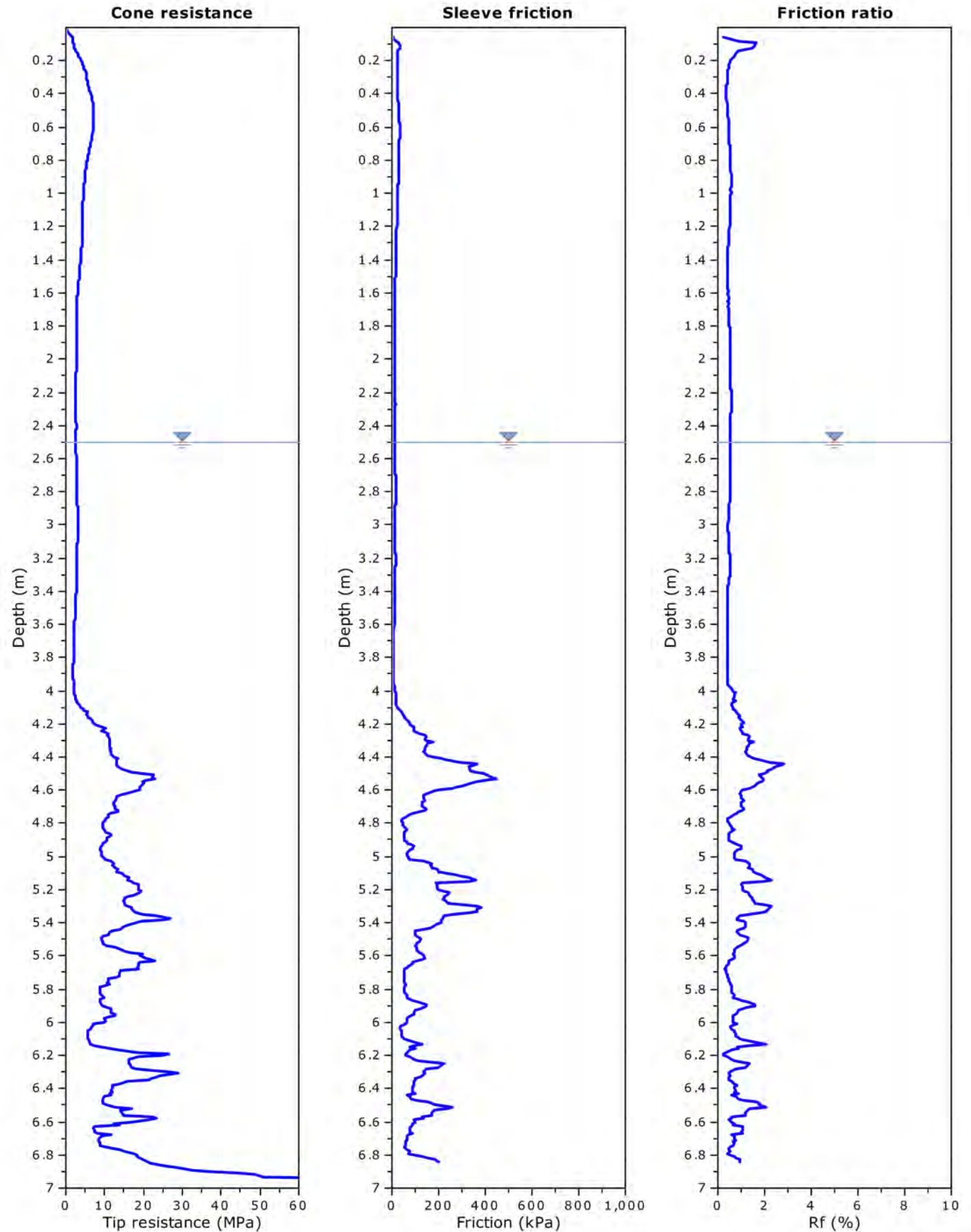
Project: Beale Park Redevelopment (Project No.: 121239.01)

Total depth: 2.14 m, Date: 11/04/2022

Location: Spearwood

Cone Operator: Andrew



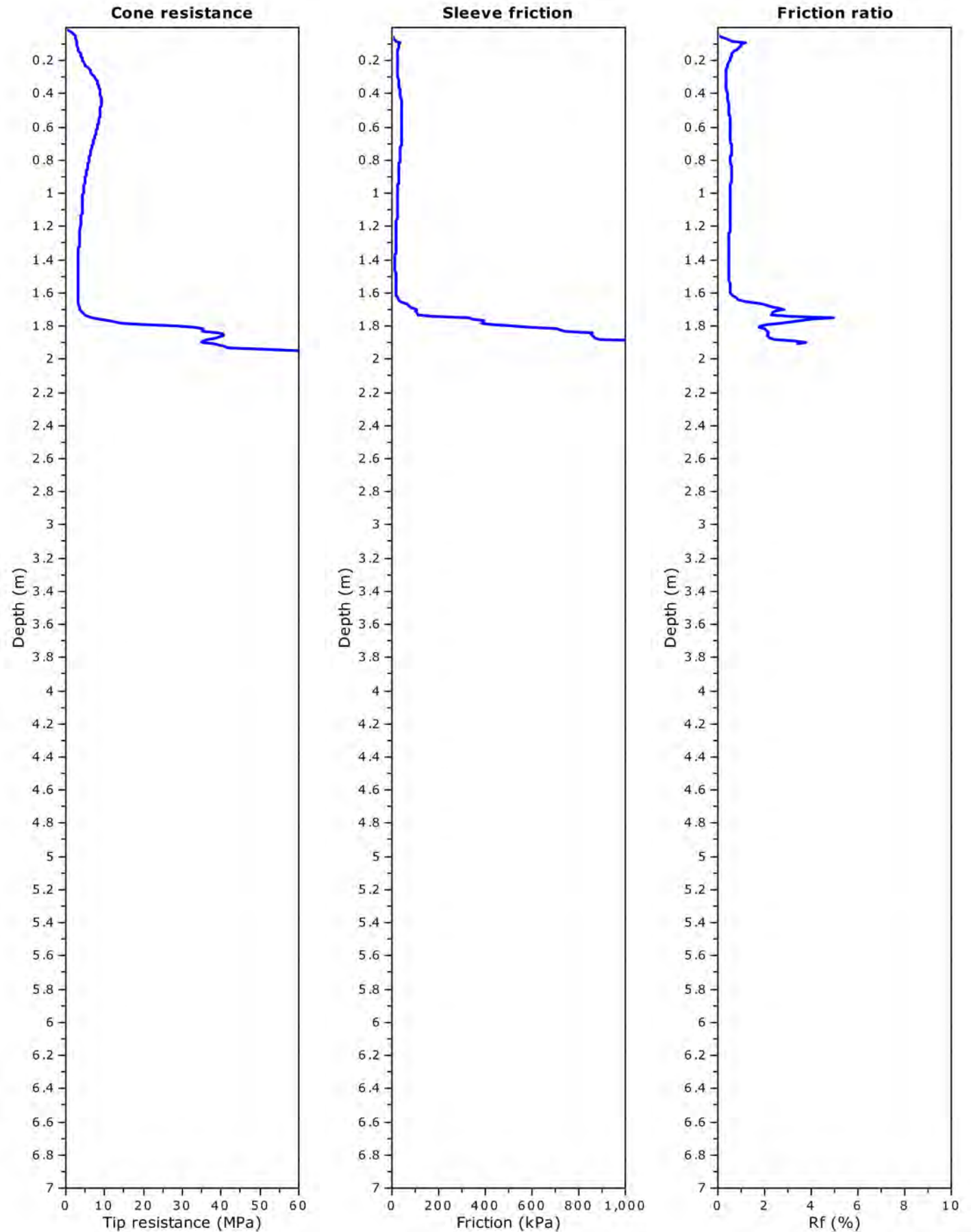


Project: Beale Park Redevelopment (Project No.: 121239.01)

Total depth: 2.01 m, Date: 11/04/2022

Location: Spearwood

Cone Operator: Andrew

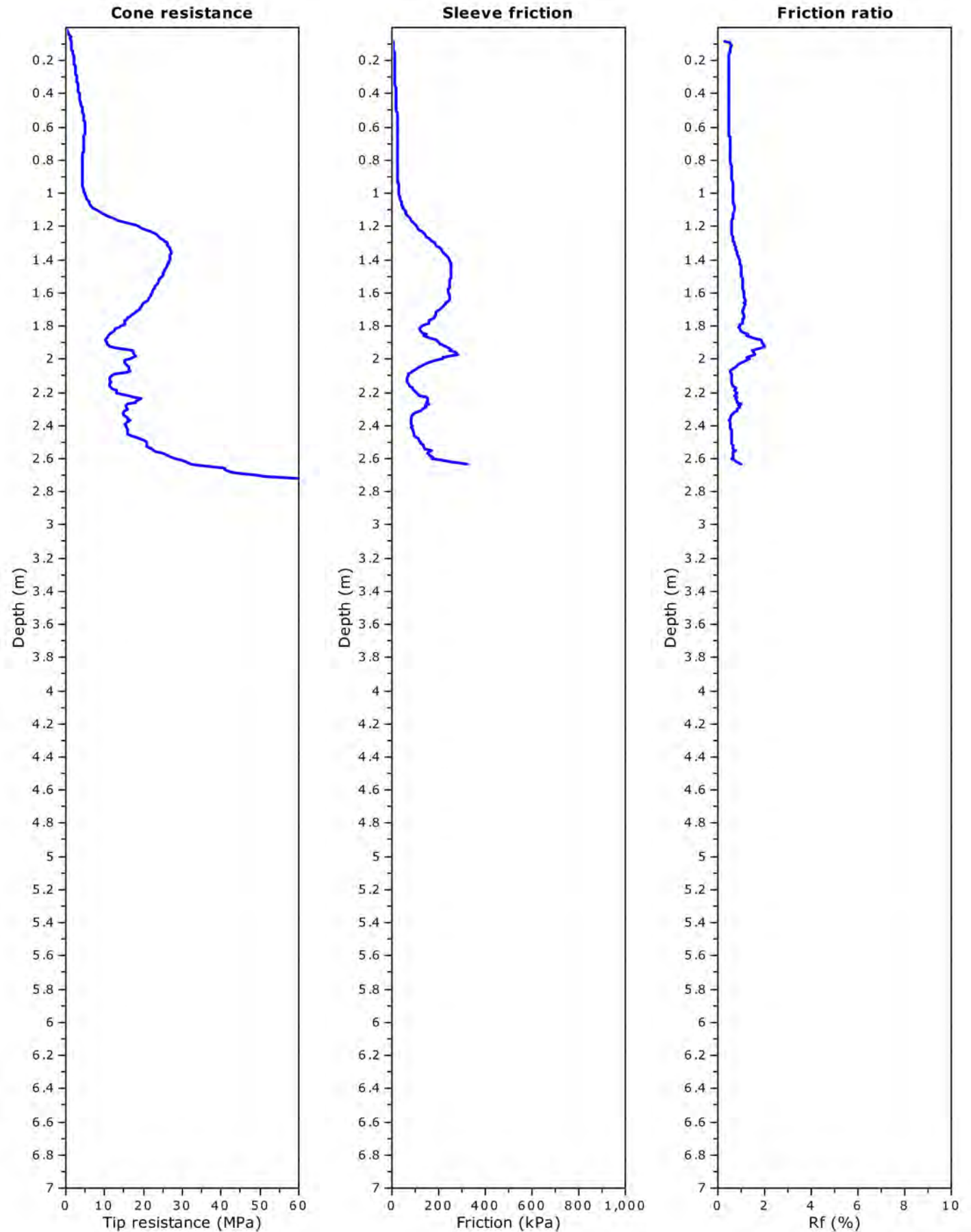


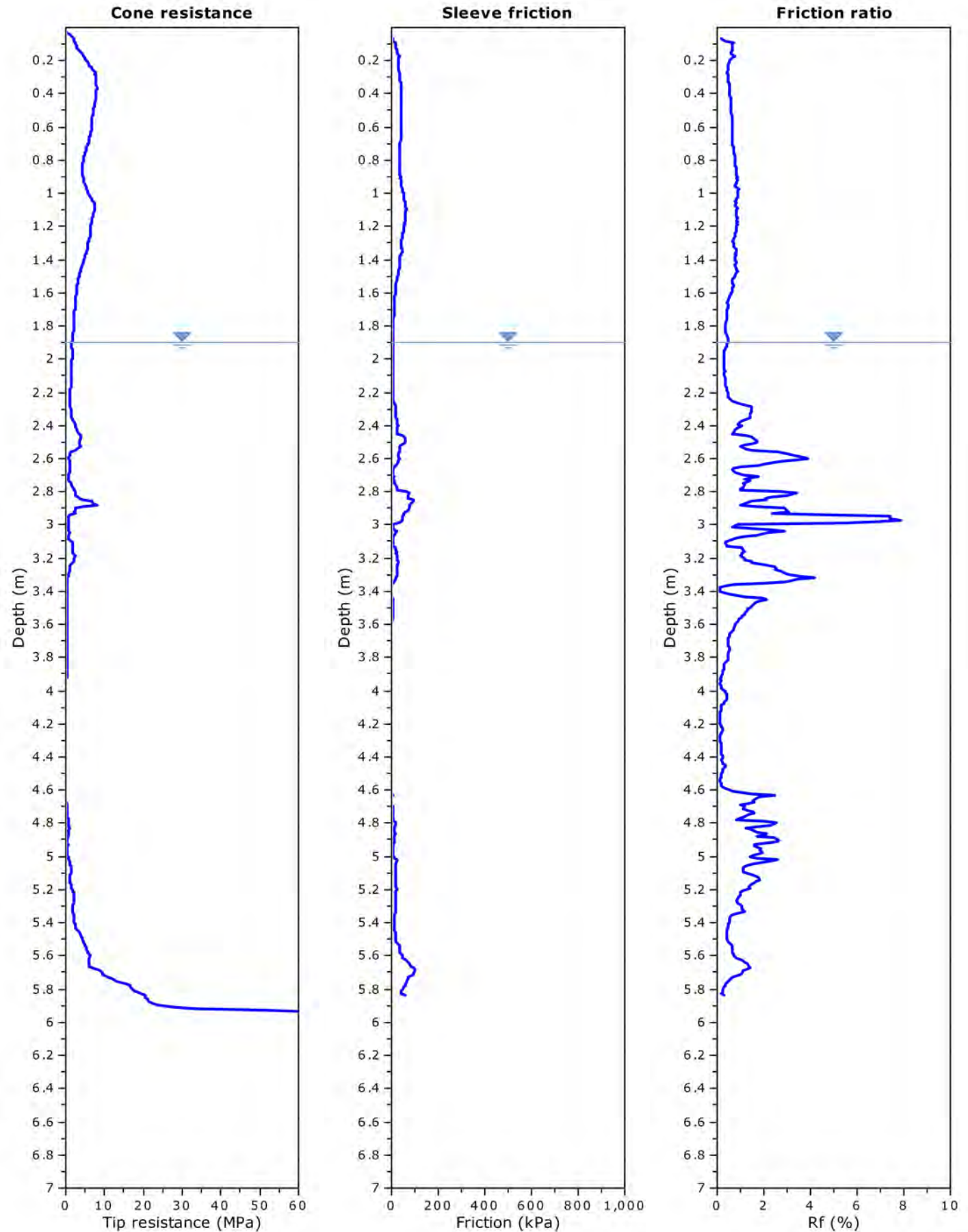
Project: Beale Park Redevelopment (Project No.: 121239.01)

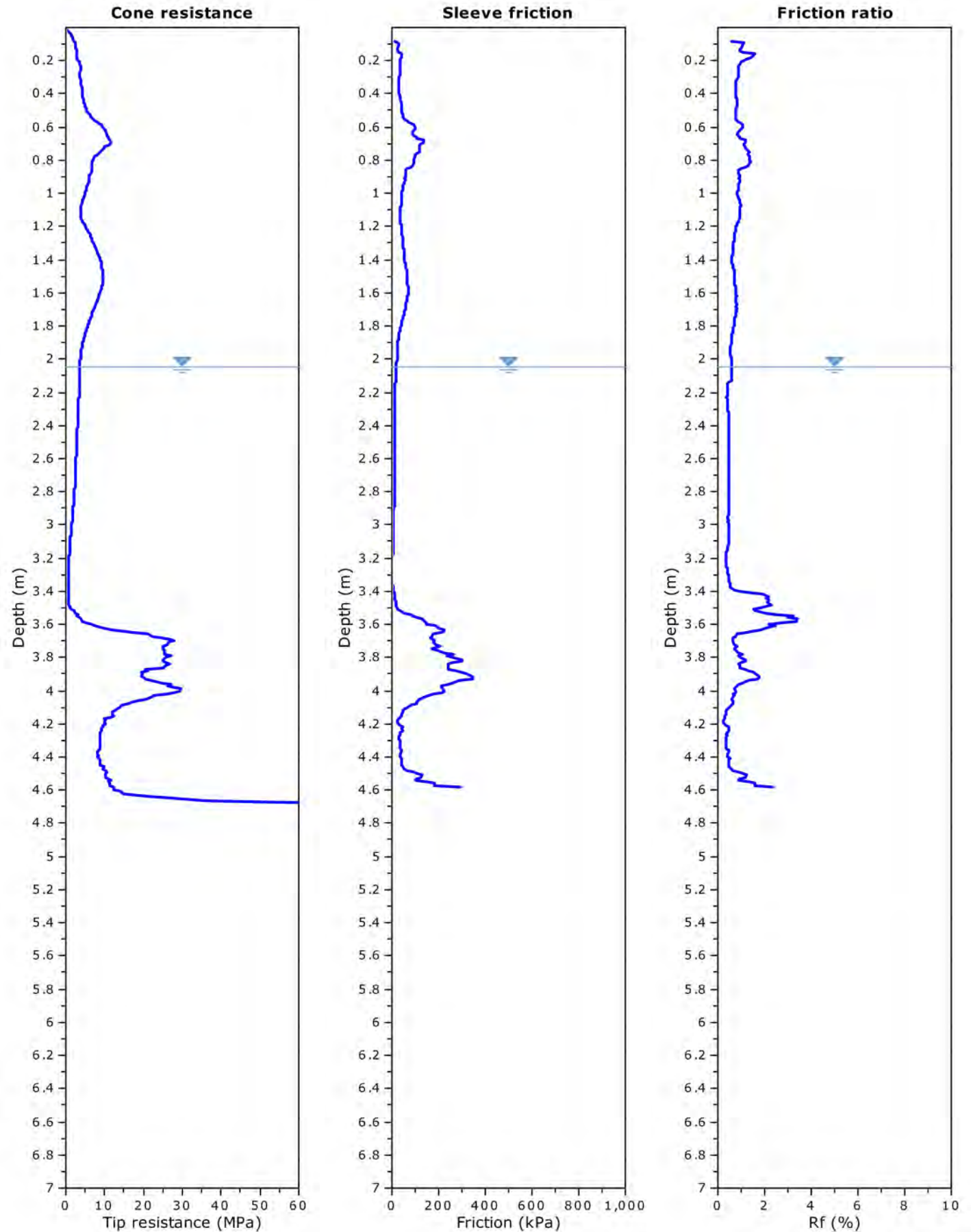
Total depth: 2.73 m, Date: 11/04/2022

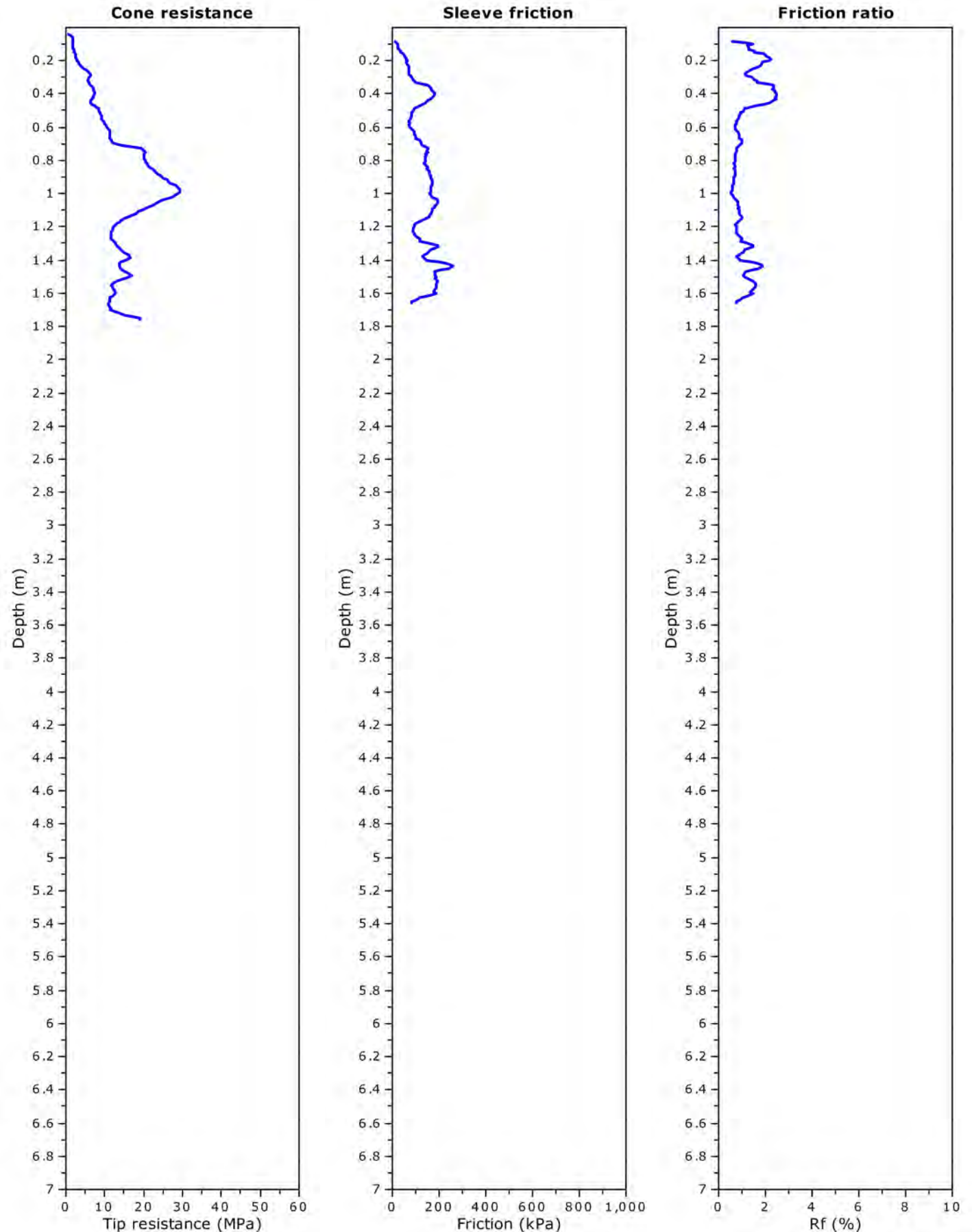
Location: Spearwood

Cone Operator: Andrew



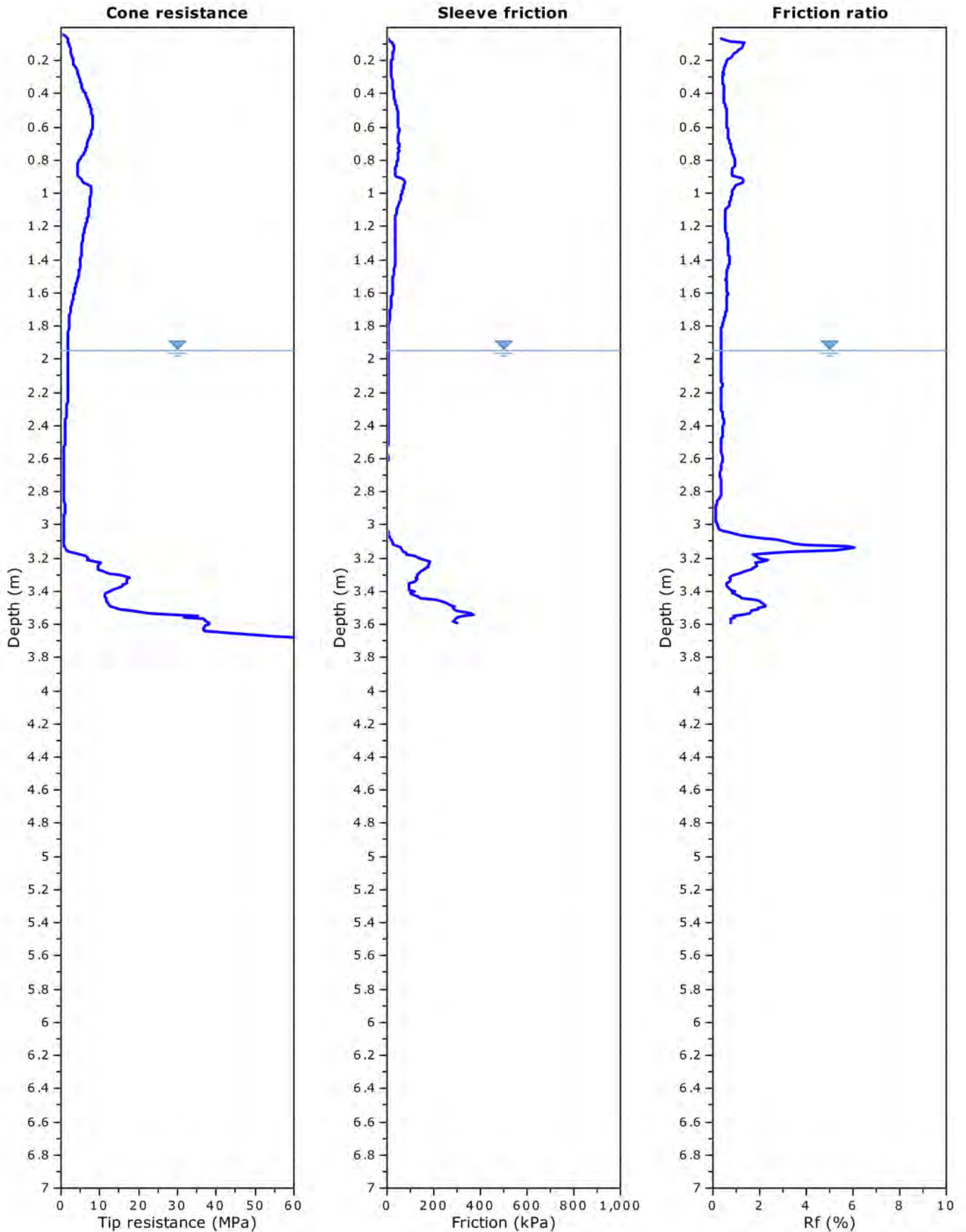






Project: Beale Park Redevelopment (Project No.: 121239.01)
Location: Spearwood

Total depth: 3.69 m, Date: 11/04/2022
Cone Operator: Andrew





APPENDIX B – LABORATORY TEST RESULTS

CERTIFICATE OF ANALYSIS 280432**Client Details**

Client	Western Geotechnical & Laboratory Services
Attention	Brooke Elliott
Address	235 Bank Street, Welshpool, WA, 6101

Sample Details

Your Reference	<u>ATC WILLIAMS / S6143 / BEALE PK/121239.01</u>
Number of Samples	1 Soil
Date samples received	21/04/2022
Date completed instructions received	21/04/2022
Location	SPEARWOOD

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	29/04/2022
Date of Issue	28/04/2022
NATA Accreditation Number 2901. This document shall not be reproduced except in full.	
Accredited for compliance with ISO/IEC 17025 - Testing. Tests not covered by NATA are denoted with *	

Results Approved By

Heram Halim, Operations Manager

Authorised By

Michael Kubiak, Laboratory Manager

Miscellaneous Inorg - soil		
Our Reference	UNITS	280432-1
Your Reference		WG22.6126
Type of sample		HA12 0.15-0.4m Soil
Date prepared	-	22/04/2022
Date analysed	-	22/04/2022
pH	pH Units	9.0
Sulphate	mg/kg	12
Chloride	mg/kg	29

Method ID	Methodology Summary
INORG-001	pH - Measured using pH meter and electrode base on APHA latest edition, Method 4500-H+. Please note that the results for water analyses may be indicative only, as analysis can be completed outside of the APHA recommended holding times. Soils are reported from a 1:5 water extract unless otherwise specified.
INORG-081	Anions - a range of anions are determined by Ion Chromatography based on APHA latest edition Method 4110-B. Soils and other sample types reported from a water extract unless otherwise specified (standard soil extract ratio 1:5).

QUALITY CONTROL: Miscellaneous Inorg - soil						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			22/04/2022	[NT]	[NT]	[NT]	[NT]	22/04/2022	[NT]
Date analysed	-			22/04/2022	[NT]	[NT]	[NT]	[NT]	22/04/2022	[NT]
pH	pH Units		INORG-001	[NT]	[NT]	[NT]	[NT]	[NT]	104	[NT]
Sulphate	mg/kg	10	INORG-081	<10	[NT]	[NT]	[NT]	[NT]	104	[NT]
Chloride	mg/kg	10	INORG-081	<10	[NT]	[NT]	[NT]	[NT]	109	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.
Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.	
The recommended maximums for analytes in urine are taken from "2018 TLVs and BEIs", as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.	
Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2	

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.



SOIL | AGGREGATE | CONCRETE | CRUSHING

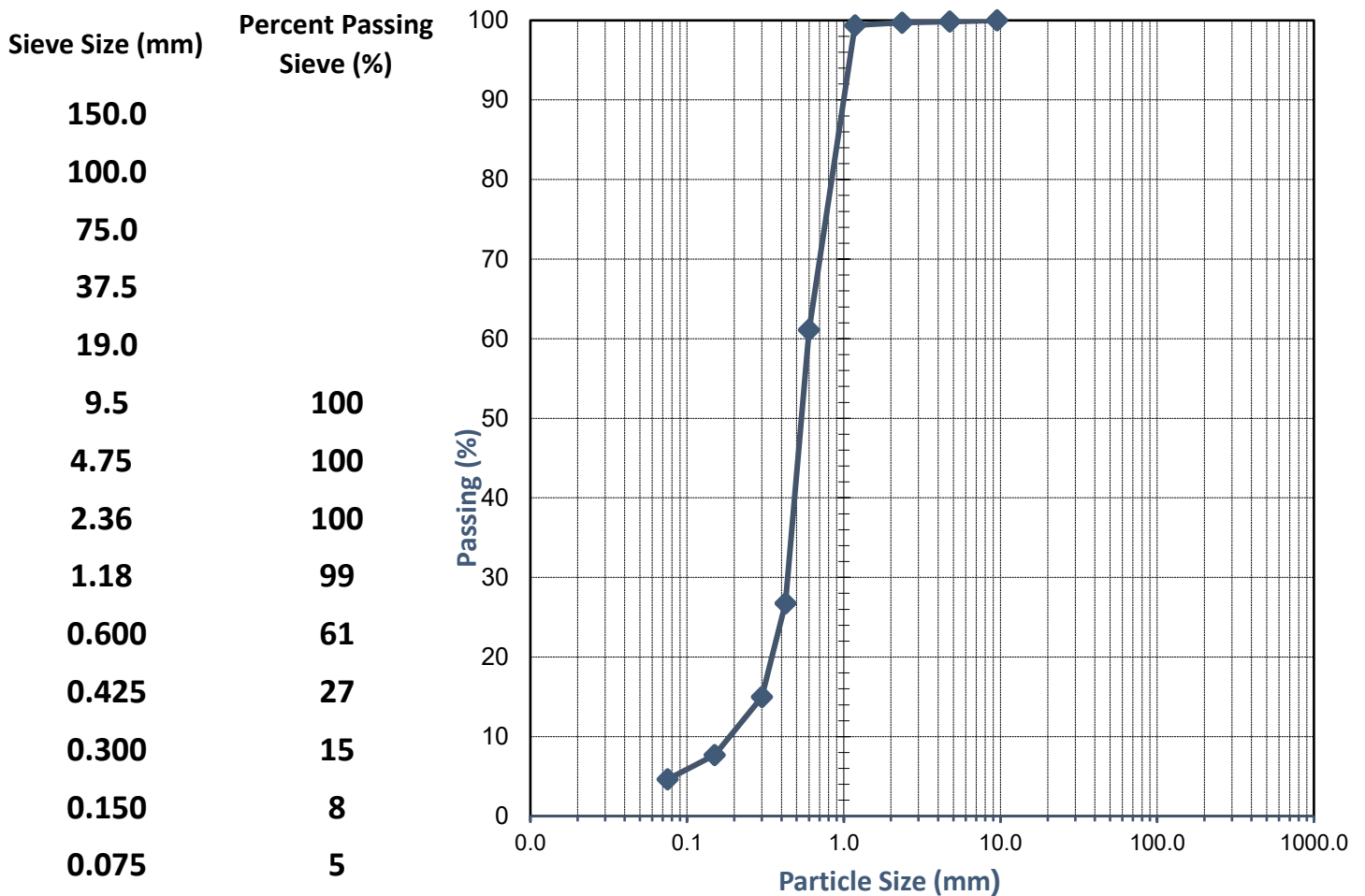
TEST REPORT - AS 1289.3.6.1

Client:	ATC Williams	Ticket No.	S6143
Client Address:	1141 Hay Street, West Perth	Report No.	WG22.6125_1_PSD
Project:	Beale Pk, Spearwood	Sample No.	WG22.6125
Location:	Not Specified	Date Sampled:	14/04/2022
Sample Identification:	HA2 (1.0-2.0) Sand	Date Tested:	21/04 - 22/04/2022

TEST RESULTS - Particle Size Distribution of Soil

Sampling Method:

Sampled by Client, Tested as Received



Comments:

Approved Signatory:

Name: Natasha Bielawski

Date: 22/April/2022



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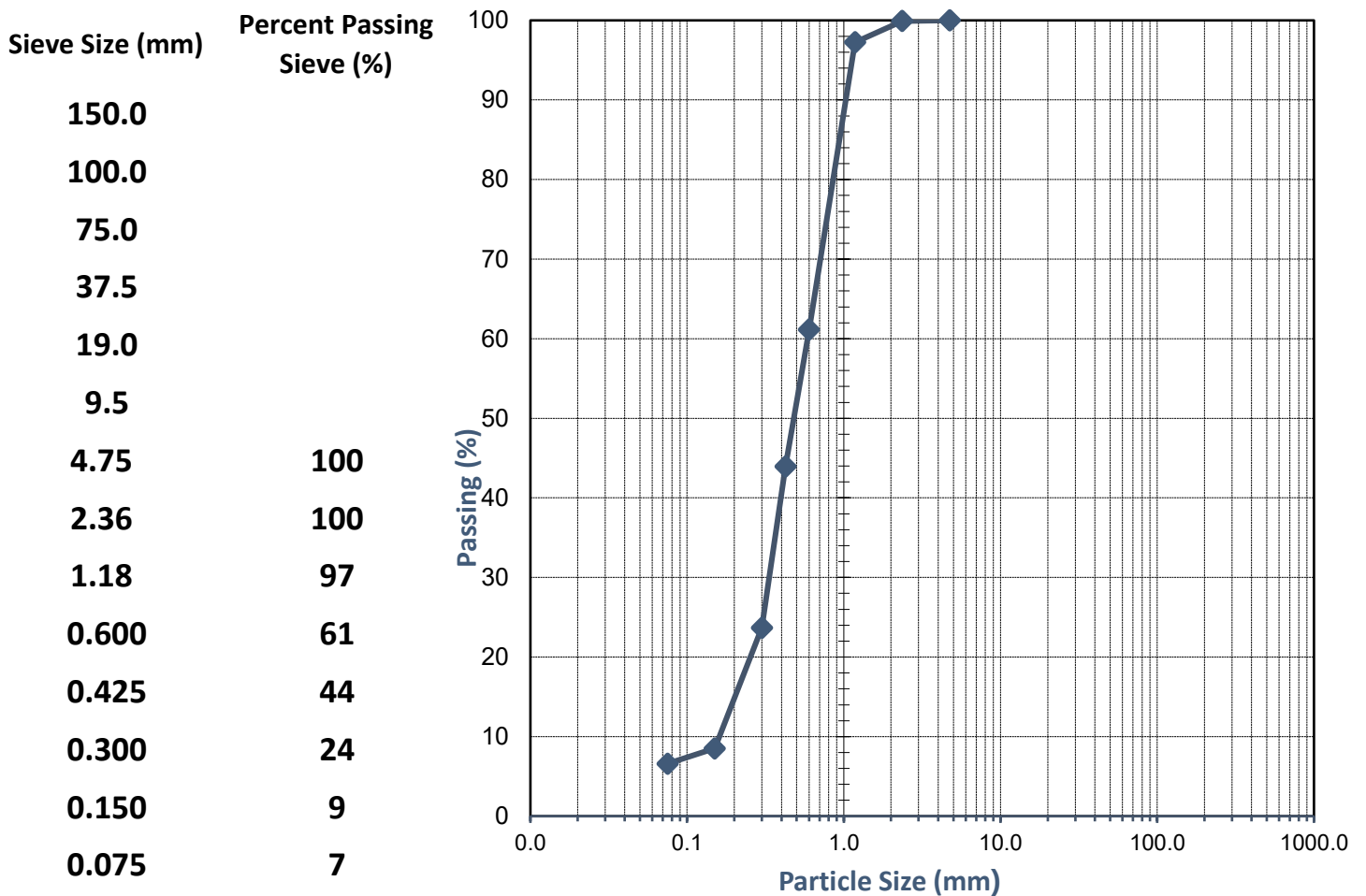
TEST REPORT - AS 1289.3.6.1

Client:	ATC Williams	Ticket No.	S6143
Client Address:	1141 Hay Street, West Perth	Report No.	WG22.6126_1_PSD
Project:	Beale Pk, Spearwood	Sample No.	WG22.6126
Location:	Not Specified	Date Sampled:	14/04/2022
Sample Identification:	HA12 (0.15-0.4) Sandfill	Date Tested:	21/04 - 22/04/2022

TEST RESULTS - Particle Size Distribution of Soil

Sampling Method:

Sampled by Client, Tested as Received



Comments:

Approved Signatory:

Name: Natasha Bielawski

Date: 22/April/2022



Accreditation No. 20599

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with ISO/IEC 17025 - Testing

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SOIL | AGGREGATE | CONCRETE | CRUSHING

TEST REPORT - AS 1289.6.1.1

Client:	ATC Williams	Ticket No.	S6143
Client Address:	1141 Hay Street, West Perth	Report No.	WG22.6126_1_SCBR
Project:	Beale Pk, Spearwood	Sample No.	WG22.6126
Location:	Beale Pk, Spearwood	Date Sampled:	14-04-2022
Sample Identification:	HA12 (0.15-0.4) Sandfill	Date Tested:	20/04 - 27/04/22

TEST RESULTS - CALIFORNIA BEARING RATIO

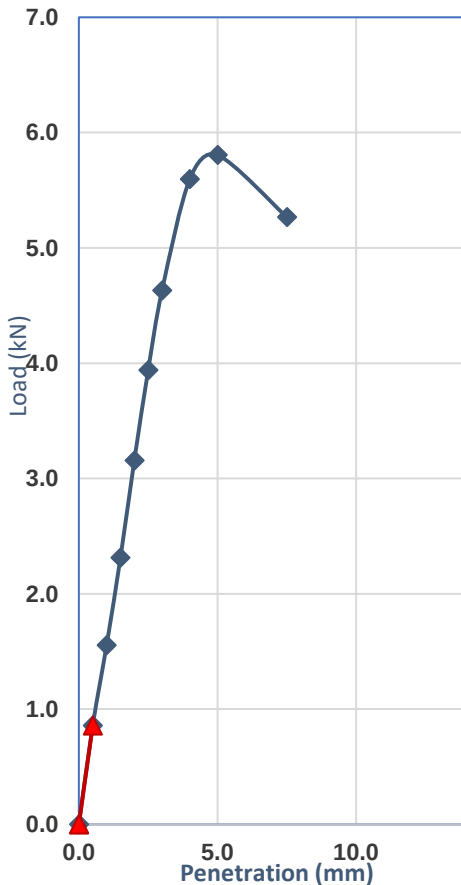
Sample Description:

Silty Sand

Sampling Method:

Sampled by Client, Tested as Received

Load Penetration Curve



Compaction Details

Compaction Method	AS 1289.5.1.1	Hammer Type	Standard
Plasticity Determined by	Estimated	Curing Time (Hours)	48.0
% Retained 19.0mm	0	Excluded/Replaced	Excluded
Maximum Dry Density (t/m ³)	1.84	Optimum Moisture (%)	11.5
Target Dry Density Ratio (%)	98	Target Moisture Ratio (%)	100

Specimen Conditions At Compaction

Dry Density (t/m ³)	1.81	Moisture Content (%)	10.9
Density Ratio (%)	98.5	Moisture Ratio (%)	96.5

Specimen Conditions After Soak

Soaked or Unsoaked	Soaked	Soaking Period (days)	4
Surcharges Applied (kg)	4.50	Measured Swell (%)	0.0
Dry Density (t/m ³)	1.81	Dry Density Ratio (%)	98.5
Moisture Content (%)	13.2	Moisture Ratio (%)	116.5

Specimen Conditions After Test

Top 30mm Moisture (%)	12.8	Remaining Depth (%)	12.6
-----------------------	------	---------------------	------

Correction applied to Penetration: 0mm

Determined at a Penetration of: 2.5mm

California Bearing Ratio (CBR): 30%

Comments:

Approved Signatory:

Name: Brooke Elliott

Date: 28-April-2022



Accreditation No. 20599

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with ISO/IEC 17025 - Testing

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SOIL | AGGREGATE | CONCRETE | CRUSHING

TEST REPORT - AS 1289.5.1.1

Client:	ATC Williams	Ticket No.	S6143
Client Address:	1141 Hay Street, West Perth	Report No.	WG22.6126_1_SMDD
Project:	Beale Pk, Spearwood	Sample No.	WG22.6126
Location:	Not Specified	Date Sampled:	14-04-2022
Sample Identification:	HA12 (0.15-0.4) Sandfill	Date Tested:	20-04-2022

TEST RESULTS - Standard Maximum Dry Density

Sampling Method:

Sampled by Client, Tested as Received

Sample Curing Time:

2 hrs

Method used to Determine Liquid Limit:

Visual / Tactile Assessment by Competent Technician

Material + 19.0mm (%):

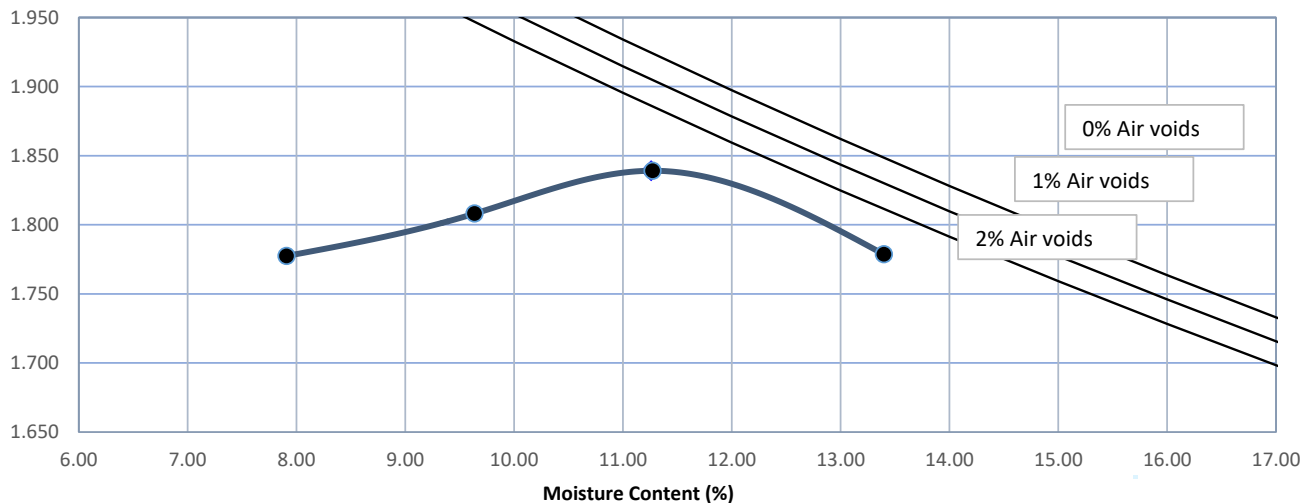
0

Material + 37.5mm (%):

-

Moisture Content (%)	7.9	9.6	11.3	13.4	
Dry Density (t/m³)	1.777	1.808	1.839	1.779	

Dry Density (t/m³)



Standard Maximum Dry Density (t/m³)

1.84

Optimum Moisture Content (%)

11.5

Comments: The above air void lines are derived from a calculated apparent particle density of 2.457 t/m³

Approved Signatory:

J Waldron

Name: Jason Waldron

Date: 22-April-2022



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REPORT

BPA ENGINEERING

BEALE PARK REDEVELOPMENT SPEARWOOD

121239.01R01

May 2022





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FIGURES

FIGURE 1: TEST LOCATION PLAN

FIGURE 2: COLUMN LOAD VS SETTLEMENT PLOT BASED ON THE CPT RESULTS

APPENDICES

APPENDIX A: HAND AUGER, PSP TEST RESULTS AND PHOTOGRAPHS, CPT PLOTS

APPENDIX B: LABORATORY TEST CERTIFICATES



1 INTRODUCTION

This report presents the results of a geotechnical investigation carried out at Beale Park in Spearwood, WA. We understand from the project brief provided, that redevelopment of the existing Beale Park in Spearwood is proposed and will comprise:

- Construction of a new single storey centrally located Clubroom facility with six unisex change rooms and increased storage areas.
- Construction of a new car parking extension with 105 car park bays located in the northern portion of the site.
- Construction of seventeen (17) new light poles - 25 m high poles at the western soccer fields and 35 m high poles at the eastern soccer fields.

This investigation was carried out at the requested by BPA Engineering. Terms of reference for this investigation were provided in ATC Williams P/L (ATCW) proposal 121239.01P01 dated 7 December 2021. Authorisation to proceed with the investigation was received from Aaron Murray of BPA Engineering in an email dated 31 March 2022.

The objectives of this investigation were to ascertain the following:

- Subsurface conditions and groundwater levels (if encountered),
- Site classification in accordance with AS 2870 [1],
- Site subsoil classification in accordance with AS 1170.4 [2],
- Site preparation requirements (earthworks), construction considerations and suitability of the excavated material to be used as backfill,
- Foundation design criteria and advice on suitable foundation options including allowable bearing pressure and settlement estimates for the proposed building strip and pad footing design(s) and light pole footings,
- Subgrade CBR for flexible pavement design by others,
- Provide information on possible soil corrosion issues, and
- Soil permeability and suitability of site for on-site disposal of stormwater (if granular soils are encountered).

2 SITE DESCRIPTION AND GEOLOGY

The study site comprises existing playing fields and supporting infrastructure and is located in Spearwood, WA. The site is bounded by Spearwood Avenue to the south, Hamilton Street to the west, Kent Street to the north and Sussex Street to the east. The site has a total area of approximately 6 ha.

At the time of the investigation, the site was covered by grass and mature trees and occupied with an existing clubroom building located in the centre portion of the site. Two existing asphalt covered car parking areas were also located to the north adjacent to Kent Street and to the west adjacent to Hamilton Street. Two existing single storey community storage facility was also located to the north of the existing clubroom building.

The available geological map for the area indicates that the site is to be underlain by windblown sand derived from Tamala Limestone overlying shallow limestone.

The Perth Groundwater Atlases (1st and 2nd Editions [3, 4]) indicate groundwater levels at the site to be between 1.5 m AHD and 0.8 m AHD respectively.

The Perth Groundwater Atlas (Second Edition) indicates the site surface elevations to be approximately 4 m AHD.



3 FIELDWORK

3.1 Overview

The fieldwork comprised electric friction cone penetrometer (CPT) tests and hand auger (HA) boreholes throughout the site as presented on the Site Layout and Test Location Plan, **Figure 1**, attached.

The work was carried out on 11th & 14th April 2022 and details of the work carried out in each area of proposed development is presented below.

3.2 Proposed New Clubroom Building

In the area of the proposed New Clubroom building the following was carried out:

- Dial Before You Dig Search for the site, review of the existing site plans and engagement of a service locator to clear the proposed CPT, HA, and PSP testing location of any underground services,
- Three (3) hand auger boreholes advanced to depths of between 0.6 m (HA1) and 0.9 m (HA8 and HA9) – effective refusal to visually assess the subsurface conditions and obtain samples for laboratory testing,
- Three Perth Sand Penetrometer (PSP) tests, one adjacent to each borehole to depths of between 0.9 m and 1.05 m to determine the relative density of the subgrade.

3.3 Proposed Car Park Area

In the area of the proposed New Car Park the following was carried out:

- One (1) hand auger borehole (HA11) advanced to a depth of 1.8 m to visually assess the subsurface conditions and obtain samples for Standard Compaction and Soaked CBR laboratory testing,
- One (1) Perth Sand Penetrometer (PSP) test carried out adjacent to the borehole to a depth of 1.05 m to determine the relative density of the subgrade.

3.3 Proposed Light Poles

- Twenty (20) electric friction cone penetrometer (CPT) tests carried out, one at each light pole location to depths of between 1.29 m (CPT3) and 6.94 m (CPT12) – effective refusal on limestone,
- Eight (8) hand auger boreholes, carried out at selected light pole locations to depths of between 0.4 m (HA3) – effective refusal and 2.0 m (HA2, HA5 and HA10) to visually assess the subsurface conditions and obtain samples for laboratory testing at selected light pole locations, and
- Seven (7) Perth Sand Penetrometer (PSP) tests, one adjacent to each hand auger location to depths of between 0.6 m (HA5) and 1.05 m elsewhere to determine the relative density of the subgrade.

4 LABORATORY TESTING

The following laboratory tests were carried out on soil samples recovered from selected borehole and test pit locations across the site:

- | | |
|-----------------------------------|------|
| • Particle Size Distribution test | 2 no |
| • Standard Compaction | 1 no |
| • Soaked CBR at 98% SMDD | 1 no |
| • pH, Chloride and Sulphate | 1 no |



5 RESULTS OF THE INVESTIGATION

5.1 Detailed Results

The detailed results of the investigation are presented as follows:

- The Column Load vs Settlement Plot based on the CPT results is provided in **Figure 2**.
- The following is presented in **Appendix A**:
 - Borehole logs, photographs and PSP test results; and
 - CPT plots.
- The following is presented in **Appendix B**:
 - Laboratory test certificates.

5.2 Summary of Ground Conditions

5.2.1 Proposed Clubroom Building and Car Park area

- Topsoil:** Loose, fine and medium, grey/brown sand with silt was encountered all hand auger boreholes located within the Loose, fine and medium, grey/brown sand with silt was encountered all hand auger boreholes located within the proposed new building and car parking area to depths of between 0.1 m (HA9) and 0.2 m (HA11).
- Fill:** A layer of medium dense and dense fine and medium orange/brown sand/fill with limestone gravel and silt was encountered beneath the topsoil in all hand auger boreholes across the proposed building and car parking area to depths of between 0.5 m (HA1) and 1.3 m (HA11). The same material encountered in HA1 contained small pockets of clay between 0.2 m and 0.3 m depth.
- Sand:** Dense, fine and medium, orange sand with silt was encountered in all exploratory borehole across the proposed building and car parking area beneath the sand/fill layer to depths of between 0.55 m (HA1) and 1.5 m (HA11).
- Limestone:** Weakly cemented, cream, dry/moist limestone was encountered below the sand layer in all boreholes across the proposed building area to depths of between 0.6 m (HA1) and 0.9 m (HA8 and HA9). Hand auger refusal was met at these depths on hard limestone.
- Groundwater:** Groundwater was not encountered during the investigation in any of the hand auger boreholes located at these portions of the site.

5.2.2 Proposed Light Poles

- Topsoil:** Loose, fine and medium, grey/brown sand with silt was encountered all hand auger boreholes located at selected light pole locations, in the area of the western and eastern soccer fields, to depths of between 0.15 m (HA3) and 0.1 m (HA2 – HA12).
- Fill:** A layer of medium dense and dense fine and medium orange/brown sand/fill with limestone gravel and silt was encountered beneath the topsoil in all hand auger boreholes located at light pole locations to depths between 0.25 m (HA3) and 0.6 m (HA12).
- The CPT probes carried out at each light pole location indicate the presence of dense and very dense sand/fill with gravel to depths of between 0.3 m (CPTs 10-CPT 17a) and 0.9 m (CPT2).
- Sand:** Dense, fine and medium, orange sand with silt was encountered in all exploratory boreholes located at the selected light pole locations beneath the sand/fill layer to depths of between 0.35 m (HA3) and 2.0 m (HA2, HA5 and HA10).
- This material was also identified from the CPT plots and was generally medium dense

and dense to depths of between 0.5 m (CPT5) and approximately 2.4 m (CPT17a).

The sand encountered below 2.4 m in CPT4, 2.9 m in CPT7, 3.0 m in CPT 16, and 3.2 m in CPT12 and 15m) in CPT4 became loose at depths of between 3.1 m in CPT17a and CPT7 and 3.5 m and 5.4 m in CPTs 16 and 15 approximately after that to a full exploration depth. This density profile is typical of windblown sand infill to hollows between limestone pinnacles.

Limestone: Weakly cemented, cream, dry/moist limestone was encountered below the sand layer in all boreholes at selected light pole locations to depths of between 0.4 m (HA3) and 1.2 m (HA12).

An irregular subsurface profile of hard, weathered limestone was identified in all CPT probes CPT probes located at each light pole locations at depths of between 0.7 m (CPT8a) and 6.9 m (CPT12). Most of the probes terminated by refusal within 0.5 m of the rock surface. However, the CPT probes (CPT5, 6, 9 12, 14, 15, 16, 17) penetrated through the weathered limestone to a termination depth of between 1.76 m (CPT17) and 6.9 m (CPT12). The shallowest sub-crop was identified at 0.7 m depth at CPT 8a located at the southwest corner of the site and 1.3 m depth at CPT3 located in the centre portion of the site.

Groundwater: Groundwater was encountered during the investigation in CPT5, 6, 7, 9, 10, 12,15, 16 and 17a at depths of between 1.85 m (CPT5) and 2.15 m (CPT9) bgl (below ground level). This corresponds to elevations of approximately 1.85 m - 2.15 m AHD.

The encountered subsurface conditions across the site were very uniform and consistent with the published geology map for the area.

6 LABORATORY TEST RESULTS

Selected soil samples recovered from selected hand auger boreholes were submitted for laboratory classification testing.

The results of particle size testing are shown in **TABLE 1**.

TABLE 1: PARTICLE SIZE TEST RESULTS

Location	Depth (m)	% Fine	% Sand	% Gravel	USC Class
HA02	1.0 – 2.0	5	95	-	SP
HA12	0.15 – 0.4	7	93	-	SP-SM

The results of compaction and soaked CBR testing are summarised in **TABLE 2**.

TABLE 2: COMPACTION AND SOAKED CBR

Location	Depth (m)	CBR* (%)	SMDD (t/m ³)	OMC (%)	USC Class
HA12	0.15 – 0.4	30	1.84	11.5	SP-SM

*98% SMDD

A soil sample obtained from HA12 (0.15 - 0.4m) was assessed for the purpose of soil exposure classification with respect to concrete durability.

The results of pH, SO₄ and Cl are summarised in **TABLE 3** below.



TABLE 3: SOIL PH, SULFATE AND CHLORIDE CONTENT

Hole ID	Depth (m)	pH	Sulfates SO ₄ (mg/kg)	Chloride Cl (mg/kg)	Soil Conditions
HA12	0.15 – 0.4	9.0	12	29	A1

7 CONCLUSIONS AND RECOMMENDATIONS

7.1 Site Classification

After site preparations are carried out in accordance with **Section 7.2**, the site is considered to be a **Class A** site in accordance with AS 2870-2011 [1].

The site sub-soil class is **Ce** (shallow soil site) in accordance with AS 1170.4-2007 [2].

7.2 Site Preparation and Construction Considerations

The following site preparation works are recommended to render the site suitable for the proposed development. Earthworks should be carried out in accordance with AS 3798 [6].

- Prior to site preparation earthworks commencing, the site of the proposed Clubroom building should be striped of asphalt, fill material, and any other unsuitable material and removed from site. All footings, leach drains, septic tanks, hardstand, soakwells, trees, and any other unsuitable material should also be excavated and removed from site.
- Light poles with pad footings founded at a minimum of 1 m depth, should be excavated to the underside of footing depth.
- The stripped areas should be proof compacted to a dry density ratio of at least 95% relative to Standard Maximum Dry Density (SMDD) in accordance with AS 3798 [6]. Any excavations to remove trees and tree roots should be backfilled with clean sand fill and also compacted to a minimum of 95% SMDD in accordance with AS 3798-2007 [6].
- The sand fill material encountered at the site (excavated for light pole locations or similar) is considered suitable for reuse. If the material is excavated it should be stockpiled separately for later use if required, subject to additional site inspection and additional laboratory testing.
- Any imported sands used to make up site levels should be clean with less than 5% fines and be free of oversize (material greater than 50 mm diameter). The sand fill should be placed in loose layers not exceeding 300 mm thickness and compacted to at least 95% SMDD in accordance with AS3798 [6].
- It is recommended that site preparation earthworks compaction is verified by Perth Sand Penetrometer (PSP) testing prior to footing construction, with the aim of meeting or exceeding 7 blows/300 mm in the depth range 150 mm to 450 mm below the compacted surface beneath the underside of the footings
- The site is generally suitable to support a slab on ground or shallow pad and strip footings of the single storey Club Room building, however, to avoid footings being founded partly on limestone and partly on sand, the following recommendations are made:
 - Assuming a limited number of limestone pinnacles and mostly sand:
 - Removal of limestone pinnacles with over excavation to 0.3 m (minimum) below footing level and replacement of backfill zone with compacted sand. This will minimize the possible differential settlements between footings placed on sand

and footings placed on rock (limestone).

- Assuming mostly limestone and limestone pinnacles with limited zones of sand:
- Excavate footings to limestone throughout, with removal of sand zones between limestone areas, and use blinding concrete to backfill deeper zones of loose sand between limestone, so as to prepare a zone of uniform support and depth for the subsequent standard footing preparation supported on limestone

7.3 Foundation Design

7.3.1 Proposed Clubroom Facility

Founding conditions at the proposed Clubroom are generally expected to comprise well compacted sand overlying shallow limestone. Provided the site preparation works detailed in **Section 7.2** are implemented, allowable bearing pressures of not greater than 150 kPa are considered appropriate for slab on ground edge beams and/or strip or pad footings associated with standard footing designs presented in AS2870-2011 [1]. Footing settlements are anticipated to be less than 10 mm.

In all instances, the base of footing excavations should be proof compacted using a plate compactor prior to the footing construction.

7.3.2 Proposed Light Poles

Assuming a minimum typical founding depth of 1 m for the light pole foundation bases, materials at footing level are expected to comprise limestone or Tamala Sands.

The majority of CPT probes indicate the Tamala sands to be dense, however CPT's 7,12,15,16 and 17 indicate the presence of weaker soil layers (loose sand) at depths typically below 2.4 m. Recorded tip resistances were between 0.3 MPa and 3.5 MPa.

Having completed the site preparation works detailed in **Section 7.2**, materials at foundation level should comprise either; proof compacted sand/fill, limestone or limestone with blinding concrete.

For footings constructed in sand/fill, allowable bearing pressures will generally be determined by settlement considerations. Empirical multipliers are applied to the CPT tip resistance to derive an estimate of elastic modulus for settlement estimation. Typically, a multiplier of 5 to 8 is applied to qc values in sands; however, it has been shown by seismic profiling and back analysis [7] that for the apparently loose layer of Tamala sand close to the underlying limestone, significantly higher multipliers are valid. This is inferred to be indicative of the effects of weak carbonate cementation between sand grains in otherwise fines depleted (winnowed) dune deposits.

For the purpose of settlement estimation, modulus multipliers of 6 and 15 have been adopted for the medium dense/dense sands and the loose sands respectively.

Figure 2 provides an indication of predicted pad footing settlements for various applied loads and bearing pressures for the conditions identified at CPT15.

In order to maintain foundation settlements within tolerable limits (<20 mm), allowable bearing pressures not greater than of 150 kPa are considered appropriate for the site. This assumes a minimum footing embedment depth of 1 m.

In all instances the base of footing excavations should be proof compacted using a plate compactor prior to footing construction. It is also recommended that the backfill over the pad footings is also compacted to at least 95% SMDD to aid footing support.



If pile footings are proposed for the site, it is recommended that location specific designs should be prepared by specialized piling contractors using the location specific CPT results presented in **Appendix A** of this report.

7.4 Subgrade CBR for Pavement Design

Following the completion of the site preparation work detailed in Section 7.2, subgrade is expected to comprise compacted sand or sand fill. For in-situ sands and sand fill proof compacted to at least 98% SMDD, a CBR value of 15% is considered appropriate pavement design.

7.5 Stormwater Drainage

Conventional soakwell drains or stormwater detention basins are expected to be suitable for the site conditions comprising deeper sands and limestone. In areas where shallow limestone or cap rock is present, soakwell bases should be over-excavated (as far as practical) at least approximately 0.5 m below the soakwell sump level, with the over-excavated zone backfilled with suitable coarse aggregate (blue metal or similar). Based on empirical correlation with sample particle size distribution data, a permeability in the order of 1×10^{-4} m/s is estimated for soakage in the orange sands encountered at the site.

Soakwells should be placed as far as possible from foundations. Exact distances will depend on depth of footings and soakwells but generally a line drawn downward and outward at a slope of 1H:1V from footing edges should not intersect a soakwell.

The design of soakwells should consider the possible reduction in infiltration due to clogging effects over time.

7.6 Exposure Classification

Chemical analysis of a sand sample was undertaken to determine the site exposure classification in accordance with AS 3600 [7]. Based on the test results, non-aggressive conditions are inferred and an exposure classification of **A1** is considered satisfactory for concrete buried within approximately 0.6 m of the site surface, refer to **Appendix B**.

7.7 Additional Site Inspections

It is recommended that a geotechnical engineer inspect the site during the site preparation works to ensure that the recommendations outlined in **Section 6.2** of this report are fully implemented.

8 CLOSURE

Your attention is drawn to the “Conditions of Investigation and Report” which are presented at the end of this report.



REFERENCES

- [1] AS 2870 (2011): Residential Slabs and Footings – Construction.
- [2] AS 1170.4 (2007): Structural Design Actions Part 4: Earthquake Actions in Australia.
- [3] Geological Survey of Western Australia. 1:100,000 Environmental Geology Series, Fremantle Sheet.
- [4] Water and Rivers Commission (1997): Perth Groundwater Atlas (1st Edition).
- [5] Department of Environment (200): Perth Groundwater Atlas (2nd Edition).
- [6] AS 3798 (2007): Guidelines on earthworks for commercial and residential development.
- [7] AS 3600 (2018): Concrete Structures.



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1. Geotechnical site investigation necessarily involves the investigation of the subsurface conditions at a site at a few isolated locations, and the interpretation and extrapolation of those conditions to elsewhere on the site not so investigated. This procedure has been adopted at the site that is the subject of this report and due care and skill has been applied in carrying out and reporting on the work. Thus, the findings, conclusions and comments contained in this report represent professional estimates and opinions and are not to be read as facts unless the context makes it clear to the contrary. In general, statements of fact are confined to statements as to what was done and/or what was observed. Other statements have been based on professional judgement.
2. The scope of the work has been planned in the absence of any fore knowledge of the site other than that stated in the report. Unless otherwise stated we consider that the number of locations investigated and the depths to which they have been investigated are reasonable bearing in mind the scale and nature of the project, and the defined purpose for which the investigation was undertaken.
3. We do not accept any responsibility for any variance between the interpreted and extrapolated conditions and those that are revealed by any means subsequently. Specific warning is also given that many factors, either natural or artificial, may render ground conditions different from those which pertained at the time of the investigation. Should there be revealed during the construction or at any other time any apparent difference from subsurface conditions described or assessed in this report, it is strongly recommended that such differences be brought to our attention so that its significance may be assessed, and appropriate advice given.



FIGURES

FILE: E:\ATC\2021\121239 BEALE PARK REDEVELOPMENT, SPEARWOOD\01 SITE INVESTIGATION\CADD\121239.01 SITE PLAN.DWG



LEGEND:

- CPT LOCATION
- HAND AUGER LOCATION

**Beale Park Redevelopment
Spearwood**

Site Layout and Test Location Plan

JOB No. 121239.01	REV No. 0	FIGURE 1
-------------------	-----------	----------

REV	DESCRIPTION	DATE	DRWN	CHCK	APPROVED	PR

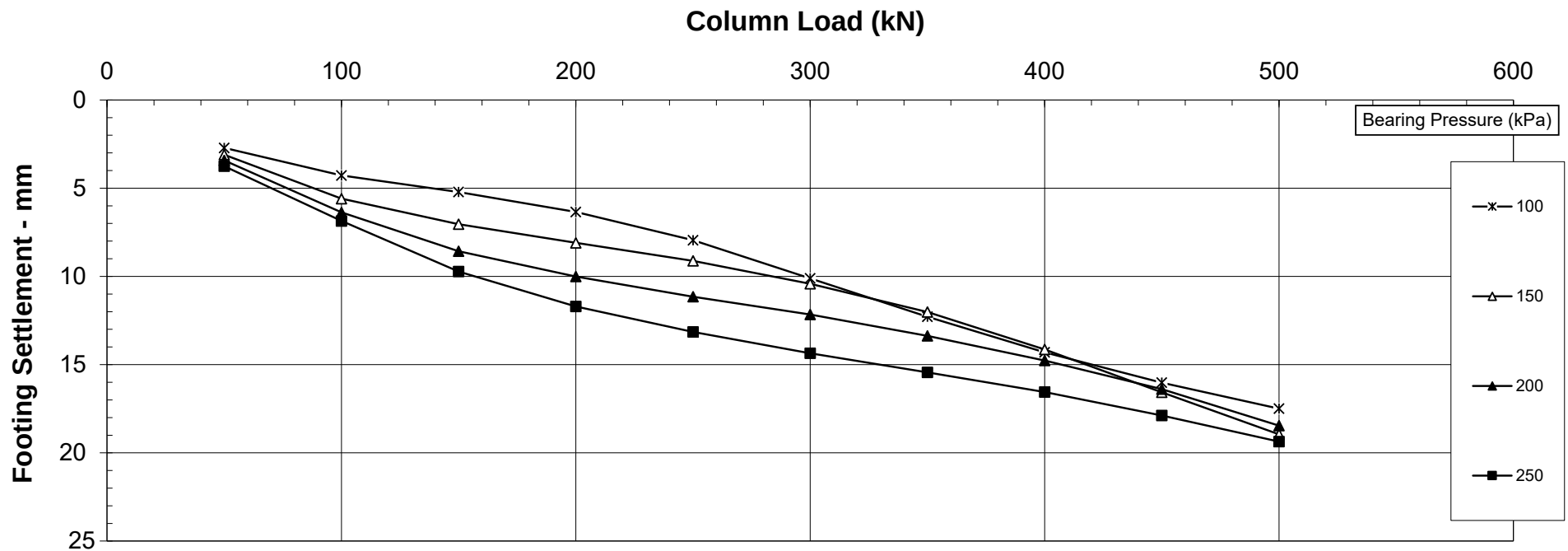
SHEET OF
SHT SIZE A4
SCALE 1:2500
DATE 22/4/22
DESIGN
DRAWN CJ
CHECKED ZK
APPROVED PR

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Pad Footing Settlement for Various Column Loads and Bearing Pressures



Notes: The settlements are based on the Schmertmann calculation method
 Based on the cone resistance data from CPT 15
 The footing founding depth is 1m
 The footing aspect ratio is constant for all footings ($L/B = 1$)

E:\ATC\2021\121239 Beale Park Redevelopment, Spearwood\01 Site Investigation\Data and Calcs\[Schmertmann Settlement Calculation - Electronic Data Entry 15 (1).xslm]Column Load



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Beale Park Redevelopment

Date: 6/05/2022

Job No: 121239.01

FIGURE 2



APPENDICES



APPENDIX A – FIELD LOGS, PSP TEST RESULTS and CPT RESULTS

SOIL DESCRIPTION AND CLASSIFICATION NOTES AND ABBREVIATIONS USED ON LOGS

FIGURE A1

IDENTIFICATION AND CLASSIFICATION

GW		Well graded gravels, gravel sand mixtures, less than 5% fines
GP		Poorly graded gravels, gravel sand mixtures, less than 5% fines
GM		Silty gravels, gravel sand silt mixtures, 12-35% non-plastic fines
GC		Clayey gravels, gravel sand clay mixture, 12-35% plastic fines
SW		Well graded sands, gravelly sands, less than 5% fines
SP		Poorly graded sands, gravelly sands, less than 5% fines
SM		Silty sand, sand silt mixtures, 12-35% non-plastic fines
SC		Clayey sand, sand clay mixtures, 12-35% plastic fines
ML		Inorganic silts, very fine sands, rock flour, silty or clayey fine sands
CL-ML CL CI		Inorganic clays of low to medium plasticity, gravelly, sandy or silty clays, lean clays
OL		Organic silts and silty clays of low plasticity
MH		Inorganic silts, micaceous or diatomaceous fine sands or silts, plastic silts
CH		Inorganic clays of high plasticity, fat clays
OH		Organic clays of medium to high plasticity
Pt		Peat, highly organic soils
-		Fill
-		Topsoil

PARTICLE SIZE

Clay	Silt	Sand	Gravel	Cobbles	Boulders
	0.002	0.06	2	60	200
Particle size (mm)					
NOTE: 0.06 mm is about the smallest particle size visible to the naked eye. The 0.075mm sieve is used to represent this size in the laboratory.					

CONSISTENCY OF COHESIVE SOILS

Classification	Undrained shear strength (kPa)
Very soft	Less than 12.5
Soft	12.5 - 25
Firm	25 - 50
Stiff	50 - 100
Very stiff	100 - 200
Hard	More than 200

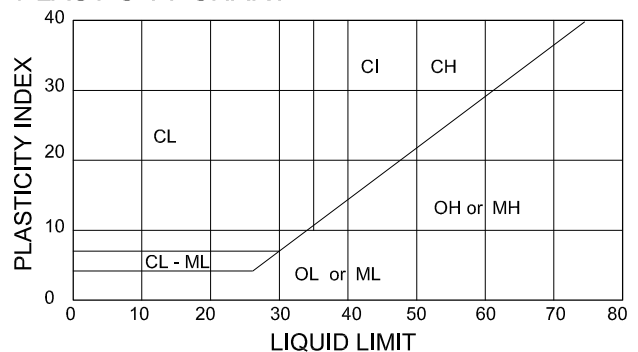
CONSISTENCY OF COHESIONLESS SOILS

Classification	Relative density (%)
Very loose	Less than 15
Loose	15 - 35
Medium dense	35 - 65
Dense	65 - 85
Very dense	More than 85

MOISTURE CONDITION OF COHESIVE SOILS

Symbol	Description
W	Field moisture content
W _p	Plastic limit

PLASTICITY CHART



NOTE: If in-situ tests and/or laboratory tests are not shown on the borelogs, classifications and descriptions are based on field identification procedures (AS 1726, Appendix A) including the use of pocket penetrometer for the fine grained soils, and on the ease and stability of drill holes or excavations in coarse grained soils.

NOTES AND ABBREVIATIONS

Sample Type	DS	Disturbed sample.
	BS	Bulk sample from excavation eg. Test pit.
	SPT	Standard Penetration Test sample. Open split tube, 51mm outside diameter.
	U (38,50,64)	Open tube sample of nominated diameter 38mm, 50mm or 64mm.
	NMLC	Core from a triple tube barrel, 52mm diameter.
	RC	Rock core.
Field Tests	SPT	N = the number of blows of a 63.5 kg hammer dropping 760mm required to drive the split tube sampler 300mm. If less than 300mm can be driven the blows and penetration achieved are noted.
	DCPT	Dynamic Cone Penetrometer Test. A 19mm pointed rod driven into the ground by a 9 kg hammer falling 508mm. The number of blows per 50mm penetration is recorded.
Sample Condition		Undisturbed
		Disturbed
		Sample lost. (For core runs it may not be clear where the loss occurred in the run. In these cases the total loss is shown at the bottom of the run.)
Groundwater		Observed groundwater level.
		Groundwater not observed means that the natural standing groundwater level was not or could not be measured, possibly due to a caving hole or to the use of wash water during the drilling operations.
		Groundwater not encountered means that the hole was dry after drilling.

ATC Williams



JOB NAME Beale Park Redevelopment

JOB LOCATION SPEARWOOD

DATUM AHD

LOCATION 384618E 6447498.6N

REMARKS

2020 TEST PIT 121239.01.GPJ GINT AUSTRALIA.GDT 8-5-22

CLIENT BPA Engineering

JOB NAME Beale Park Redevelopment

JOB NUMBER 121239.01

JOB LOCATION SPEARWOOD

DATE 14-4-22

LOGGED BY CJ

CHECKED PR

R.L. SURFACE 4

DATUM AHD

EQUIPMENT Hand Auger

LOCATION 384395E 6447681.7N

REMARKS

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description: Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition	Sample Type	Sample condition	Additional Observations
Not encountered		3.5	0.5		SP-SM TOPSOIL	Loose, fine and medium, grey brown sand with silt, moist/dry			
					SP-SM FILL	Medium dense, fine and medium, grey and orange with silt and limestone gravel, dry/moist			
					SP-SM SAND	Dense, fine and medium, orange with silt, dry/moist			
		3.0	1.0			with limestone gravel from 1 m			
		2.5	1.5						
		2.0	2.0						
						Hand auger HA10 terminated at 2m			
		1.5	2.5						

CLIENT BPA Engineering

JOB NAME Beale Park Redevelopment

JOB NUMBER 121239.01

JOB LOCATION SPEARWOOD

DATE 14-4-22

LOGGED BY CJ

CHECKED PR

R.L. SURFACE 4

DATUM AHD

EQUIPMENT Hand Auger

LOCATION 384723.9E 6447624.5N

REMARKS

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description: Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition	Sample Type	Sample condition	Perth Sand Penetrometer No. of blows for depth indicated by bar thickness
					SP-SM	TOPSOIL Loose, fine and medium, grey brown sand with silt, moist/dry			
					SP-SM	FILL Loose, fine and medium, grey and gery brown with silt and limestone gravel, dry/moist			
	Not encountered	3.5	0.5			medium dense			
		3.0	1.0						
		2.5	1.5		SP-SM	SAND Medium dense, fine and medium, orange with silt, dry/moist			
		2.0	2.0			Hand auger HA11 terminated at 1.8m			
		1.5	2.5						



CLIENT BPA Engineering

JOB NAME Beale Park Redevelopment

JOB NUMBER 121239.01

JOB LOCATION SPEARWOOD

DATE 14-4-22

LOGGED BY CJ

CHECKED PR

R.L. SURFACE 4

DATUM AHD

EQUIPMENT Hand Auger

LOCATION 384382.3E 6447394.3N

REMARKS

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description: Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition	Sample Type	Sample condition	Perth Sand Penetrometer No. of blows for depth indicated by bar thickness
									0 3 6 9 12 15
					SP-SM	TOPSOIL Loose, fine and medium, grey brown sand with silt, moist/dry			
					SP-SM	FILL Medium dense, fine and medium, grey and grey brown with silt and limestone gravel, dry/moist			
	Not encountered	3.5	0.5						
					SP-SM	SAND Dense, fine and medium, orange with silt, dry/moist			
		3.0	1.0						
					SP	LIMESTONE Weakly cemented, cream, dry/moist Hand auger HA12 terminated at 1.2m			
		2.5	1.5						
		2.0	2.0						
		1.5	2.5						



JOB NAME Beale Park Redevelopment

JOB LOCATION SPEARWOOD

DATUM AHD

LOCATION 384683E 6447537.9N

REMARKS

020 TEST PIT 121239.01.GPJ GINT AUSTRALIA.GDT 8-5-22

CLIENT BPA Engineering

JOB NAME Beale Park Redevelopment

JOB NUMBER 121239.01

JOB LOCATION SPEARWOOD

DATE 14-4-22

LOGGED BY CJ

CHECKED PR

R.L. SURFACE 4

DATUM AHD

EQUIPMENT Hand Auger

LOCATION 384392.8E 6447287.3N

REMARKS

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description: Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition	Sample Type	Sample condition	Perth Sand Penetrometer No. of blows for depth indicated by bar thickness
Not encountered					SP-SM	TOPSOIL Loose, fine and medium, grey brown sand with silt, moist/dry			
					SP-SM	FILL Medium dense, fine and medium, grey and orange with silt and trace gravel, dry/moist			
					SP-SM	SAND Dense, fine and medium, orange with silt, dry/moist tree roots			
					SP	LIMESTONE Well cemented, cream, dry/moist Hand auger HA3 terminated at 0.4m			
		3.5	0.5						
		3.0	1.0						
		2.5	1.5						
		2.0	2.0						
		1.5	2.5						

CLIENT BPA Engineering

JOB NAME Beale Park Redevelopment

JOB NUMBER 121239.01

JOB LOCATION SPEARWOOD

DATE 14-4-22

LOGGED BY CJ

CHECKED PR

R.L. SURFACE 4

DATUM AHD

EQUIPMENT Hand Auger

LOCATION 386646E 6446972N

REMARKS

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description: Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition	Sample Type	Sample condition	Perth Sand Penetrometer No. of blows for depth indicated by bar thickness						
Not encountered		3.5	0.5		SP-SM	TOPSOIL Loose, fine and medium, grey brown sand with silt, moist/dry			0	1	2	3	4	5	
					SP-SM	FILL Medium dense, fine and medium, grey and orange with silt and trace gravel, dry/moist									
					SP-SM	SAND Dense, fine and medium, orange with silt, dry/moist									
					SP	LIMESTONE Weakly cemented, cream, dry/moist Hand auger HA4 terminated at 1m									
		3.0	1.0												
		2.5	1.5												
		2.0	2.0												
		1.5	2.5												



JOB LOCATION SPEARWOOD

DATUM AHD

LOCATION 385181.5E 6446933.9N

REMARKS

2020 TEST PIT 121239.01.GPJ GINT AUSTRALIA.GDT 8-5-22

CLIENT BPA Engineering

JOB NAME Beale Park Redevelopment

JOB NUMBER 121239.01

JOB LOCATION SPEARWOOD

DATE 14-4-22

LOGGED BY CJ

CHECKED PR

R.L. SURFACE 4

DATUM AHD

EQUIPMENT Hand Auger

LOCATION 3852215.4E 6447347.9N

REMARKS

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description: Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition	Sample Type	Sample condition	Perth Sand Penetrometer No. of blows for depth indicated by bar thickness
					SP-SM	TOPSOIL Loose, fine and medium, grey brown sand with silt, moist/dry			
					SP-SM	FILL Medium dense, fine and medium, grey and orange with silt and trace gravel, dry/moist			
					SP-SM	SAND Dense, fine and medium, orange with silt, dry/moist			
	Not encountered	3.5	0.5						
		3.0	1.0						
		2.5	1.5						
		2.0	2.0						
		1.5	2.5						
						Hand auger HA6 terminated at 1.8m			

CLIENT BPA Engineering

JOB NAME Beale Park Redevelopment

JOB NUMBER 121239.01

JOB LOCATION SPEARWOOD

DATE 14-4-22

LOGGED BY CJ

CHECKED PR

R.L. SURFACE 4

DATUM AHD

EQUIPMENT Hand Auger

LOCATION 384695.3E 6447278.4N

REMARKS

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description: Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition	Sample Type	Sample condition	Perth Sand Penetrometer No. of blows for depth indicated by bar thickness
Not encountered		3.5	0.5		SP-SM	TOPSOIL Loose, fine and medium, grey brown sand with silt, moist/dry			
					SP-SM	FILL Medium dense, fine and medium, grey and orange with silt and trace gravel, dry/moist			
					SP-SM	SAND Dense, fine and medium, orange with silt, dry/moist			
					SP	LIMESTONE Weakly cemented, cream, dry/moist Hand auger HA8 terminated at 0.9m			
		3.0	1.0						
		2.5	1.5						
		2.0	2.0						
		1.5	2.5						

CLIENT BPA Engineering

JOB NAME Beale Park Redevelopment

JOB NUMBER 121239.01

JOB LOCATION SPEARWOOD

DATE 14-4-22

LOGGED BY CJ

CHECKED PR

R.L. SURFACE 4

DATUM AHD

EQUIPMENT Hand Auger

LOCATION 384585.7E 6447287.9N

REMARKS

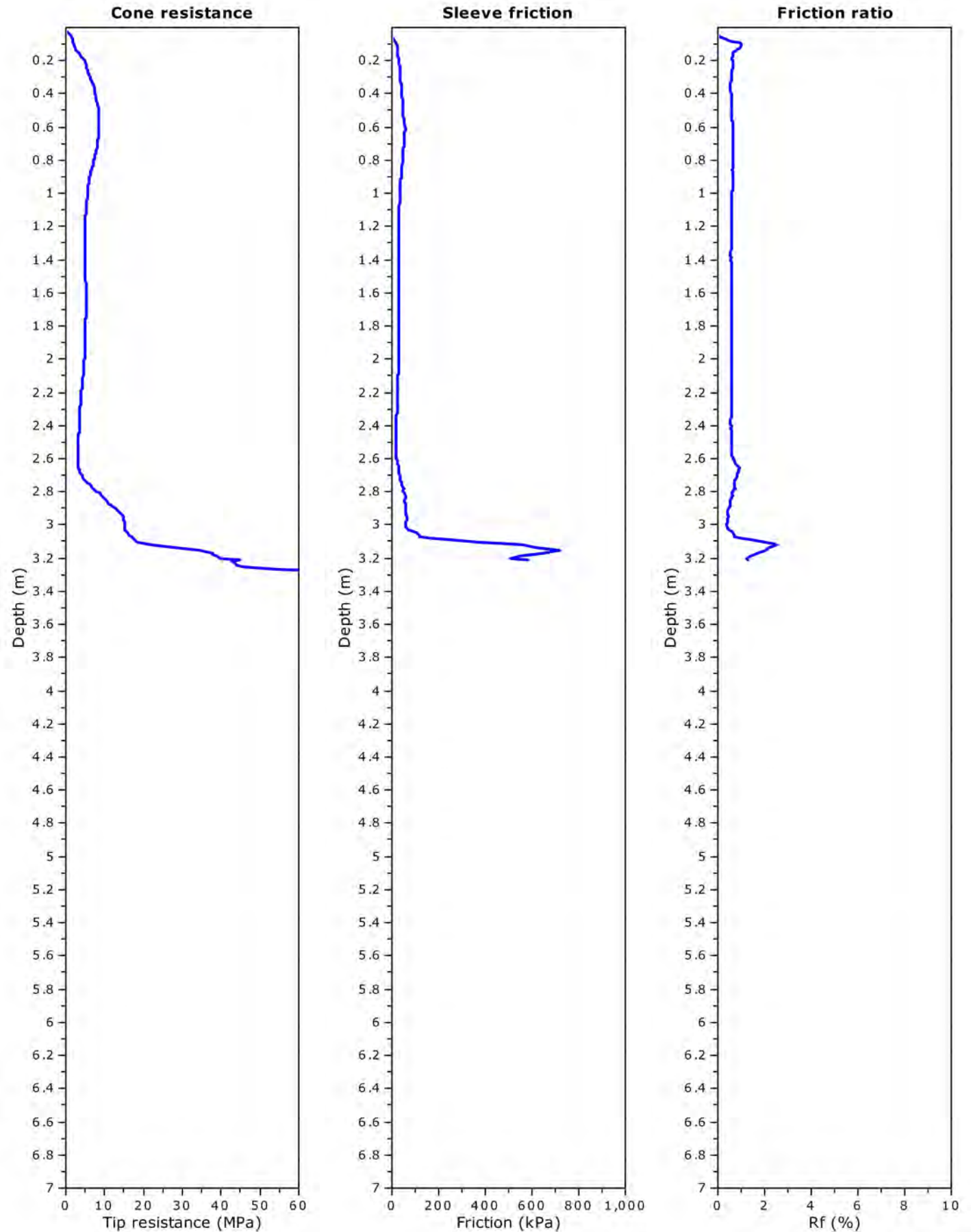
Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description: Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition	Sample Type	Sample condition	Perth Sand Penetrometer No. of blows for depth indicated by bar thickness
Not encountered	3.5	0.5			SP-SM	TOPSOIL Loose, fine and medium, grey brown sand with silt, moist/dry			
					SP-SM	FILL Medium dense, fine and medium, grey and orange with silt and limestone gravel, dry/moist			
					SP-SM	SAND Dense, fine and medium, orange with silt, dry/moist			
					SP	LIMESTONE Weakly cemented, cream, dry/moist Hand auger HA9 terminated at 0.9m			
		3.0	1.0						
		2.5	1.5						
		2.0	2.0						
		1.5	2.5						

Project: Beale Park Redevelopment (Project No.: 121239.01)

Total depth: 3.31 m, Date: 11/04/2022

Location: Spearwood

Cone Operator: Andrew

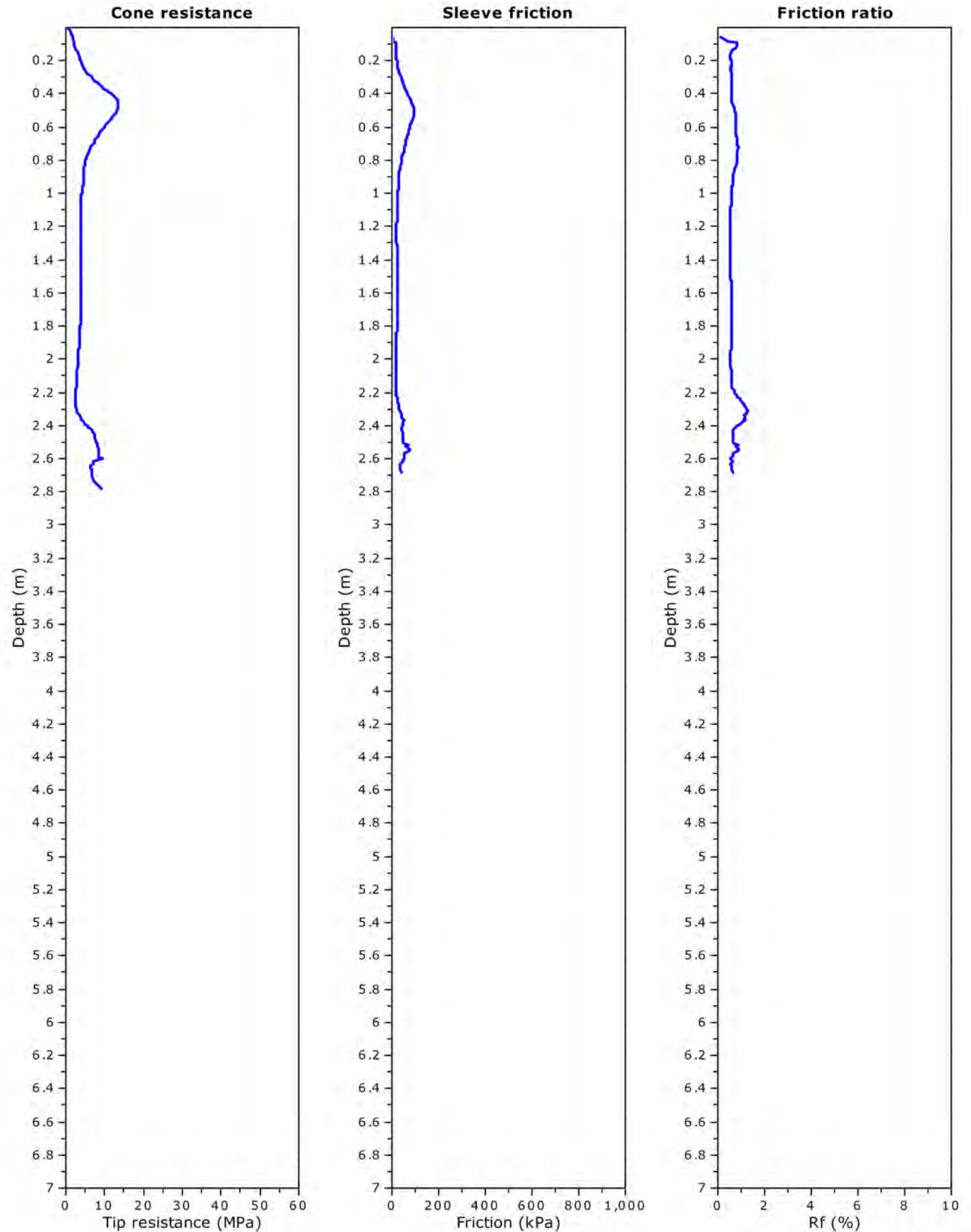


Project: Beale Park Redevelopment (Project No.: 121239.01)

Total depth: 2.78 m, Date: 11/04/2022

Location: Spearwood

Cone Operator: Andrew

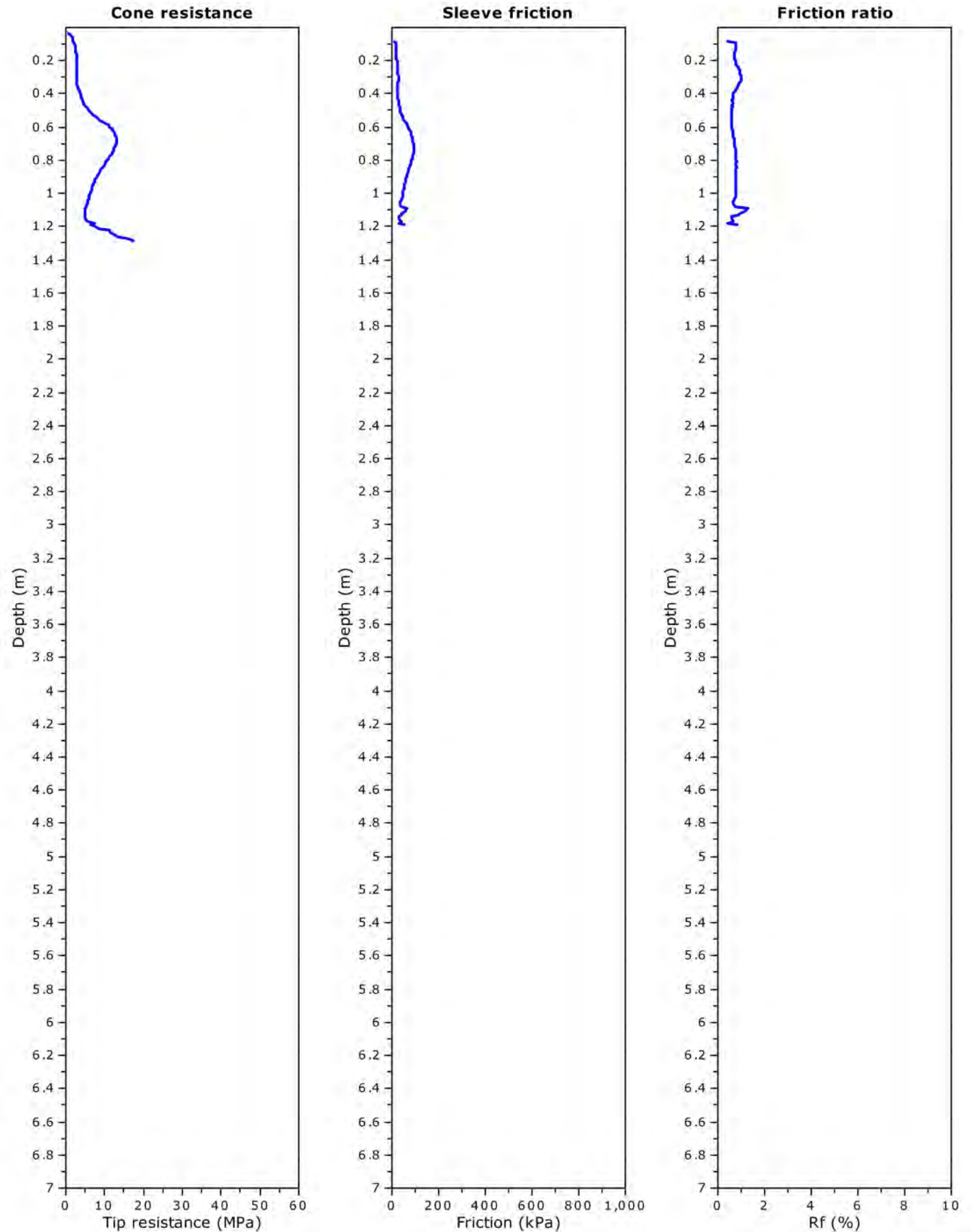


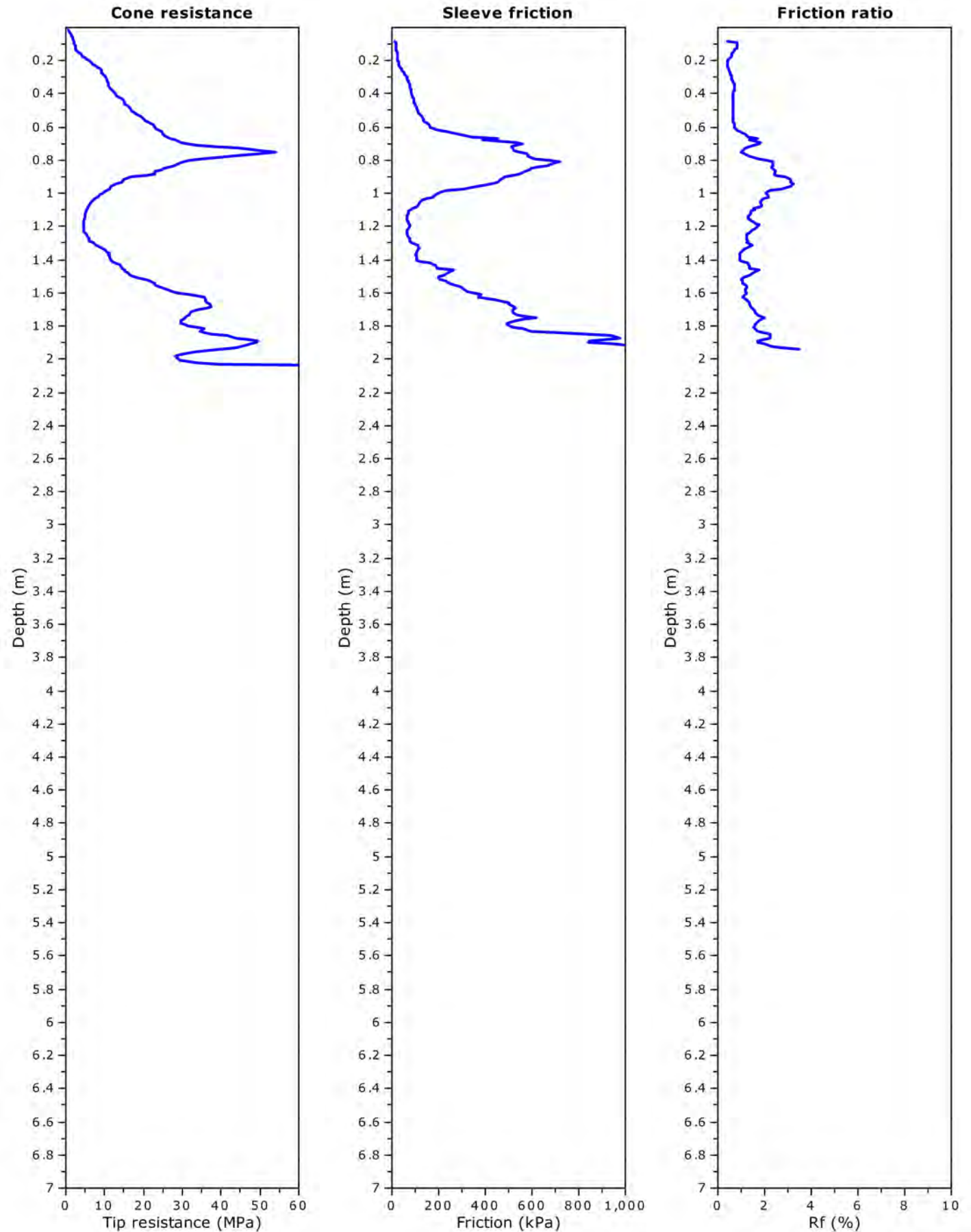
Project: Beale Park Redevelopment (Project No.: 121239.01)

Total depth: 1.29 m, Date: 11/04/2022

Location: Spearwood

Cone Operator: Andrew



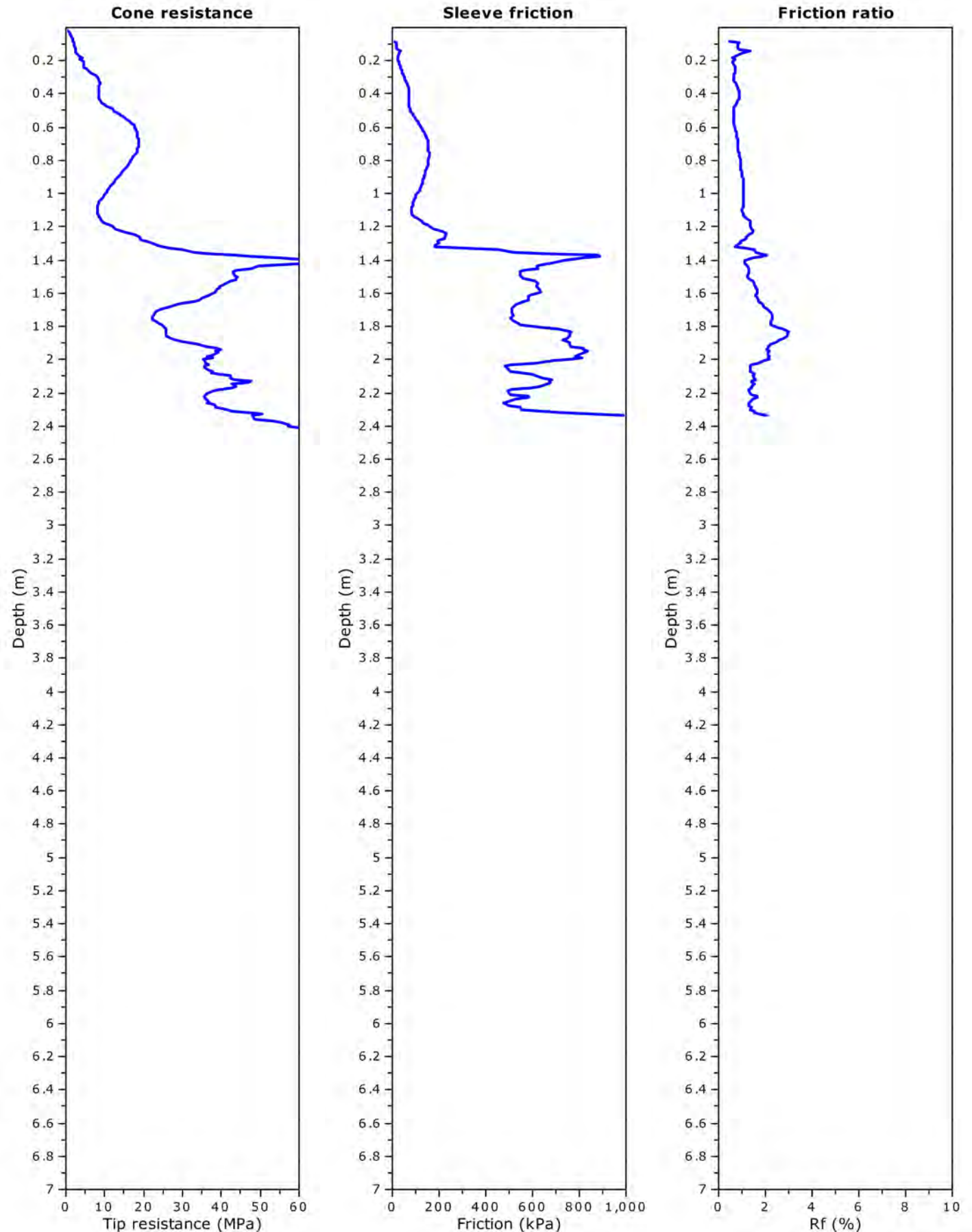


Project: Beale Park Redevelopment (Project No.: 121239.01)

Total depth: 2.44 m, Date: 11/04/2022

Location: Spearwood

Cone Operator: Andrew

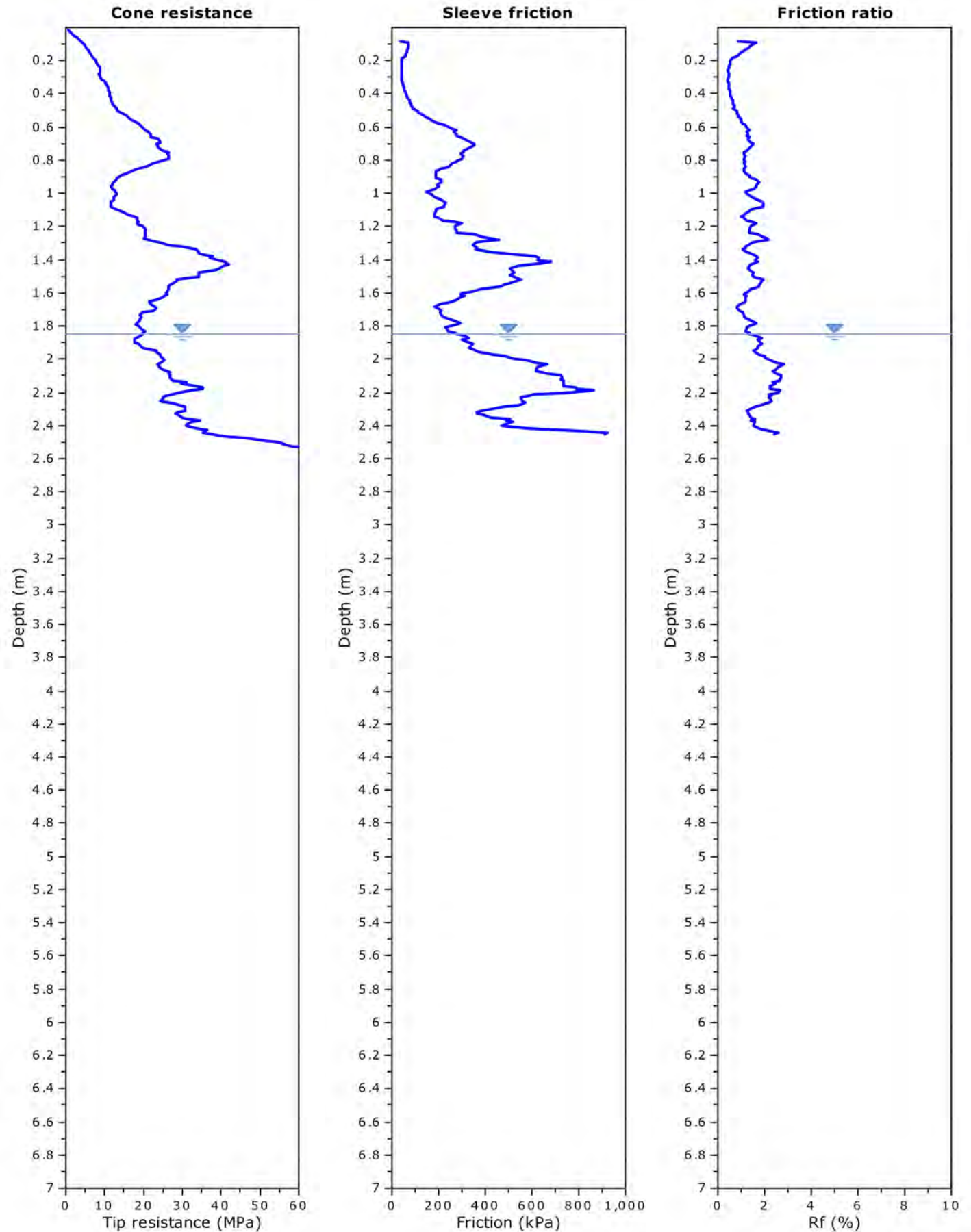


Project: Beale Park Redevelopment (Project No.: 121239.01)

Total depth: 2.55 m, Date: 11/04/2022

Location: Spearwood

Cone Operator: Andrew

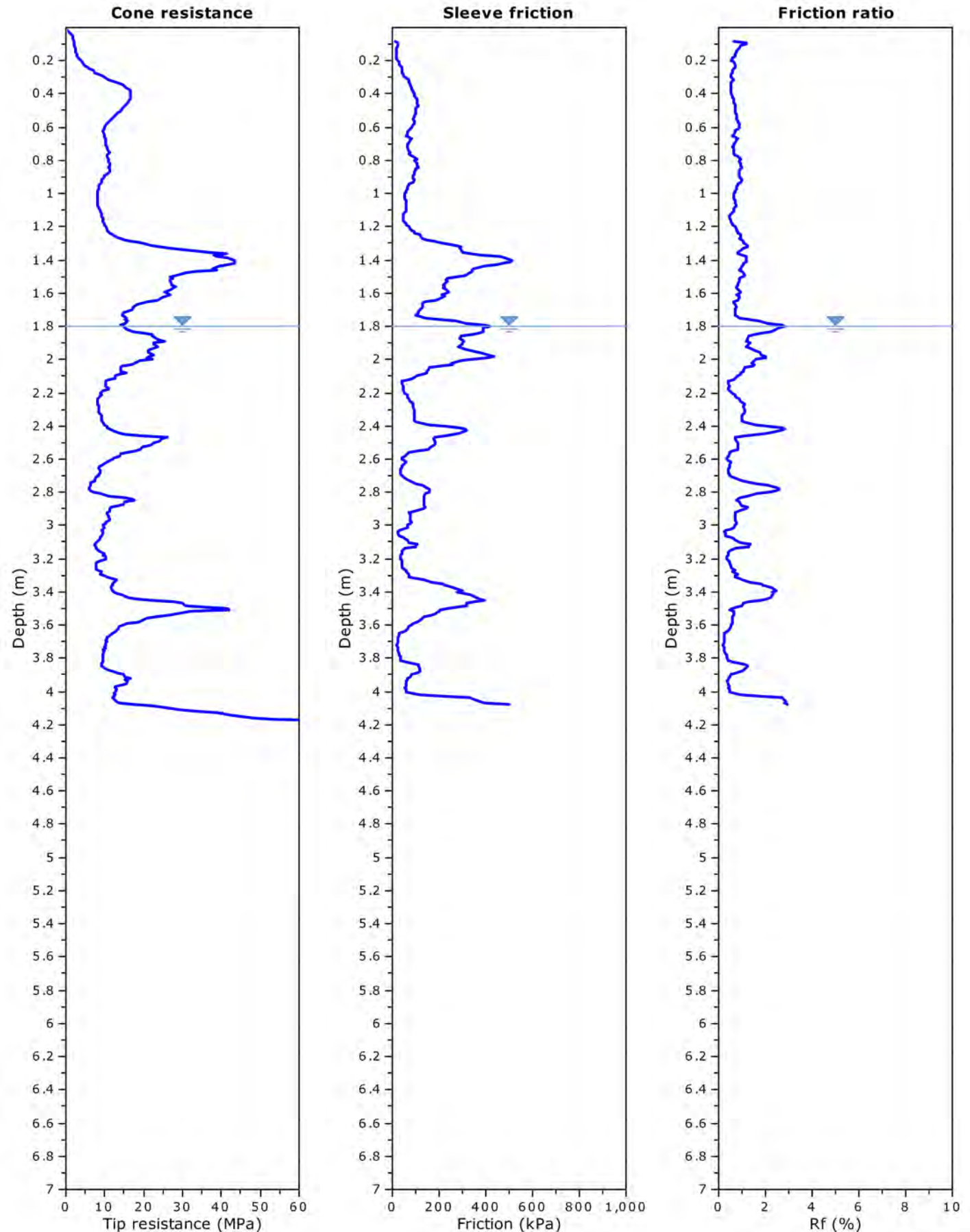


Project: Beale Park Redevelopment (Project No.: 121239.01)

Total depth: 4.18 m, Date: 11/04/2022

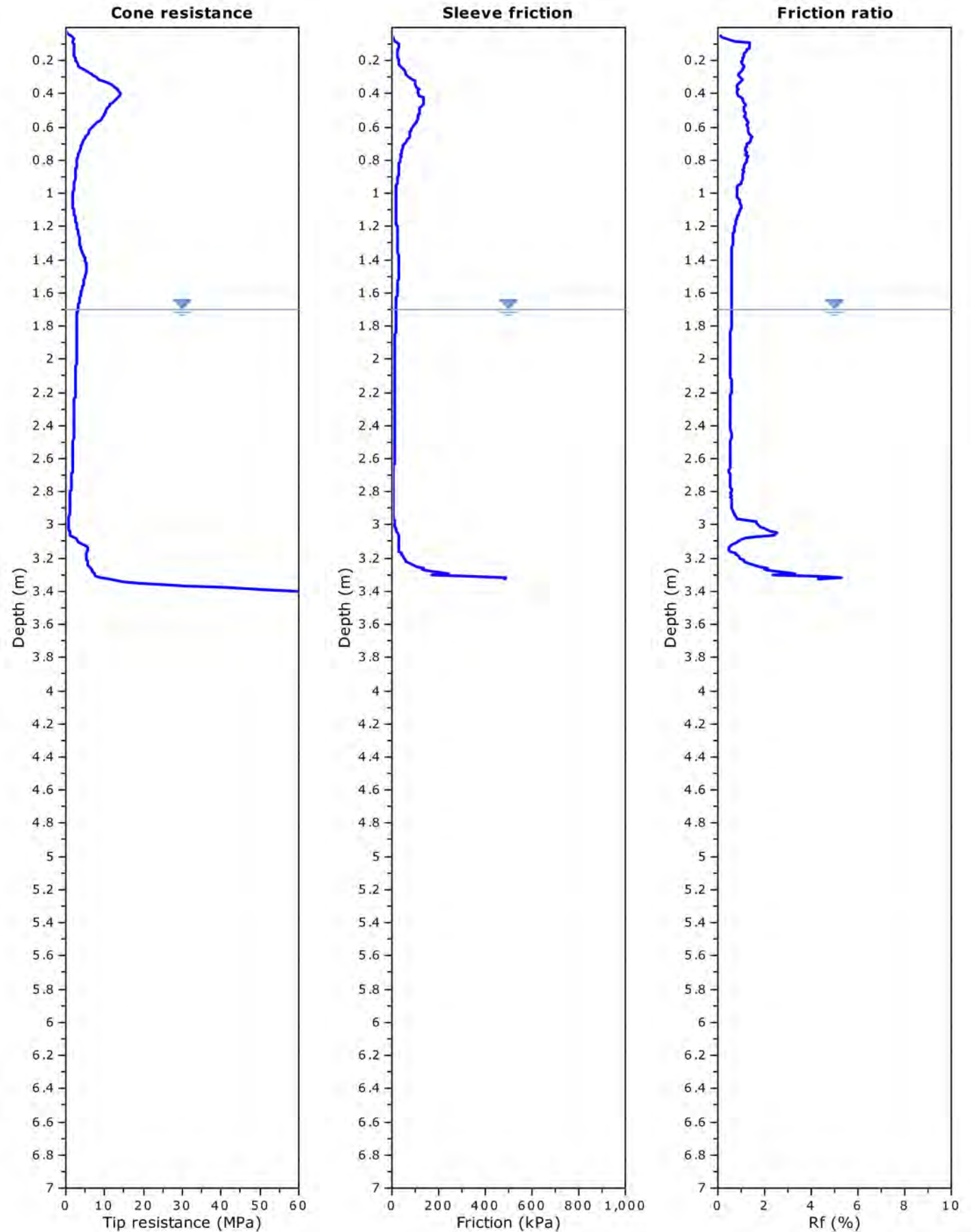
Location: Spearwood

Cone Operator: Andrew



Project: Beale Park Redevelopment (Project No.: 121239.01)
Location: Spearwood

Total depth: 3.43 m, Date: 11/04/2022
Cone Operator: Andrew

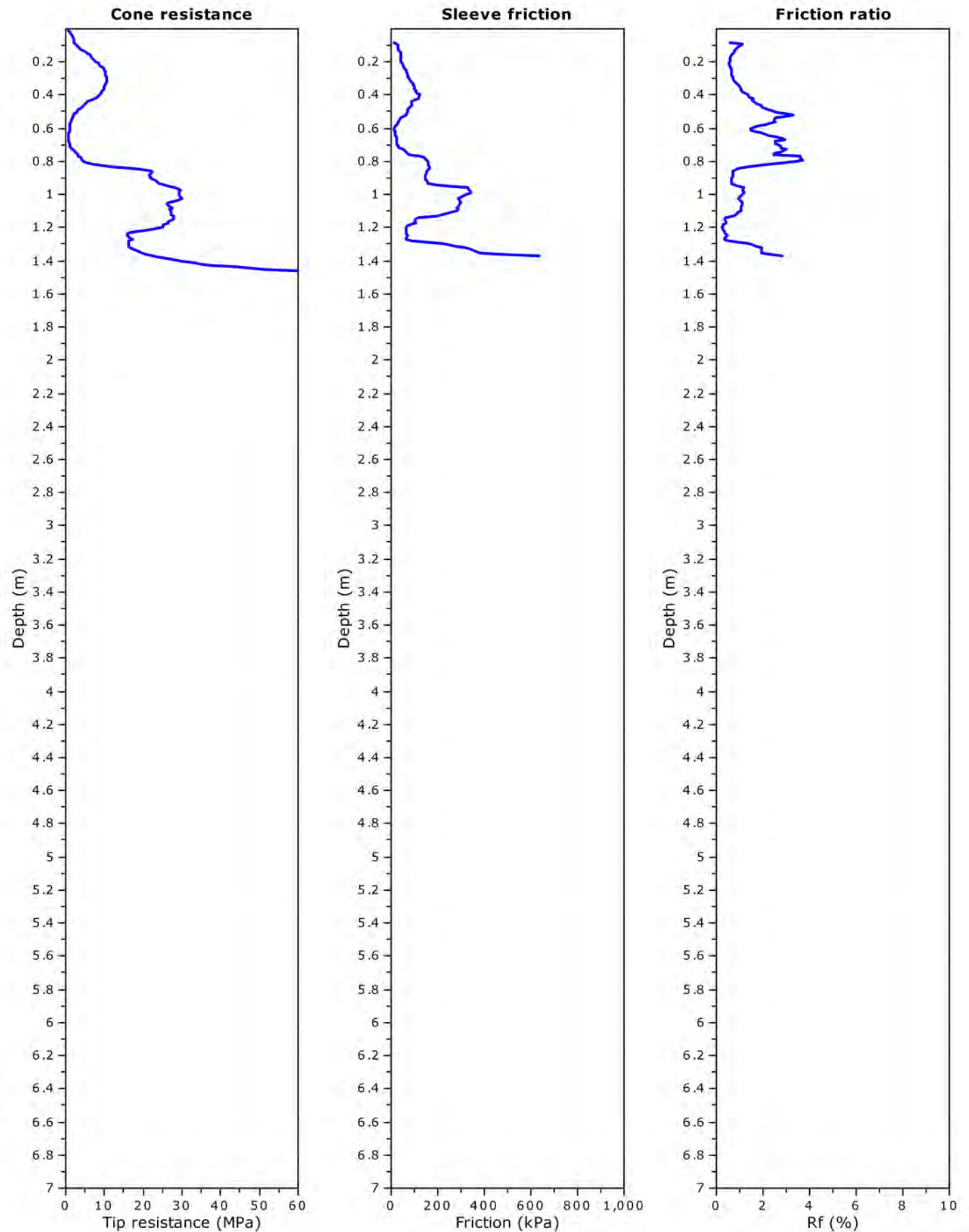


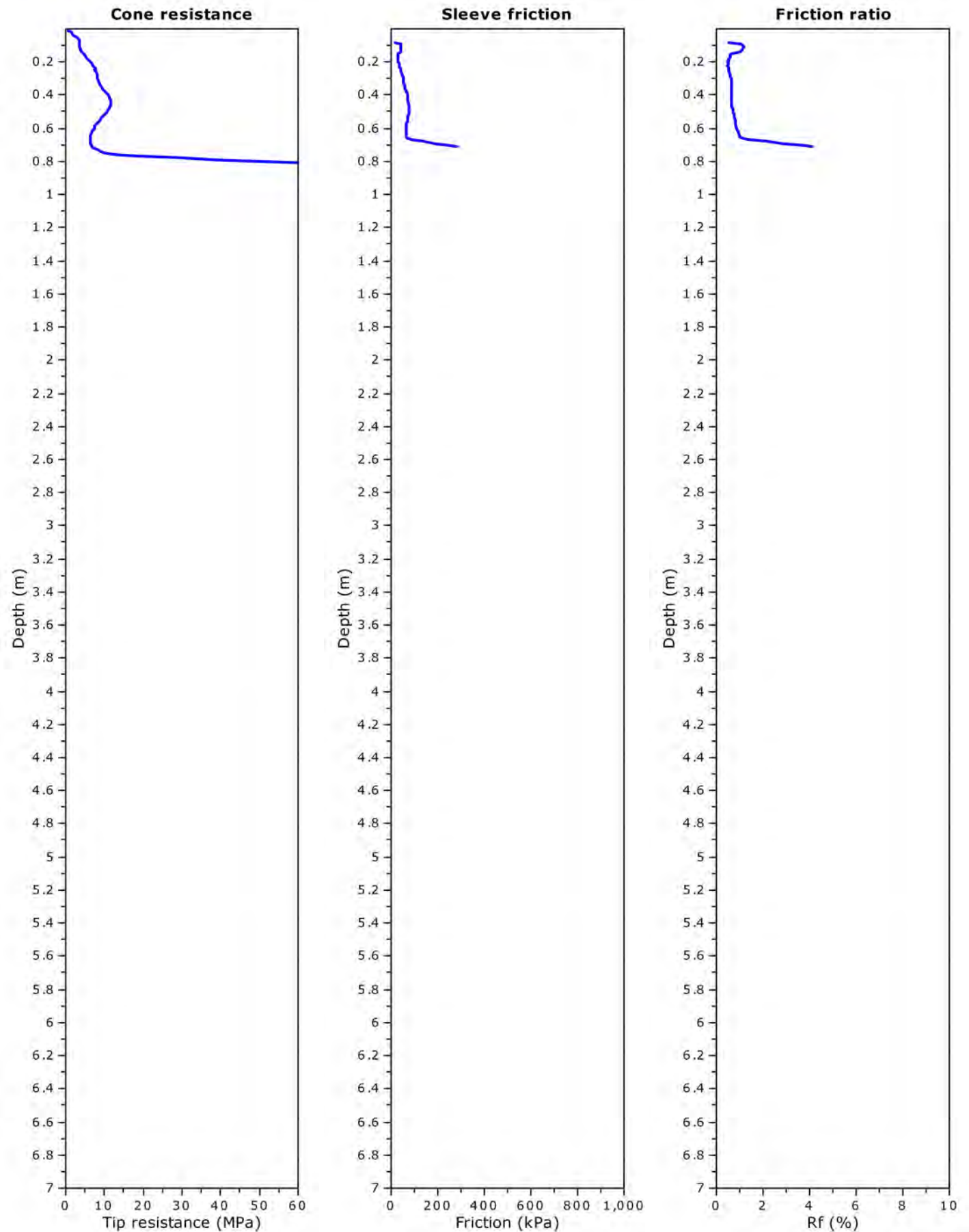
Project: Beale Park Redevelopment (Project No.: 121239.01)

Total depth: 1.47 m, Date: 11/04/2022

Location: Spearwood

Cone Operator: Andrew



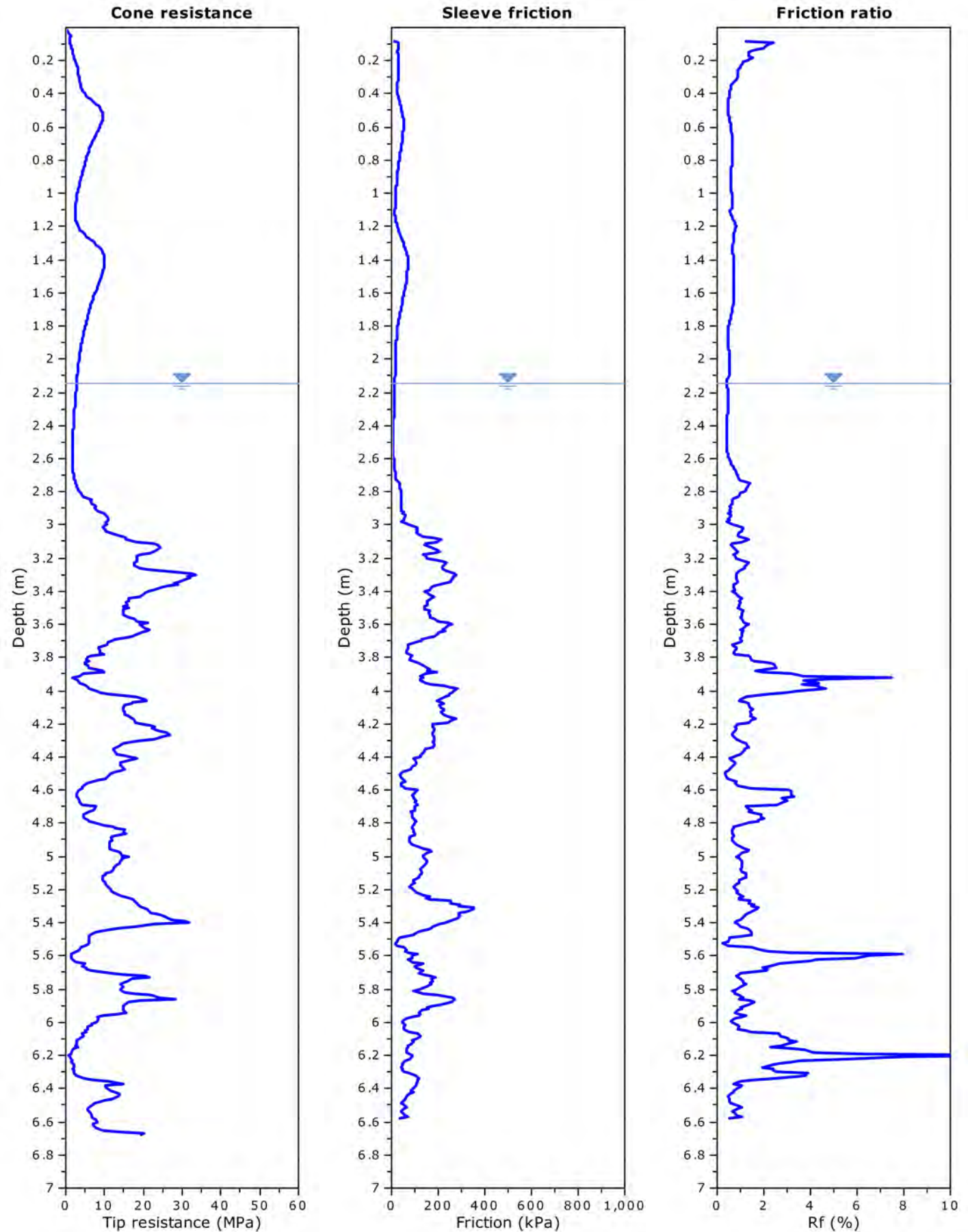


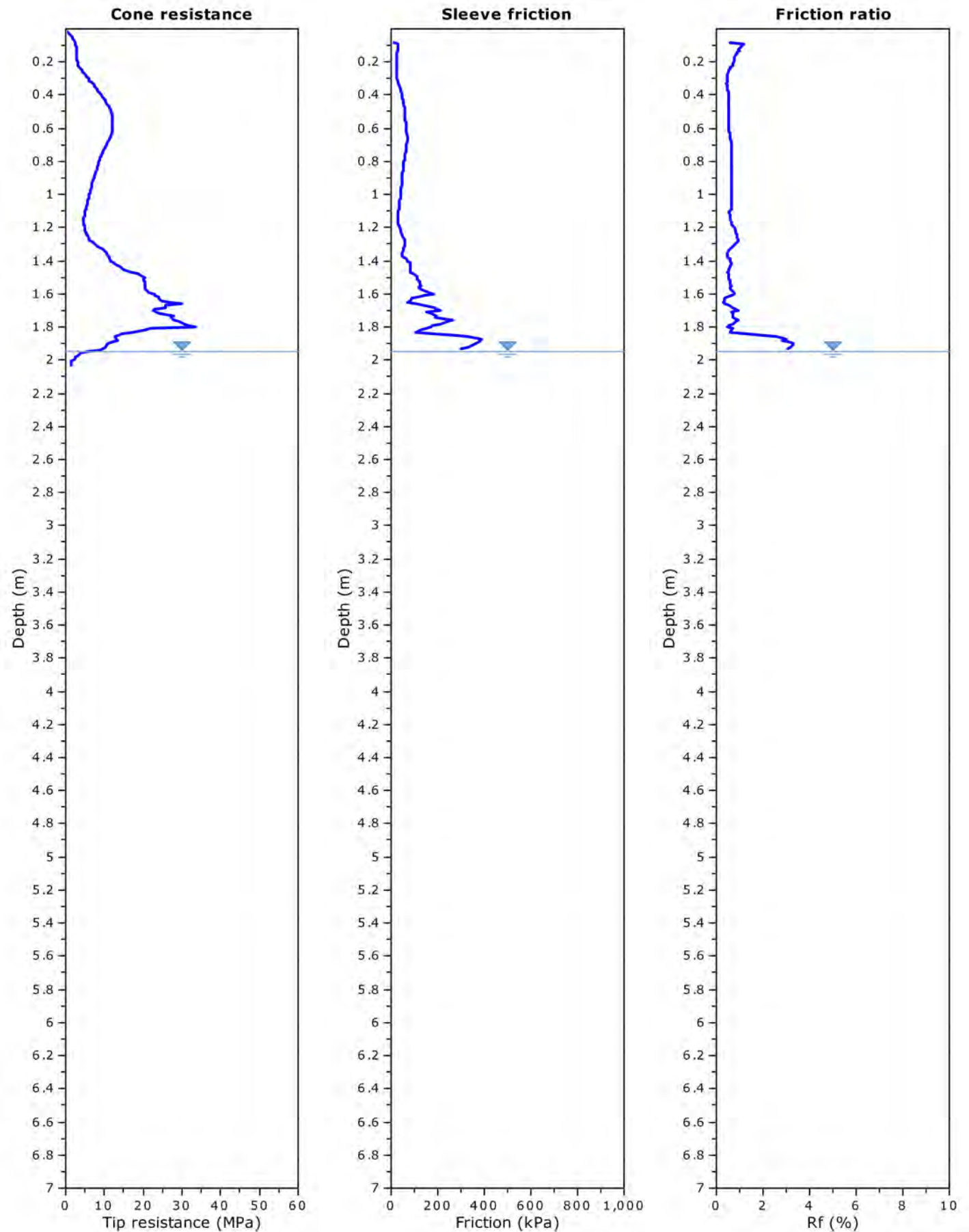
Project: Beale Park Redevelopment (Project No.: 121239.01)

Total depth: 6.68 m, Date: 11/04/2022

Location: Spearwood

Cone Operator: Andrew



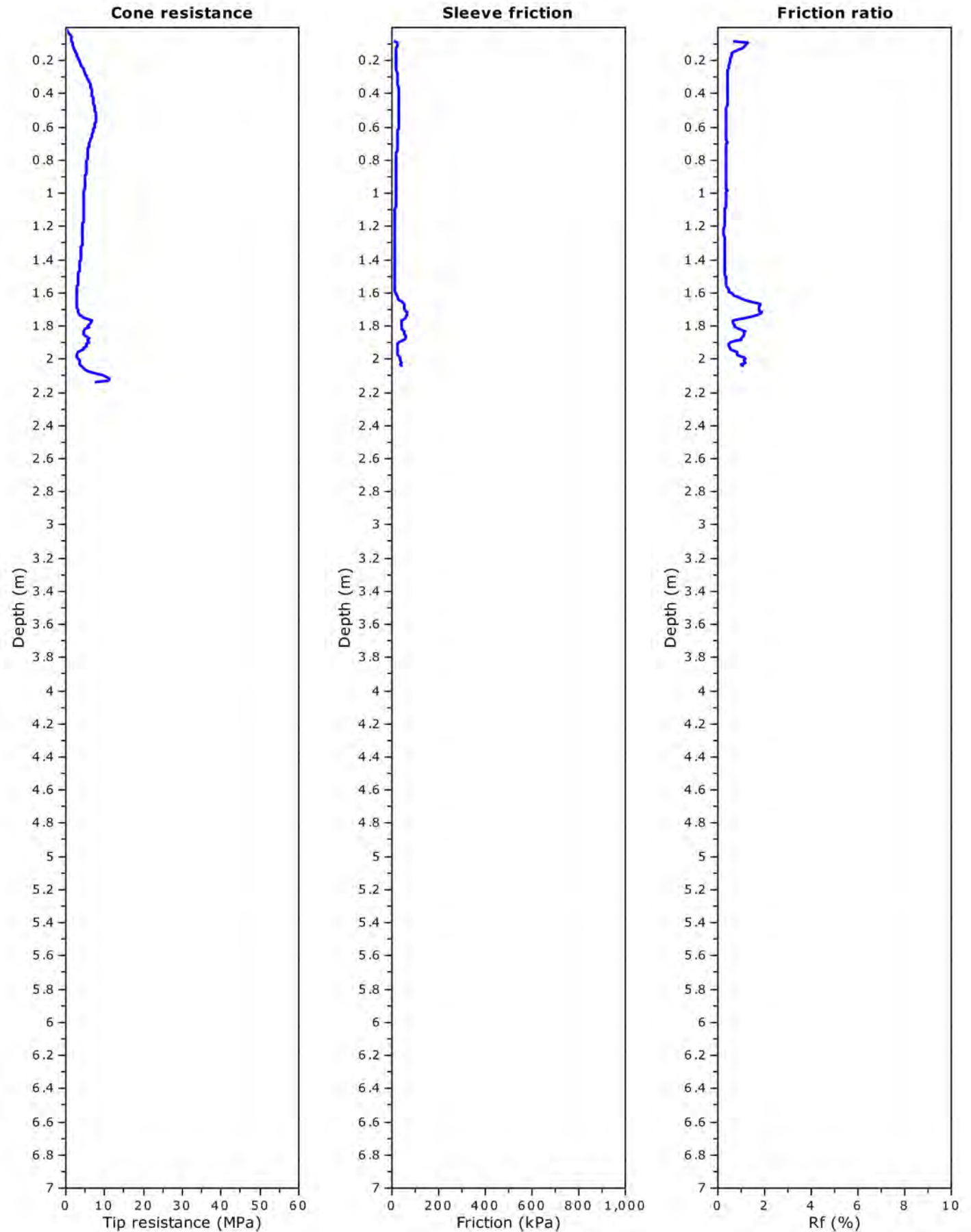


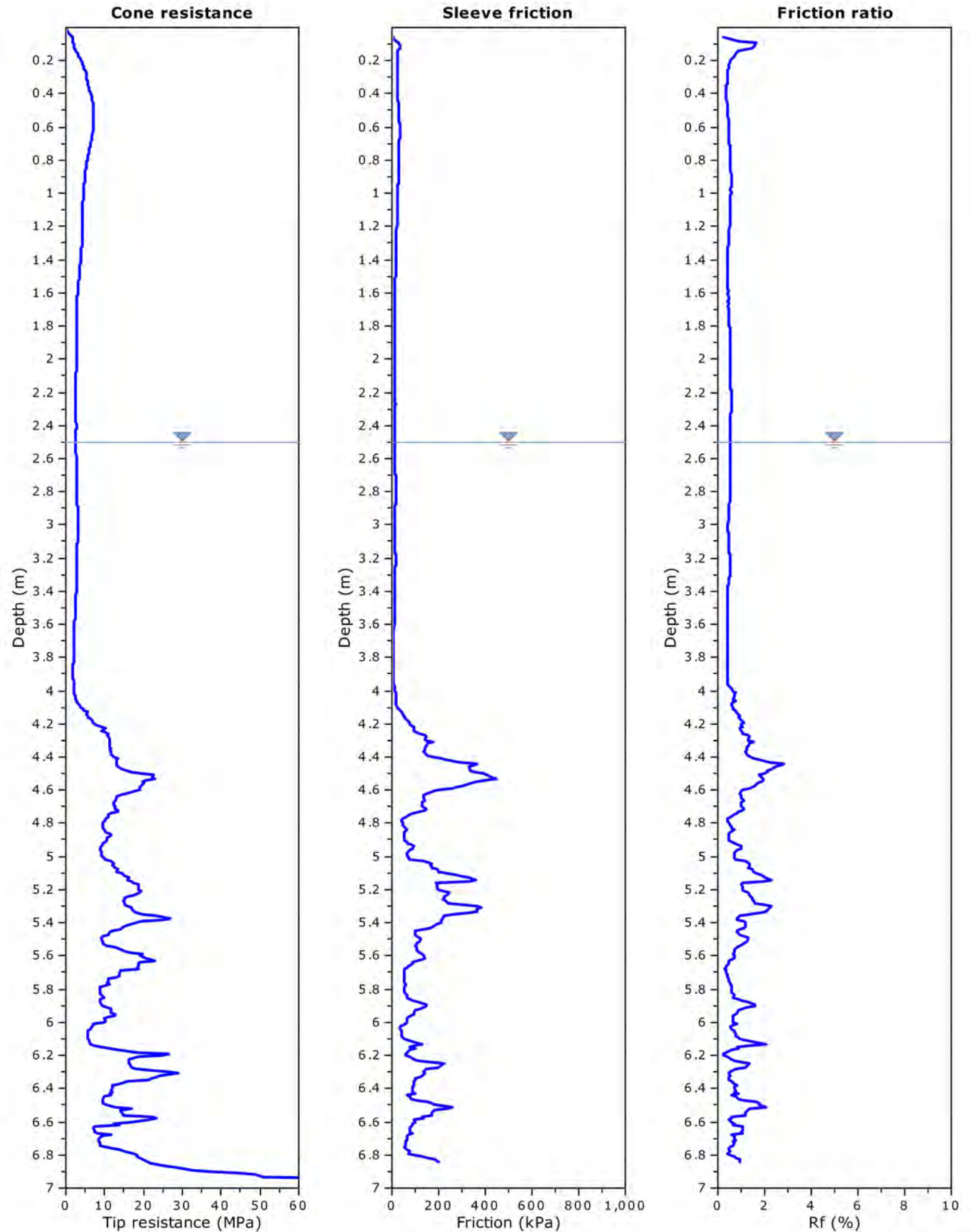
Project: Beale Park Redevelopment (Project No.: 121239.01)

Total depth: 2.14 m, Date: 11/04/2022

Location: Spearwood

Cone Operator: Andrew



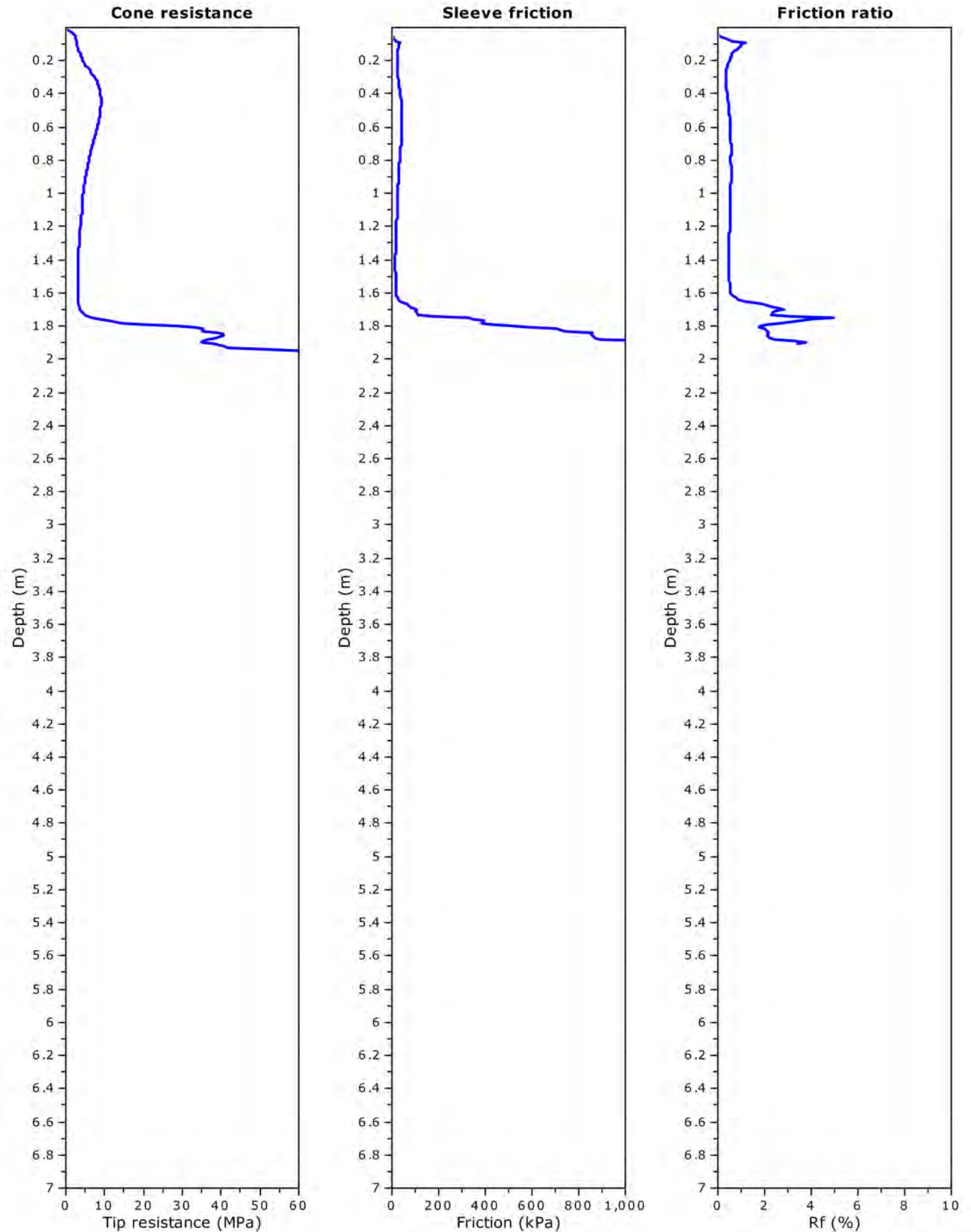


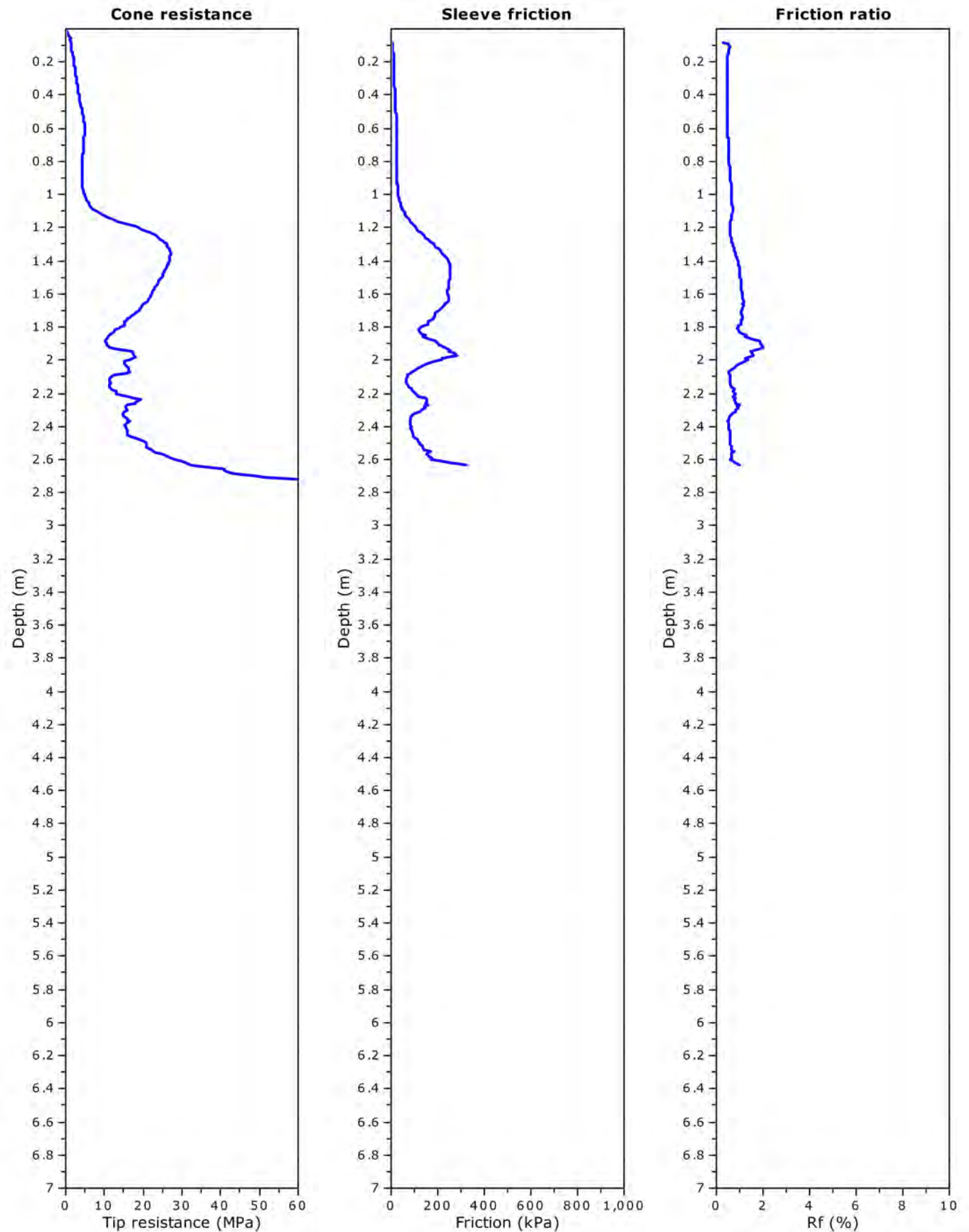
Project: Beale Park Redevelopment (Project No.: 121239.01)

Total depth: 2.01 m, Date: 11/04/2022

Location: Spearwood

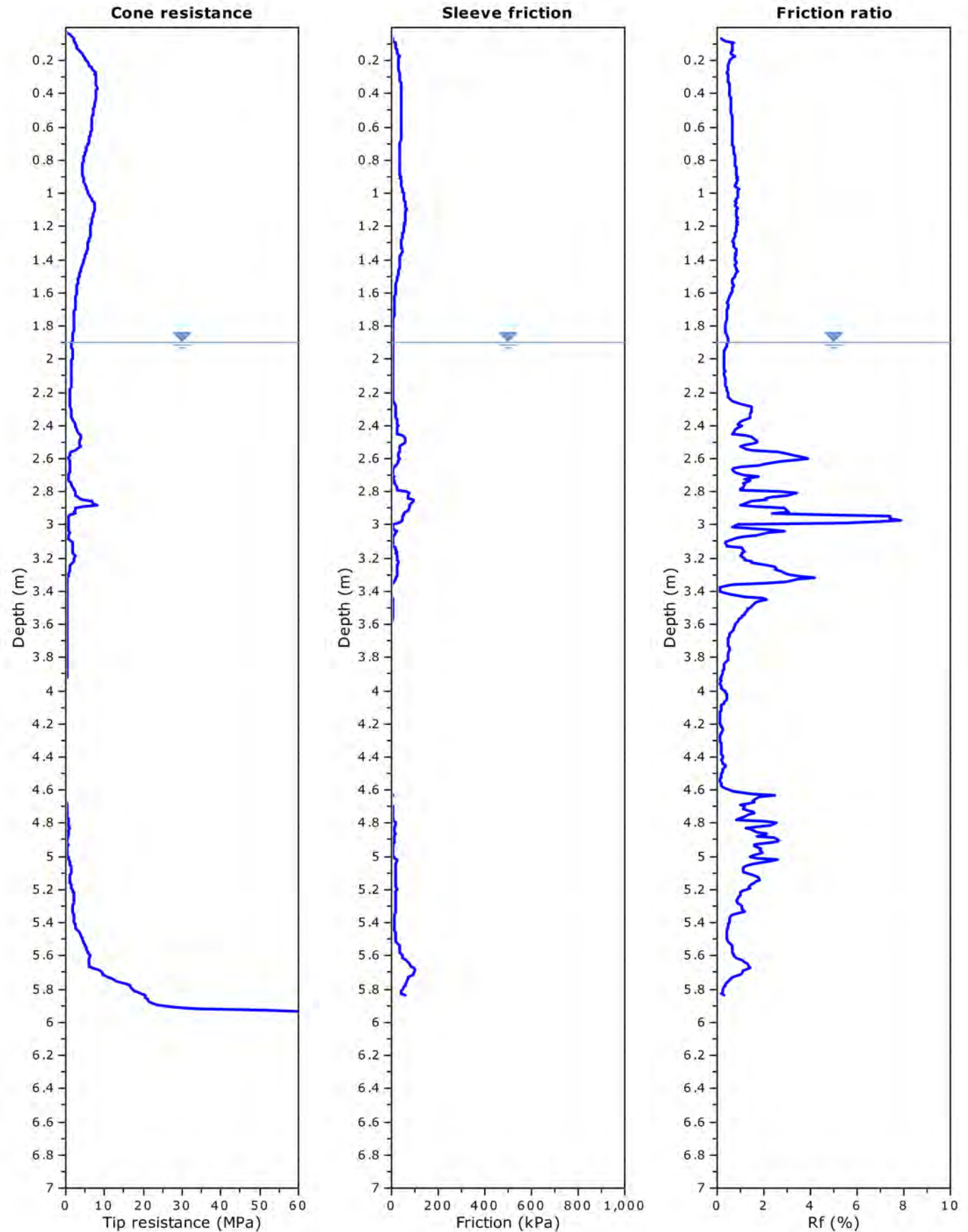
Cone Operator: Andrew

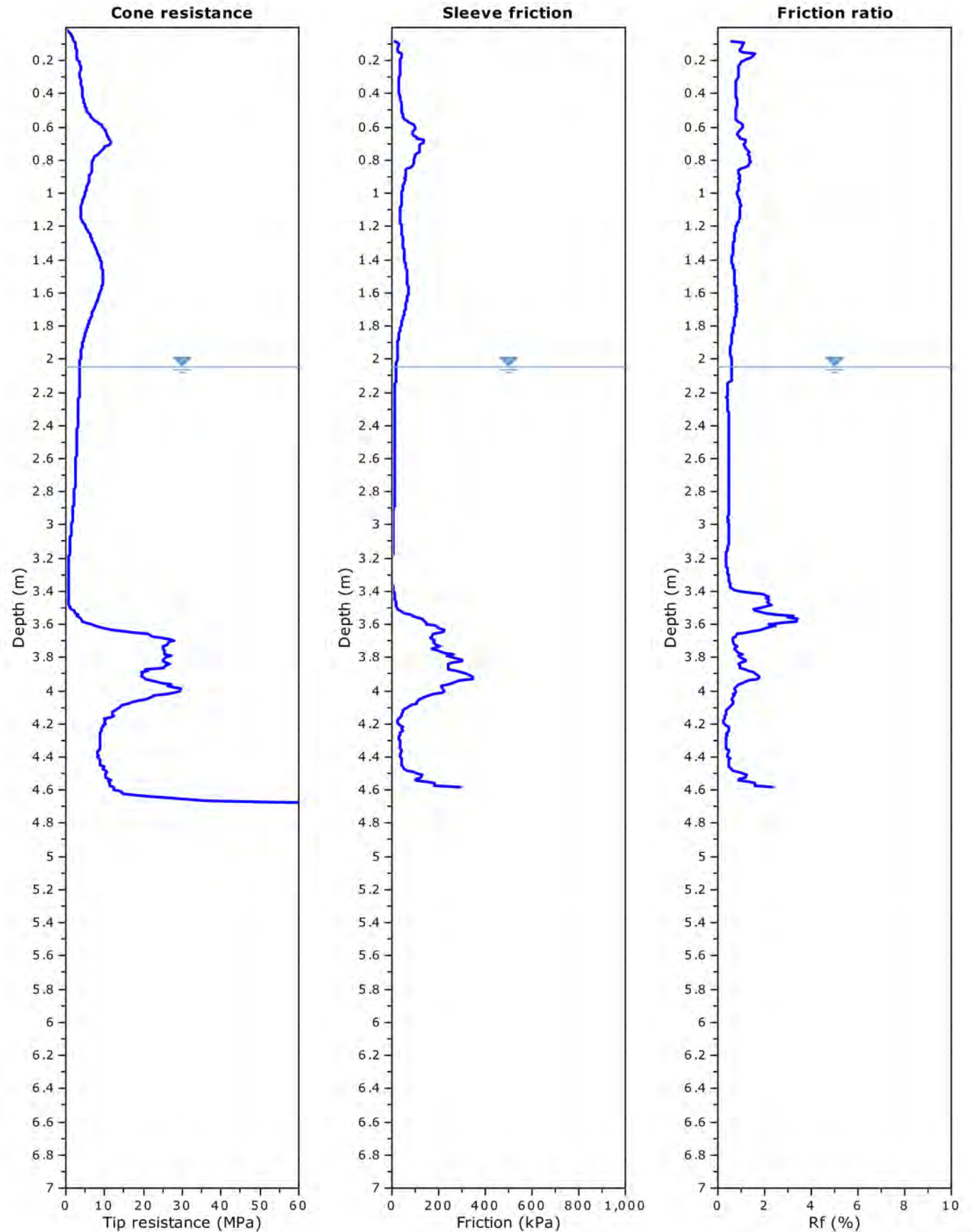


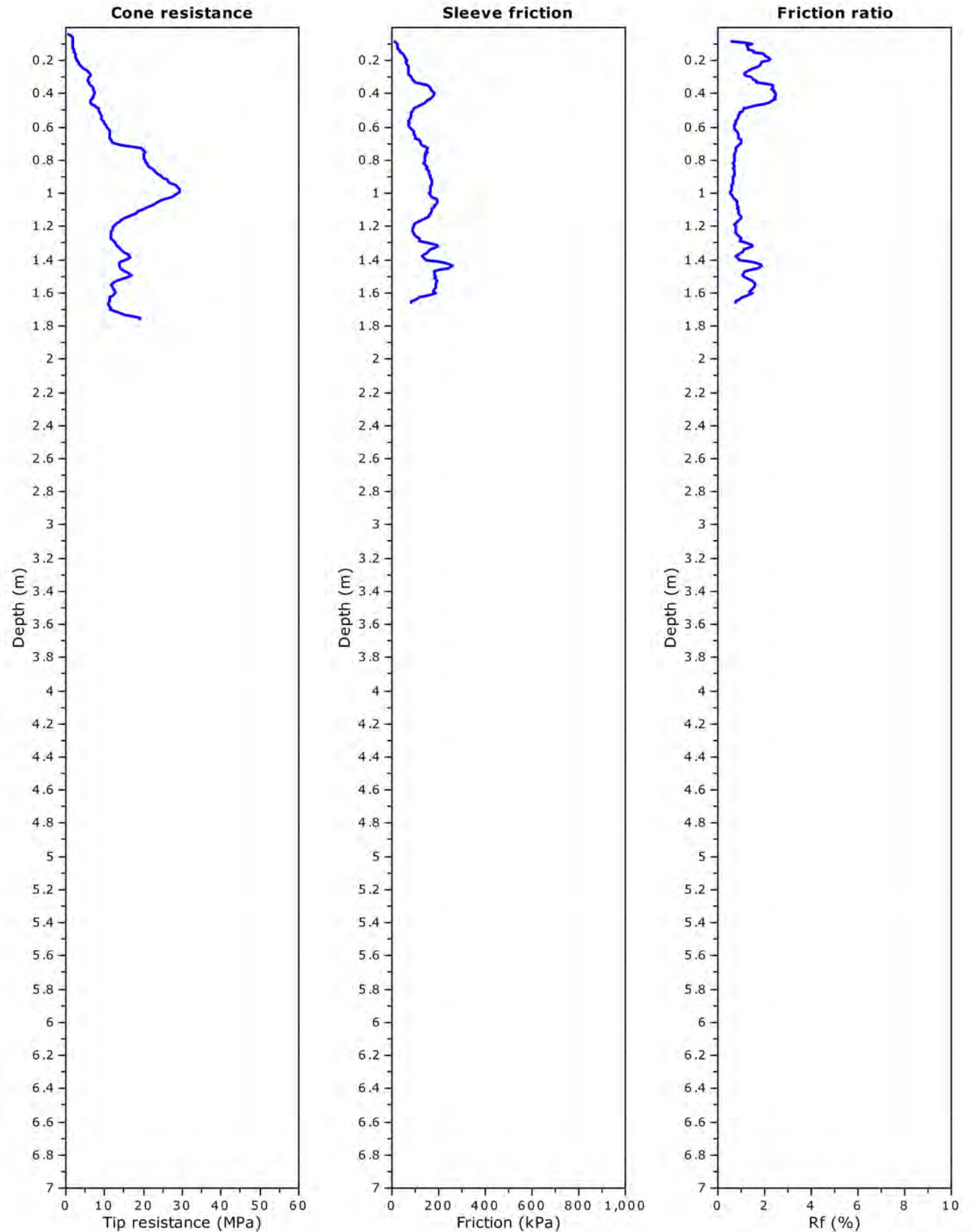


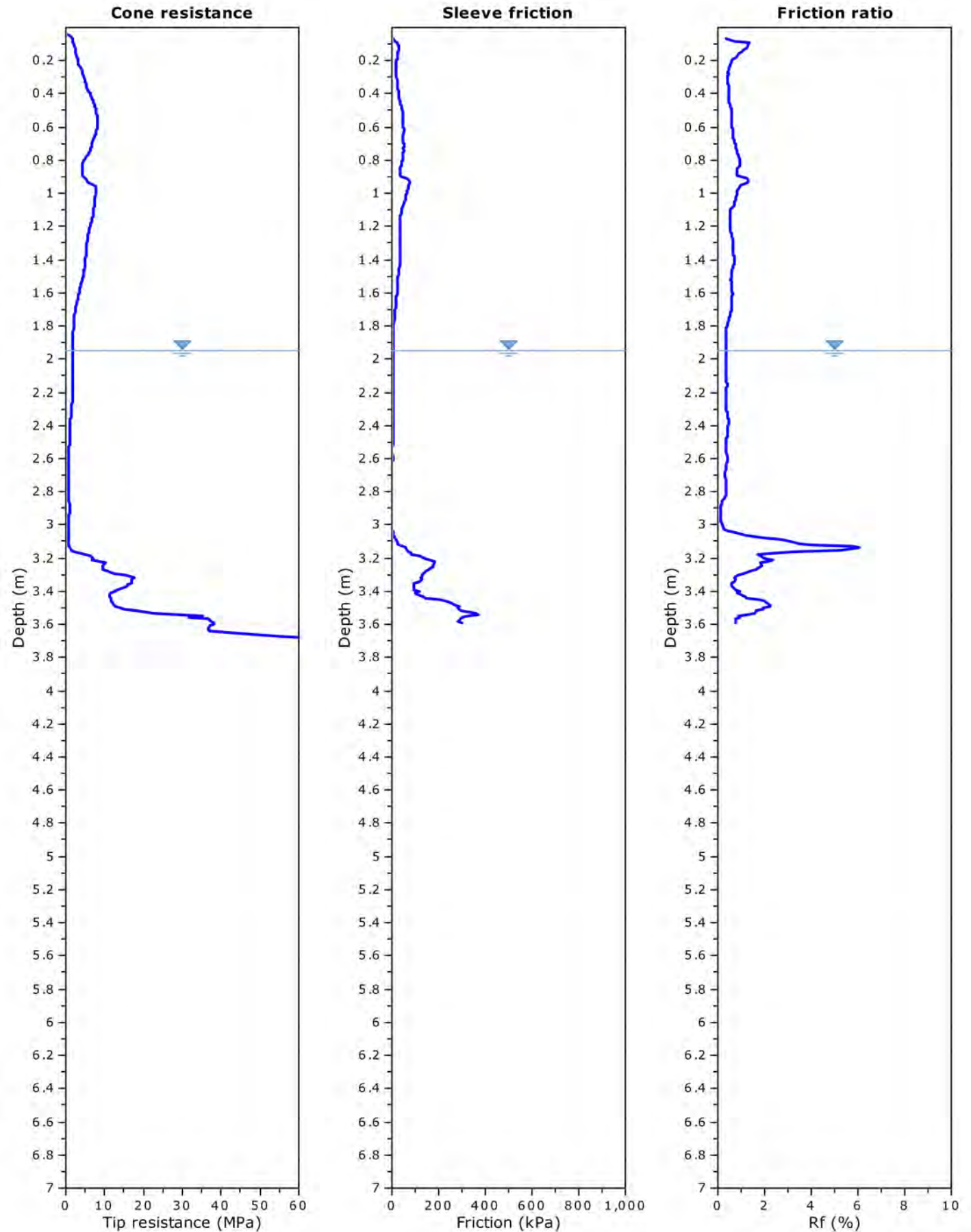
Project: Beale Park Redevelopment (Project No.: 121239.01)
Location: Spearwood

Total depth: 5.94 m, Date: 11/04/2022
Cone Operator: Andrew











APPENDIX B – LABORATORY TEST RESULTS

CERTIFICATE OF ANALYSIS 280432**Client Details**

Client	Western Geotechnical & Laboratory Services
Attention	Brooke Elliott
Address	235 Bank Street, Welshpool, WA, 6101

Sample Details

Your Reference	<u>ATC WILLIAMS / S6143 / BEALE PK/121239.01</u>
Number of Samples	1 Soil
Date samples received	21/04/2022
Date completed instructions received	21/04/2022
Location	SPEARWOOD

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	29/04/2022
Date of Issue	28/04/2022
NATA Accreditation Number 2901. This document shall not be reproduced except in full.	
Accredited for compliance with ISO/IEC 17025 - Testing. Tests not covered by NATA are denoted with *	

Results Approved By

Heram Halim, Operations Manager

Authorised By

Michael Kubiak, Laboratory Manager

Miscellaneous Inorg - soil		
Our Reference	UNITS	280432-1
Your Reference		WG22.6126
Type of sample		HA12 0.15-0.4m Soil
Date prepared	-	22/04/2022
Date analysed	-	22/04/2022
pH	pH Units	9.0
Sulphate	mg/kg	12
Chloride	mg/kg	29

Method ID	Methodology Summary
INORG-001	pH - Measured using pH meter and electrode base on APHA latest edition, Method 4500-H+. Please note that the results for water analyses may be indicative only, as analysis can be completed outside of the APHA recommended holding times. Soils are reported from a 1:5 water extract unless otherwise specified.
INORG-081	Anions - a range of anions are determined by Ion Chromatography based on APHA latest edition Method 4110-B. Soils and other sample types reported from a water extract unless otherwise specified (standard soil extract ratio 1:5).

QUALITY CONTROL: Miscellaneous Inorg - soil						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			22/04/2022	[NT]	[NT]	[NT]	[NT]	22/04/2022	[NT]
Date analysed	-			22/04/2022	[NT]	[NT]	[NT]	[NT]	22/04/2022	[NT]
pH	pH Units		INORG-001	[NT]	[NT]	[NT]	[NT]	[NT]	104	[NT]
Sulphate	mg/kg	10	INORG-081	<10	[NT]	[NT]	[NT]	[NT]	104	[NT]
Chloride	mg/kg	10	INORG-081	<10	[NT]	[NT]	[NT]	[NT]	109	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.
Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.	
The recommended maximums for analytes in urine are taken from "2018 TLVs and BEIs", as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.	
Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2	

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.



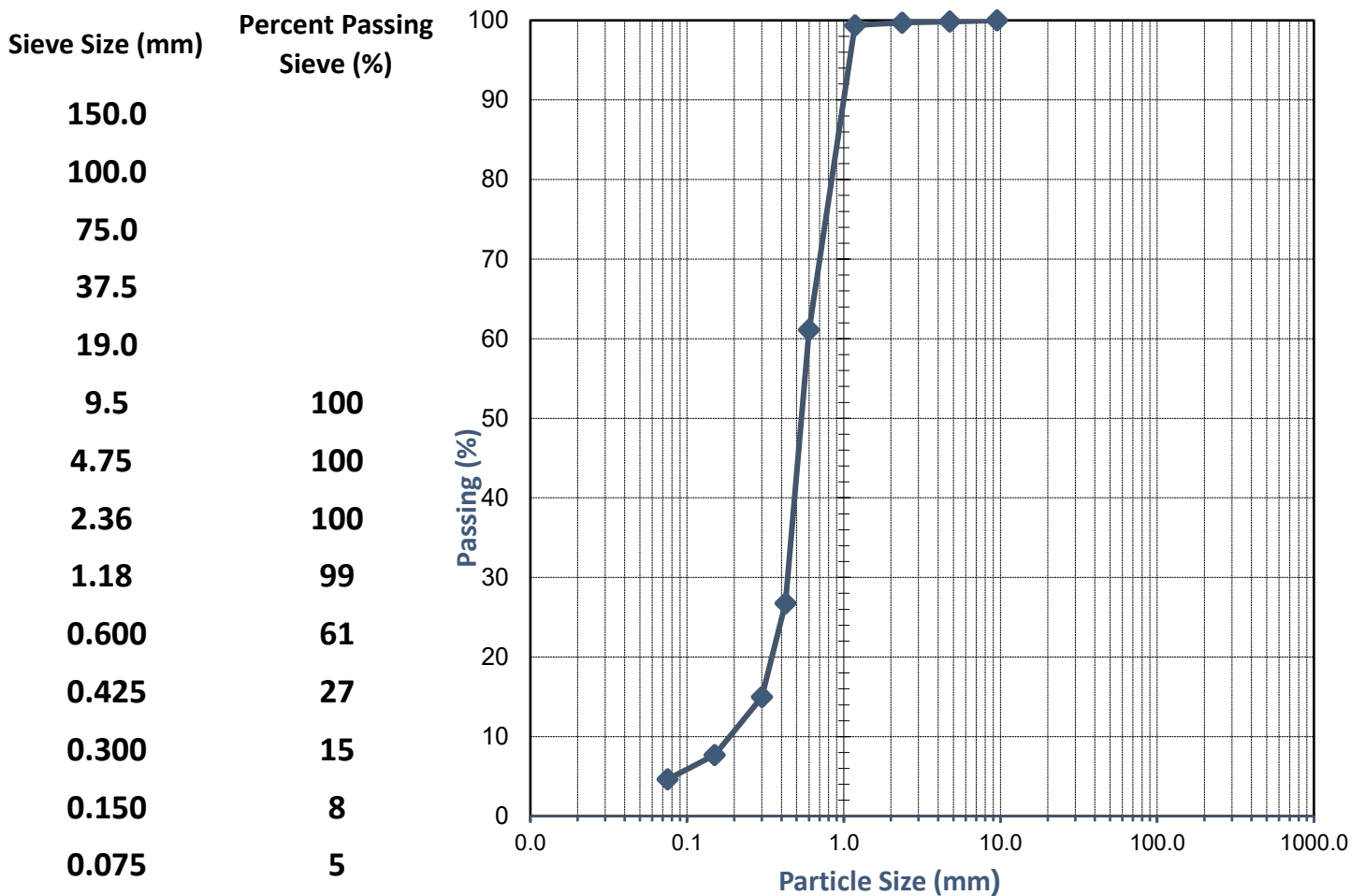
TEST REPORT - AS 1289.3.6.1

Client:	ATC Williams	Ticket No.	S6143
Client Address:	1141 Hay Street, West Perth	Report No.	WG22.6125_1_PSD
Project:	Beale Pk, Spearwood	Sample No.	WG22.6125
Location:	Not Specified	Date Sampled:	14/04/2022
Sample Identification:	HA2 (1.0-2.0) Sand	Date Tested:	21/04 - 22/04/2022

TEST RESULTS - Particle Size Distribution of Soil

Sampling Method:

Sampled by Client, Tested as Received



Comments:

Approved Signatory:

Name: Natasha Bielawski

Date: 22/April/2022



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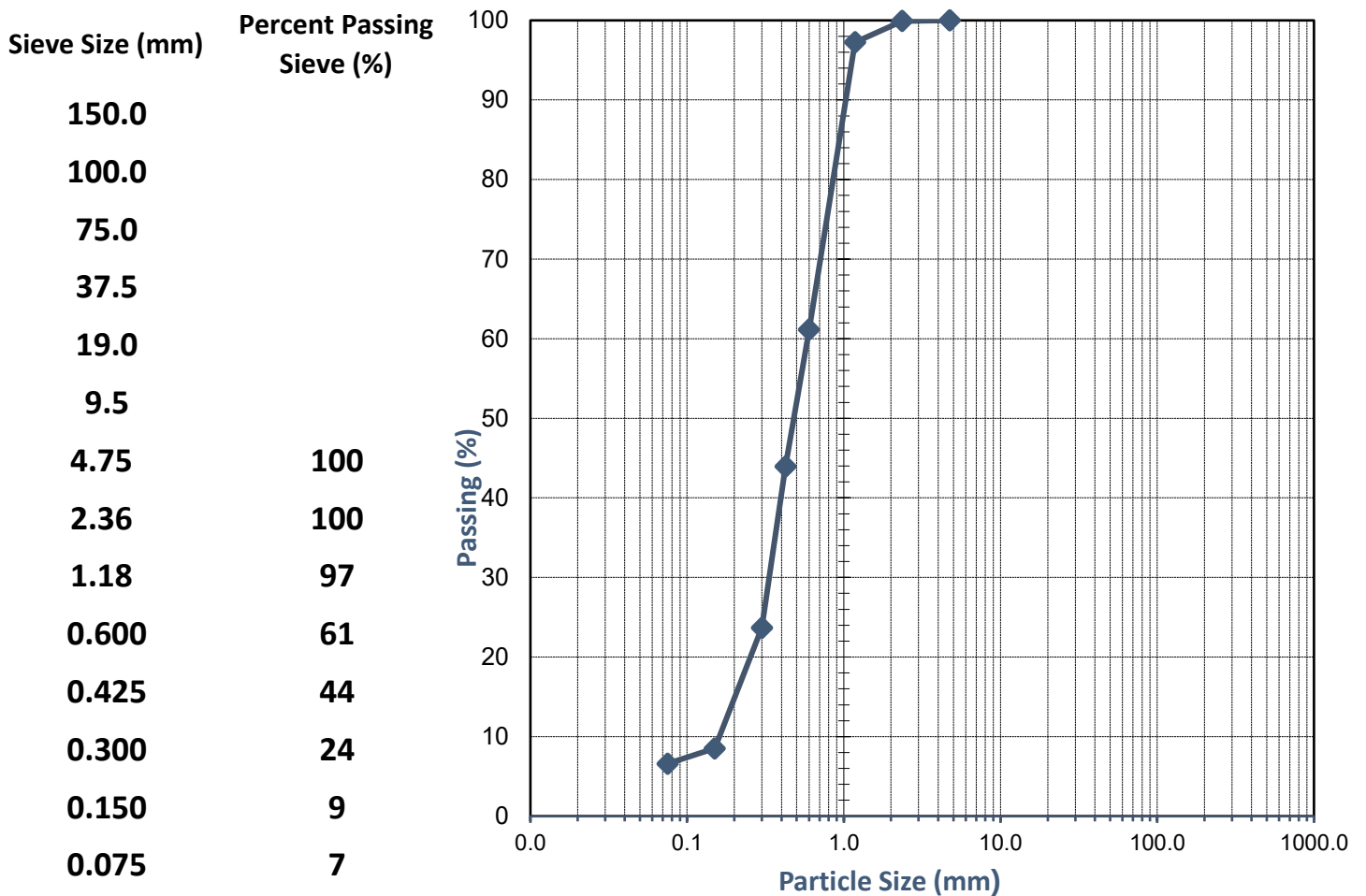
TEST REPORT - AS 1289.3.6.1

Client:	ATC Williams	Ticket No.	S6143
Client Address:	1141 Hay Street, West Perth	Report No.	WG22.6126_1_PSD
Project:	Beale Pk, Spearwood	Sample No.	WG22.6126
Location:	Not Specified	Date Sampled:	14/04/2022
Sample Identification:	HA12 (0.15-0.4) Sandfill	Date Tested:	21/04 - 22/04/2022

TEST RESULTS - Particle Size Distribution of Soil

Sampling Method:

Sampled by Client, Tested as Received



Comments:

Approved Signatory:

Name: Natasha Bielawski

Date: 22/April/2022



Accreditation No. 20599

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SOIL | AGGREGATE | CONCRETE | CRUSHING

TEST REPORT - AS 1289.6.1.1

Client:	ATC Williams	Ticket No.	S6143
Client Address:	1141 Hay Street, West Perth	Report No.	WG22.6126_1_SCBR
Project:	Beale Pk, Spearwood	Sample No.	WG22.6126
Location:	Beale Pk, Spearwood	Date Sampled:	14-04-2022
Sample Identification:	HA12 (0.15-0.4) Sandfill	Date Tested:	20/04 - 27/04/22

TEST RESULTS - CALIFORNIA BEARING RATIO

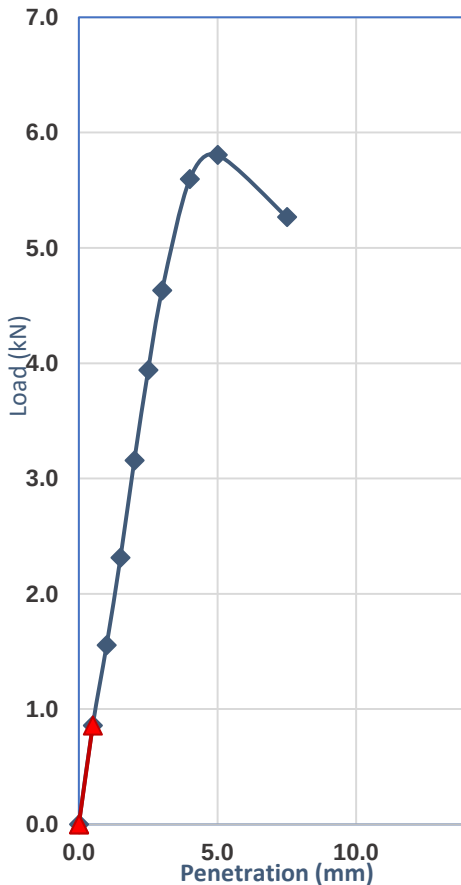
Sample Description:

Silty Sand

Sampling Method:

Sampled by Client, Tested as Received

Load Penetration Curve



Compaction Details

Compaction Method	AS 1289.5.1.1	Hammer Type	Standard
Plasticity Determined by	Estimated	Curing Time (Hours)	48.0
% Retained 19.0mm	0	Excluded/Replaced	Excluded
Maximum Dry Density (t/m ³)	1.84	Optimum Moisture (%)	11.5
Target Dry Density Ratio (%)	98	Target Moisture Ratio (%)	100

Specimen Conditions At Compaction

Dry Density (t/m ³)	1.81	Moisture Content (%)	10.9
Density Ratio (%)	98.5	Moisture Ratio (%)	96.5

Specimen Conditions After Soak

Soaked or Unsoaked	Soaked	Soaking Period (days)	4
Surcharges Applied (kg)	4.50	Measured Swell (%)	0.0
Dry Density (t/m ³)	1.81	Dry Density Ratio (%)	98.5
Moisture Content (%)	13.2	Moisture Ratio (%)	116.5

Specimen Conditions After Test

Top 30mm Moisture (%)	12.8	Remaining Depth (%)	12.6
-----------------------	------	---------------------	------

Correction applied to Penetration: 0mm

Determined at a Penetration of: 2.5mm

California Bearing Ratio (CBR): 30%

Comments:

Approved Signatory:

Name: Brooke Elliott

Date: 28-April-2022



Accreditation No. 20599

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SOIL | AGGREGATE | CONCRETE | CRUSHING

TEST REPORT - AS 1289.5.1.1

Client:	ATC Williams	Ticket No.	S6143
Client Address:	1141 Hay Street, West Perth	Report No.	WG22.6126_1_SMDD
Project:	Beale Pk, Spearwood	Sample No.	WG22.6126
Location:	Not Specified	Date Sampled:	14-04-2022
Sample Identification:	HA12 (0.15-0.4) Sandfill	Date Tested:	20-04-2022

TEST RESULTS - Standard Maximum Dry Density

Sampling Method:

Sampled by Client, Tested as Received

Sample Curing Time:

2 hrs

Method used to Determine Liquid Limit:

Visual / Tactile Assessment by Competent Technician

Material + 19.0mm (%):

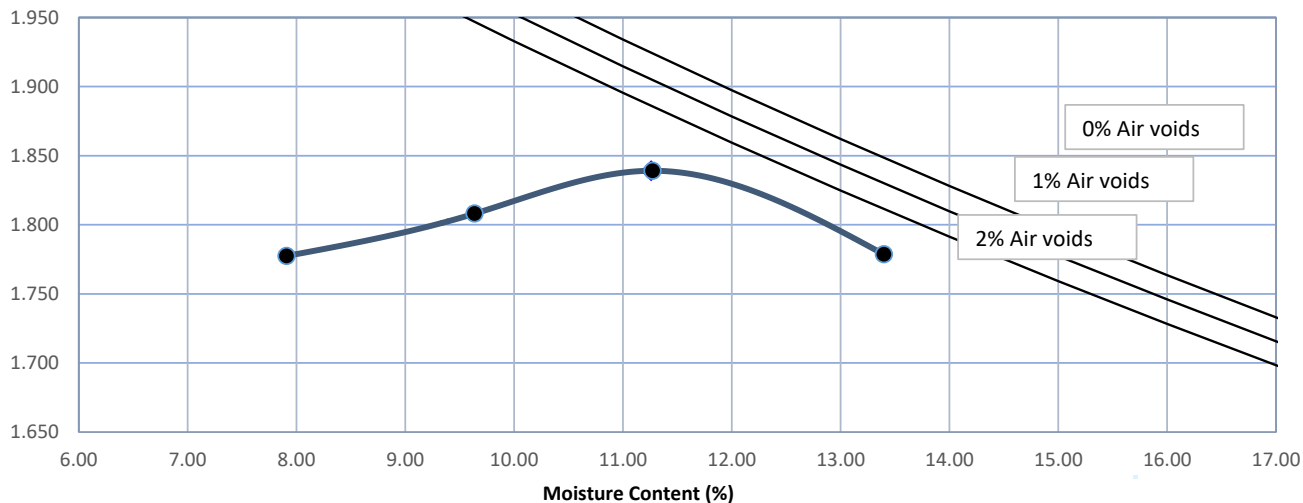
0

Material + 37.5mm (%):

-

Moisture Content (%)	7.9	9.6	11.3	13.4	
Dry Density (t/m³)	1.777	1.808	1.839	1.779	

Dry Density (t/m³)



Standard Maximum Dry Density (t/m³)

1.84

Optimum Moisture Content (%)

11.5

Comments: The above air void lines are derived from a calculated apparent particle density of 2.457 t/m³

Approved Signatory:

J Waldron

Name: Jason Waldron

Date: 22-April-2022



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235 Bank Street, Welshpool WA 6106

08 9472 3465

www.wgls.com.au

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THEREFORE DO NOT RELY ON SCALING OF DRAWINGS TO
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LEGEND

- 3.25 --- NATURAL SURFACE CONTOURS FROM
SURVEY INFORMATION (0.25m INTERVALS)
- 3.00 PROPOSED FINISHED SURFACE SPOT LEVEL
- 3.00ex EXISTING SURFACE SPOT LEVEL
- PROPOSED ROAD PAVEMENT TO DETAILS
- 3.00 GRATED GULLY PIT TO DETAIL.
LEVEL SHOWN IS CENTRE OF GRATE
- PROPOSED STORMWATER DRAINAGE PIPE
- EXISTING STORMWATER DRAINAGE PIPE
- CPT1 SITE INVESTIGATION BORE
LOCATION. REFER GEOTECHNICAL
REPORT FOR DETAILS
- B DENOTES STEEL
BOLLARD TO DETAILS
- MM KERB TRANSITION OVER 300mm
- "SETON" OR SIMILAR APPROVED LDOPE
SPEED BUMP "SLO MOTION" OR SIMILAR
APPROVED TO THE APPROVAL OF THE
SUPERINTENDENT, WITH YELLOW/BLOCK
ALTERNATING UNITS & END CAPS
INSTALLED TO THE MANUFACTURER'S
REQUIREMENTS

EXISTING
COMPENSATING
BASIN

REVISION	DESCRIPTION	DATE	BY
A	PRELIMINARY	15.11.24	OG

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Civil And Structural Consultants

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P.O. Box 1308 Subiaco, Western Australia 6008
E-mail: bpa@bpaeng.com.au

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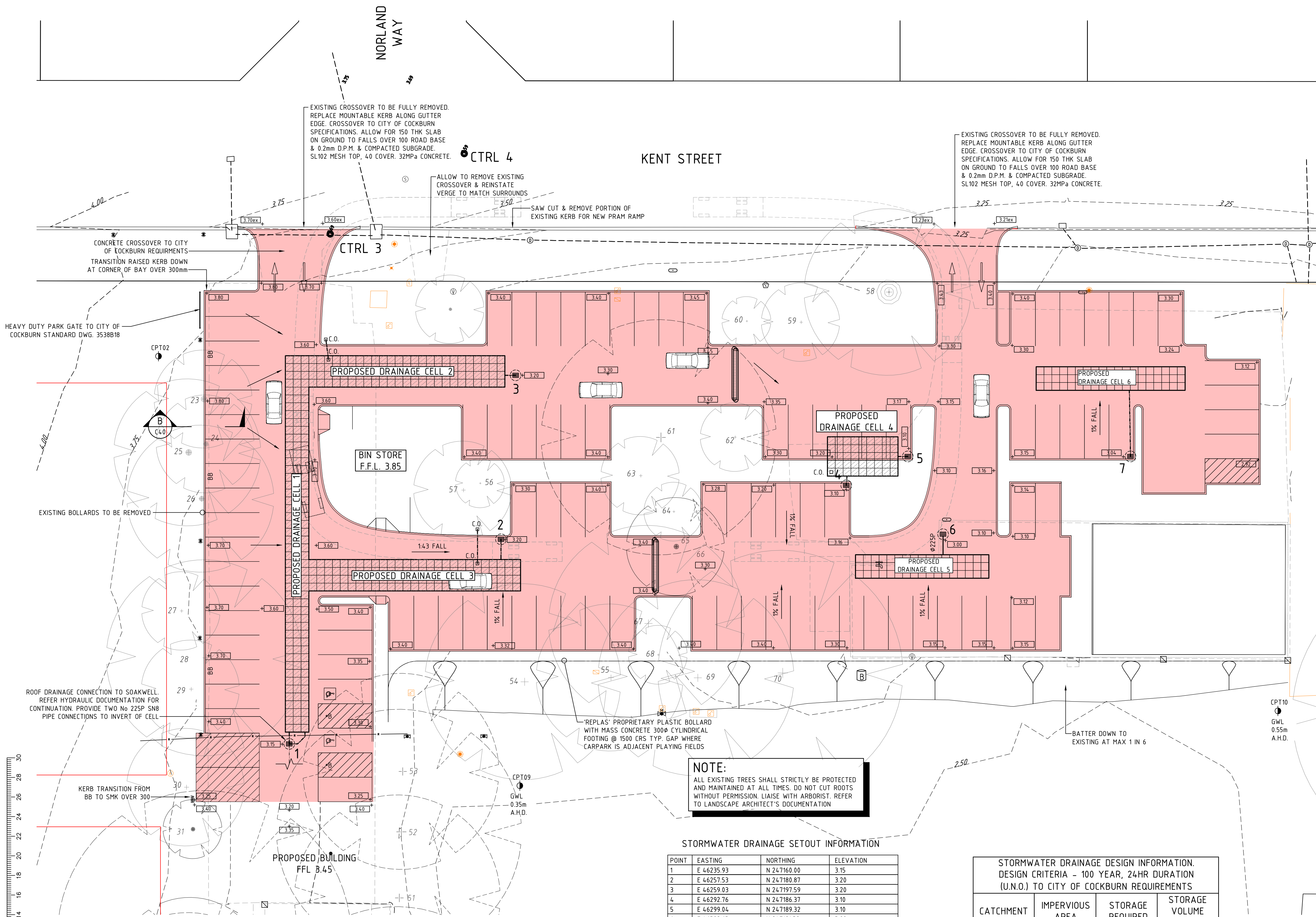
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CHECKED	APPROVED	

BOLLIG DESIGN GROUP

BEALE PARK REDEVELOPMENT

**SITE LEVELS
& STORMWATER DRAINAGE**

PROJECT No **S22005** DRAWING **C30** REV **A**



NOTE:
ALL EXISTING TREES SHALL STRICTLY BE PROTECTED
AND MAINTAINED AT ALL TIMES. DO NOT CUT ROOTS
WITHOUT PERMISSION. LIAISE WITH ARBORIST. REFER
TO LANDSCAPE ARCHITECT'S DOCUMENTATION

STORMWATER DRAINAGE SETOUT INFORMATION

POINT	EASTING	NORTHING	ELEVATION
1	E 46235.93	N 247160.00	3.15
2	E 46257.53	N 247180.87	3.20
3	E 46259.03	N 247197.59	3.20
4	E 46292.76	N 247186.37	3.10
5	E 46299.04	N 247189.32	3.10
6	E 46302.63	N 247181.38	3.00
7	E 46321.76	N 247189.32	3.04
8	E 46334.56	N 247176.82	2.80
9	E 46198.57	N 247091.74	3.10
10	E 46217.53	N 247091.74	3.10
CTRL 1	E 46156.0375	N 247089.3433	3.489
CTRL 2	E 46256.6919	N 247068.8541	2.429
CTRL 3	E 46240.1127	N 247212.0165	3.686
CTRL 4	E 46253.7783	N 247220.2121	3.591

SETOUT COORDINATES ARE TO CENTRE OF CHAMBER. WHERE
GRATES ARE TO BE POSITIONED AGAINST KERBS, ADJUST
AS REQUIRED TO SUIT ACTUAL GRATE TYPE TO ENSURE
THERE IS NO GAP BETWEEN KERB AND GRATE FRAME.

CONTROL POINTS ARE PLOTTED FROM THE FEATURE
SURVEY INFORMATION ONLY AND ARE PROVIDED FOR
REFERENCE. THE BUILDER SHALL CONFIRM ALL CONTROL
PRIOR TO COMMENCING SETOUT AS INDICATED ON C01.

STORMWATER DRAINAGE DESIGN INFORMATION. DESIGN CRITERIA - 100 YEAR, 24HR DURATION (U.N.Q.) TO CITY OF COCKBURN REQUIREMENTS

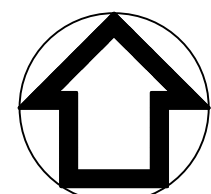
CATCHMENT	IMPERVIOUS AREA	STORAGE REQUIRED	STORAGE VOLUME PROVIDED
NORTHERN CARPARK	5346m ²	91.1m ³	93m ³
WESTERN CARPARK	1170m ²	20.1m ³	20.6m ³

MODULAR DRAINAGE CELLS SHALL BE **GRAF ECOBLOC** MODULAR
SYSTEM OR SIMILAR APPROVED DRAINAGE CELL INSTALLED IN
ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS &
WRAPPED IN NON-WOVEN GEOTEXTILE.
FOR ANY SUBSTITUTE EQUIVALENT DRAINAGE CELL SYSTEM
(SUBJECT TO APPROVAL BY THE SUPERINTENDENT) THE
FOOTPRINT AREA SHOWN SHALL BE MAINTAINED AS A MINIMUM

SITE LEVELS & STORMWATER DRAINAGE

SCALE 1 : 200

ALL EXISTING & PROPOSED SERVICES SHOWN ARE INDICATIVE.
CONTRACTOR TO DETERMINE THE LOCATION & DEPTH OF ALL
EXISTING SERVICES PRIOR TO CONSTRUCTION & PROTECT AT ALL
TIMES. ANY SERVICE'S LOCATION OR DEPTH FOUND TO BE
CONTRARY TO THE DRAWINGS WHICH CAUSES ISSUES OR CLASHES
WITH THE CIVIL DESIGN TO BE BROUGHT TO THE ATTENTION OF
THE SUPERINTENDENT PRIOR TO CONTINUING WORKS



1:200
0 2m 4 6 8 10 12 14 16 18 20 22 24 26 28 30

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- 3.00ex EXISTING SURFACE SPOT LEVEL
- PROPOSED ROAD PAVEMENT TO DETAILS
- 3.00 PROPOSED Ø1800x1800 DEEP R.C.
SOAKWELL TO DETAIL. LEVEL
SHOWN IS CENTRE OF GRATE
- PROPOSED STORMWATER DRAINAGE PIPE
- EXISTING STORMWATER DRAINAGE PIPE
- EXISTING KERB TO BE REMOVED
- CPT1 SITE INVESTIGATION BORE
LOCATION. REFER GEOTECHNICAL
REPORT FOR DETAILS
- "SETON" OR SIMILAR APPROVED LLOPE SPEED BUMP
'SLO MOTION' OR SIMILAR APPROVED TO THE APPROVAL
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REVISION	DESCRIPTION	DATE	BY
A	PRELIMINARY	14.11.24	OG

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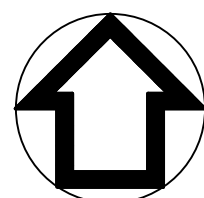
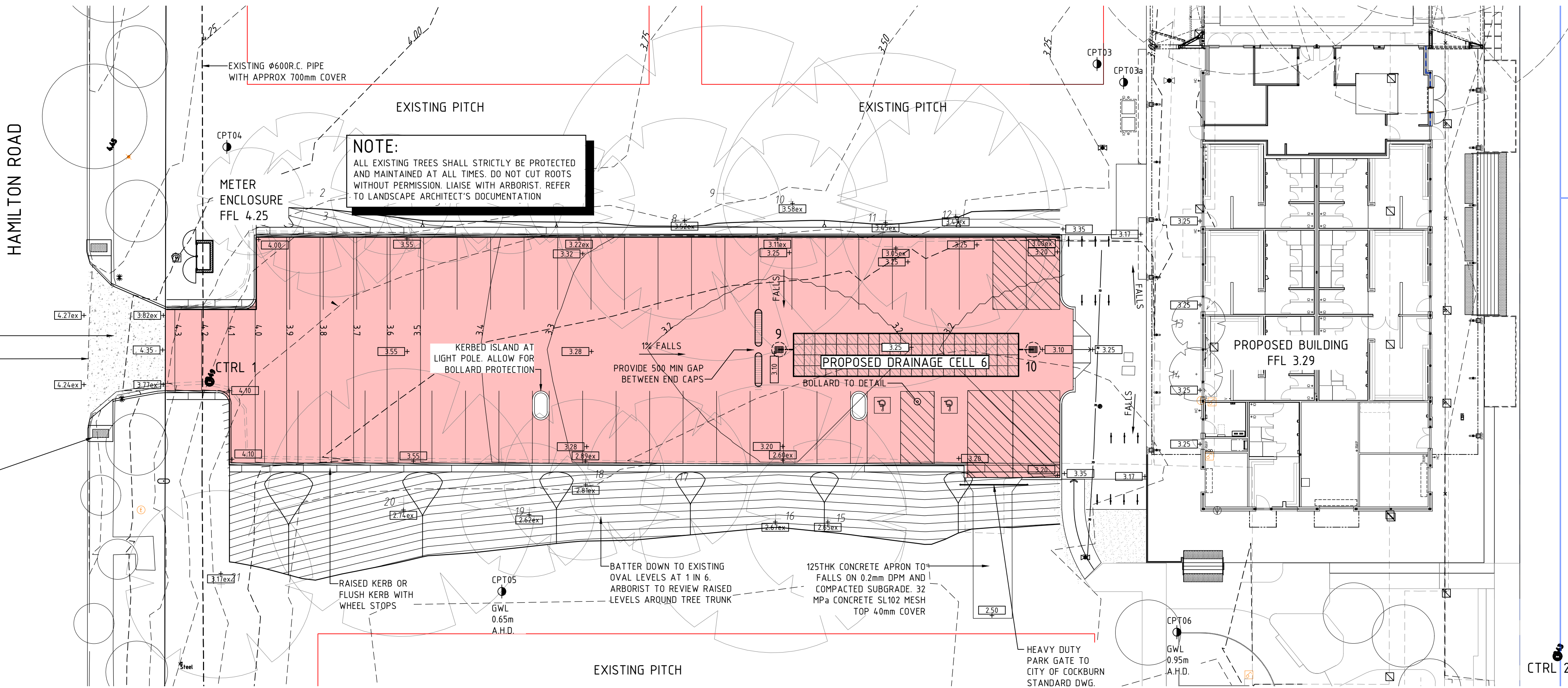
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CHECKED	APPROVED	

BOLLIG DESIGN GROUP

BEALE PARK REDEVELOPMENT

**SITE LEVELS
& STORMWATER DRAINAGE**

PROJECT No **S22005** DRAWING **C31** REV **A**



SITE LEVELS & STORMWATER DRAINAGE

SCALE 1 : 200

1:200 0 2m 4 6 8 10 12 14 16 18 20 22 24 26 28 30



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CTRL 2	E 46256.6919	N 247068.8541	2.43
CTRL 3	E 46240.1127	N 247212.0165	3.68
CTRL 4	E 46253.7783	N 247220.2121	3.59

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