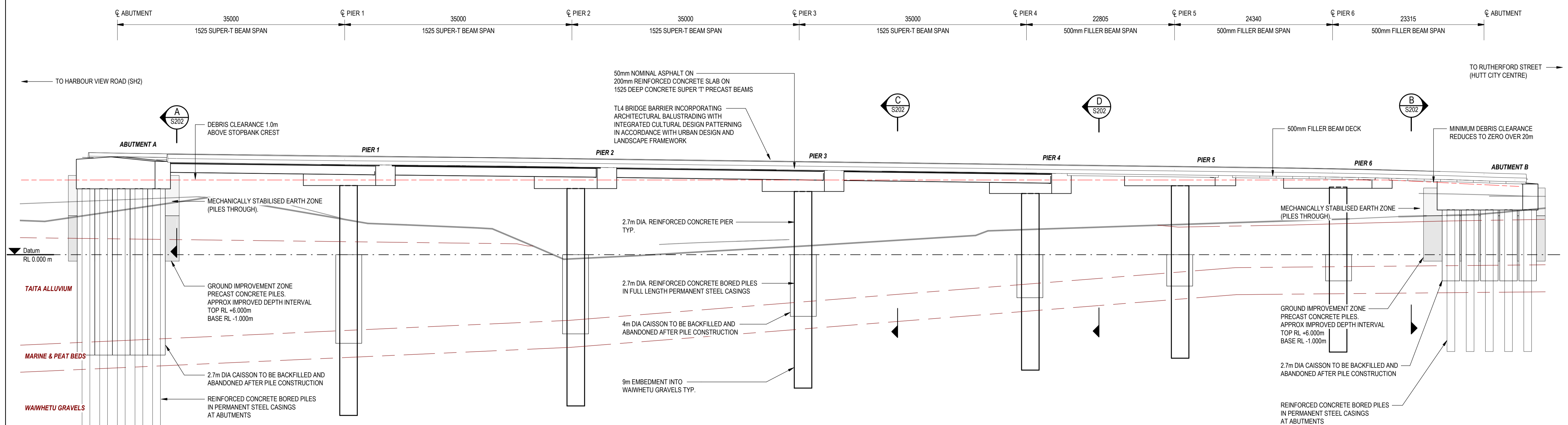


PLAN
SCALE 1 : 300



LONGITUDINAL ELEVATION ALONG CONTROL LINE
(MC20)
SCALE 1 : 300

RESOURCE CONSENT

C	RESOURCE CONSENT	RK	SJ*	AWH*	08.07.21		
B	DESIGN FREEZE 2	DB	SJ*	AWH*	26.03.21		
A	DESIGN FREEZE 1				27.11.20		
No	Revision	Note:	* indicates signatures on original issue of drawing or last revision of drawing	Drawn	Checked	Approved	Date

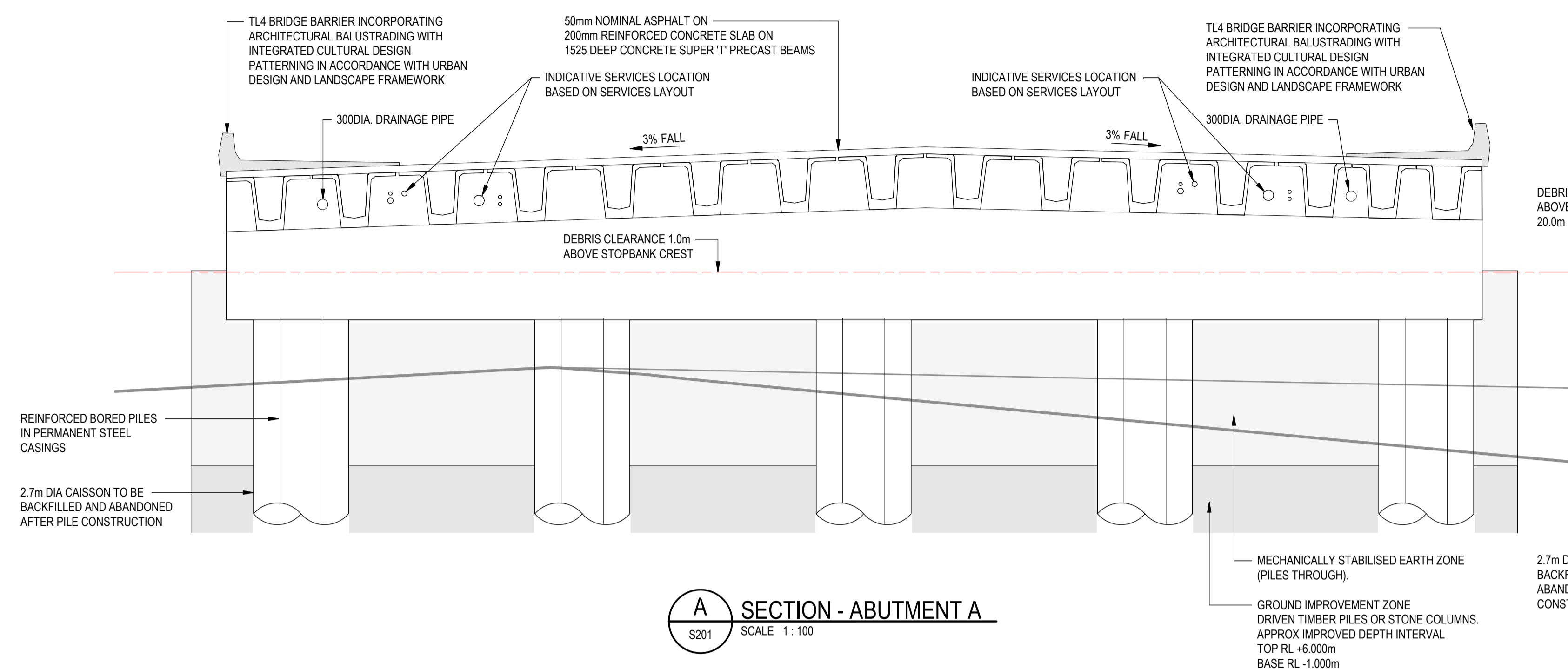


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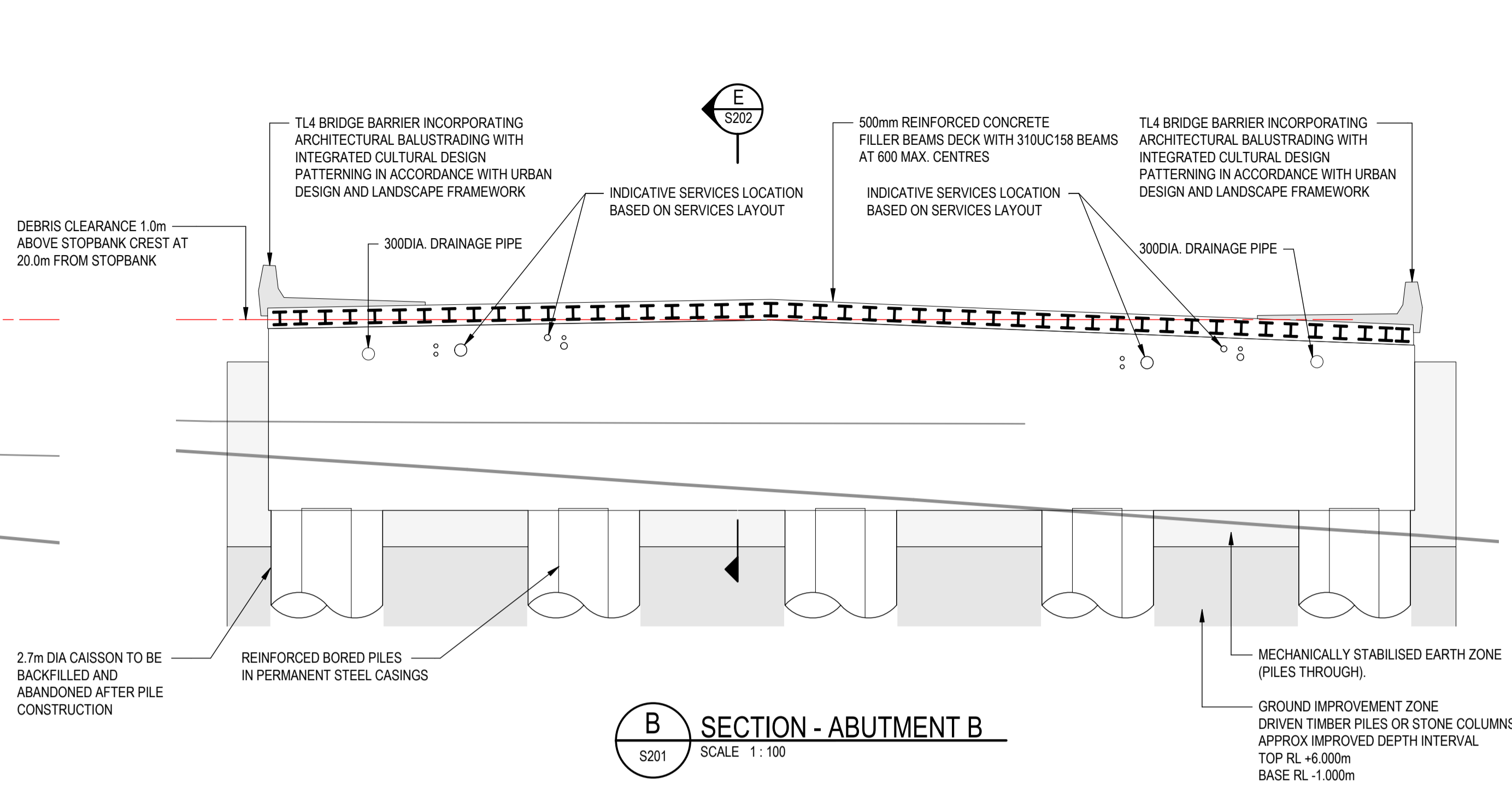
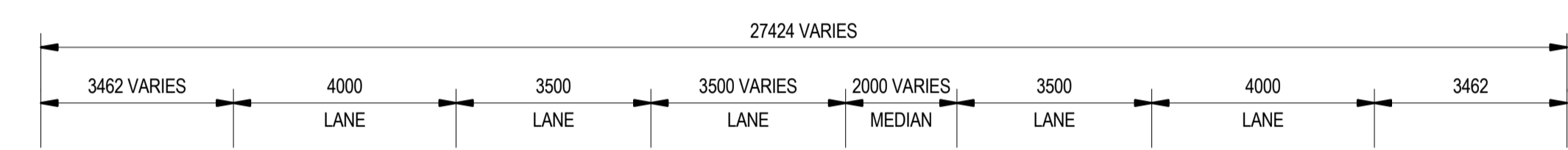
Drawn	D. BRENNAN	Designer	A. McMENAMIN
Drafting Check	G. DOUGHERTY	Design Check	F. BARRANTES
Approved			
Date			
Scale	1 : 300		

Client	RIVERLINK
Project	RIVERLINK - MELLING LINK ALIGNMENT
Title	RIVER BRIDGE GENERAL ARRANGEMENT - SHEET 1
Original Size	A1
Drawing No:	A16-4381-S201
Rev:	B

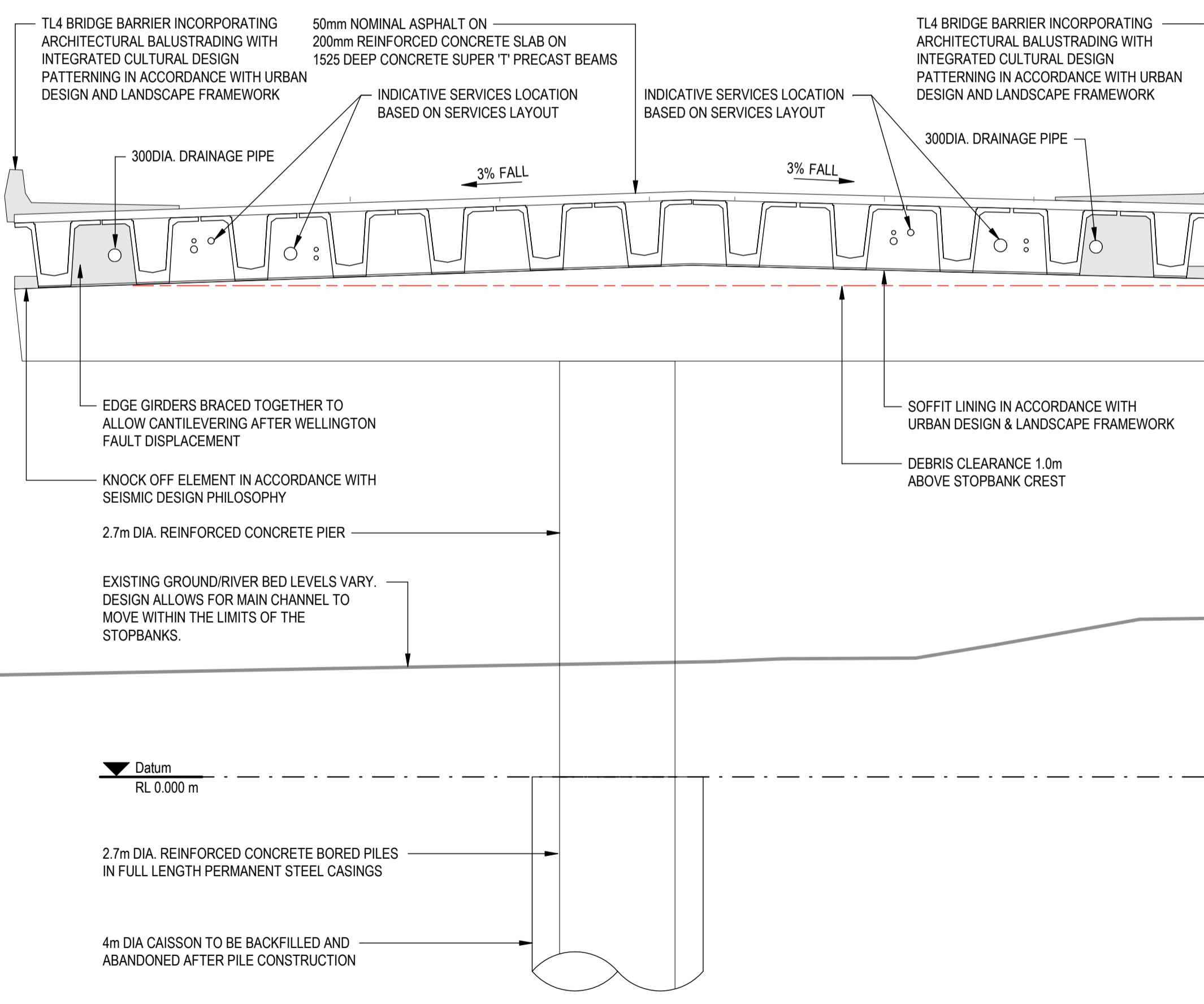
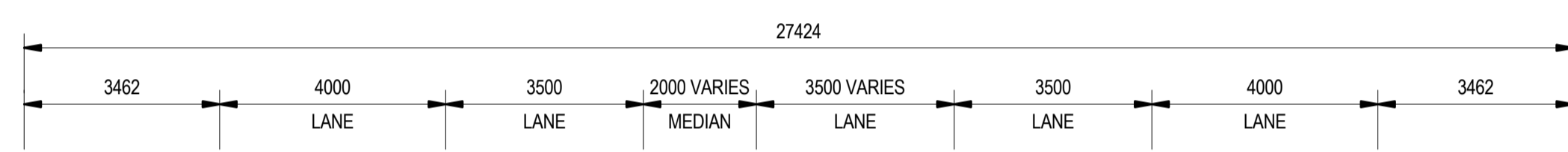
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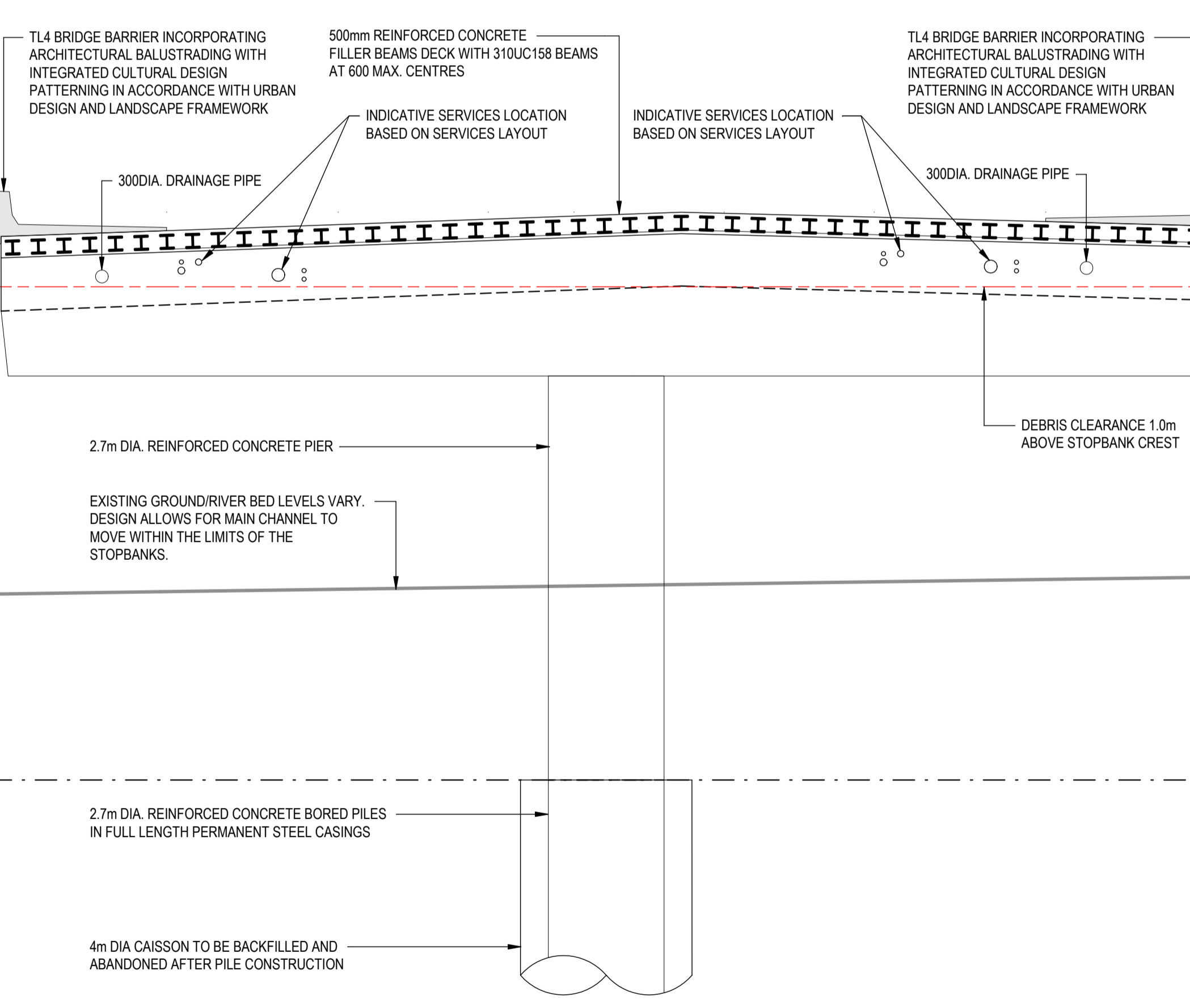
A SECTION - ABUTMENT A
S201 SCALE 1:100



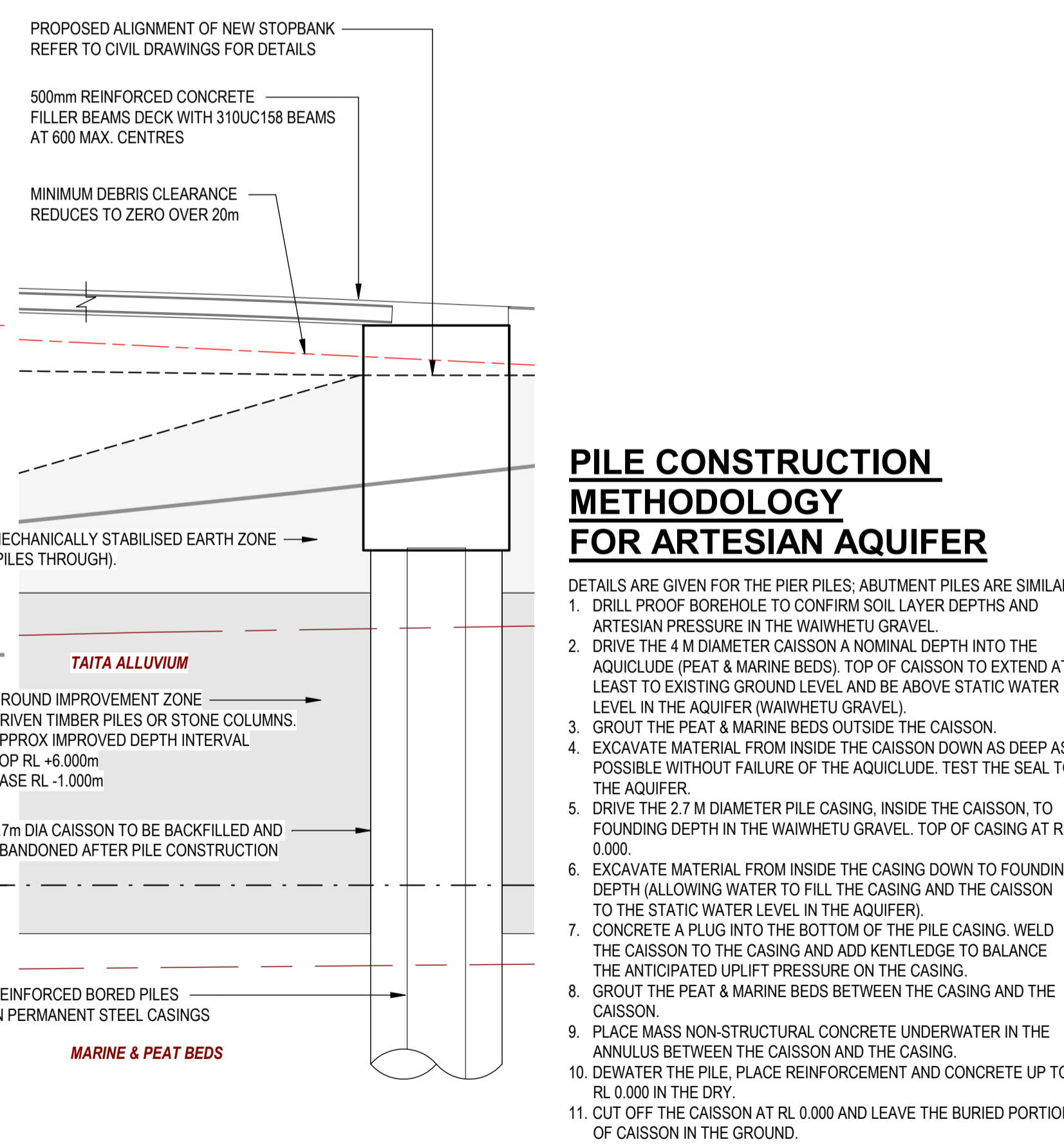
B SECTION - ABUTMENT B
S201 SCALE 1:100



C SECTION - SUPER T BEAMS
S201 SCALE 1:100



D SECTION - FILLER BEAMS
S201 SCALE 1:100



E SECTION - ABUTMENT B DETAIL
S202 SCALE 1:100

PILE CONSTRUCTION METHODOLOGY FOR ARTESIAN AQUIFER

- DETAILS ARE GIVEN FOR THE PIER PILES; ABUTMENT PILES ARE SIMILAR.
1. DRILL PROOF BOREHOLE TO CONFIRM SOIL LAYER DEPTHS AND ARTESIAN PRESSURE IN THE WAIWHETU GRAVEL.
 2. DRIVE THE 4 M DIAMETER CAISSON A NOMINAL DEPTH INTO THE AQUICLUDE (PEAT & MARINE BEDS). TOP OF CAISSON TO EXTEND AT LEAST TO EXISTING GROUND LEVEL AND BE ABOVE STATIC WATER LEVEL IN THE AQUIFER (WAIWHETU GRAVEL).
 3. GROUT THE PEAT & MARINE BEDS OUTSIDE THE CAISSON.
 4. EXCAVATE MATERIAL FROM INSIDE THE CAISSON DOWN AS DEEP AS POSSIBLE WITHOUT FAILURE OF THE AQUICLUDE. TEST THE SEAL TO THE AQUIFER.
 5. DRIVE THE 2.7 M DIAMETER PILE CASING, INSIDE THE CAISSON, TO FOUNDING DEPTH IN THE WAIWHETU GRAVEL. TOP OF CASING AT RL 0.000.
 6. EXCAVATE MATERIAL FROM INSIDE THE CASING DOWN TO FOUNDING DEPTH (ALLOWING WATER TO FILL THE CASING AND THE CAISSON TO THE STATIC WATER LEVEL IN THE AQUIFER).
 7. CONCRETE A PLUG INTO THE BOTTOM OF THE PILE CASING. WELD THE CAISSON TO THE CASING AND ADD KENTLEDGE TO BALANCE THE ANTICIPATED UPLIFT PRESSURE ON THE CASING.
 8. GROUT THE PEAT & MARINE BEDS BETWEEN THE CASING AND THE CAISSON.
 9. PLACE MASS NON-STRUCTURAL CONCRETE UNDERWATER IN THE ANNULUS BETWEEN THE CAISSON AND THE CASING.
 10. DEWATER THE PILE. PLACE REINFORCEMENT AND CONCRETE UP TO RL 0.000 IN THE DRY.
 11. CUT OFF THE CAISSON AT RL 0.000 AND LEAVE THE BURIED PORTION OF CAISSON IN THE GROUND.
 12. CONSTRUCT THE 2.7 M DIAMETER PIER ON TOP OF THE PILE.
 13. BACKFILL AS REQUIRED TO FINAL GROUND LEVEL.

RESOURCE CONSENT

C	RESOURCE CONSENT	RK	SJ*	AWH*	08.07.21		
B	DESIGN FREEZE 2	DB	SJ*	AWH*	26.03.21		
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Drawn	D. BRENNAN	Designer	A. McMENAMIN
Drafting Check	G. DOUGHERTY	Design Check	F. BARRANTES
Approved			
Date			
Scale	As indicated	This Drawing must not be used for Construction unless signed as Approved.	

Client	RIVERLINK
Project	RIVERLINK - MELLING LINK ALIGNMENT
Title	RIVER BRIDGE GENERAL ARRANGEMENT - SHEET 2
Original Size	A1
Drawing No:	A16-4381-S202
Rev:	B