



Department of Transportation, Infrastructure & Energy
PO Box 2000
Charlottetown
Prince Edward Island
Canada C1A 7N8 Tel: 902 368 5180

**CAPITAL PROJECTS
ADDENDUM NUMBER 2
for
NORTH LAKE BRIDGE - STRUCTURE REPLACEMENT
(Scheduled Tender Closing 23 July 2019)**

TO: All Bidders

**FROM: Neil Lawless, P.Eng.
Bridge Engineer**

DATE: 19 July 2019

**SUBJECT: Errata to Schedule 'A'
Errata to Drawings**

1. Schedule A: Bid Item #130822 - Concrete Abutments and Piers:
Insert the following regarding item 2.3 silane sealer - approved equal: Pentreat 244-100.

2. Schedule A: Bid Item #130861 - Bridge Deck, Curbs, and Parapet:
Insert the following regarding item 3.4 silane sealer - approved equal: Pentreat 244-100.

3. Schedule A: Bid Items #130914 to #130923 inclusive - GFRP:
Clarification:
Submitted shop drawings do not require a professional engineer's seal.

4. Drawing S4 of 23: Plan - New:
Project Limits:

Fairfield: New Limit Station 2+177.69m
East Point: New Limit Station 2+552.75m

Addendum #2
North Lake Bridge - Structure Replacement
19 July 2019

5. Drawing S5 of 23: Elevation New:

A) Top of asphalt elevation at bridge centerline at each abutment:

Fairfield Abut 1: Elevation 6.546M

East Point Abut 2: Elevation 6.917M

B) Underside girder Elevation 4.80M is at pier 1 (not pier 2). This dictates the vertical profile and all other resulting elevations, using a 3% transverse slope across bridge width, and 0.5% longitudinal slope from Fairfield abutment up to East Point abutment. Refer to bearing assembly heights and pier cap heights to determine underside pier cap elevation. Component elevations will be determined by the Department as part of Issued for Construction drawing development.

6. Drawing S10 of 23: Abutment Details - Elevation 2 - Wing Wall:

Refer to attached SK-3 for approach slab flexbeam connection to the collision block.

7. Drawing S10 of 23: Abutment Details - Section 3 - Wing Wall:

A) Delete 125mm and 85mm horizontal offset on inside face of collision block.

B) Inside face (traffic side) of collision block to be plumb with a constant width of 450mm.

C) Top of collision block elevation to be 1117mm from top of deck elevation.

D) Top of approach slab is flush with top of bridge deck (not buried).

8. Drawing S10 of 23: Abutment Details - Section 5 Sleeper Slab:

Compression seal approved equal: Watson Bowman.

9. Drawing S10 of 23: Abutment Details - Section 5 Sleeper Slab:

Refer to attached SK-4 for Sleeper Slab Reinforcement.

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10. Drawing S12 of 23: Pier 1 Details - Section 2 Pier 1 Cap:

Leader text to pile cap plate:

608 dia x 30 steel cap plate c/w 300 dia hole centered in plate.

11. Drawing S12 of 23: Pier 1 Details - Detail 8 - Pipe Pile Cutting Shoe:

All steel pipe piles are 508 diameter (not 356). Change all related dimensions and related text to correspond with 508 diameter.

12. Drawing S13 of 23: Pier 2 Details - Section 6 Pier 1 Cap:

Leader text to pile cap plate:

608 dia x 30 steel cap plate c/w 300 dia hole centered in plate.

13. Drawing S13 of 23: Pier 2 Details - Detail 5 - Pipe Pile Cutting Shoe:

All steel pipe piles are 508 diameter (not 356). Change all related dimensions and related text to correspond with 508 diameter.

14. Drawing S14 of 23: Girder Details 1 - Detail 3 - Hold-Down Location:

A) Change hold-down locations from 20%L to 30%L (ie within middle 30% of girder length).
B) Change outer percents from 80%L to 35%L each.

15. Drawing S14 of 23: Girder Details 1 - Detail 5 - Girder Reinforcement Detail 'F' and 'G':

A) Change stirrup B-4 project above top flange from 145mm to 185mm.
B) Reinforcing Schedule Table: Change stirrup B-4 length from 2195mm to 2235mm.

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16. Drawing S18 of 23: Deck Details - Section 1 - Bridge Deck:

Clarification:

- A) The haunch height will be 75mm continuous along the downstream side of all girders.
- B) The haunch height will be approximately 115mm continuous along the upstream side of all girders. This to account for the deck's 3% transverse slope.
- C) Haunch height to be verified by the Department based on Contractor's as-built survey of girder top flange.

17. Drawing S19 of 23: Screed Elevations:

A) Screed Elevation Drawing will not be issued as part of this tender. Bidders to account for related cost of setting/adjusting screed support to screed elevations along the length of deck. Screed elevations will be determined by the Department are part of developing Issued for Construction Drawings. Screed elevations will be determined based on vertical profile design elevations and girder deflection as a result of deck concrete placement.

B) Refer to attached SK-5 for deck pour sequence.

18. Drawing S20 of 23: Profile:

Insert drawing S20 of 23 (attached to this addendum) dated 19 July 2019.

19. Drawing S21 of 23: Road Report:

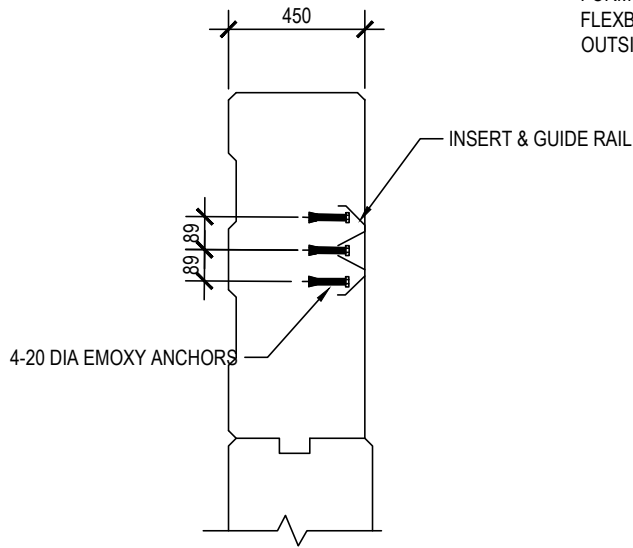
Insert drawing S21 of 23 (attached to this addendum) dated 19 July 2019.

A signed copy of this addendum sheet must be included with your bid submission for this project.

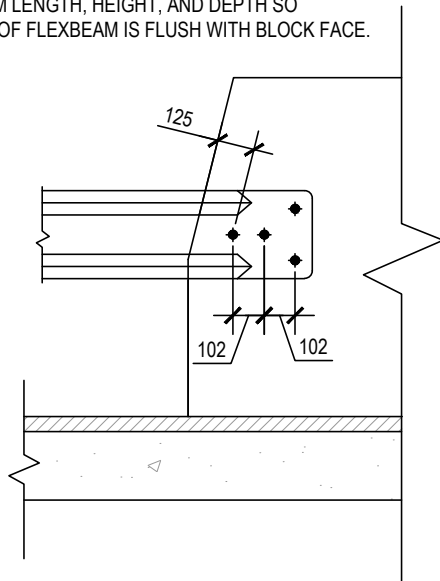
Signature of Contractor

NOTE:

FORM BLOCKOUT IN COLLISION BLOCK EQUAL TO FLEXBEAM LENGTH, HEIGHT, AND DEPTH SO OUTSIDE OF FLEXBEAM IS FLUSH WITH BLOCK FACE.



SECTION



ELEVATION

1 APPROACH FLEXBEAM CONNECTION
SK-3 1:25



DEPT OF TRANSPORTATION, INFRASTRUCTURE, AND ENERGY

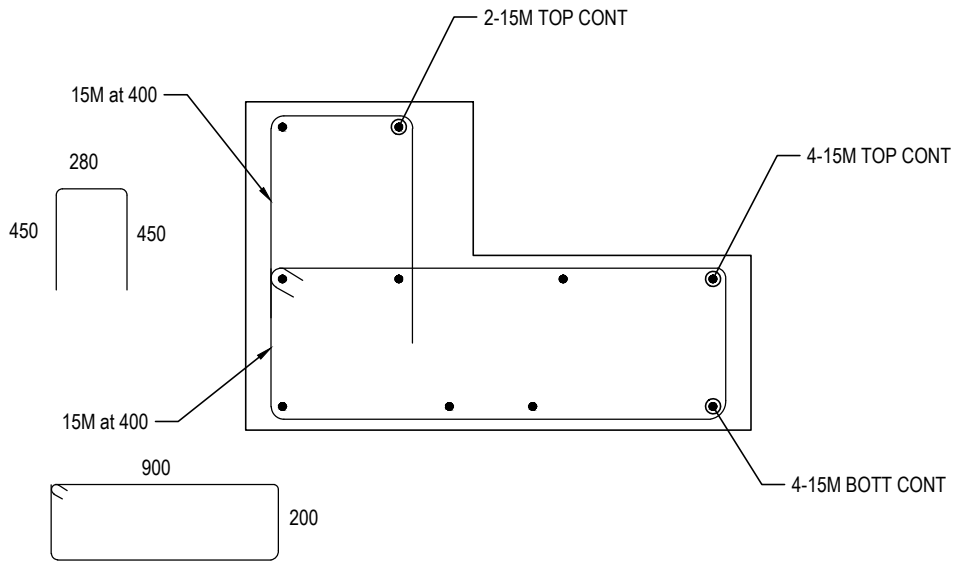
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SURVEY BY:	T.I.E.	SCALE:	AS NOTED
DRAWN BY:	K. MACEACHERN	COUNTY:	QUEENS
APPROVED BY:	N. LAWLESS		
PROJECT No.:	2019012		

JOB:	NORTH LAKE BRIDGE REPLACEMENT
SHEET NAME:	APPROACH FLEXBEAM CONNECTION

SHEET No.	SK-3
	OF 5



1 SECTION - SLEEPER SLAB REINFORCEMENT
SK-4 1:15

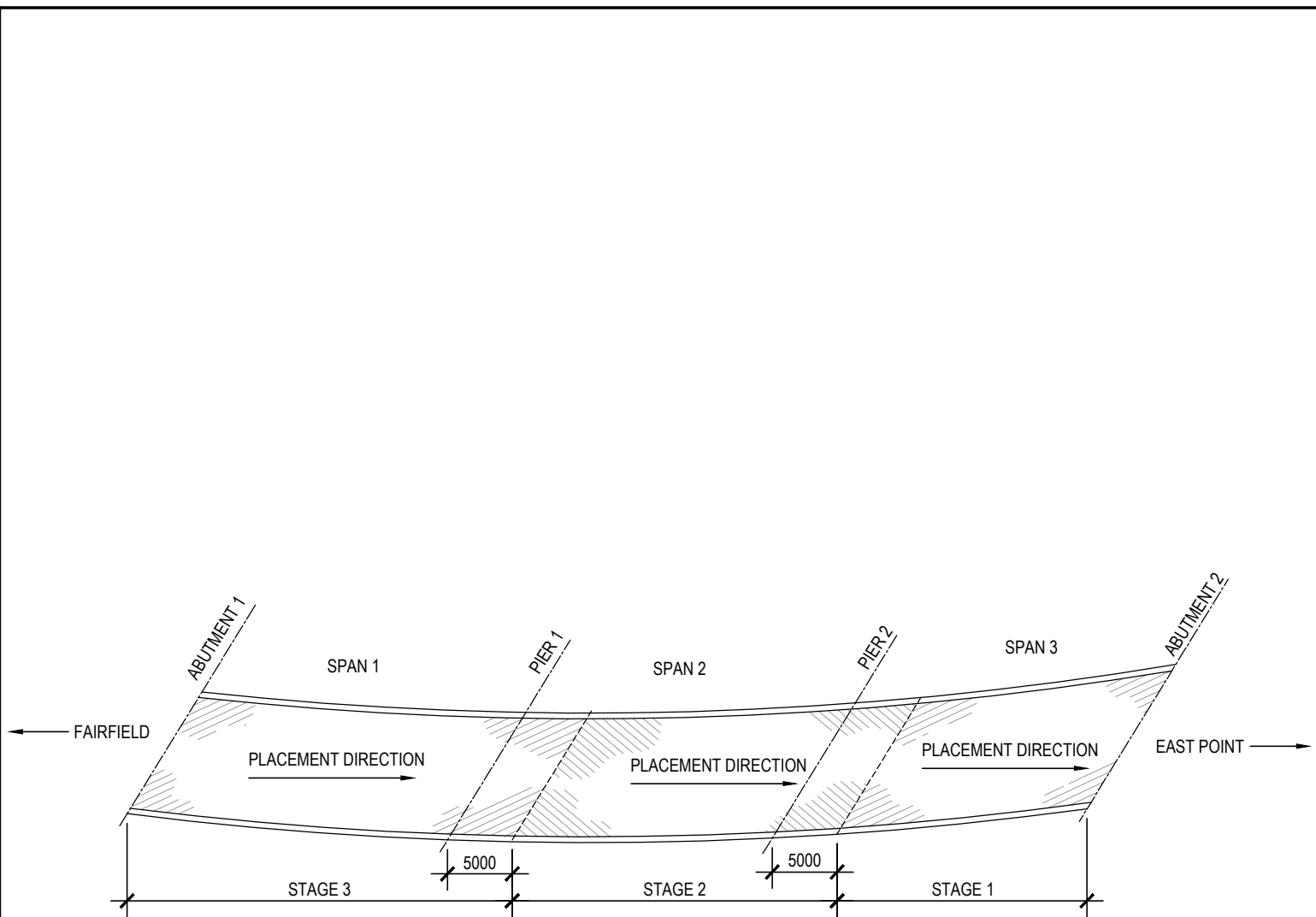


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SURVEY BY: T.I.E. SCALE: AS NOTED
DRAWN BY: K. MACEACHERN COUNTY: QUEENS
APPROVED BY: N. LAWLESS
PROJECT No.: 2019012

JOB: NORTH LAKE BRIDGE
REPLACEMENT
SLEEPER SLAB
REINFORCEMENT

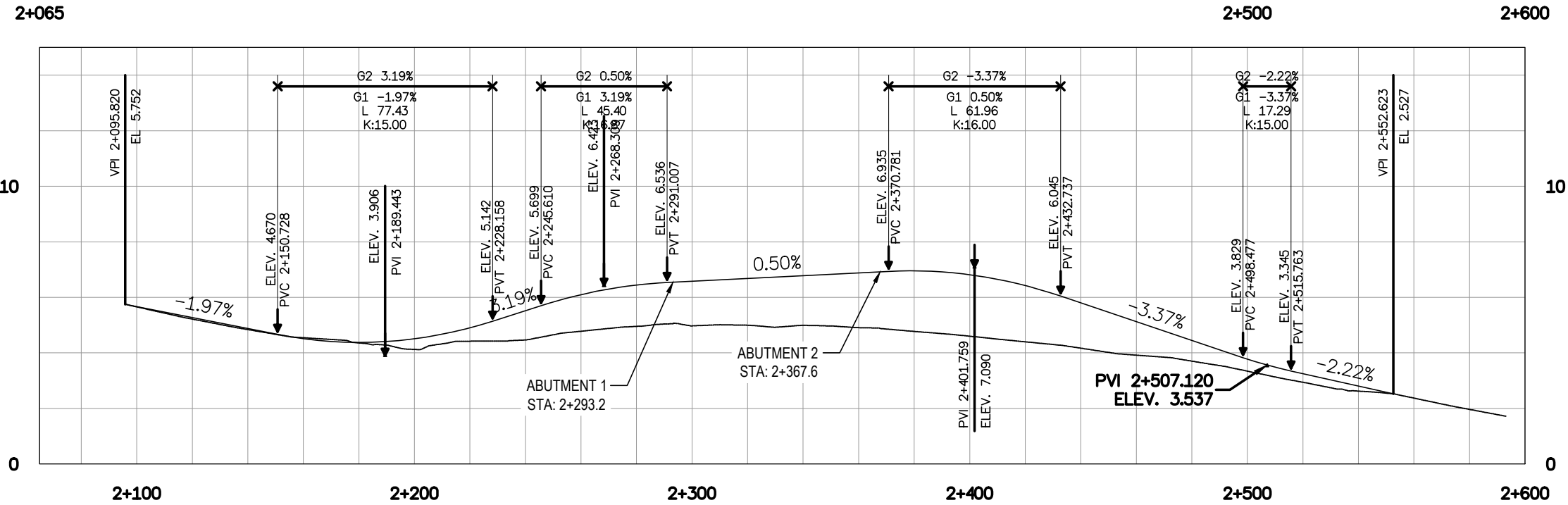
SHEET No.
SK-4
OF
5



- NOTES:**
1. DECK SLOPE LONGITUDINALLY 0.5% FROM FAIRFIELD TO EAST POINT.
 2. INTERMEDIATE DIAPHRAGMS SEPARATE POUR FROM DECK.
 3. ABUTMENT AND PIER DIAPHRAGMS TO BE POURED MONOLITHIC WITH DECK POUR.

1 CONCRETE DECK PLACEMENT SEQUENCE
 SK-5 1:500

	DEPT OF TRANSPORTATION, INFRASTRUCTURE, AND ENERGY Tel 902 368 5100 Fax 902 368 5395 http://www.gov.pe.ca/	PO Box 2000 Charlottetown Prince Edward Island Canada C1A 7N8	SURVEY BY: T.I.E. SCALE: AS NOTED DRAWN BY: K. MACEACHERN COUNTY: QUEENS APPROVED BY: N. LAWLESS PROJECT No.: 2019012	JOB: NORTH LAKE BRIDGE REPLACEMENT SHEET NAME: CONCRETE DECK PLACEMENT SEQUENCE	SHEET No. SK-5 OF 5
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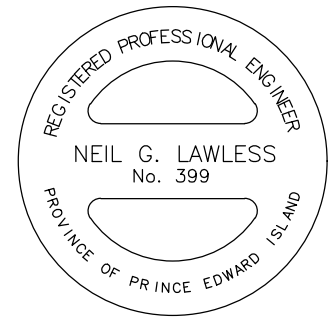


Existing	5.657	5.218	4.840	4.546	4.359	4.124	4.421	4.465	4.780	4.955	4.970	4.997	4.992	4.908	4.774	4.601	4.399	4.170	3.919	3.705	3.343	2.942	2.624	2.372	1.965
Proposed	5.670	5.275	4.881	4.515	4.378	4.508	4.904	5.520	6.096	6.445	6.581	6.681	6.781	6.881	6.955	6.815	6.424	5.801	5.126	4.452	3.778	3.251	2.807		
Cut Depth					0.031																				
Fill Height	0.012	0.057	0.041		0.019	0.384	0.483	1.054	1.317	1.490	1.611	1.684	1.789	1.973	2.181	2.213	2.025	1.630	1.207	0.746	0.435	0.309	0.183		

1 VERTICAL PROFILE AT CENTERLINE
S20 1:2000

No.	Type	Profile Curve Type	Length	Grade	K Value	Start Station	Start Elevation	End Station	End Elevation	Grade In	Grade Out	Grade Change	PVI Station	PVI Elevation
1	Tangent		54.908m	-1.97%		2+095.82m	5.752m	2+150.73m	4.670m					
2	Symmetric Parabola	Sag	77.430m		15	2+150.73m	4.670m	2+228.16m	5.142m	-1.97%	3.19%	5.16%	2+189.44m	3.906m
3	Tangent		17.452m	3.19%		2+228.16m	5.142m	2+245.61m	5.699m					
4	Symmetric Parabola	Crest	45.397m		16.871	2+245.61m	5.699m	2+291.01m	6.536m	3.19%	0.50%	-2.69%	2+268.31m	6.423m
5	Tangent		79.774m	0.50%		2+291.01m	6.536m	2+370.78m	6.935m					
6	Symmetric Parabola	Crest	61.956m		16	2+370.78m	6.935m	2+432.74m	6.045m	0.50%	-3.37%	-3.87%	2+401.76m	7.090m
7	Tangent		65.740m	-3.37%		2+432.74m	6.045m	2+498.48m	3.829m					
8	Symmetric Parabola	Sag	17.286m		15	2+498.48m	3.829m	2+515.76m	3.345m	-3.37%	-2.22%	1.15%	2+507.12m	3.537m
9	Tangent		36.860m	-2.22%		2+515.76m	3.345m	2+552.62m	2.527m					

2 VERTICAL ALIGNMENT REPORT AT CENTERLINE
S20 N.T.S.



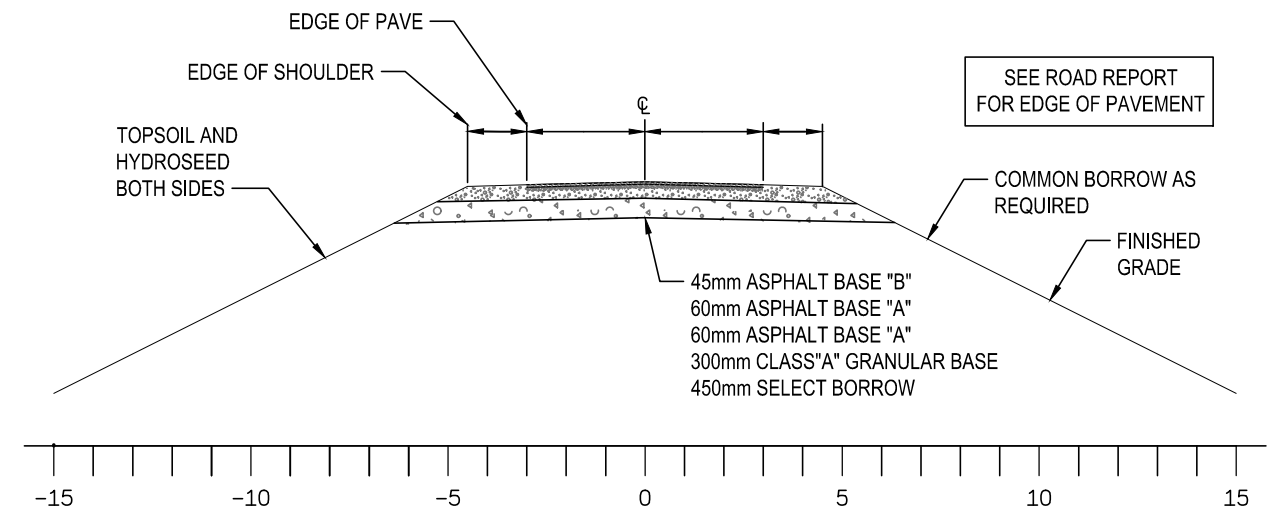
Alignment Report: NEW BRIDGE ALIGNMENT 5-29-19

TAG No	STATION	CURVE/SPIRAL/TANGENT DATA	NORTHING	EASTING
L9	2+095.820 2+255.124	LENGTH: 159.304	652.555 528.720	1.329 101.541
			TANGENT DIRECTION: 141°01'07"	
C10	2+259.635	LENGTH: 9.022 RADIUS: 2000.000 DELTA: 0°15'30" DEGREE OF CURVATURE (ARC): 0°51'34" CHORD: 9.022 MID-ORDINATE: 0.005	525.214	104.379
			TANGENT DIRECTION: 141°01'07"	
L10	2+264.146 2+282.803	LENGTH: 18.657	521.694 507.138	107.201 118.872
			TANGENT DIRECTION: 141°16'38"	
C8	2+330.601	LENGTH: 94.685 RADIUS: 280.150 DELTA: 19°21'53" DEGREE OF CURVATURE (ARC): 6°08'08" CHORD: 94.235 MID-ORDINATE: 3.991	469.847	148.772
			TANGENT DIRECTION: 141°16'38"	
C9	2+330.601	LENGTH: 94.685 RADIUS: 280.150 DELTA: 19°21'53" DEGREE OF CURVATURE (ARC): 6°08'08" CHORD: 94.235 MID-ORDINATE: 3.991	469.847	148.772
			TANGENT DIRECTION: 141°16'38"	
L11	2+377.488 2+378.526	LENGTH: 1.038	444.579 444.031	189.346 190.227
			TANGENT DIRECTION: 121°54'45"	
C11	2+400.000	LENGTH: 42.948 RADIUS: 3000.000 DELTA: 0°49'13" DEGREE OF CURVATURE (ARC): 0°34'23" CHORD: 42.947 MID-ORDINATE: 0.077	432.679	208.456
			TANGENT DIRECTION: 121°54'45"	
L12	2+421.473 2+501.134	LENGTH: 79.661	421.589 380.451	226.845 295.061
			TANGENT DIRECTION: 121°05'32"	
C12	2+514.700	LENGTH: 27.131 RADIUS: 5000.000 DELTA: 0°18'39" DEGREE OF CURVATURE (ARC): 0°20'38" CHORD: 27.131 MID-ORDINATE: 0.018	373.446	306.678
			TANGENT DIRECTION: 121°05'32"	
L13	2+528.265 2+593.065	LENGTH: 64.800	366.378 332.613	318.256 373.565
			TANGENT DIRECTION: 121°24'11"	

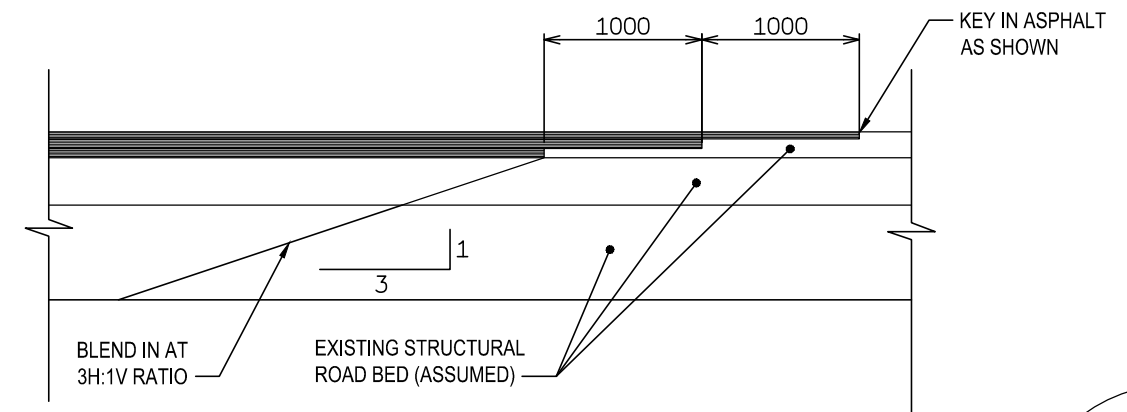
1 HORIZONTAL ALIGNMENT REPORT
S21 N.T.S.

Start Station	Left Outside Lane	Right Outside Lane
2+177.69m	-0.60%	0.60%
2+292.91m	-3.00%	3.00%
2+367.73m	-3.00%	3.00%
2+552.75m	1.30%	-2.90%

3 SUPERELEVATION REPORT
S21 N.T.S.



2 TYPICAL ROAD SECTION
S21 N.T.S.



3 TYPICAL BLEND-IN
S21 N.T.S.

