



# Far North Holdings Limited

## MANGONUI WATERFRONT



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PROJECT NO.	SHEET NO.	SHT	STATUS
19-1021	000	A3	FOR CONSTRUCTION



**GA PLAN**  
1 : 2000

Filename: Pict Date: 30/07/2021 11:46:11 am

**SHOREWISE**  
ENGINEERING CONSULTANTS  
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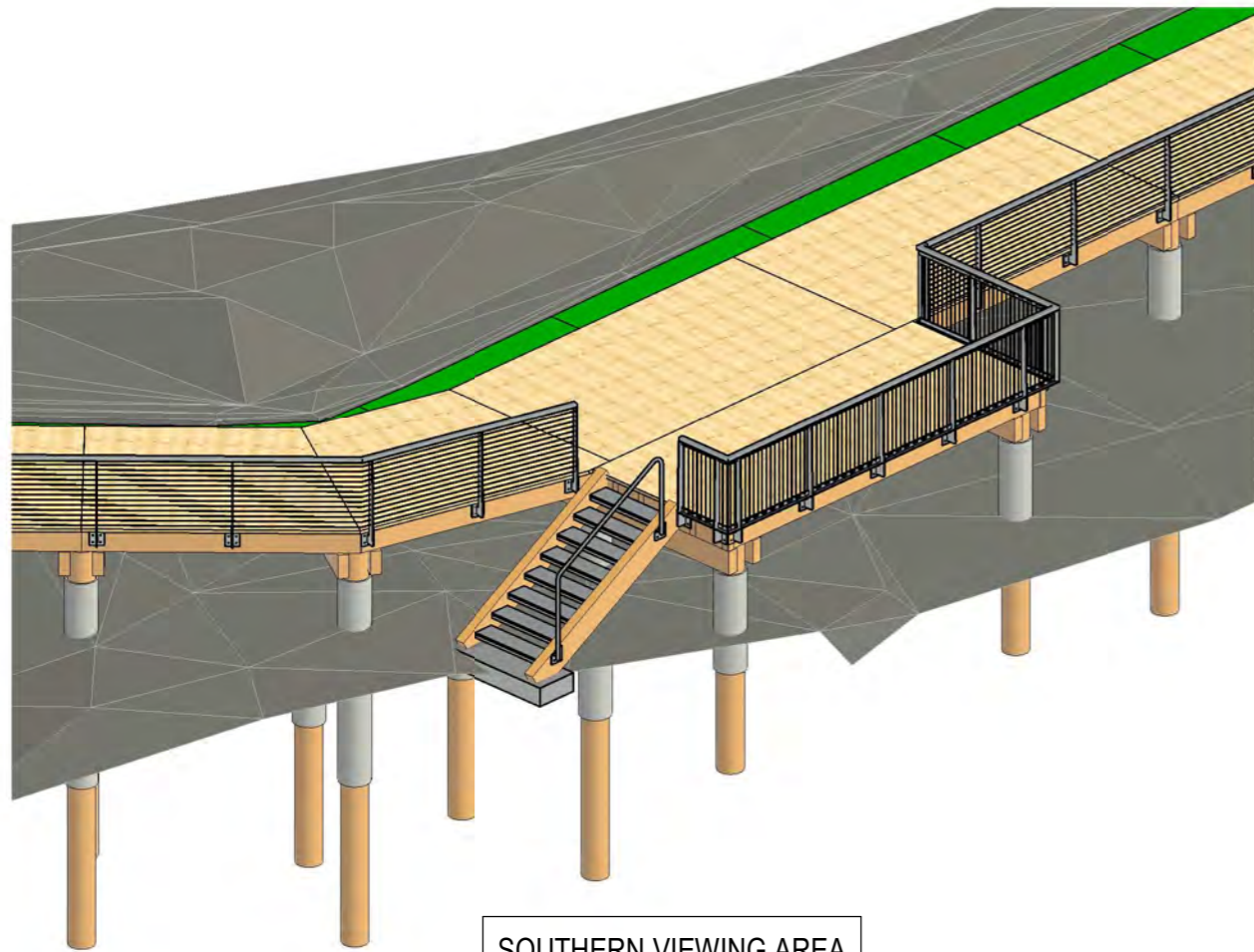
**CLIENT**  
 **Far North Holdings Limited**

REV	DETAILS	DATE
0	ISSUED FOR REVIEW	30/03/2021
1	ISSUED FOR TENDER	16/04/2021
2	ISSUED FOR CONSTRUCTION	08/07/2021

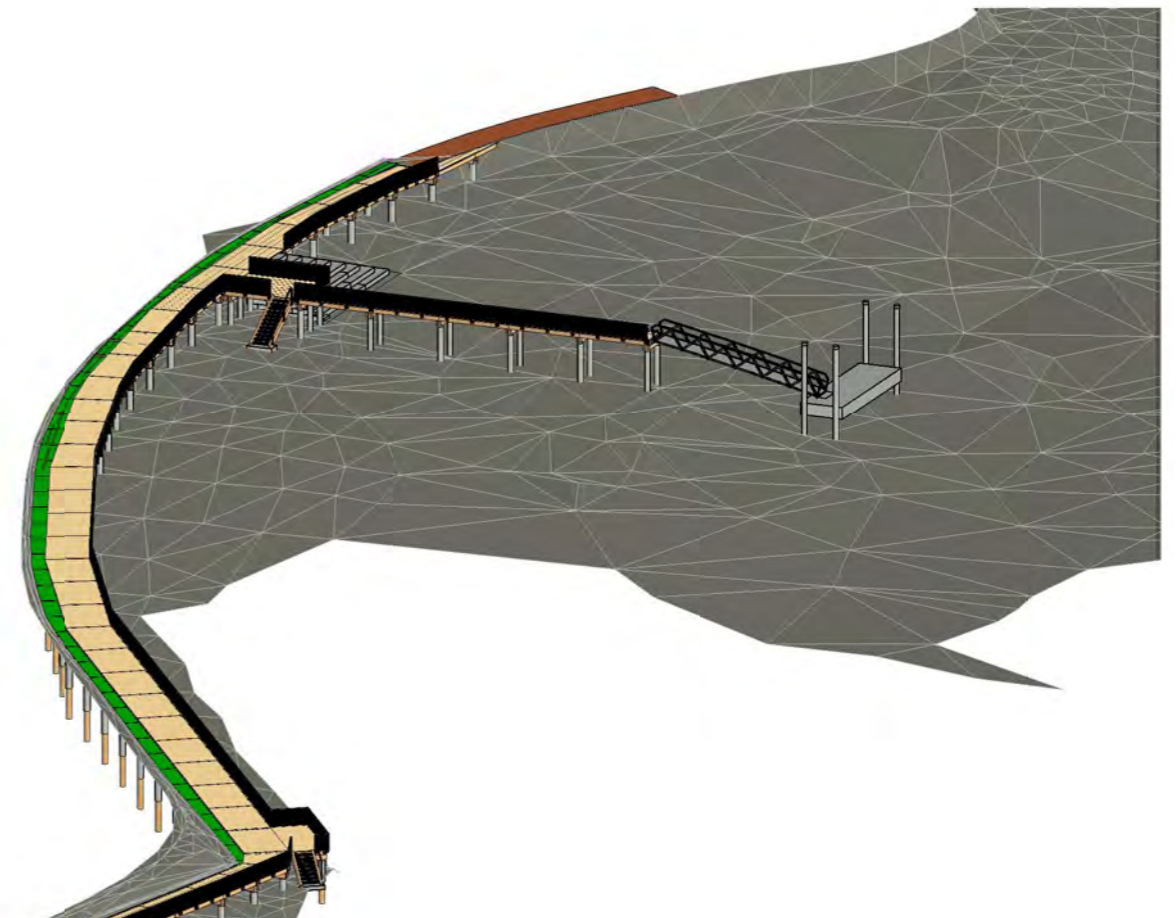
PROJECT
MANGONUI WATERFRONT
SHEET DESCRIPTION
GENERAL ARRANGEMENT

STATUS		
FOR CONSTRUCTION		
DRAWN BY	APPROVED BY	SHT
MW	RB	A3
PROJECT NO.	SHEET NO.	REV
19-1021	001	2

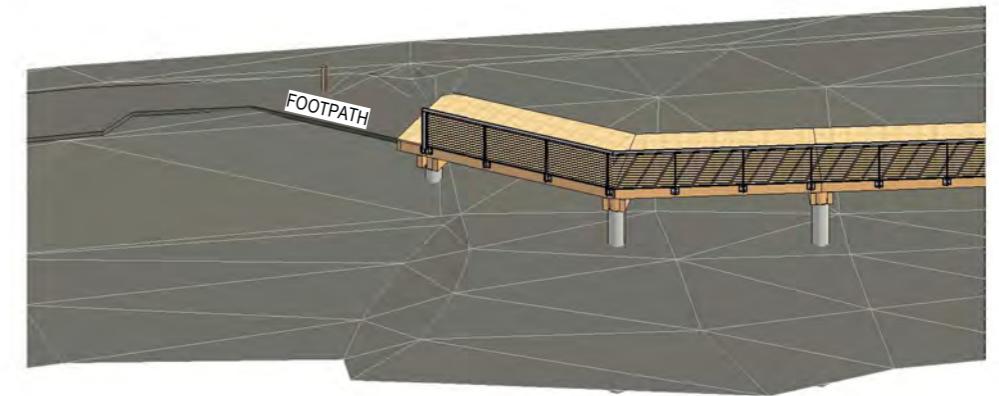
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SOUTHERN VIEWING AREA



COMPLETE BOARDWALK AREA



PATH-BOARDWALK TRANSITION

Pict Date: 30/07/2021 11:46:17 am



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CLIENT



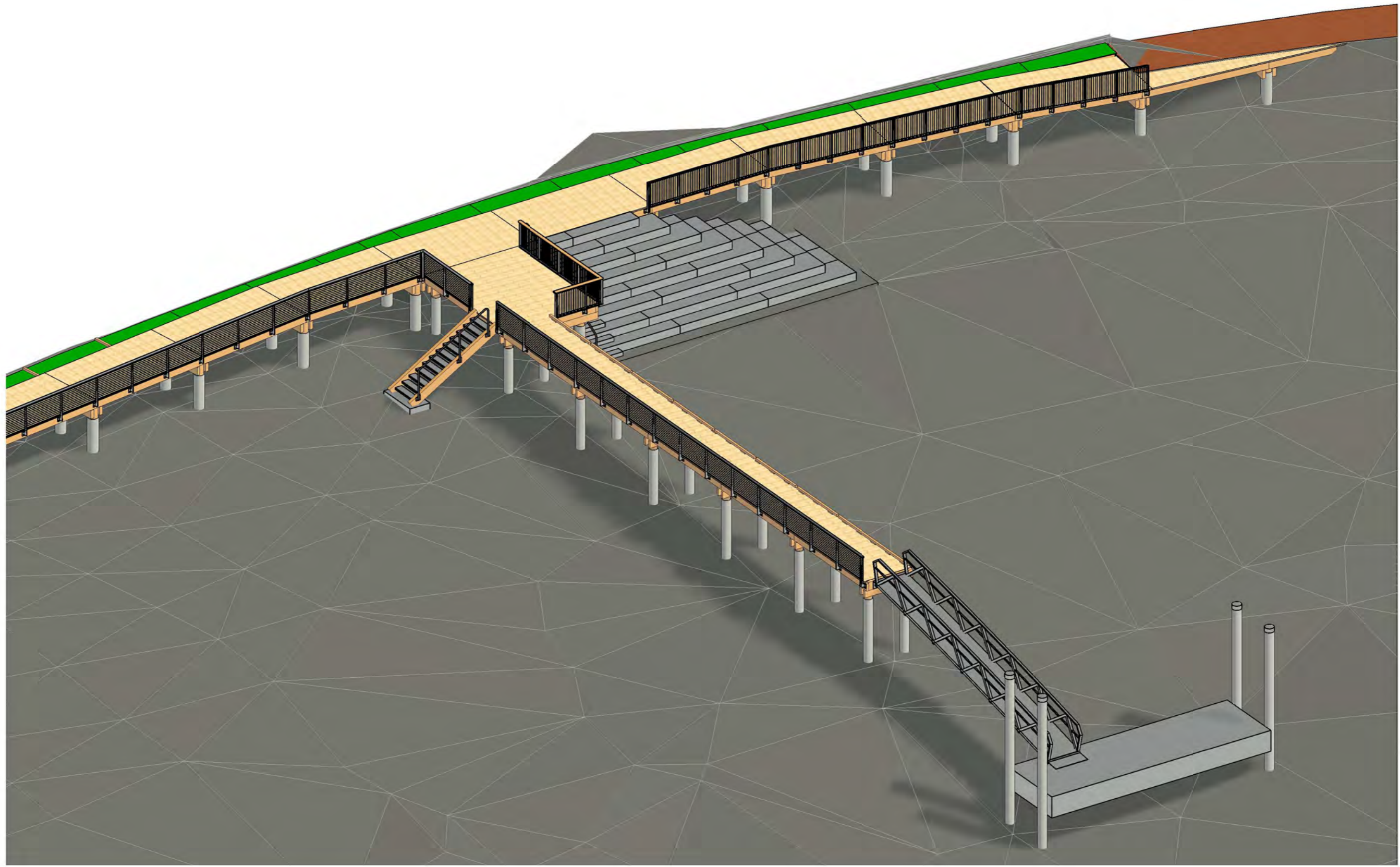
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REV	DETAILS	DATE
0	ISSUED FOR TENDER	30/04/2021
1	ISSUED FOR CONSTRUCTION	08/07/2021

PROJECT
MANGONUI WATERFRONT
SHEET DESCRIPTION
3D VIEWS

STATUS		
FOR CONSTRUCTION		
DRAWN BY	APPROVED BY	SHT
MW	RB	A3
PROJECT NO.	SHEET NO.	REV
19-1021	002	1

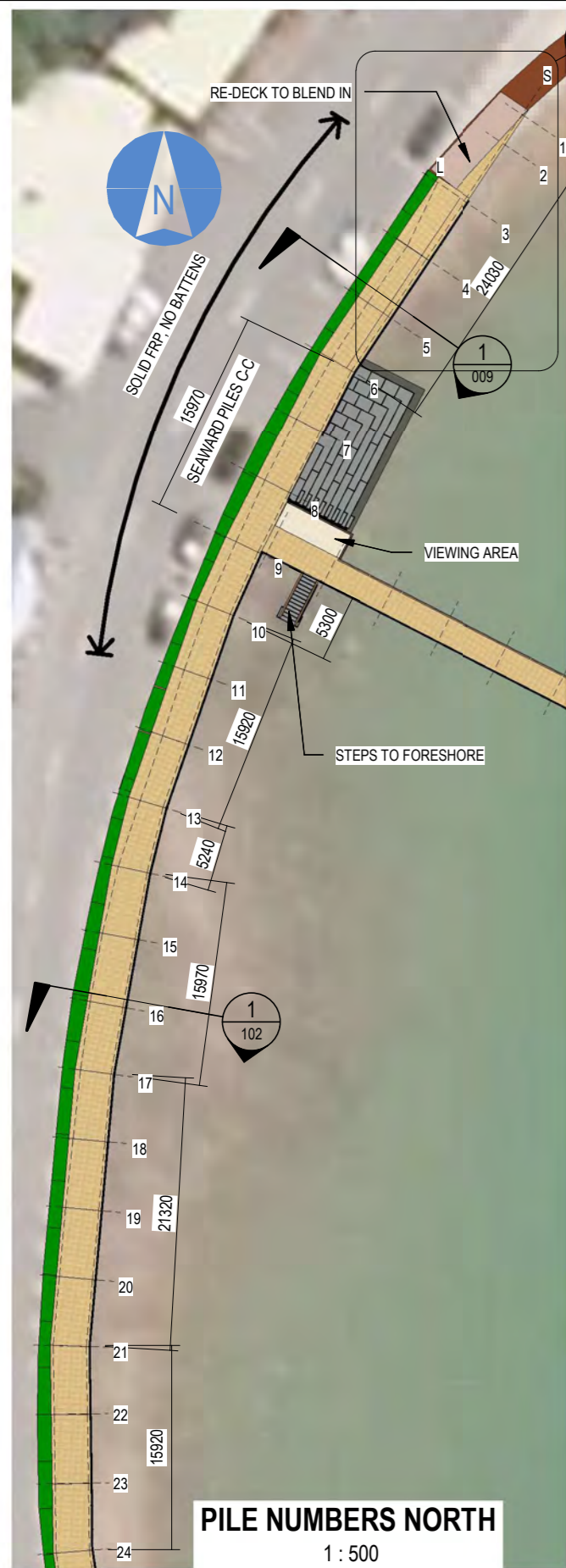
Pict Date: 30/07/2021 11:46:21 am  
 Filename:



REV	DETAILS	DATE
0	ISSUED FOR TENDER	30/04/2021
1	ISSUED FOR CONSTRUCTION	08/07/2021

PROJECT
MANGONUI WATERFRONT
SHEET DESCRIPTION
3D VIEW - SWIM STEPS AREA

STATUS		
FOR CONSTRUCTION		
DRAWN BY	APPROVED BY	SHT
MW	RB	A3
PROJECT NO.	SHEET NO.	REV
19-1021	003	1



- NOTES:**
- ESTIMATED SPANS SHOWN. STANDARD 5400mm C-C SPANS BETWEEN PILES, UNLESS NOTED OTHERWISE
  - MAXIMUM SPAN 5700mm C-C

Filename: Pld Date: 8/07/2021 11:46:26 am



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CLIENT

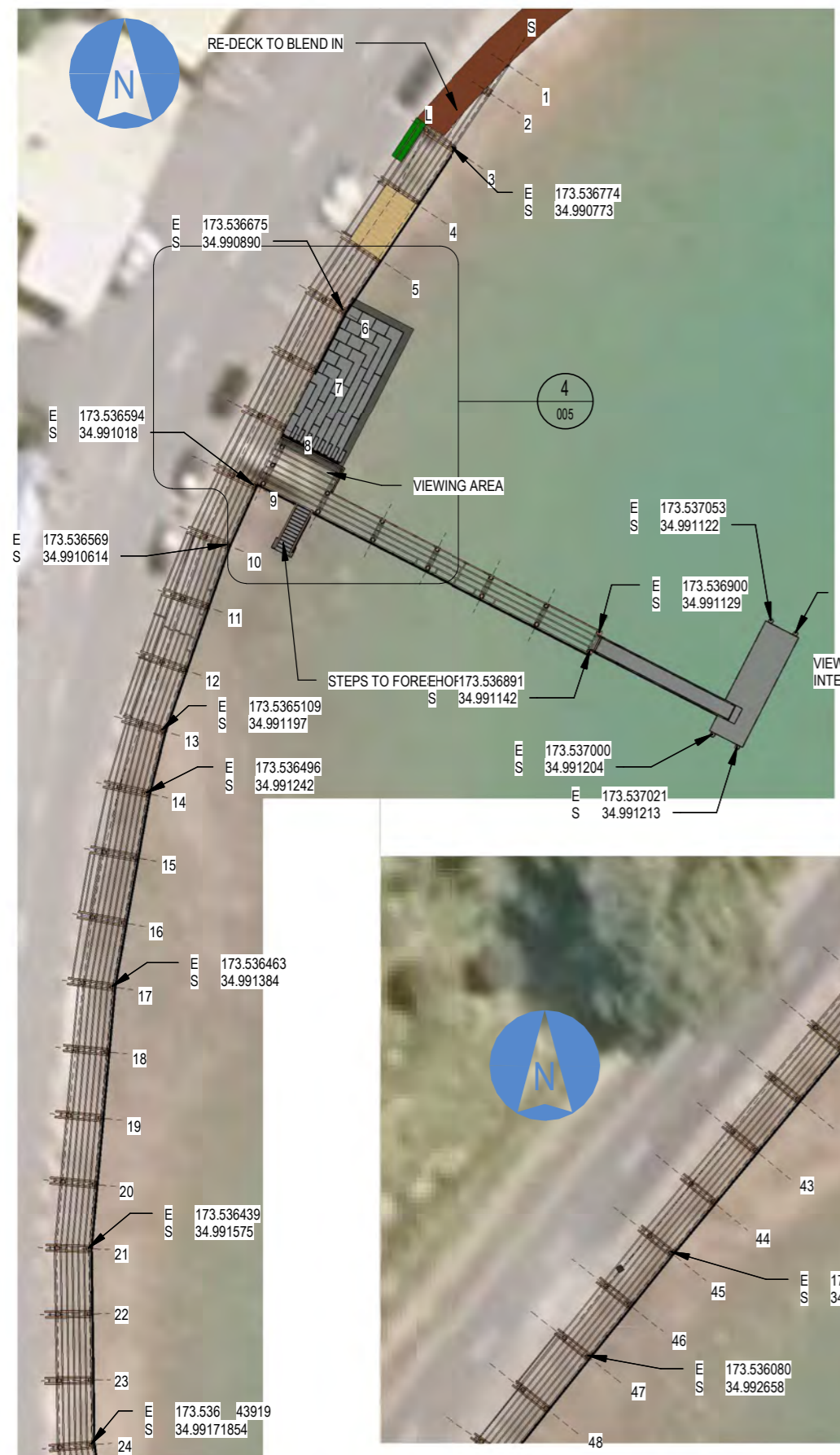


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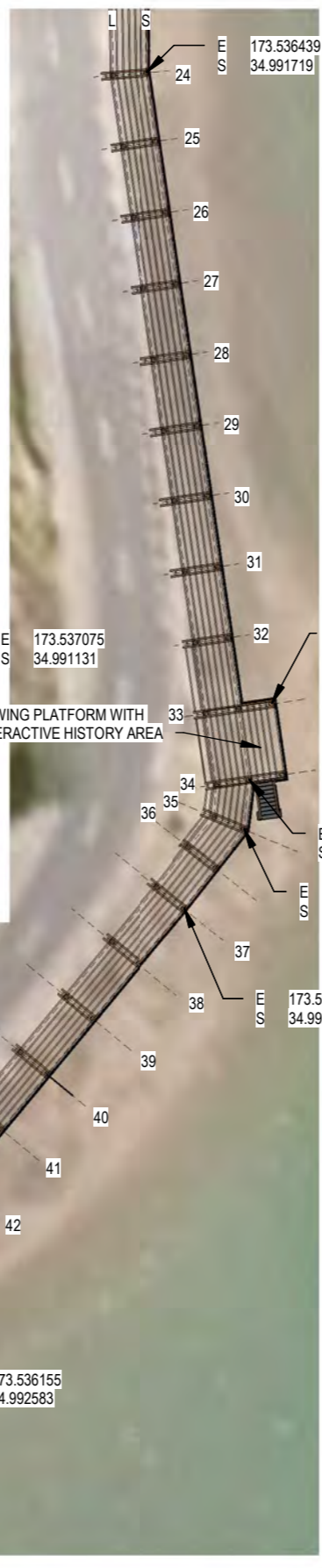
REV	DETAILS	DATE
0	ISSUED FOR REVIEW	30/03/2021
1	ISSUED FOR TENDER	16/04/2021
2	ISSUED FOR CONSTRUCTION	08/07/2021

PROJECT
MANGONUI WATERFRONT
SHEET DESCRIPTION
MAIN BOARDWALK PILE NUMBERS

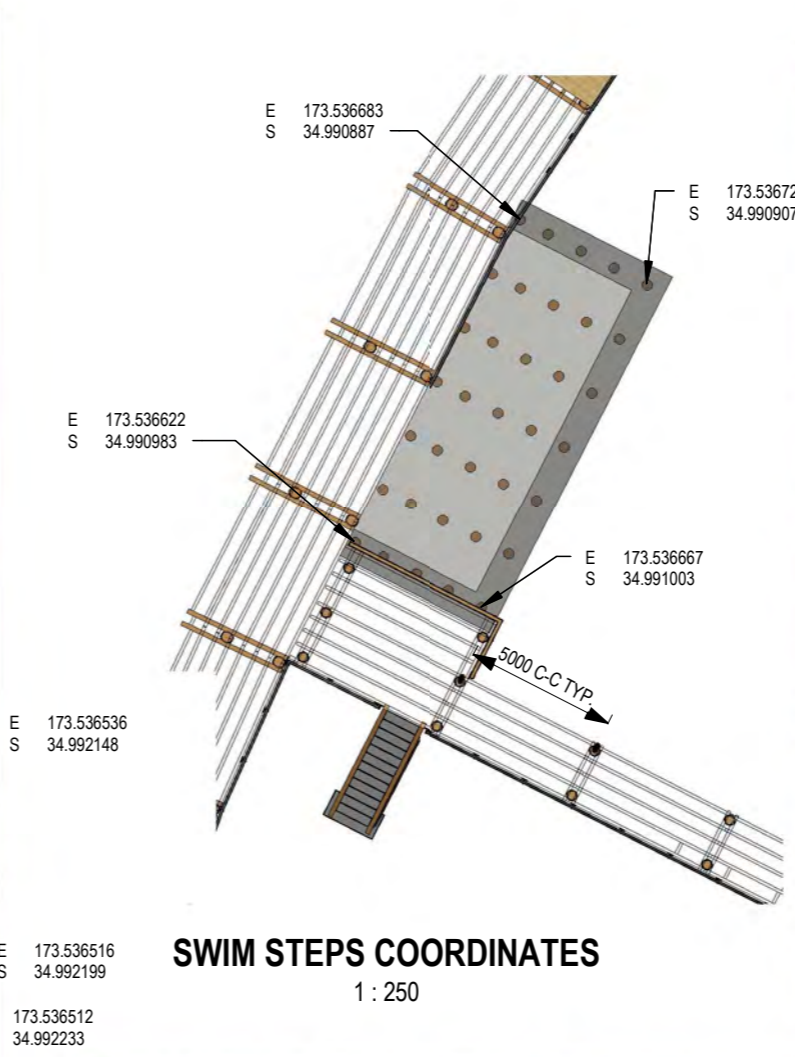
STATUS		
FOR CONSTRUCTION		
DRAWN BY	APPROVED BY	SHT
MW	RB	A3
PROJECT NO.	SHEET NO.	REV
19-1021	004	2



**PILE COORDINATES NORTH**  
1 : 500



**PILE COORDINATES MID**  
1 : 500



**SWIM STEPS COORDINATES**  
1 : 250



**PILE COORDINATES SOUTH**  
1 : 500

**NOTES:**

- COORDINATES GIVEN FOR PILES AT END OF STRAIGHT RUNS
- COORDINATES ARE GIVEN IN WORLD GEODETIC DATUM 1984

Filename: Pld Date: 08/07/2021 11:46:33 am



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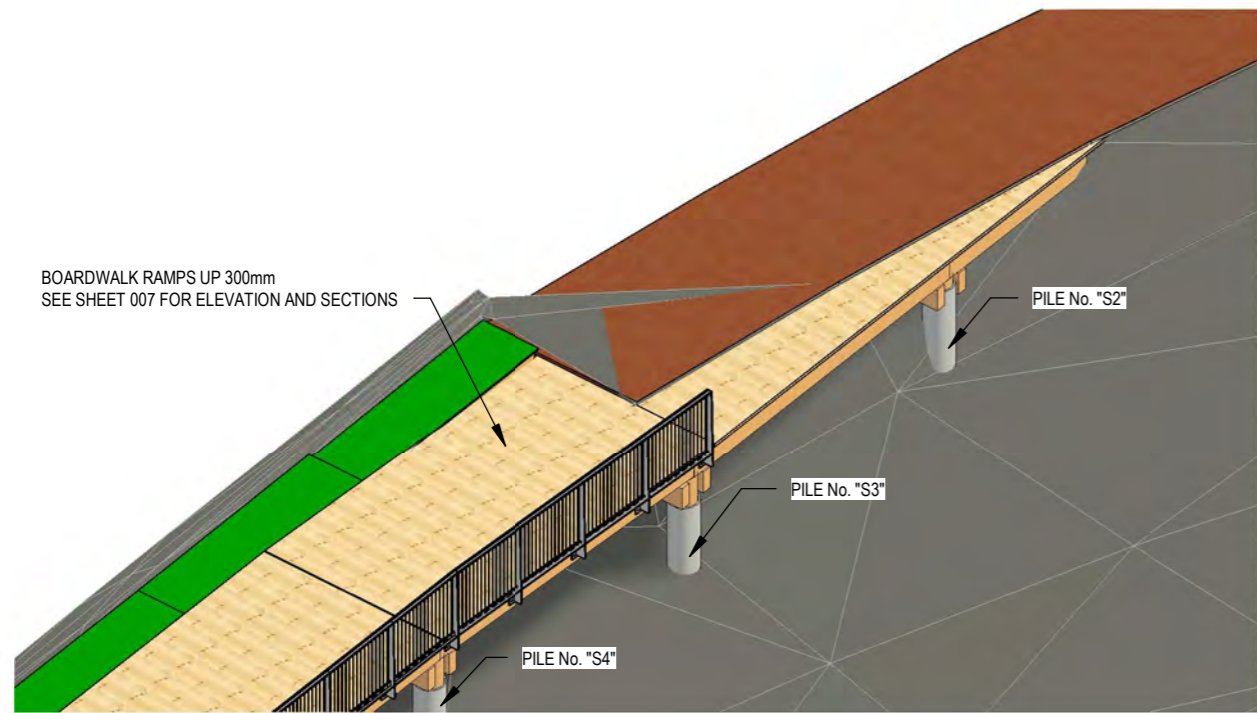


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0	ISSUED FOR TENDER	16/04/2021
1	ISSUED FOR CONSTRUCTION	08/07/2021

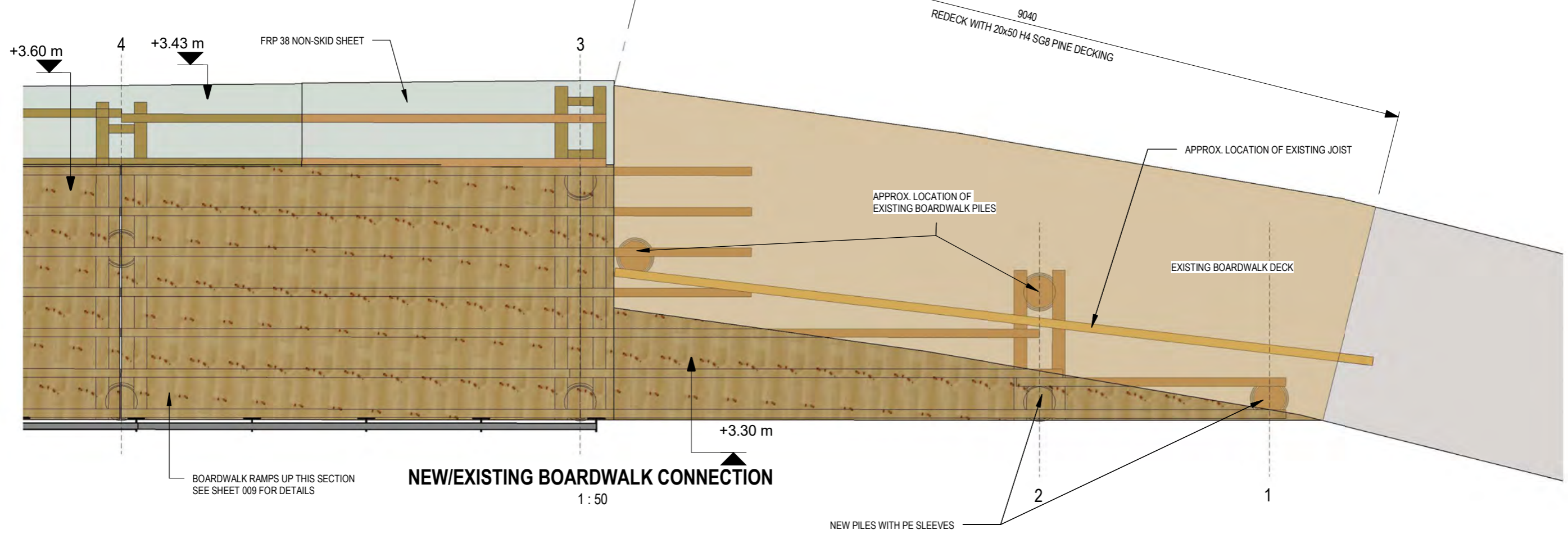
PROJECT
MANGONUI WATERFRONT
SHEET DESCRIPTION
PILE COORDINATES

STATUS		
FOR CONSTRUCTION		
DRAWN BY	APPROVED BY	SHT
MW	RB	A3
PROJECT NO.	SHEET NO.	REV
19-1021	005	1



- NOTES:
- DECKING TO HAVE BANDSAWN TOP FACE FOR GRIP
  - 2 OF 14g x 125mm CSK SCREWS THROUGH EACH PLANK
  - ALL FASTENERS 316 S/S

**EXISTING/NEW BOARDWALK TRANSITION 3D**



Pld Date: 8/07/2021 11:46:38 am



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CLIENT

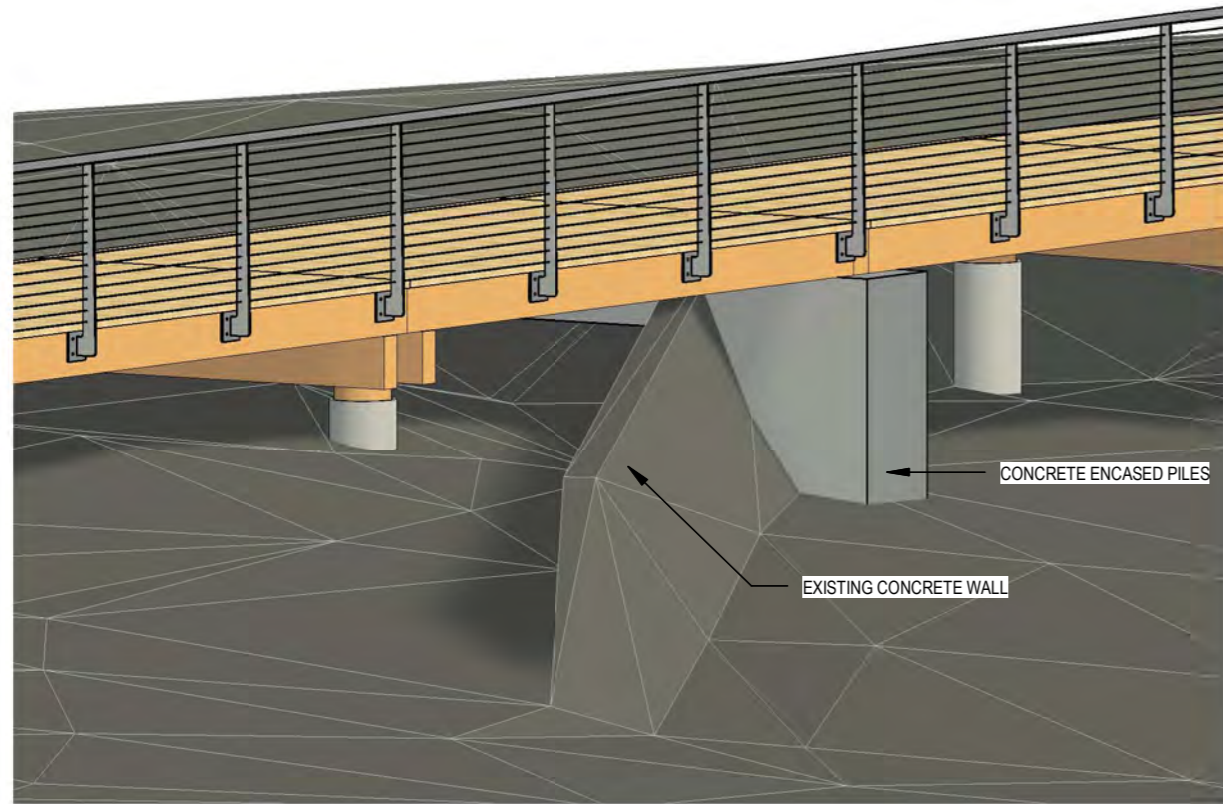


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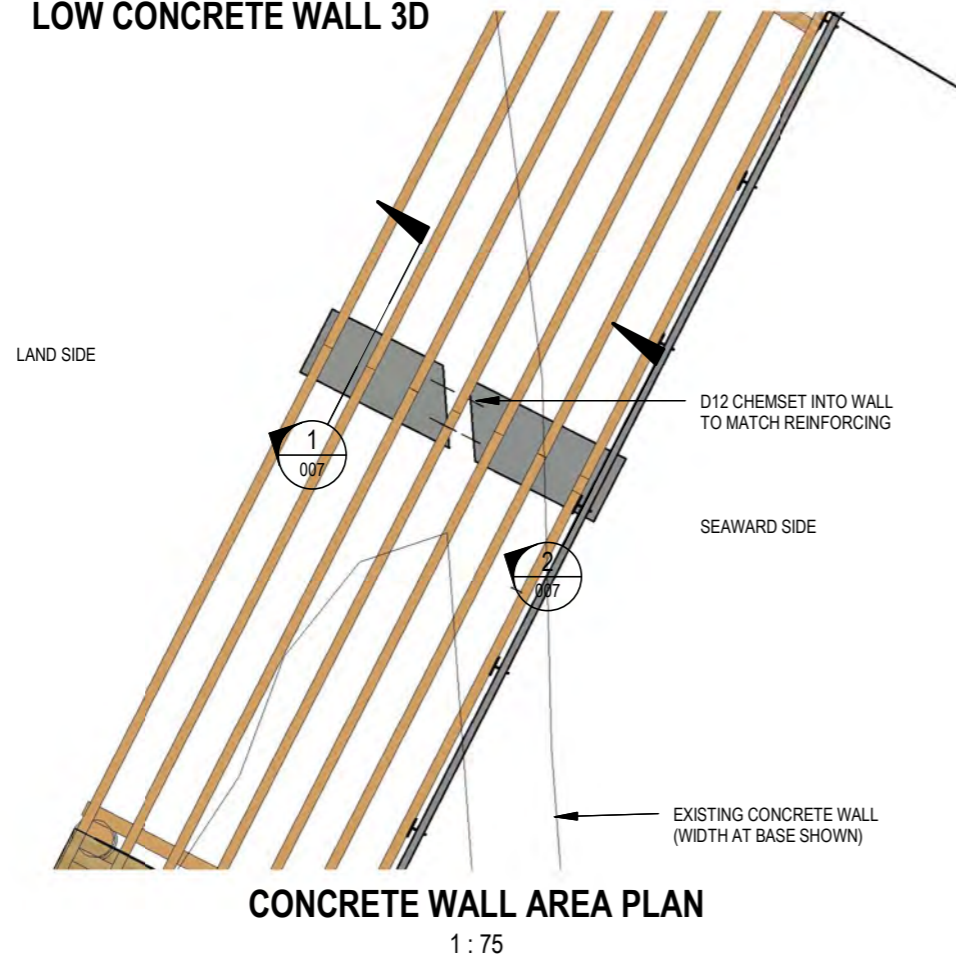
REV	DETAILS	DATE
0	ISSUED FOR TENDER	16/04/2021
1	ISSUED FOR CONSTRUCTION	08/07/2021

PROJECT
MANGONUI WATERFRONT
SHEET DESCRIPTION
NEW/EXISTING BOARDWALK TRANSITION

STATUS		
FOR CONSTRUCTION		
DRAWN BY	APPROVED BY	SHT
MW	RB	A3
PROJECT NO.	SHEET NO.	REV
19-1021	006	1

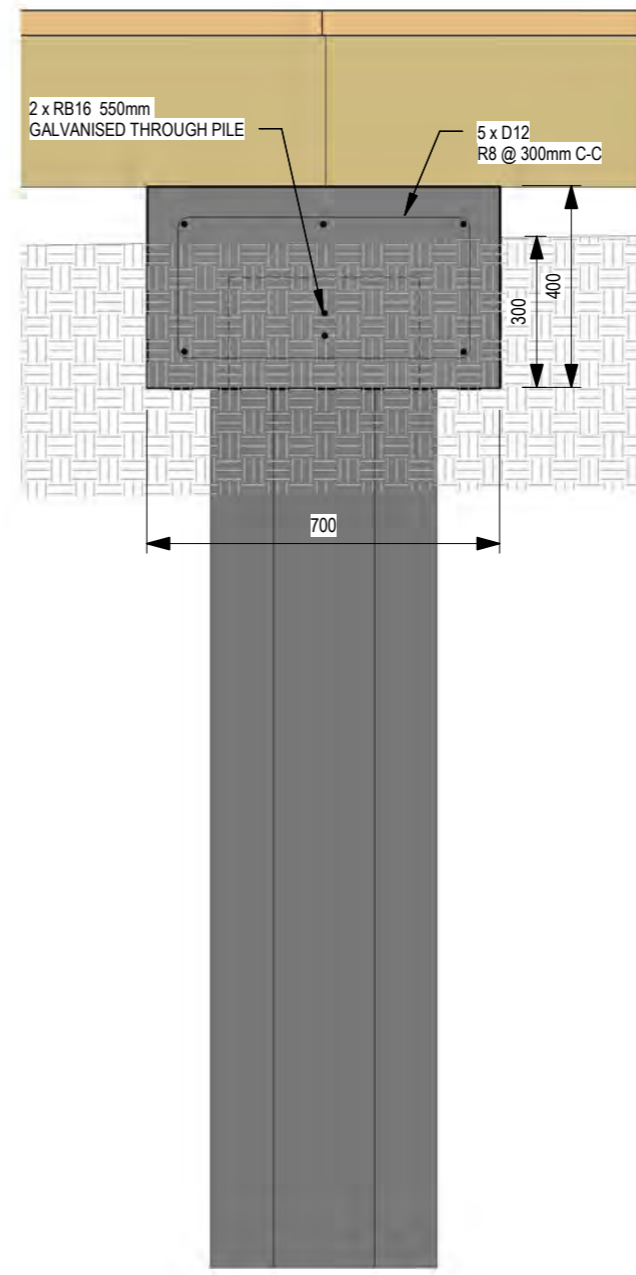


LOW CONCRETE WALL 3D



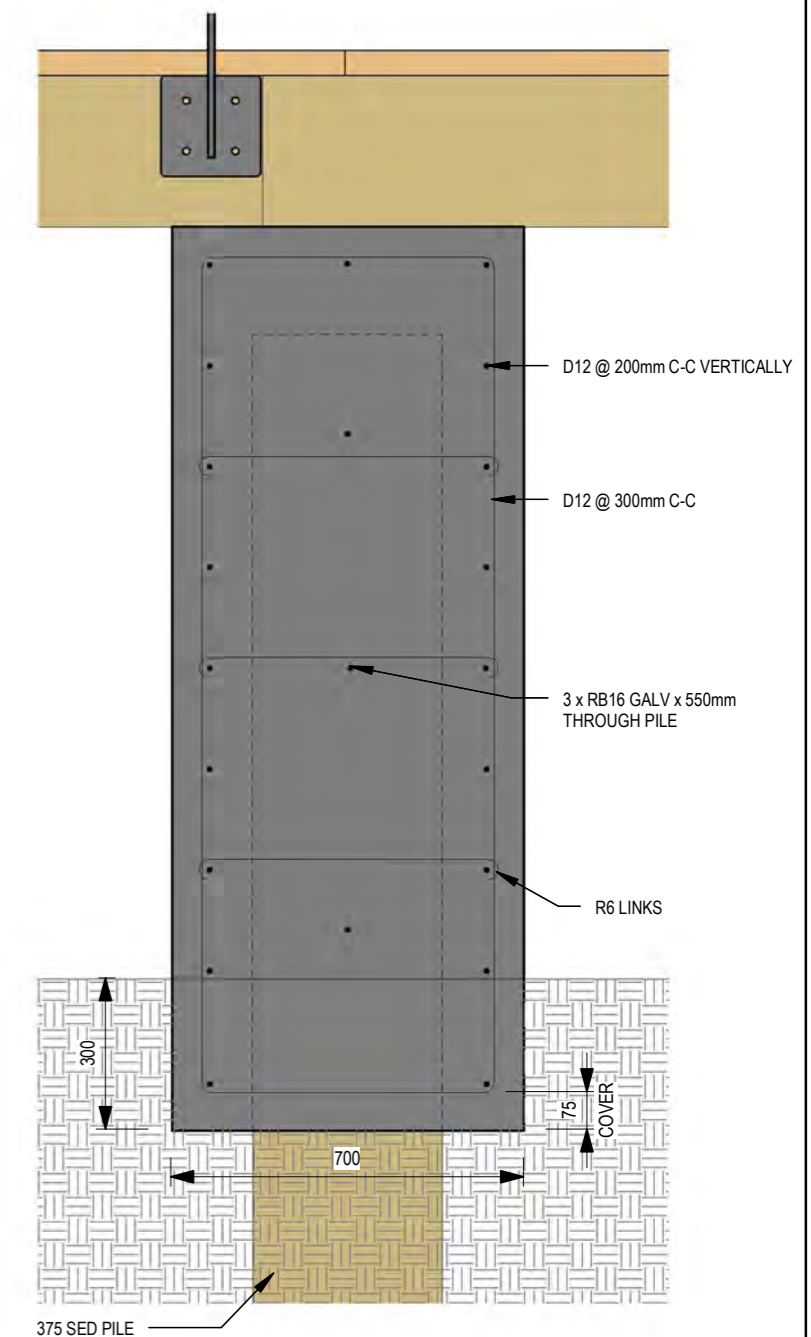
CONCRETE WALL AREA PLAN

1 : 75



CONCRETE WALL INNER PILE SECTION

1 : 15



CONCRETE WALL OUTER PILE SECTION

1 : 15

- NOTES:
- 50 MPa CONCRETE
  - MINIMUM 60mm COVER
  - 75mm COVER TO GROUND

Pld Date: 9/07/2021 11:46:43 am



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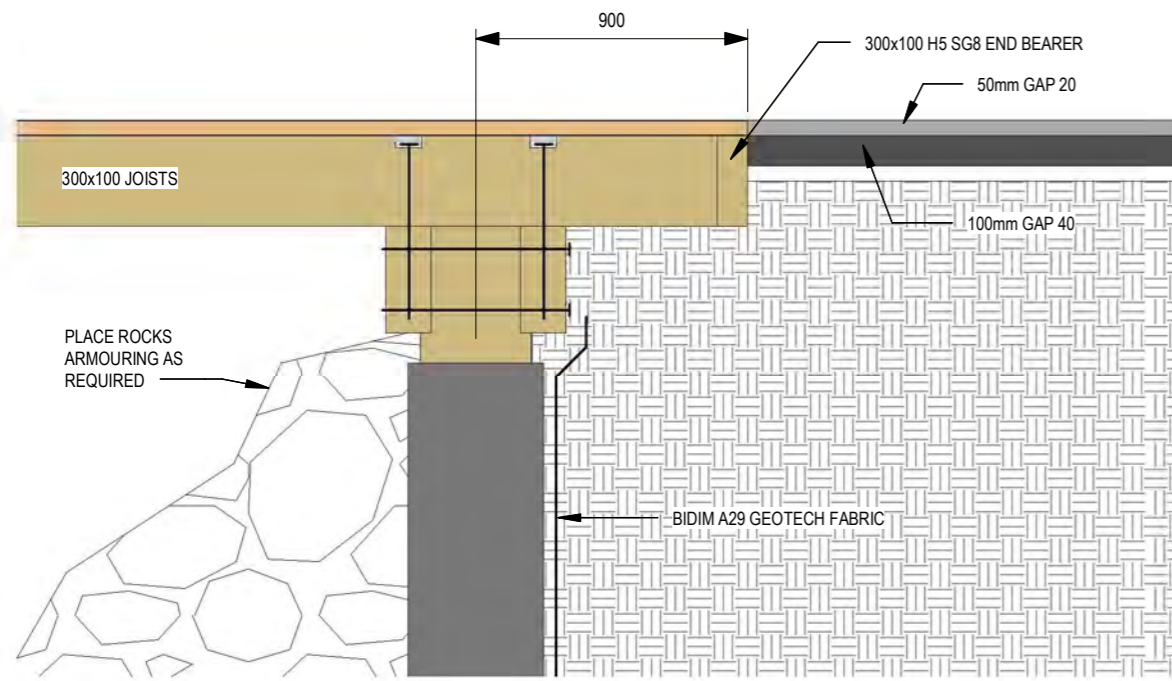
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REV	DETAILS	DATE
0	ISSUED FOR TENDER	16/04/2021
1	ISSUED FOR CONSTRUCTION	08/07/2021

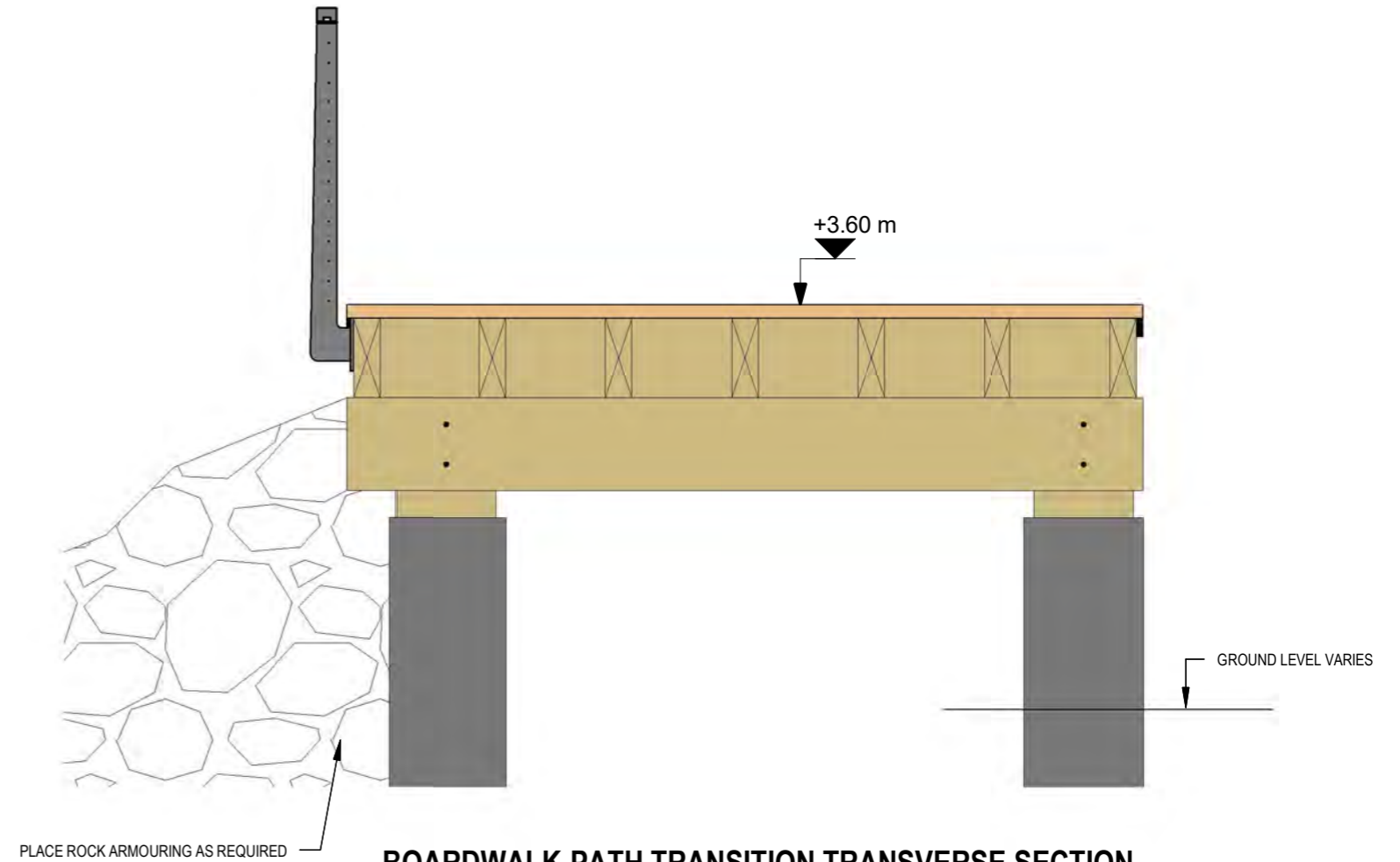
CLIENT	PROJECT	STATUS
	MANGONUI WATERFRONT	FOR CONSTRUCTION
	LOW CONCRETE WALL PILE ARRANGEMENT	

DRAWN BY	APPROVED BY	SHT
MW	RB	A3
PROJECT NO.	SHEET NO.	REV
19-1021	007	1

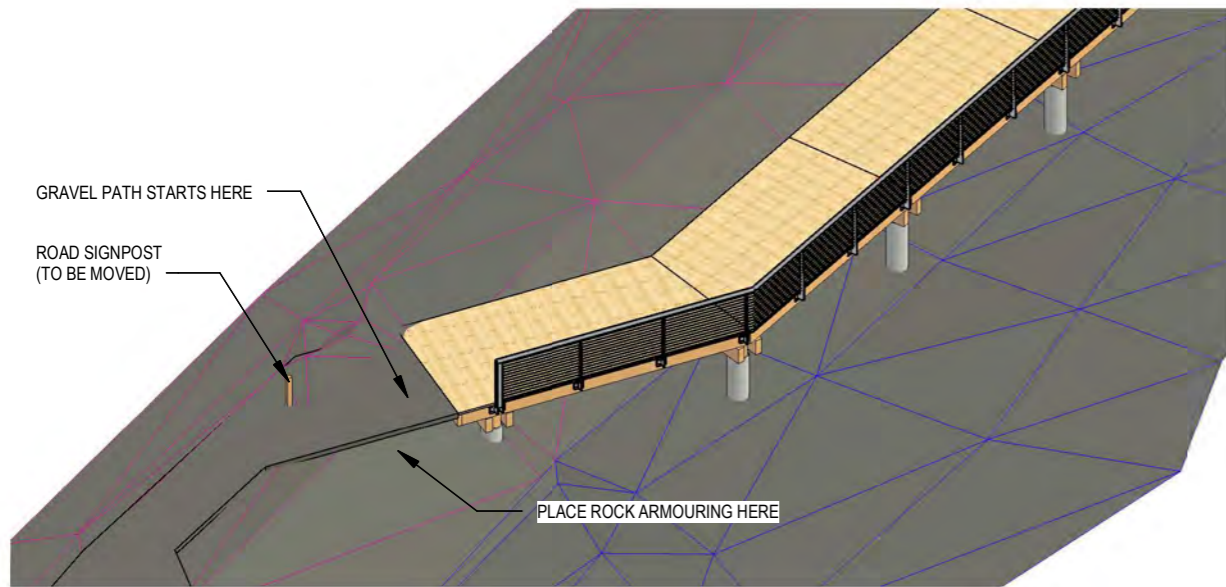




**BOARDWALK-PATH TRANSITION LLONGITUDINAL SECTION**  
1 : 25



**BOARDWALK-PATH TRANSITION TRANSVERSE SECTION**  
1 : 25



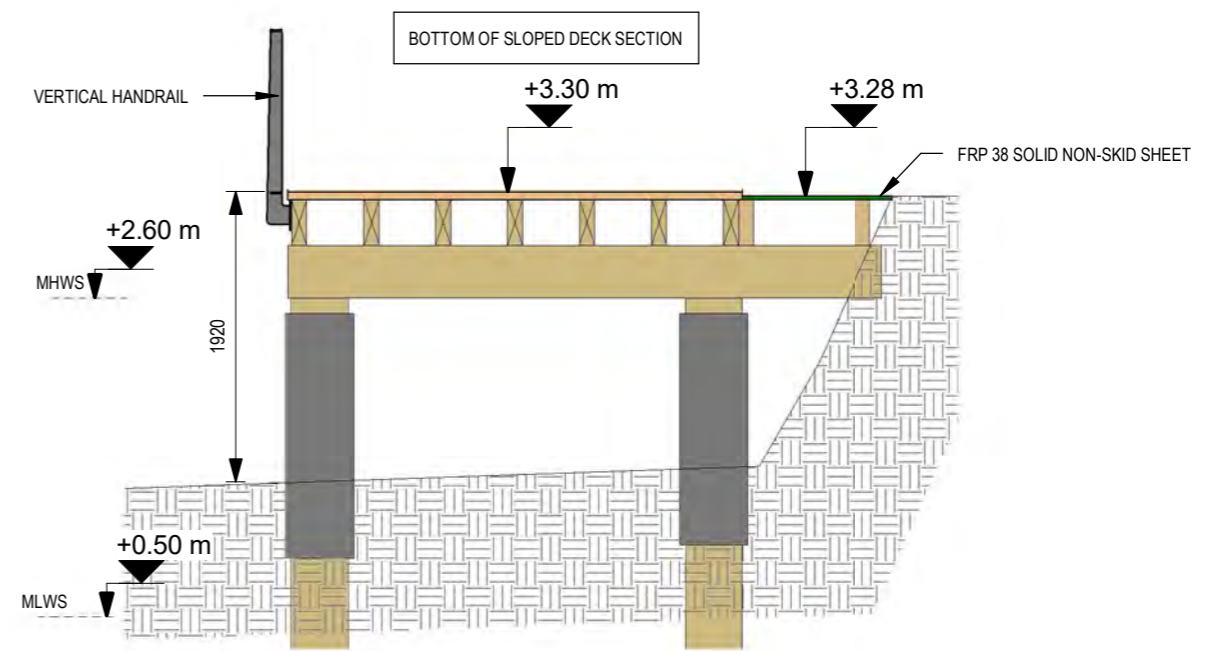
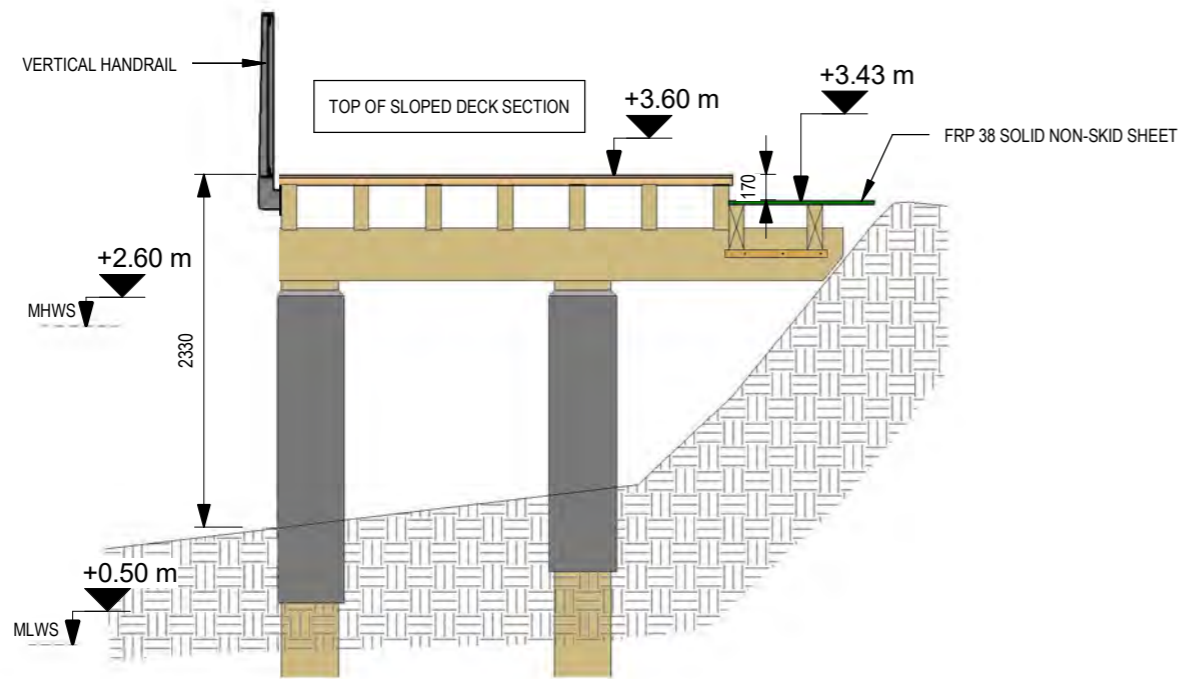
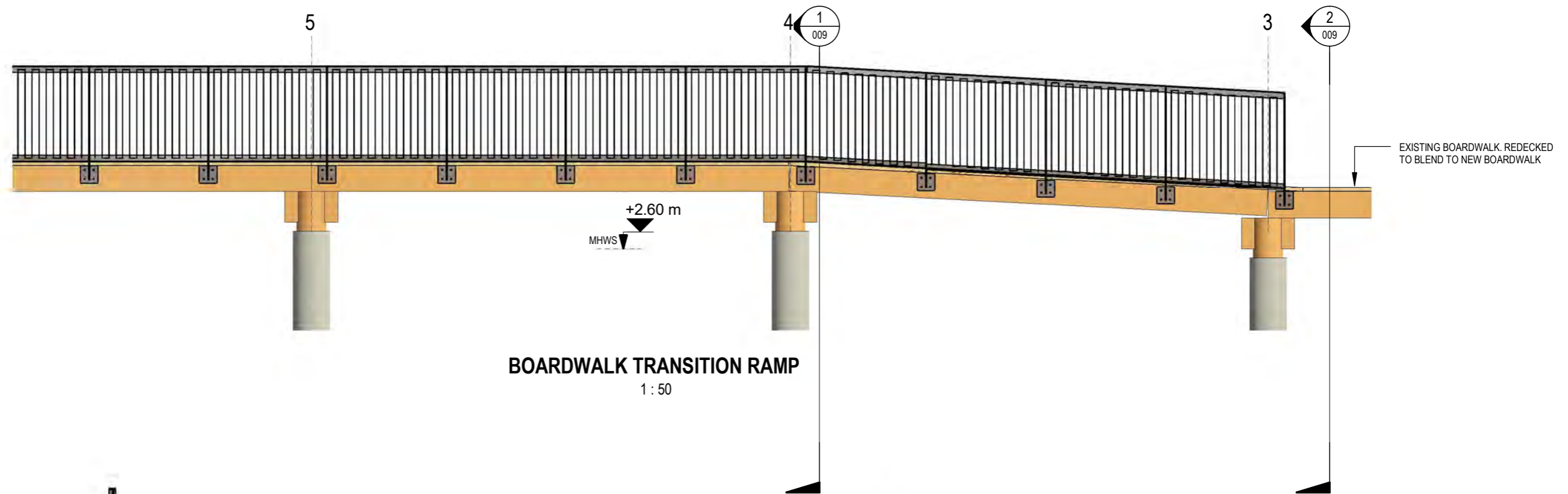
**SOUTHERN TRANSITION 3D**

File name: Pld Date: 8/07/2021 11:46:47 am

REV	DETAILS	DATE
0	ISSUED FOR TENDER	16/04/2021
1	ISSUED FOR CONSTRUCTION	08/07/2021

PROJECT	STATUS
MANGONUI WATERFRONT	FOR CONSTRUCTION
SHEET DESCRIPTION	DRAWN BY
BOARDWALK-GRAVEL PATH TRANSITION	RB
	APPROVED BY
	PROJECT NO.
	19-1021
	SHEET NO.
	008
	REV
	1

DRAWN BY	APPROVED BY	SHT
MW	RB	A3
PROJECT NO.	SHEET NO.	REV
19-1021	008	1

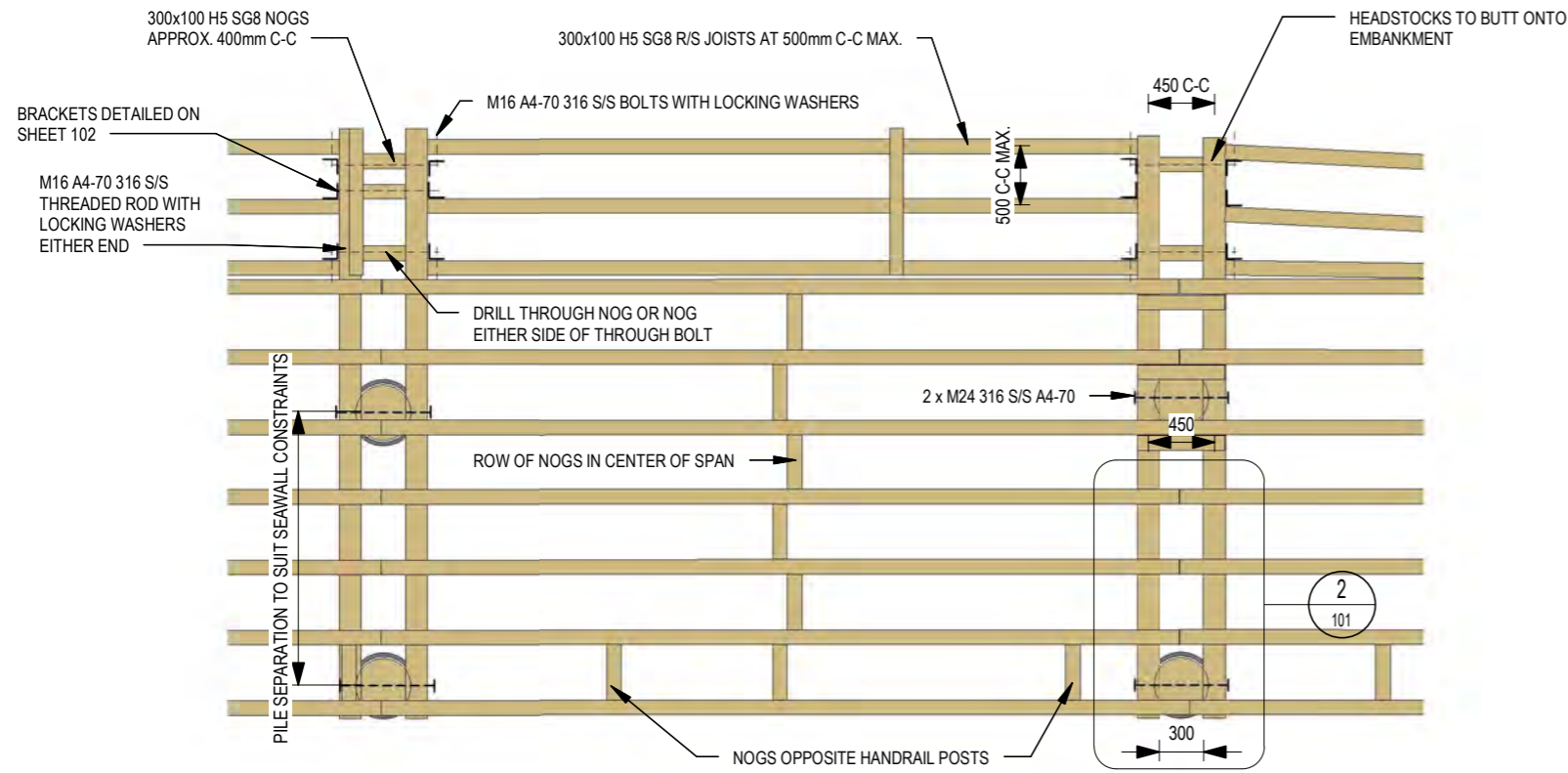


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1	ISSUED FOR CONSTRUCTION	08/07/2021

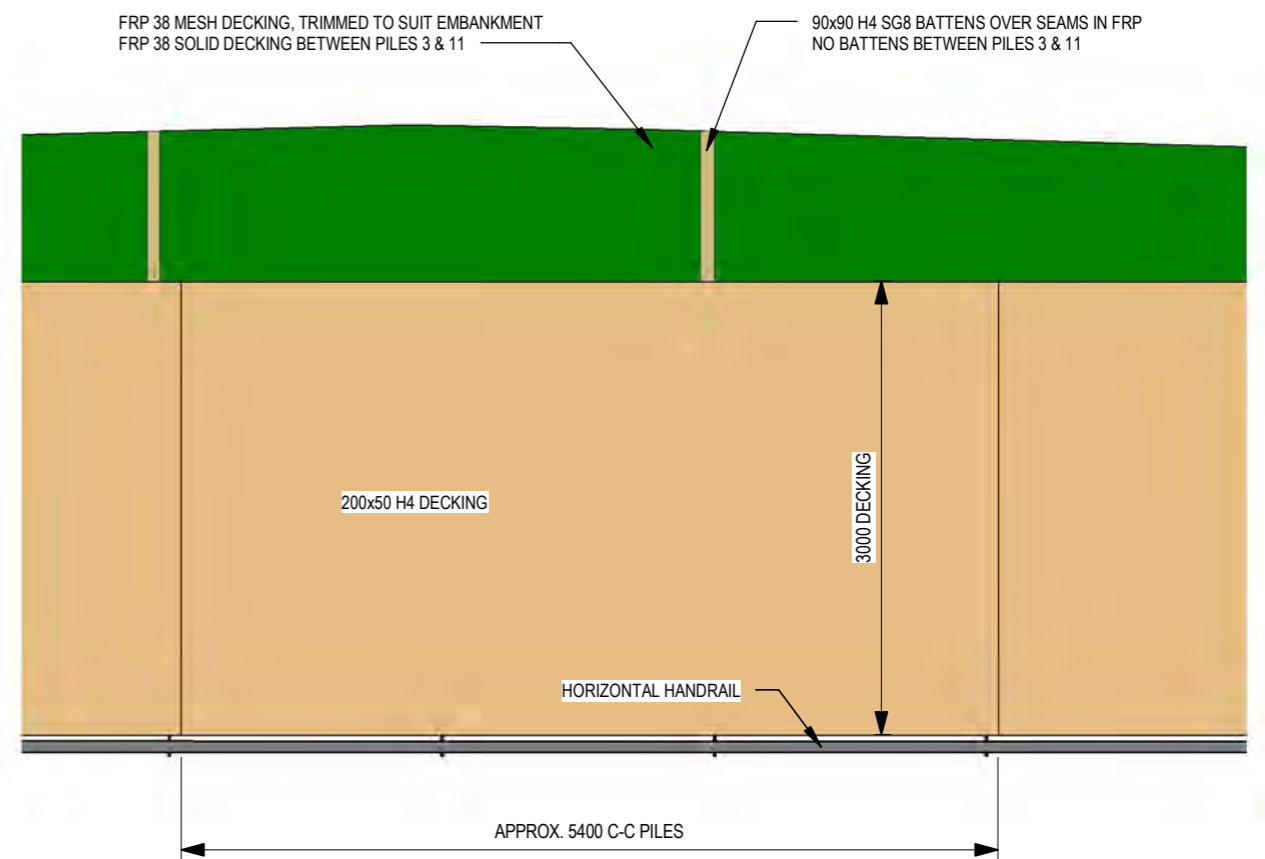
PROJECT	STATUS
MANGONUI WATERFRONT	FOR CONSTRUCTION
<b>SHEET DESCRIPTION</b>	<b>DRAWN BY</b>
BOARDWALK RAMP DETAILS	MW
	<b>APPROVED BY</b>
	RB
	<b>PROJECT NO.</b>
	19-1021
	<b>SHEET NO.</b>
	009
	<b>REV</b>
	1

DRAWN BY	APPROVED BY	SHT
MW	RB	A3
PROJECT NO.	SHEET NO.	REV
19-1021	009	1



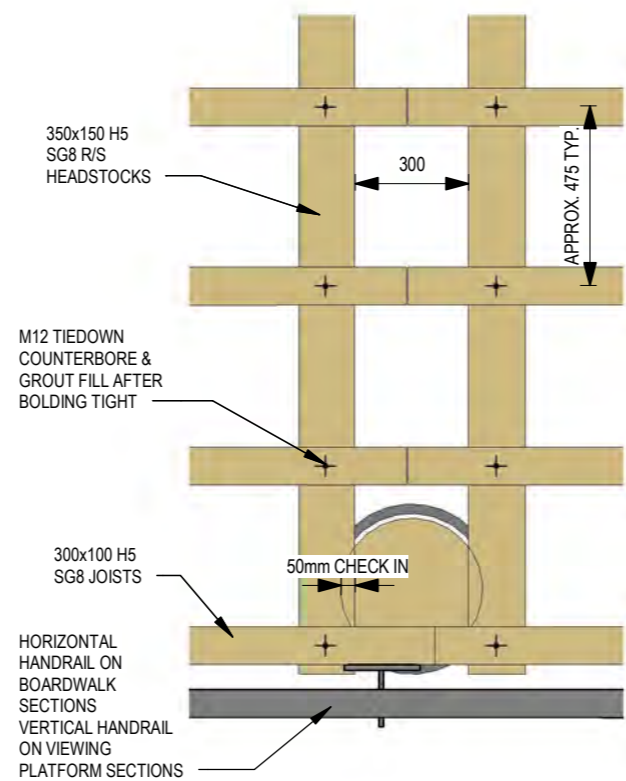
**TYPICAL BOARDWALK FRAMING PLAN**

1 : 50



**TYPICAL BOARDWALK PLAN**

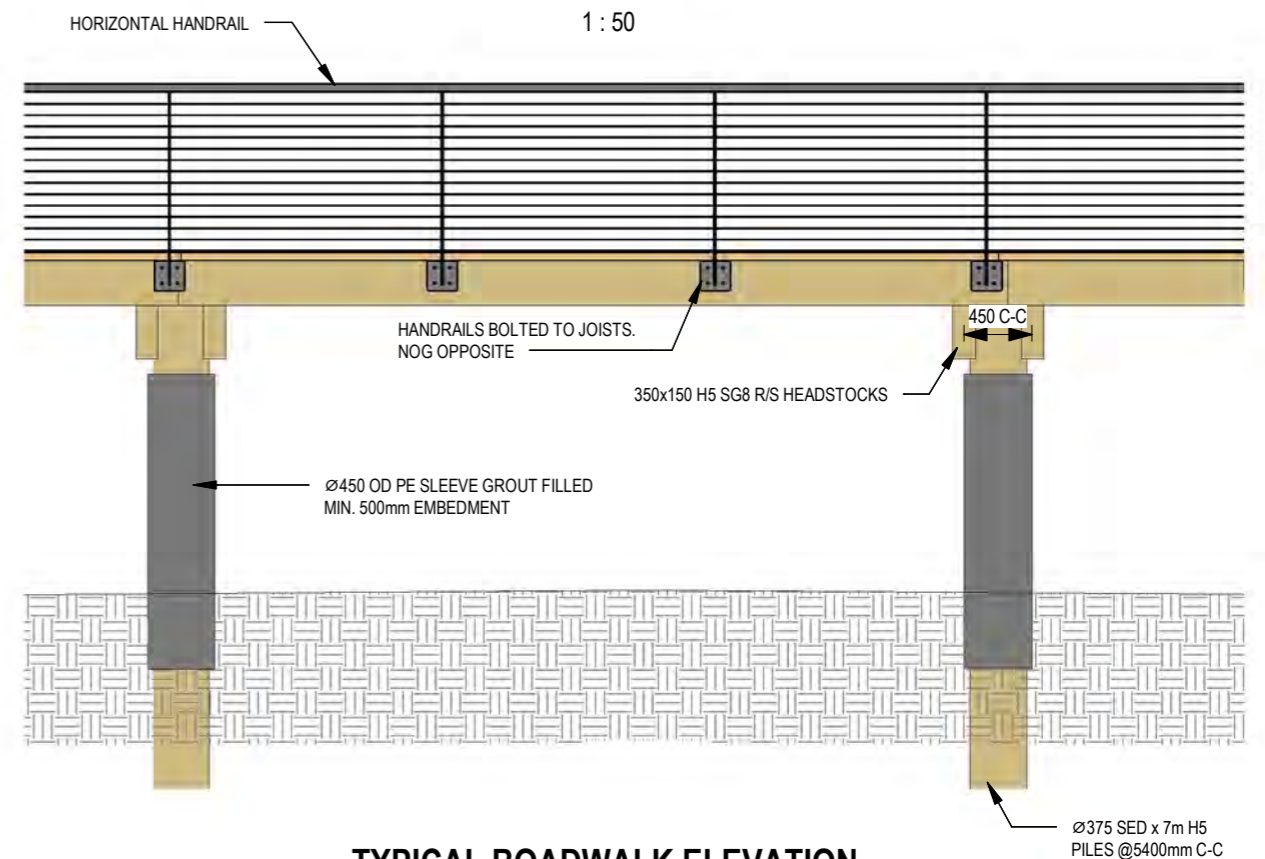
1 : 50



**2. TYPICAL PLAN DETAIL**

1 : 20

FOR BOARDWALK SECTION VIEWS, SEE SHEET 102



**TYPICAL BOARDWALK ELEVATION**

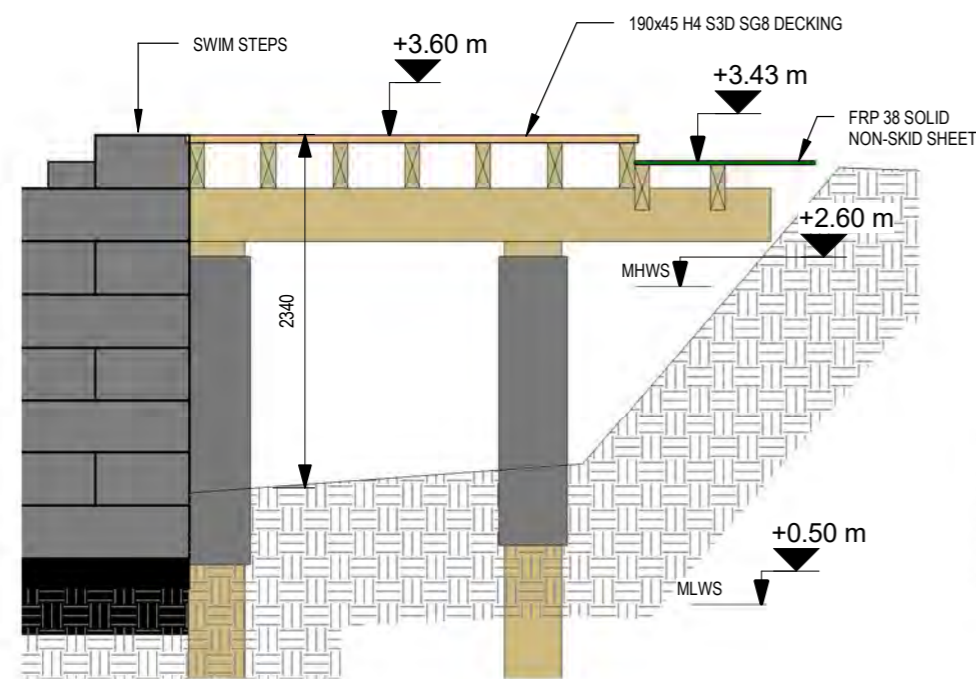
1 : 50

- NOTES:**
- DECKING TO HAVE BANDSAWN TOP FACE FOR GRIP
  - 2 OF 14g x 125mm CSK SCREWS THROUGH EACH PLANK
  - ALL FASTENERS 316 S/S

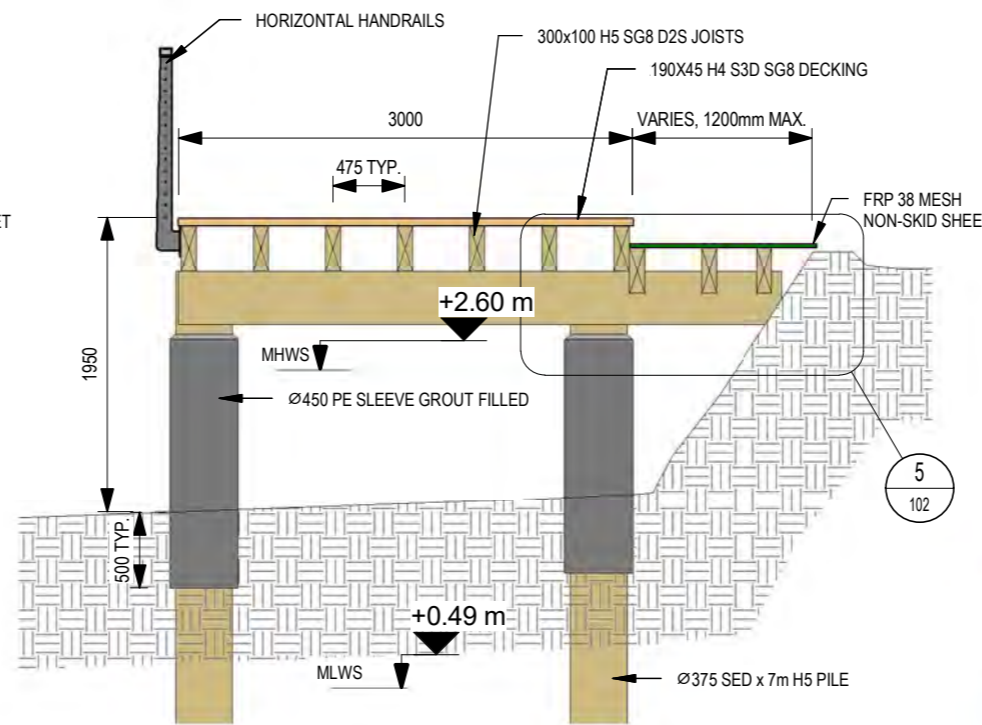
Pld Date: 9/07/2021 11:46:51 am

REV	DETAILS	DATE
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1	ISSUED FOR TENDER	16/04/2021
2	ISSUED FOR CONSTRUCTION	08/07/2021

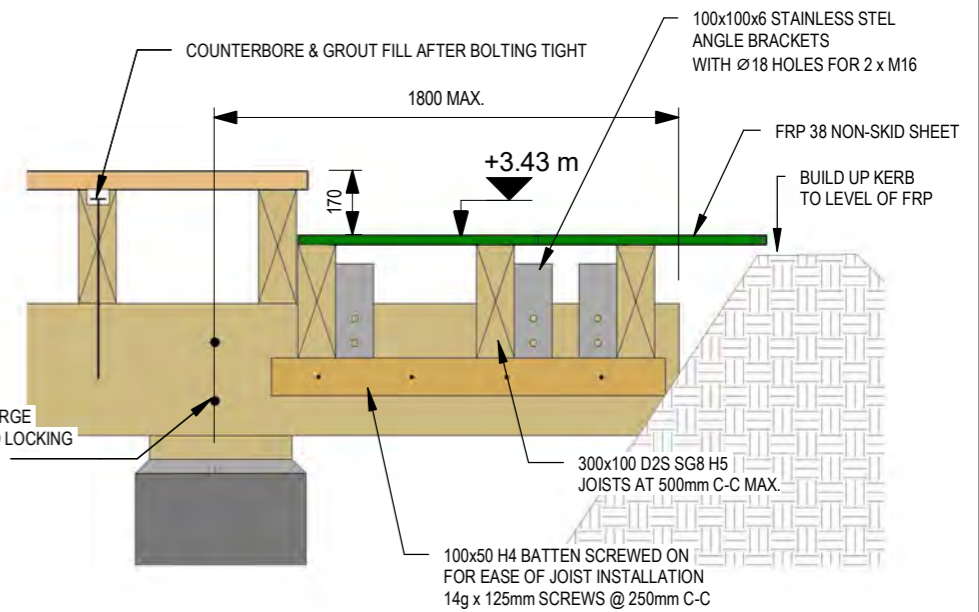
PROJECT	STATUS
MANGONUI WATERFRONT	FOR CONSTRUCTION
SHEET DESCRIPTION	DRAWN BY
BOARDWALK DETAILS	MW
	APPROVED BY
	RB
	SHT
	A3
	PROJECT NO.
	19-1021
	SHEET NO.
	101
	REV
	2



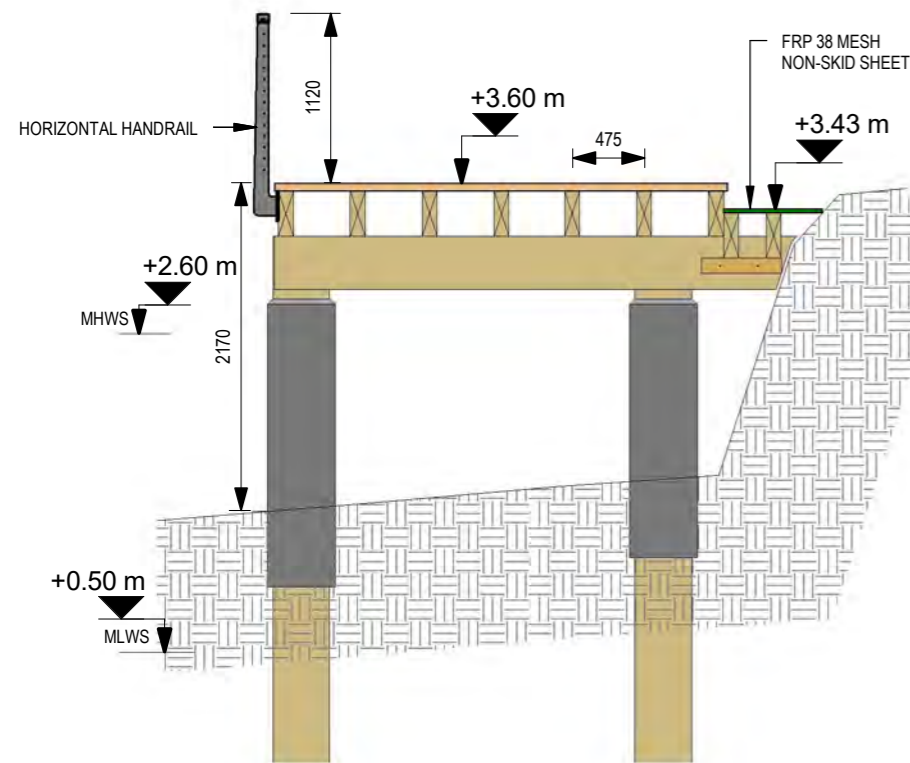
**TYPICAL CROSS SECTION 7-8**  
1 : 50



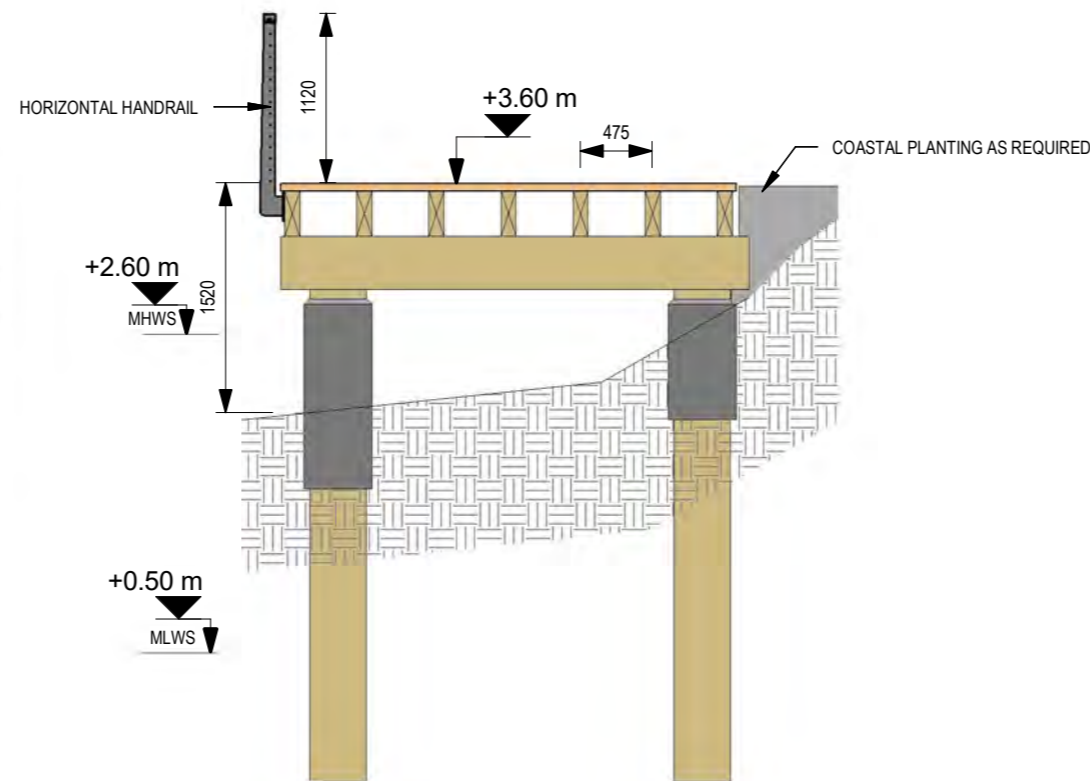
**TYPICAL CROSS SECTION 15-16**  
1 : 50



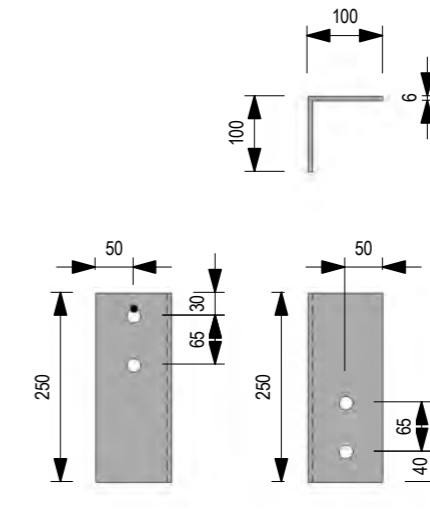
**TYPICAL CROSS SECTION CANTILEVER JOIST**  
1 : 20



**TYPICAL CROSS SECTION 47-48**  
1 : 50



**TYPICAL CROSS SECTION 62-63**  
1 : 50



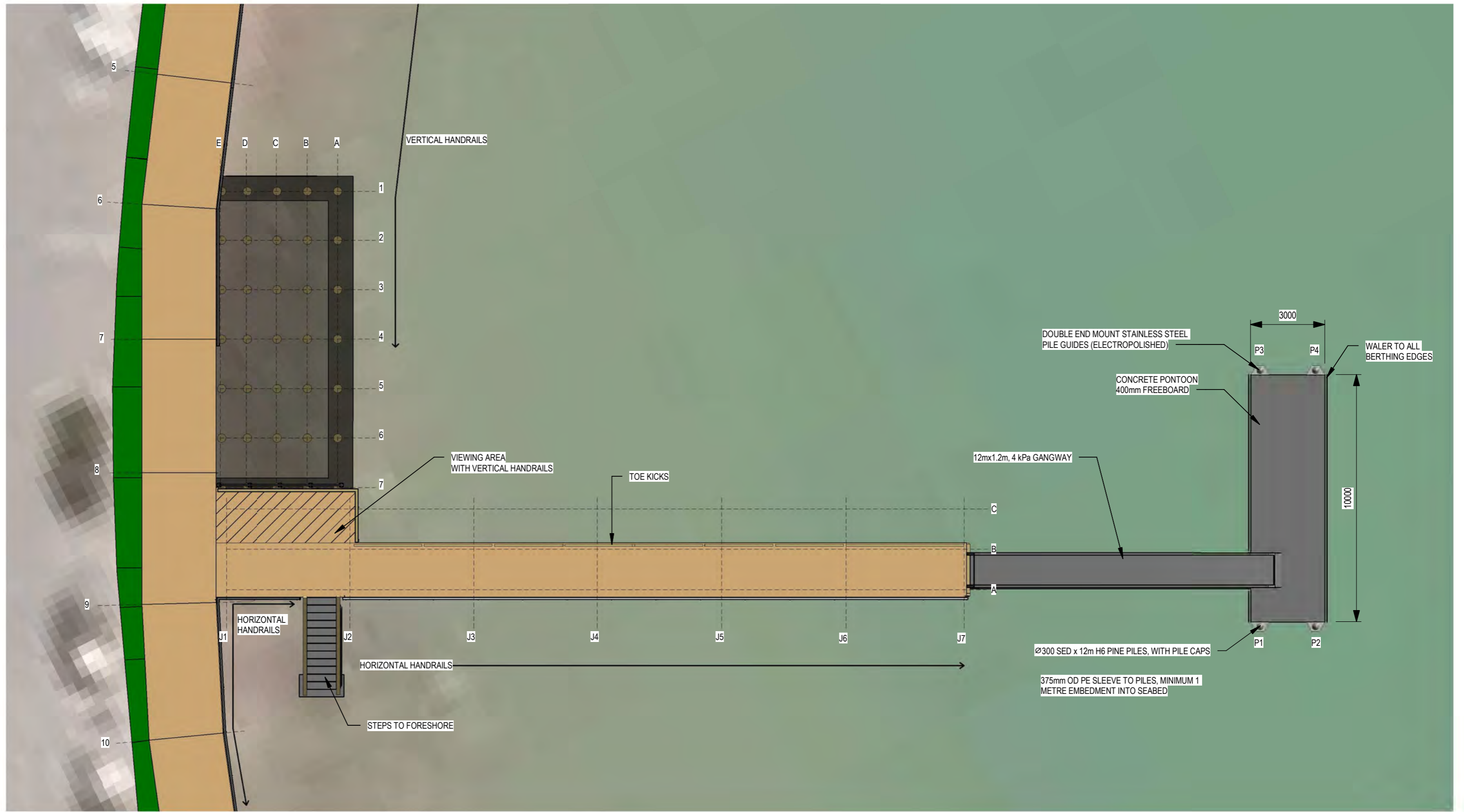
**100x100x6 S/S BRACKET**  
1 : 10

BRACKETS USED FOR CANTILEVERED JOISTS UNDER FRP ONLY

- NOTES:**
- DECKING TO HAVE BANDSAWN TOP FACE FOR GRIP
  - 2 OF 14g x 125mm CSK SCREWS THROUGH EACH PLANK
  - ALL FASTENERS 316 S/S

Filename: Pld Date: 9/07/2021 11:46:53 am

REV	DETAILS	DATE	PROJECT	STATUS
0	ISSUED FOR TENDER	16/04/2021	MANGONUI WATERFRONT	FOR CONSTRUCTION
1	ISSUED FOR CONSTRUCTION	08/07/2021		
			<b>SHEET DESCRIPTION</b>	<b>DRAWN BY</b>
			TYPICAL BOARDWALK SECTIONS	MW
				<b>APPROVED BY</b>
				RB
				<b>SHT</b>
				A3
				<b>PROJECT NO.</b>
				19-1021
				<b>SHEET NO.</b>
				102
				<b>REV</b>
				1



**PILE NUMBERS - JETTY/SWIM STEPS**

1 : 150

Pld Date: 30/07/2021 11:46:54 am



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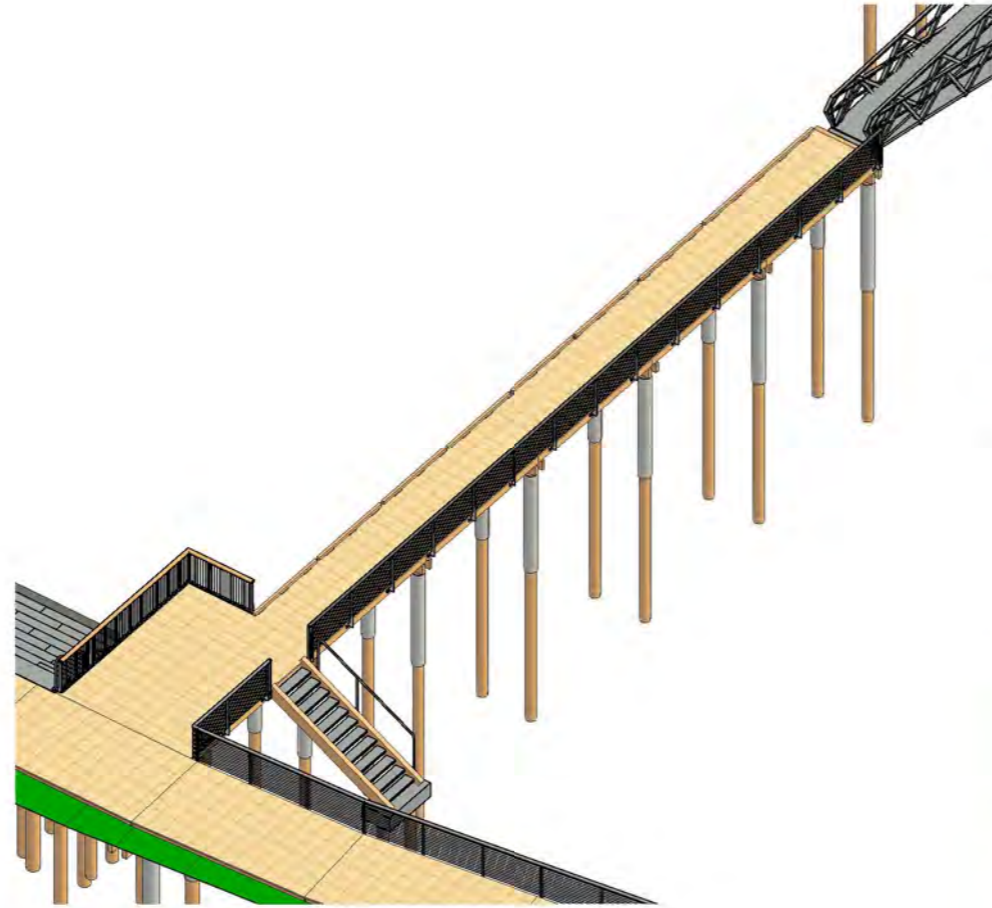
REV	DETAILS	DATE
0	ISSUED FOR REVIEW	30/03/2021
1	ISSUED FOR TENDER	16/04/2021
2	ISSUED FOR CONSTRUCTION	08/07/2021

PROJECT
MANGONUI WATERFRONT
SHEET DESCRIPTION
JETTY AND SWIM STEPS PILE NUMBERS

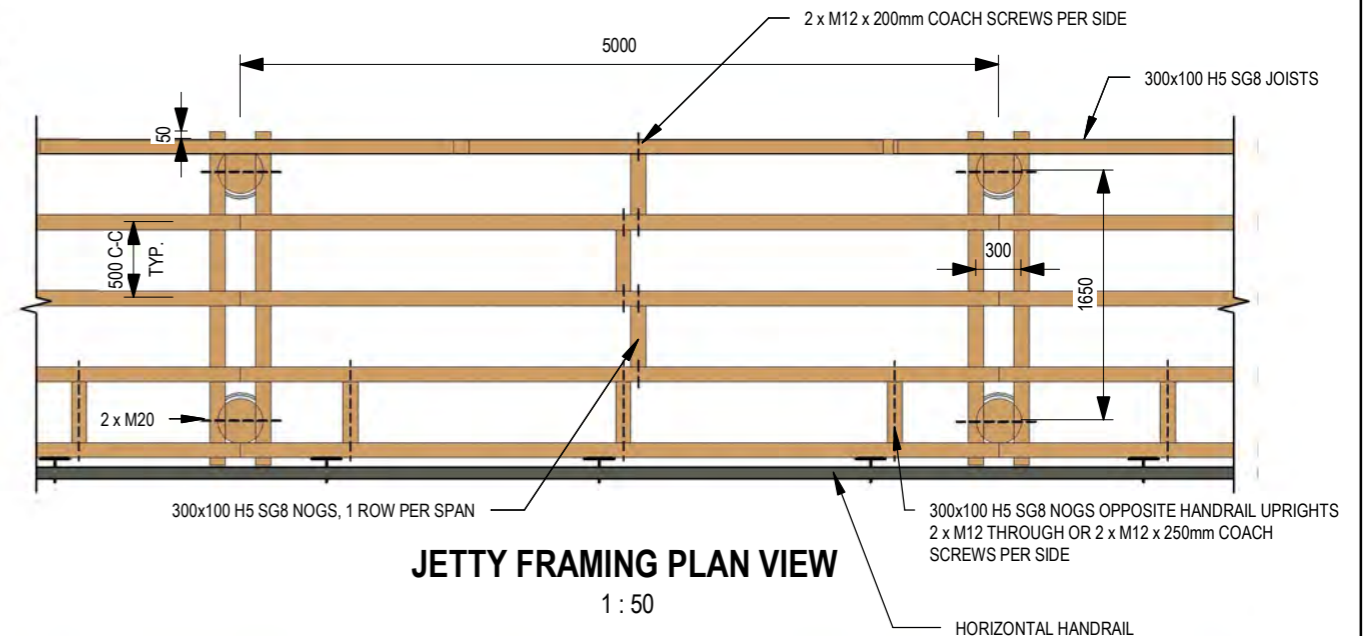
STATUS		
FOR CONSTRUCTION		
DRAWN BY	APPROVED BY	SHT
MW	RB	A3
PROJECT NO.	SHEET NO.	REV
19-1021	103	2

**NOTES:**

- DECKING TO HAVE BANDSAWN TOP FACE FOR GRIP
- 2 OF 14g x 125mm CSK SCREWS THROUGH EACH PLANK
- ALL FASTENERS 316 S/S

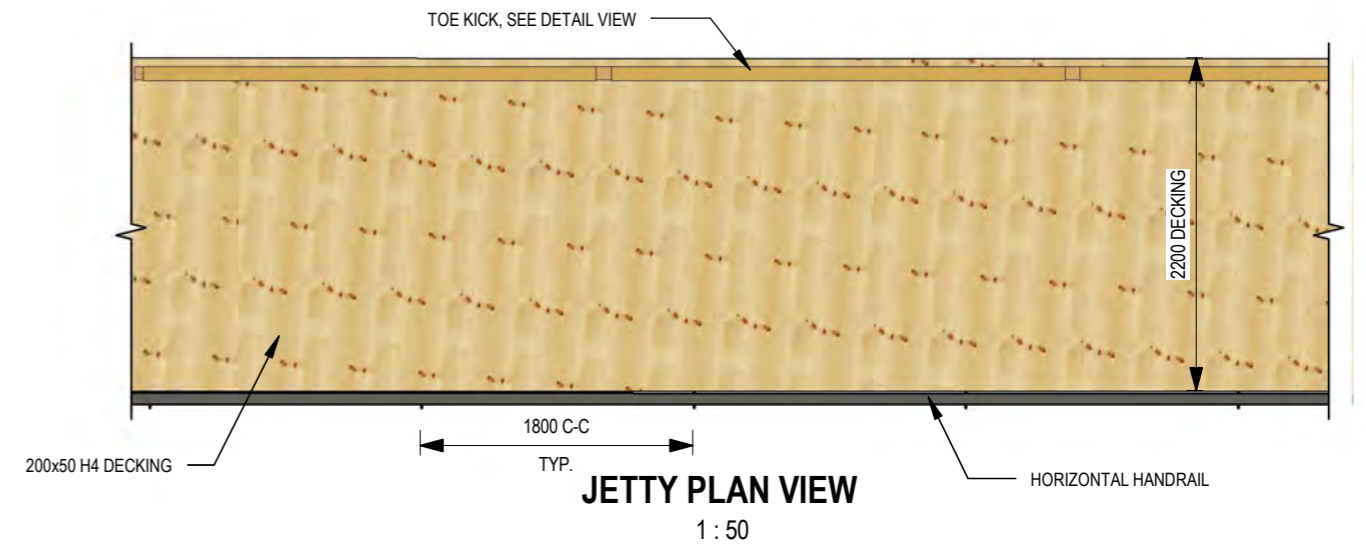


**JETTY 3D**



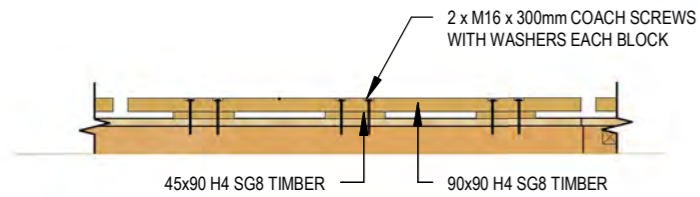
**JETTY FRAMING PLAN VIEW**

1 : 50



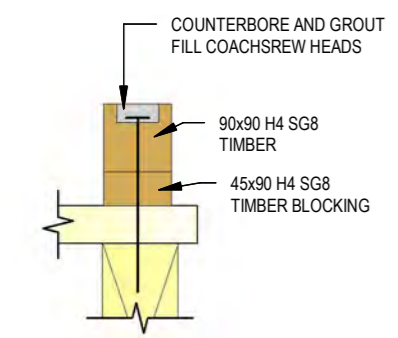
**JETTY PLAN VIEW**

1 : 50



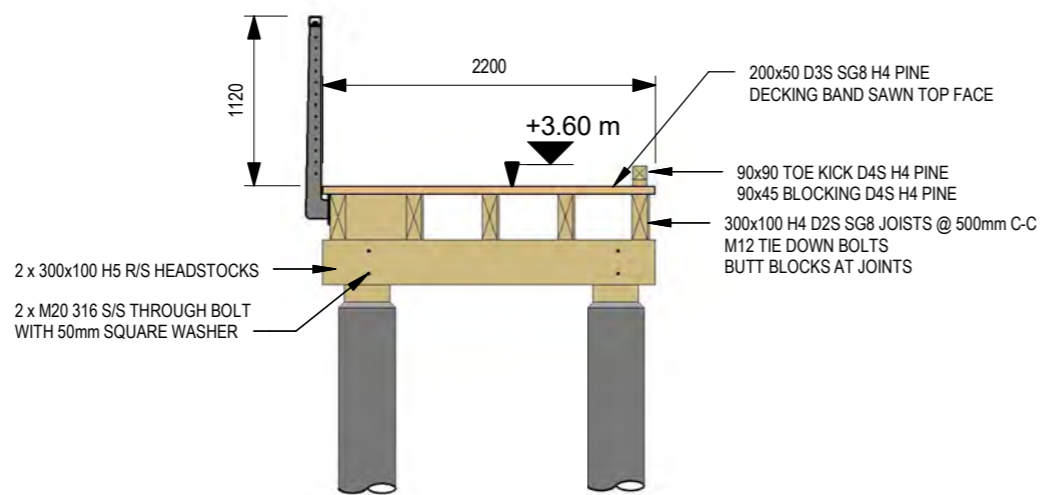
**JETTY TOE KICK ELEVATION**

1 : 50



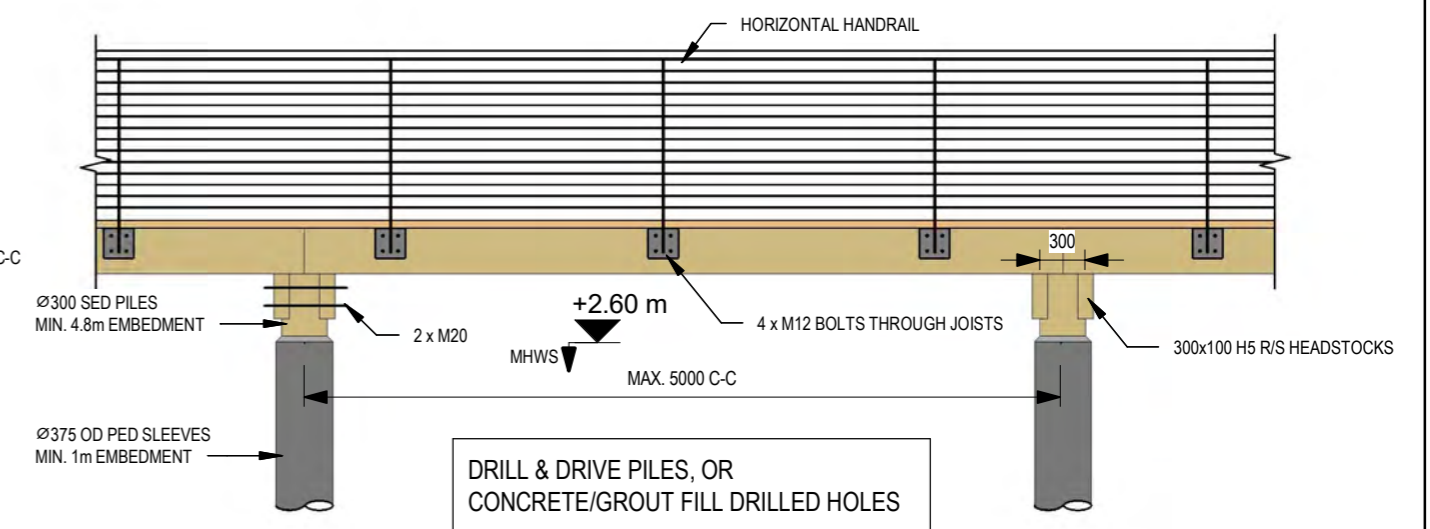
**JETTY TOE KICK DETAIL**

1 : 10



**JETTY CROSS SECTION**

1 : 50



**JETTY ELEVATION**

1 : 50

DRILL & DRIVE PILES, OR CONCRETE/GROUT FILL DRILLED HOLES

File name: Pld Date: 9/07/2021 11:47:02 am



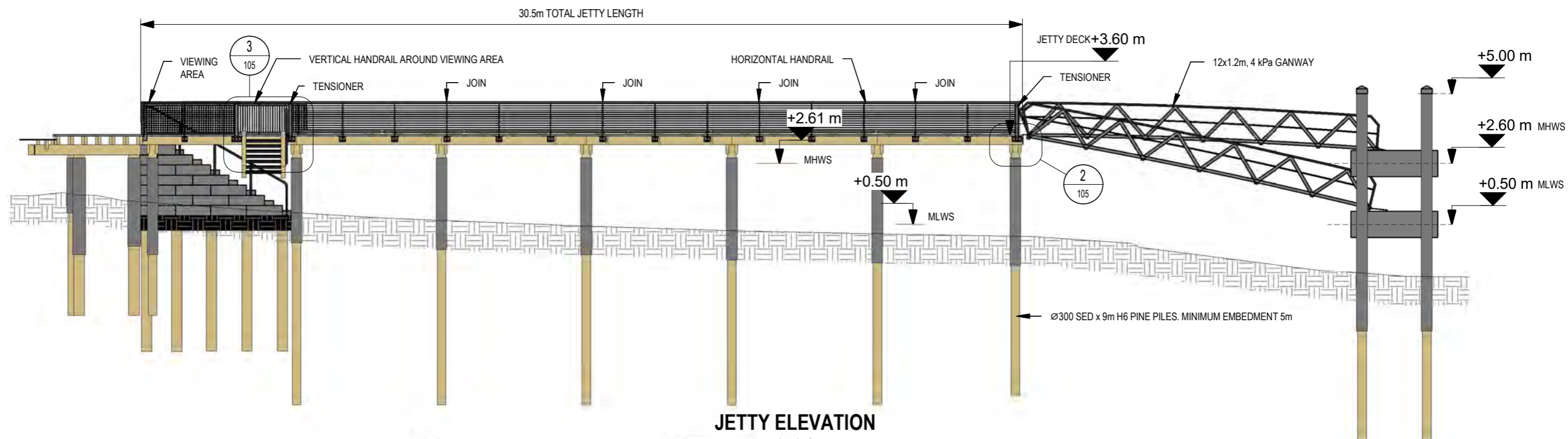
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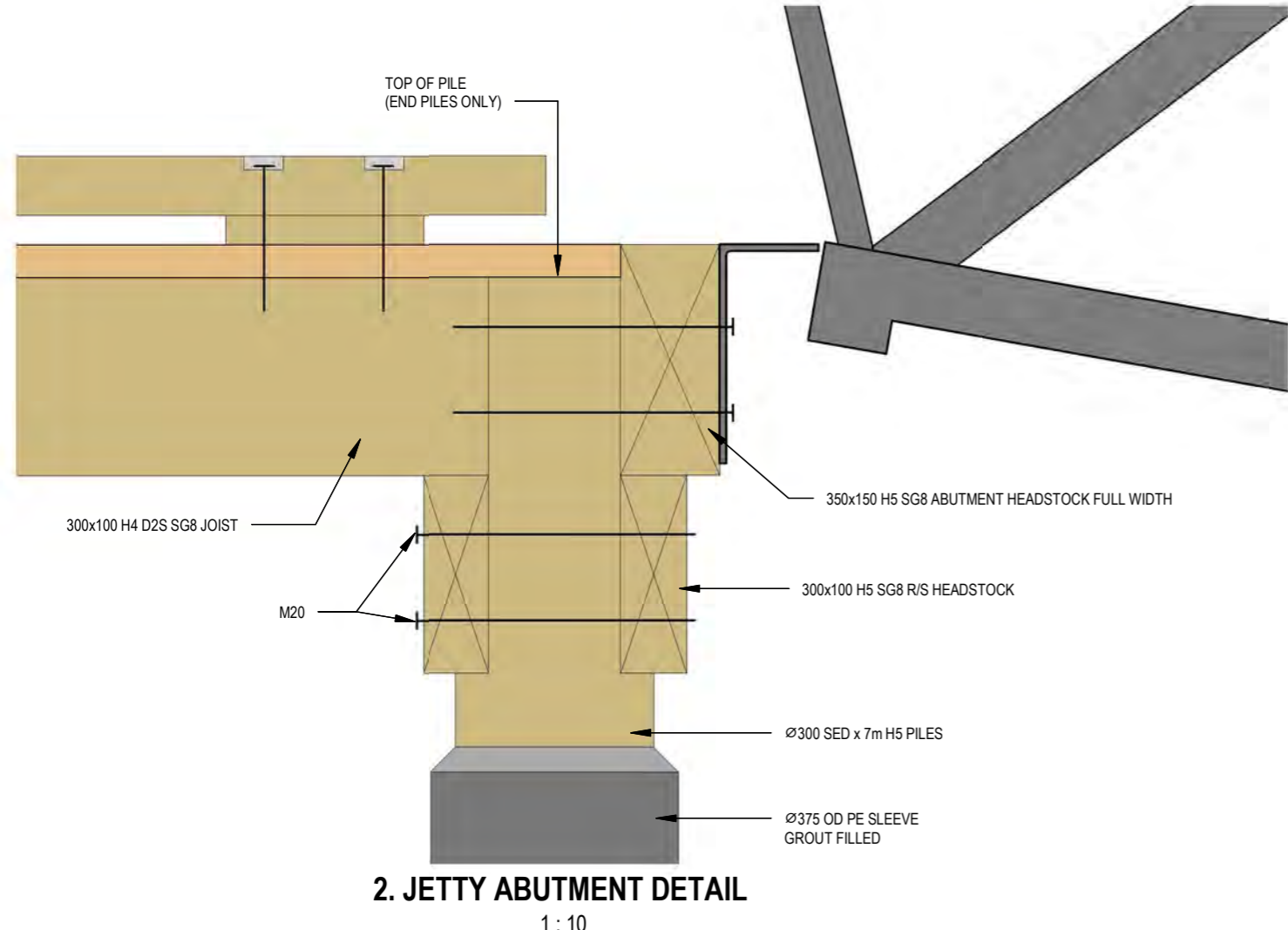
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REV	DETAILS	DATE
0	ISSUED FOR TENDER	16/04/2021
1	ISSUED FOR CONSTRUCTION	08/07/2021

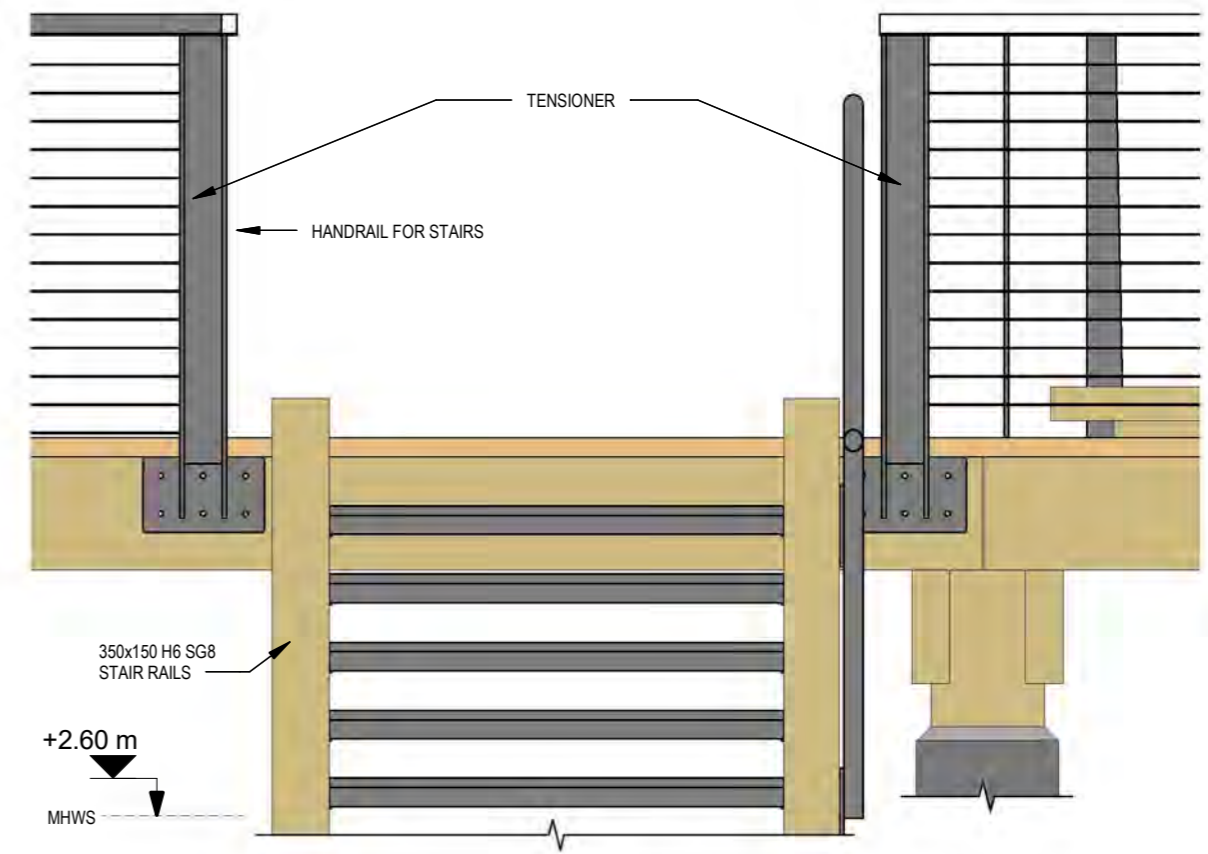
PROJECT	STATUS
MANGONUI WATERFRONT	FOR CONSTRUCTION
<b>SHEET DESCRIPTION</b>	<b>DRAWN BY</b>
JETTY DETAILS	MW
	<b>APPROVED BY</b>
	RB
	<b>SHT</b>
	A3
	<b>PROJECT NO.</b>
	19-1021
	<b>SHEET NO.</b>
	104
	<b>REV</b>
	1



**JETTY ELEVATION**  
1 : 150



**2. JETTY ABUTMENT DETAIL**  
1 : 10



**3. JETTY STEPS DETAIL**  
1 : 20

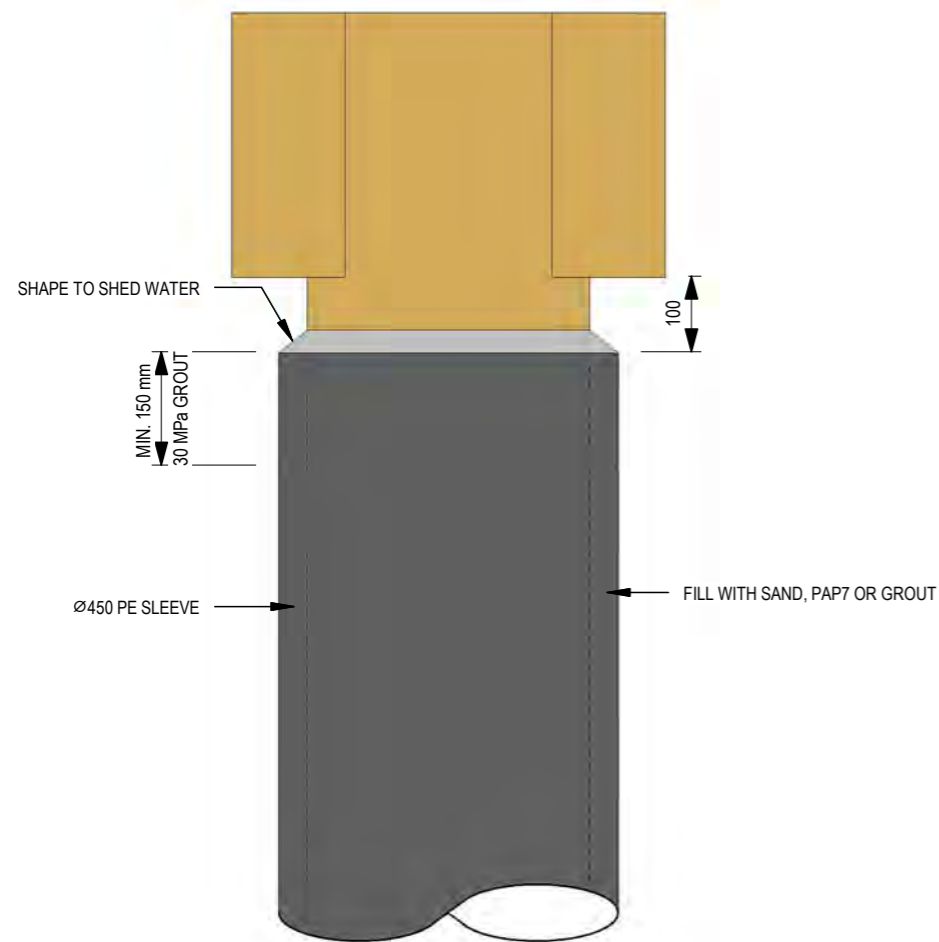
FOR DETAILS ON STEPS,  
SEE SHEET 202

Filename: 9/07/2021 11:47:04 am

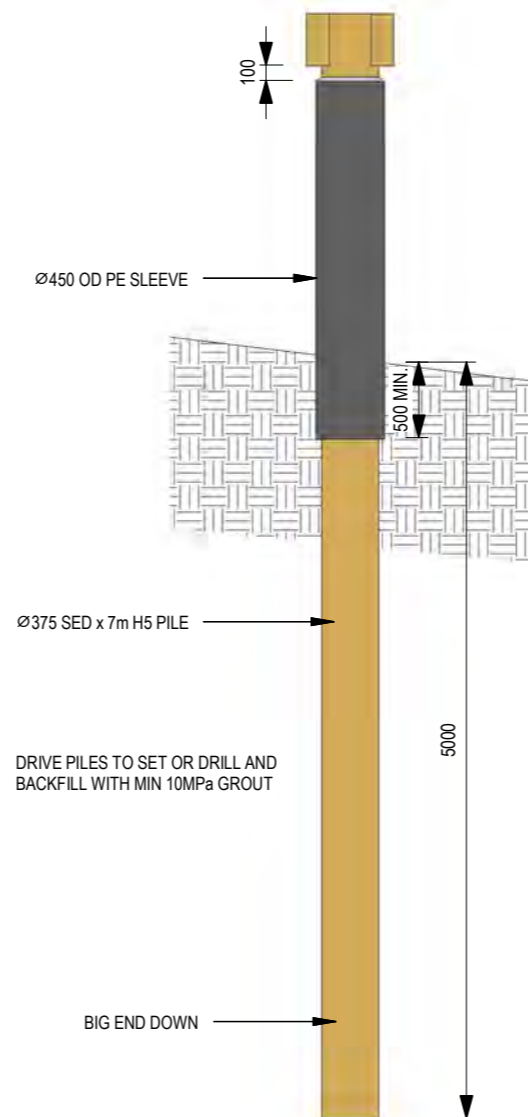
REV	DETAILS	DATE
0	ISSUED FOR REVIEW	30/03/2021
1	ISSUED FOR TENDER	16/04/2021
2	ISSUED FOR CONSTRUCTION	08/07/2021

CLIENT	PROJECT	STATUS
	MANGONUI WATERFRONT	FOR CONSTRUCTION
	JETTY ELEVATION VIEWS	

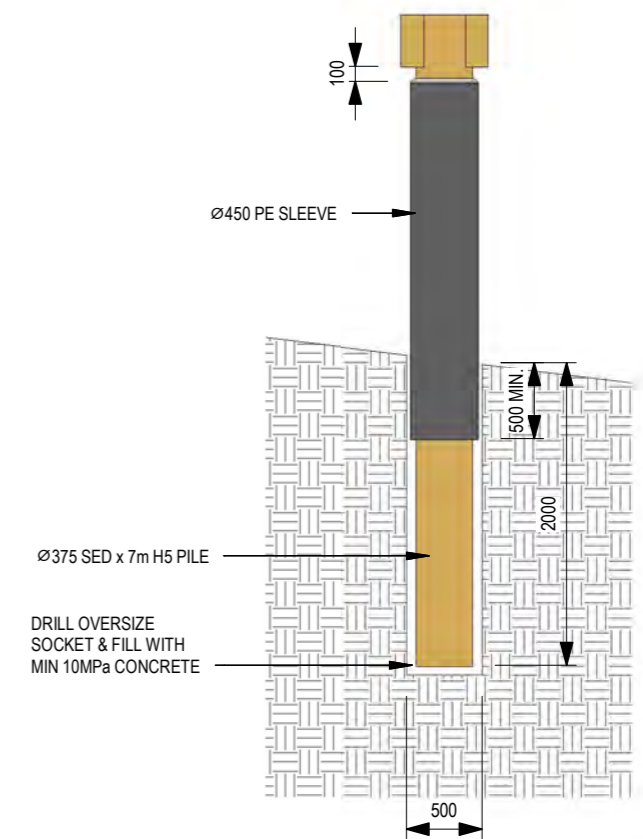
DRAWN BY	APPROVED BY	SHT
MW	RB	A3
PROJECT NO.	SHEET NO.	REV
19-1021	105	2



**PILE SLEEVE DETAIL**  
1 : 10



**PILE IN SOIL DETAIL**  
1 : 50



**PILE IN ROCK DETAIL**  
1 : 50

Filename: Pldt Date: 30/07/2021 11:47:05 am

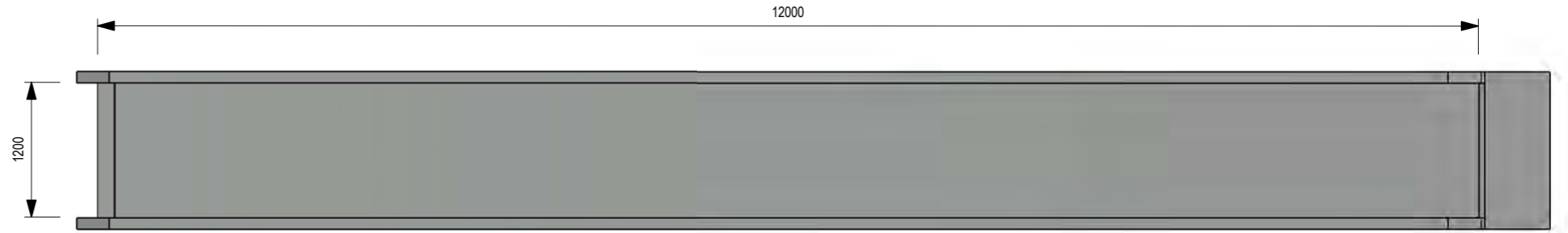
REV	DETAILS	DATE
0	ISSUED FOR TENDER	16/04/2021
1	ISSUED FOR CONSTRUCTION	08/07/2021

PROJECT	STATUS
MANGONUI WATERFRONT	FOR CONSTRUCTION
SHEET DESCRIPTION	DRAWN BY
PILE DETAILS	MW
	APPROVED BY
	RB
	PROJECT NO.
	19-1021
	SHEET NO.
	106
	REV
	1

DRAWN BY	APPROVED BY	SHT
MW	RB	A3
PROJECT NO.	SHEET NO.	REV
19-1021	106	1

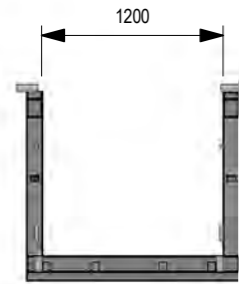


12x1.2m 4kPa GANWAY



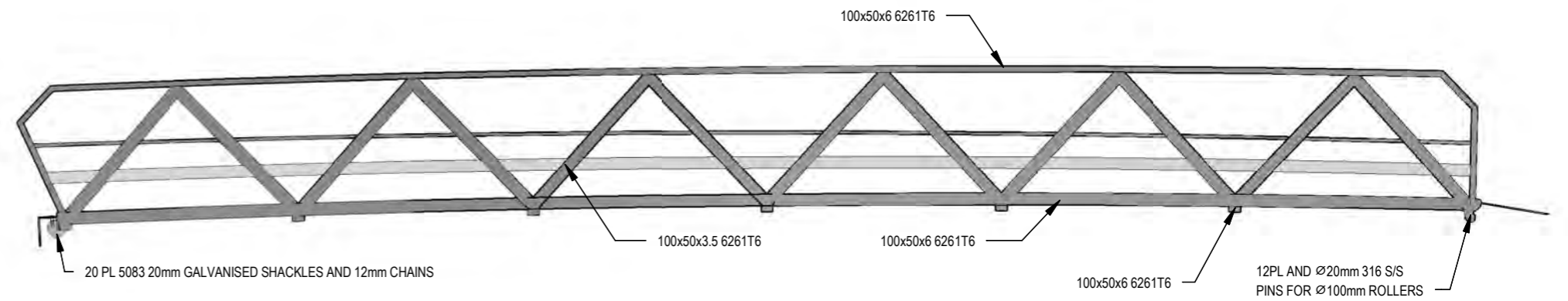
**GANGWAY PLAN**

1 : 50



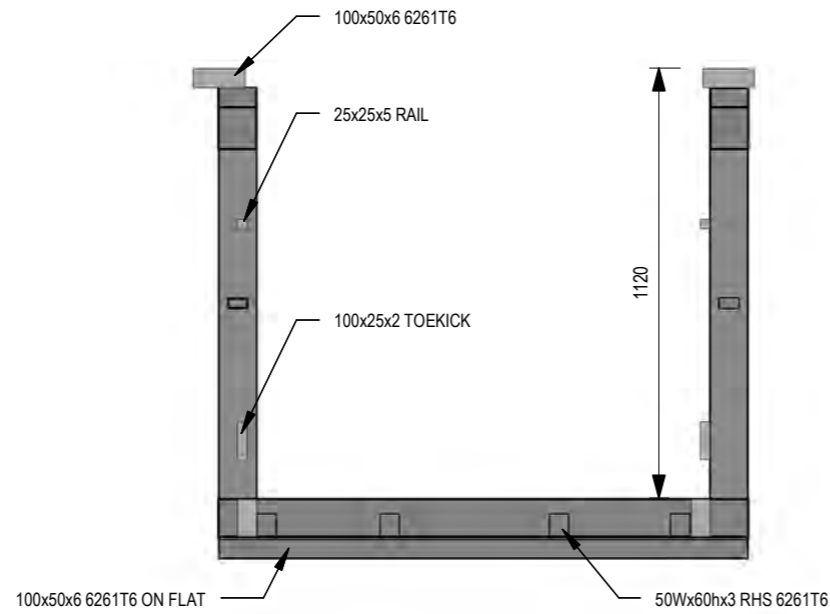
**GANGWAY SECTION**

1 : 50



**GANGWAY ELEVATION**

1 : 50



**GANGWAY SECTION DETAIL**

1 : 20

**NOTES:**

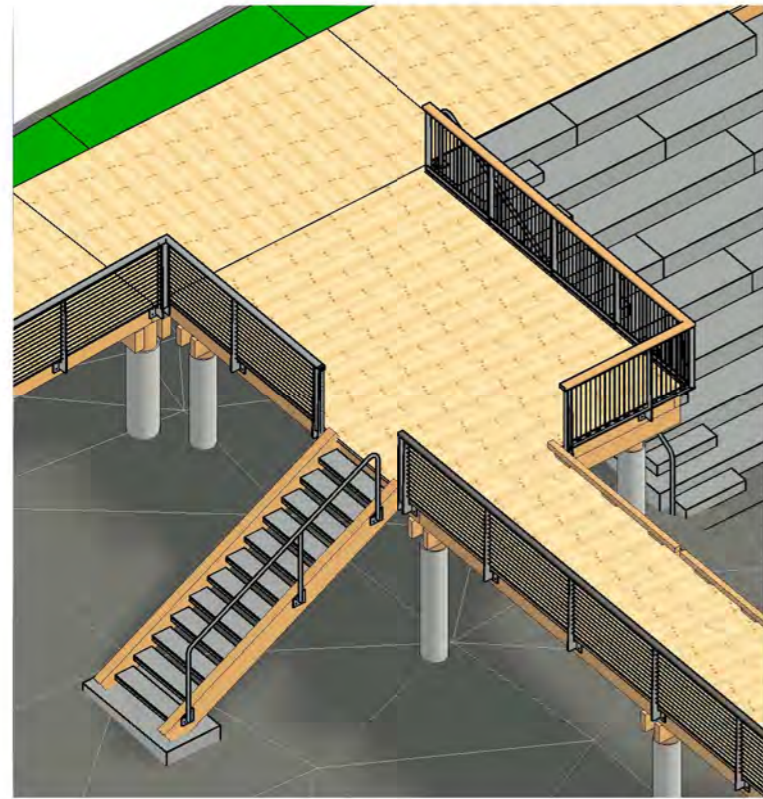
- BRIGHT ALUMINIUM FINISH
- ALL CONNECTIONS FULLY WELDED
- MINIMUM 6mm FWAR
- REGUPOL GRANITE MONS NON-SKID RUBBER RDECKING OVER ALUMINIUM TRUCK DECKING

Pld Date: 30/07/2021 11:47:11 am

REV	DETAILS	DATE
0	ISSUED FOR TENDER	16/04/2021
1	ISSUED FOR CONSTRUCTION	08/07/2021

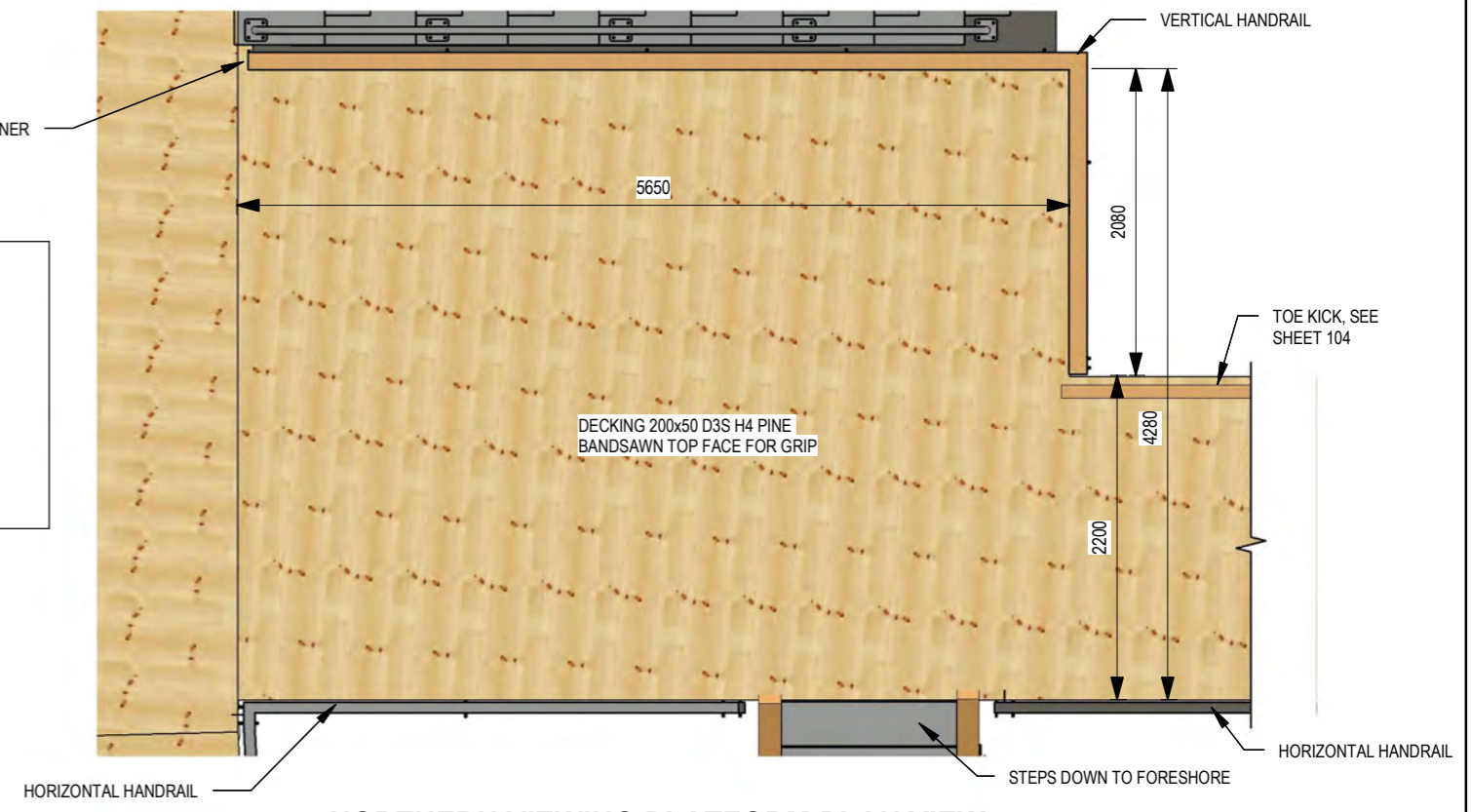
PROJECT
MANGONUI WATERFRONT
SHEET DESCRIPTION
GANGWAY DETAILS

STATUS		
FOR CONSTRUCTION		
DRAWN BY	APPROVED BY	SHT
MW	RB	A3
PROJECT NO.	SHEET NO.	REV
19-1021	107	1

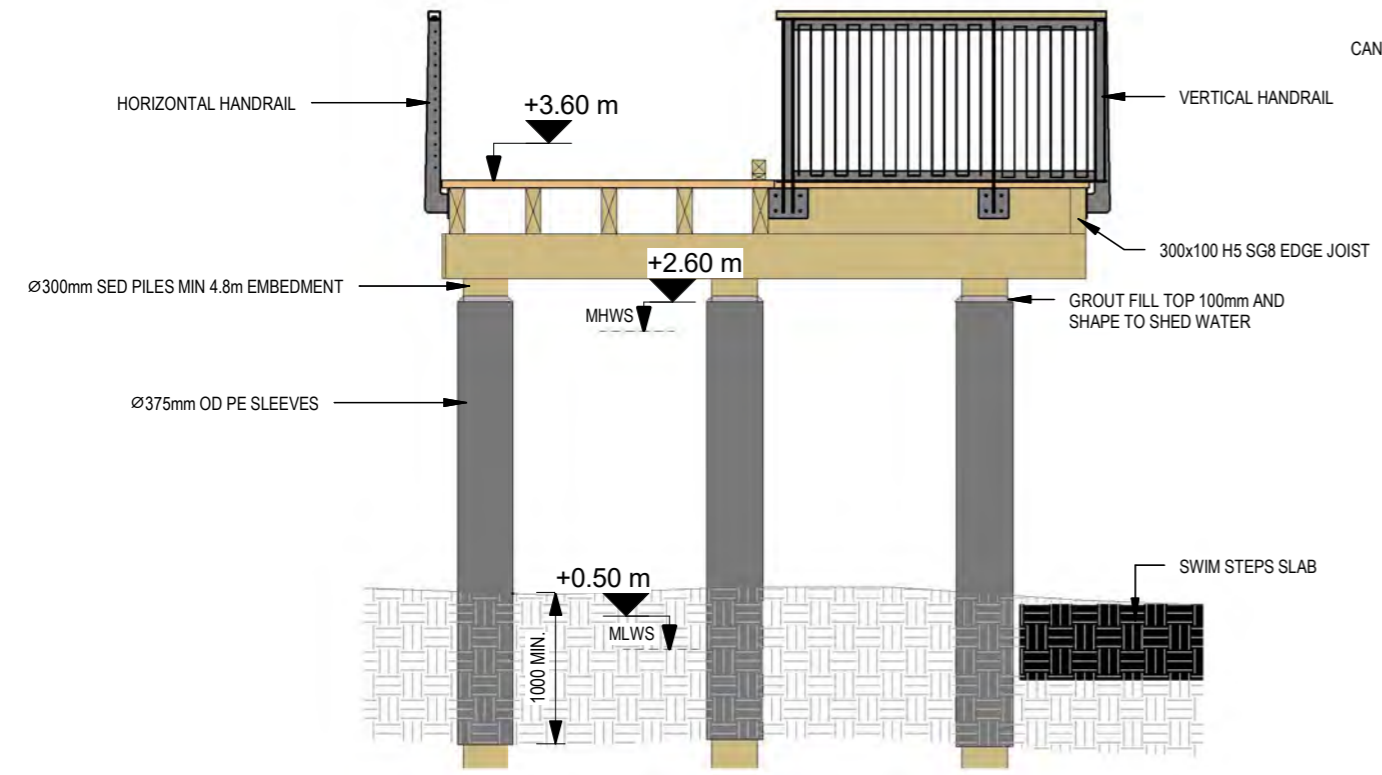


**NORTHERN VIEWING PLATFORM 3D**

- NOTES:**
- DECKING TO HAVE BANDSAWN TOP FACE FOR GRIP
  - 2 OF 14g x 125mm CSK SCREWS THROUGH EACH PLANK
  - ALL FASTENERS 316 S/S

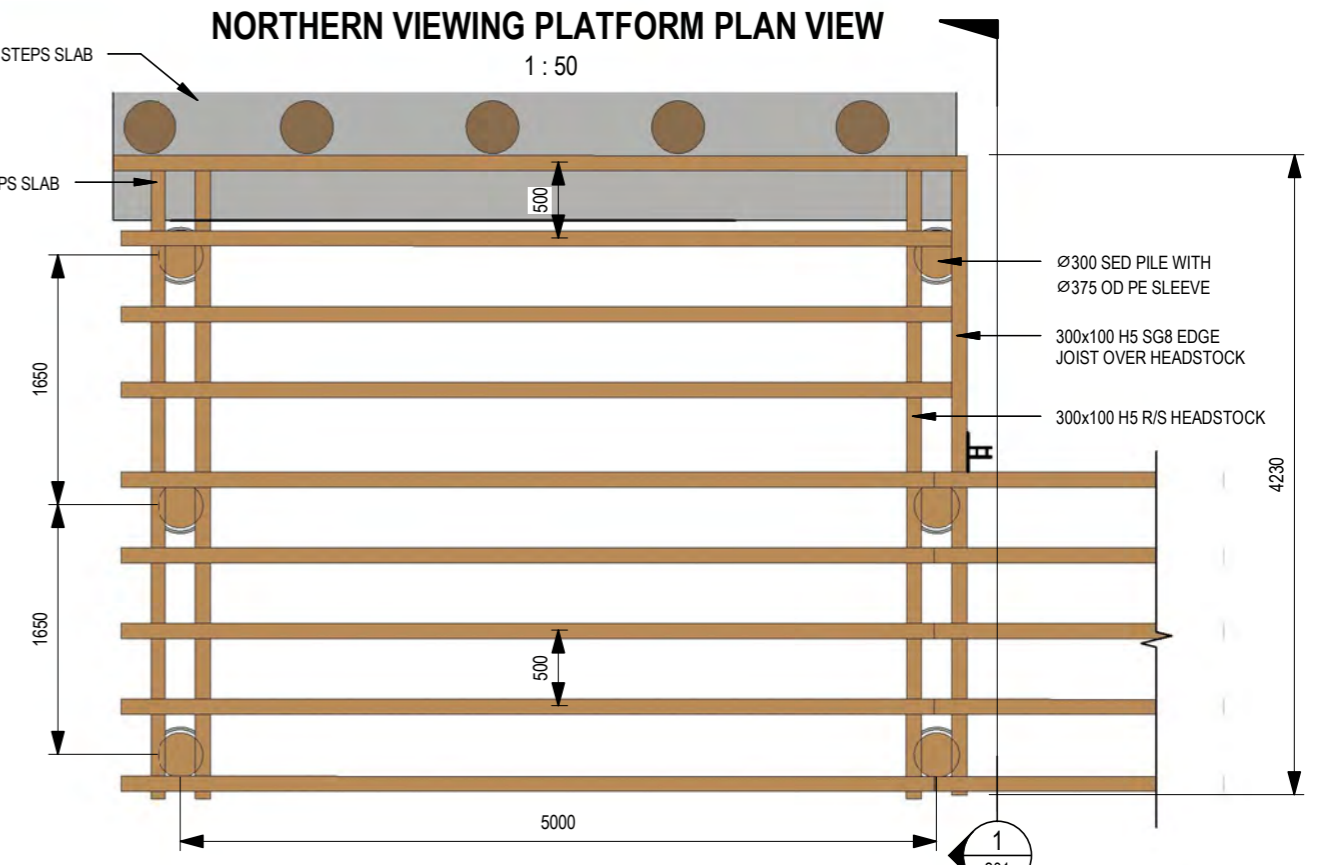


**NORTHERN VIEWING PLATFORM PLAN VIEW**



**1. NORTHERN VIEWING PLATFORM SECTION**

1 : 50



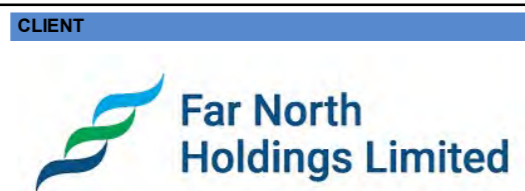
**NORTHERN VIEWING PLATFORM FRAMING PLAN VIEW**

1 : 50

Pld Date: 8/07/2021 11:47:15 am



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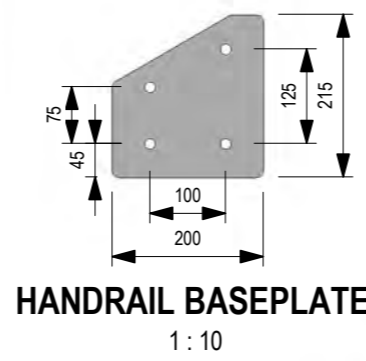
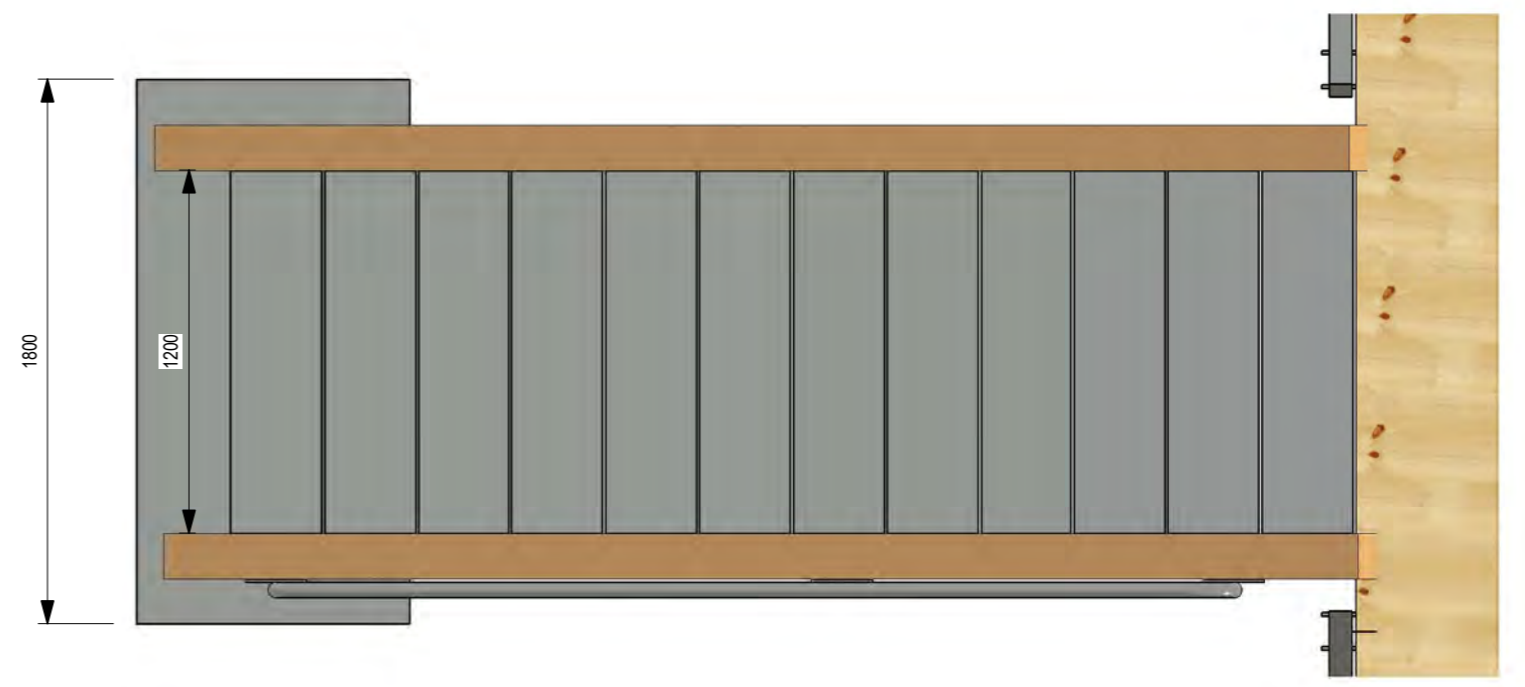
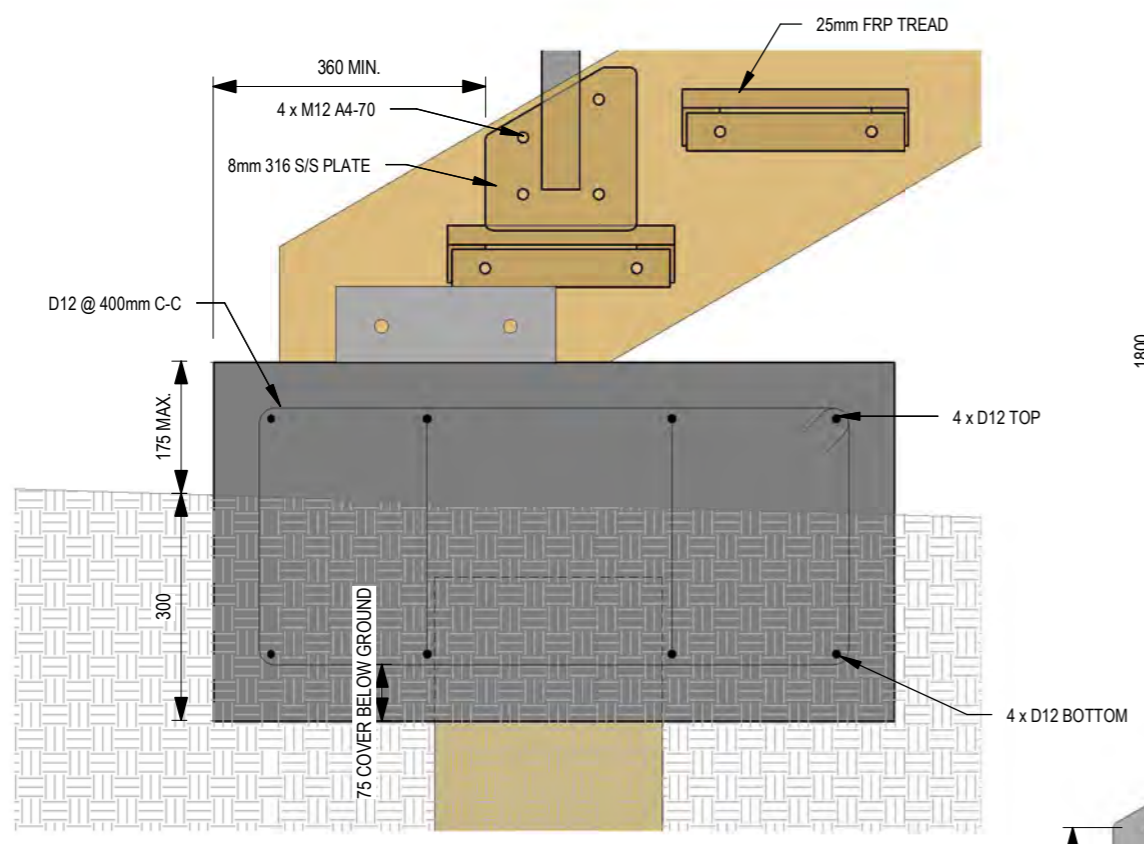
REV	DETAILS	DATE
0	ISSUED FOR TENDER	16/04/2021
1	ISSUED FOR CONSTRUCTION	08/07/2021

CLIENT	PROJECT	STATUS
Far North Holdings Limited	MANGONUI WATERFRONT	FOR CONSTRUCTION
SHEET DESCRIPTION	NORTHERN VIEWING AREA	DRAWN BY
		APPROVED BY
		SHT
		PROJECT NO.
		SHEET NO.
		REV

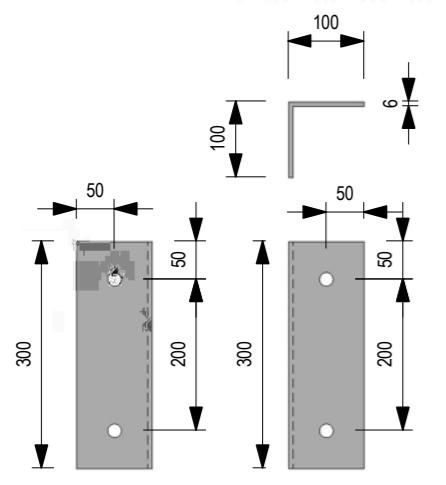
MW	RB	A3
19-1021	201	1

**NOTES:**

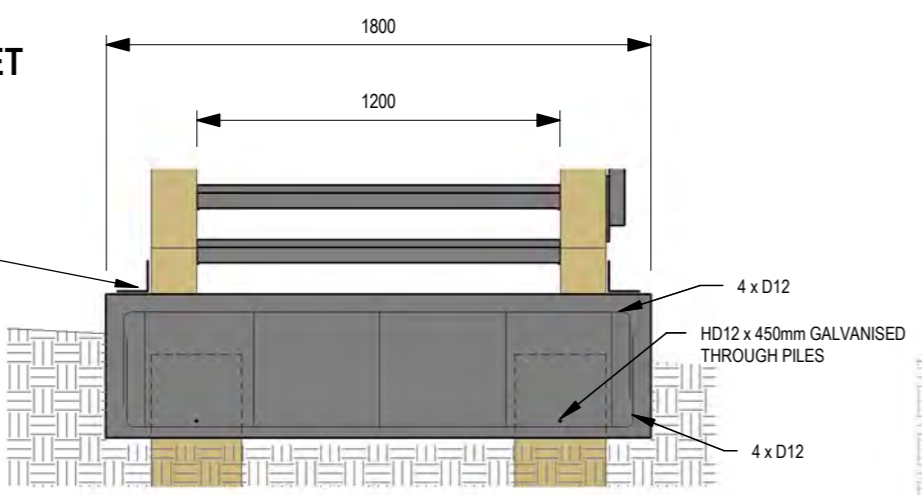
- CAST OM SITU
- 50 MPa CONCRETE
- MINIMUM 60mm COVER



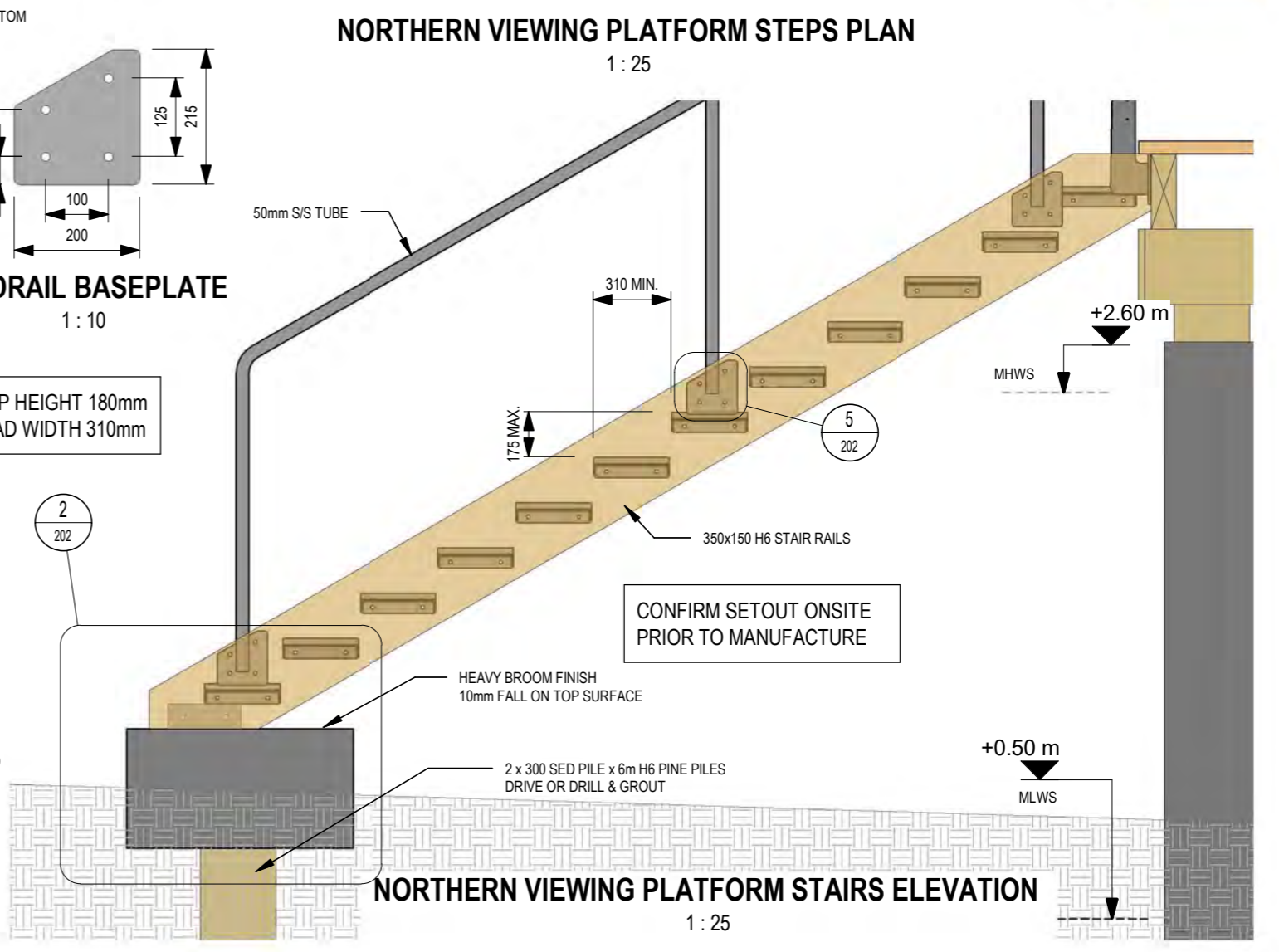
MAXIMUM STEP HEIGHT 180mm  
MINIMUM TREAD WIDTH 310mm



**STAIR/CONCRETE BRACKET**  
1 : 10



**NORTHERN VIEWING PLATFORM STEPS FOUNDATION ELEVATION**  
1 : 25



**NORTHERN VIEWING PLATFORM STEPS PLAN**  
1 : 25

**NORTHERN VIEWING PLATFORM STEPS ELEVATION**  
1 : 25

FOR DETAILS ON STEP FABRICATION, SEE SHEET 205

CONFIRM SETOUT ONSITE PRIOR TO MANUFACTURE

Pld Date: 8/07/2021 11:47:18 am



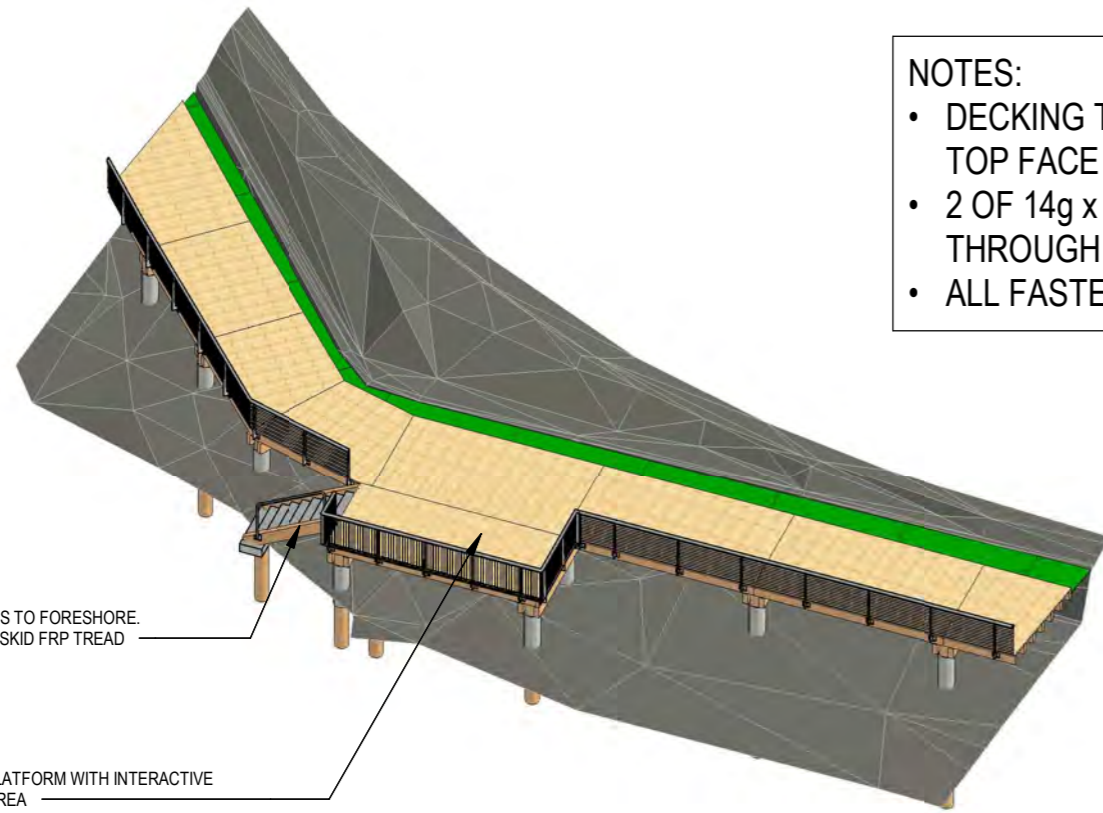
www.shorewise.co.nz



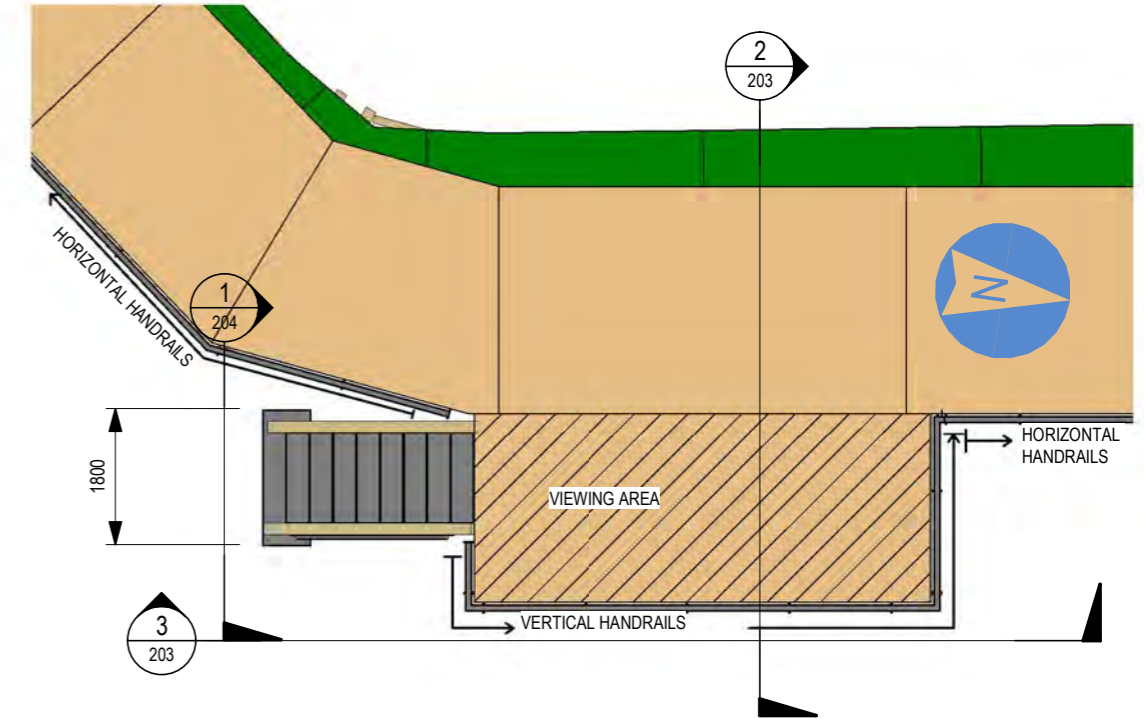
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REV	DETAILS	DATE
0	ISSUED FOR TENDER	16/04/2021
1	ISSUED FOR CONSTRUCTION	08/07/2021

PROJECT	STATUS
MANGONUI WATERFRONT	FOR CONSTRUCTION
SHEET DESCRIPTION	DRAWN BY
NORTHERN VIEWING PLATFORM STEPS DETAILS	MW
	APPROVED BY
	RB
	PROJECT NO.
	19-1021
	SHEET NO.
	202
	SHT
	A3
	REV
	1

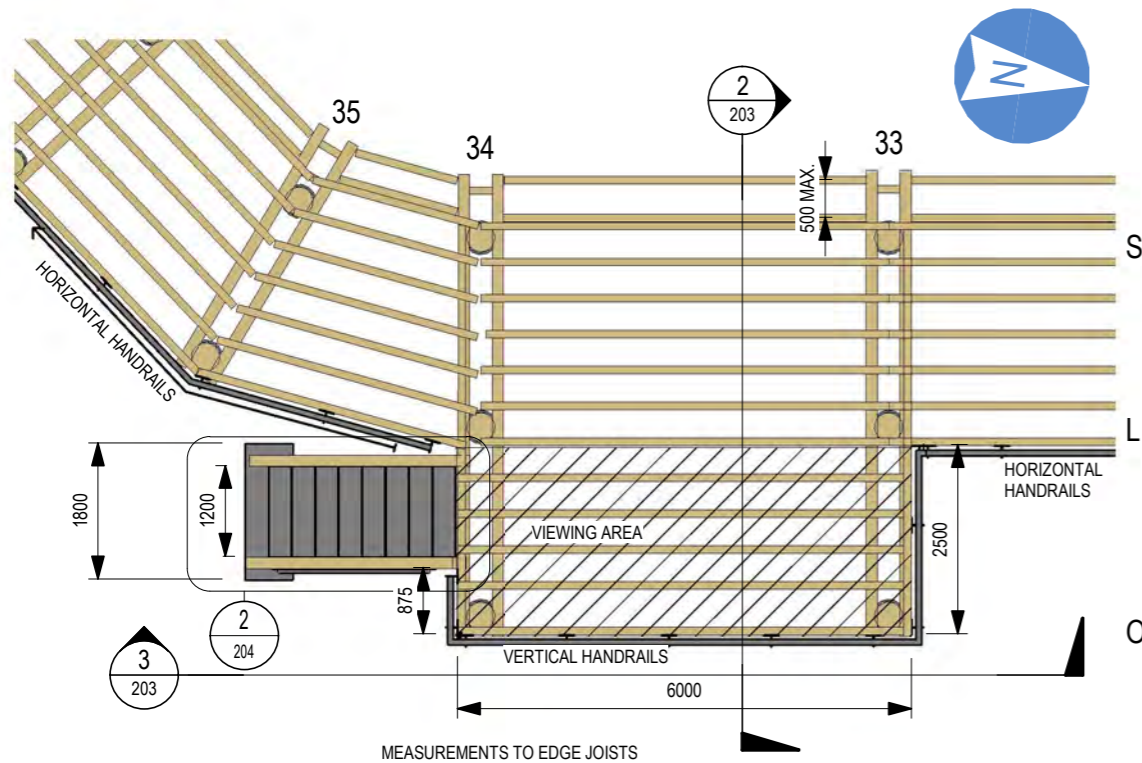


- NOTES:
- DECKING TO HAVE BANDSAWN TOP FACE FOR GRIP
  - 2 OF 14g x 125mm CSK SCREWS THROUGH EACH PLANK
  - ALL FASTENERS 316 S/S

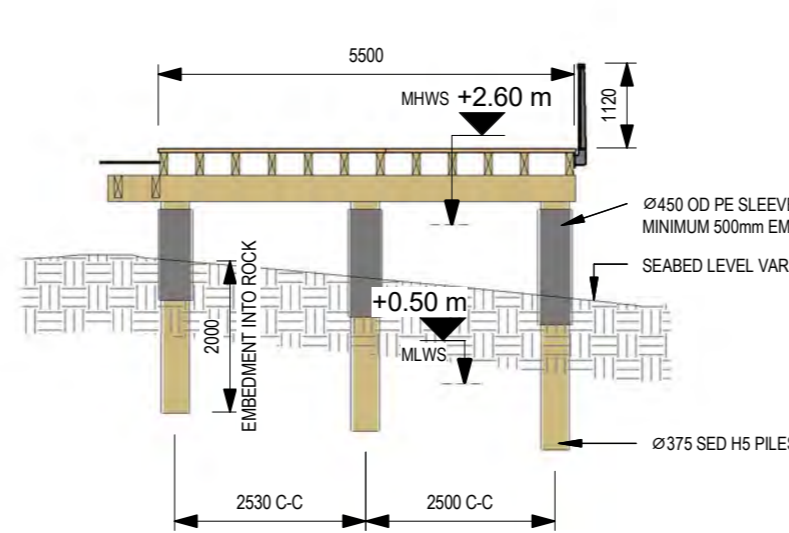


**SOUTHERN VIEWING PLATFORM PLAN**  
1 : 100

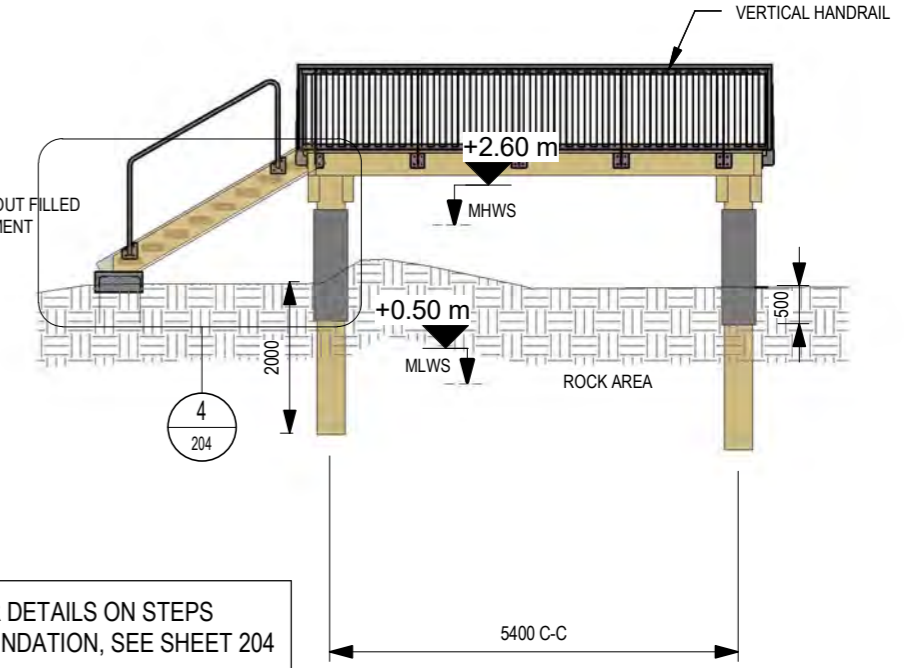
**SOUTHERN VIEWING PLATFORM**



**SOUTHERN VIEWING PLATFORM FRAMING PLAN**  
1 : 100



**2. SOUTHERN VIEWING SECTION**  
1 : 100



**3. SOUTHERN VIEWING PLATFORM ELEVATION**  
1 : 100

FOR DETAILS ON STEPS  
FOUNDATION, SEE SHEET 204

Filename: Pld Date: 9/07/2021 11:47:21 am



CLIENT



REV	DETAILS	DATE
0	ISSUED FOR REVIEW	30/03/2021
1	ISSUED FOR TENDER	16/04/2021
2	ISSUED FOR CONSTRUCTION	08/07/2021

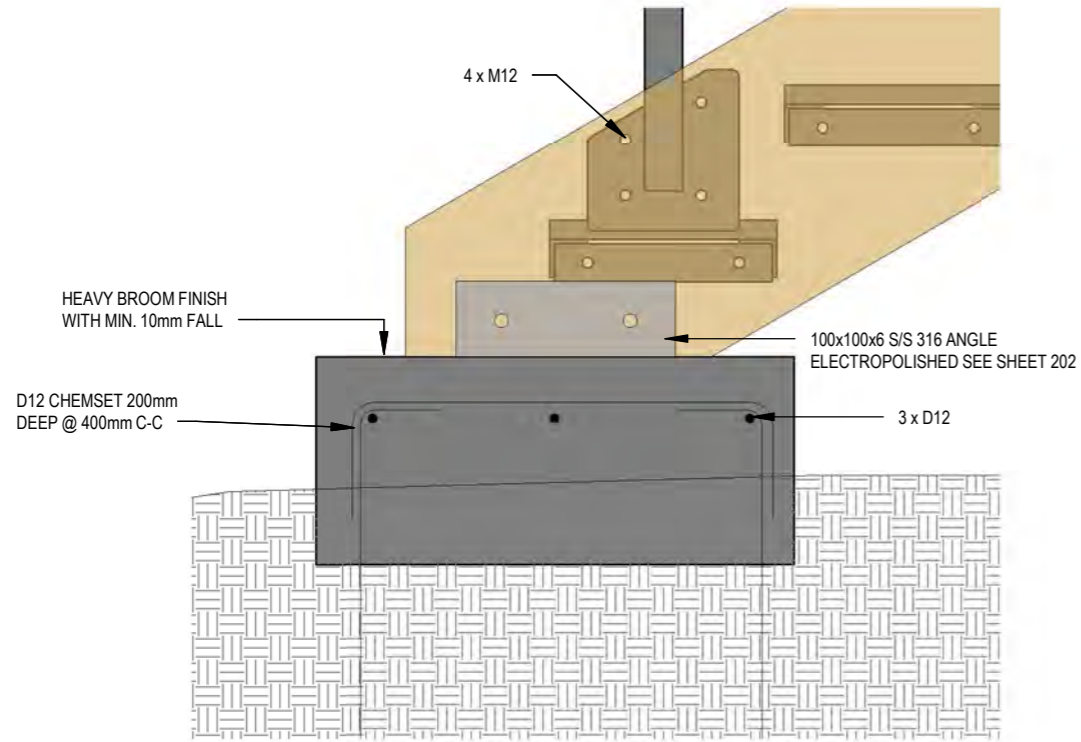
PROJECT
MANGONUI WATERFRONT
SHEET DESCRIPTION
SOUTHERN VIEWING PLATFORM

STATUS		
FOR CONSTRUCTION		
DRAWN BY	APPROVED BY	SHT
MW	RB	A3
PROJECT NO.	SHEET NO.	REV
19-1021	203	2

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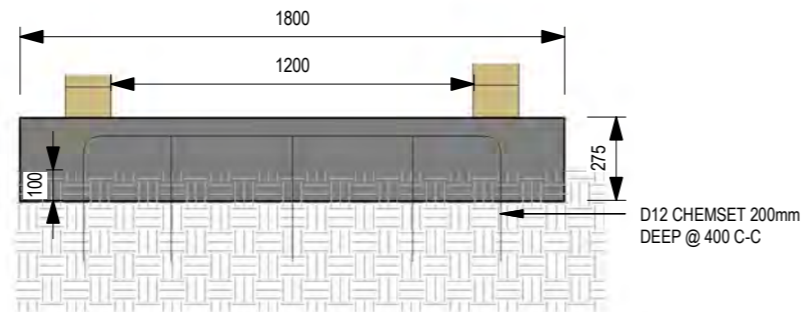
www.shorewise.co.nz

NOTES:  
 • CAST IN SITU  
 • 50 MPa CONCRETE  
 • MINIMUM 60mm COVER

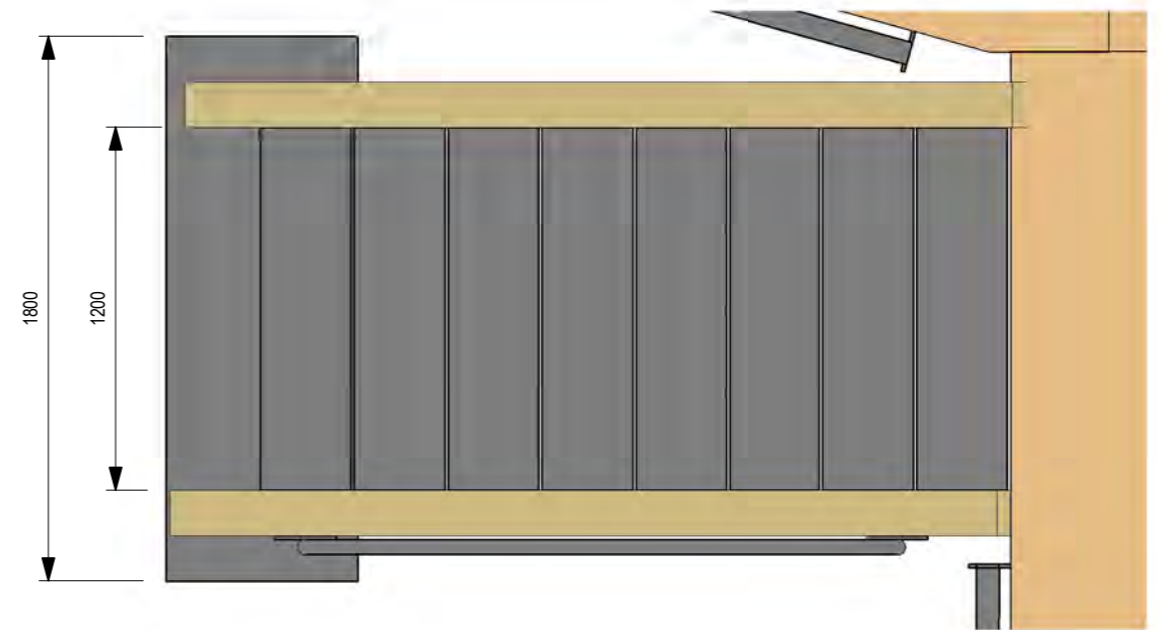


3. FOUNDATION SECTION DETAIL  
1 : 10

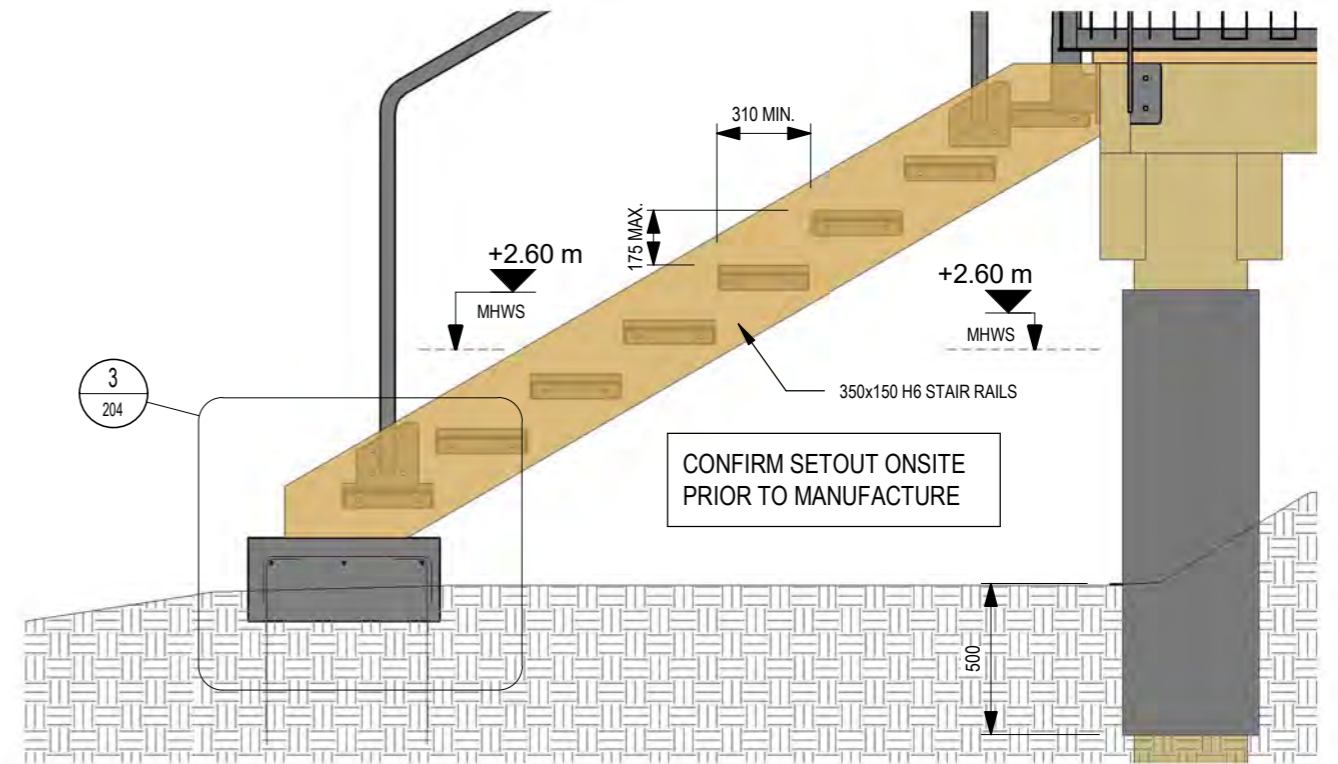
FOR DETAILS ON STEP FABRICATION, SEE SHEET 205



SOUTHERN VIEWING PLATFORM STEPS FOUNDATION ELEVATION  
1 : 25



SOUTHERN VIEWING PLATFORM STEPS PLAN  
1 : 25

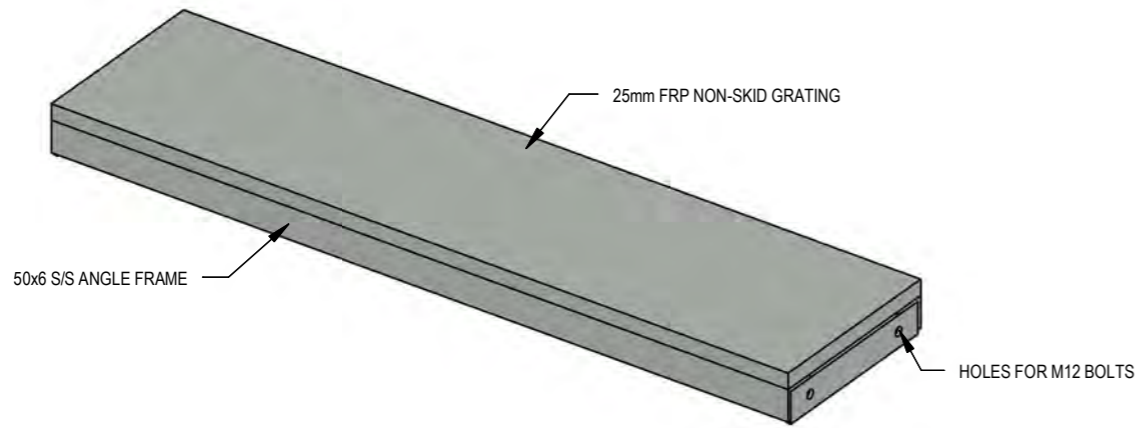


4. SOUTHERN VIEWING PLATFORM STEPS FOUNDATION  
1 : 25

REV	DETAILS	DATE
0	ISSUED FOR TENDER	16/04/2021
1	ISSUED FOR CONSTRUCTION	08/07/2021

PROJECT
MANGONUI WATERFRONT
SHEET DESCRIPTION
SOUTHERN VIEWING PLATFORM STEPS

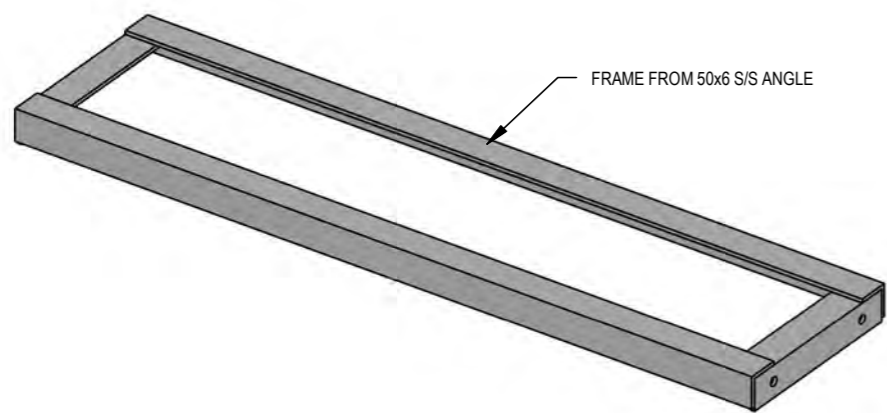
STATUS		
FOR CONSTRUCTION		
DRAWN BY	APPROVED BY	SHT
MW	RB	A3
PROJECT NO.	SHEET NO.	REV
19-1021	204	1



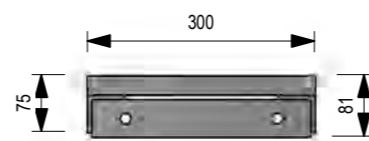
**FRP STEP 3D**



**FRP STEP 3D - UNDERSIDE**



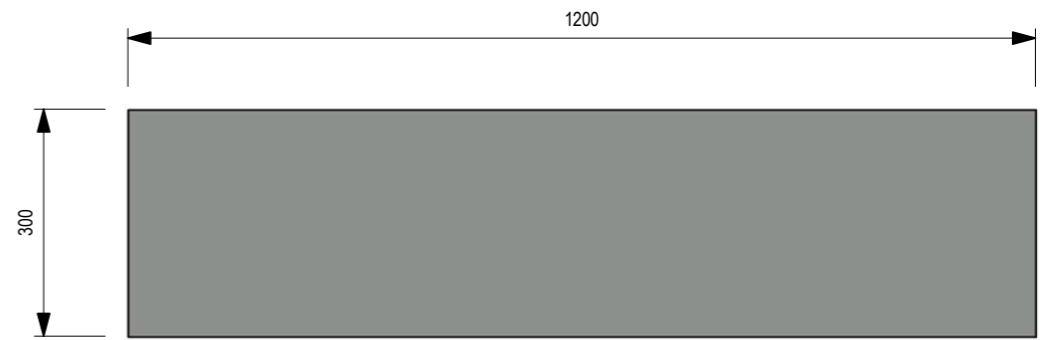
**FRP STEP 3D - FRAME ONLY**



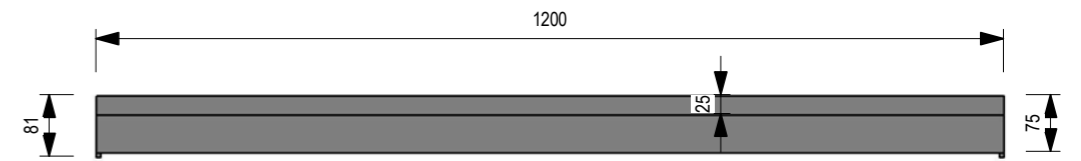
**FRP SECTION  
1:10**

**NOTES:**

- 12 REQUIRED FOR NORTHERN VIEWING PLATFORM STEPS
- 8 REQUIRED FOR SOUTHERN VIEWING PLATFORM STEPS
- CONFIRM SETOUT ON SITE PRIOR TO MANUFACTURE



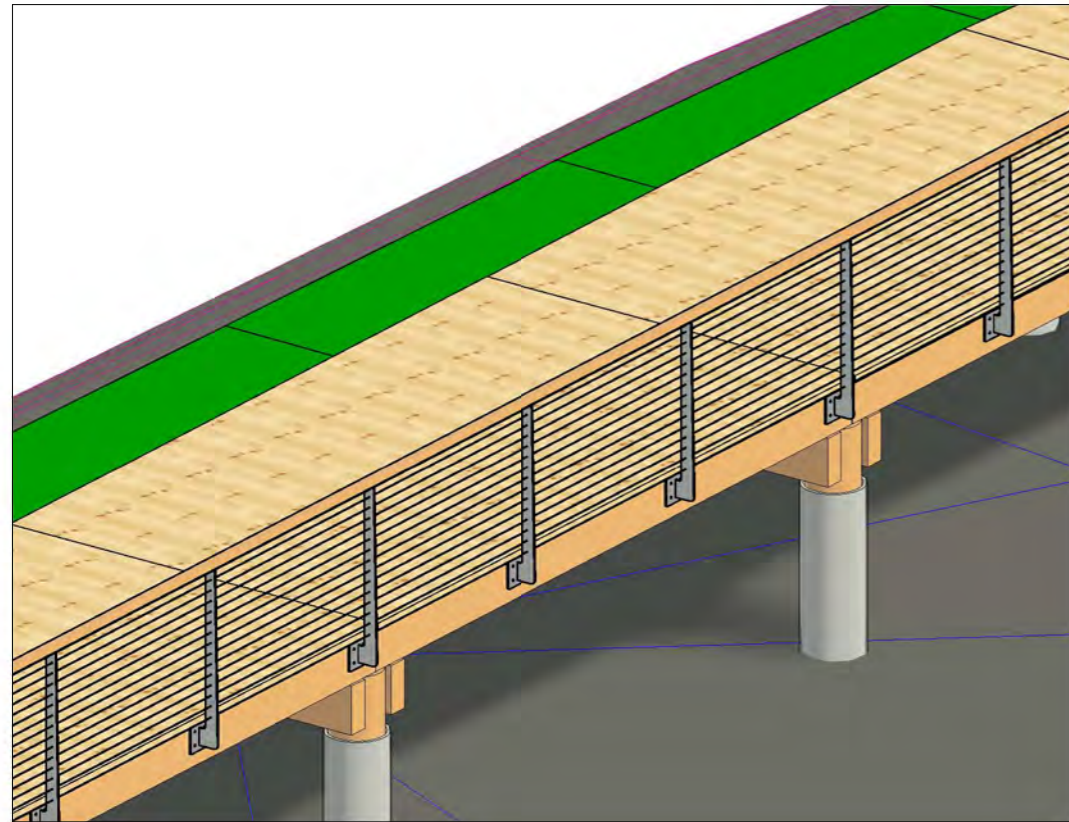
**FRP STEP PLAN  
1:10**



**FRP STEP ELEVATION  
1:10**

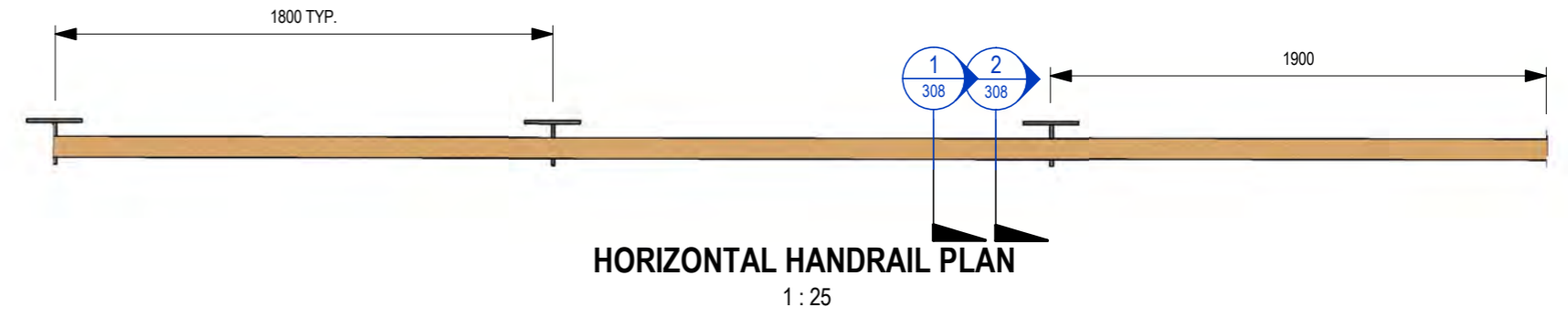
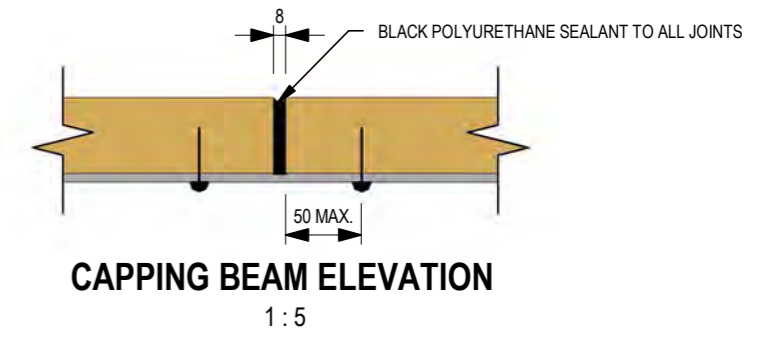
Pldt Date: 08/07/2021 11:47:32 am

REV	DETAILS	DATE	PROJECT	STATUS		
0	ISSUED FOR TENDER	16/04/2021	MANGONUI WATERFRONT	FOR CONSTRUCTION		
1	ISSUED FOR CONSTRUCTION	08/07/2021				
			<b>SHEET DESCRIPTION</b>	<b>DRAWN BY</b>	<b>APPROVED BY</b>	<b>SHT</b>
			FRP STEPS DETAILS	MW	RB	A3
				<b>PROJECT NO.</b>	<b>SHEET NO.</b>	<b>REV</b>
				19-1021	205	1

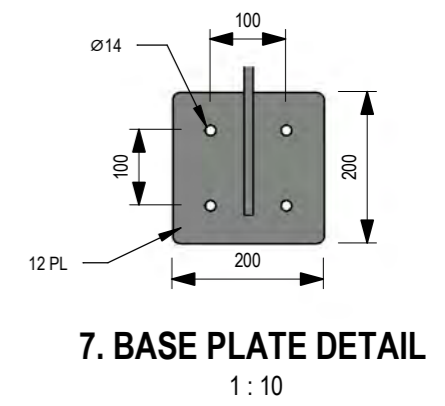
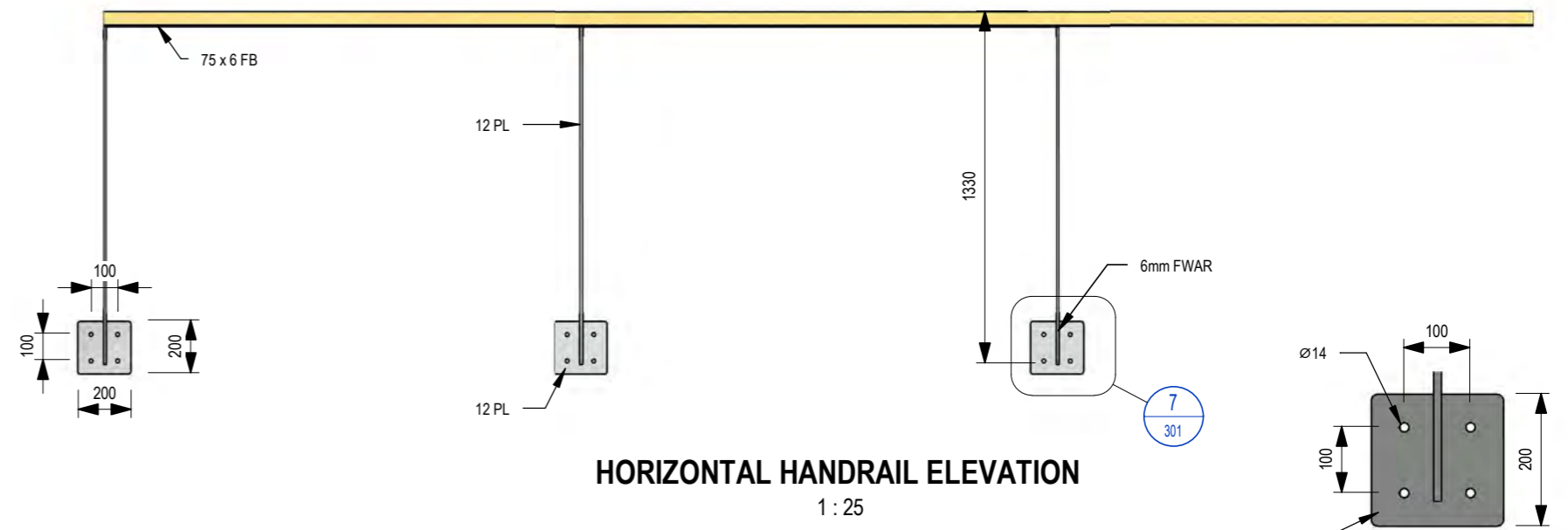
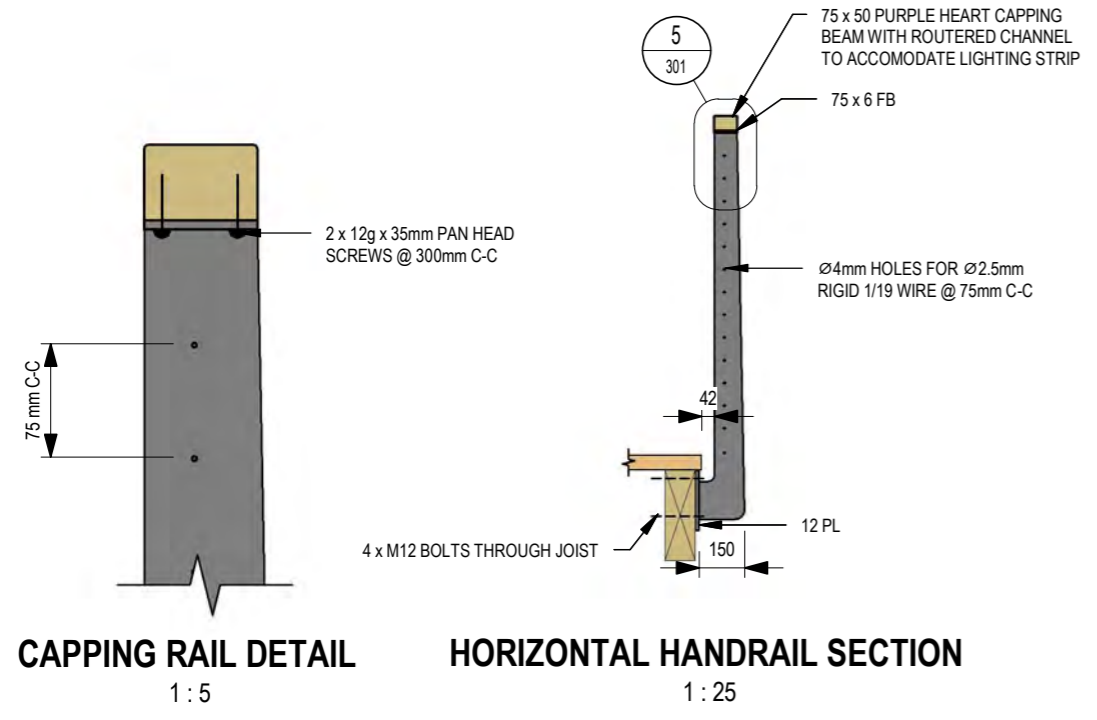


**HORIZONTAL HANDRAIL 3D**

- STANDARD ARRANGEMENT FOR HORIZONTAL HANDRAILS
- FREE END TO BE SITE WELDED TO NEXT SECTION
  - SOME SECTIONS WILL BE SHORTER THAN 1800mm
  - TO BE FABRICATED FROM 316 STAINLESS STEEL
  - TENSIONER POST EVERY APPROX. 27m (MAX.)
  - MILL FINISH
  - ALL PARTS ELECTROPOLISHED
  - HOLES IN TOP S/S RAIL FOR LED LIGHTING DETAILED ON SHEET 308

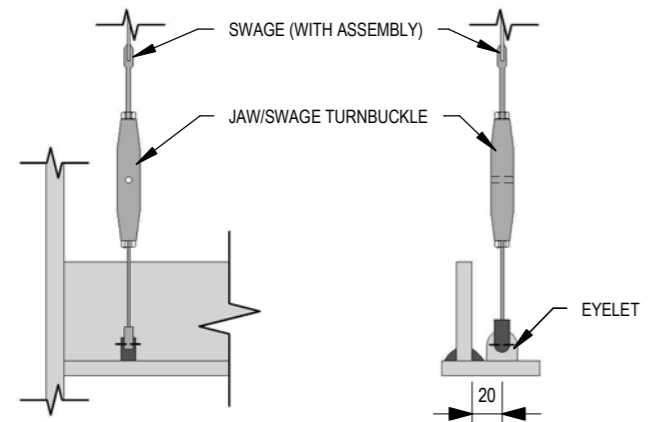


LASER CUT HOLES IN TOP FLAT BAR AS REQUIRED TO HOUSE HANDRAIL LIGHTING. LIGHTING SUPPLY AND INSTALLATION BY OTHERS

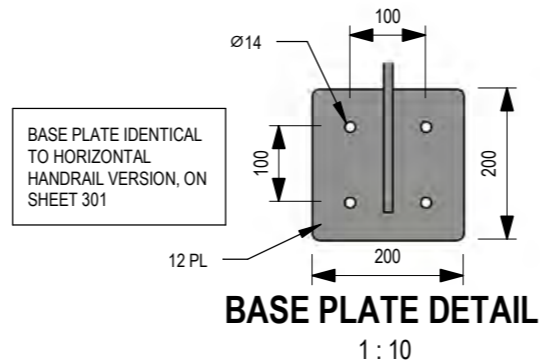


Pldt Date: 08/07/2021 11:47:35 am

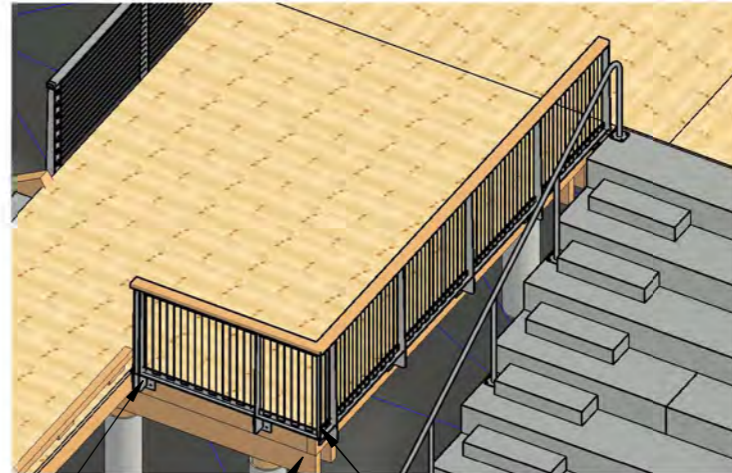
REV	DETAILS	DATE	PROJECT	STATUS		
0	ISSUED FOR TENDER	16/04/2021	MANGONUI WATERFRONT	FOR CONSTRUCTION		
1	ISSUED FOR CONSTRUCTION	08/07/2021				
			SHEET DESCRIPTION	DRAWN BY	APPROVED BY	SHT
			HORIZONTAL HANDRAIL	MW	RB	A3
				PROJECT NO.	SHEET NO.	REV
				19-1021	301	1



**VERTICAL TENSIONER - END OF ROW**  
1 : 5



**BASE PLATE DETAIL**  
1 : 10

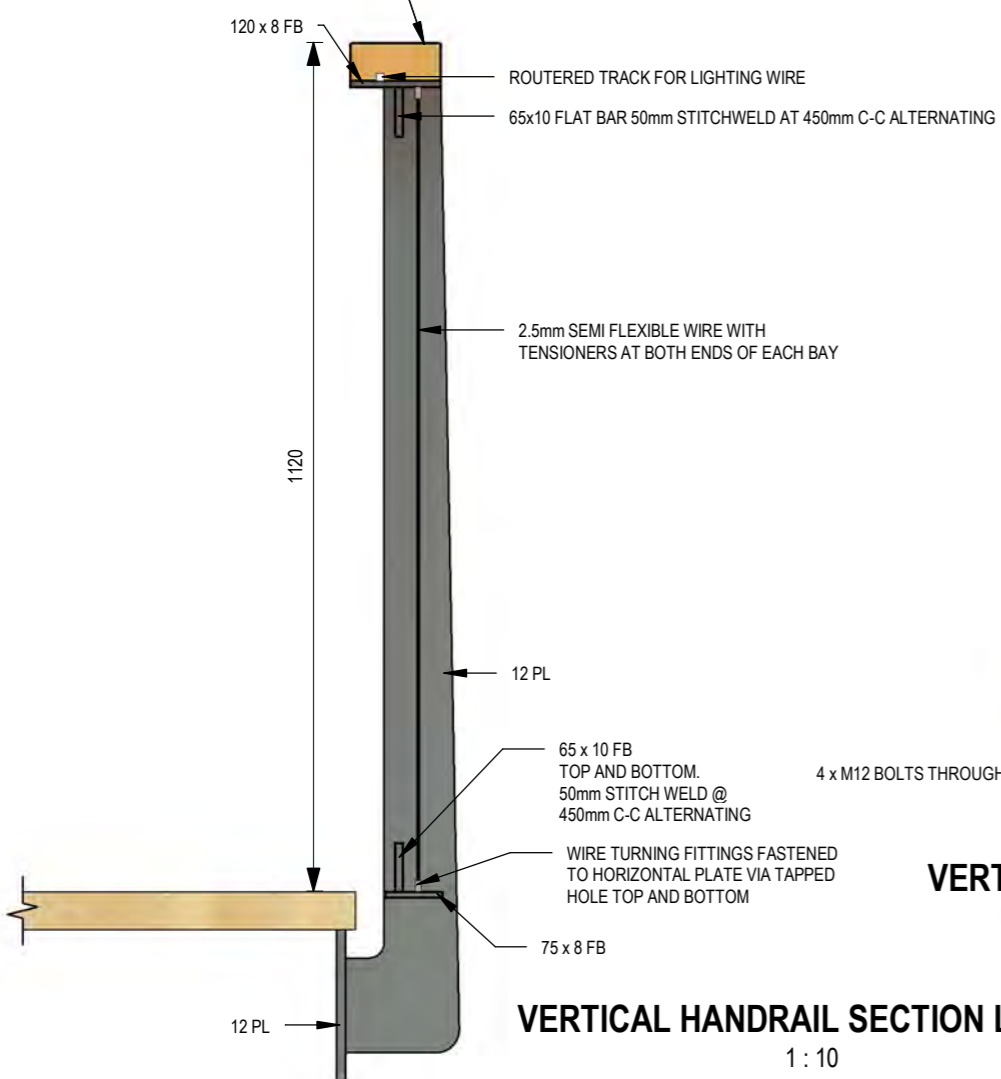


**VERTICAL HANDRAIL 3D**

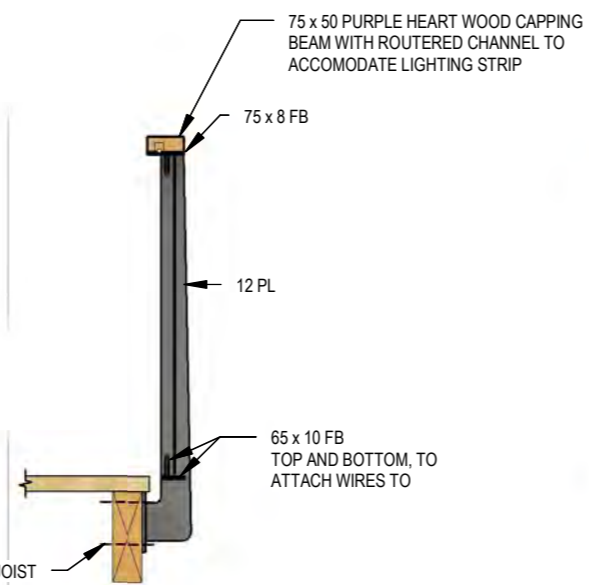
- STANDARD ARRANGEMENT FOR VERTICAL HANDRAILS**
- TO BE FABRICATED FROM 316 STAINLESS STEEL
  - MILL FINISH
  - ALL PARTS ELECTROPOLISHED
  - ALL CONNECTIONS FULLY WELDED UNLESS NOTED OTHERWISE
  - HOLES IN TOP S/S RAIL FOR LED LIGHTING DETAILED ON SHEET 308

120 x 50 PURPLE HEART WOOD CAPPING BEAM WITH ROUTERED CHANNEL TO ACCOMMODATE LIGHTING STRIP

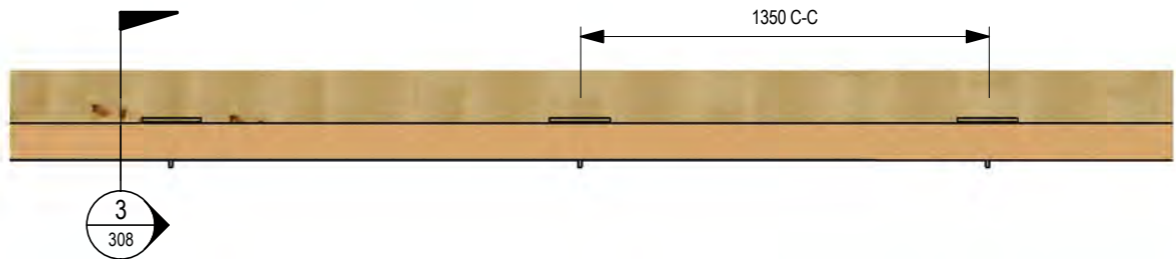
LASER CUT HOLES IN TOP FLAT BAR AS REQUIRED TO HOUSE HANDRAIL LIGHTING. LIGHTING SUPPLY AND INSTALLATION BY OTHERS



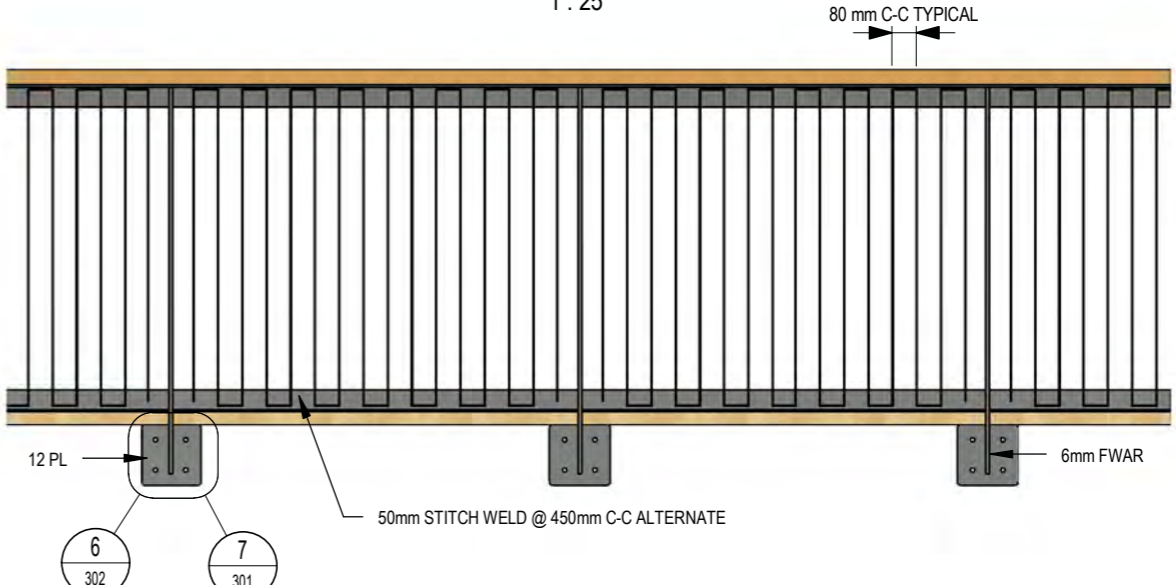
**VERTICAL HANDRAIL SECTION LARGE**  
1 : 10



**VERTICAL HANDRAIL SECTION**  
1 : 25



**VERTICAL HANDRAIL PLAN**  
1 : 25



**VERTICAL HANDRAIL ELEVATION**  
1 : 25

Filename: Pld Date: 8/07/2021 11:47:41 am



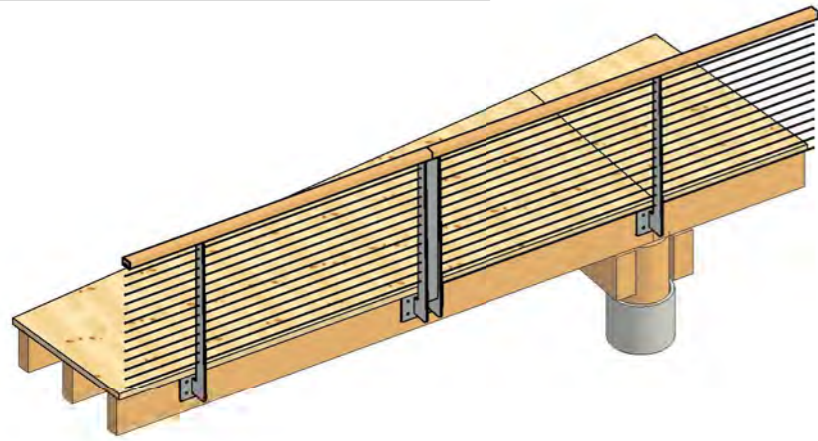
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REV	DETAILS	DATE
0	ISSUED FOR TENDER	16/04/2021
1	ISSUED FOR CONSTRUCTION	08/07/2021

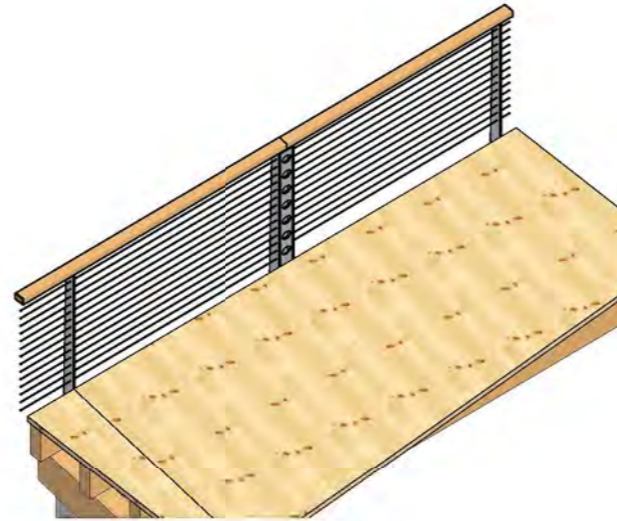
PROJECT	STATUS
MANGONUI WATERFRONT	FOR CONSTRUCTION
<b>SHEET DESCRIPTION</b>	<b>DRAWN BY</b>
VERTICAL HANDRAIL DETAILS	MW
	<b>APPROVED BY</b>
	RB
	<b>SHT</b>
	A3
	<b>PROJECT NO.</b>
	19-1021
	<b>SHEET NO.</b>
	302
	<b>REV</b>
	1



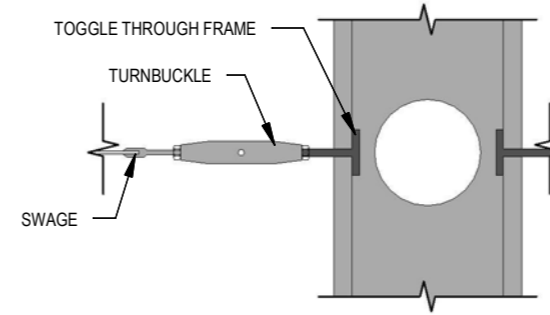
TENSIONER POST FOR HORIZONTAL



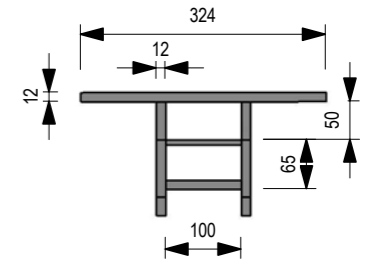
TENSIONER 3D FRONT



TENSIONER 3D BACK

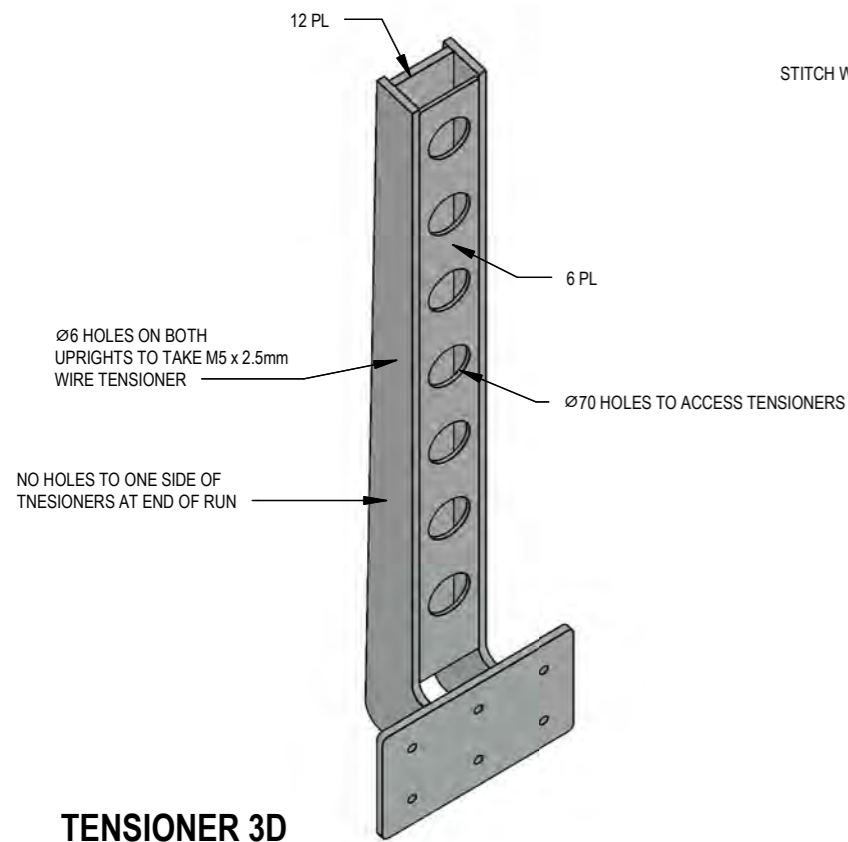


HORIZONTAL TENSIONER UNIT  
1:5

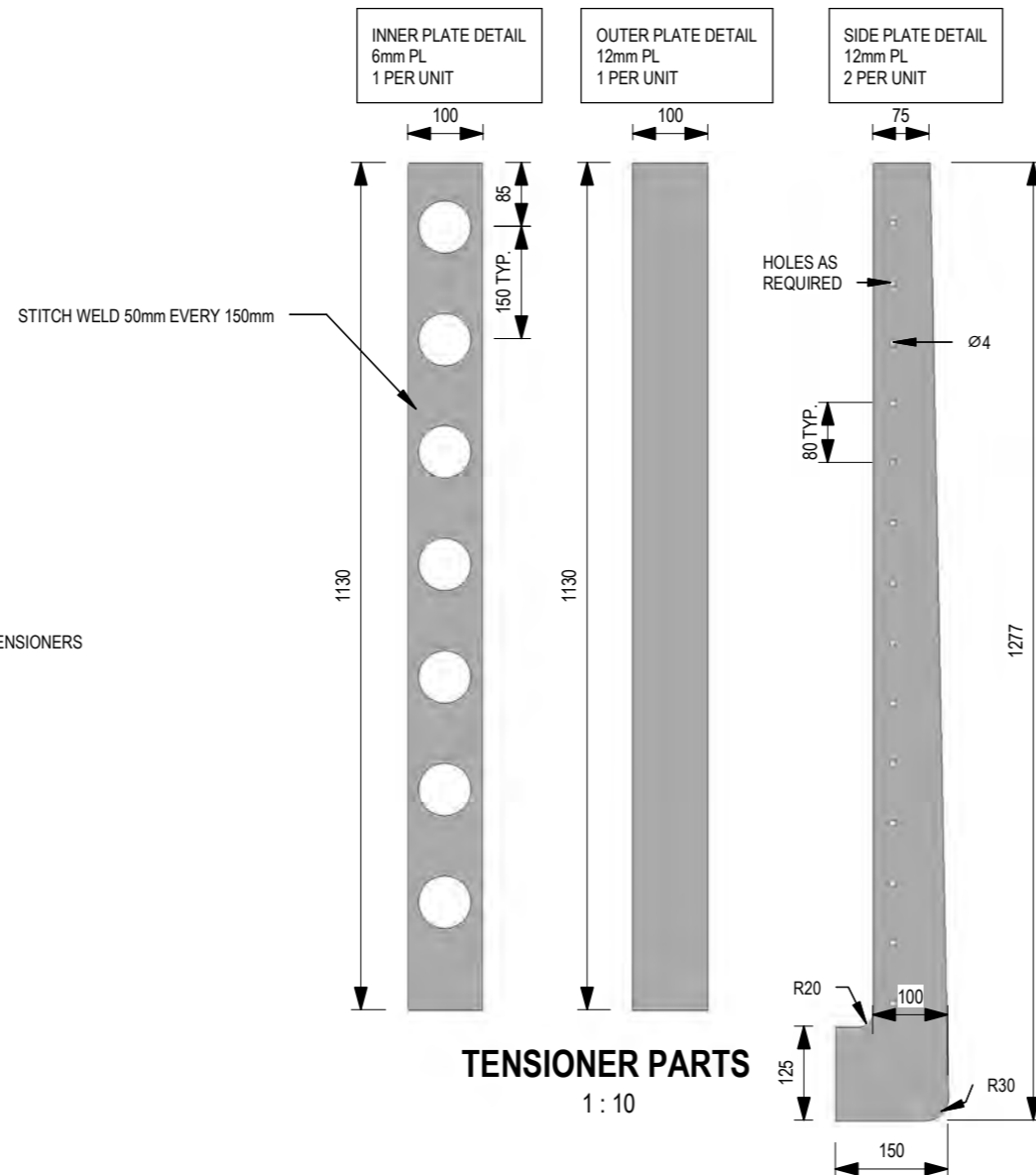


TENSIONER PLAN  
1:10

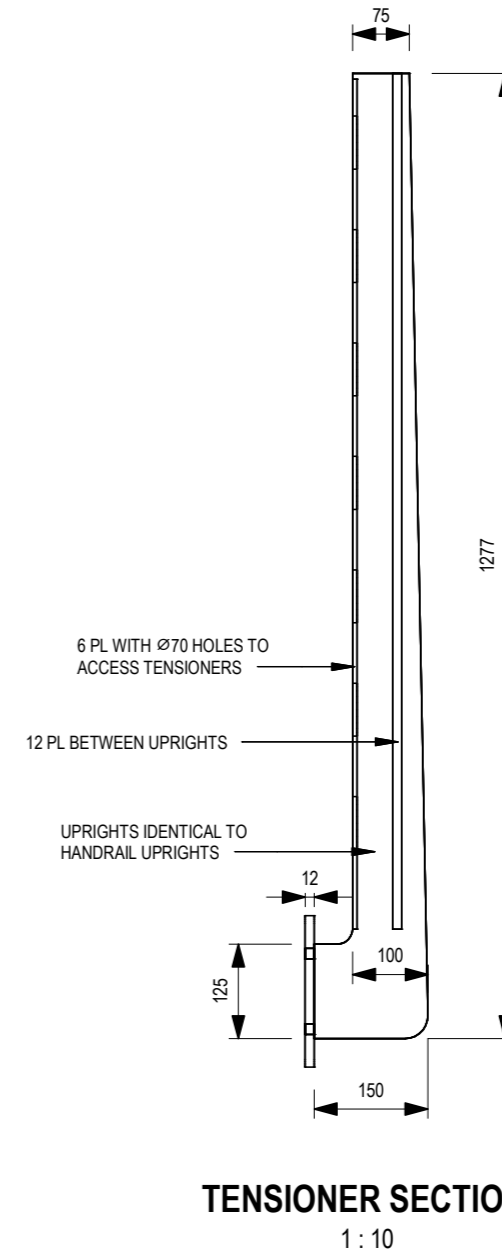
2.5mm RIGID WIRE 1/19mm  
TENSIONER AT EACH END OF  
EVERY HORIZONTAL WIRE



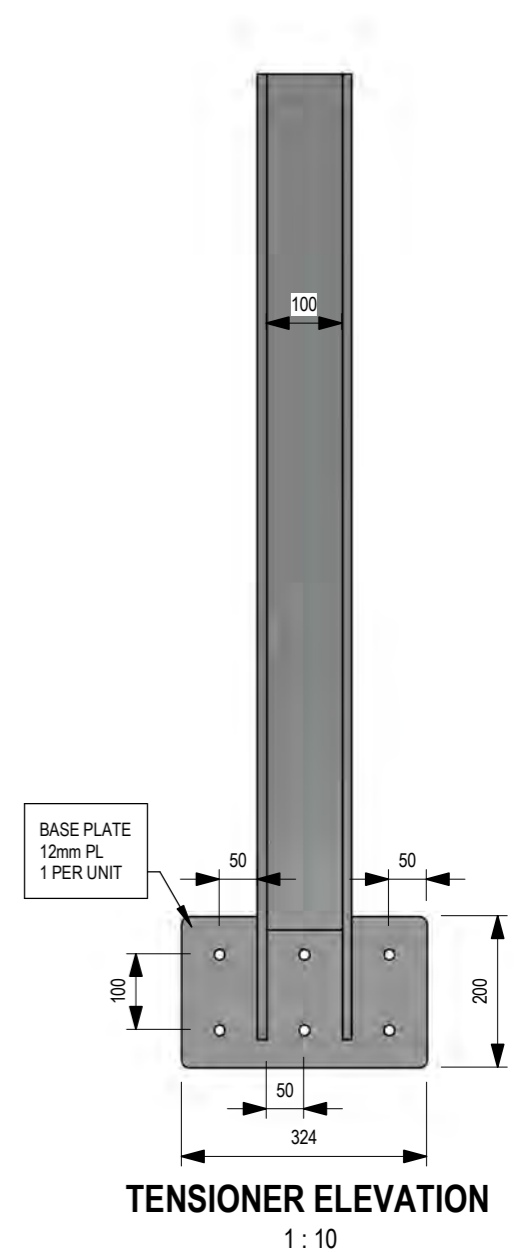
TENSIONER 3D



TENSIONER PARTS  
1:10



TENSIONER SECTION  
1:10



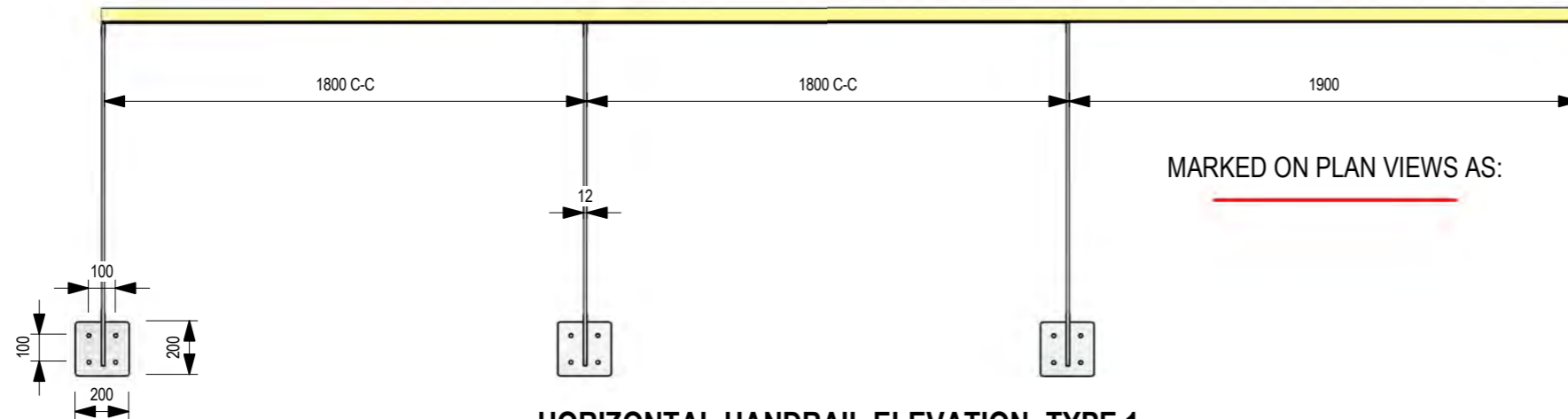
TENSIONER ELEVATION  
1:10

File name: Pict Date: 9/07/2021 11:47:45 am

REV	DETAILS	DATE
0	ISSUED FOR TENDER	16/04/2021
1	ISSUED FOR CONSTRUCTION	08/07/2021

PROJECT
MANGONUI WATERFRONT
SHEET DESCRIPTION
TENSIONER POST

STATUS		
FOR CONSTRUCTION		
DRAWN BY	APPROVED BY	SHT
MW	RB	A3
PROJECT NO.	SHEET NO.	REV
19-1021	303	1

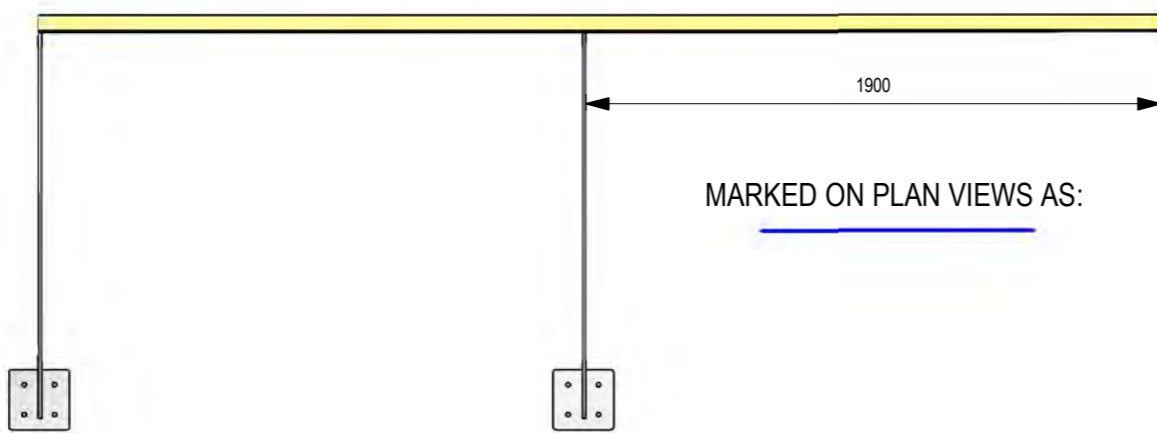


**HORIZONTAL HANDRAIL ELEVATION -TYPE 1**

1 : 25

MARKED ON PLAN VIEWS AS:

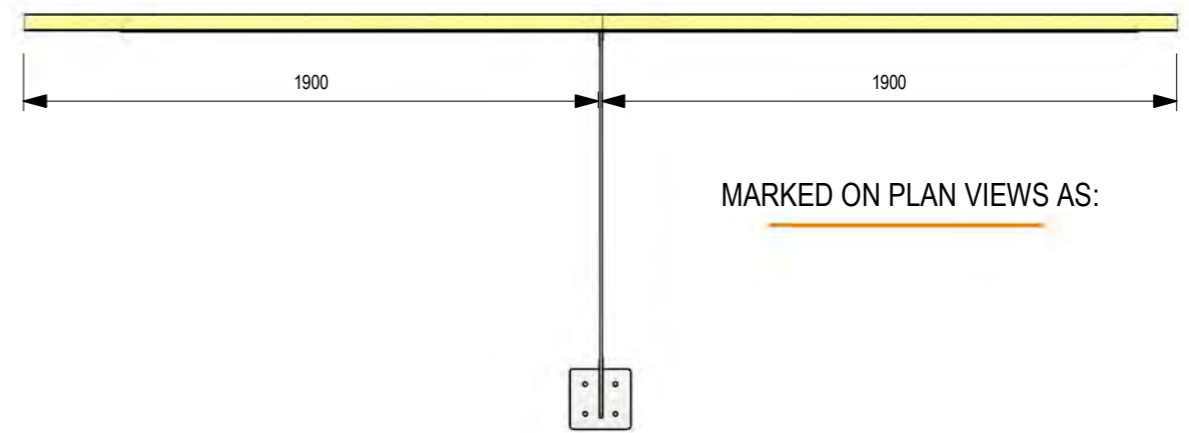
- NOTES:**
- FOR FULL FABRICATION DETAILS, SEE SHEET 301
  - TRIMMING OF FREE END OF HANDRAIL REQUIRED WHEN INSTALLING. MEASURE ON SITE
  - FOR LOCATIONS OF TYPES, SEE SHEETS 305, 306, AND 307
  - HOLES IN TOP S/S RAIL FOR LED LIGHTING TO BE CONFIRMED



**HORIZONTAL HANDRAIL ELEVATION -TYPE 2**

1 : 25

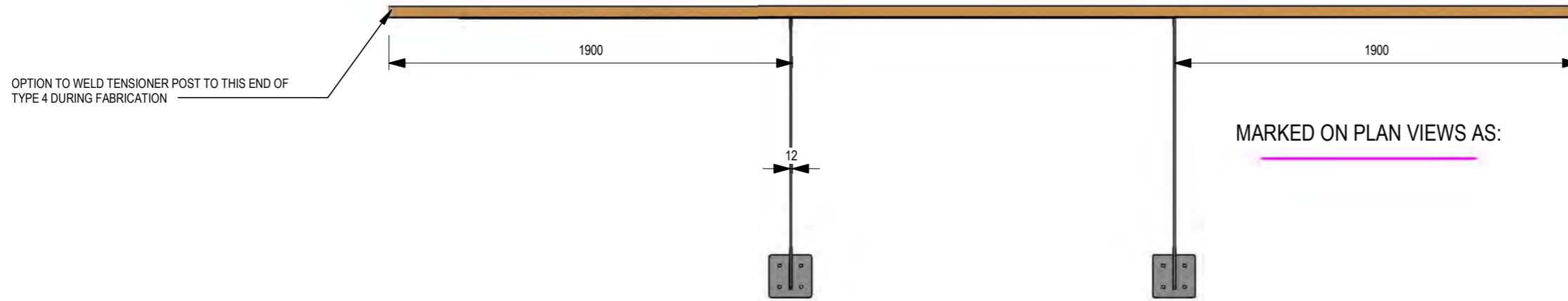
MARKED ON PLAN VIEWS AS:



**HORIZONTAL HANDRAIL ELEVATION -TYPE 3**

1 : 25

MARKED ON PLAN VIEWS AS:



**HORIZONTAL HANDRAIL ELEVATION -TYPE 4**

1 : 25

MARKED ON PLAN VIEWS AS:

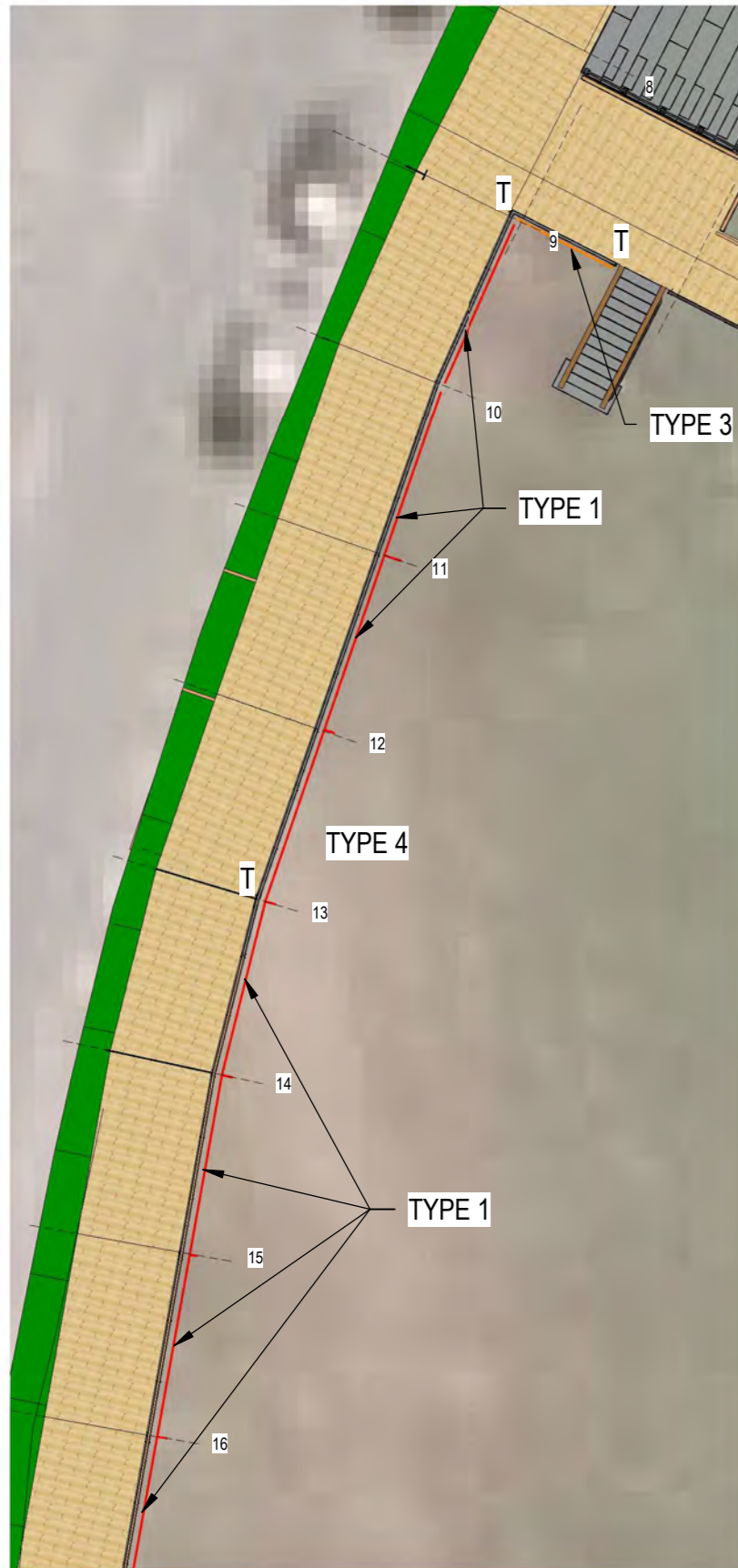
Pld Date: 8/07/2021 11:47:50 am

REV	DETAILS	DATE
0	ISSUED FOR TENDER	16/04/2021
1	ISSUED FOR CONSTRUCTION	08/07/2021

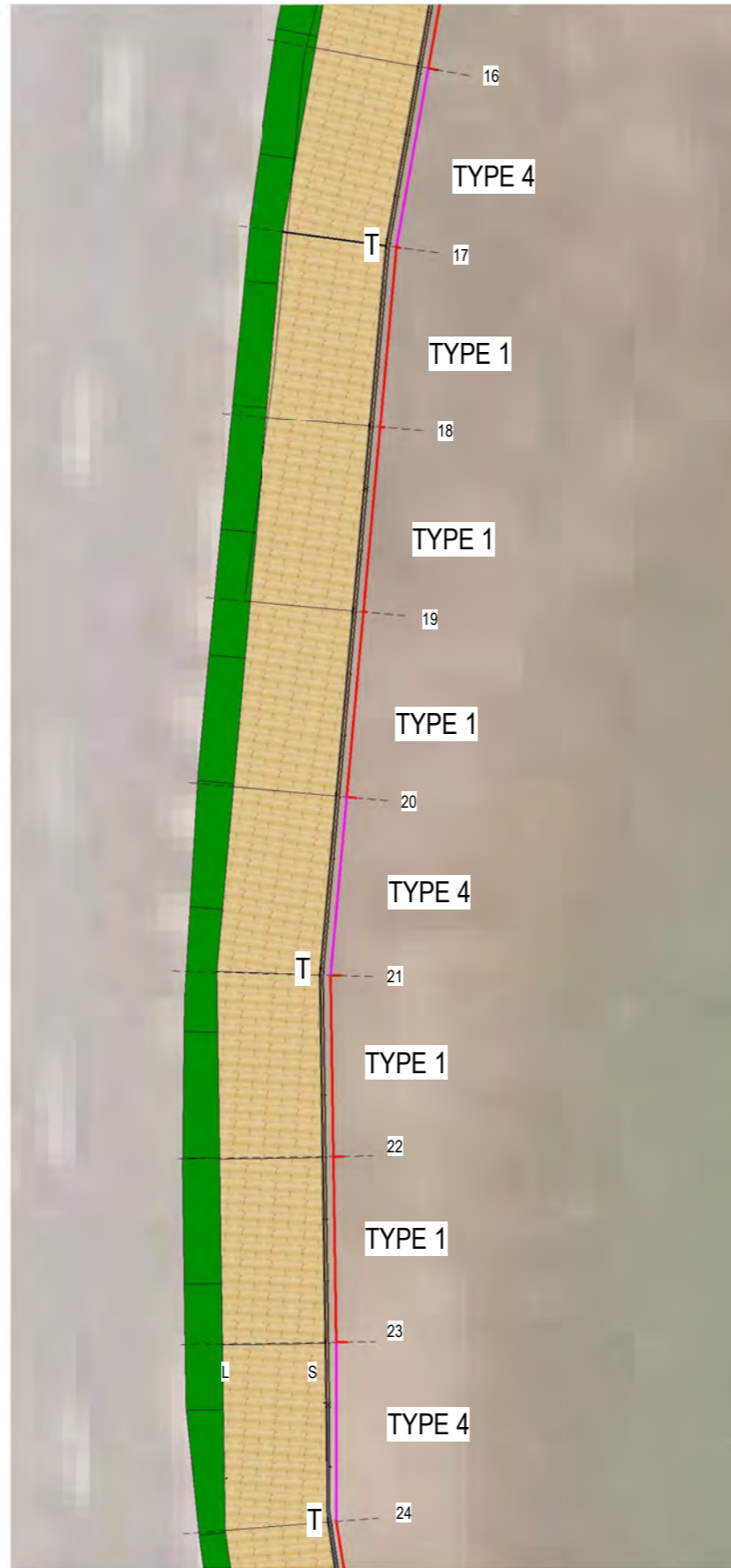
PROJECT
MANGONUI WATERFRONT
SHEET DESCRIPTION
PRE-FABRICATED HORIZONTAL HANDRAIL TYPES

STATUS		
FOR CONSTRUCTION		
DRAWN BY	APPROVED BY	SHT
MW	RB	A3
PROJECT NO.	SHEET NO.	REV
19-1021	304	1

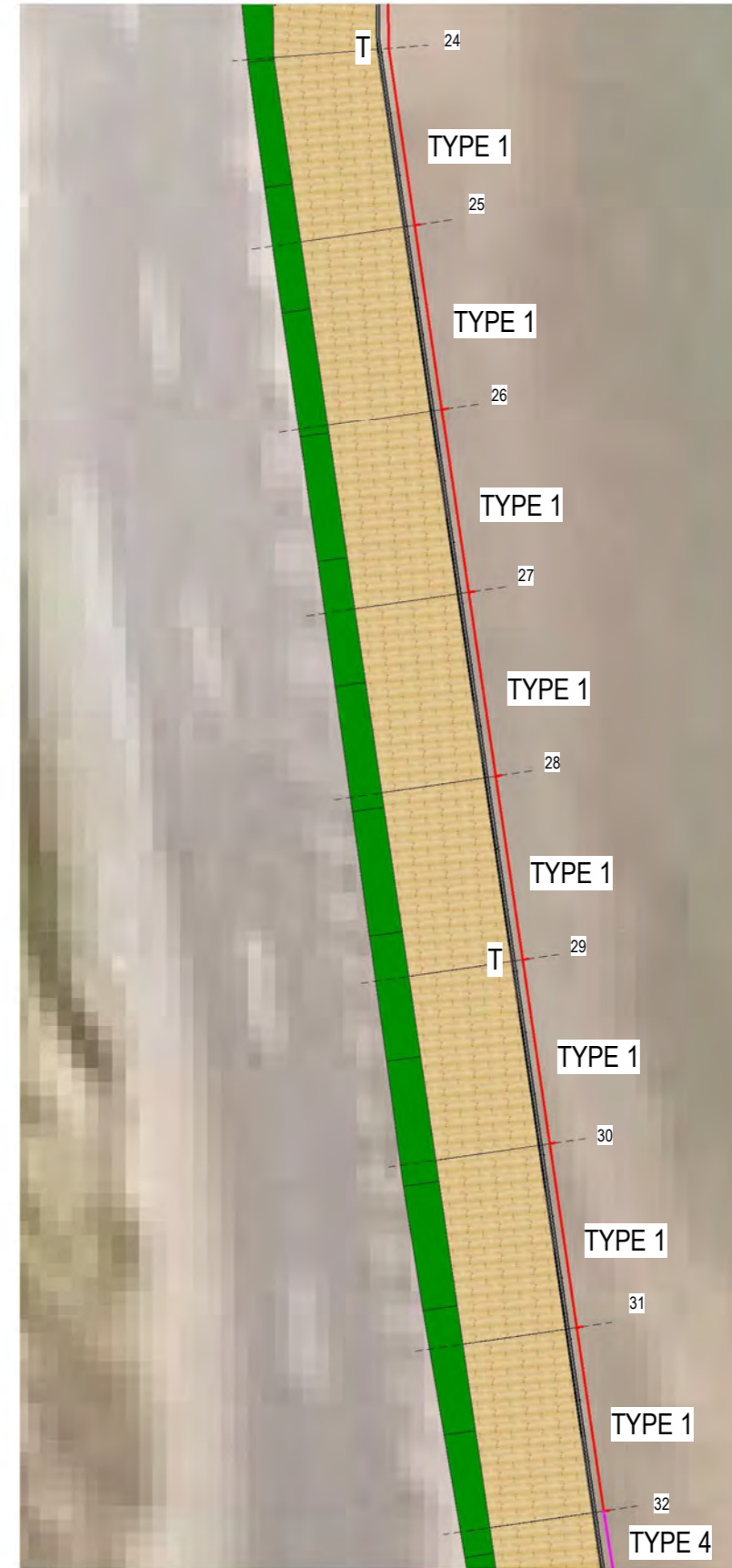
Filename: Pldt Date: 8/07/2021 11:47:54 am



**HANDRAIL RUNS 1**  
1 : 200



**HANDRAIL RUNS 2**  
1 : 200



**HANDRAIL RUNS 3**  
1 : 200

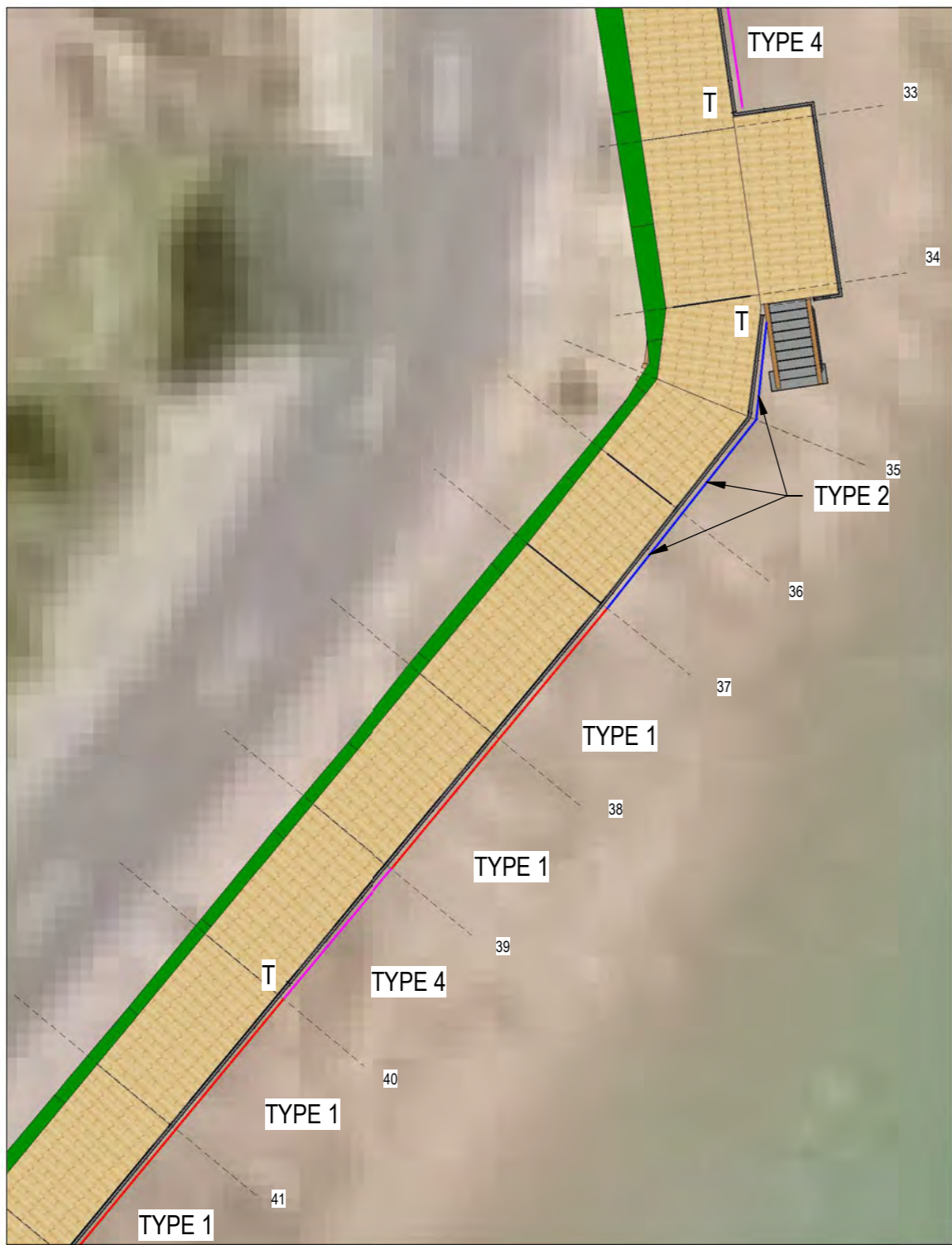
**NOTES:**

- T = TENSIONER POST
- FOR PRE-FABRICATED HANDRAIL TYPES SEE SHEET 304

REV	DETAILS	DATE
0	ISSUED FOR TENDER	16/04/2021
1	ISSUED FOR CONSTRUCTION	08/07/2021

PROJECT
MANGONUI WATERFRONT
SHEET DESCRIPTION
HORIZONTAL HANDRAIL RUNS 1

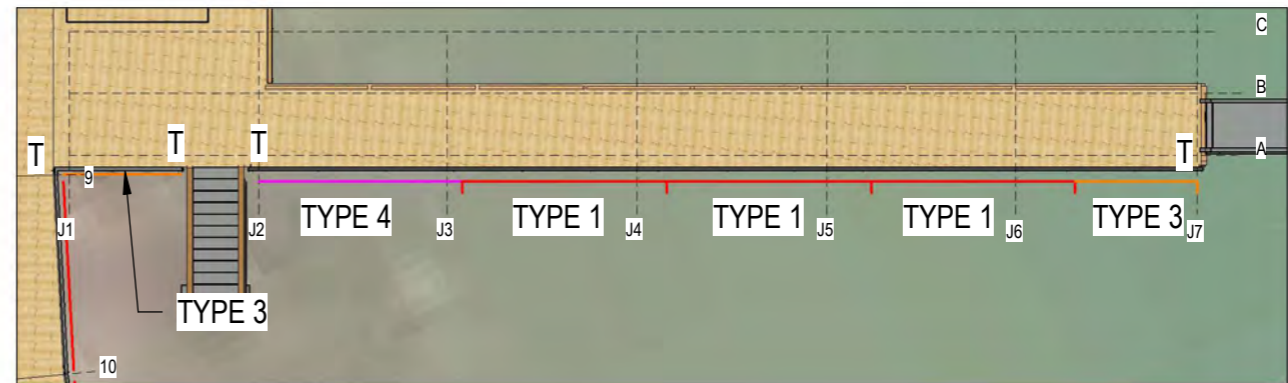
STATUS		
FOR CONSTRUCTION		
DRAWN BY	APPROVED BY	SHT
MW	RB	A3
PROJECT NO.	SHEET NO.	REV
19-1021	305	1



**HANDRAIL RUNS 4**  
1 : 200



**HANDRAIL RUNS 5**  
1 : 200



**HANDRAIL RUNS JETTY**  
1 : 200

- NOTES:**
- T = TENSIONER POST
  - FOR PRE-FABRICATED HANDRAIL TYPES SEE SHEET 304

Filename: Pld Date: 8/07/2021 11:47:57 am



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CLIENT

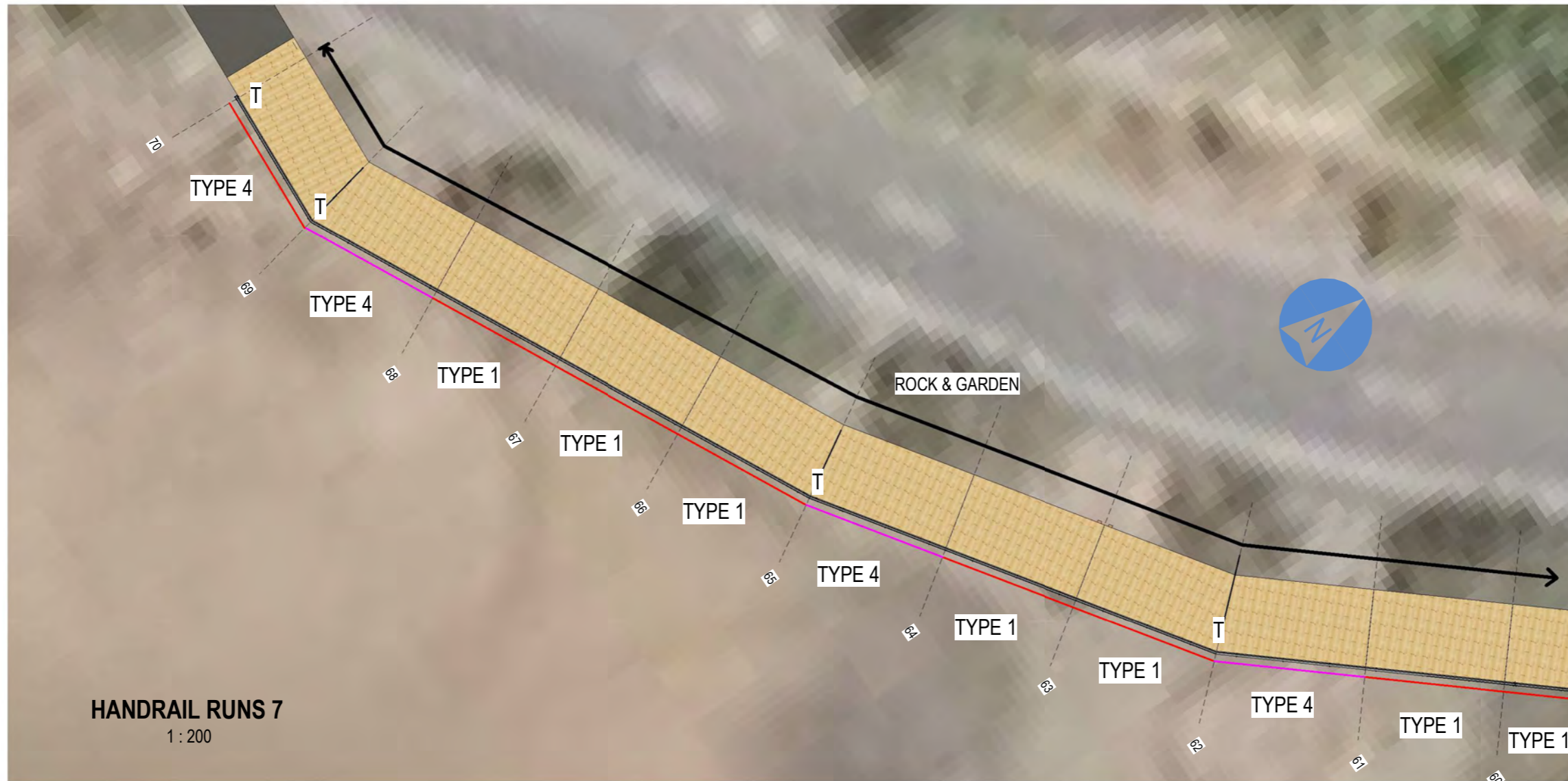
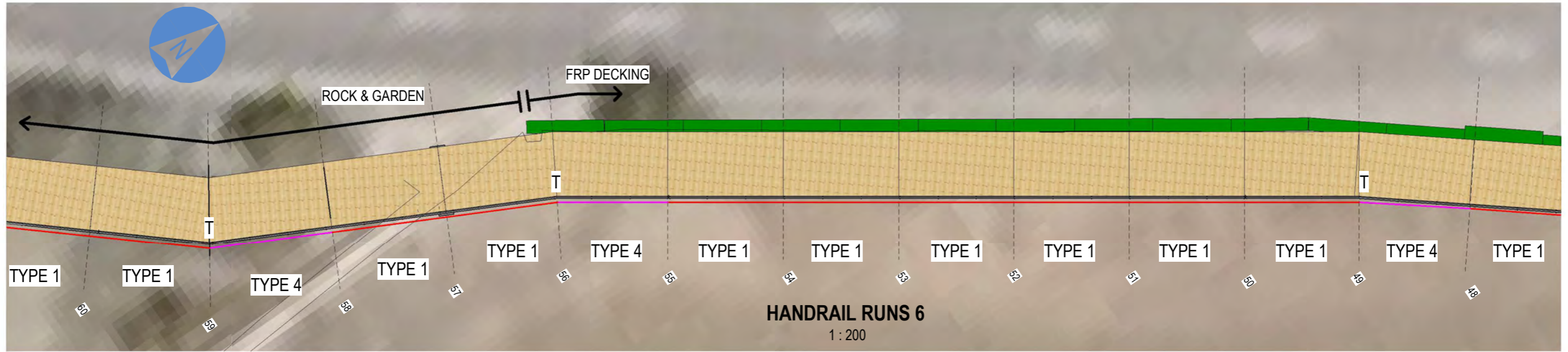


REV	DETAILS	DATE
0	ISSUED FOR TENDER	16/04/2021
1	ISSUED FOR CONSTRUCTION	08/07/2021

PROJECT
MANGONUI WATERFRONT
SHEET DESCRIPTION
HORIZONTAL HANDRAIL RUNS 2

STATUS		
FOR CONSTRUCTION		
DRAWN BY	APPROVED BY	SHT
MW	RB	A3
PROJECT NO.	SHEET NO.	REV
19-1021	306	1

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**NOTES:**

- T = TENSIONER POST
- FOR PRE-FABRICATED HANDRAIL TYPES SEE SHEET 304

Filename:  
  
 Pldt Date: 08/07/2021 11:48:02 am



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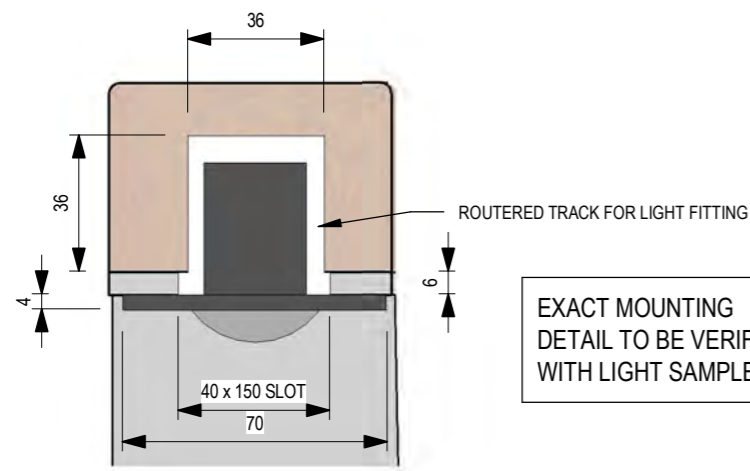


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REV	DETAILS	DATE
0	ISSUED FOR TENDER	16/04/2021
1	ISSUED FOR CONSTRUCTION	08/07/2021

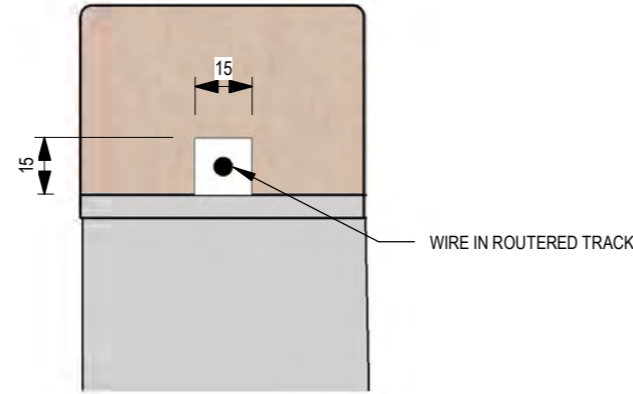
CLIENT	PROJECT
	MANGONUI WATERFRONT
SHEET DESCRIPTION	HORIZONTAL HANDRAIL RUNS 3

STATUS		
FOR CONSTRUCTION		
DRAWN BY	APPROVED BY	SHT
MW	RB	A3
PROJECT NO.	SHEET NO.	REV
19-1021	307	1

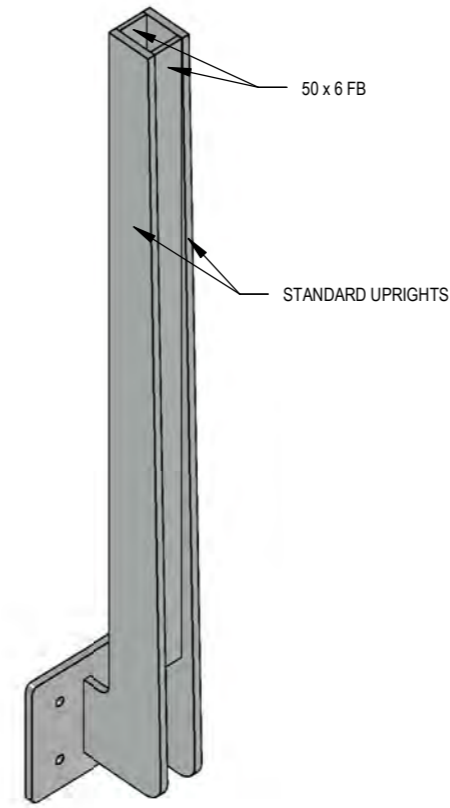


① HORIZONTAL HANDRAIL LIGHT SECTION  
1 : 2

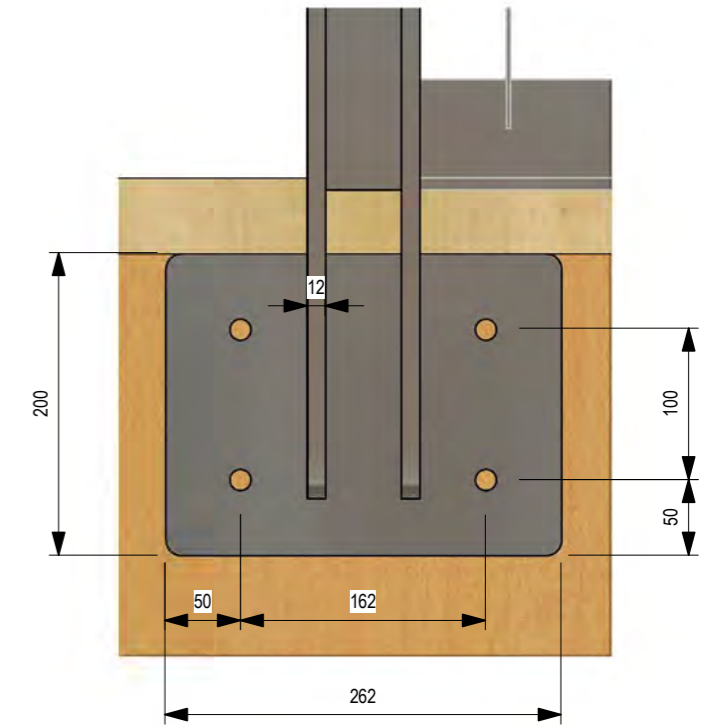
EXACT MOUNTING  
DETAIL TO BE VERIFIED  
WITH LIGHT SAMPLE



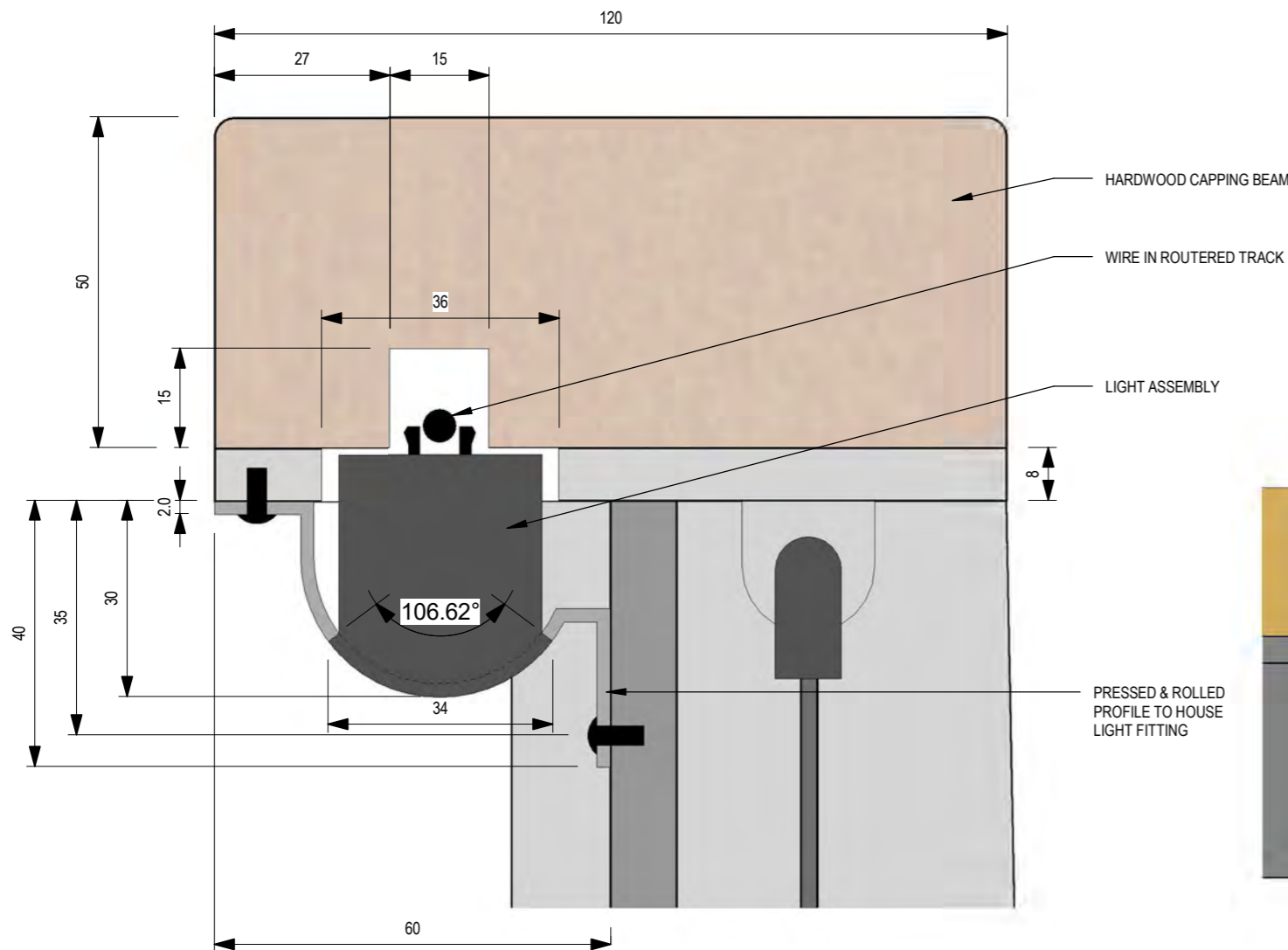
② HORIZONTAL HANDRAIL LIGHT SECTION AT WIRE  
1 : 2



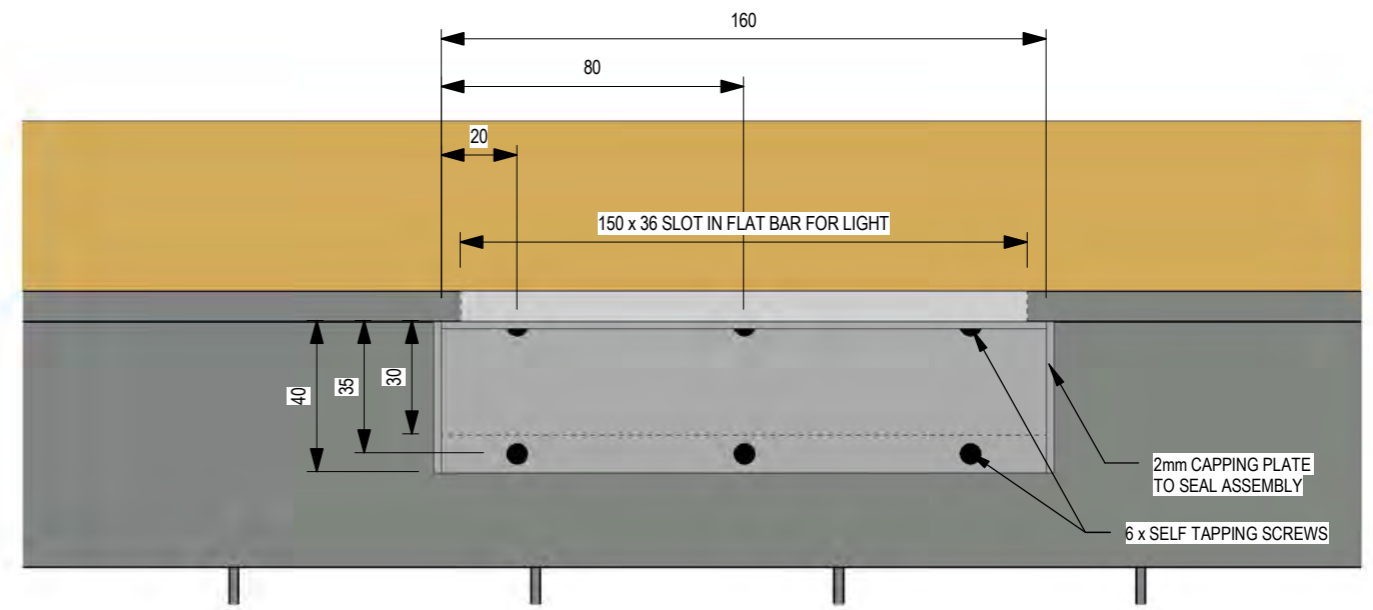
WIRE UPRIGHT 3D



BASE PLATE WIRE UPRIGHT FOR VERTICAL HANDRAIL  
1 : 5



③ VERTICAL HANDRAIL LIGHT SECTION  
1 : 1



VERTICAL HANDRAIL LIGHT ELEVATION  
1 : 2

Pld Date: 9/07/2021 11:48:08 am

REV	DETAILS	DATE	PROJECT	STATUS
0	ISSUED FOR CONSTRUCTION	08/07/2021	MANGONUI WATERFRONT	FOR CONSTRUCTION
			SHEET DESCRIPTION	DRAWN BY
			HANDRAIL LIGHT AND WIRE POST DETAIL	APPROVED BY
				SHT
				MW
				RB
				A3
				PROJECT NO.
				SHEET NO.
				REV
				19-1021
				308
				0

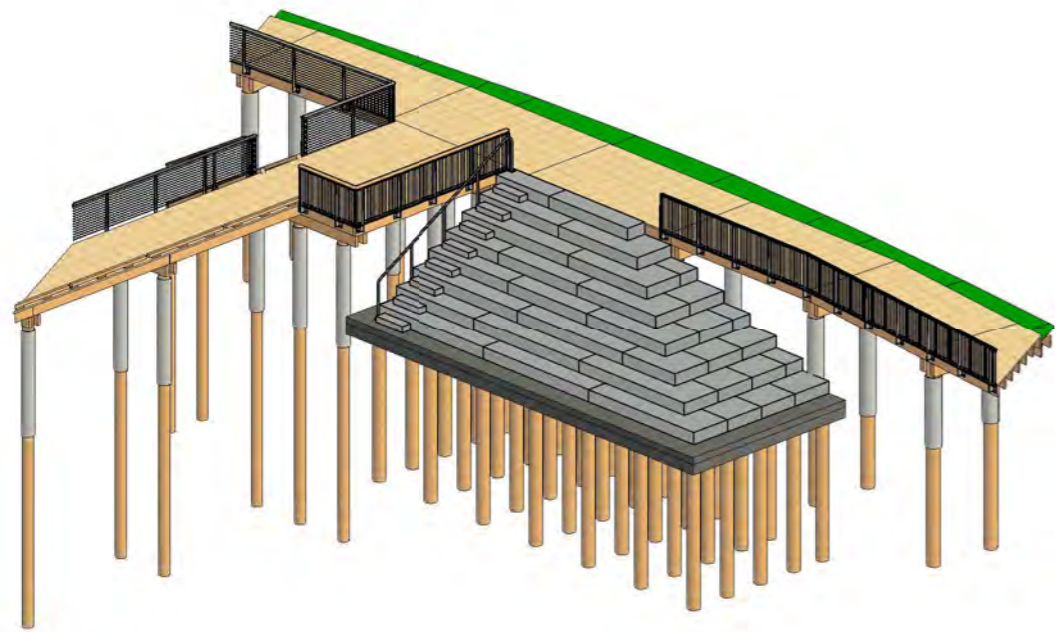
File name: Pld Date: 30/07/2021 11:48:12 am



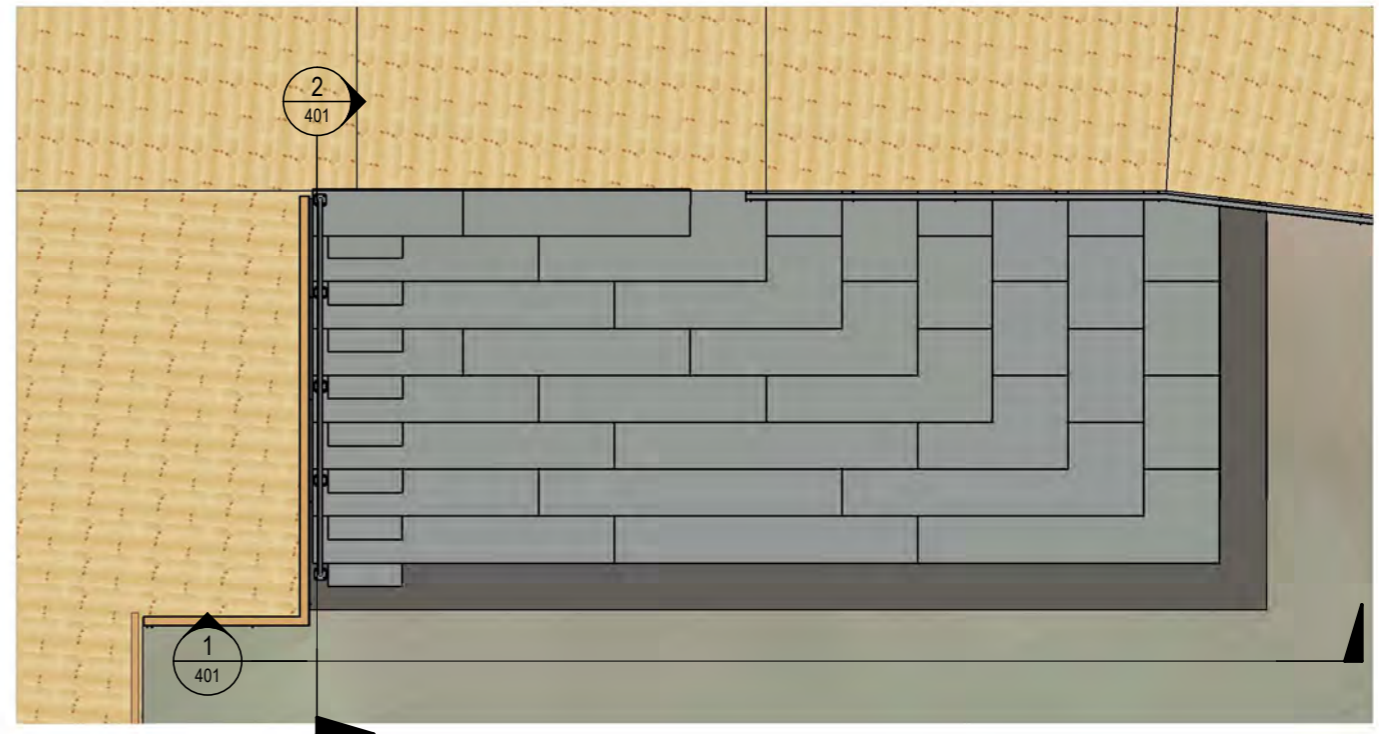
REV	DETAILS	DATE
0	ISSUED FOR CONSTRUCTION	08/07/2021

PROJECT
MANGONUI WATERFRONT
SHEET DESCRIPTION
HANDRAIL LIGHTING LOCATIONS

STATUS		
FOR CONSTRUCTION		
DRAWN BY	APPROVED BY	SHT
MW	RB	A3
PROJECT NO.	SHEET NO.	REV
19-1021	309	0



SWIM STEPS 3D

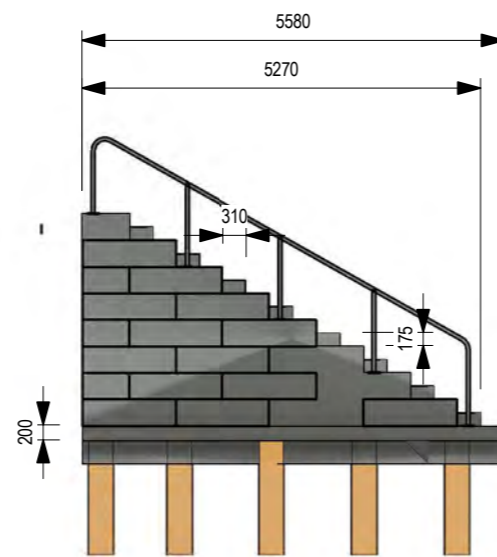


SWIM STEPS PLAN

1 : 100

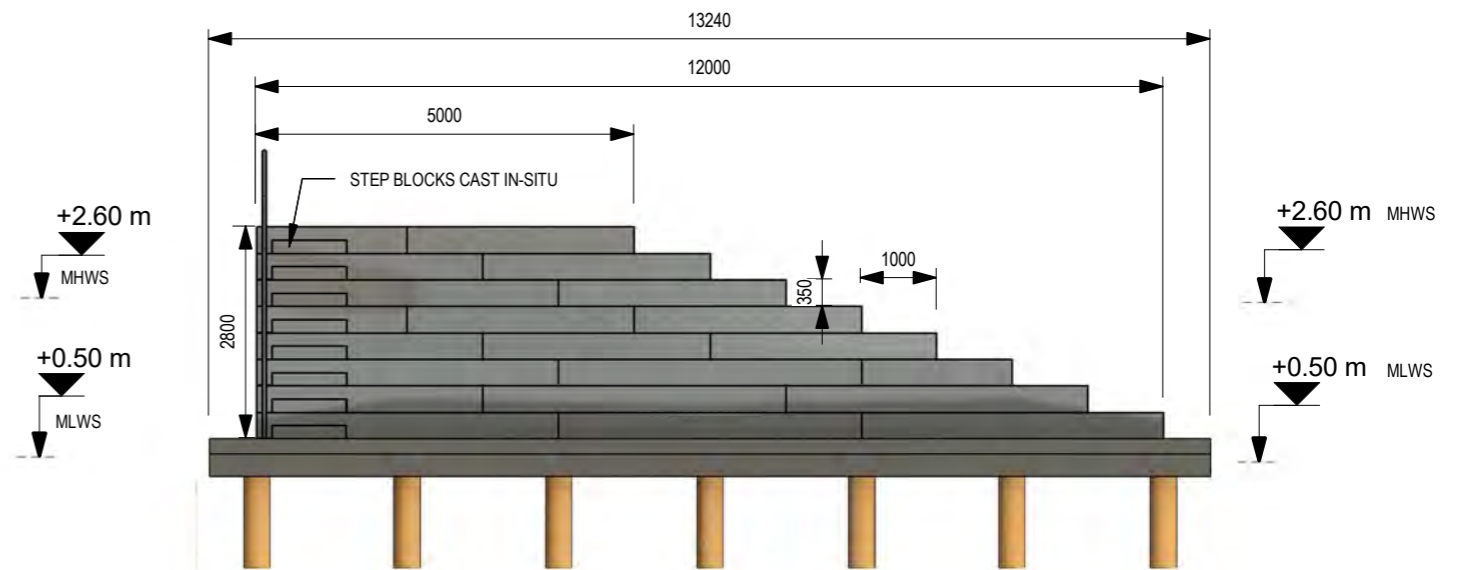
NOTES:

- 50 MPa 8%MS CONCRETE (OR 30% FLYASH)
- MINIMUM COVER 60mm
- ALL REINFORCING GALVANISED
- 10mm CHAMFERS/RDIUS TO ALL CORNERSAC
- HEAVY BROOM FINISH TO TOP SURFACES
- SMOOTH TROWELLED BORDER - MINIMUM WIDTH 20mm
- 4 x 2.5 TON SWIFT LIFTS REQUIRED S/S
- FILL IN SWIFT LIFTS AFTER PLACEMENT
- GLUE BLOCKS TOGETHER USING SIKADUR 32 NORMAL OR SIMILAR, SMALL BLOB IN EACH CORNER
- MINIMUM COVER TO GROUND 75mm



2. SWIM STEPS SECTION

1 : 100



1. SWIM STEPS ELEVATION

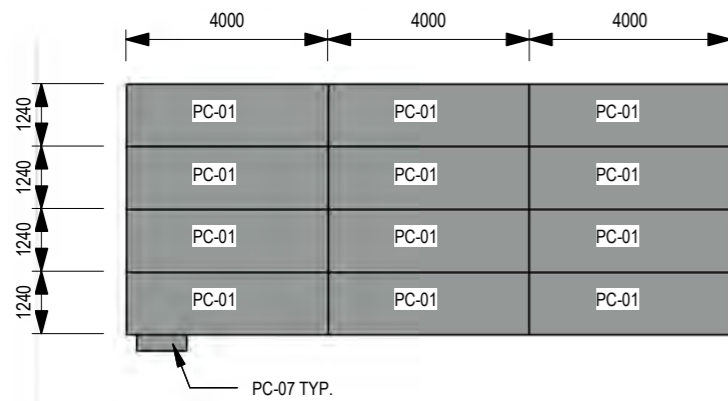
1 : 100

REV	DETAILS	DATE
0	ISSUED FOR TENDER	16/04/2021
1	ISSUED FOR CONSTRUCTION	08/07/2021

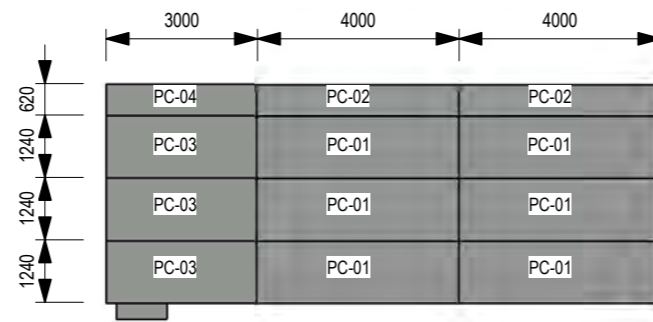
PROJECT	STATUS
MANGONUI WATERFRONT	FOR CONSTRUCTION
SHEET DESCRIPTION	DRAWN BY
SWIM STEPS ARRANGEMENT	MW
	APPROVED BY
	RB
	PROJECT NO.
	19-1021
	SHEET NO.
	401
	REV
	1

DRAWN BY	APPROVED BY	SHT
MW	RB	A3
PROJECT NO.	SHEET NO.	REV
19-1021	401	1

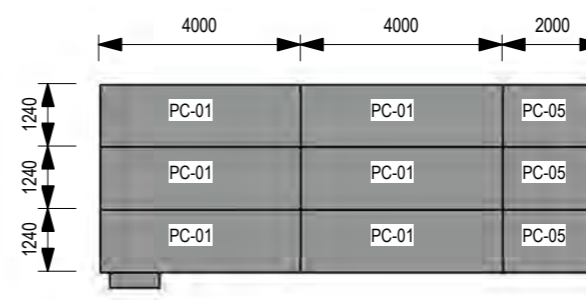




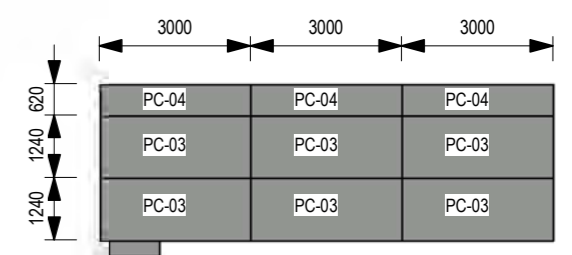
**SWIM STEPS - LAYER 1**  
1 : 150



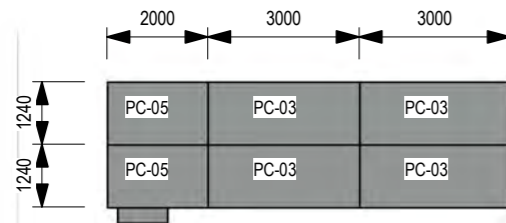
**SWIM STEPS - LAYER 2**  
1 : 150



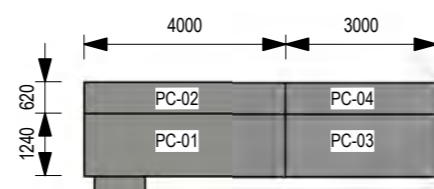
**SWIM STEPS - LAYER 3**  
1 : 150



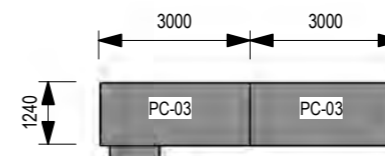
**SWIM STEPS - LAYER 4**  
1 : 150



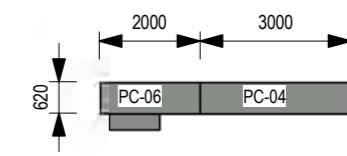
**SWIM STEPS - LAYER 5**  
1 : 150



**SWIM STEPS - LAYER 6**  
1 : 150



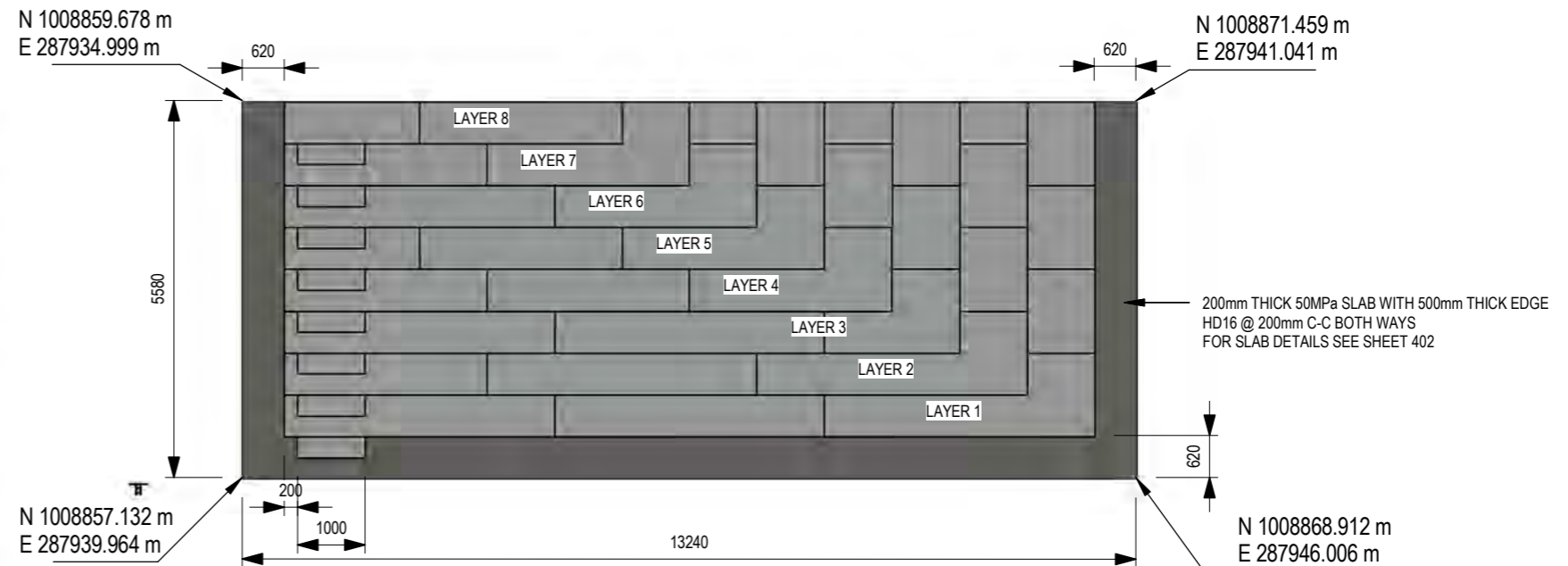
**SWIM STEPS - LAYER 7**  
1 : 150



**SWIM STEPS - LAYER 8**  
1 : 150

PART No.	DIMENSIONS	No. Of
PC-01	1240x4000x350	25
PC-02	620x4000x350	3
PC-03	1240x3000x350	16
PC-04	620x3000x350	6
PC-05	1240x2000x350	5
PC-06	620x2000x350	1
PC-07	310x1000x175	8
<b>TOTAL</b>		<b>64</b>

CAST IN-SITU



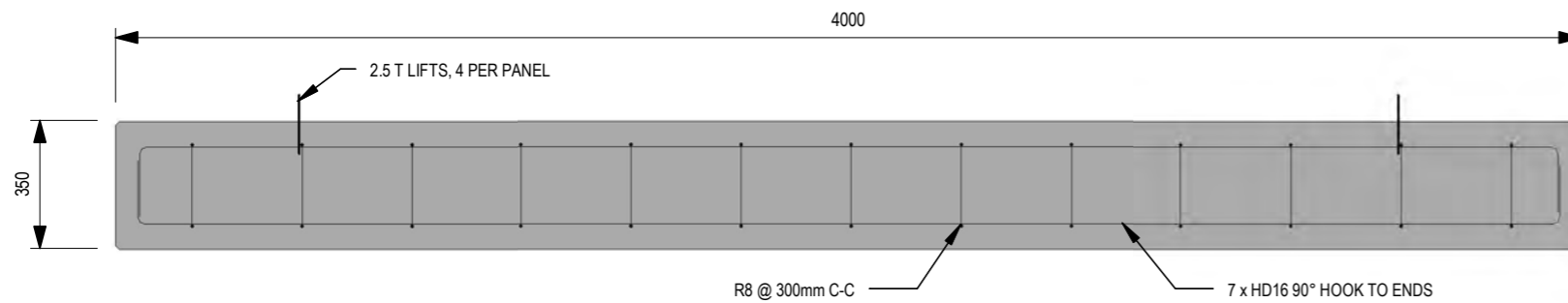
**SWIM STEPS/SLAB PLAN**  
1 : 100

COORDINATES IN MT. EDEN CIRCUIT 2000

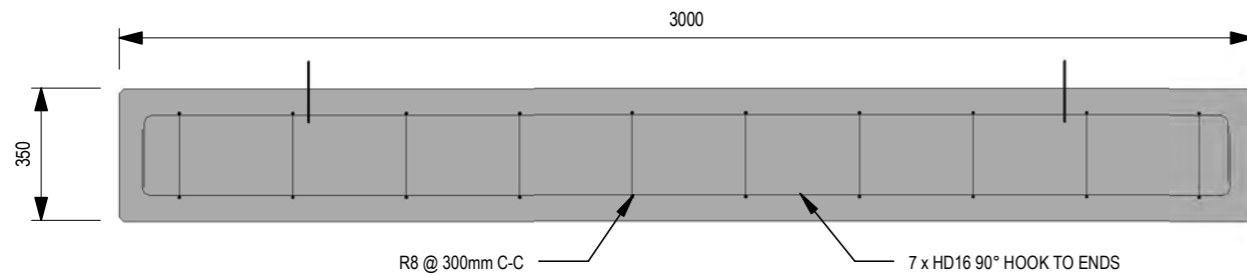
Pld Date: 9/07/2021 11:48:23 am

REV	DETAILS	DATE
0	ISSUED FOR TENDER	16/04/2021
1	ISSUED FOR CONSTRUCTION	08/07/2021

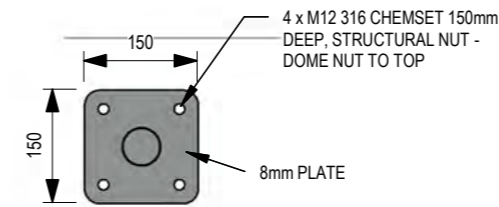
PROJECT	STATUS
MANGONUI WATERFRONT	FOR CONSTRUCTION
<b>SHEET DESCRIPTION</b>	<b>DRAWN BY</b>
SWIM STEPS LAYERS	MW
	<b>APPROVED BY</b>
	RB
	<b>SHT</b>
	A3
	<b>PROJECT NO.</b>
	19-1021
	<b>SHEET NO.</b>
	402
	<b>REV</b>
	1



PC-01  
PC-02

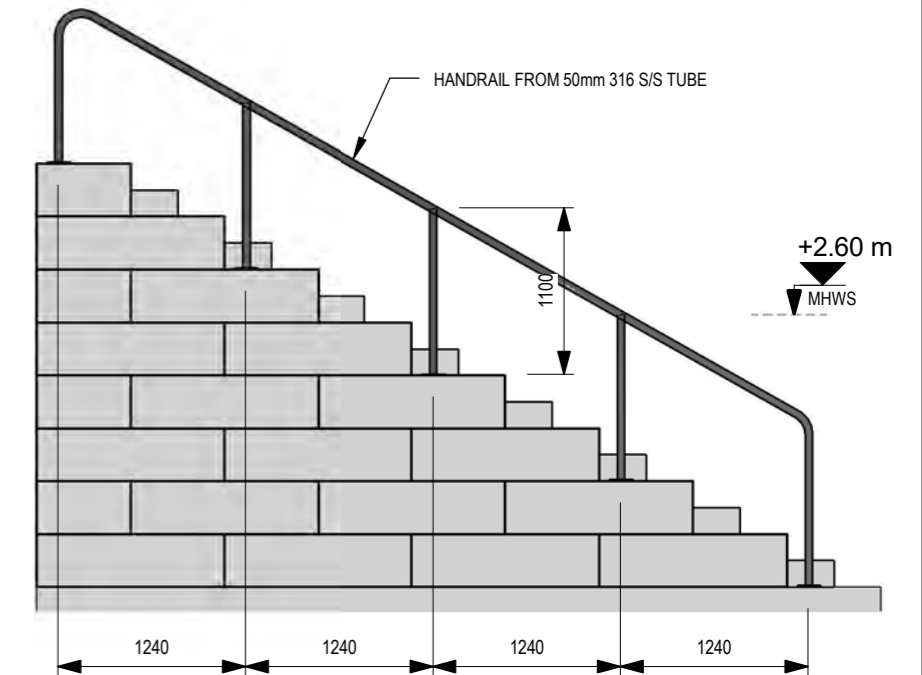


PC-03  
PC-04



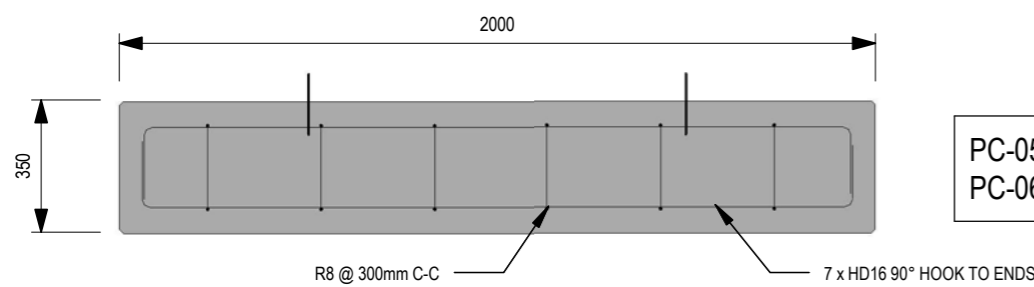
SWIM STEPS HANDRAIL BASE PLATE

1 : 10



SWIM STEPS HANDRAIL

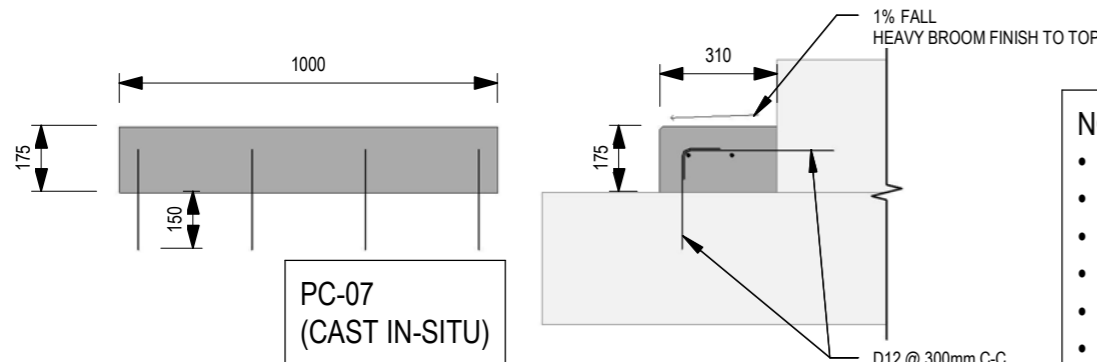
1 : 50



PC-05  
PC-06

PART No.	DIMENSIONS	No. Of
PC-01	1240x4000x350	25
PC-02	620x4000x350	3
PC-03	1240x3000x350	16
PC-04	620x3000x350	6
PC-05	1240x2000x350	5
PC-06	620x2000x350	1
PC-07	310x1000x175	8
<b>TOTAL</b>		<b>64</b>

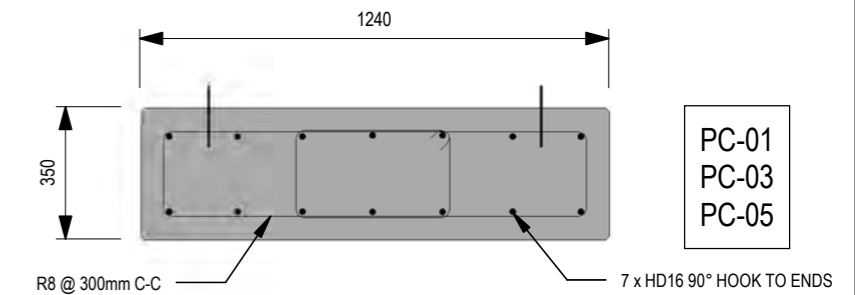
CAST IN-SITU



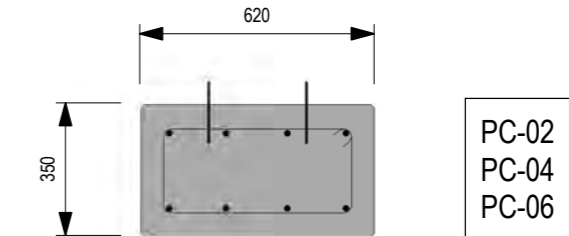
PC-07  
(CAST IN-SITU)

NOTES:

- 50 MPa 8% MS CONCRETE (OR 30% FLYASH)
- MINIMUM COVER 60mm
- ALL REINFORCING GALVANISED
- 10mm CHAMFERS/RDIUS TO ALL CORNERSAC
- HEAVY BROOM FINISH TO TOP SURFACES
- SMOOTH TROWELLED BORDER - MINIMUM WIDTH
- 4 x 2.5 TON SWIFT LIFTS REQUIRED S/S
- FILL IN SWIFT LIFTS AFTER PLACEMENT
- GLUE BLOCKS TOGETHER USING SIKADUR 32 NORMAL OR SIMILAR, SMALL BLOB IN EACH CORNER



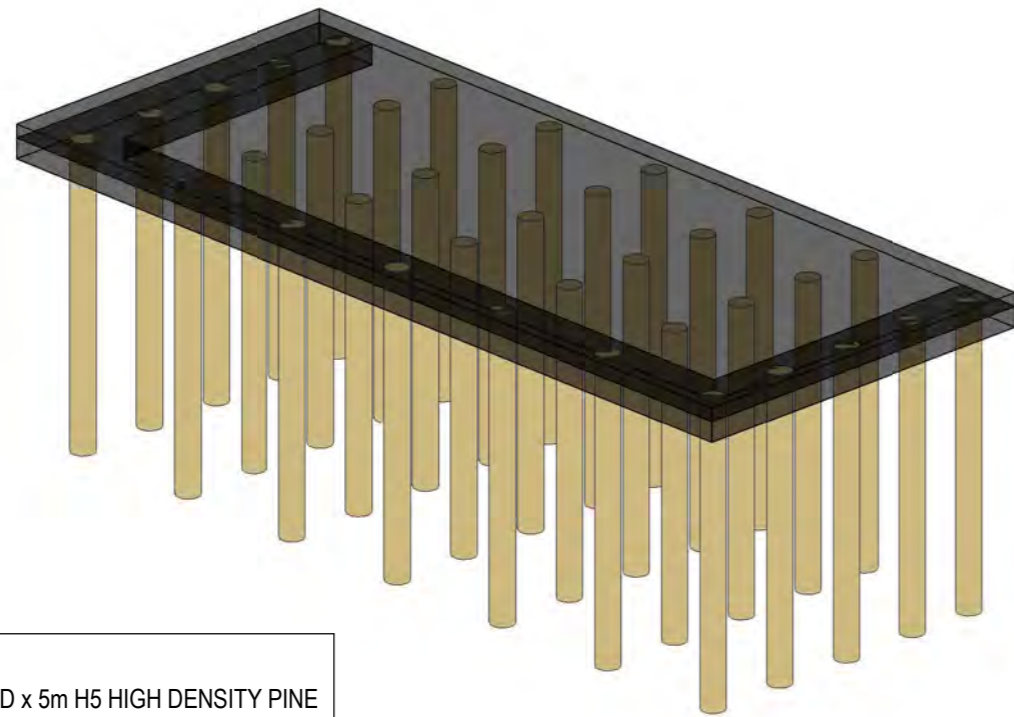
PC-01  
PC-03  
PC-05



PC-02  
PC-04  
PC-06

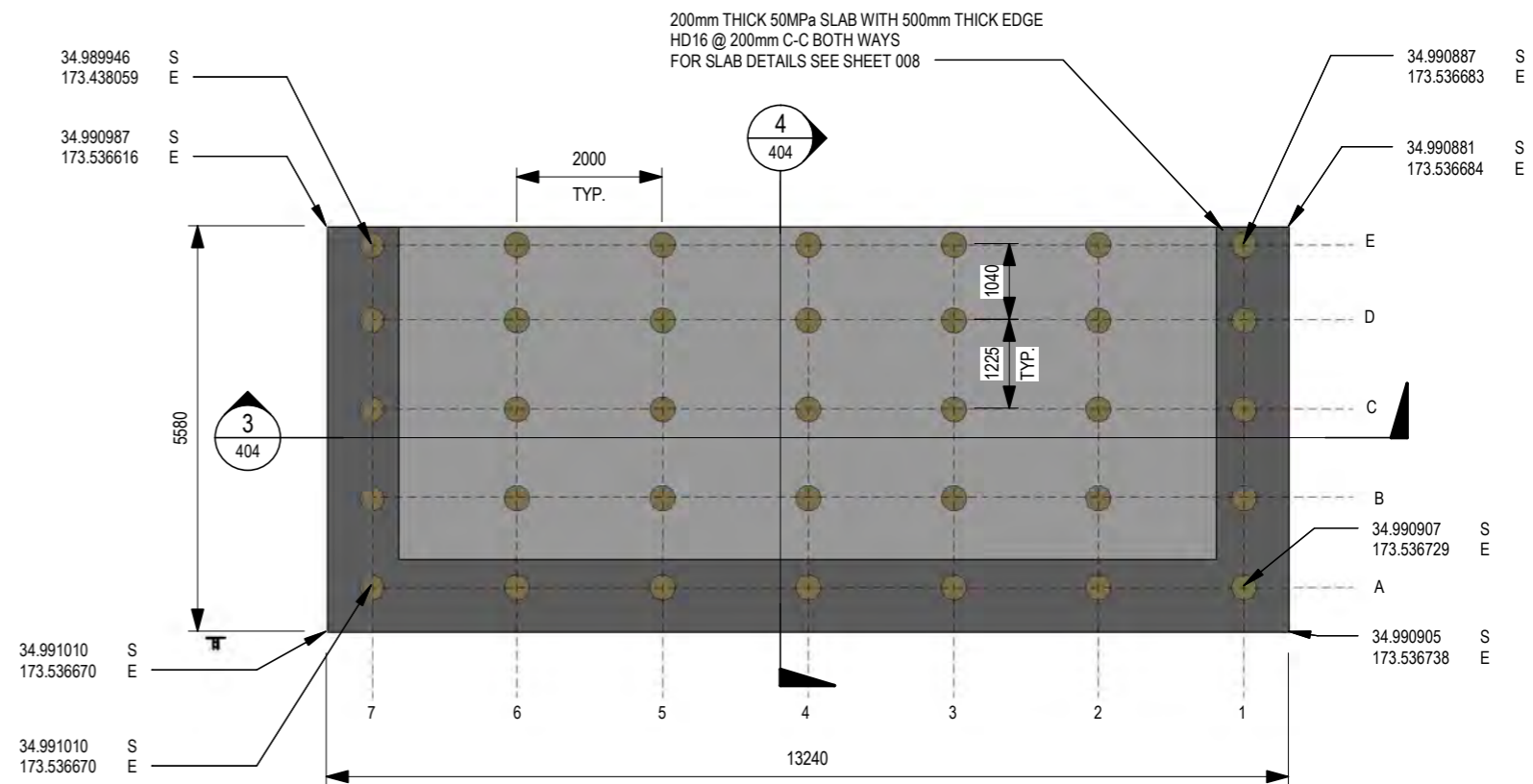
Pld Date: 9/07/2021 11:48:25 am

REV	DETAILS	DATE	PROJECT	STATUS
0	ISSUED FOR TENDER	16/04/2021	MANGONUI WATERFRONT	FOR CONSTRUCTION
1	ISSUED FOR CONSTRUCTION	08/07/2021		
			<b>SHEET DESCRIPTION</b>	<b>DRAWN BY</b>
			SWIM STEPS PRECAST CONCRETE BLOCKS	MW
				<b>APPROVED BY</b>
				RB
				<b>SHT</b>
				A3
				<b>PROJECT NO.</b>
				19-1021
				<b>SHEET NO.</b>
				403
				<b>REV</b>
				1

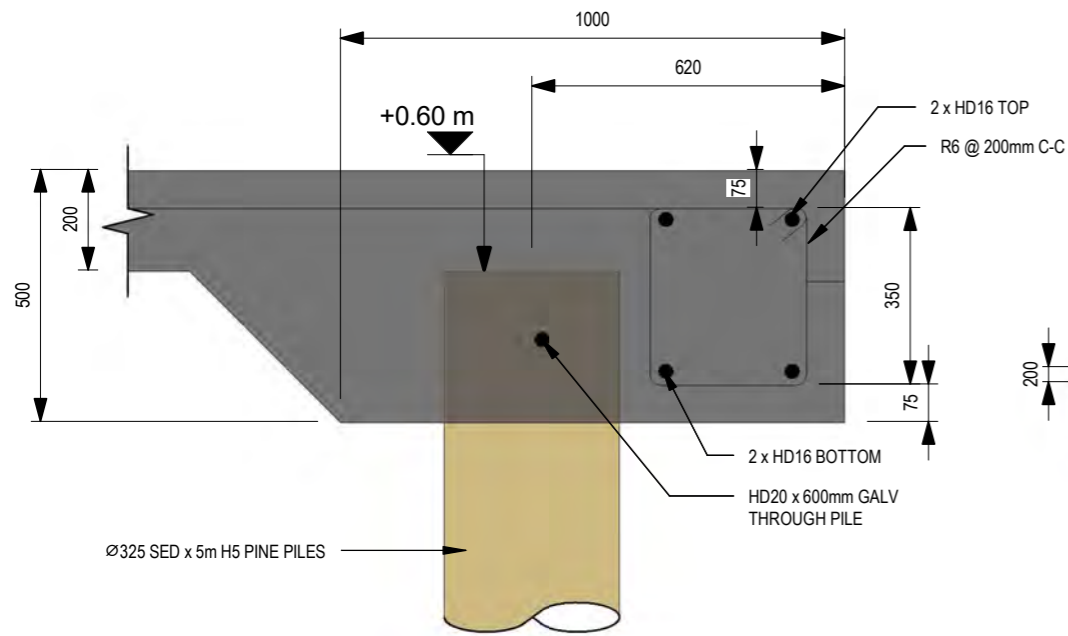


- NOTES:**
- ALL PILES  $\varnothing 325$  SED x 5m H5 HIGH DENSITY PINE
  - INSTALL BIG END DOWN

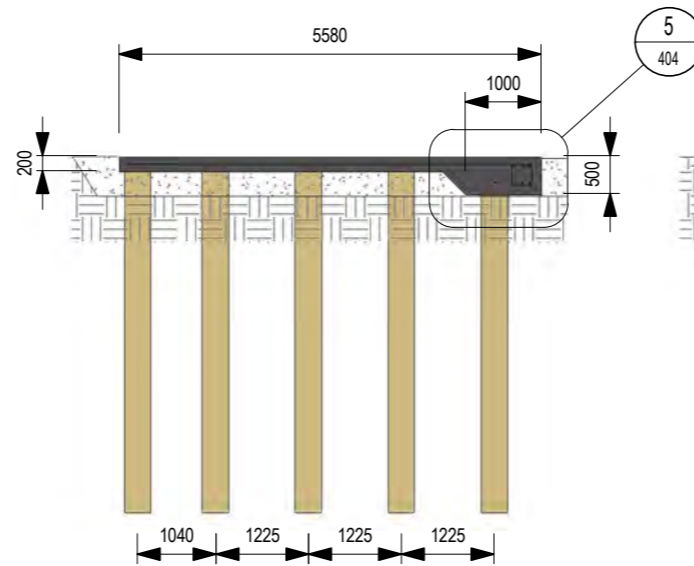
**STEPS SLAB 3D**



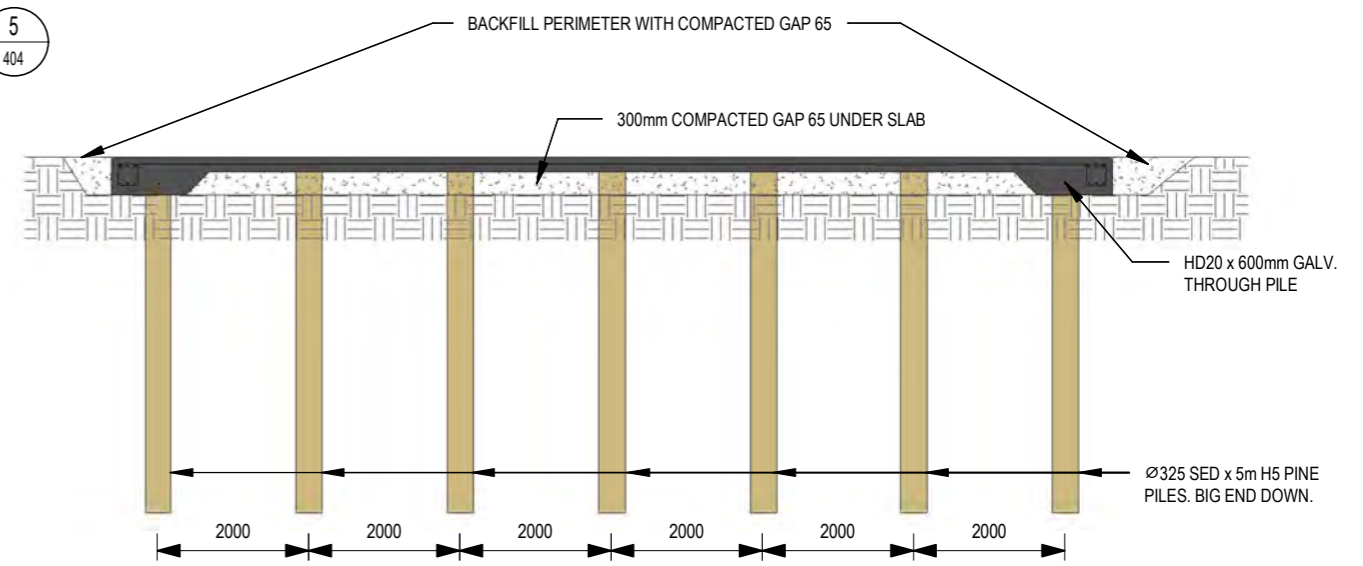
**SWIM STEPS SLAB/PILES PLAN**  
1:100



**5. EDGE BEAM REINFORCING**  
1:15



**4. STEPS SLAB TRANS SECTION**  
1:100



**3. STEPS SLAB LONGI SECTION**  
1:100

REV	DETAILS	DATE
0	ISSUED FOR TENDER	16/04/2021
1	ISSUED FOR CONSTRUCTION	08/07/2021

PROJECT
MANGONUI WATERFRONT
SHEET DESCRIPTION
SWIM STEPS SLAB/PILES

STATUS		
FOR CONSTRUCTION		
DRAWN BY	APPROVED BY	SHT
MW	RB	A3
PROJECT NO.	SHEET NO.	REV
19-1021	404	1