

# APPENDIX ONE LANDSCAPE ELEMENTS

REV A

01 MAY 2025



TE KAWERAU IWI  
SETTLEMENT TRUST

RANGITOOPUNI  
R I V E R H E A D



ISO 14064-1  
ORGANISATION

Boffa Miskell is proudly a  
Toitū net carbonzero certified consultancy

#### DOCUMENT QUALITY ASSURANCE

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Although this is not a hearing before the Environment Court, I record that I have read and agree to comply with the Environment Court's Code of Conduct for Expert Witnesses as specified in the Environment Court's Practice Note 2023. I confirm that this report is within my area of expertise, except where I state that I rely upon the evidence or reports of other expert witnesses lodged forming part of the project's application material. I have not omitted to consider any material facts known to me that might alter or detract from the opinions expressed. [REDACTED]

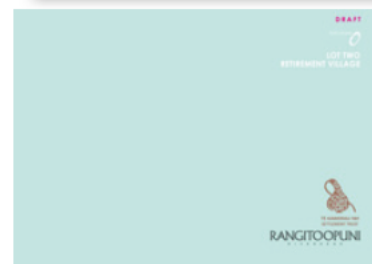


## CONNECTIONS TO OTHER DOCUMENTS

This document  
is developed in  
connection with:



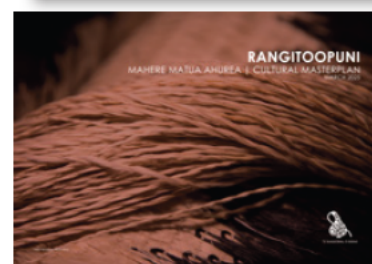
LOT ONE  
Countryside Living



LOT TWO  
Retirement Village



LOT 1 & LOT 2  
Landscape Concept  
Masterplan



RANGITOOPUNI  
Mahere Matua Ahurea |  
Cultural Masterplan



RANGITOOPUNI  
Design Guidelines

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# LANDSCAPE STATEMENT

## THE PROPOSAL:

The Rangitootupuni project is the catalyst project for the prosperous economic future of Te Kawerau aa Maki (TKaM) by the Rangitootupuni Development Limited Partnership.

Taking the former Riverhead production pine forest, with many recreational pursuits within its confines, the project will transform the landscape into a diverse and rich native bush environment, with house discreetly positioned within the plantings.

Walking trails will permeate the site, connecting neighbours and allowing access to the wider pine forest and recreation tracks.

The Senior Living Village is equally set on the rehabilitated landscape and is nestled into the hills and valleys, creating a stunning and private setting.

## EXISTING SITE:

The existing site is/has been clothed in production pine trees for the last 60 plus years. This has always been important whenua for Te Kawerau aa Maki with important events and stories captured in the names of the area. The mana of the site has been diminished with forestry activities, weed ingress and waterway sedimentation.

Access into the forest is largely uncontrolled for recreation activities such as mountain biking, horse riding, walking and running, motocross events and hunting.

## THE LANDSCAPE OUTCOME:

This development project will see, in the long term, a richly planted and diverse landscape, supporting birds and insects and the people who have chosen to live within this setting. Public access for walking, biking and horse riding will not be constrained on the road network. The tracks within the development areas are pedestrian access only due to the topography.

Te Kawerau aa Maki will be Kaitiaki over the plantings and tracks, their knowledge of the land, plants and fauna will be passed onto the residents and visitors through mahi toi, wananga, maara huupara and maara kai. Once in the development, you will know you are on Te Kawerau aa Maki whenua.

## LANDSCAPE ELEMENTS:

Throughout Rangitootupuni, public furniture, signs and materials will help reinforce the story of the land.

Oversized timbers recall the forestry, the weathering steel further draws on the heavy industry required to service that activity.

The material selections will reference the local rock, soils and vegetation. Te Kawerau aa Maki have placenames referencing the red soils of one particular area.

Motifs have been gifted to the design team from TKaM, to use on furniture and signage elements to further enhance the TKaM connection to the site.





## WAYFINDING & SIGNAGE



DEVELOPMENT SIGNAGE



TRAIL MARKERS



SITE & NATURAL FEATURE MARKERS



MATERIALITY



WEATHERED STEEL



WEATHERED & NATURAL TIMBER



RURAL ELEMENTS



INDUSTRIAL FIXINGS



# LANDSCAPE FEATURES

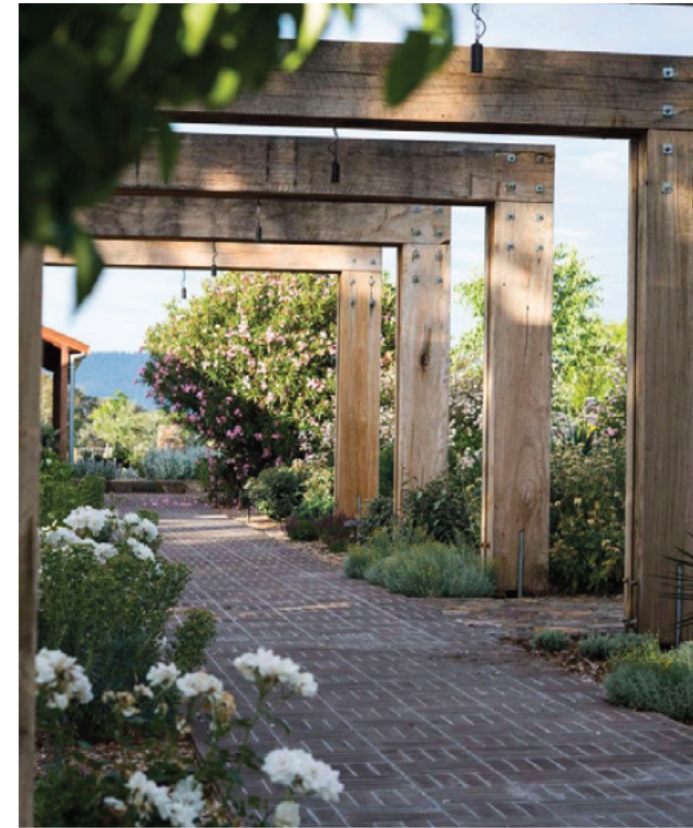
## COMMUNAL SPACES



COOKING FACILITIES



HANGI PIT / SHADE STRUCTURE



SHADE STRUCTURES



SEATING



# LANDSCAPE FEATURES

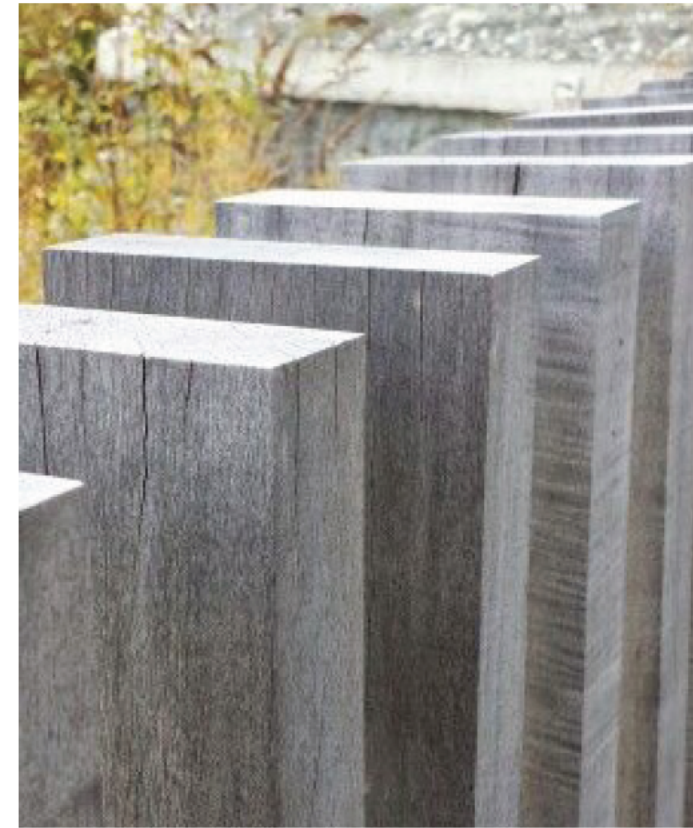
## BOUNDARY TREATMENTS



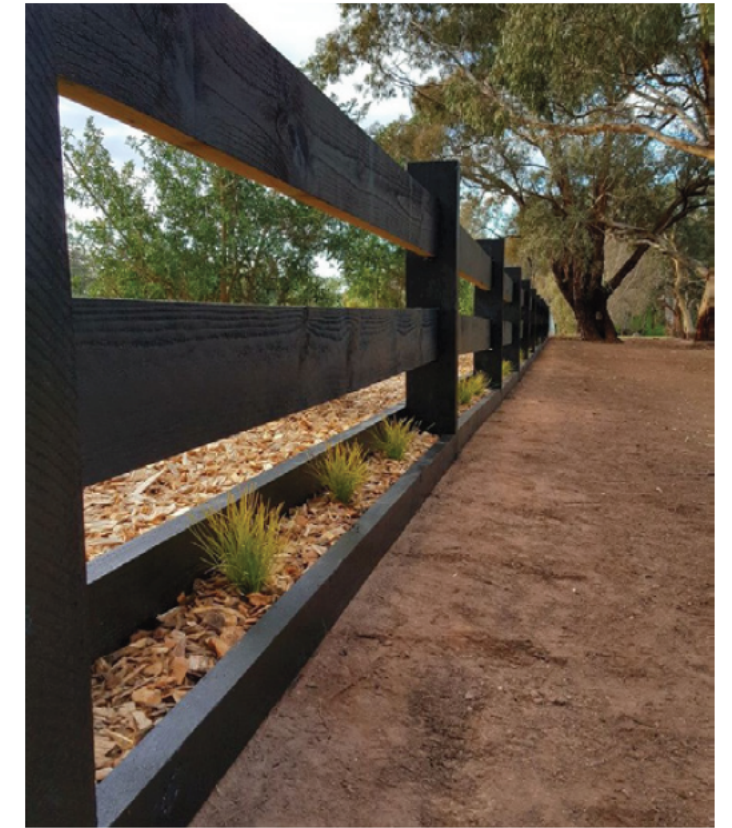
FENCING - LOT MARKER POSTS



FENCING - PERMEABLE



FENCING - VERTICAL SLEEPERS



FENCING - POST AND RAIL



# LANDSCAPE FEATURES

## LIGHTING



ROAD - LOW BOLLARD



SIGNAGE / WALLS - BACKLIT



SIGNAGE / WALLS - DOWN LIGHT



FEATURE VEGETATION - UP LIGHT

**NOTE:** Lighting will be in line with requirements from Te Kawerau ā Maki. Rangitooopuni is a dark sky project area

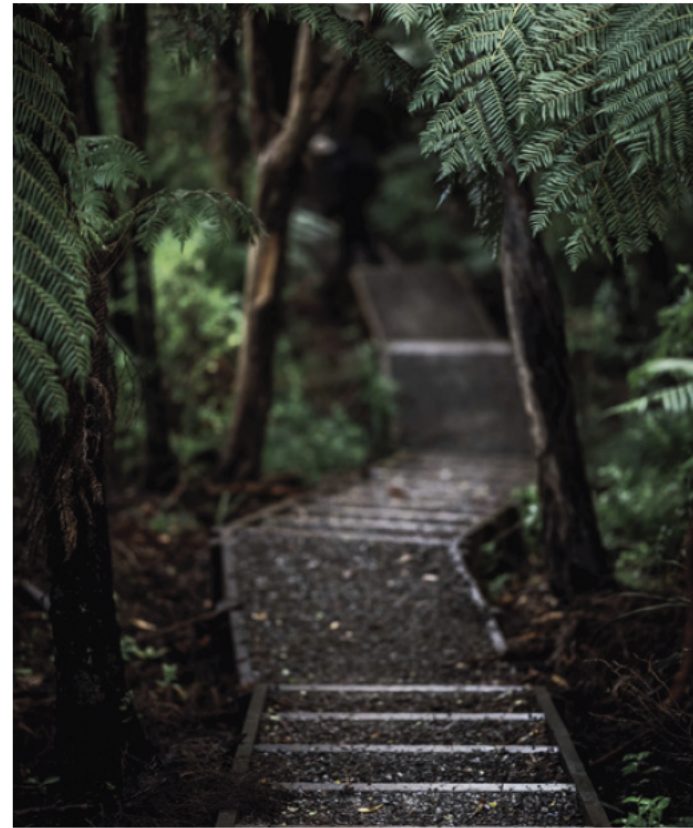


# TRACKS

## PUBLICALLY ACCESSED



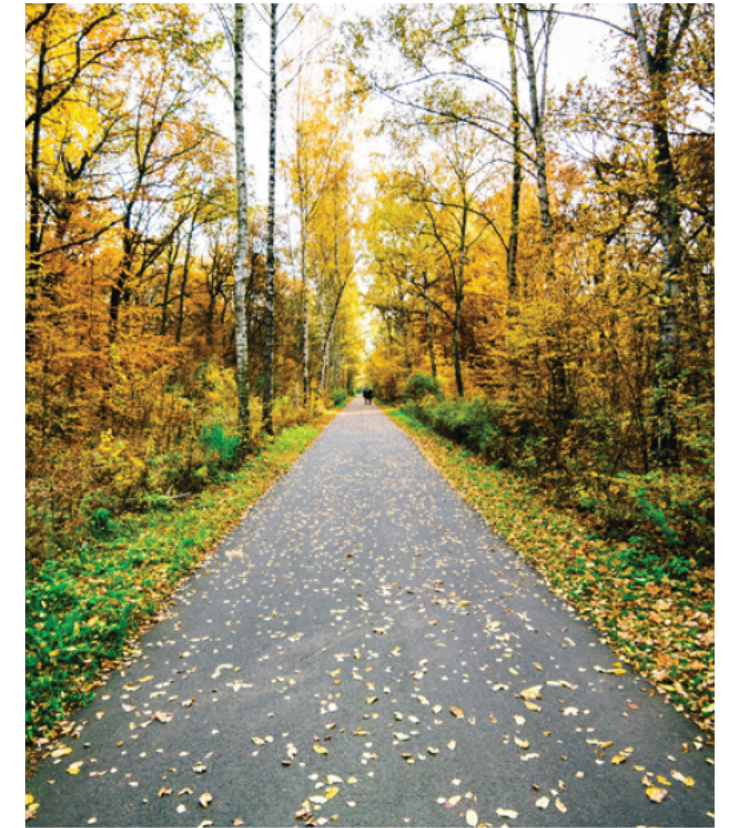
FORESTRY / MAINTENANCE ROADS



WALKING / MOUNTAIN BIKE TRACKS



BOARDWALKS



CONCRETE PATHS



# APPENDIX TWO

## AUCKLAND COUNCIL REGIONAL PARKS STANDARD DETAILS ENGINEERING DRAWINGS

EXTRACTED FROM:  
'WAITĀKERE TRACK STANDARDS GUIDANCE DOCUMENT FOR TRACK  
CONSTRUCTION & MAINTENANCE IN THE WAITĀKERE RANGES'  
PUBLISHED 18/01/2024



TE KAWERAU IWI  
SETTLEMENT TRUST

RANGITOOPUNI  
R I V E R H E A D

# AUCKLAND COUNCIL

## REGIONAL PARKS STANDARD DETAILS

### ENGINEERING DRAWINGS

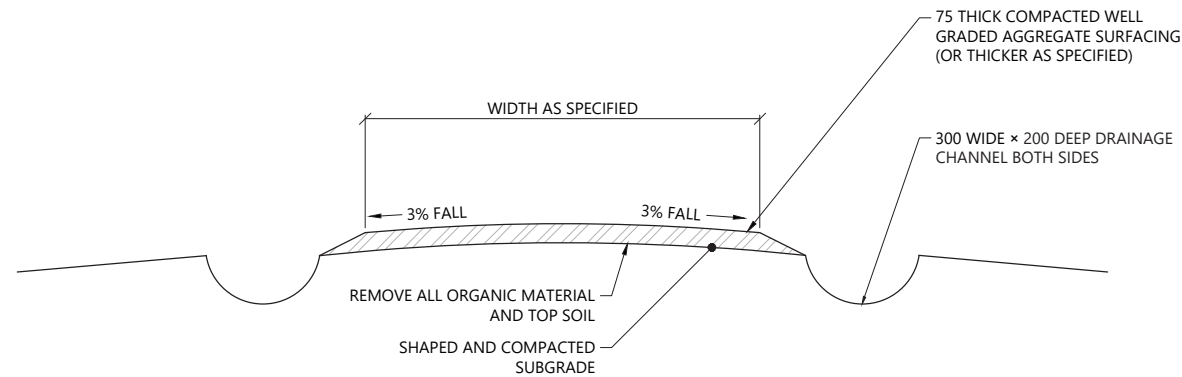
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22133 - 500	STANDARD TRACK DETAILS	3	17/01/2024
22133 - 501	TYPICAL AGGREGATE TRACK GRADE DIPS	3	17/01/2024
22133 - 502	GEOCELL DETAILS	3	17/01/2024
22133 - 503	TYPICAL BOXED STEPS DETAIL	3	17/01/2024
22133 - 504	1.2m WIDE COMPOSITE DECKING LOW BOARDWALK	3	17/01/2024
22133 - 505	1.6m WIDE COMPOSITE DECKING LOW BOARDWALK	3	17/01/2024
22133 - 506	LOW COMPOSITE DECKING STAIRCASE DETAILS - SH 1 OF 2	3	17/01/2024
22133 - 507	LOW COMPOSITE DECKING STAIRCASE DETAILS - SH 2 OF 2	3	17/01/2024
22133 - 508	TYPICAL BOARDWALK FOOTING DETAILS - SH 1 OF 2	3	17/01/2024
22133 - 509	TYPICAL BOARDWALK FOOTING DETAILS - SH 2 OF 2	3	17/01/2024
22133 - 510	TYPICAL ROPE FENCE DETAIL - SH 1 OF 2	3	17/01/2024
22133 - 511	TYPICAL ROPE FENCE DETAIL - SH 2 OF 2	3	17/01/2024
22133 - 600	1.2m WIDE TIMBER DECKING LOW BOARDWALK	3	17/01/2024
22133 - 601	1.6m WIDE TIMBER DECKING LOW BOARDWALK	3	17/01/2024
22133 - 602	LOW TIMBER DECKING STAIRCASE DETAILS - SH 1 OF 2	3	17/01/2024
22133 - 603	LOW TIMBER DECKING STAIRCASE DETAILS - SH 2 OF 2	3	17/01/2024



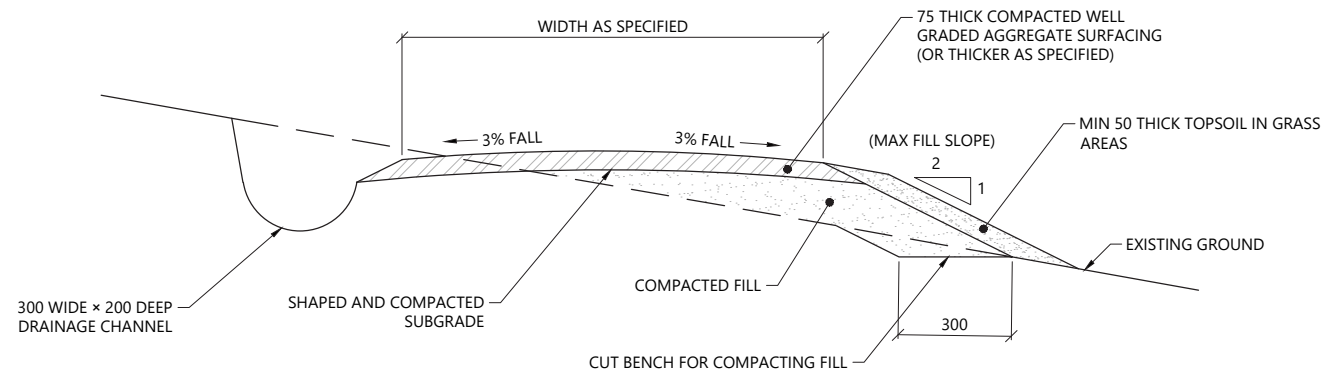
Disclaimer: This drawing has been prepared by reNature Limited for the exclusive use by and benefit of the Client in accordance with reNature's terms and conditions of engagement with the client. No other party may use, reproduce, modify or rely on this drawing without the prior written consent of reNature.

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FOR INFORMATION  
PROJECT NO:  
22133

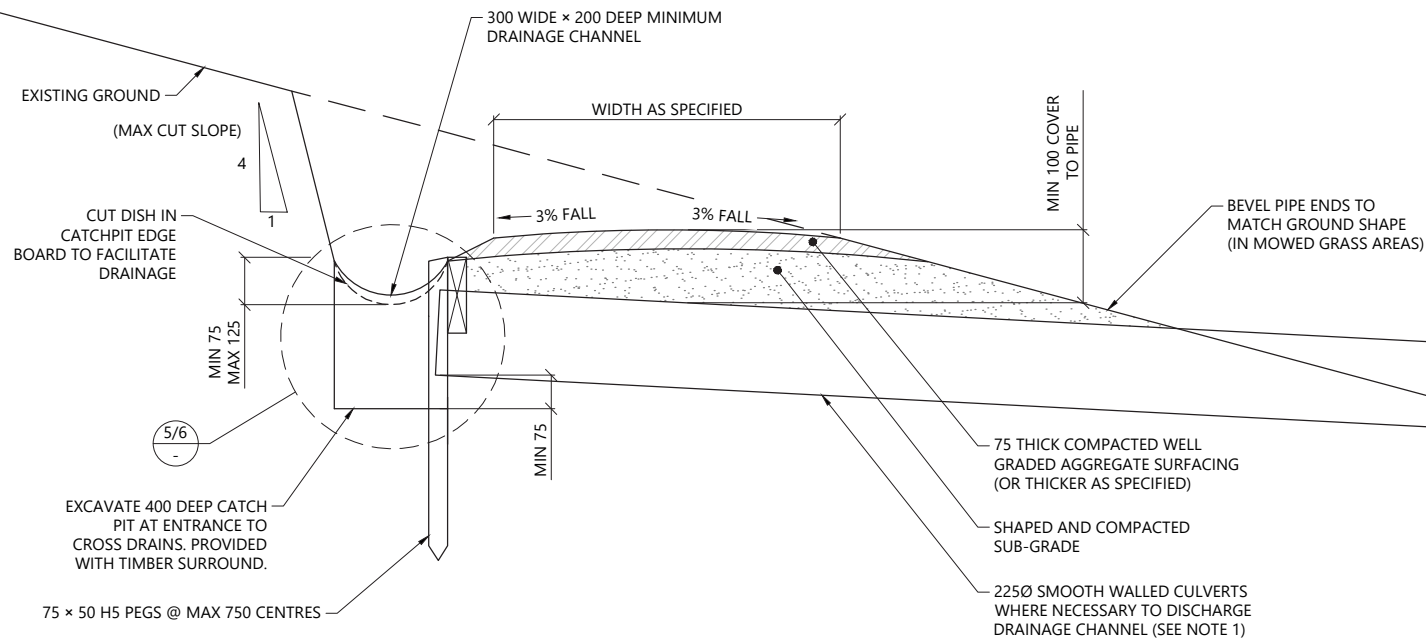




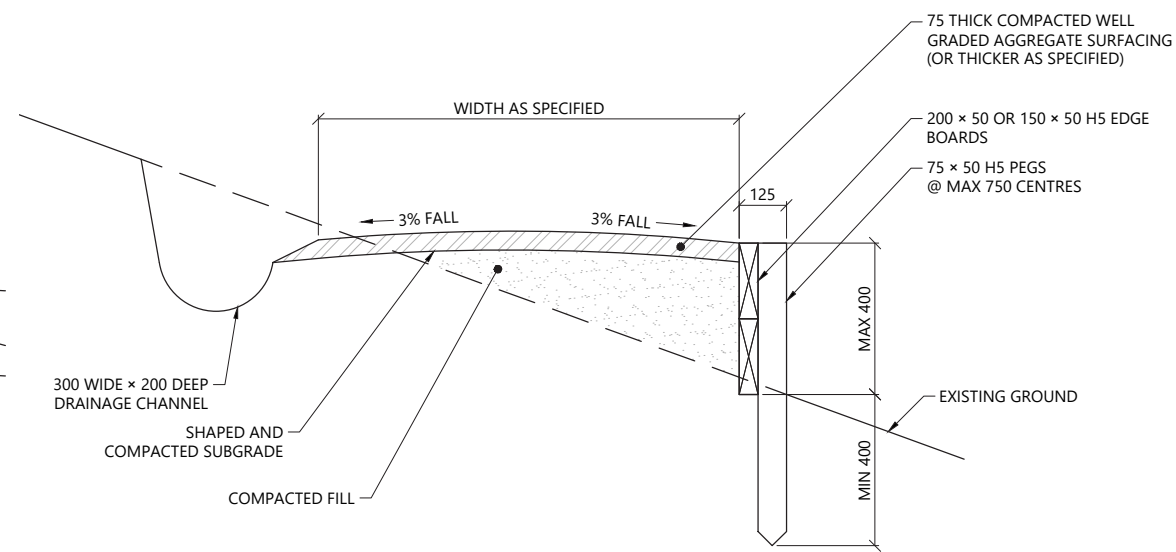
1 TYPICAL CROWNED TRACK ON LEVEL GROUND FORMATION  
SCALE 1:20 @ A3



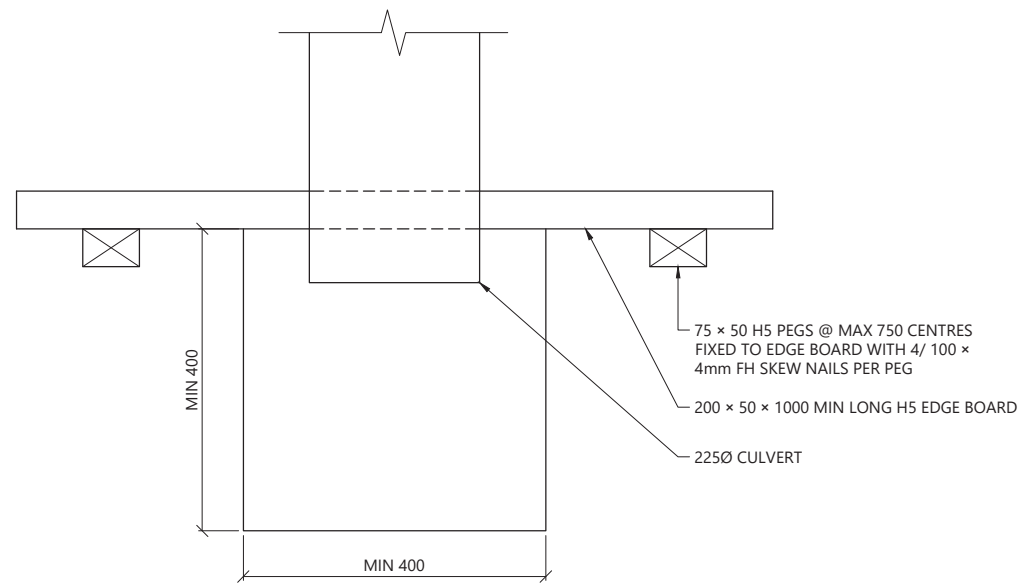
2 TYPICAL CROWNED TRACK ON BENCHED FORMATION  
SCALE 1:20 @ A3



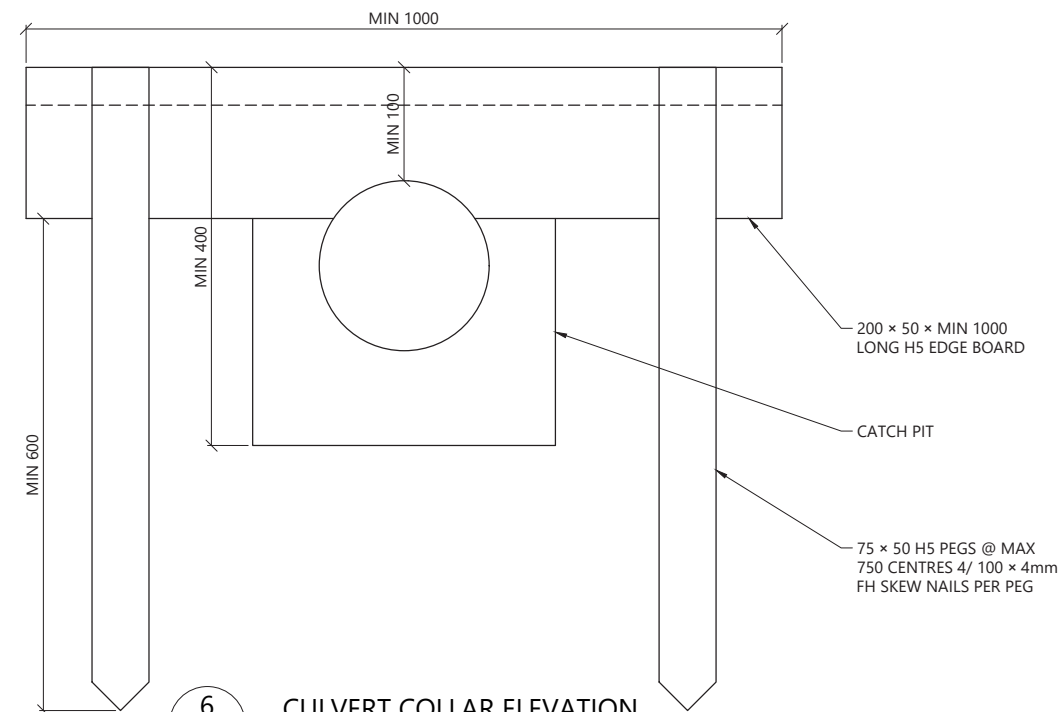
3 CUT FORMATION (SHOWING CULVERT)  
SCALE 1:20 @ A3



4 RETAINED FORMATION (USE WHERE SPECIFIED)  
SCALE 1:20 @ A3



5 CULVERT COLLAR PLAN  
SCALE 1:10 @ A3



6 CULVERT COLLAR ELEVATION  
SCALE 1:10 @ A3

- NOTES:
- DRAINAGE CHANNEL DISCHARGES TO BE LOCATED AT MAXIMUM 15m SPACING WHERE THE TRACK GRADE IS STEEPER THAN 1:10 AND MAXIMUM 20m SPACING WHERE THE GRADE IS FLATTER THAN 1:10.
  - MAXIMUM WALKING TRACK GRADE TO BE 1:6 UNLESS OTHERWISE STATED.

REV	DESCRIPTION	BY	CHKD	DATE
3	FOR INFORMATION	FC	AM	17/01/2024
2	FOR INFORMATION	FC	CG	17/04/2023
1	FOR INFORMATION	FC	AM	22/11/2022
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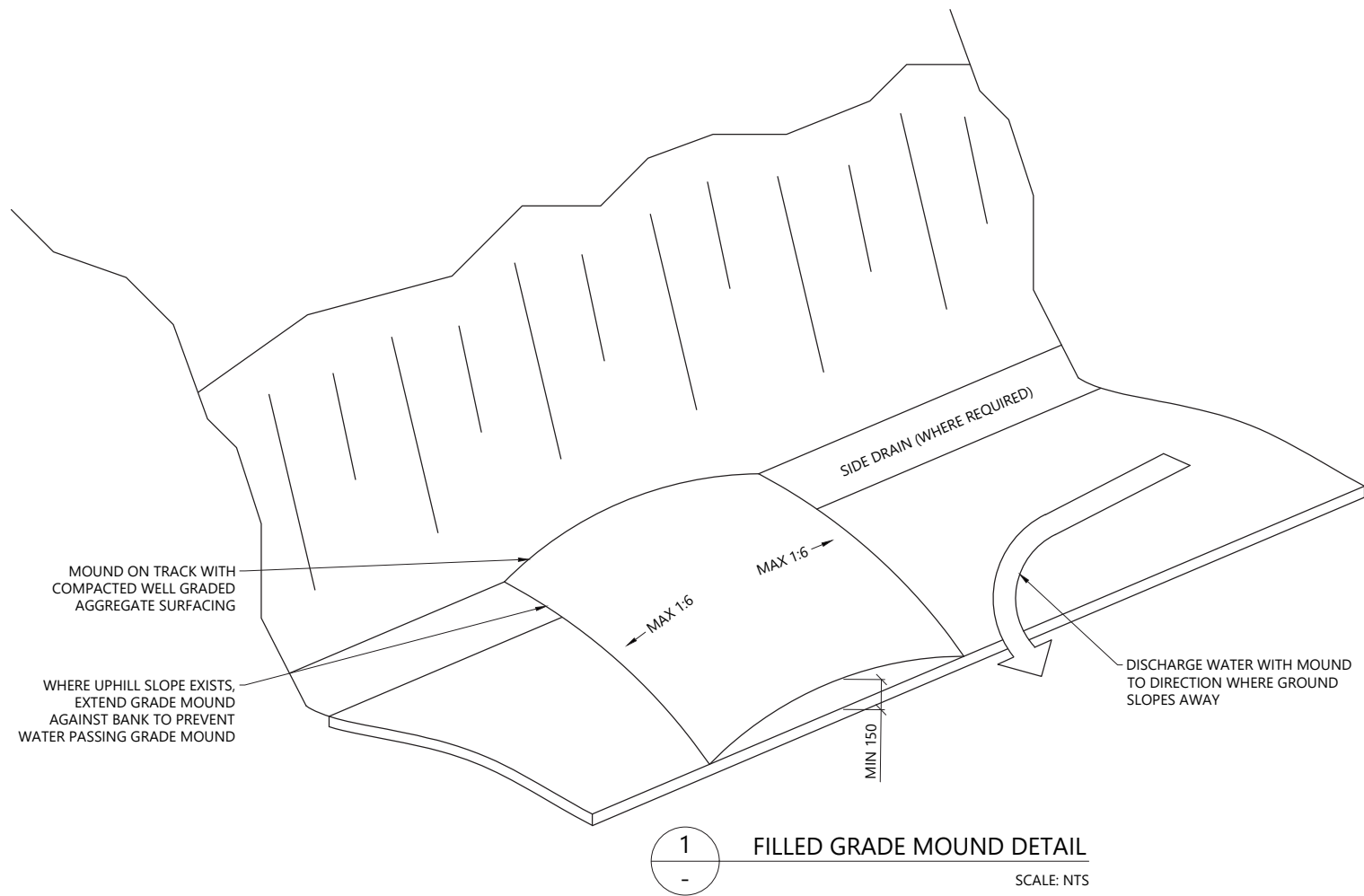


PROJECT:  
**REGIONAL PARKS  
STANDARD DETAILS**

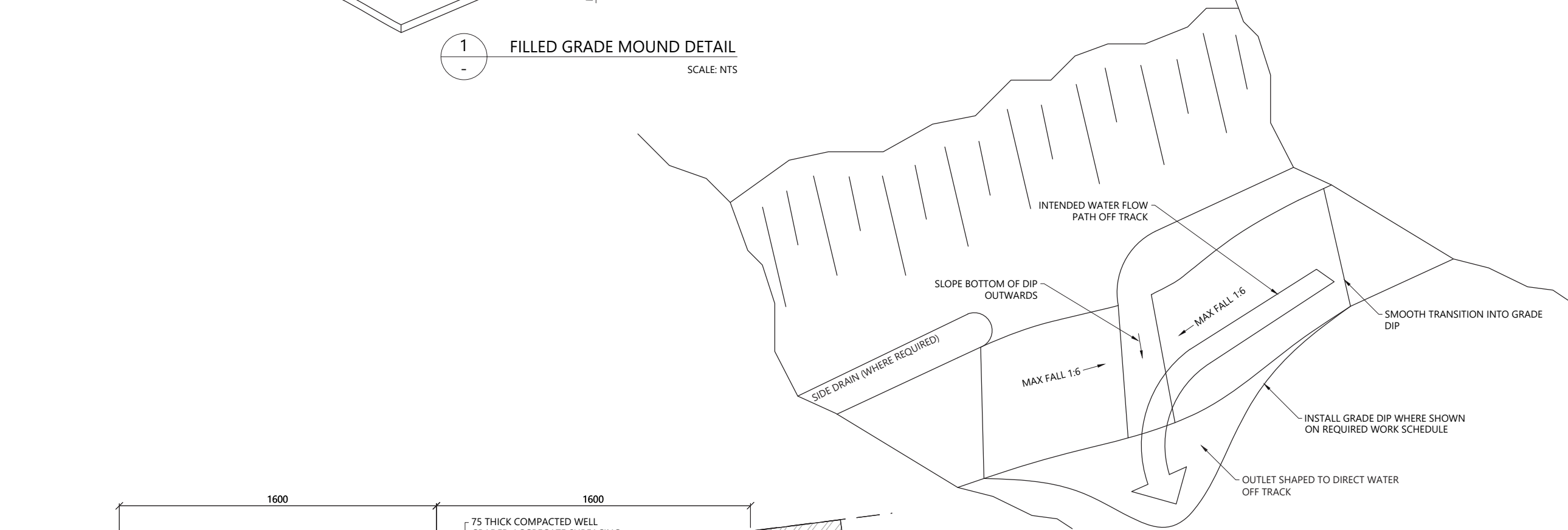
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**STANDARD TRACK DETAILS**



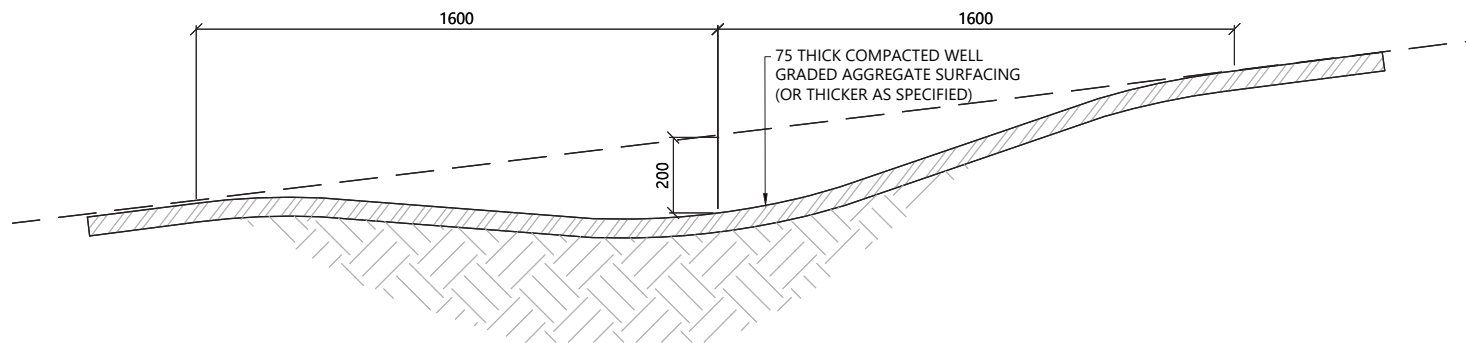
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STATUS: <b>FOR INFORMATION</b>	SCALE: AS SHOWN	REVISION: 3
DRAWING NO: 22133 - 500		



1  
-  
FILLED GRADE MOUND DETAIL  
SCALE: NTS



2  
-  
GRADE DIP DETAIL  
SCALE: NTS



3  
-  
TYPICAL GRADE DIP SECTION  
SCALE 1:20 @ A3

- NOTES:
1. DRAINAGE CHANNEL DISCHARGES TO BE LOCATED AT MAXIMUM 15m SPACING WHERE THE TRACK GRADE IS STEEPER THAN 1:10 AND MAXIMUM 20m SPACING WHERE THE GRADE IS FLATTER THAN 1:10.
  2. MAXIMUM WALKING TRACK GRADE TO BE 1:6 UNLESS OTHERWISE STATED.

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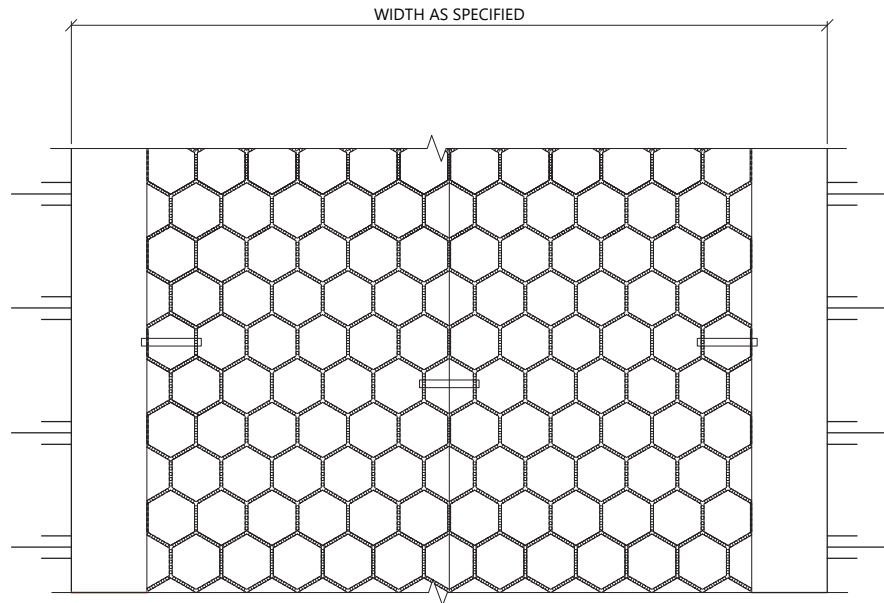
PROJECT:  
REGIONAL PARKS  
STANDARD DETAILS

DRAWING:  
TYPICAL AGGREGATE  
TRACK GRADE DIPS

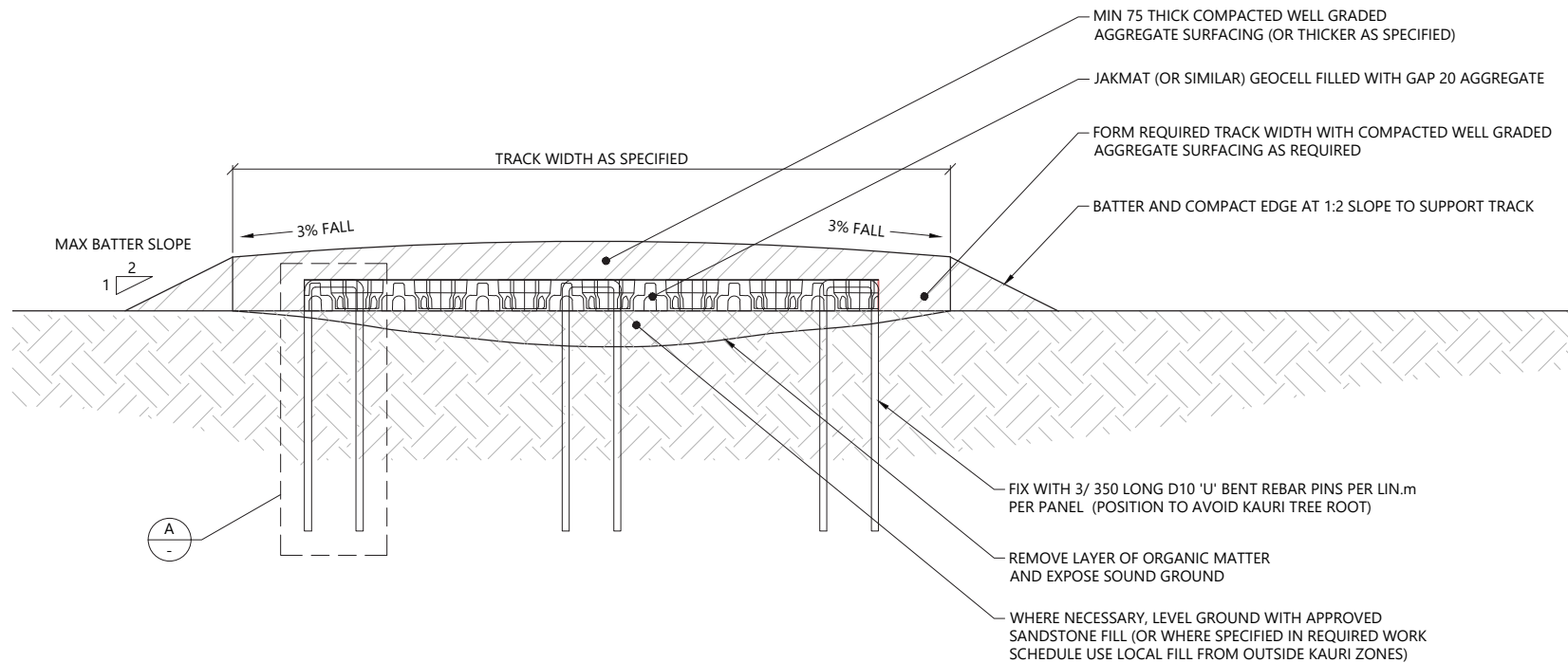
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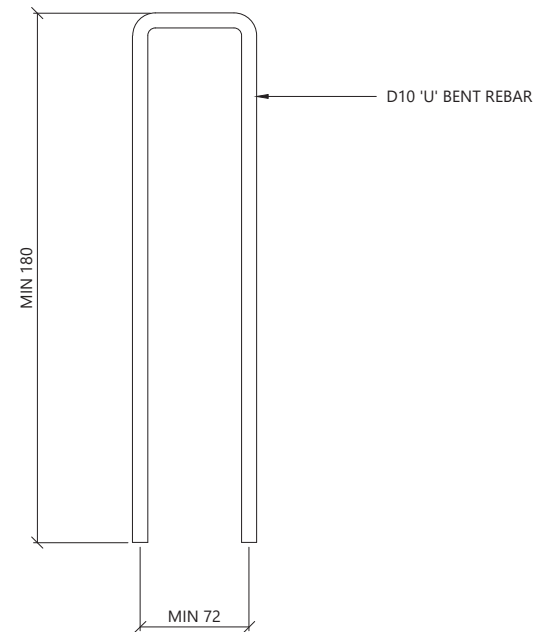
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STATUS: FOR INFORMATION	SCALE: AS SHOWN	REVISION: 3
DRAWING NO: 22133 - 501		



1  
-  
GEOCELL PLAN  
SCALE: 1:10 @ A3



2  
-  
GEOCELL SECTION  
SCALE: 1:10 @ A3



A  
-  
REBAR DETAIL  
SCALE: 1:5 @ A3

- NOTES:
- GEOCELL ARE POSITIONED & PINNED TO THE GROUND USING FIXING PINS.
  - JAKMAT PALLET DIMENSIONS: 1.2 x 1.2 x 0.92m JAKMAT PANEL SIZE: 585 x 400 x 43

TABLE 1	
WIDTH	PANEL
800	2
1000	2 + 100 AGGREGATE EACH SIDE
1200	3
1500	3 + 150 AGGREGATE EACH SIDE
1800	4 + 100 AGGREGATE EACH SIDE

REV	DESCRIPTION	BY	CHK	DATE
3	FOR INFORMATION	FC	AM	17/01/2024
2	FOR INFORMATION	FC	CG	17/04/2023
1	FOR INFORMATION	FC	AM	22/11/2022
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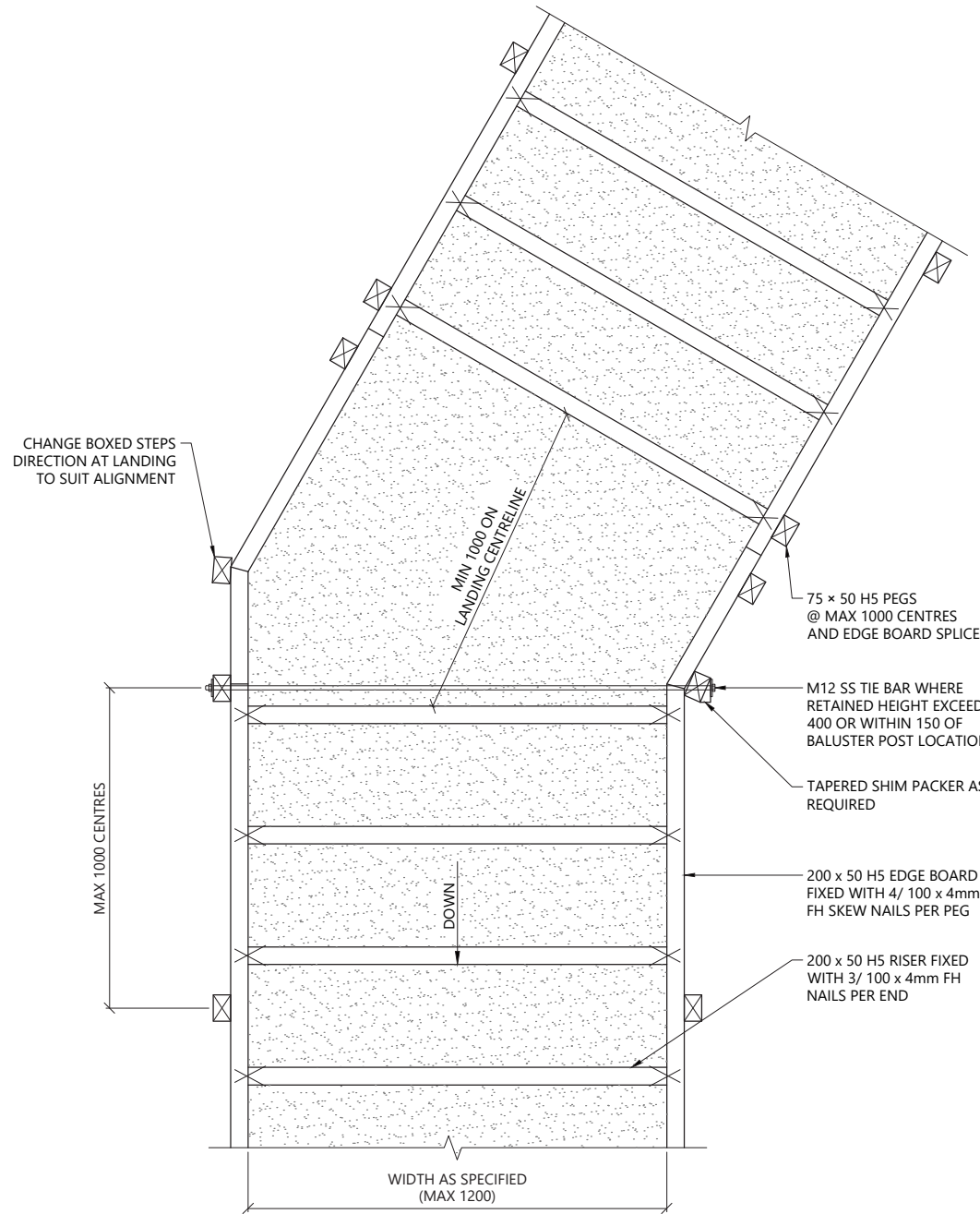


PROJECT:  
REGIONAL PARKS  
STANDARD DETAILS

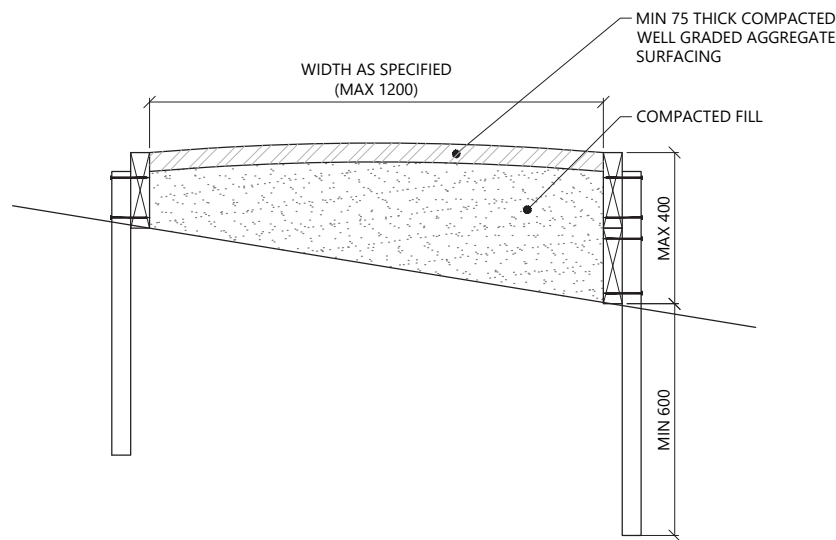
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GEOCELL DETAILS



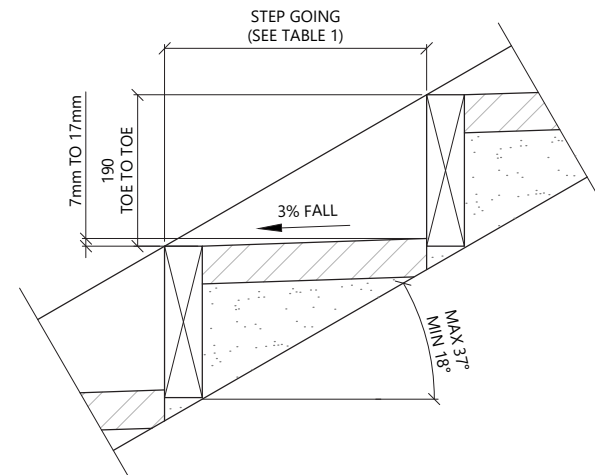
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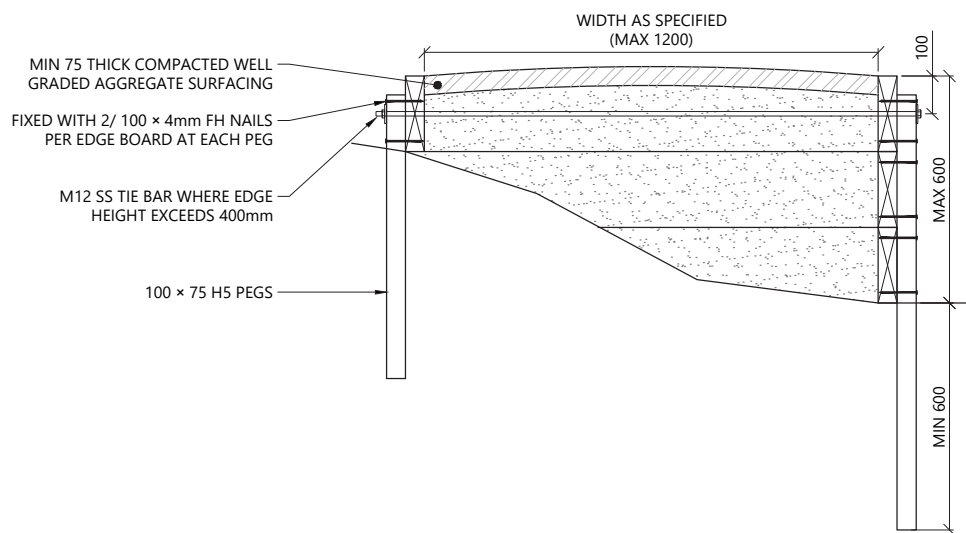
1 PART PLAN ON BOXED STEPS AND LANDING  
SCALE: 1:20 @ A3



A TYPICAL SECTION ON BOXED STEPS  
SCALE: 1:20 @ A3

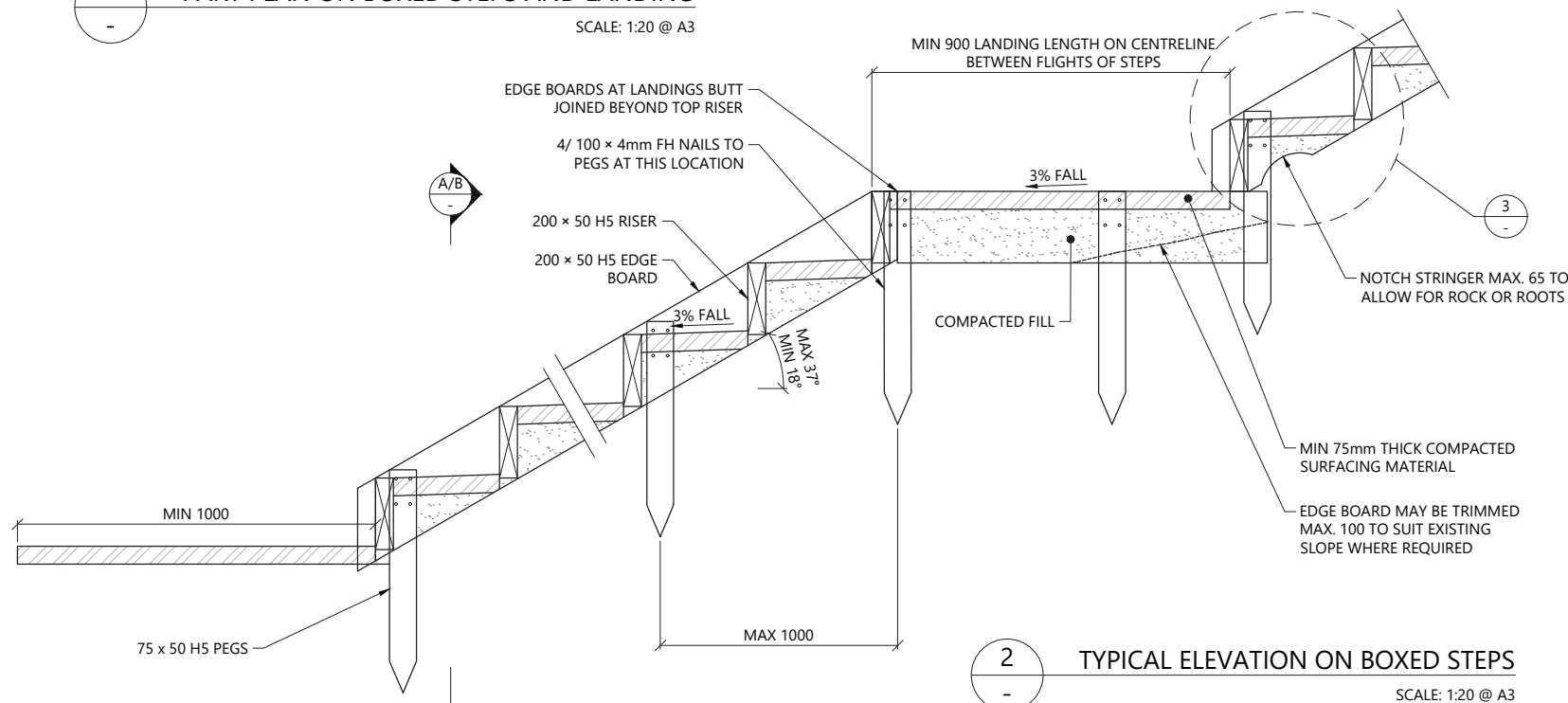


3 STEP DETAIL  
SCALE: 1:10 @ A3

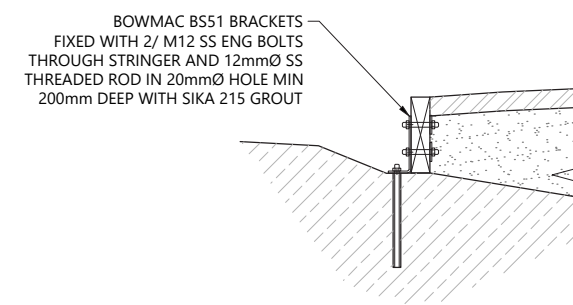


B BOXED STEP SECTION WITH 600mm HIGH EDGE  
SCALE: 1:20 @ A3

TABLE 1 - STEP GEOMETRY		
ANGLE	RISE	GOING
18° / 33%	190	575
20° / 36%	190	530
22° / 40%	190	475
24° / 45%	190	420
27° / 50%	190	380
30° / 58%	190	330
31° / 60%	190	315
34° / 66.6%	190	285
36° / 73%	190	260
37° / 76%	190	250



2 TYPICAL ELEVATION ON BOXED STEPS  
SCALE: 1:20 @ A3



4 STRINGER FIXING TO ROCK  
SCALE: 1:20 @ A3

- NOTES:
- DRAINAGE CONTROL TO BE PROVIDED AT EACH LANDING WITH 225mmØ SMOOTH WALLED CULVERTS.
  - PROVIDE LANDING EVERY 12 STEPS 190mm AND 180mm RISE (16 STEPS AT 150mm RISE). LANDING SHALL CONSIST OF AT LEAST 1000mm LONG LEVEL STEP.
  - STEPS SHALL HAVE UNIFORM LENGTH AND RISER HEIGHT WITHIN EACH FLIGHT BETWEEN LANDINGS.
  - TIMBER GRADE:
    - ALL TO BE N01 FRAMING OR BETTER.
  - TIMER TREATMENT:
    - SAWN TIMBER IN CONTACT WITH GROUND TO BE H5.
    - TREATMENT SHALL COMPLY WITH THE CURRENT REQUIREMENTS OF THE TIMBER PRESERVATION COUNCIL. ALL TIMBER SHALL BE BRANDED WITH THE APPROPRIATE WOODMARK. IT IS PREFERRED THAT TIMBER BE TREATED AT LEAST 2 MONTHS PRIOR TO USE.
  - NAILS:
    - GENERAL STRUCTURAL USE 100 x 4mm FH.
    - ALL NAILS SHALL BE HOT DIPPED GALVANISED.

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DESIGNER:

reNature

PROJECT:  
REGIONAL PARKS  
STANDARD DETAILS

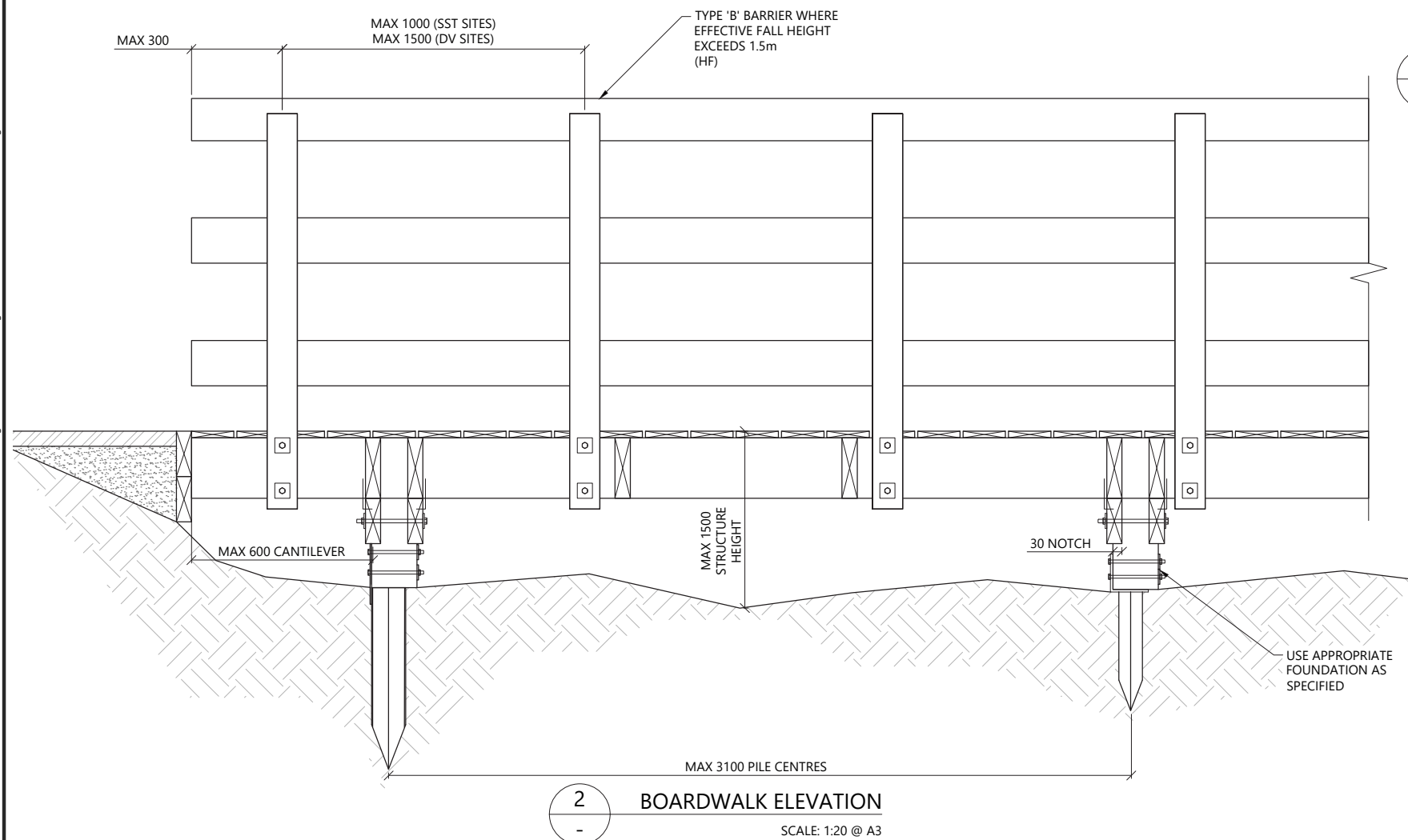
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DETAIL

CLIENT:

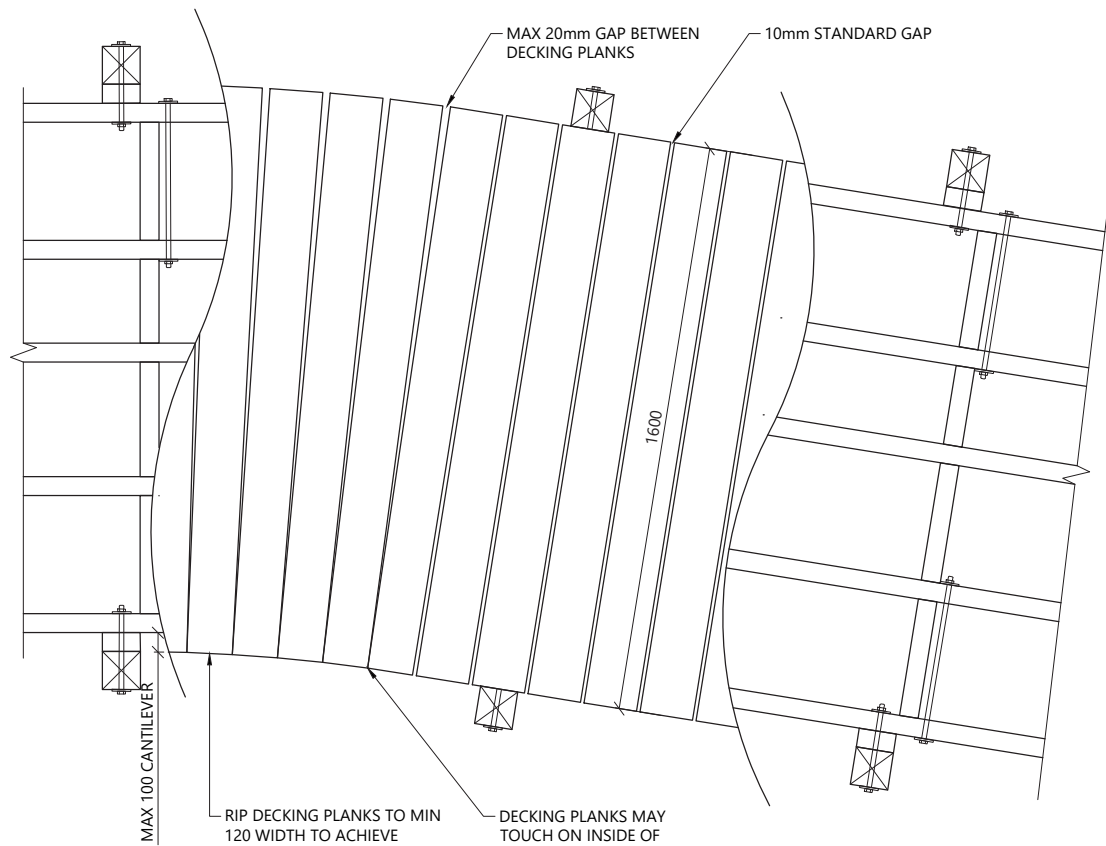
Auckland Council  
Te Kaunihera o Tāmaki Makaurau

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DRAWING NO: 22133 - 503		REVISION: 3

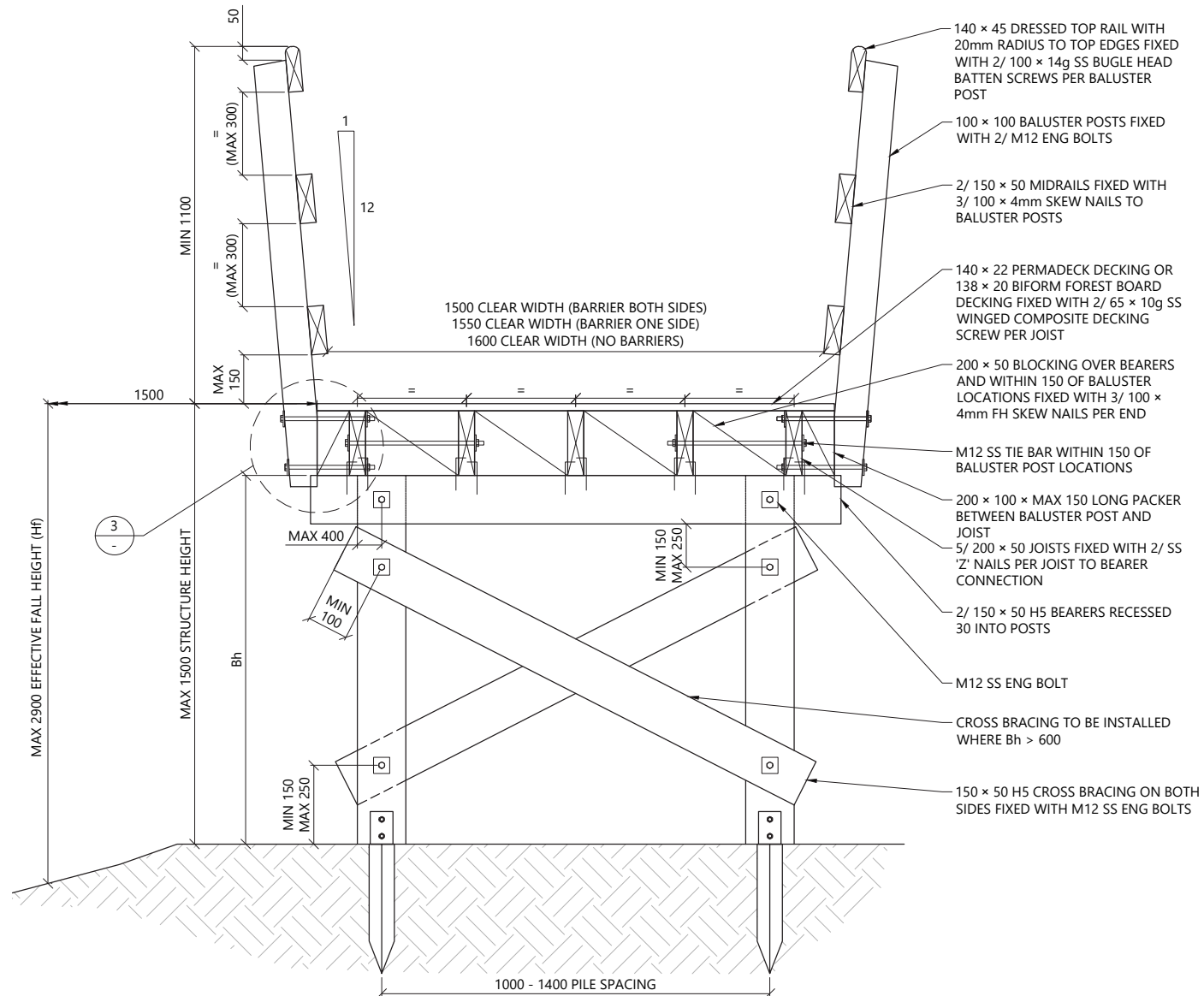




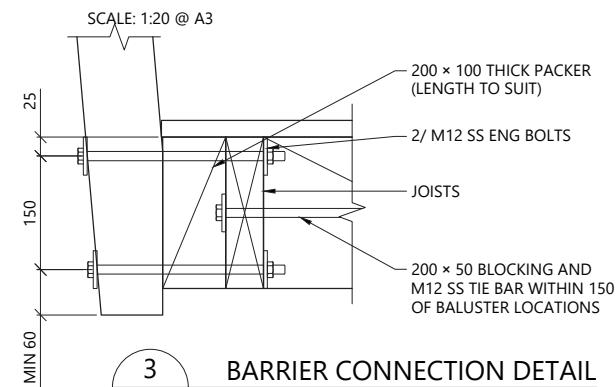
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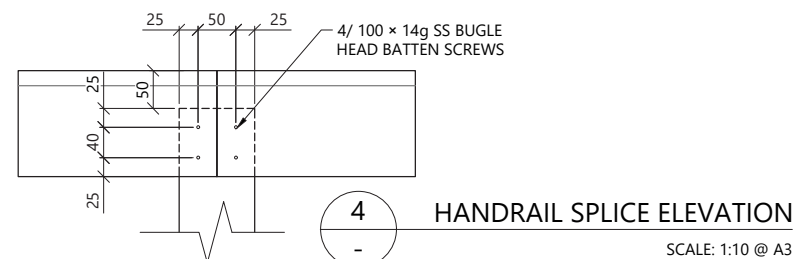
1 BOARDWALK PLAN  
SCALE: 1:20 @ A3



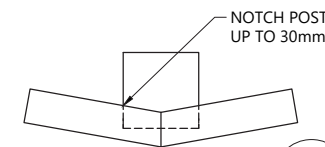
A BOARDWALK SECTION  
SCALE: 1:20 @ A3



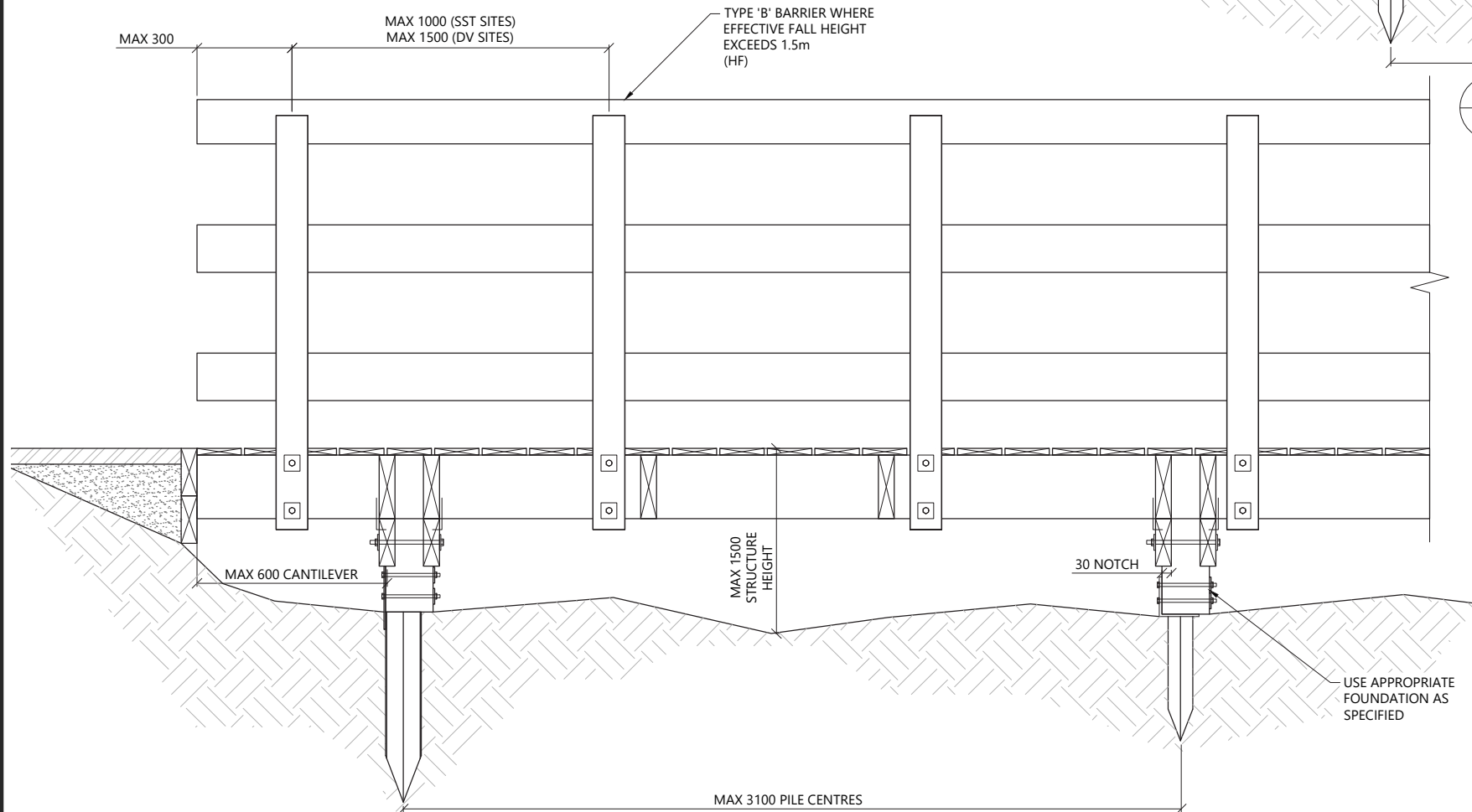
3 BARRIER CONNECTION DETAIL  
SCALE: 1:10 @ A3



4 HANDRAIL SPLICE ELEVATION  
SCALE: 1:10 @ A3



5 HANDRAIL SPLICE PLAN  
SCALE: 1:10 @ A3



2 BOARDWALK ELEVATION  
SCALE: 1:20 @ A3

NOTES:

1. BARRIER REQUIRED WHERE EFFECTIVE FALL HEIGHT > 1500mm

THIS STRUCTURE IS DESIGNED ACCORDANCE WITH SNZ HB8630:2004	
STRUCTURE TYPE	ACCESS
SITE USER GROUP	SST
BASIC DESIGN LOAD	3.6 kPa
CONCENTRATED LOAD	1.8 kN
BARRIER TYPE	TYPE B (BOTH SIDES)
BASIC BARRIER DESIGN LOAD	0.75 kN/m
FALL SURFACE CATEGORY	FAVOURABLE
EFFECTIVE FALL HEIGHT (H <sub>f</sub> )	< 3.0
DESIGN LATERAL LOADING	10% OF DESIGN LIVE LOAD

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0	FOR INFORMATION	CG	AM	16/06/2022

DESIGNER:



PROJECT:

REGIONAL PARKS  
STANDARD DETAILS

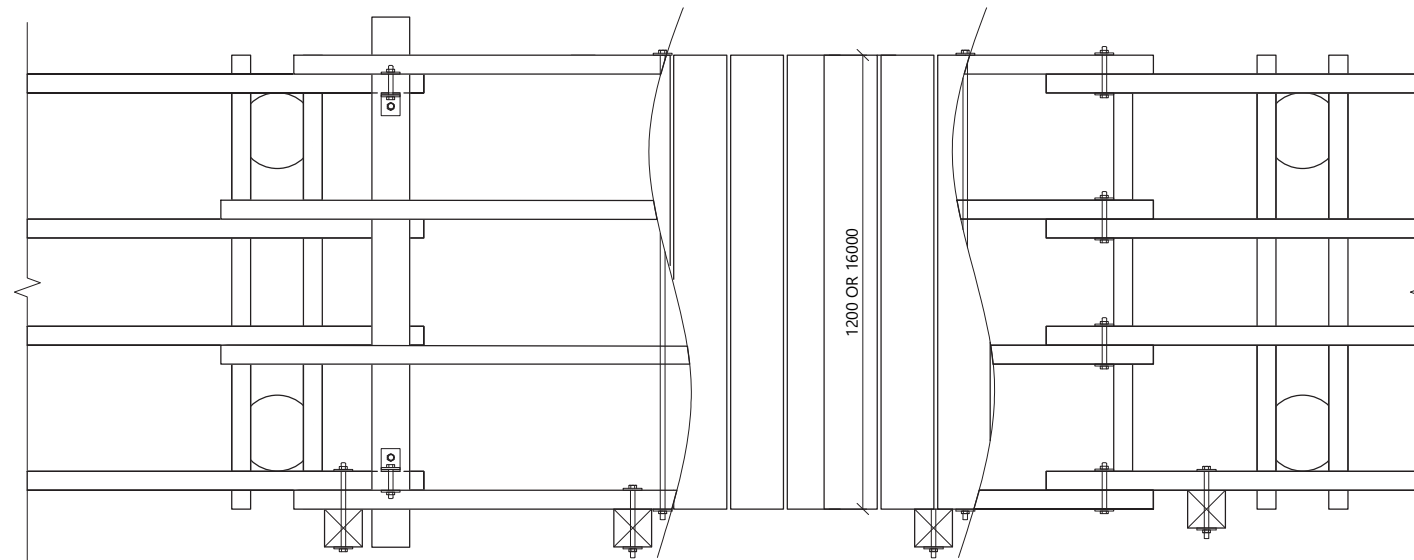
DRAWING:

1600 WIDE COMPOSITE  
DECKING LOW BOARDWALK

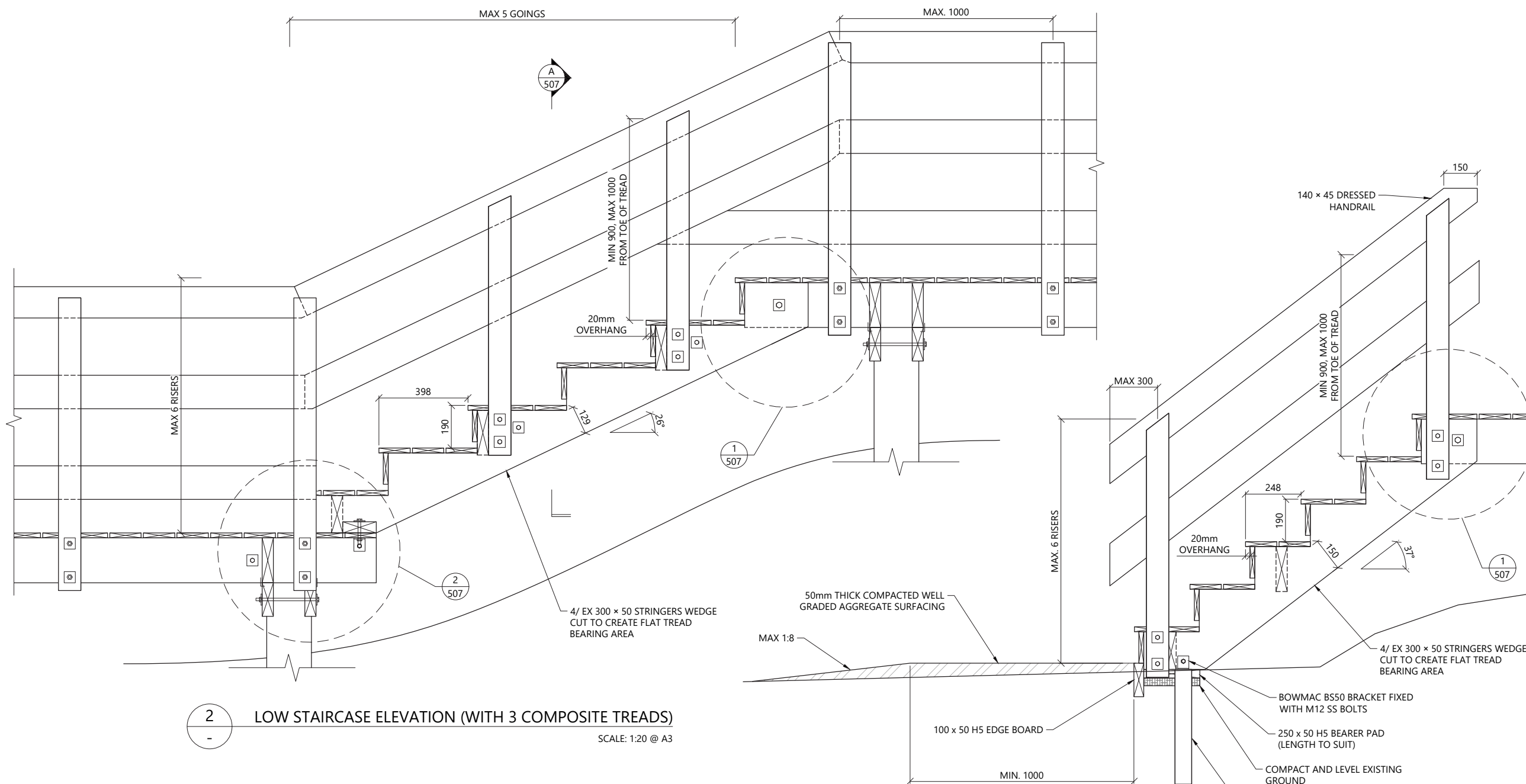
CLIENT:



DESIGNED BY: A.MACKENZIE	DRAWN BY: C.GLITZ	APPROVED: A.MACKENZIE
STATUS: FOR INFORMATION	SCALE: AS SHOWN	REVISION: 3
DRAWING NO: 22133 - 505		



1 LOW STAIRCASE PLAN  
SCALE: 1:20 @ A3



2 LOW STAIRCASE ELEVATION (WITH 3 COMPOSITE TREADS)  
SCALE: 1:20 @ A3

3 LOW STAIRCASE ELEVATION (WITH 2 COMPOSITE TREADS)  
SCALE: 1:20 @ A3

NOTES:

- 25.5° STAIRCASE PREFERRED. 37.5° STAIRCASE TO BE USED ONLY WHEN REQUIRED BY LOCAL TOPOGRAPHY.
- ADDITIONAL JOIST REQUIRED WHERE 1600 STAIRCASE IS CONSTRUCTED. NUMBER OF JOISTS TO MATCH WITH BOARDWALK.
- TYPE 'B' BARRIER REQUIRED WHERE EFFECTIVE FALL HEIGHT IS GREATER THAN 1.5m.

THIS STRUCTURE IS DESIGNED ACCORDANCE WITH SNZ HB8630:2004	
STRUCTURE TYPE	ACCESS
SITE USER GROUP	SST
BASIC DESIGN LOAD	3.6 kPa
CONCENTRATED LOAD	1.8 kN
BARRIER TYPE	TYPE B (BOTH SIDES)
BASIC BARRIER DESIGN LOAD	0.75 kN/m
FALL SURFACE CATEGORY	FAVOURABLE
EFFECTIVE FALL HEIGHT (H <sub>e</sub> )	< 3.0
DESIGN LATERAL LOADING	10% OF DESIGN LIVE LOAD

REV	DESCRIPTION	BY	CHKD	DATE
3	FOR INFORMATION	FC	AM	17/01/2024
2	FOR INFORMATION	FC	CG	17/04/2023
1	FOR INFORMATION	FC	AM	22/11/2022
0	FOR INFORMATION	CG	AM	16/06/2022

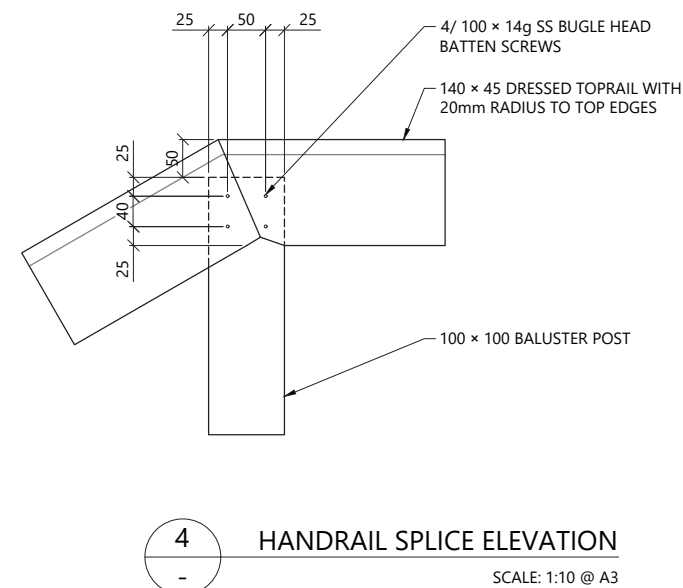
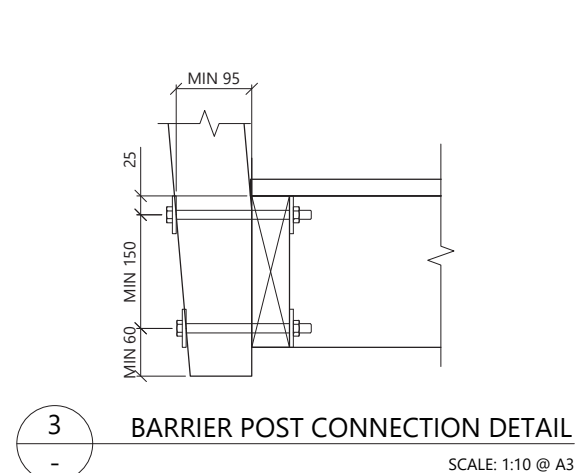
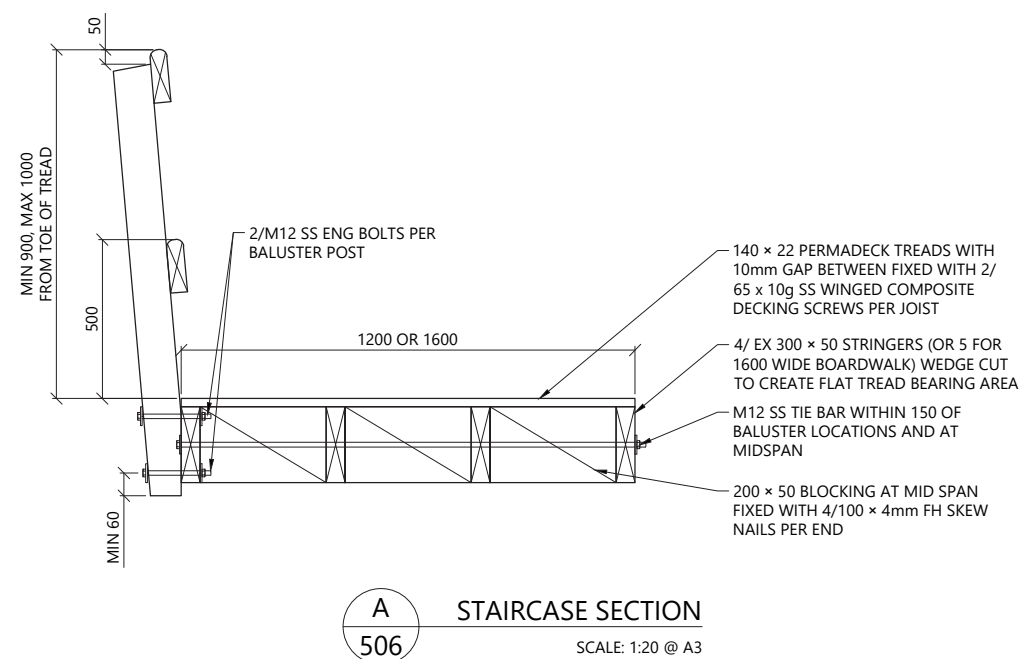
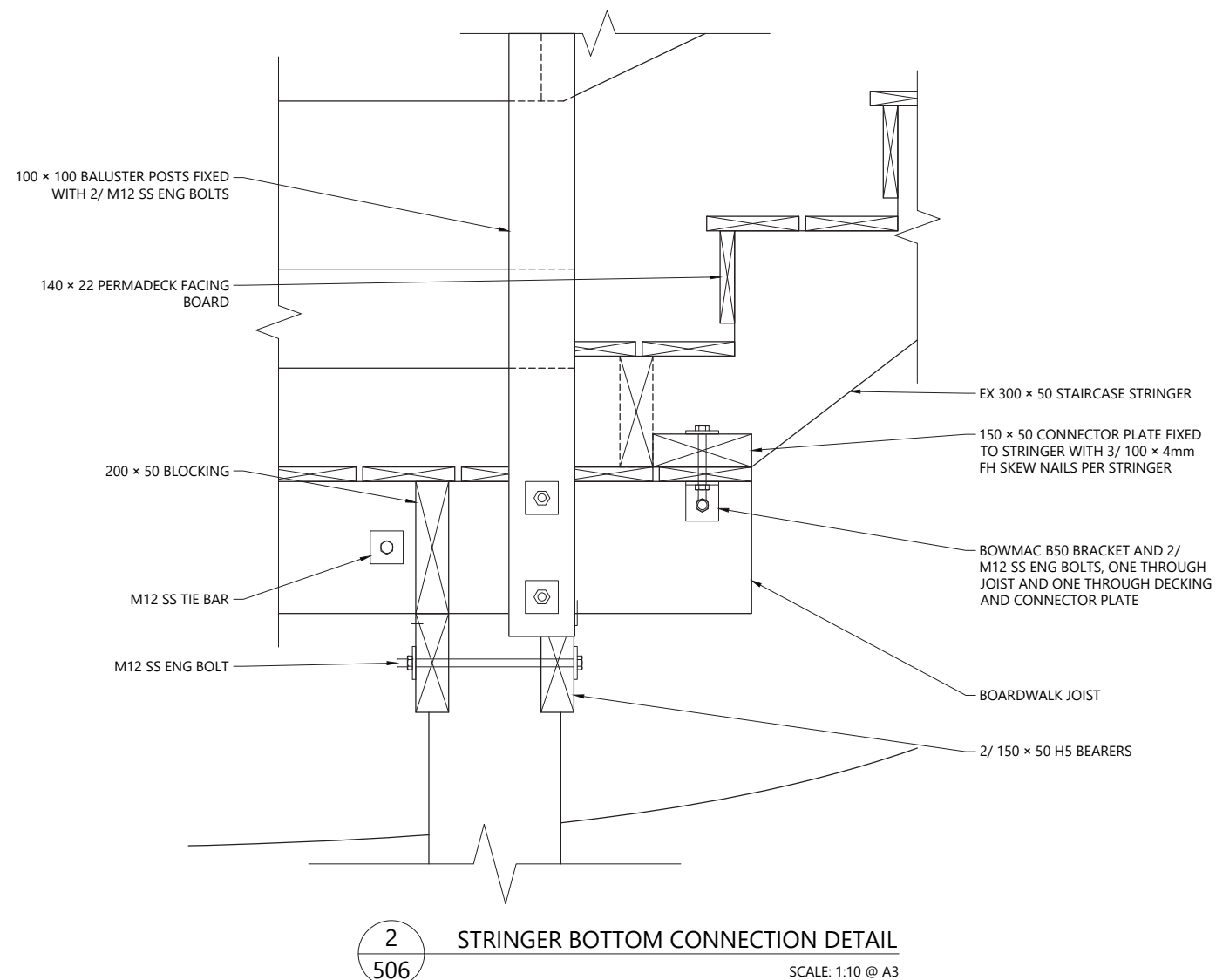
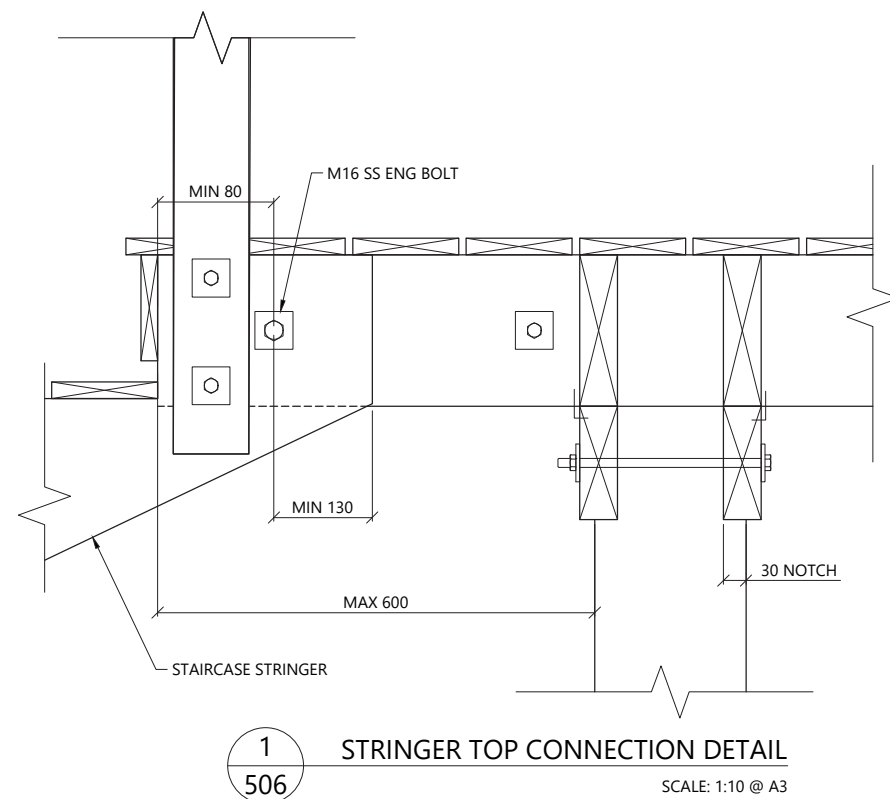


PROJECT:  
REGIONAL PARKS  
STANDARD DETAILS

DRAWING:  
LOW COMPOSITE DECKING  
STAIRCASE DETAIL  
SHEET 1 OF 2



DESIGNED BY: A.MACKENZIE	DRAWN BY: C.GLITZ	APPROVED: A.MACKENZIE
STATUS: FOR INFORMATION	SCALE: AS SHOWN	REVISION: 3
DRAWING NO: 22133 - 506		



NOTES:

THIS STRUCTURE IS DESIGNED ACCORDANCE WITH SNZ HB8630:2004	
STRUCTURE TYPE	ACCESS
SITE USER GROUP	SST
BASIC DESIGN LOAD	3.6 kPa
CONCENTRATED LOAD	1.8 kN
BARRIER TYPE	TYPE B (BOTH SIDES)
BASIC BARRIER DESIGN LOAD	0.75 kN/m
FALL SURFACE CATEGORY	FAVOURABLE
EFFECTIVE FALL HEIGHT ( $H_L$ )	< 3.0
DESIGN LATERAL LOADING	10% OF DESIGN LIVE LOAD

3	FOR INFORMATION	FC	AM	17/01/2024	
2	FOR INFORMATION	FC	CG	17/04/2023	
1	FOR INFORMATION	FC	AM	22/11/2022	
0	FOR INFORMATION	CG	AM	16/06/2022	
REV	DESCRIPTION	BY	CHD	DATE	

DESIGNER:



## PROJECT: REGIONAL PARKS STANDARD DETAILS

DRAWING:  
LOW COMPOSITE DECKING  
STAIRCASE DETAIL  
SHEET 2 OF 2

CLIENT:

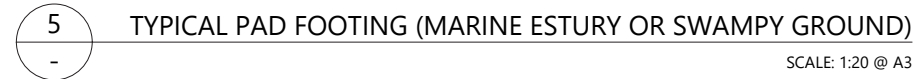
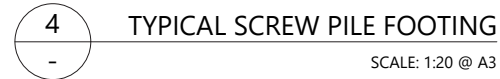
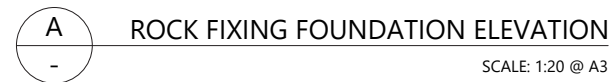
**Auckland Council**

Te Kaunihera o Tāmaki Makaurau



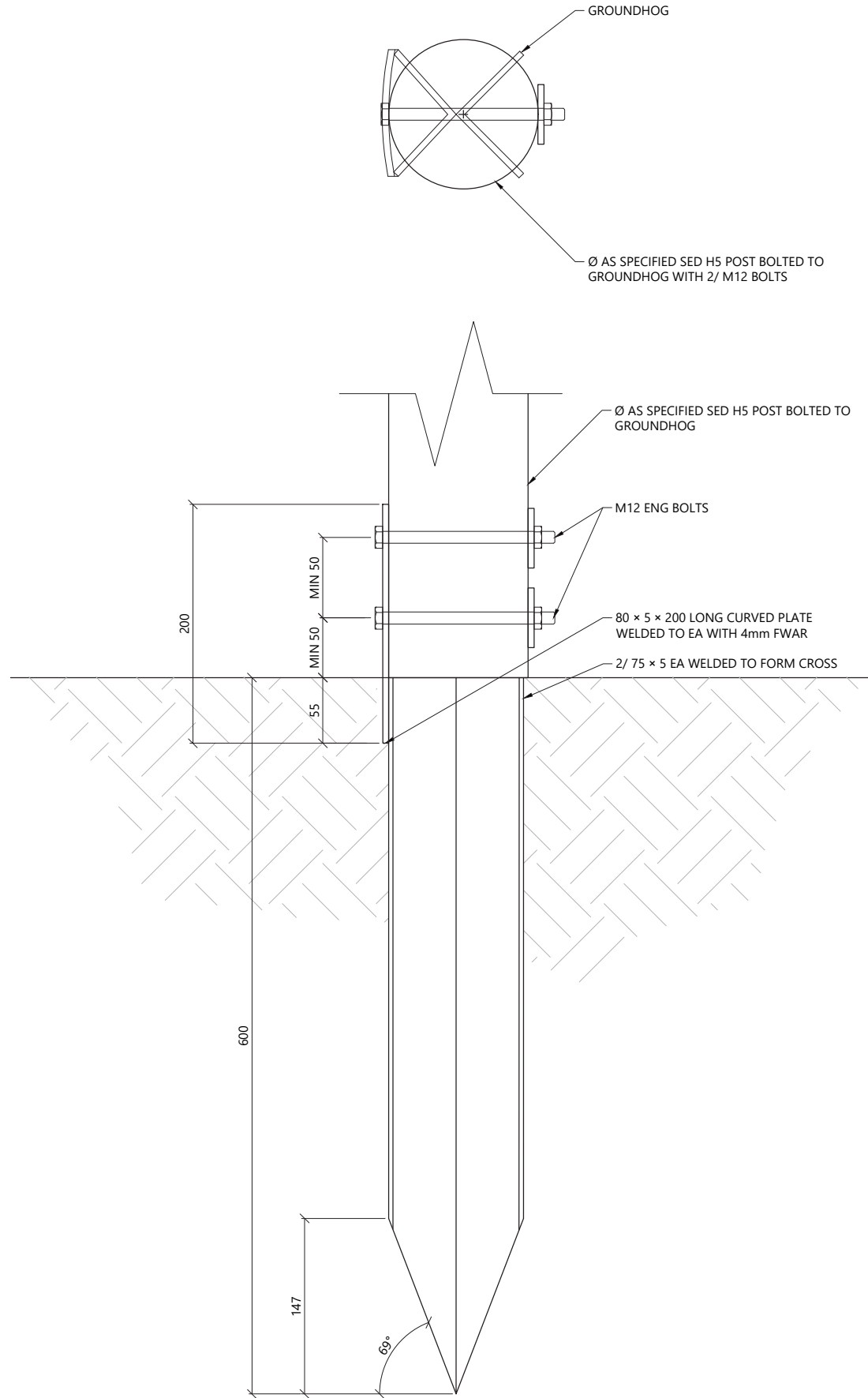
DESIGNED BY: <b>A.MACKENZIE</b>	DRAWN BY: <b>C.GUTZ</b>	APPROVED: <b>A.MACKENZIE</b>
STATUS: <b>FOR INFORMATION</b>		SCALE: <b>AS SHOWN</b>
DRAWING NO: <b>22133 - 507</b>		REVISION: <b>3</b>



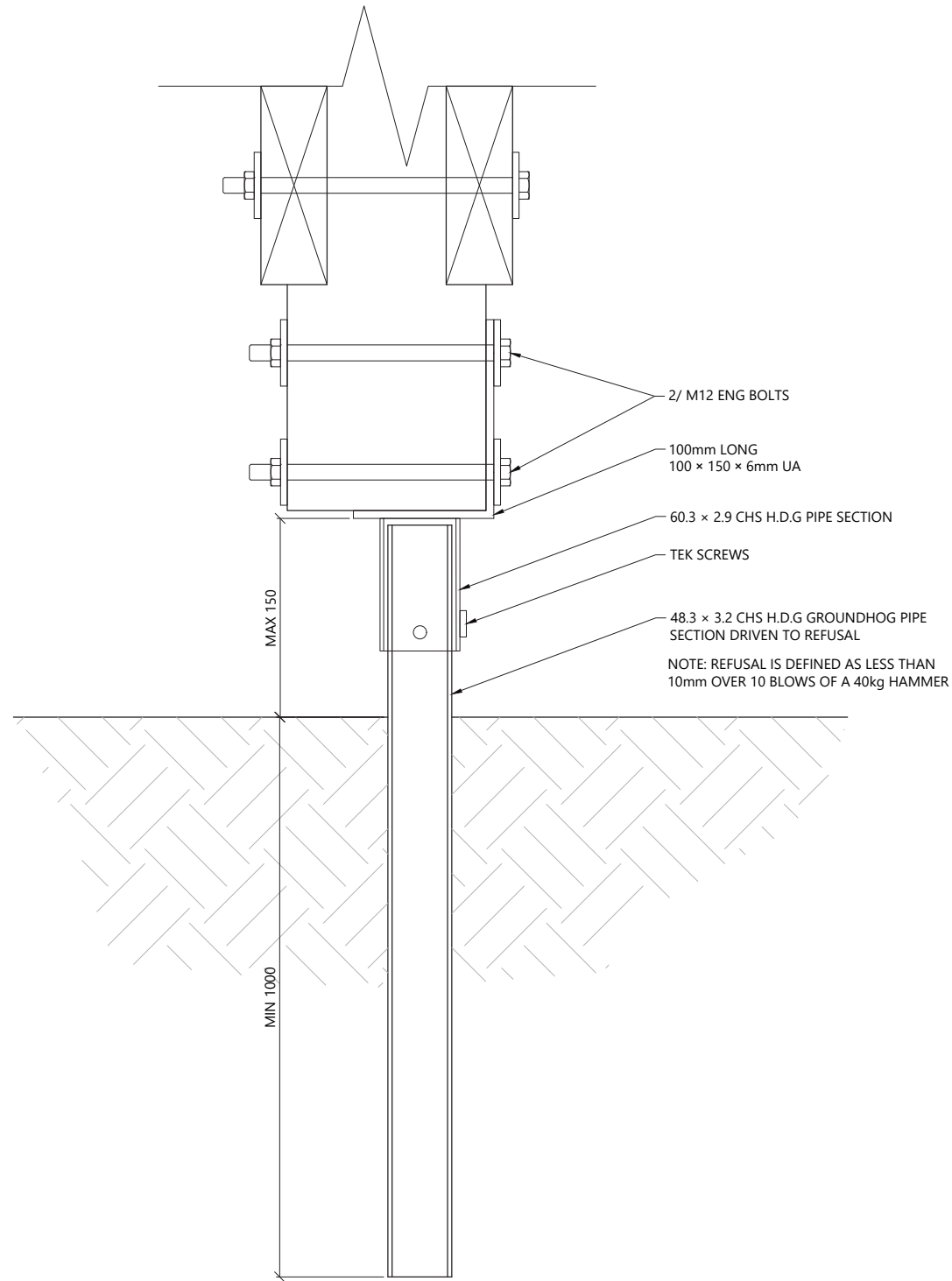


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|-----------------------------------|----------------------|--------------------------|
| DESIGNED BY:<br>A.MACKENZIE       | DRAWN BY:<br>C.GLITZ | APPROVED:<br>A.MACKENZIE |
| STATUS:<br><b>FOR INFORMATION</b> |                      | SCALE:<br>AS SHOWN       |
| DRAWING NO:<br><b>22133 - 508</b> |                      | REVISION:<br><b>3</b>    |

Plotted: Wednesday, 17 January 2024 9:08:28 am By: FERNANDA CONTRERAS  
File Path: C:\P\reNature Limited\P - Documents\2022\22133 AC Standard Kauri Details (Regional)\3 CAD\0 Drawings\AC West Standard Boardwalk R3.dwg



7 TYPE '2' TYPICAL GROUNDHOG FOOTING  
SCALE: 1:5 @ A3



8 TYPE '3' TYPICAL GROUNDHOG FOOTING  
SCALE: 1:5 @ A3

NOTES:

1. ALL STEEL WORK TO BE HOT DIPPED GALVANISED U.O.N.
2. ALL WELDS TO BE 4mm GP FILLET WELDS
3. USE GROUNDHOG DRIVING PLATE TO ENSURE HOT DIP GALVANIZING SURFACE IS NOT DAMAGED DURING INSTALLATION
4. TYPE '2' (LARGE) GROUNDHOG FOR USE ONLY IN LOCATIONS WHERE:
  - BEARER HEIGHT IS GREATER THAN 600mm
  - CROSS FALL LESS THAN 30%
  - BOARDWALK WITHIN FLOODPLAIN
  - OUTSIDE AREAS OF GROUND INSTABILITY
  - 'GOOD' GROUND AS DEFINED BY NZS3604
  - TO BE APPROVED BY ENGINEER
5. TYPE '3' (PIPE) GROUNDHOG FOR USE ONLY IN LOCATIONS WHERE:
  - BEARER HEIGHT IS LESS THAN 800mm
  - CROSS FALL LESS THAN 30%
  - OUTSIDE AREAS OF GROUND INSTABILITY
  - 'GOOD' GROUND AS DEFINED BY NZS3604
  - BOARDWALK IS OUTSIDE OF FLOODPLAIN
  - TO BE APPROVED BY ENGINEER

REV	DESCRIPTION	BY	CHKD	DATE
3	FOR INFORMATION	FC	AM	17/01/2024
2	FOR INFORMATION	FC	CG	17/04/2023
1	FOR INFORMATION	FC	AM	22/11/2022
0	FOR INFORMATION	CG	AM	16/06/2022

DESIGNER:



PROJECT:

REGIONAL PARKS  
STANDARD DETAILS

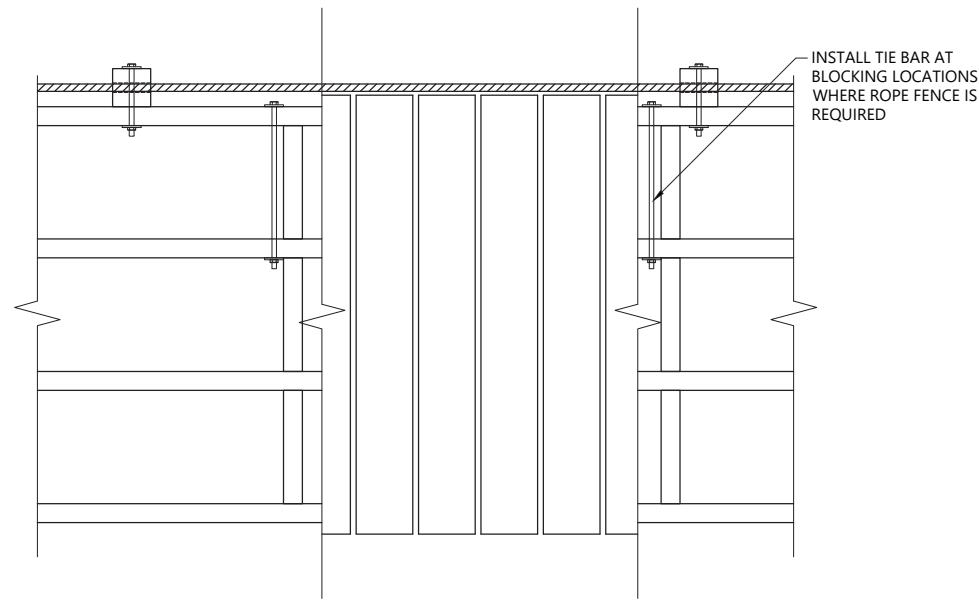
DRAWING:

TYPICAL BOARDWALK  
FOOTING DETAILS  
SHEET 2 OF 2

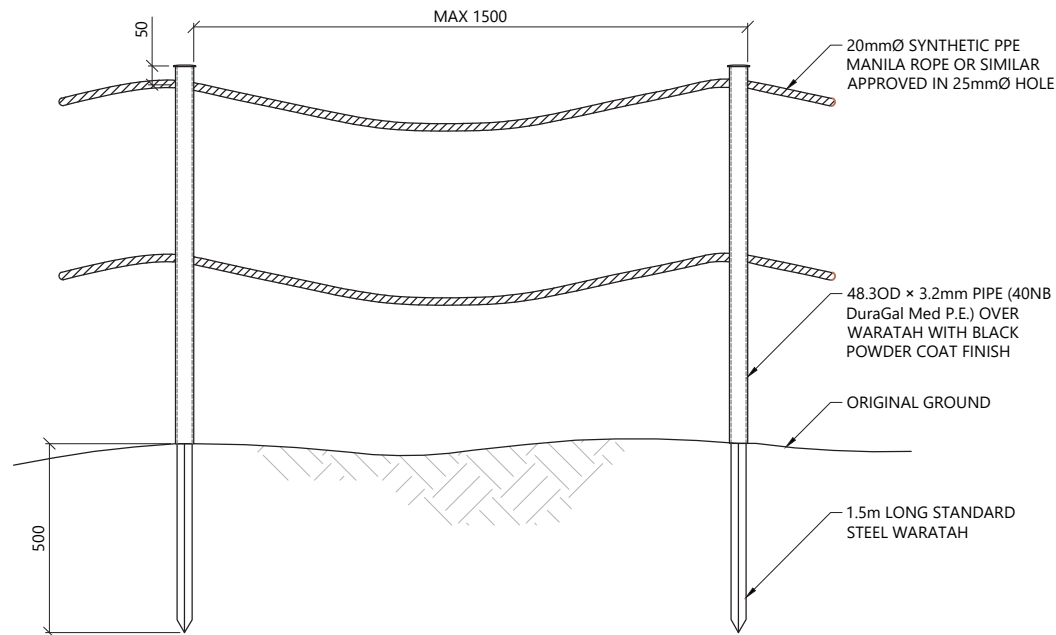
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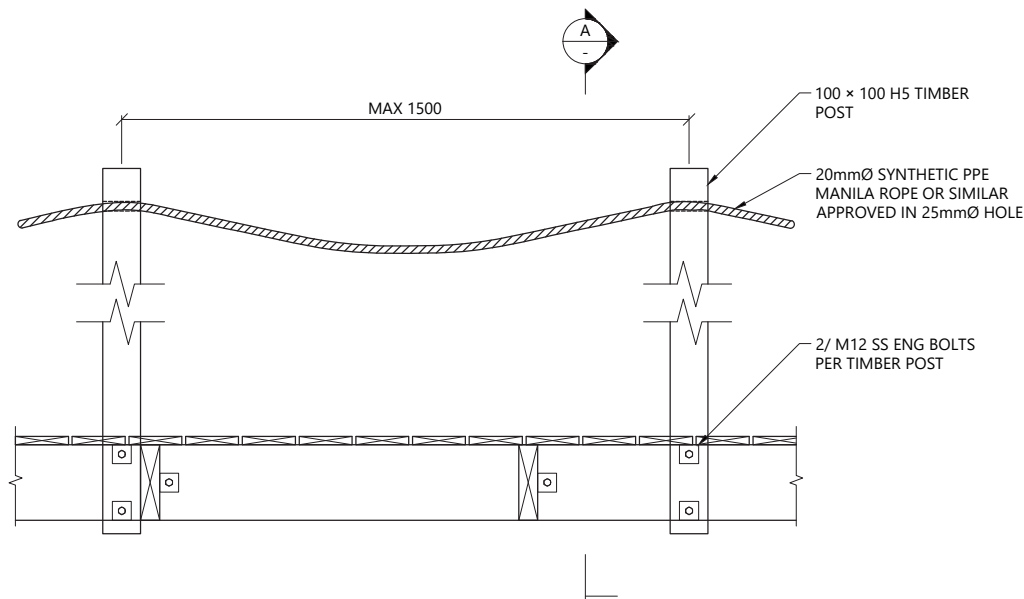
DESIGNED BY: A.MACKENZIE	DRAWN BY: C.GLITZ	APPROVED: A.MACKENZIE
STATUS: FOR INFORMATION	SCALE: AS SHOWN	
DRAWING NO: 22133 - 509	REVISION: 3	



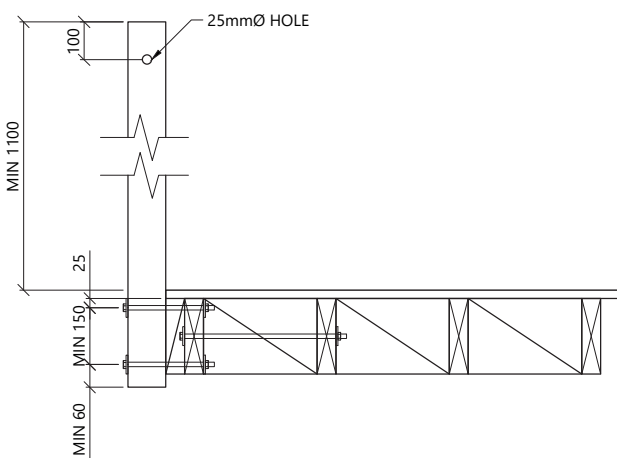
1 ROPE FENCE ON BOARDWALK PLAN  
SCALE: 1:20 @ A3



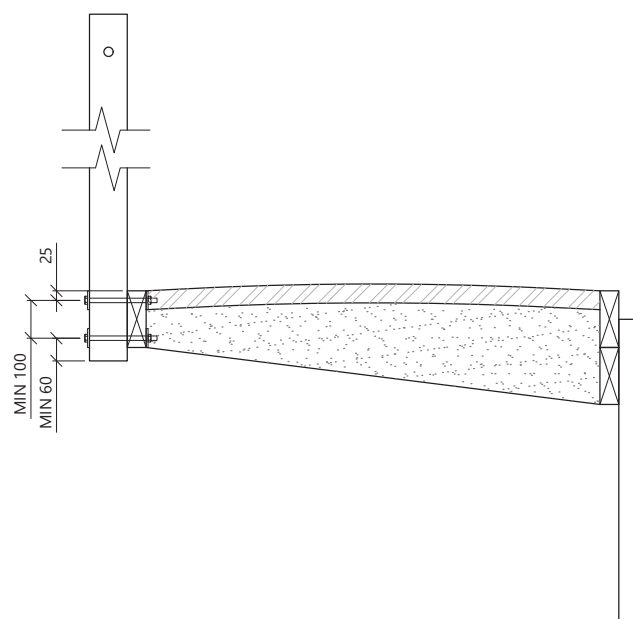
3 ROPE FENCE IN GROUND ELEVATION  
SCALE: 1:20 @ A3



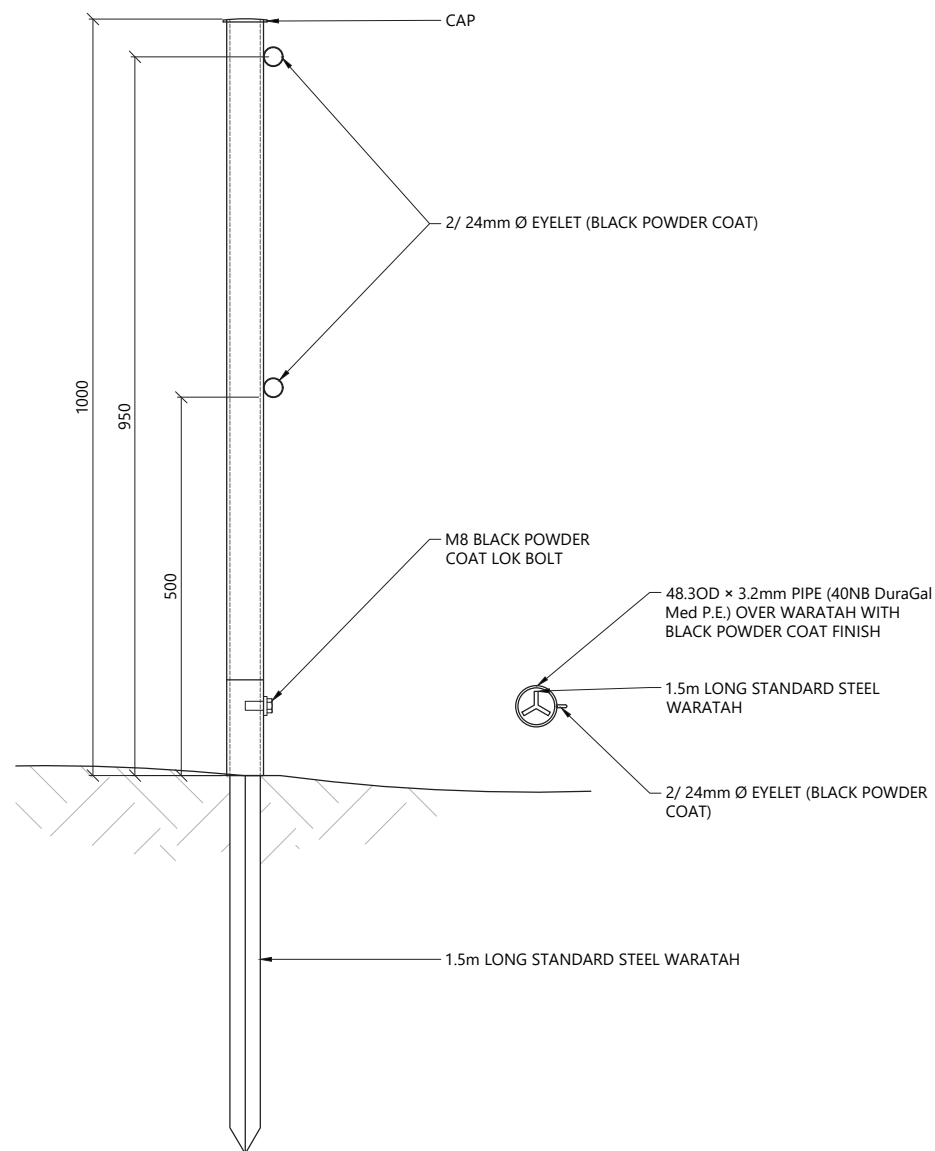
2 ROPE FENCE ON BOARDWALK ELEVATION  
SCALE: 1:20 @ A3



A ROPE FENCE ON BOARDWALK SECTION  
SCALE: 1:20 @ A3



4 ROPE FENCE ON BOXED STEPS SECTION  
SCALE: 1:20 @ A3



5 ROPE FENCE POST DETAIL  
SCALE: 1:10 @ A3

NOTES:

REV	DESCRIPTION	BY	CHK	DATE
3	FOR INFORMATION	FC	AM	17/01/2024
2	FOR INFORMATION	FC	CG	17/04/2023
1	FOR INFORMATION	FC	AM	22/11/2022
0	FOR INFORMATION	CG	AM	16/06/2022

DESIGNER:



PROJECT:

REGIONAL PARKS  
STANDARD DETAILS

DRAWING:

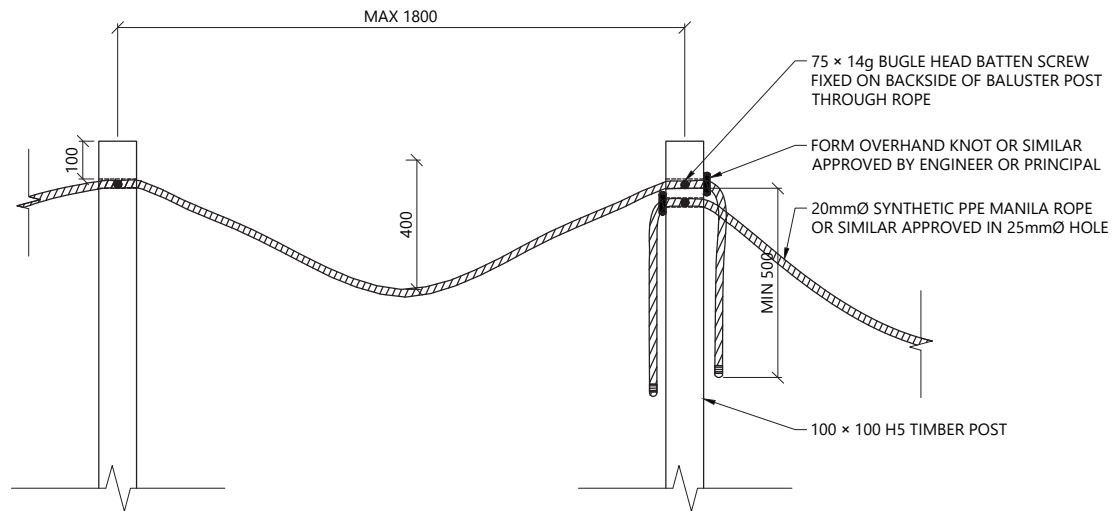
TYPICAL ROPE FENCE  
DETAILS  
SHEET 1 OF 2

CLIENT:

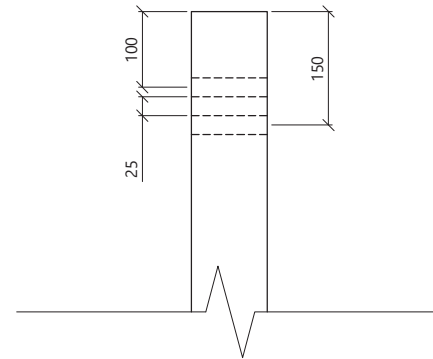


DESIGNED BY: A.MACKENZIE	DRAWN BY: C.GLITZ	APPROVED: A.MACKENZIE
STATUS: FOR INFORMATION	SCALE: AS SHOWN	REVISION: 3
DRAWING NO: 22133 - 510		

Plotted: Wednesday, 17 January 2024 9:08:38 am By: FERNANDA CONTRERAS  
File Path: C:\P\reNature Limited\P - Documents\2022\22133 AC Standard Kauri Details (regional)\3 CAD\0 Drawings\AC West Standard Boardwalk R3.dwg



1 Kauri Protection Rope Fence  
SCALE: 1:20 @ A3



2 Rope to Baluster Connection Detail  
SCALE: 1:10 @ A3

- NOTES:
1. ROPE ENDS ARE TO BE WHIPPED WITH A WEST COUNTRY WHIP TO PREVENT FRAYING. MIN LENGTH OF WHIPPING IS 30mm.
  2. AVERAGE LENGTH OF ROPE SEGMENT IS TO BE INSTALLED AT 15M LENGTHS (10 BALUSTER POSTS). ENSURE TO START AND STOP ROPE SEGMENT AT SPECIFIC LOCATIONS SUCH AS CHANGE IN HEIGHT WHERE NO DIG TRACK JOINS BOXED STEPS.
  3. LEAVE MIN 200mm TAIL AT START AND FINISH OF ROPE SEGMENTS TO ALLOW FOR FUTURE MAINTENANCE ADJUSTMENTS

REV	DESCRIPTION	BY	CHKD	DATE
3	FOR INFORMATION	FC	AM	17/01/2024
2	FOR INFORMATION	FC	CG	17/04/2023
1	FOR INFORMATION	FC	AM	22/11/2022
0	FOR INFORMATION	CG	AM	16/06/2022



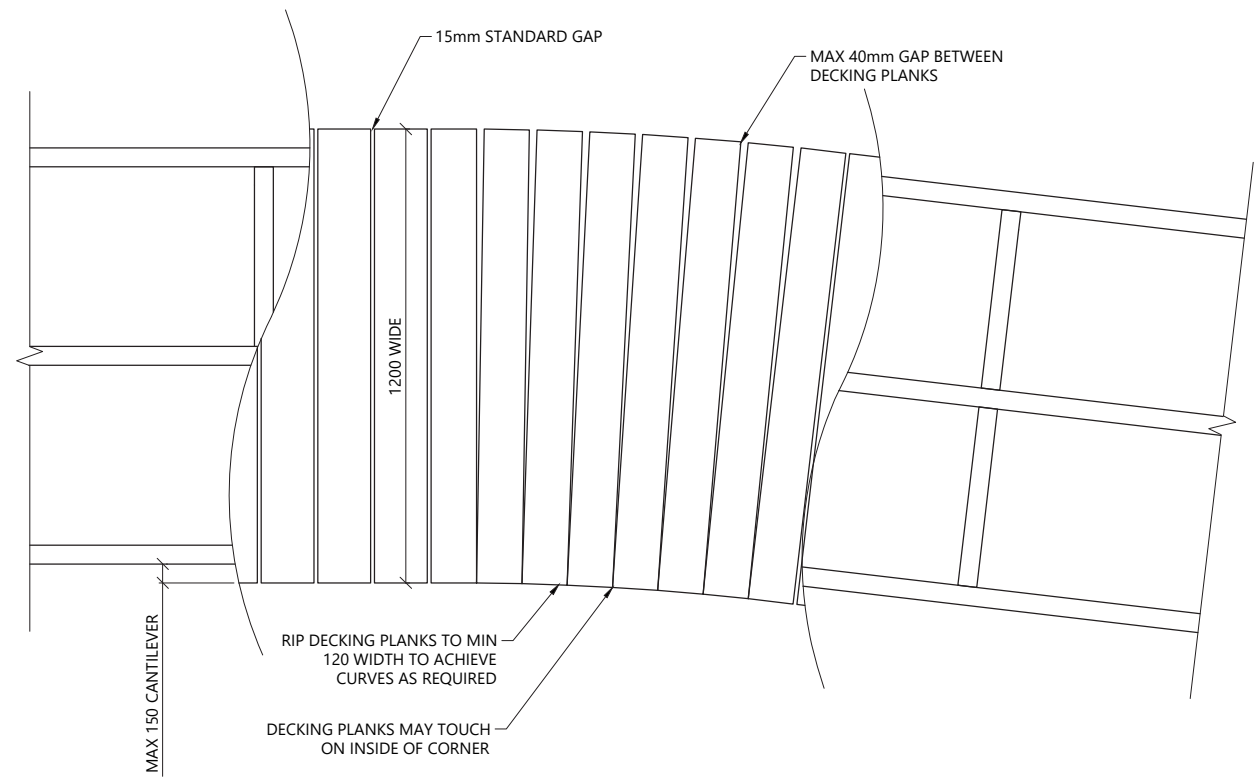
PROJECT:  
REGIONAL PARKS  
STANDARD DETAILS

DRAWING:  
TYPICAL ROPE FENCE  
DETAILS  
SHEET 2 OF 2

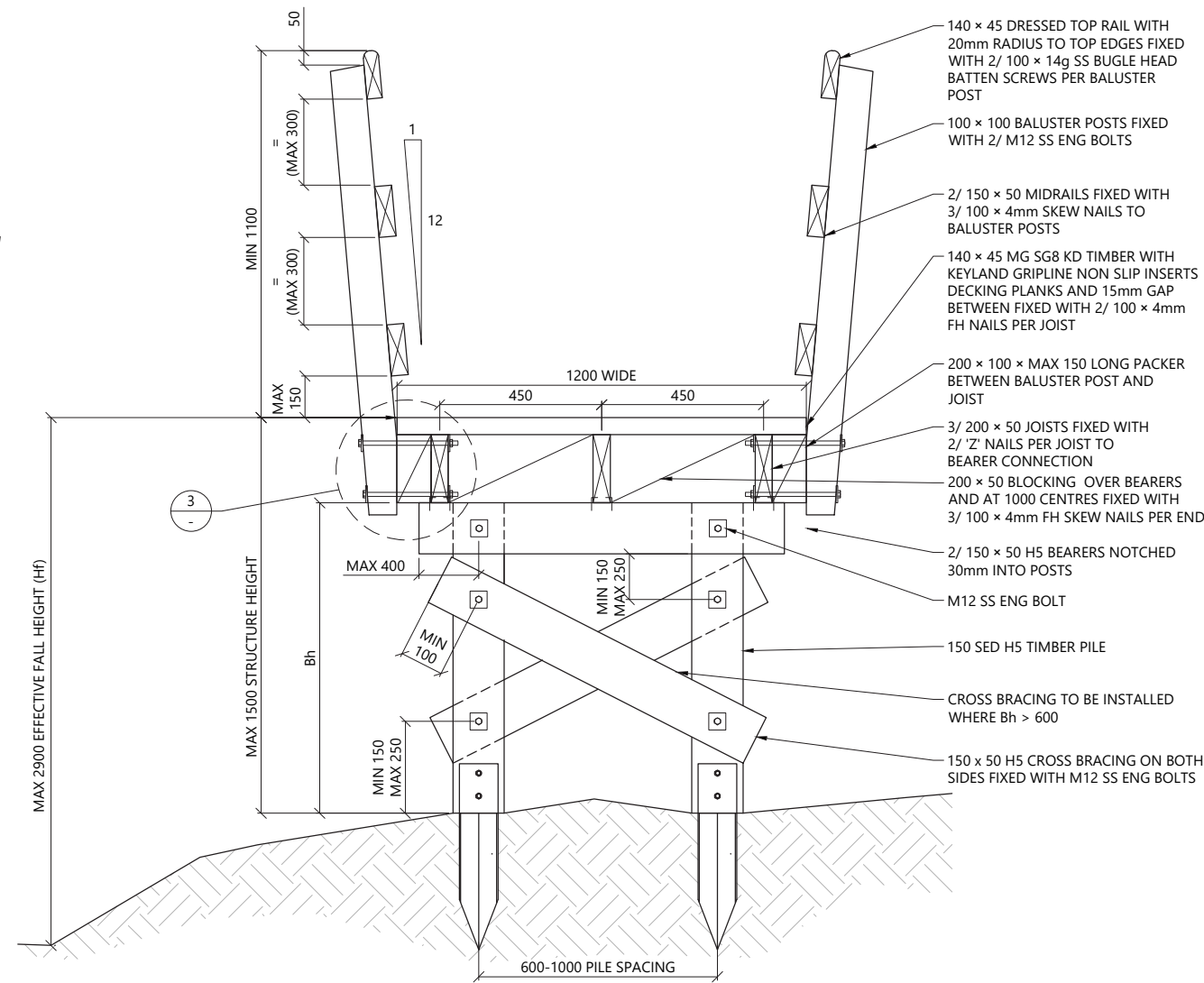


DESIGNED BY: A.MACKENZIE	DRAWN BY: C.GLITZ	APPROVED: A.MACKENZIE
STATUS: FOR INFORMATION	SCALE: AS SHOWN	REVISION: 3

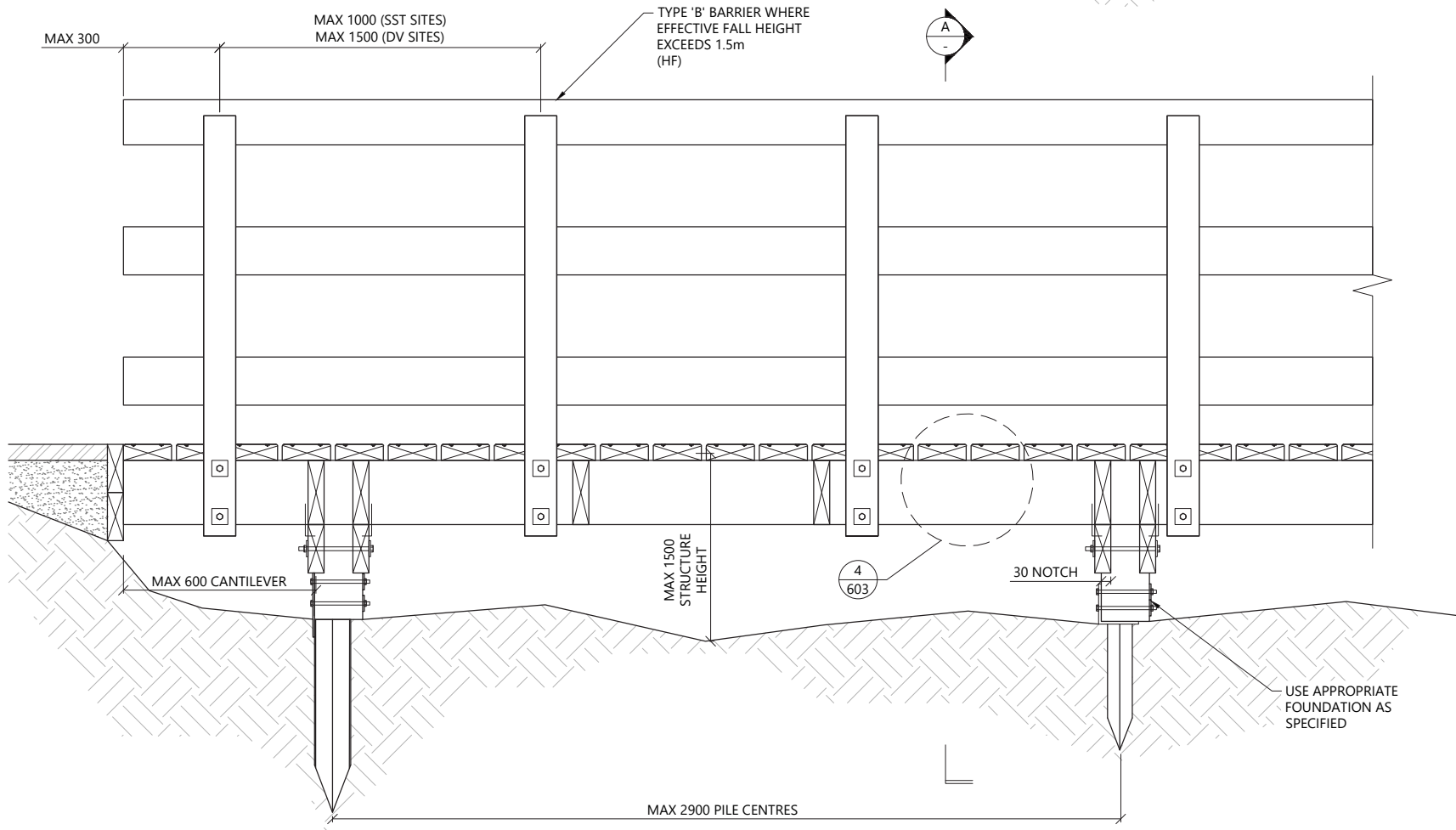




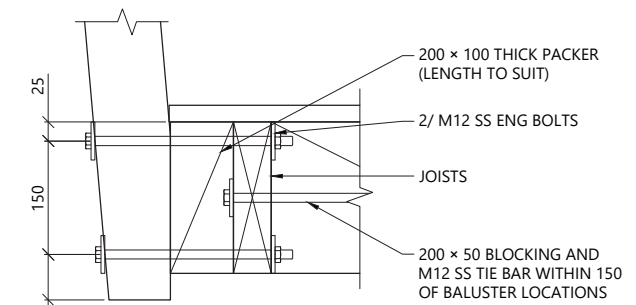
1 LOW BOARDWALK PLAN  
SCALE 1:20 @ A3



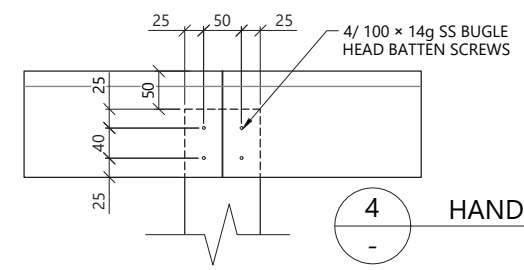
A LOW BOARDWALK SECTION  
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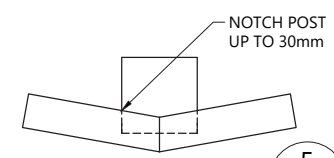
2 LOW BOARDWALK ELEVATION  
SCALE 1:20 @ A3



3 BARRIER CONNECTION DETAIL  
SCALE 1:10 @ A3



4 HANDRAIL SPLICE ELEVATION  
SCALE 1:10 @ A3



5 HANDRAIL SPLICE PLAN  
SCALE 1:10 @ A3

NOTES:	
1. A BARRIER MAY BE REQUIRED WHERE EFFECTIVE FALL HEIGHT > 1500mm.	
THIS STRUCTURE IS DESIGNED ACCORDANCE WITH SNZ HB8630:2004	
STRUCTURE TYPE	ACCESS
SITE USER GROUP	SST
BASIC DESIGN LOAD	3.2 kPa
CONCENTRATED LOAD	1.8 kN
BARRIER TYPE	TYPE 'B'
BASIC BARRIER DESIGN LOAD	0.75 kN/m
FALL SURFACE CATEGORY	FAVOURABLE
EFFECTIVE FALL HEIGHT (H <sub>e</sub> )	< 1.5m
DESIGN LATERAL LOADING	10% OF DESIGN LIVE LOAD

3	FOR INFORMATION	FC	AM	17/01/2024
2	FOR INFORMATION	FC	CG	17/04/2023
1	FOR INFORMATION	FC	AM	22/11/2022
0	FOR INFORMATION	CG	AM	16/06/2022
REV	DESCRIPTION	BY	CHD	DATE

DESIGNER:

reNature

PROJECT:

REGIONAL PARKS  
STANDARD DETAILS

DRAWING:

1200 WIDE TIMBER DECKING  
LOW BOARDWALK DETAILS

CLIENT:

Auckland Council  
Te Kaurihera o Tāmaki Makaurau

DESIGNED BY: A.MACKENZIE	DRAWN BY: C.GLITZ	APPROVED: A.MACKENZIE
STATUS: FOR INFORMATION	SCALE: AS SHOWN	REVISION: 3
DRAWING NO: 22133 - 600		

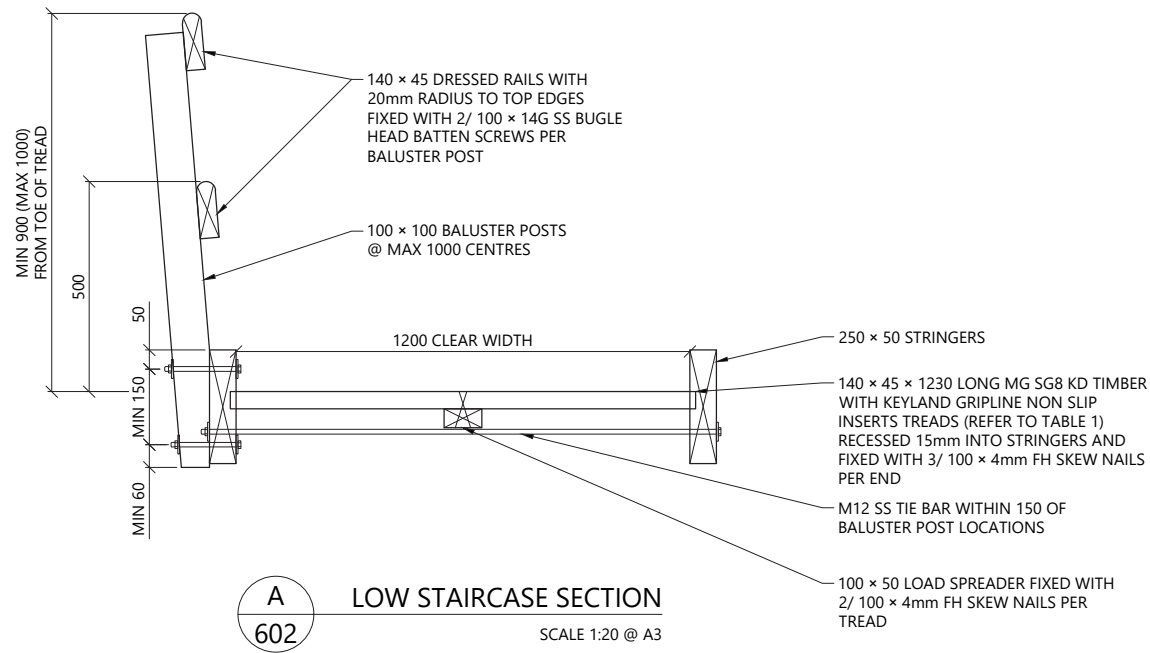


DESIGNED BY: A.MACKENZIE	DRAWN BY: C.GLITZ	APPROVED: A.MACKENZIE
STATUS: <b>FOR INFORMATION</b>		SCALE: AS SHOWN
DRAWING NO: <b>22133 - 601</b>		REVISION: <b>3</b>

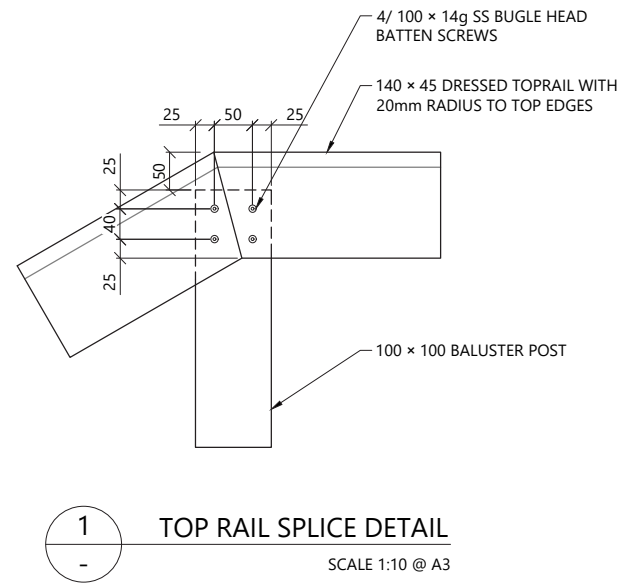




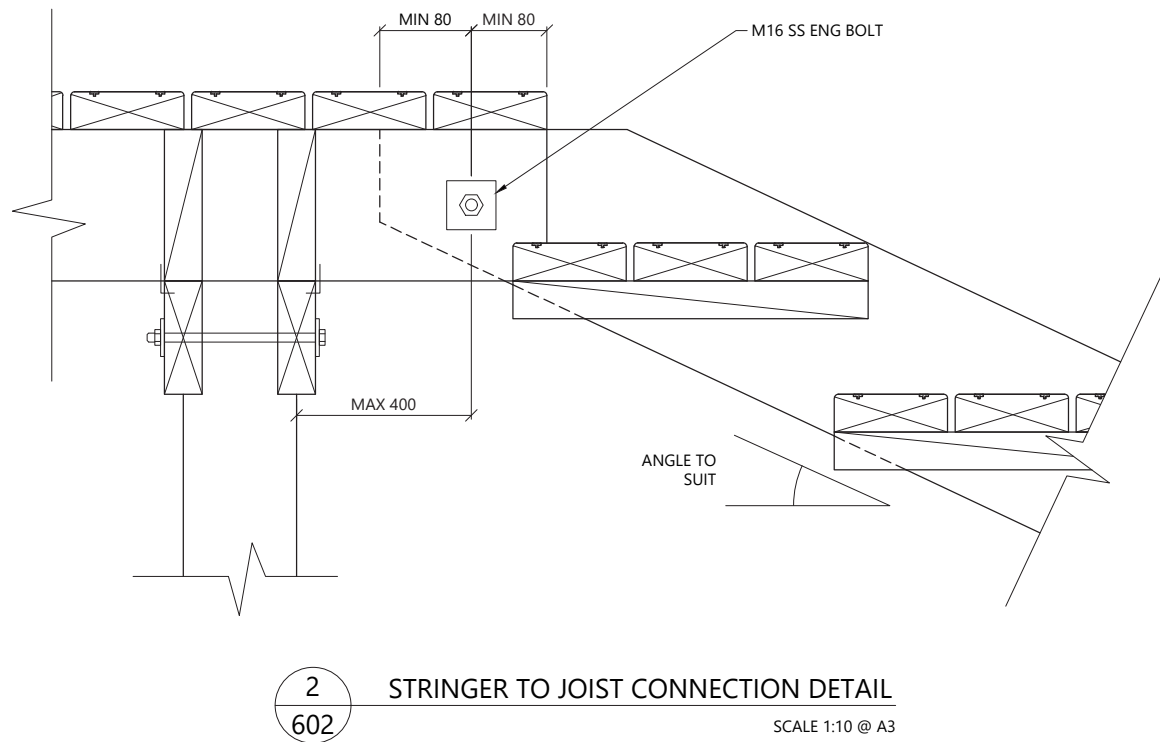
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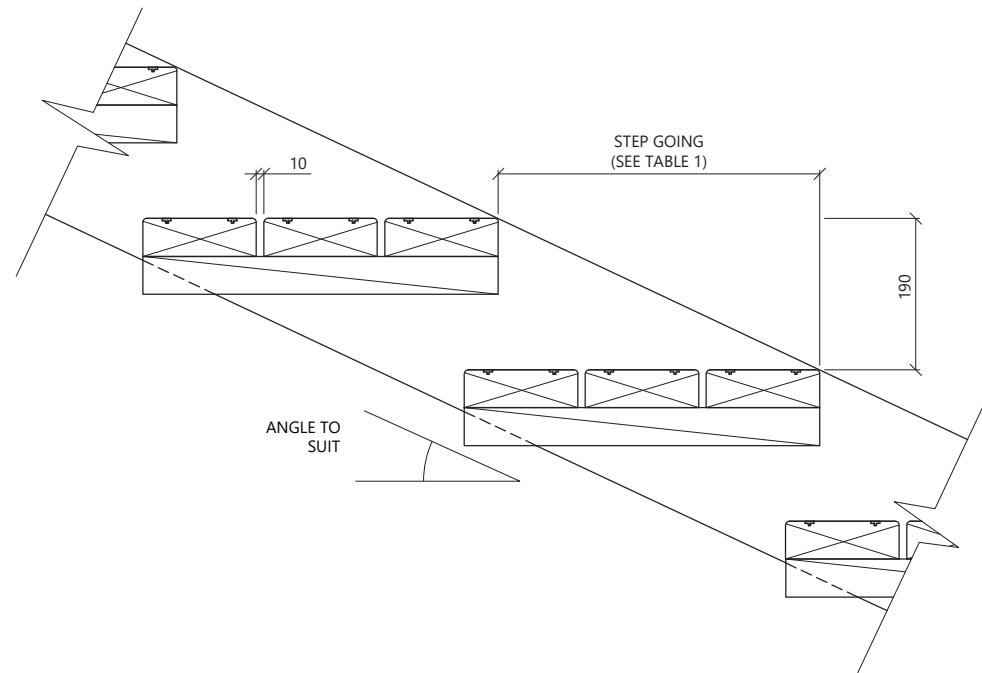
**A**  
**602**  
**LOW STAIRCASE SECTION**  
SCALE 1:20 @ A3



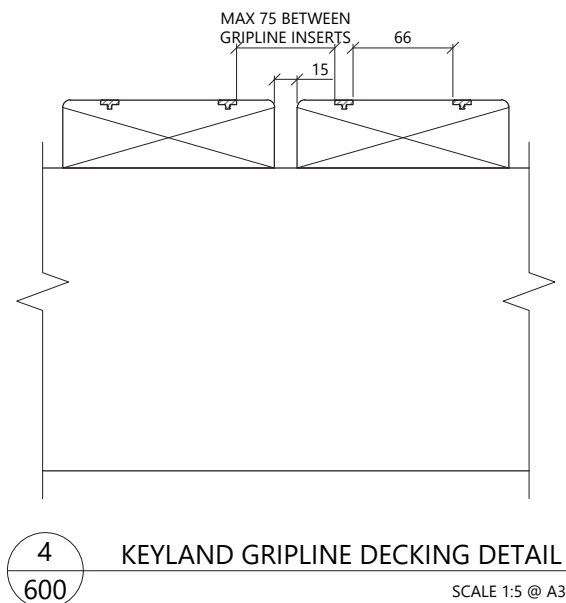
**1**  
**-**  
**TOP RAIL SPLICE DETAIL**  
SCALE 1:10 @ A3



**2**  
**602**  
**STRINGER TO JOIST CONNECTION DETAIL**  
SCALE 1:10 @ A3



**3**  
**602**  
**STEP DETAIL**  
SCALE 1:10 @ A3



**4**  
**600**  
**KEYLAND GRIPLINE DECKING DETAIL**  
SCALE 1:5 @ A3

NOTES:

TABLE 1 - STEP GEOMETRY			
ANGLE	RISE	GOING	TREADS
24° / 45%	190	425	3/ 145 x 45
27° / 50%	190	380	3/ 145 x 45
33° / 65%	190	290	2/ 145 x 45

REV	DESCRIPTION	BY	CHKD	DATE
3	FOR INFORMATION	FC	AM	17/01/2024
2	FOR INFORMATION	FC	CG	17/04/2023
1	FOR INFORMATION	FC	AM	22/11/2022
0	FOR INFORMATION	CG	AM	16/06/2022

DESIGNER:



PROJECT:

REGIONAL PARKS  
STANDARD DETAILS

DRAWING:

TIMBER DECKING LOW  
STAIRCASE DETAILS - SHEET  
2 OF 2

CLIENT:



DESIGNED BY: A.MACKENZIE	DRAWN BY: C.GLITZ	APPROVED: A.MACKENZIE
STATUS: FOR INFORMATION	SCALE: AS SHOWN	REVISION: 3
DRAWING NO: 22133 - 603		