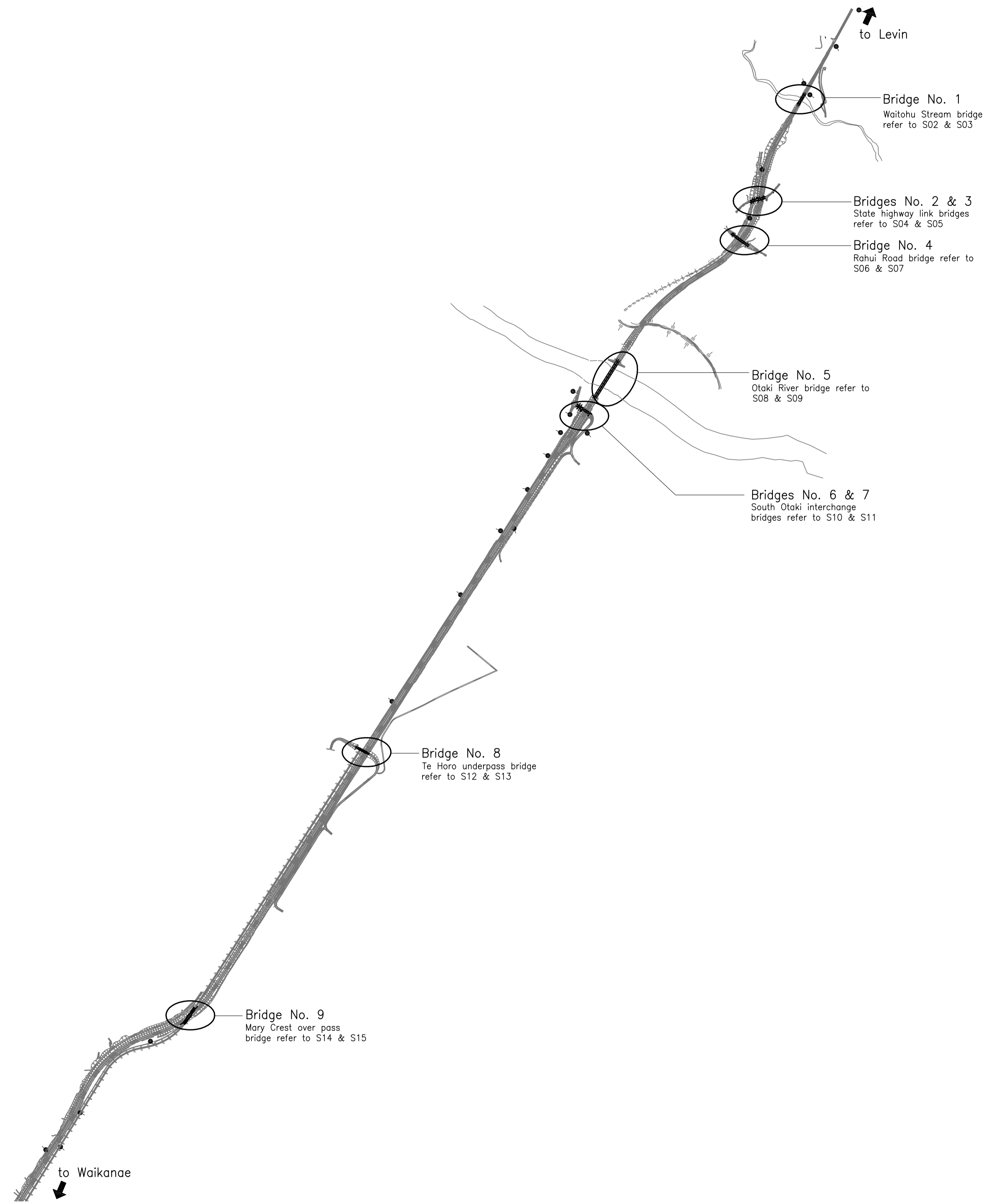


300 mm
200
100
50
0 10 mm

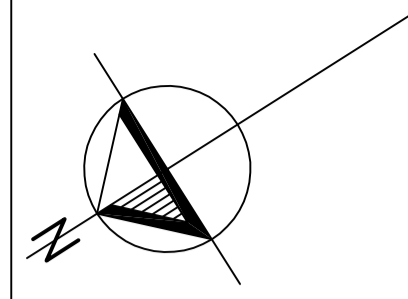


Revision	Amendment	Approved	Revision Date
3	Consent	PG	05/11/12
2	Information	PG	24/08/12
1	Information	PG	20/07/12

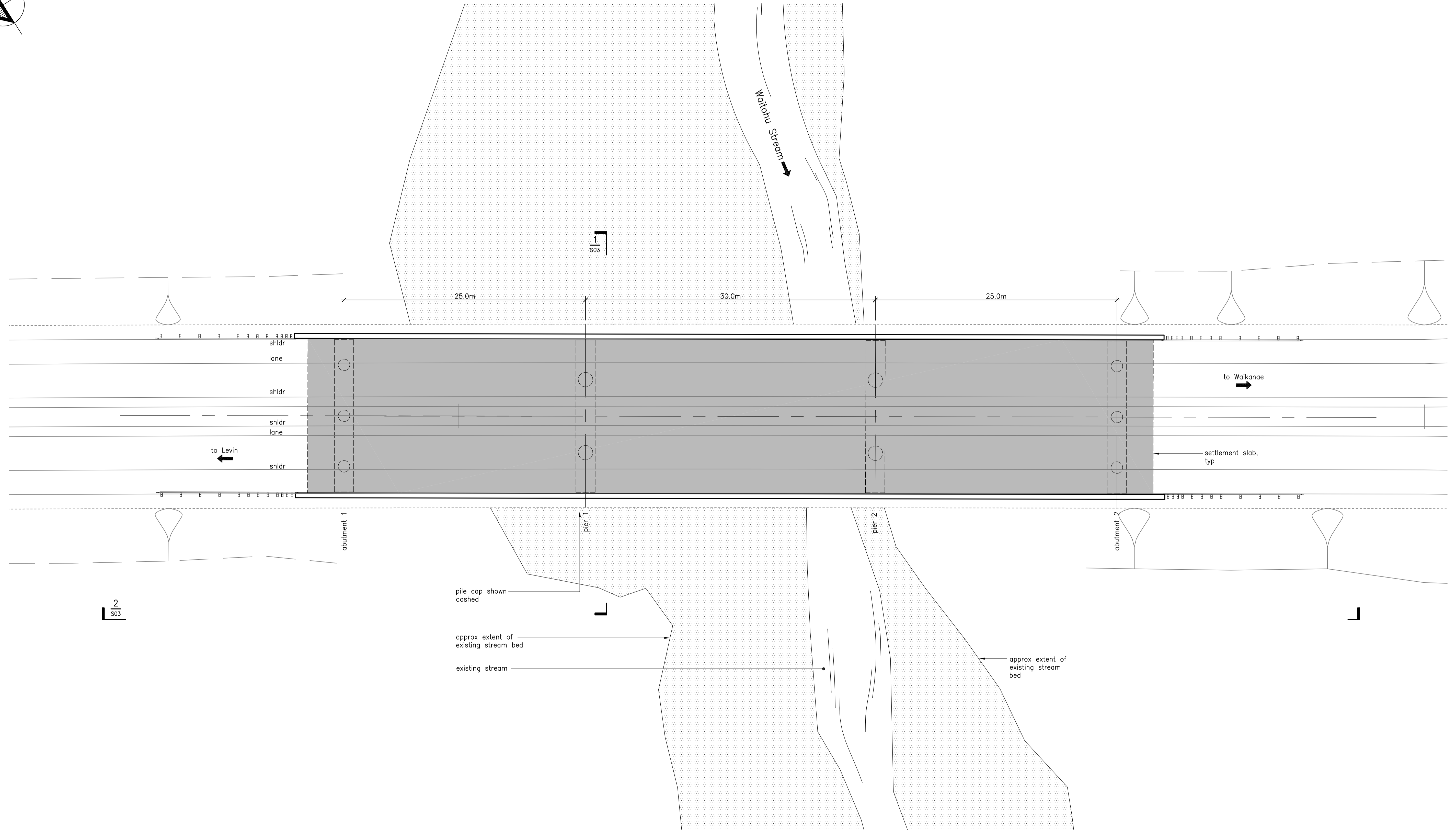


Drawn	Designed	Approved	Revision Date
JDR	PG	PG	05/11/12
Project No. 5C1814.00		Scale 1:20000(A1)	

Project NEW ZEALAND TRANSPORT AGENCY PEKA PEKA TO NORTH OTAKI EXPRESSWAY FOR CONSENTING			
Sheet Structures Plans Bridges Location plan			
Drawing No. 104866-S01	Sheet No. S01	Revision R3	



300 mm
200
100
50
0 10 mm



bridge general arrangement plan

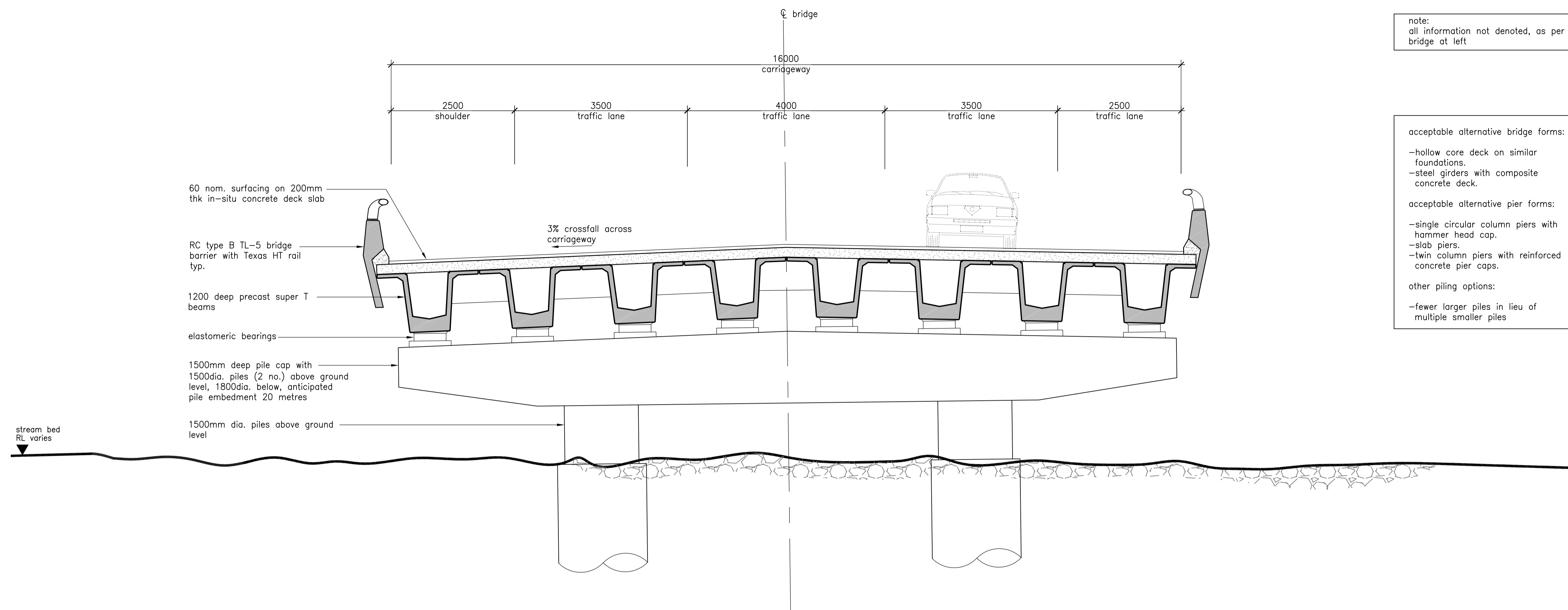
Revision	Amendment	Approved	Revision Date
3	Consent	PG	05/11/12
2	Information	PG	24/08/12
1	Information	PG	20/07/12



Drawn	Designed	Approved	Revision Date
JDR	PG	PG	05/11/12
Project No. 5C1814.00		Scale 1:200(A1)	

Project	
NEW ZEALAND TRANSPORT AGENCY PEKA PEKA TO NORTH OTAKI EXPRESSWAY FOR CONSENTING	
Sheet	
Structures Plans Bridge No. 1 Waitohu Stream plan	
Drawing No. 104866-S02	Revision R3

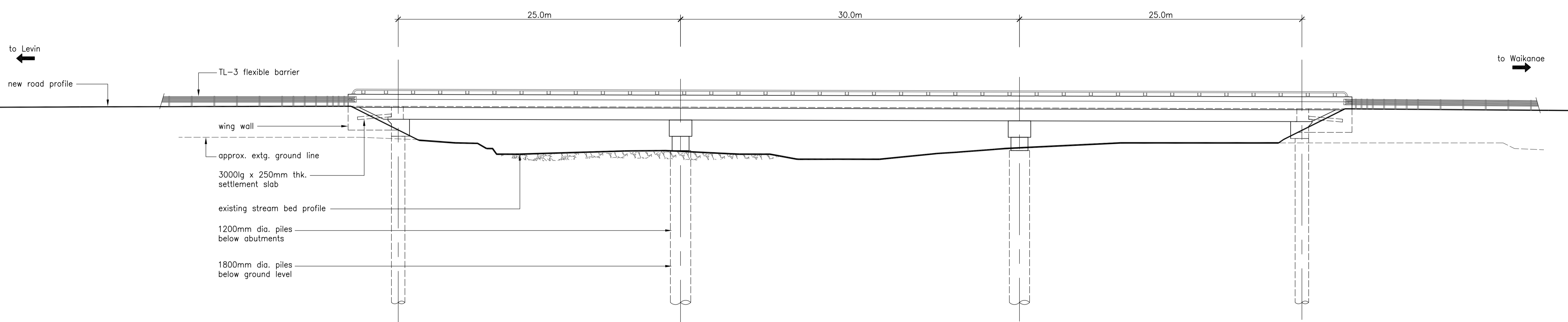
300 mm
200
100
50
0 10 mm



note:
all information not denoted, as per bridge at left

- acceptable alternative bridge forms:
- hollow core deck on similar foundations.
 - steel girders with composite concrete deck.
- acceptable alternative pier forms:
- single circular column piers with hammer head cap.
 - slab piers.
 - twin column piers with reinforced concrete pier caps.
- other piling options:
- fewer larger piles in lieu of multiple smaller piles

1 bridge cross section at pier
S02 1:50



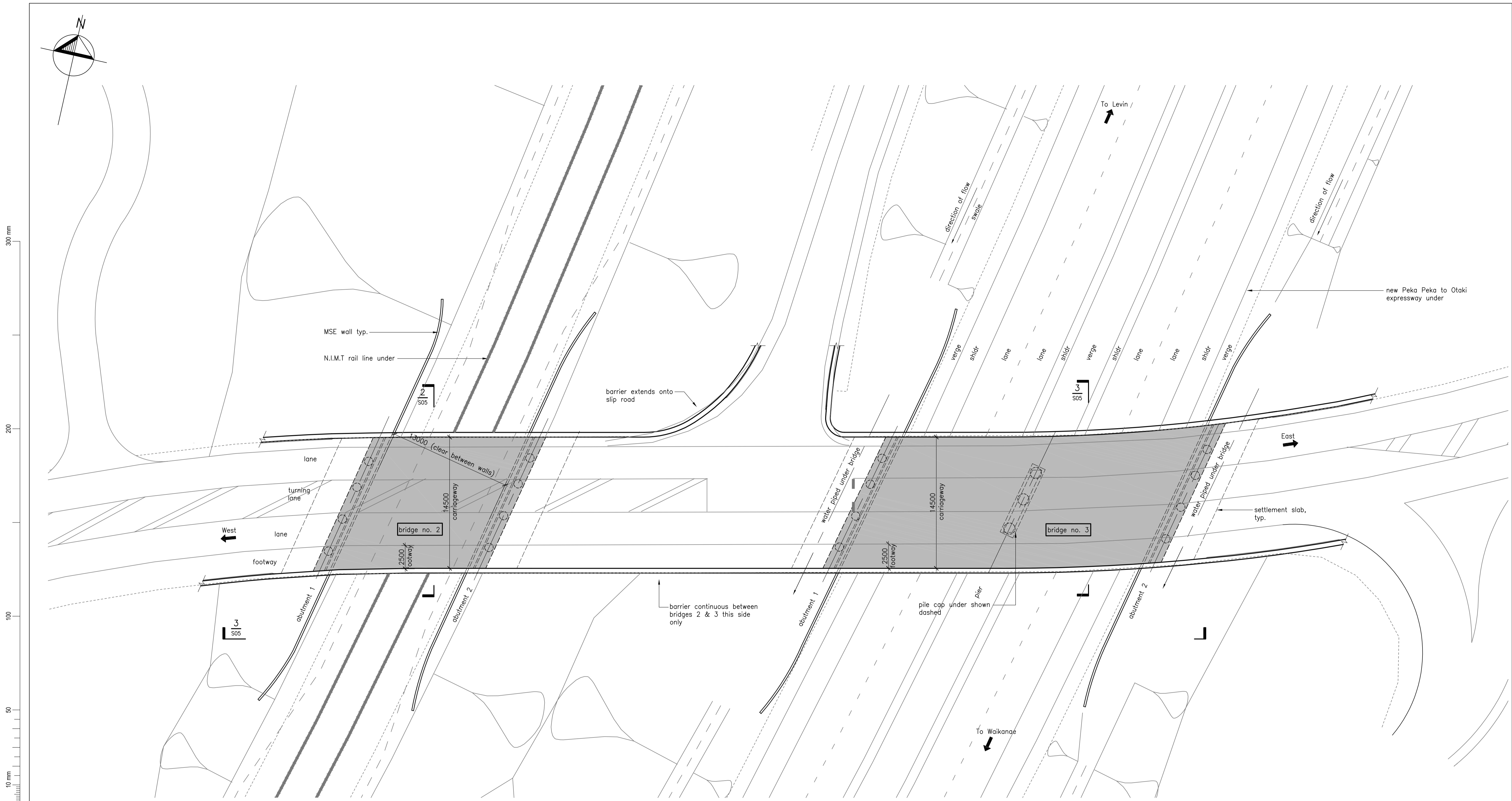
2 bridge elevation
S02 1:200

Revision	Amendment	Approved	Revision Date
3	Consent	PG	05/11/12
2	Information	PG	24/08/12
1	Information	PG	20/07/12



Drawn	Designed	Approved	Revision Date
JDR	PG	PG	05/11/12
Project No.	Scale	Drawing No.	Sheet No.
5C1814.00	As shown(A1)	104866-S03	S03

Project
 NEW ZEALAND TRANSPORT AGENCY
 PEKA PEKA TO NORTH OTAKI EXPRESSWAY
 FOR CONSENTING
 Sheet
 Structures Plans
 Bridge No. 1 Waitohu Stream section & elevation
 Drawing No. 104866-S03
 Sheet No. S03
 Revision R3



bridges general arrangement plan

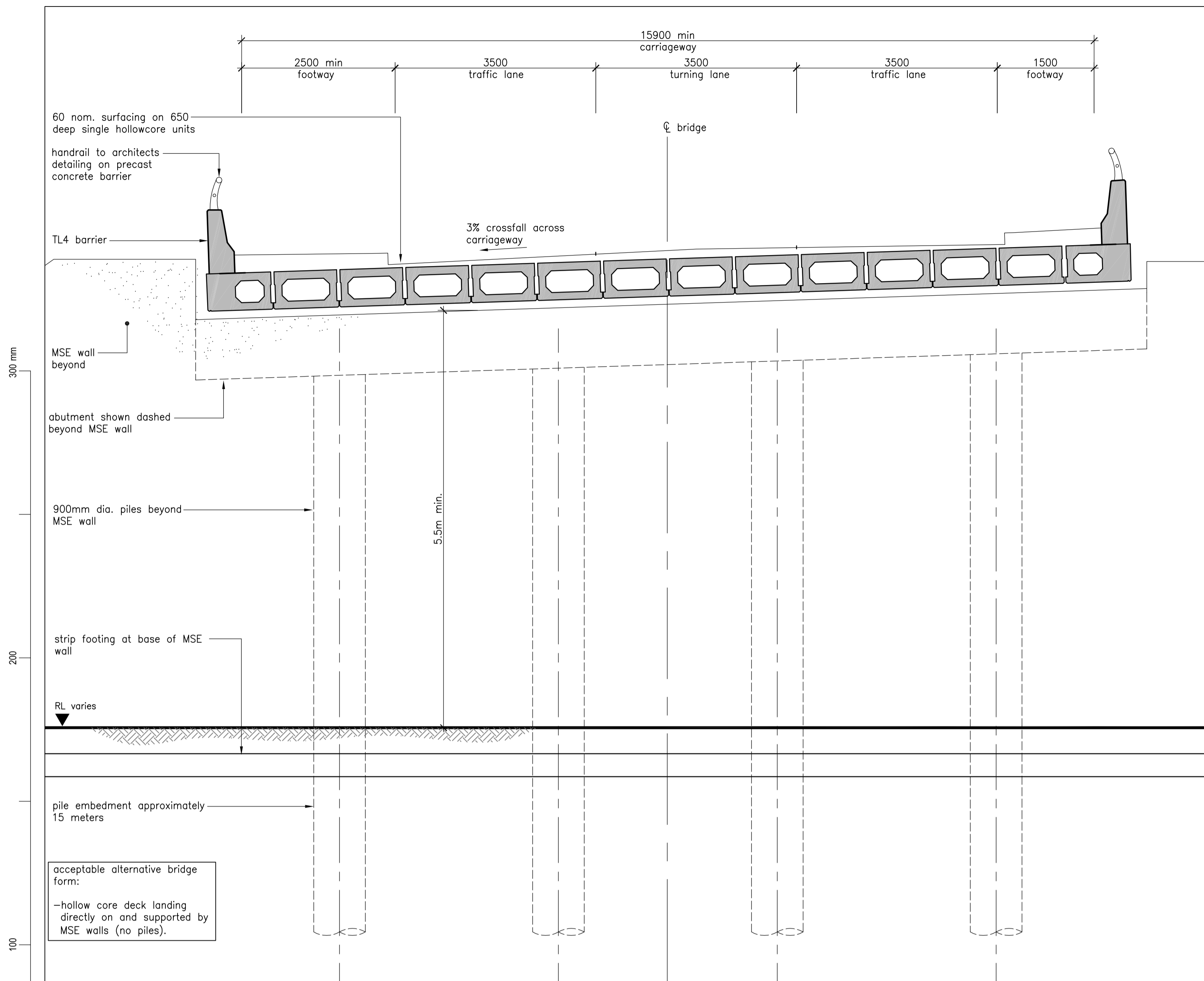
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3	Consent	PG	05/11/12
2	Information	PG	24/08/12
1	Information	PG	20/07/12



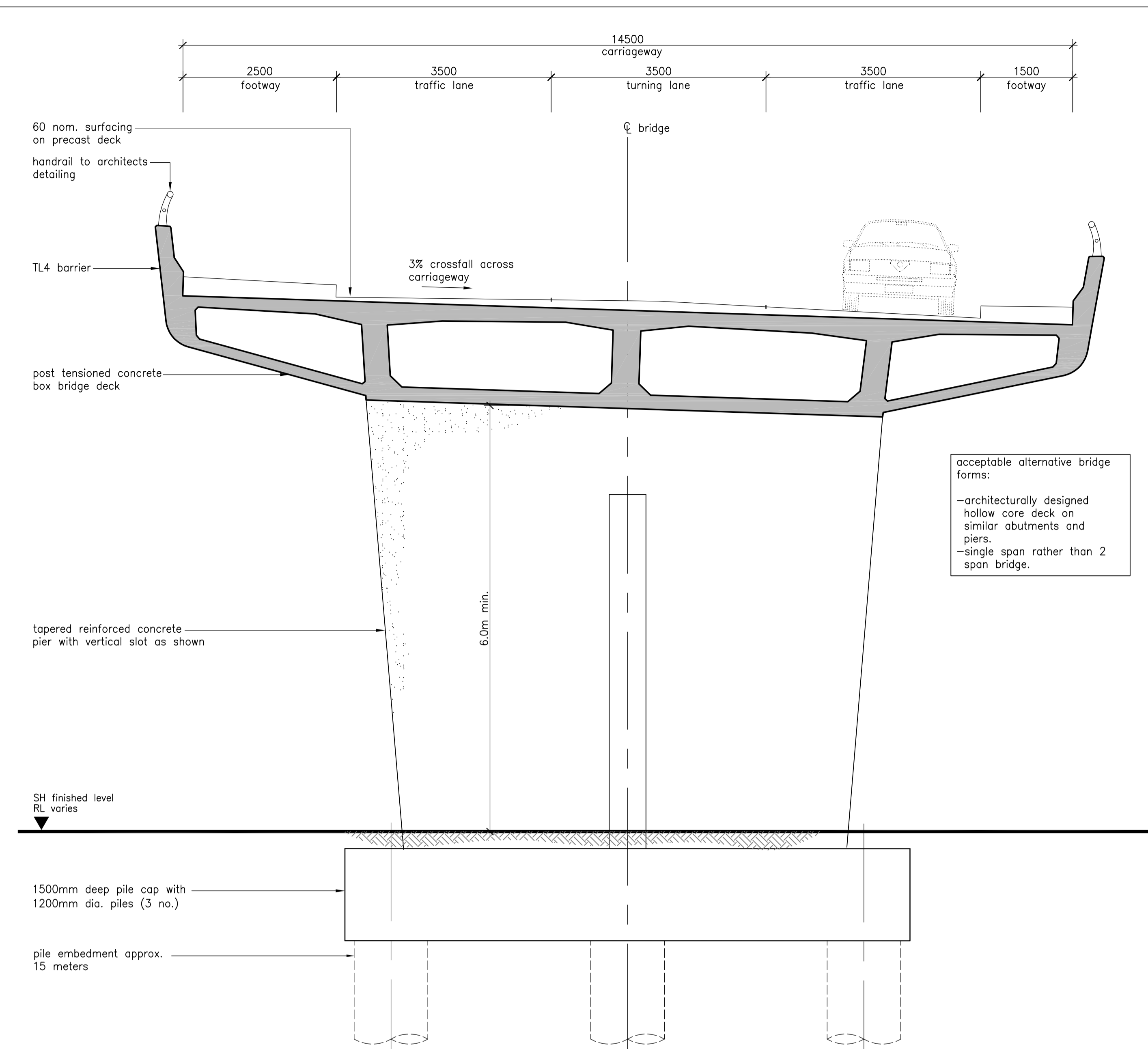
Drawn	Designed	Approved	Revision Date
JDR	PG	PG	05/11/12

Project No.	Scale
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Project	
NEW ZEALAND TRANSPORT AGENCY PEKA PEKA TO NORTH OTAKI EXPRESSWAY FOR CONSENTING	
Sheet	
Structures Plans Bridges No. 2 & 3 North Otaki plan	
Drawing No.	Revision
104866-S04	S04 R3

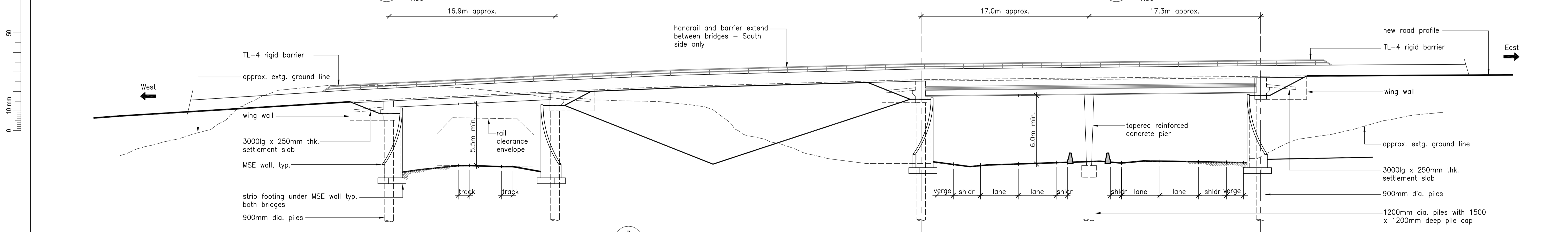


2
S04
bridge 2 cross section
1:50



1
S04
bridge 3 cross section at pier
1:50

acceptable alternative bridge forms:
-architecturally designed hollow core deck on similar abutments and piers.
-single span rather than 2 span bridge.



3
S04
bridges 2 & 3 elevation
1:200

note:
protection barriers and screens over rail corridor not shown but shall be provided. Details pending discussions with Kiwi Rail

Revision	Amendment	Approved	Revision Date
3	Consent	PG	05/11/12
2	Information	PG	24/08/12
1	Information	PG	20/07/12



Drawn	Designed	Approved	Revision Date
JDR	PG	PG	05/11/12

Project No.	Scale
5C1814.00	As shown(A1)

Project	
NEW ZEALAND TRANSPORT AGENCY PEKA PEKA TO NORTH OTAKI EXPRESSWAY FOR CONSENTING	
Sheet	
Structures Plans Bridges No. 2 & 3 North Otaki sections & elevation	
Project No.	Scale
5C1814.00	As shown(A1)
Drawn No.	Sheet No.
104866-S05	S05
Revision	Revision
	R3



bridge general arrangement plan

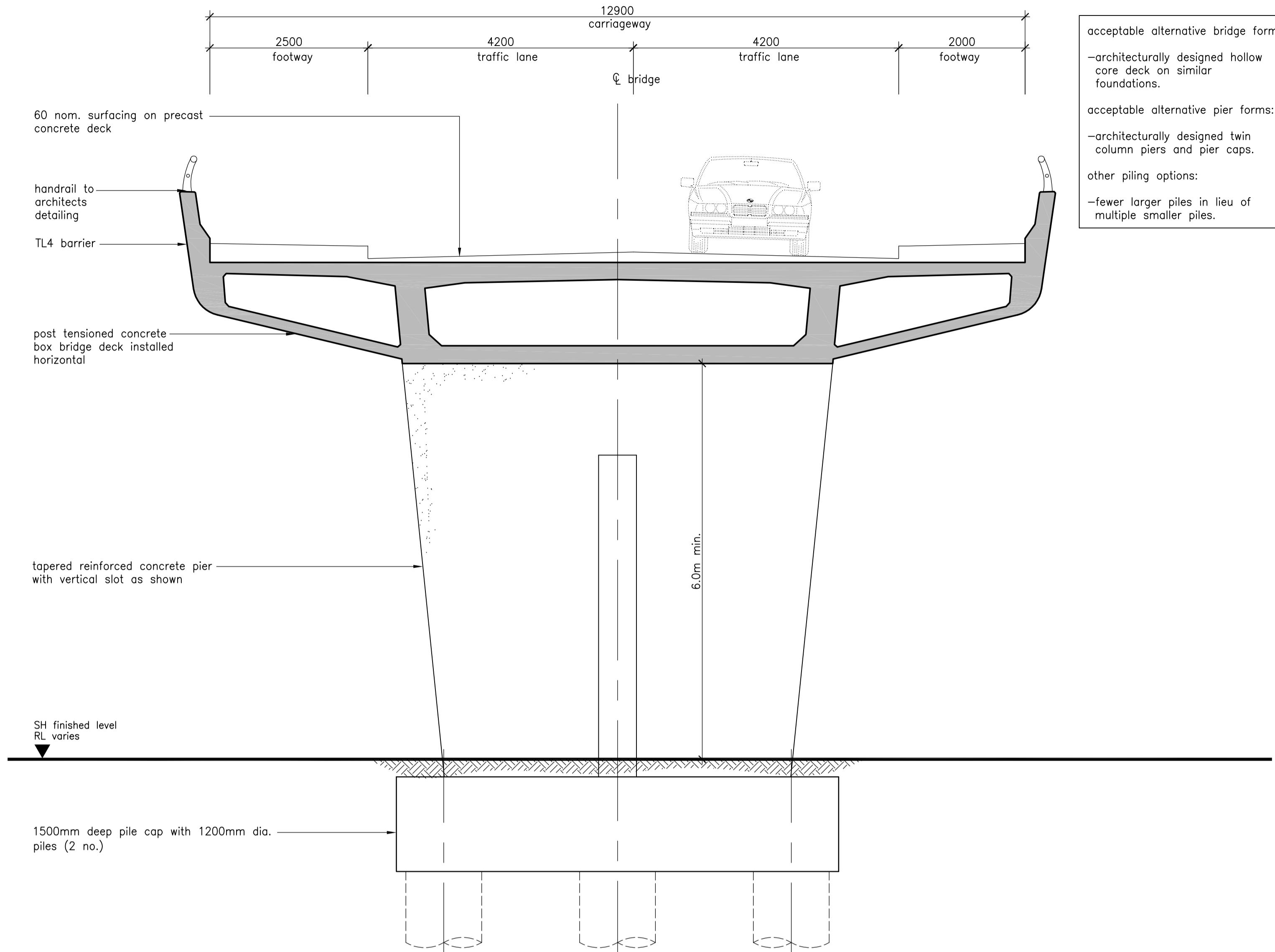
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3	Consent	PG	05/11/12
2	Information	PG	24/08/12
1	Information	PG	20/07/12



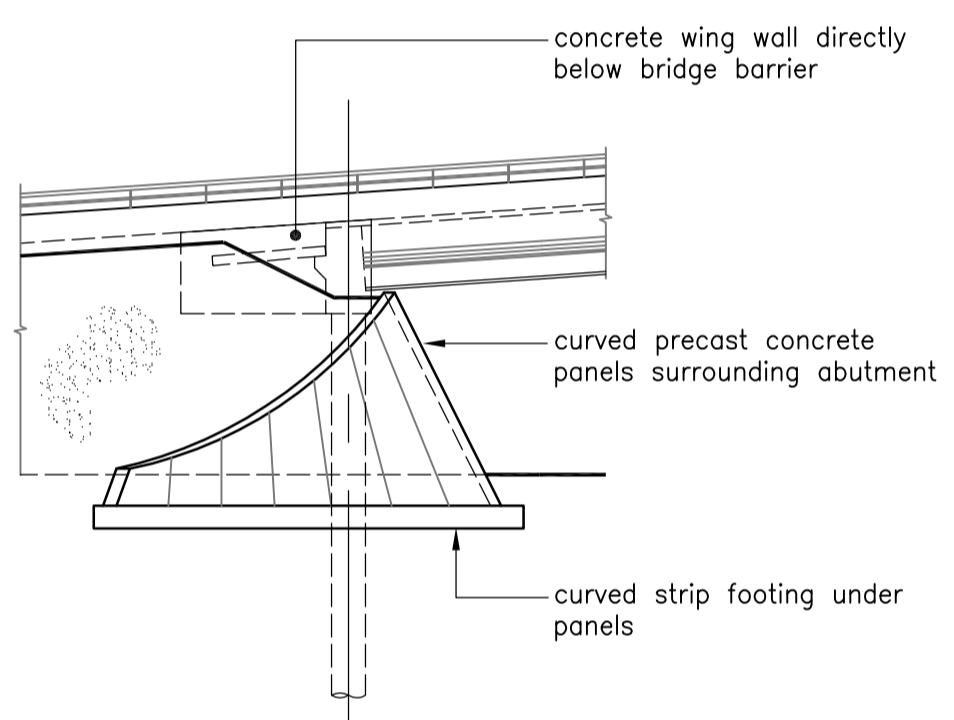
Drawn	Designed	Approved	Revision Date
JDR	PG	PG	05/11/12
Project No.	Scale	Drawing No.	
5C1814.00	1:200(A1)	104866-S06	

Project	
NEW ZEALAND TRANSPORT AGENCY PEKA PEKA TO NORTH OTAKI EXPRESSWAY FOR CONSENTING	
Sheet	
Structures Plans Bridge No. 4 Rahui Road plan	
Sheet No.	Revision
S06	R3

300 mm
200
100
50
10 mm

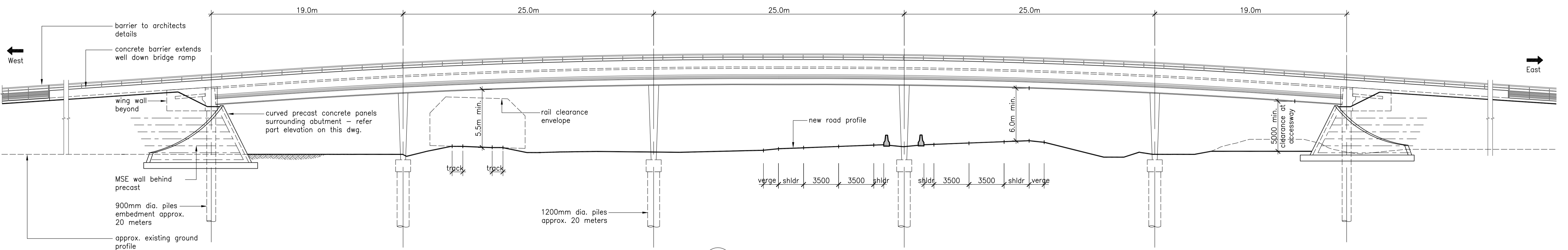


acceptable alternative bridge forms:
-architecturally designed hollow core deck on similar foundations.
acceptable alternative pier forms:
-architecturally designed twin column piers and pier caps.
other piling options:
-fewer larger piles in lieu of multiple smaller piles.



3 bridge part elevation showing precast abutment surround
1:200

1 bridge cross section at pier
S06 1:50



2 bridge elevation
S06 1:200

note:
protection barriers and screens over rail corridor not shown but shall be provided. Details pending discussions with Kiwi Rail

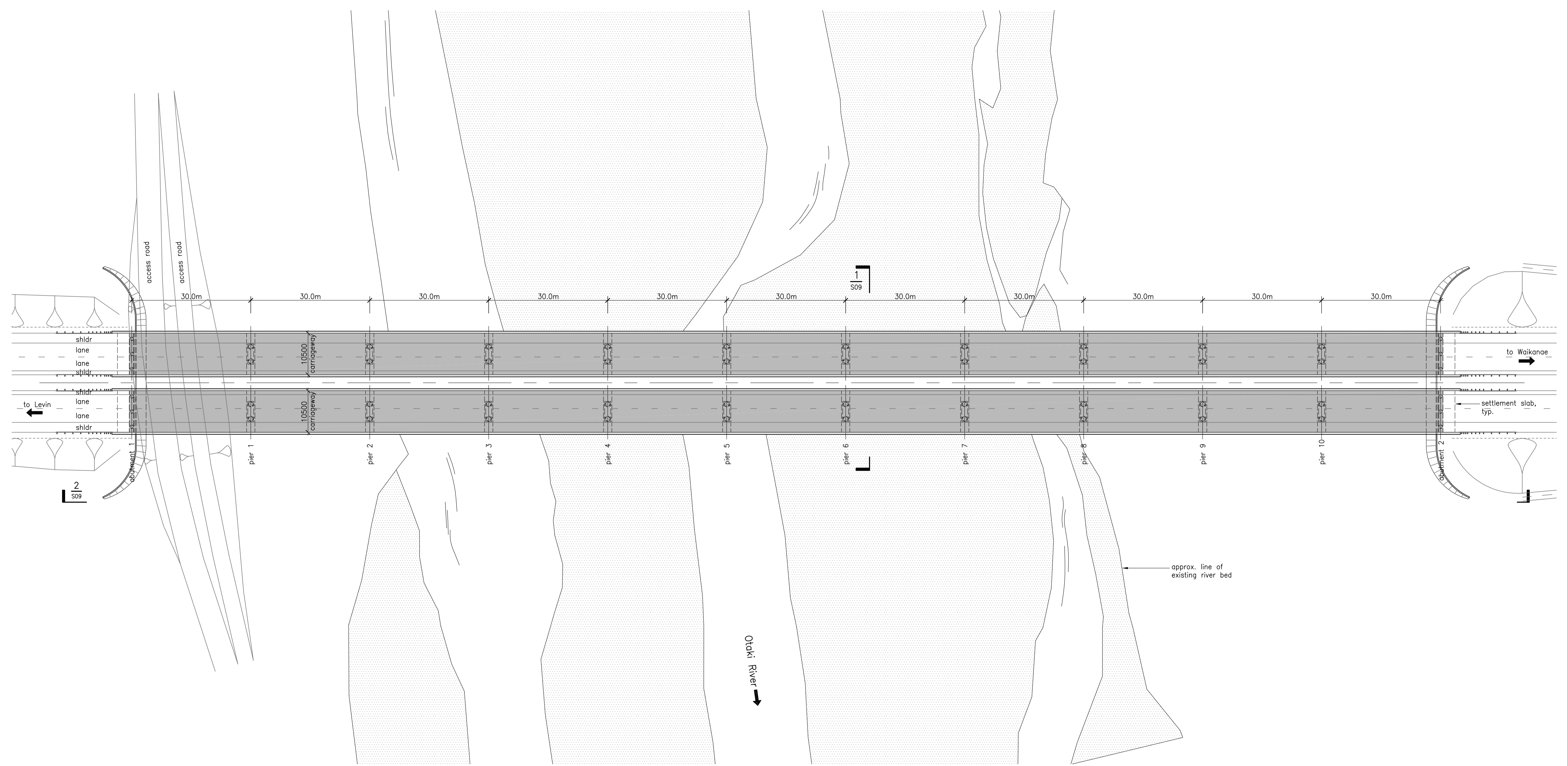
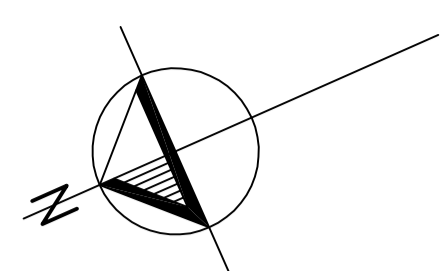
Revision	Amendment	Approved	Revision Date
3	Consent	PG	05/11/12
2	Information	PG	24/08/12
1	Information	PG	20-07-12



Drawn	Designed	Approved	Revision Date
JDR	PG	PG	05/11/12
Project No.	Scale	Drawing No.	Revision
5C1814.00	As shown(A1)	104866-S07	R3

Project
NEW ZEALAND TRANSPORT AGENCY
PEKA PEKA TO NORTH OTAKI EXPRESSWAY
FOR CONSENTING
Sheet
Structures Plans
Bridge No. 4 Rahui Road section & elevation
Sheet No. S07
Revision R3

300 mm
200
100
50
0 10 mm



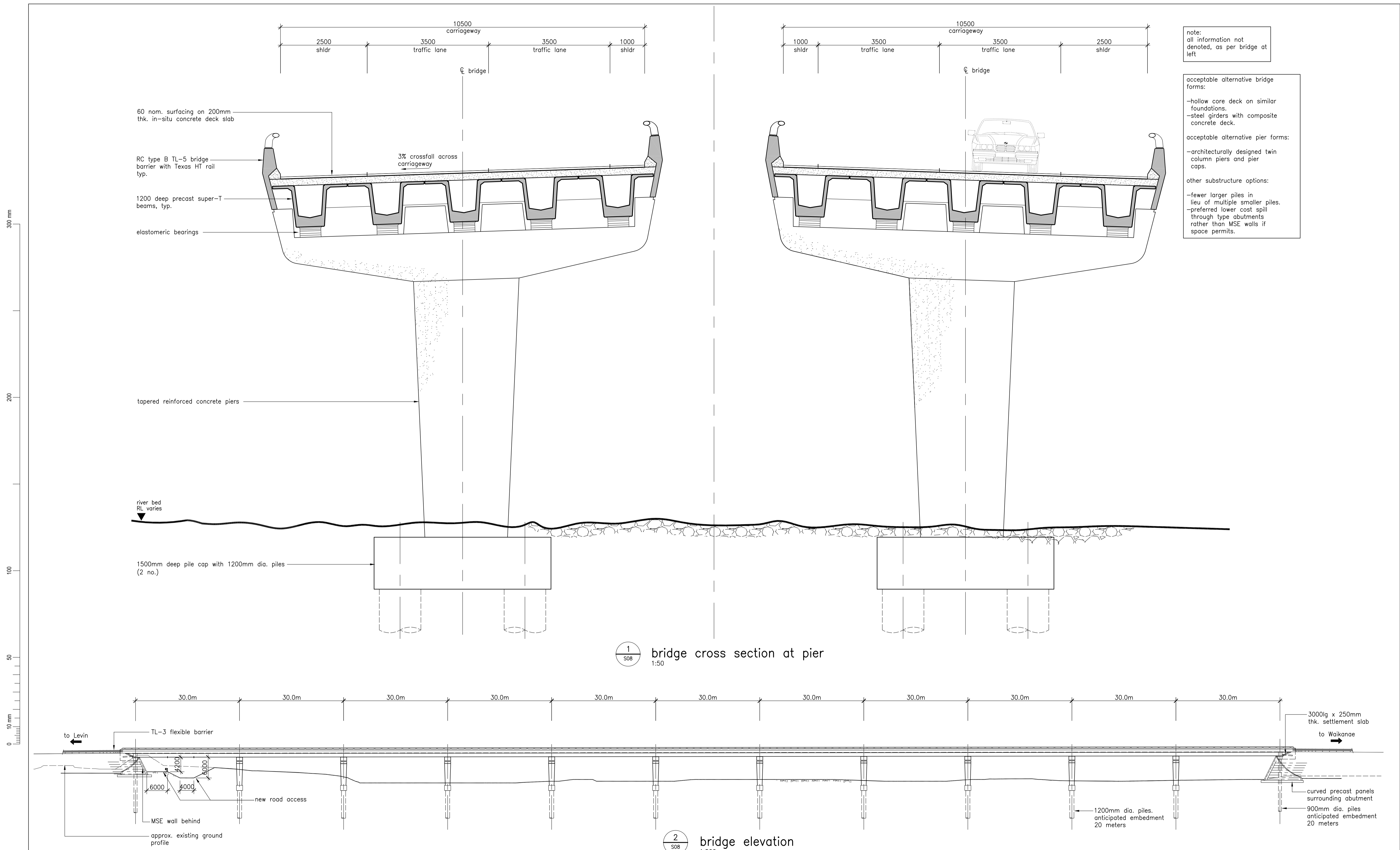
bridge general arrangement plan

Revision	Amendment	Approved	Revision Date
3	Consent	PG	05/11/12
2	Information	PG	24/08/12
1	Information	PG	20/07/12



Drawn	Designed	Approved	Revision Date
JDR	PG	PG	05/11/12
Project No.	Scale	Drawing No.	
5C1814.00	1:500(A1)	104866-S08	

Project	
NEW ZEALAND TRANSPORT AGENCY PEKA PEKA TO NORTH OTAKI EXPRESSWAY FOR CONSENTING	
Sheet	
Structures Plans Bridge No. 5 Otaki River plan	
Sheet No.	Revision
S08	R3



note:
all information not denoted, as per bridge at left

acceptable alternative bridge forms:
-hollow core deck on similar foundations.
-steel girders with composite concrete deck.

acceptable alternative pier forms:
-architecturally designed twin column piers and pier caps.

other substructure options:
-fewer larger piles in lieu of multiple smaller piles.
-preferred lower cost spill through type abutments rather than MSE walls if space permits.

1
S08
bridge cross section at pier
1:50

2
S08
bridge elevation
1:500

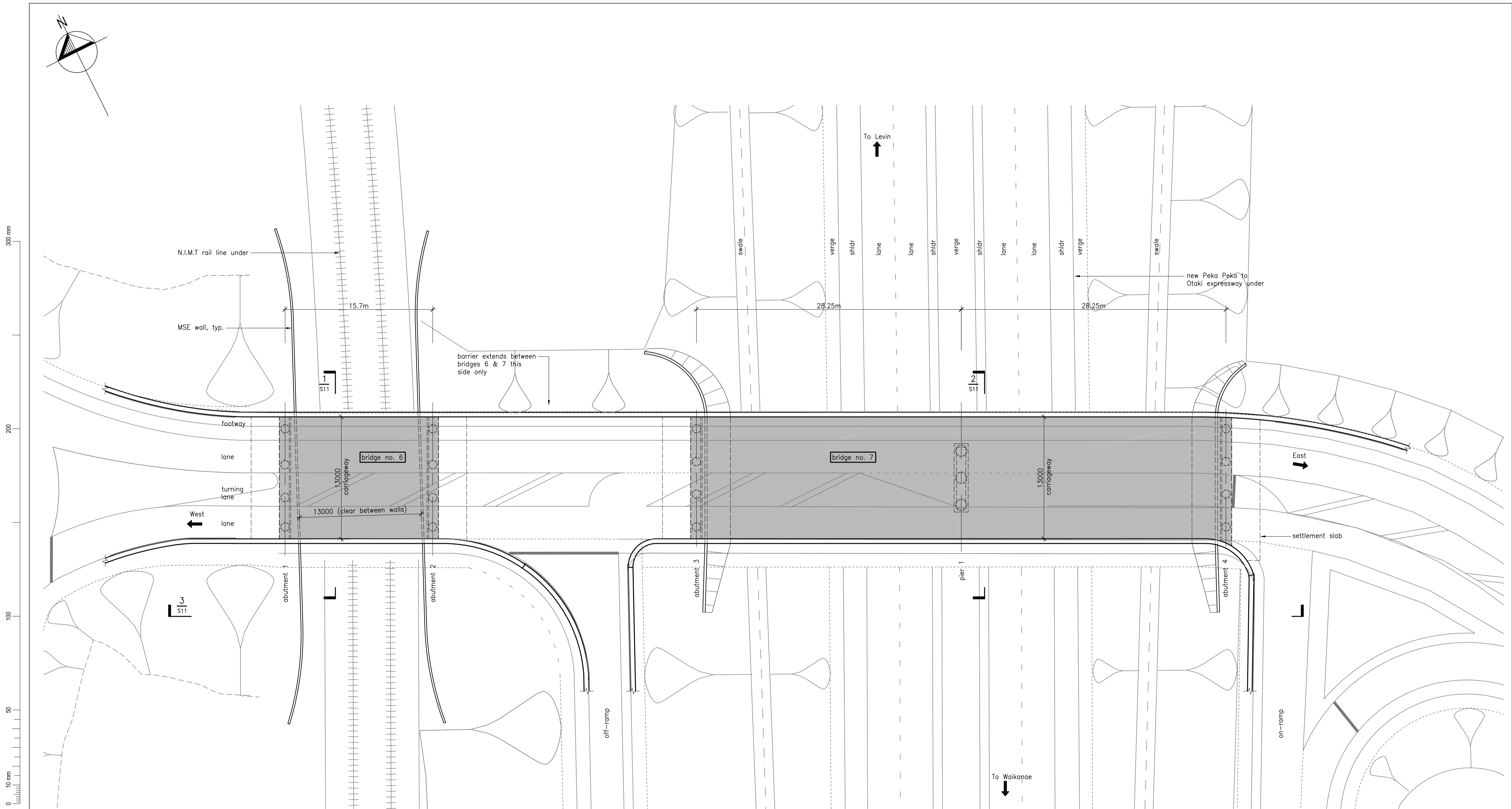
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3	Consent	PG	05/11/12
2	Information	PG	24/08/12
1	Information	PG	20/07/12



Drawn	Designed	Approved	Revision Date
JDR	PG	PG	05/11/12

Project No. 5C1814.00 Scale As shown(A1)

Project NEW ZEALAND TRANSPORT AGENCY PEKA PEKA TO NORTH OTAKI EXPRESSWAY FOR CONSENTING			
Sheet Structures Plans Bridge No. 5 Otaki River section & elevation			
Drawing No. 104866-S09	Sheet No. S09	Revision R3	



bridges general arrangement plan

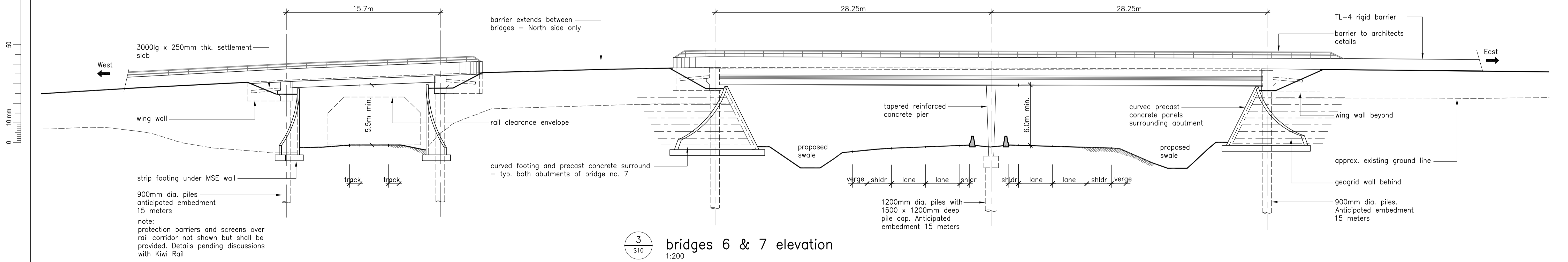
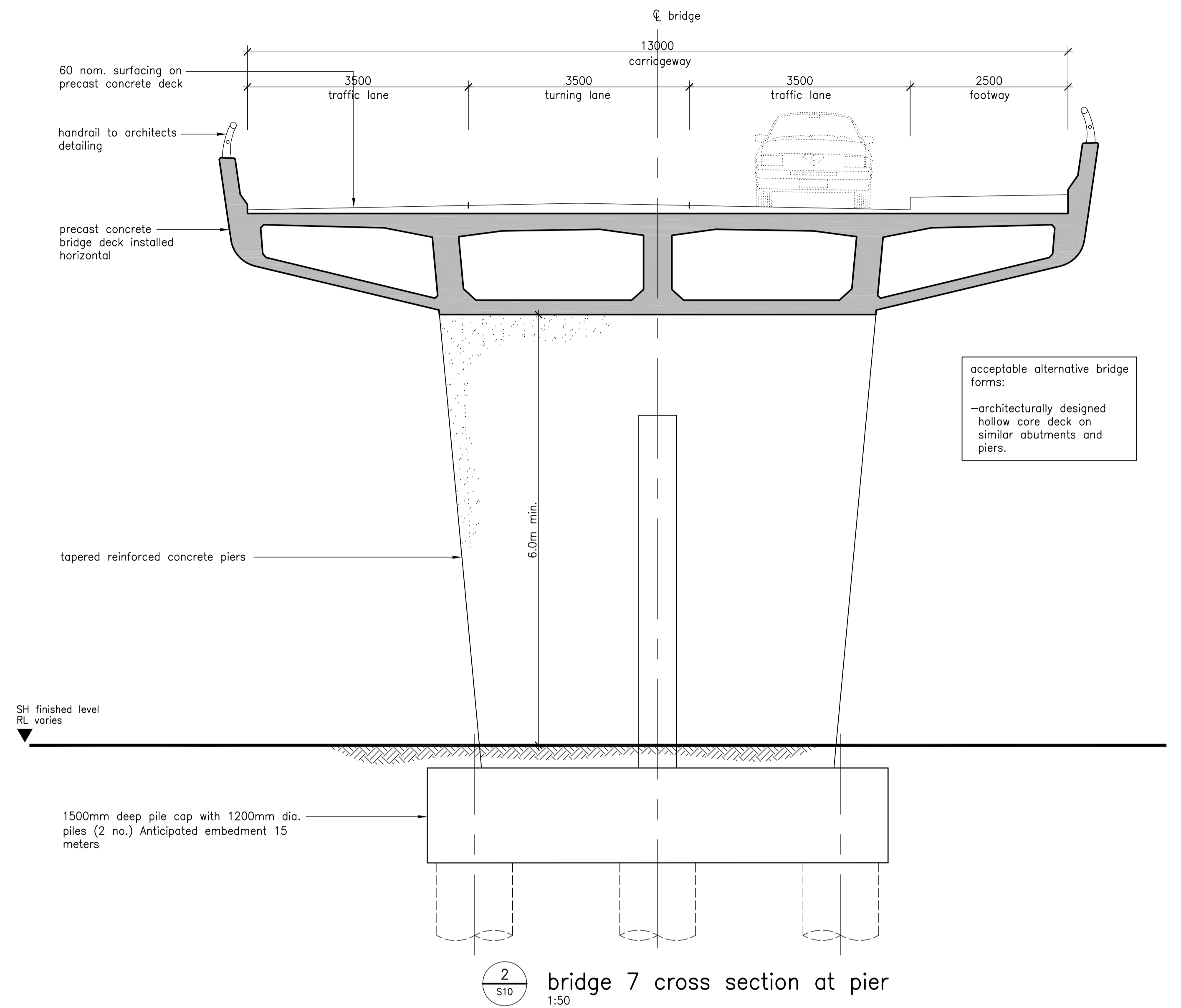
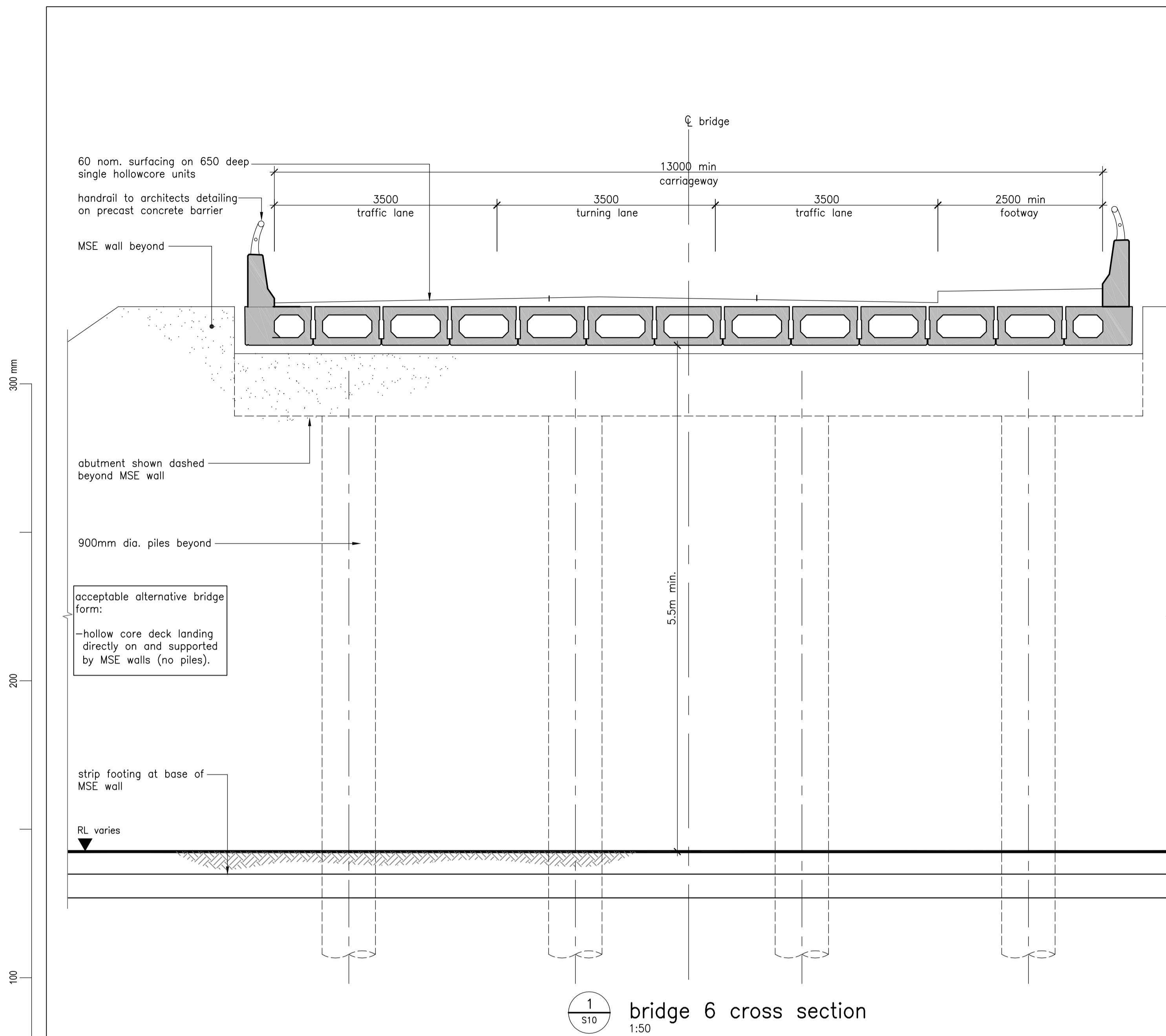
Revision	Amendment	Approved	Revision Date
3	Consent	PG	05/11/12
2	Information	PG	24/08/12
1	Information	PG	20/07/12



Drawn	Designed	Approved	Revision Date
JDR	PG	PG	05/11/12

Project No.	Scale
5C1814.00	1:200(A1)

Project	
NEW ZEALAND TRANSPORT AGENCY PEKA PEKA TO NORTH OTAKI EXPRESSWAY FOR CONSENTING	
Sheet	
Structures Plans Bridges No. 6 & 7 South Otaki plan	
Drawing No.	Sheet No.
104866-S10	S10
Revision	R3

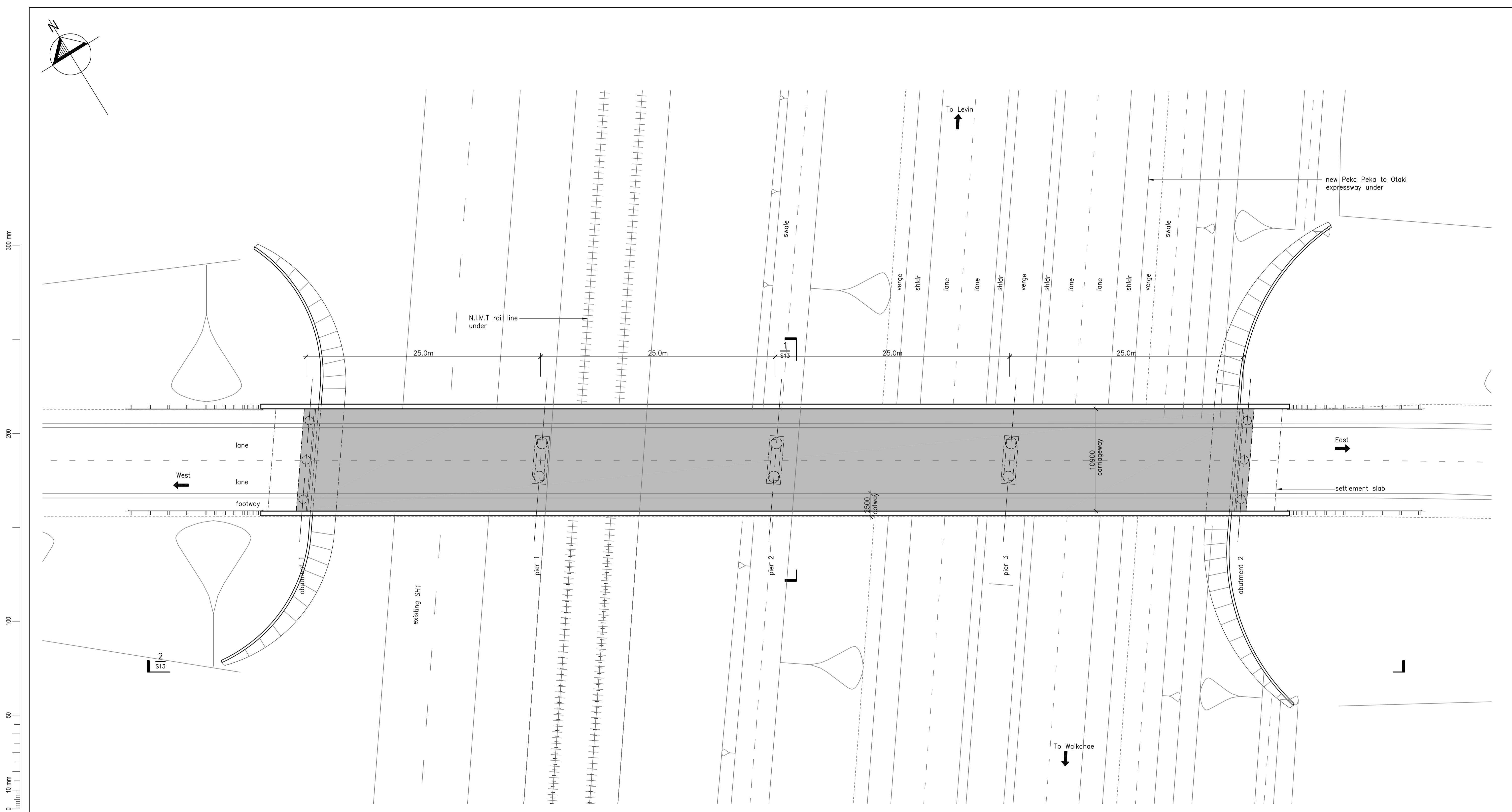


Revision	Amendment	Approved	Revision Date
3	Consent	PG	05/11/12
2	Information	PG	24/08/12
1	Information	PG	20/07/12



Drawn	Designed	Approved	Revision Date
JDR	PG	PG	05/11/12

Project			
NEW ZEALAND TRANSPORT AGENCY PEKA PEKA TO NORTH OTAKI EXPRESSWAY FOR CONSENTING			
Sheet			
Structures Plans Bridges No. 6 & 7 South Otaki sections & elevation			
Project No.	Scale	Drawing No.	Sheet No.
5C1814.00	As shown(A1)	104866-S11	S11
			R3



bridge general arrangement plan

Revision	Amendment	Approved	Revision Date
3	Consent	PG	05/11/12
2	Information	PG	24/08/12
1	Information	PG	20/07/12

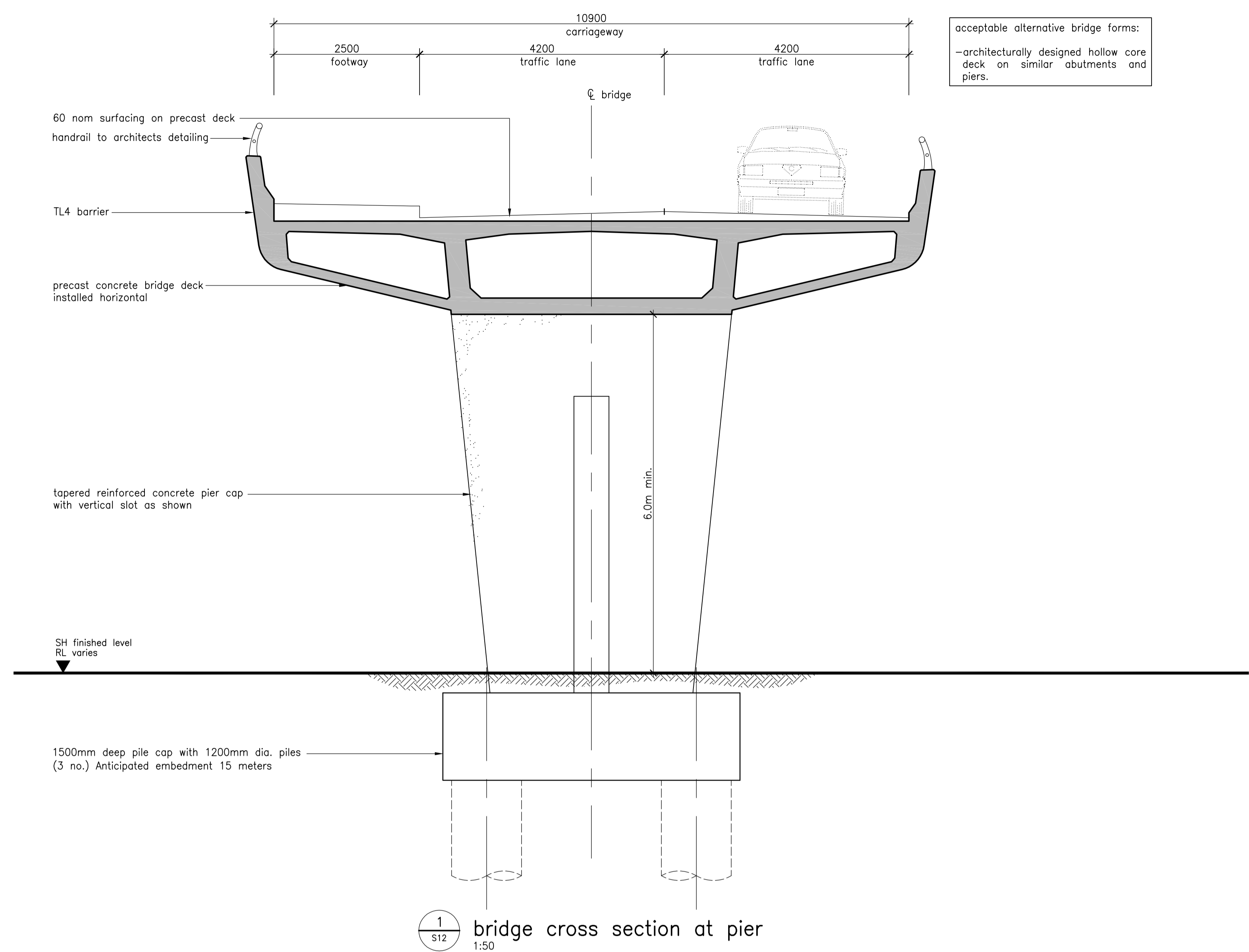


Drawn	Designed	Approved	Revision Date
JDR	PG	PG	05/11/12

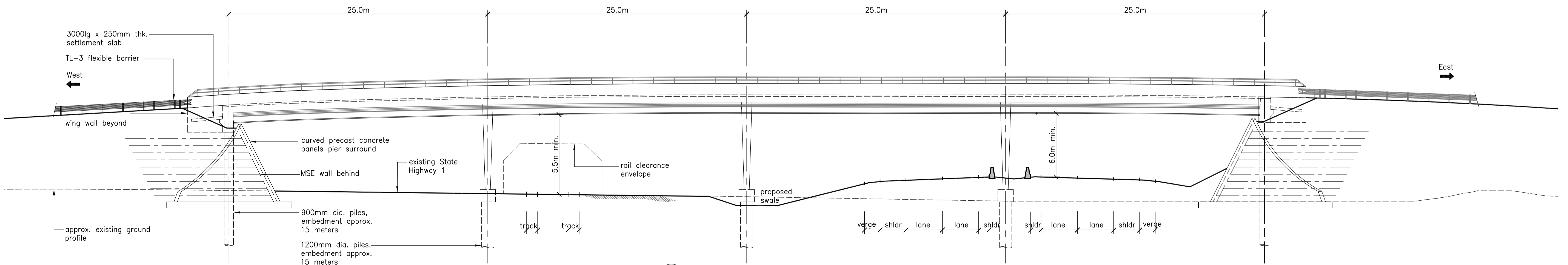
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Project	
NEW ZEALAND TRANSPORT AGENCY PEKA PEKA TO NORTH OTAKI EXPRESSWAY FOR CONSENTING	
Sheet	
Structures Plans Bridge No. 8 Te Horo plan	
Drawing No.	Sheet No.
104866-S12	S12
Revision	R3

300 mm
200
100
50
10 mm
0



acceptable alternative bridge forms:
-architecturally designed hollow core deck on similar abutments and piers.



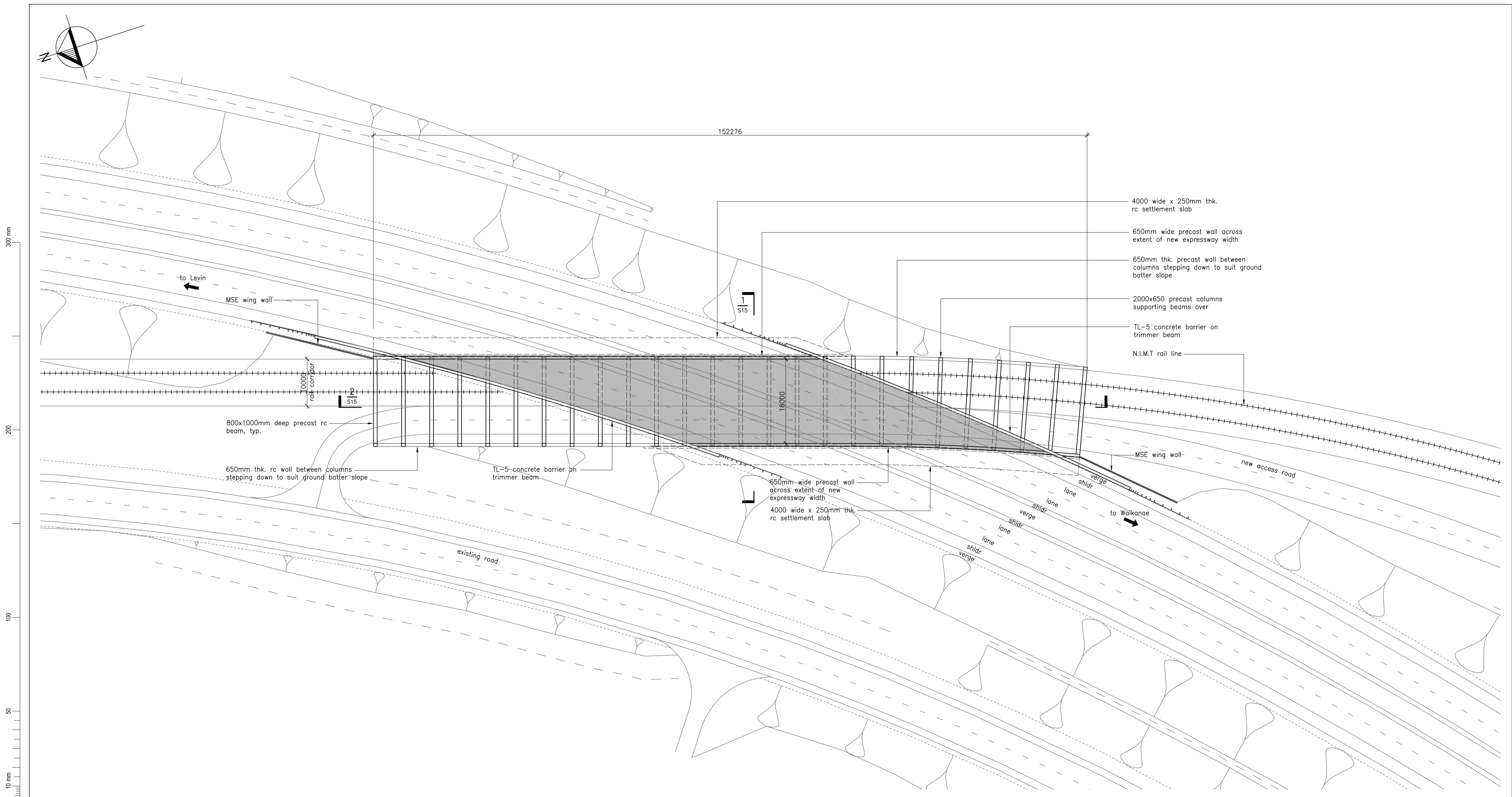
note:
protection barriers and screens over rail corridor not shown but shall be provided. Details pending discussions with Kiwi Rail

Revision	Amendment	Approved	Revision Date
3	Consent	PG	05/11/12
2	Information	PG	24/08/12
1	Information	PG	20/07/12



Drawn	Designed	Approved	Revision Date
JDR	PG	PG	05/11/12
Project No. 5C1814.00		Scale as shown(A1)	Revision Date

Project NEW ZEALAND TRANSPORT AGENCY PEKA PEKA TO NORTH OTAKI EXPRESSWAY FOR CONSENTING			
Sheet Structures Plans Bridge No. 8 Te Horo section & elevation			
Drawing No. 104866-S13	Sheet No. S13	Revision R3	



bridge general arrangement plan

Revision	Amendment	Approved	Revision Date
3	Consent	PG	05/11/12
2	Information	PG	24/08/12
1	Information	PG	20/07/12

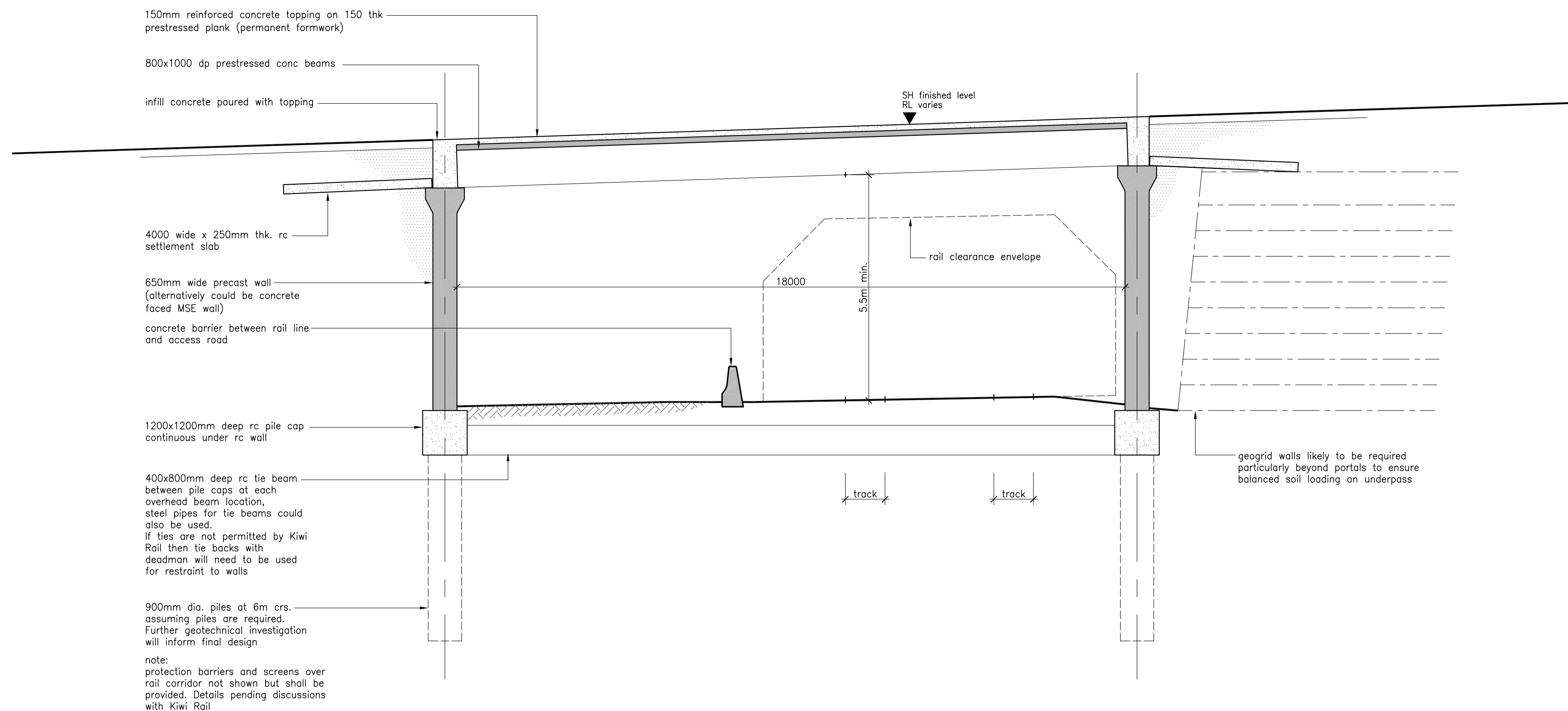


Drawn	Designed	Approved	Revision Date
JDR	PG	PG	05/11/12

Project No.	Scale
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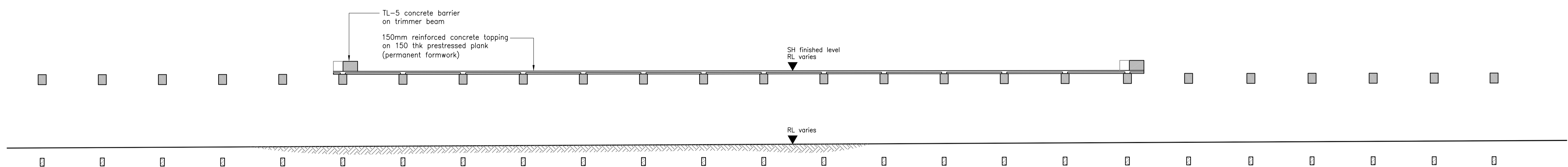
Project	
NEW ZEALAND TRANSPORT AGENCY PEKA PEKA TO NORTH OTAKI EXPRESSWAY FOR CONSENTING	
Sheet	
Structures Plans Bridge No. 9 Mary Crest plan	
Drawing No.	Sheet No.
104866-S14	S14
Revision	R3

300 mm
200
100
50
10 mm
0



note:
 -any reduction in span will in general results in significant savings as width of the bridge is also reduced due to high skew.
 -not withstanding the above, if the bridge deck can be supported on MSE walls (no piles), although a longer span will result due the set back of bank seats, there maybe some savings in overall cost.

1
S14
bridge cross section
1:75



2
S14
bridge long section along centreline of structure
1:200

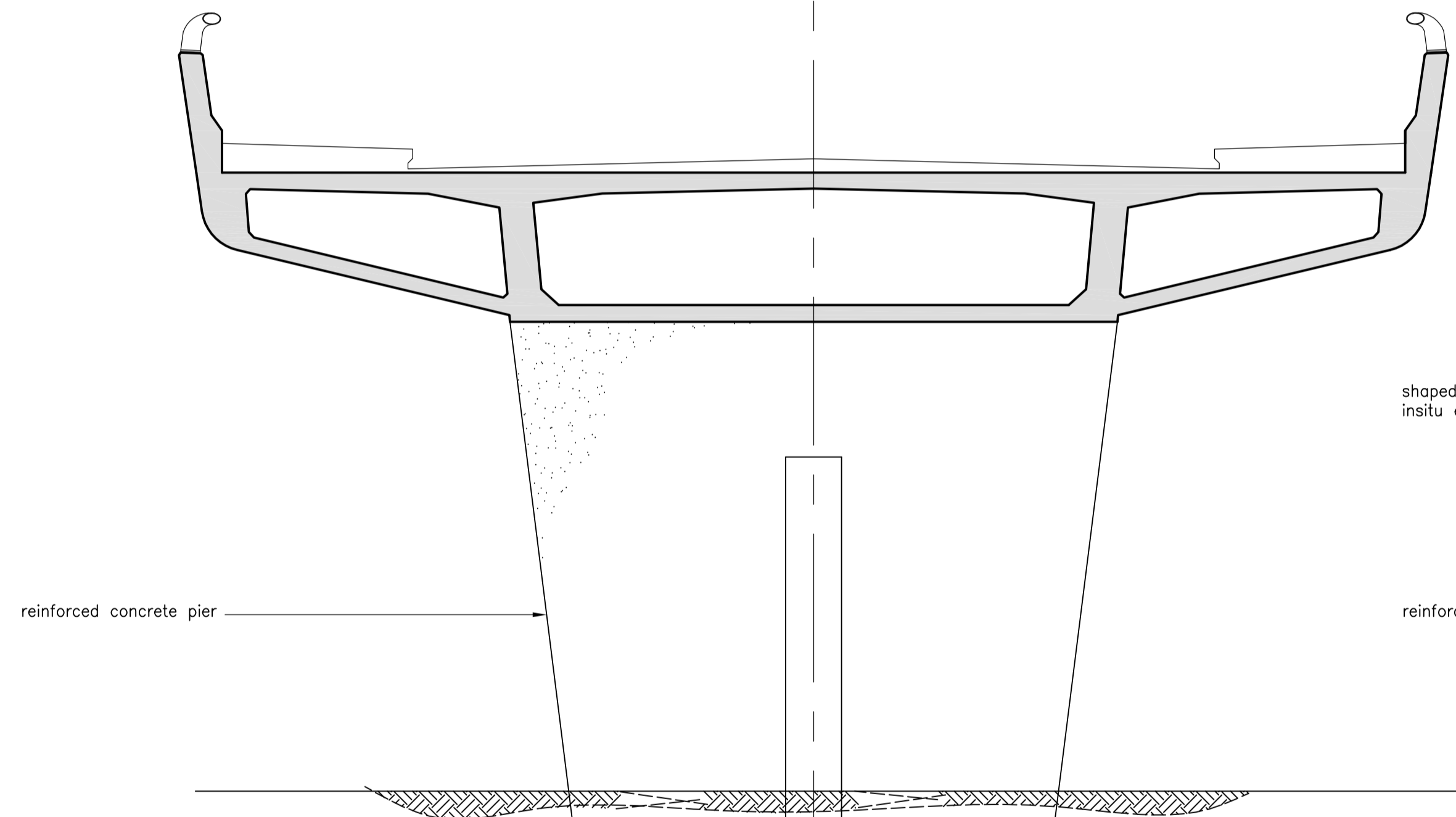
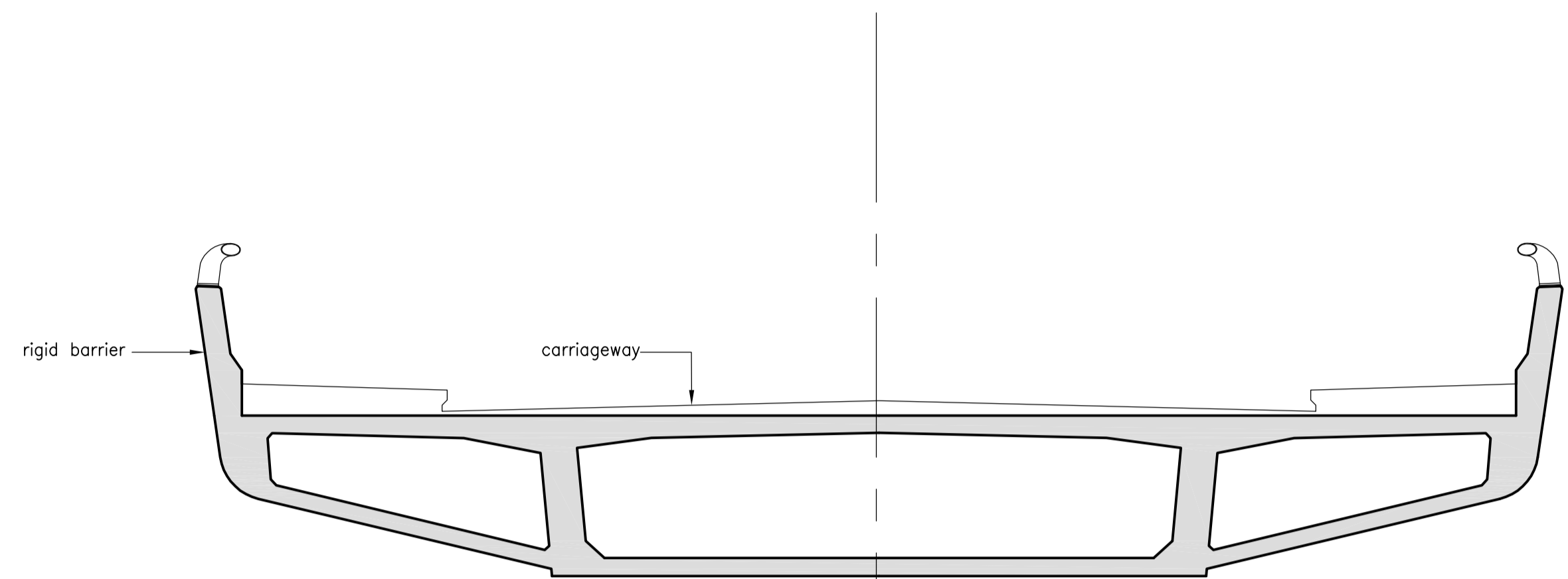
Revision	Amendment	Approved	Revision Date
3	Consent	PG	05/11/12
2	Information	PG	24/08/12
1	Information	PG	20/07/12



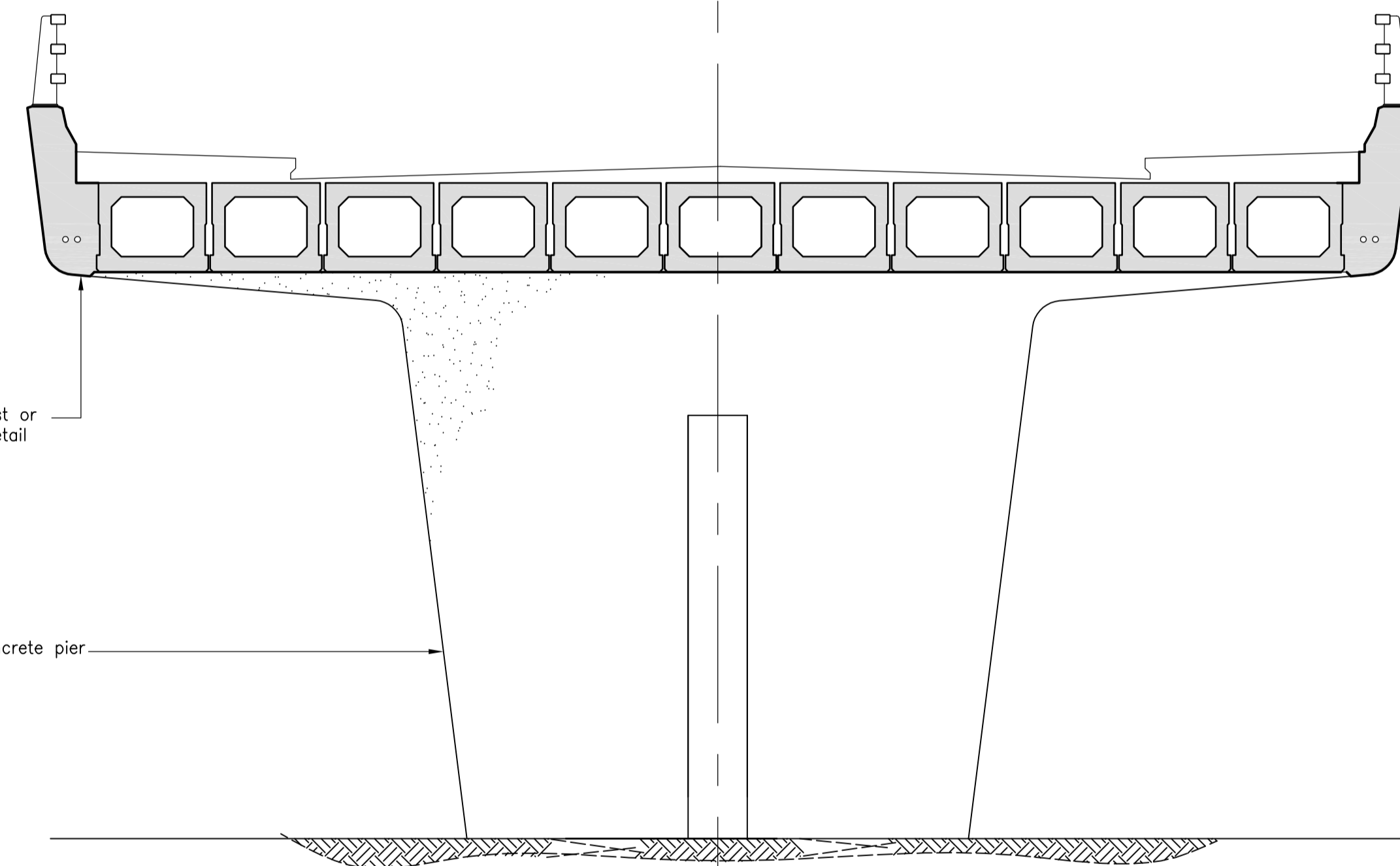
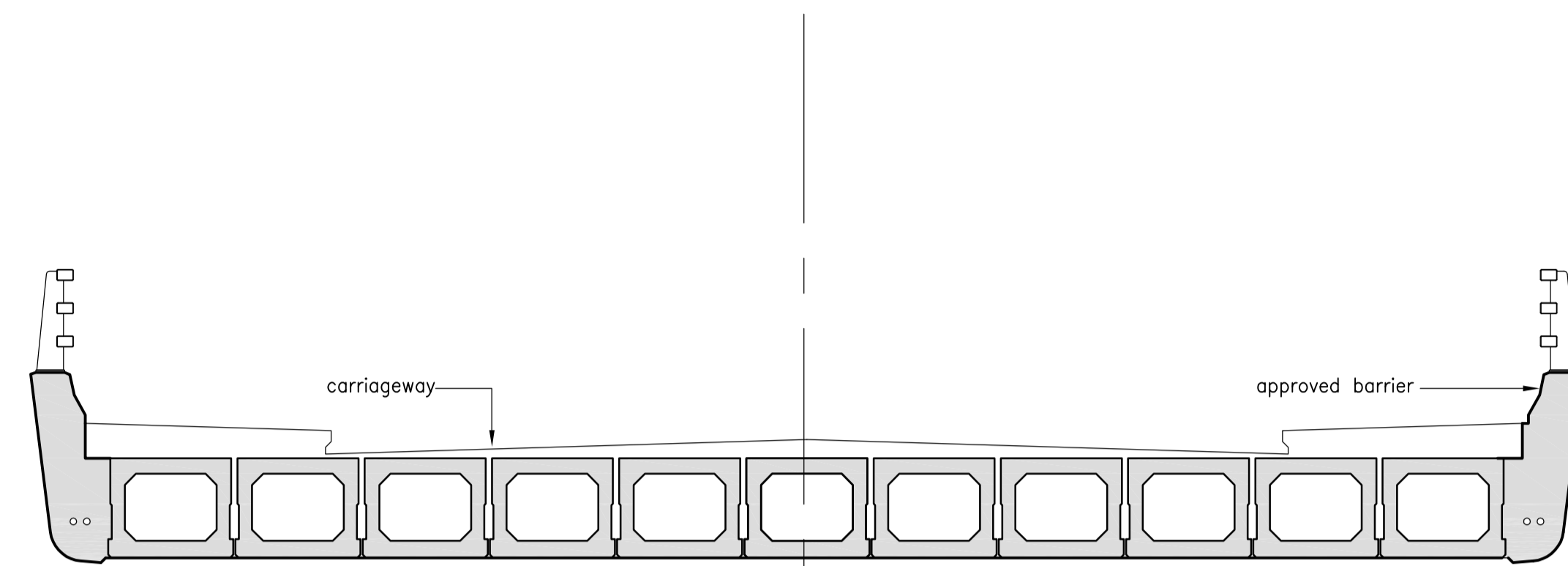
Drawn	Designed	Approved	Revision Date
JDR	PG	PG	05/11/12
Project No.	Scale	Drawing No.	
5C1814.00	as shown(A1)	104866-S15	

Project			
NEW ZEALAND TRANSPORT AGENCY PEKA PEKA TO NORTH OTAKI EXPRESSWAY FOR CONSENTING			
Sheet			
Structures Plans Bridge No. 9 Mary Crest section & long section			
Sheet No.	Revision		
S15	R3		

300 mm
200
100
50
0
10 mm



concrete box girder deck
bridges 3, 4, 7 and 8



hollow core bridge deck acceptable alternative
bridges 3, 4, 7 and 8

Revision	Amendment	Approved	Revision Date
3	Consent	PG	05/11/12
2	Information	PG	24/08/12
1	Information	PG	20/07/12



Drawn	Designed	Approved	Revision Date
JDR	PG	PG	05/11/12

Project No.	Scale
5C1814.00	1:50 (A1)

Project	
NEW ZEALAND TRANSPORT AGENCY PEKA PEKA TO NORTH OTAKI EXPRESSWAY FOR CONSENTING	
Sheet	
Structures Plans Acceptable Deck Arrangements (for bridges 3, 4, 7 and 8)	
Drawing No.	Sheet No.
104866-S16	S16
Revision	R3