

Associated Engineering (B.C.) Ltd. #500 - 2889 East 12th Avenue Vancouver, B.C., Canada, V5M 4T5

> TEL: 604.293.1411 FAX: 604.291.6163 www.ae.ca

July 25, 2022 File: 2020.2990.090

Kent Hodgson, P.Eng.
Structural Asset Renewal Engineer, Asset Management - Structural Engineering
Ministry of Transportation and Infrastructure
310, 1500 Woolridge Street
Coquitlam, BC V3K 0B8

Re: BRIDGE NO. 01650 LATIMER ROAD UNDERPASS - 192 STREET OVER HWY 1 EMERGENCY INSPECTION

Dear Mr. Hodgson:

The Ministry of Transportation and Infrastructure (MoTI) retained Associated Engineering (AE) to perform an emergency inspection and assessment of Bridge No. 01650 - Latimer Road Underpass superstructure which was damaged from an oversized vehicle impact. This bridge is colloquially known as the 192nd Street Overpass. Jagdeep Biran, M.Eng., EIT, of AE inspected the damaged superstructure and assessed the condition of the bridge on July 12, 2022. AE was joined by Pravdeep Sekhon, MoTI, and Kent Hodgson, MoTI, for the duration of the inspection.

The purpose of the emergency detailed inspection was to determine the extent of damage, identify major concerns, and provide direction on actionable items to reopen the bridge structure and exit lane underneath. This report presents our inspection observations and recommendations.



192nd Street Overpass - East Elevation (July 12, 2022)







1 STRUCTURE DESCRIPTION

The 192nd Street Overpass spans 98.9 m (324' 4") across the Trans-Canada Highway (Highway 1) in Surrey, BC, and carries a single lane of northbound and southbound traffic. There is a pedestrian sidewalk along the east side of the bridge deck.

The six-span prestressed concrete I-girder bridge was constructed in 1965. In this report, the span configuration and piers are numbered from south to north and the girders are numbered from west to east. Figure 1-1 shows a typical cross with the numbered girders.

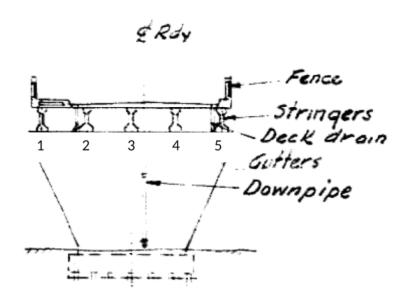


Figure 1-1
Typical Section

The affected span (Span 5) is 16.5 m (54') long and is above 3 lanes on Highway 1. The prestressed I-girders are 1.12 m (44 in) in height, spaced at 2.32 m (7'-7-½") center to center, and fixed at both ends.



2 INSPECTION RESULTS

AE arrived at the impacted area at 9:30am, July 12, 2022, and left at 12:00pm. AE completed a close-proximity inspection of the superstructure from an elevated work platform provided by Mainroad Lower Mainland Contracting LP (Mainroad). During the inspection, Highway 1 was closed to all westbound traffic at the 192 Street Overpass and no traffic was permitted on the overpass. The superstructure was visually inspected at the locations of impact damage and all five (5) girders were hammer sounded to determine the extent of damage.

Observations are summarized as follows:

- Extensive damage to Span 5, Girder 5 (east exterior) shown in Figure 2-1 and Figure 2-2 including:
 - Completely severed prestressing strands.
 - Completely severed reinforcing steel in the web and bottom flange.
 - Extensive spalling to the web and bottom flange.
 - Diagonal and vertical cracking in the web that extends approximately 2 m from the edge of the spalling.



Figure 2-1
Damaged east face of Girder 5 with horizontal and diagonal web cracking



Figure 2-2
Broken reinforcement and spalled concrete at
Girder 5



- Damage to Span 5, Girder 4 shown in Figure 2-3 and Figure 2-4 including:
 - Damaged prestressed reinforcement with two (2) completely severed strands.
 - · Diagonal and horizontal cracking in the web that spans between the interior diaphragms.
 - Cracking in the bottom flange by the north diaphragm.
 - Extensive Spalling in the web and bottom flange.





Figure 2-3
Damaged/Severed Tension Reinforcement and
Diagonal/Horizontal Cracking in the Web of
Girder 4 (East Face)

Figure 2-4
Spalling and Diagonal/Horizontal Cracking in the Web of Girder of Girder 4 (West Face)

- Damage to Span 5, Girder 1, Girder 2 and Girder 3 shown in Figure 2-5 to Figure 2-8 including:
 - Spalling in the bottom flange of all three girders.
 - Partially severed tension strand in Girder 3.
 - Exposed reinforcing steel in Girder 3.
 - Minor spalling in diaphragm between Girder 2 and Girder 3.







Figure 2-5
Partially Severed Tension Reinforcement and Spalling in the Bottom Flange of Girder 3 (West Face)



Figure 2-6
Spalling at Bottom of the Diaphragm Between
Girder 2 and Girder 3 (North Face)



Figure 2-7
Minor Spalling in the Bottom Flange of Girder 2
(East Face)



Figure 2-8
Spalling in the Bottom Flange of Girder 1
(West Face)

• No signs of damage to the deck surface or sidewalk of the 192nd Street Overpass.



After the inspection, the following instruction was given to Pravdeep Sekhon, MoTI:

- Remove all the loose material, including concrete and protruding reinforcing bars, at the impacted area.
- Once all the loose material was removed the damaged areas were to be covered with plywood and painted grey to minimize the risk of visual distractions to the public.

In a follow up email, the following instruction was given to Kent Hodgson, MoTI:

- Highway 1 may be reopened after addressing the risk for falling debris.
- The SB Lane of the overpass may be opened to SLAT with a recommendation to limit loads to 24,000 kg GVW.
- 610 CRBs may be installed along the centerline, if required for traffic control.

3 RECOMMENDATIONS

AE recommends that Girder 5 of Span 5 be replaced, as the prestressed reinforcement in the bottom flange of this girder has been completely severed. We recommend removing the damaged girder and replacing it with a steel girder for minimal procurement time, constructability and cost-effectiveness. While Girder 1 of Span 5 also sustained significant concrete damage, only two prestressing strands were severed, thus we believe that a repair for this girder is feasible. The Ministry may also consider localized patching and minor repairs to the bottom flanges of Girder 3, Girder 2, and Girder 1 to cover exposed reinforcement and restore concrete cover.

As stated, AE also recommends that the southbound lane along the west side of the structure remain closed and only single lane alternating traffic (24,000 kg GVW limit) be permitted along the northbound lane until the bridge repairs are complete.





4 CLOSURE

This report was prepared for the Ministry of Transportation and Infrastructure to present the results of our emergency inspection of Bridge No. 01650 - Latimer Road Underpass in Surrey, BC.

The services provided by Associated Engineering (B.C.) Ltd. In the preparation of this report were conducted in a manner consistent with the level and skill ordinarily exercised by members of the profession currently practicing under similar conditions. No other warranty expressed or implied is made.

Respectfully submitted,

Associated Engineering (B.C.) Ltd.
Engineers & Geoscientists BC Permit Number 1000163

Prepared by,

Reviewed by:

Tijana Vulic, M.Eng., P.Eng.

Structural Engineer

Tijara Julic

Mike Lumb, M.Eng., P.Eng. Structural Engineer

TV/ML/sn

Notice And Order Identifier: MV927_20220712_0908

				NOT	ICE and ORDER			
Vehicle(s) inspected this 1	2 of J	JUL Y	/R 20	22 at 09:08 (24hr Clock) on	HWY 1 192	STREET	at or near	Surrey
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Passenger Transportation Act and	Regula	ations. T	The own	er/operator is hereby given notice to:				
PU: 🛛 T1: 🔼	1. Imme	ediately	y remove	e the vehicle from the highway until such	n time as it complies with	the Motor Vehicle	e Act and Regulations (Div	vision 25)
This Notice and Order does not	authori	ze oper	ration o	of the vehicle(s) with identified defects	s. Non-compliance with	h this Notice and	Order is an offence	Police: Peace Officer: N
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Driver: s.22					7			
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Cargo Security	52		0	Load damaged and remove	ed from trailer in	Collision		
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Port Mann BC Highway P	atrol 2							
Both Vehicles removed from	om Hig	ghway	y and r	not to be operated on a Highw	ay until passed C	VIP Inspection	is completed	
Peace Officer (Inspector): N	I.ZAK	US		Number: MVS	927	Signature:		
200-1500 Woolridge Street	Coqui	tlam \	V3K 01	B8				

SEE REVERSE FOR DETAILS REGARDING COMPLIANCE.

The information on this form is collected under the authority of the Motor Vehicle Act, Section 217. The information will be used to process your vehicle inspection and/or Notice and Order. If you have any questions please contact the issuing Officer or call CVSE at (250) 952-0577. Visit www.cvse.ca

Notice and Order Identifier: MV927_20220712_0908

You MUST do the following (as indicated on Page 1):

Page 2 of 2

NOTICE AND ORDER COMPLIANCE INFORMATION

A Notice and Order 1 has been issued to PU: ☑ T1: ☑ T2: ☐ T3: ☐					
The vehicle is to be immediately removed from the highway and towed to a location of the operator's choice or place designated by the peace officer, at the owner's expense. It is to be kept from the highway until such time as it is repaired and passes an inspection performed by an Authorized Inspector at a Designated Inspection Facility.					
This Notice and Order does not authorize operation of the vehicle(s) with identified defects. Non-compliance with this Notice and Order is an offence.					
NOTICE					
The owner may choose not to have the vehicle inspected or repaired, but rather to surrender the vehicle license and number plates to the Vice President Operations – ICBC or his/her designate. Should the vehicle license and number plates be surrendered or seized by a Peace Officer, the vehicle owner must make a separate application to ICBC or its agents for a refund.					
It is the obligation of the registered owner to advise a subsequent registered owner of any outstanding vehicle inspection requirements.					
DISPOSITION					
Violation(s) corrected: Yes No Date: Agency:					
Peace Officer (Print): Number:					
WARNING					
IT IS AN OFFENCE TO OPERATE A VEHICLE WHICH DOES NOT COMPLY WITH THE MOTOR VEHICLE ACT AND REGULATIONS OR THIS NOTICE AND ORDER. FAILURE TO COMPLY WITH A NOTICE AND ORDER MAY RESULT IN THE REFUSAL OF FURTHER VEHICLE LICENSE TRANSACTIONS. PENALTIES FOR OPERATING A VEHICLE IN CONTRAVENTION OF A NOTICE AND ORDER INCLUDE A FINE AND SEIZURE OF THE VEHICLE LICENSE AND NUMBER PLATES.					

The information on this form is collected under the authority of the Motor Vehicle Act, Section 217. The information will be used to process your vehicle inspection and/or Notice and Order. If you have any questions please contact the issuing Officer or call CVSE at (250) 952-0577. Visit www.cvse.ca

MV3073E (072013)



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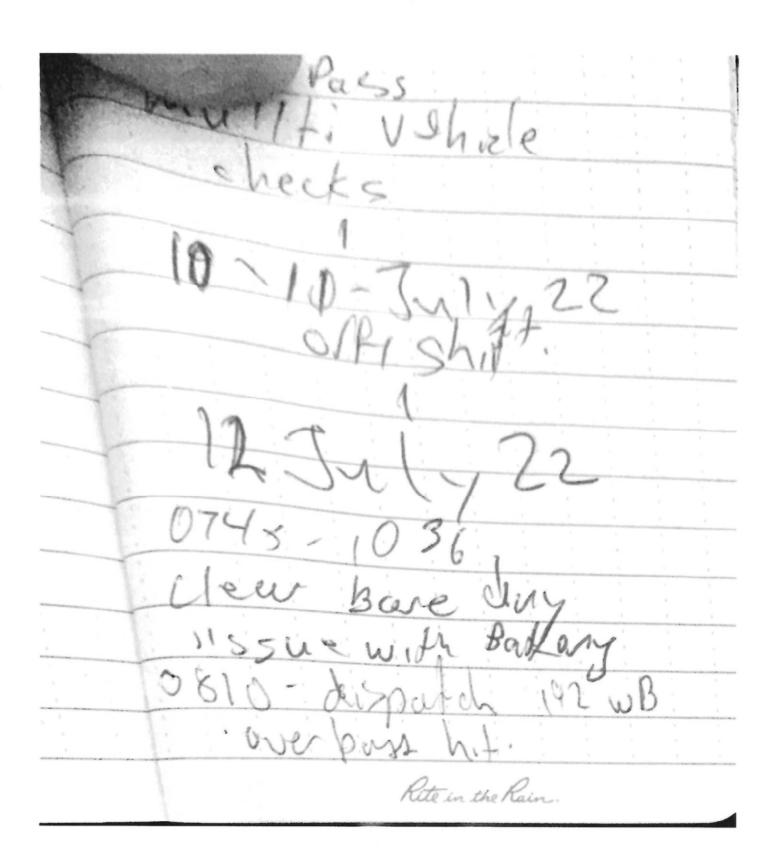
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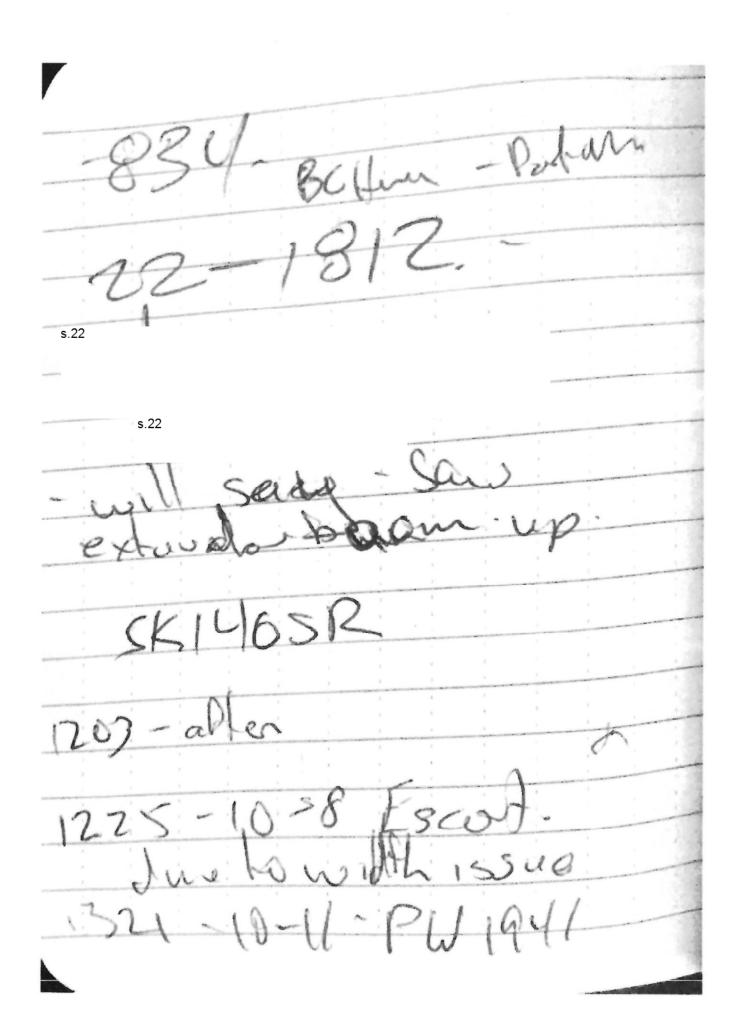
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From: Kazemi, Maziar TRAN:EX

To: Faimer, Elena TRAN:EX; Price, Amanda TRAN:EX

Cc: Sekhon, Pravdeep TRAN:EX; Stevenson, Christie TRAN:EX

Subject: Re: Incident 12409 - Highway 1 **Date:** July 14, 2022 7:39:43 AM

Attachments:

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Hi Elena,

After discussions with City of Surrey and CVSE, we will not reopen the Hwy 1 EB off-ramp and it will stay closed until further notice.

The off-ramp is mainly used by commercial vehicles accessing Port Kells. With the 24,000gvw (three-axle) weight limit in place on the 192 St OP, it would be challenging to enforce it the ramp remained open. Alternate routes are available via 176 St (Hwy 15) and 200 St interchanges.

Sincerely,

Maziar Kazemi

Operations Manager, Metro Vancouver

Pronouns Luse: he, him, his

Highway Permits & Approvals website: http://www.gov.bc.ca/highway-use-permits

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From: Farmer, Elena TRAN:EX <Elena.Farmer@gov.bc.ca>

Sent: Wednesday, July 13, 2022 5:55:45 AM

To: Kazemi, Maziar TRAN:EX <Maziar.Kazemi@gov.bc.ca>; Price, Amanda TRAN:EX <Amanda.Price@gov.bc.ca>

Cc: Sekhon, Pravdeep TRAN:EX <Pravdeep.Sekhon@gov.bc.ca>; Stevenson, Christie TRAN:EX

<Christie.Stevenson@gov.bc.ca>

Subject: Re: Incident 12409 - Highway 1

Thanks for the update.

Get Outlook for iOS

From: Kazemi, Maziar TRAN:EX <Maziar.Kazemi@gov.bc.ca>

Sent: Wednesday, July 13, 2022 5:42:47 AM

To: Farmer, Elena TRAN:EX <Elena.Farmer@gov.bc.ca>; Price, Amanda TRAN:EX <Amanda.Price@gov.bc.ca>

Cc: Sekhon, Pravdeep TRAN:EX <Pravdeep.Sekhon@gov.bc.ca>; Stevenson, Christie TRAN:EX

<Christie.Stevenson@gov.bc.ca>

Subject: Re: Incident 12409 - Highway 1

Hi Elena/Amanda,

SLAT was successfully implemented on 192 St last night just before 9pm.

Mainroad fully reopened the highway just after 3pm. The Hwy 1 EB off-ramp remains closed. Detour is available via 200th St.

Page 23 of 57

Withheld pursuant to/removed as

Copyright

Christie and I will work with the City of Surrey today to coordinate a directional closure whereby SB 192St will be closed to allow us to prioritize and accommodate 192St NB traffic (including the EB off-ramp to 192St NB traffic). Currently it is too challenging with the configuration of the interchange to accommodate all 3 movements. Surrey expressed interest in doing this as it was done at a previous bridge strike in Surrey in Hwy 99.

Thanks to both Christie and Pray for the updates and coordination on the ground.

Sincerely,

Maziar Kazemi

Operations Manager, Metro Vancouver

Pronouns I use: he, him, his

Highway Permits & Approvals website: http://www.gov.bc.ca/highway-use-permits

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From: Stevenson, Christie TRAN:EX < Christie.Stevenson@gov.bc.ca>

Sent: Tuesday, July 12, 2022 11:28:06 AM

To: Farmer, Elena TRAN:EX <Elena.Farmer@gov.bc.ca>; Price, Amanda TRAN:EX <Amanda.Price@gov.bc.ca>

Cc: Kazemi, Maziar TRAN:EX < Maziar. Kazemi@gov.bc.ca>; Sekhon, Pravdeep TRAN:EX < Pravdeep. Sekhon@gov.bc.ca>

Subject: RE: Incident 12409 - Highway 1

Highway 1 WB has re-opened to HOV lane only, until repairs are completed tonight. Should be fully opened by tomorrow am rush. 192nd UP will open up to SLAT around 8pm. MC will try and get night crew in early to start chipping and temp repairs.

Hay'sxw'qa Si'em - Thank you with respect

Sincerely,

Christie Stevenson

Area Manager – Surrey/Langley

Ministry of Transportation and Infrastructure Lower Mainland District Office 310-1500 Woolridge Street Coquitlam, BC Canada V3K 0B8 direct line: 236-455-1539 fax: 604-527-2222 christie.stevenson@gov.bc.ca

For the latest ministry news and information, click one of the icons below:



Highway Permits & Approvals website: http://www.th.gov.bc.ca/permits/index.asp

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From: Stevenson, Christie TRAN:EX Sent: July 12, 2022 10:07 AM

To: Farmer, Elena TRAN:EX <Elena.Farmer@gov.bc.ca>; Price, Amanda TRAN:EX <Amanda.Price@gov.bc.ca>

Cc: Kazemi, Maziar TRAN:EX <Maziar.Kazemi@gov.bc.ca>; Sekhon, Pravdeep TRAN:EX <Pravdeep.Sekhon@gov.bc.ca>

Subject: RE: Incident 12409 - Highway 1

Update – one person was taken away in an ambulance with serious injuries.

Highway 1 WB is currently closed at 200th St for inspection, cleanup. They are working on opening back to HOV only. ETA – unknown.

At has arrived on sight for structure inspection.

Will provide further updates as they come in.

Hay'sxw'qa Si'em - Thank you with respect

Sincerely,

Christie Stevenson

Area Manager - Surrey/Langley

Ministry of Transportation and Infrastructure Lower Mainland District Office 310-1500 Woolridge Street Coquitlam, BC Canada V3K 0B8

direct line: 236-455-1539 fax: 604-527-2222 christie.stevenson@gov.bc.ca

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From: Stevenson, Christie TRAN:EX

Sent: July 12, 2022 9:06 AM

To: Farmer, Elena TRAN:EX <Elena.Farmer@gov.bc.ca>; Price, Amanda TRAN:EX <Amanda.Price@gov.bc.ca>

Cc: Kazemi, Maziar TRAN:EX < Maziar. Kazemi@gov.bc.ca>

Subject: Incident 12409 - Highway 1

Commercial vehicle with lowbed trailer towing an excavator, hit 192^{nd} UP. Excavator fell off lowbed, 3 passenger vehicles involved. 192^{nd} UP is completely closed, and will be for 1-2 days for inspection of girders. Once temp repairs are completed, SLAT on 192^{nd} will be put in place.

1. Location

Highway 1

2. Impact to Traffic

- Single Lane
- Westbound

Comments: HOV Lane WB opened to traffic, 2 lanes closed as well as 192 UP Closed.

3. Incident Description

- MVI

Comments: Excavator hit UP.

4. Public Comments

Not applicable

5. ETO

Assessment in Progress Next Update: Jul 12 10:00

6. Detailed Event Description

Low Bed truck carrying an excavator hit UP and fell off into multiple vehicles.

Estimated Time of Event: Jul 12 08:15

7. Injuries\Fatalities

Num. People Involved: 4 (Est.)

Injuries: 2 (Est.)

8. MoTI Staff

- Area Manager or District Rep:
- Operations Manager:
- DMT:
- Names: Pravdeep Bridge Area Manager on-scene

9. Incident Responders

- RCMP General Duty:
- Ambulance:
- Maintenance Contractor:

Other: CVSE on scene

10. Site History

Not applicable

11. Weather/Road Conditions

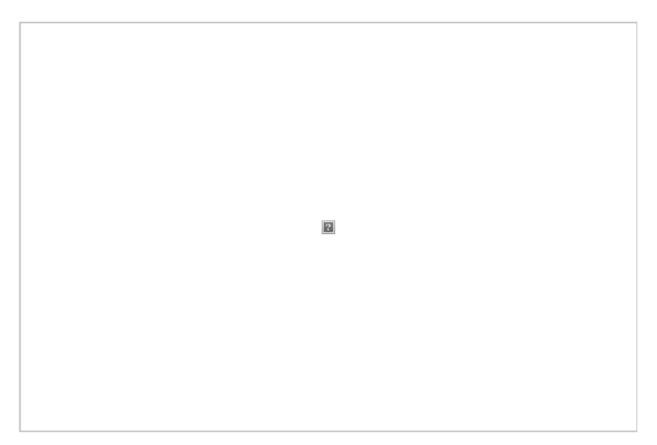
Barc and Dry Air Temp: Warm Road Surface: 23

12. MC's Activities

Bridge Crew inspecting overpass, and assisting with closure of overpass

13. Traffic Management

Not applicable



 $\underline{https://prdoas5.apps.th.gov.bc.ca/osn/index.html?viewIncident=12409}$

 From:
 Farmer, Elena TRAN:EX

 To:
 Chapman, Rodney L TRAN:EX

 Cc:
 Price, Amanda TRAN:EX

Subject: FW: Re: Hwy1 WB Multiple Vehicle MIV Overpass at 192nd

Date: July 12, 2022 8:42:00 AM

Attachments: image001.png

192B.PNG 192.PNG 192A.PNG

Importance: High

Rodney,

The 192nd Underpass on Highway 1 in Surrey has been struck by a by a flatbed carrying an excavator (travelling WB). Multiple vehicles involved. Two girders has received significant damage. Mainroad and our BAM has just arrived on scene and will provide more information. Currently HOV lane is open to flush traffic. 13 points forth coming.

Elena

Elena Farmer (she/her/hers)

District Manager, Transportation Lower Mainland District | South Coast Region

Ministry of Transportation and Infrastructure

1500 Woolridge Street, Coquitlam, BC V3K 0B8

P: 236-468-1935

E: Elena.Farmer@gov.bc.ca

From: Markham, Jennifer TRAN:EX < Jennifer.Markham@gov.bc.ca>

Sent: July 12, 2022 8:21 AM

To: TRAN TMCBC Major LMD Events <TMCBCMLE@Victoria1.gov.bc.ca>

Cc: TRAN TMCBC Staff < TMCBCSTF@Victoria1.gov.bc.ca>

Subject: Re: Hwy1 WB Multiple Vehicle MIV Overpass at 192nd

Morning,

Reports that a vehicle has struck the overpass WB Hwy1 at 192nd st.

Multiple vehicles involved, all lanes blocked, traffic is getting by in the HOV lane.

Thank you,

Jennifer Markham TMC Agent Transportation 1-866-707-7862 Management TMCBC@gov.bc.ca Centre DriveBC.ca BC @DriveBC









Kazemi, Maziar TRAN:EX

From: Chapman, Rodney L TRAN:EX

Sent: July 13, 2022 7:48 AM
To: Farmer, Elena TRAN:EX

Subject: RE: MVI, Highway 1 Westbound at 192nd Street UP, Surrey

Elena,

Great work and working with Surrey to you and all the team.

Sincerely,

Rodney Chapman, P. Eng

Director, Construction & Maintenance

Construction and Maintenance | Highways and Regional Services Division Ministry of Transportation & Infrastructure 4C – 940 Blanshard Street | V8W 9T5 Rodney.Chapman@gov.bc.ca |

Phone: 778-974-5359 Cell: 250-213-7499

From: Farmer, Elena TRAN:EX <Elena.Farmer@gov.bc.ca>

Sent: July 13, 2022 5:55 AM

To: TRAN LMD Executive Incident Response <LMDEXINR@Victoria1.gov.bc.ca>; Chapman, Rodney L TRAN:EX

<Rodney.Chapman@gov.bc.ca>; Volk, Kevin TRAN:EX <Kevin.Volk@gov.bc.ca>; Cox, Maegan TRAN:EX

<Maegan.Cox@gov.bc.ca>

Subject: Re: MVI, Highway 1 Westbound at 192nd Street UP, Surrey

Good morning,

SLAT was successfully implemented on 192 St last night just before 9pm.

Mainroad fully reopened the highway just after 3am. The Hwy 1 EB off-ramp remains closed. Detour is available via 200th St.

Our team will work with the City of Surrey today to coordinate a directional closure whereby SB 192St will be closed to allow us to prioritize and accommodate 192St NB traffic (including the EB off-ramp to 192St NB traffic). Currently it is too challenging with the configuration of the interchange to accommodate all 3 movements. Surrey expressed interest in doing this as it was done at a previous bridge strike in Surrey in Hwy 99.

Regards, Elena

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From: Farmer, Elena TRAN:EX < Elena.Farmer@gov.bc.ca >

Sent: Tuesday, July 12, 2022 11:49:06 AM

To: TRAN LMD Executive Incident Response < LMDEXINR@Victoria1.gov.bc.ca>; Chapman, Rodney L TRAN:EX < Rodney.Chapman@gov.bc.ca>; Volk, Kevin TRAN:EX < Kevin.Volk@gov.bc.ca>; Cox, Maegan TRAN:EX

<Maegan.Cox@gov.bc.ca>

Subject: RE: MVI, Highway 1 Westbound at 192nd Street UP, Surrey

Highway 1 westbound has re-opened the HOV lane. The HOV lane will remain open while repairs are completed to the damaged girders. It is anticipated that the girder repairs will be completed in time to re-open Highway 1 for the morning rush. The 192nd Street underpass remains closed. We expect to re-open the underpass to SLAT later tonight.

Regards, Elena

Elena Farmer (she/her/hers)

District Manager, Transportation

Lower Mainland District | South Coast Region

Ministry of Transportation and Infrastructure

1500 Woolridge Street, Coquitlam, BC V3K 0B8

P: 236-468-1935

E: <u>Elena.Farmer@gov.bc.ca</u>

From: Farmer, Elena TRAN:EX < Elena.Farmer@gov.bc.ca >

Sent: July 12, 2022 10:11 AM

To: TRAN LMD Executive Incident Response < LMDEXINR@Victoria1.gov.bc.ca>; Chapman, Rodney L TRAN:EX

<<u>Rodney.Chapman@gov.bc.ca</u>>; Volk, Kevin TRAN:EX <<u>Kevin.Volk@gov.bc.ca</u>>; Cox, Maegan TRAN:EX

<Maegan.Cox@gov.bc.ca>

Subject: RE: MVI, Highway 1 Westbound at 192nd Street UP, Surrey

We have been advised that one person has been taken to hospital with serious injuries.

Structure inspection underway.

Highway 1 remains closed westbound.

Elena Farmer (she/her/hers)

District Manager, Transportation

Lower Mainland District | South Coast Region

Ministry of Transportation and Infrastructure

1500 Woolridge Street, Coquitlam, BC V3K 0B8

P: 236-468-1935

E: Elena.Farmer@gov.bc.ca

From: Farmer, Elena TRAN:EX < Elena.Farmer@gov.bc.ca >

Sent: July 12, 2022 9:54 AM

To: TRAN LMD Executive Incident Response < LMDEXINR@Victoria1.gov.bc.ca>; Chapman, Rodney L TRAN:EX < Rodney.Chapman@gov.bc.ca>; Volk, Kevin TRAN:EX < Kevin.Volk@gov.bc.ca>; Cox, Maegan TRAN:EX

Notice in the second se

<<u>Maegan.Cox@gov.bc.ca</u>>

Subject: MVI, Highway 1 Westbound at 192nd Street UP, Surrey

Hello All,

This morning a commercial vehicle with a lowbed trailer towing an excavator heading westbound, hit the Highway 1 - 192^{nd} Street underpass. 3 passenger vehicles are also involved. Two individuals have sustained injuries. The underpass has significant damage to 2 of the 5 girders. The underpass is fully closed to traffic. Highway 1 is also closed westbound. Associated Engineering is now on site to complete a inspection of the structure.

City of Surrey has been informed and are working to put messaging out as well as adjust any signal timings to support traffic movements.

1. Location

Highway 1 westbound at 192nd Street

2. Impact to Traffic

- Westbound fully closed.

Comments: na

3. Incident Description

- MVI

Comments: Excavator hit UP.

4. Public Comments

Highway 1 Westbound

Highway 1, westbound. Vehicle incident between Exit 58: 200 St and Exit 55: 192 St (Surrey). Assessment in progress. The road is closed. Expect major delays. Estimated time of opening not available. Traffic being diverted off the highway at 200th St. Next update time Tue Jul 12 at 9:45 AM PDT. Last updated Tue Jul 12 at 9:15 AM PDT. (DBC-43153)

5. ETO

Assessment in Progress

6. Detailed Event Description

Low Bed truck carrying an excavator hit UP and fell off into multiple vehicles.

Estimated Time of Event: Jul 12 08:15

7. Injuries\Fatalities

Num. People Involved: 4 (Est.)

Injuries: 2 (Est.)

8. MoTI Staff

- Bridge Area Manager or District Rep: on scene

- Operations Manager: on scene

- DMT: monitoring

9. Incident Responders

- RCMP General Duty: on scene
- Ambulance: on route
- Maintenance Contractor: on scene

Other: CVSE on scene

10. Site History

Not applicable

11. Weather/Road Conditions

Bare and Dry

Air Temp: Warm Road Surface: 23

12. MC's Activities

Bridge Crew inspecting overpass, and assisting with closure of overpass

13. Traffic Management

Highway 1 WB has been closed at 200 Street I/C. Detour through local roads. Copyright

https://prdoas5.apps.th.gov.bc.ca/osn/index.html?viewIncident=12409

Regards, Elena

Elena Farmer (she/her/hers)
District Manager, Transportation
Lower Mainland District | South Coast Region

Ministry of Transportation and Infrastructure

1500 Woolridge Street, Coquitlam, BC V3K 0B8

P: 236-468-1935

E: Elena.Farmer@gov.bc.ca

Kazemi, Maziar TRAN:EX

From: Chapman, Rodney L TRAN:EX

Sent: July 15, 2022 12:09 PM

To: Farmer, Elena TRAN:EX

Cc: Cox, Maegan TRAN:EX

Subject: RE: Hwy #1: 192 Street O/P

Elena,

Excellent and much appreciated. Functionally as well as could be hoped for.

Sincerely,

Rodney Chapman, P. Eng

Director, Construction & Maintenance
Construction and Maintenance | Highways and Regional Services Division
Ministry of Transportation & Infrastructure
4C – 940 Blanshard Street | V8W 9T5
Rodney.Chapman@gov.bc.ca |

Phone: 778-974-5359 Cell: 250-213-7499

From: Farmer, Elena TRAN:EX <Elena.Farmer@gov.bc.ca>

Sent: July 15, 2022 11:02 AM

To: Chapman, Rodney L TRAN:EX < Rodney. Chapman@gov.bc.ca>

Subject: RE: Hwy #1: 192 Street O/P

Hi Rodney,

The 192nd St UP is operating good with SLAT with minor traffic delays.

After discussions with the City of Surrey and CVSE, we will keep the Hwy 1 EB off-ramp closed until further notice. The off-ramp is mainly used by commercial vehicles accessing Port Kells. As a result of the damage to the structure a 24,000gvw (three-axle) weight limit restriction has been put in place on the 192nd St UP. Due to the challenges with enforcement it was agreed that it would be best to keep the ramp closed. Alternate routes are available via 176 St (Hwy 15) and 200 St interchanges.

We will continue to monitor traffic operations and make any adjustments as needed.

Regards, Elena

Elena Farmer (she/her/hers) *District Manager, Transportation Lower Mainland District | South Coast Region*

Ministry of Transportation and Infrastructure

1500 Woolridge Street, Coquitlam, BC V3K 0B8

P: 236-468-1935

E: Elena.Farmer@gov.bc.ca

From: Chapman, Rodney L TRAN:EX < Rodney.Chapman@gov.bc.ca>

Sent: July 15, 2022 10:34 AM

To: Farmer, Elena TRAN:EX < Elena.Farmer@gov.bc.ca >

Subject: Hwy #1: 192 Street O/P

Elena,

Any update on the O/P traffic function.

Sincerely,

Rodney Chapman, P. Eng

Director, Construction & Maintenance
Construction and Maintenance | Highways and Regional Services Division
Ministry of Transportation & Infrastructure
4C – 940 Blanshard Street | V8W 9T5
Rodney.Chapman@gov.bc.ca |

Phone: 778-974-5359 Cell: 250-213-7499



Mainroad Lower Mainland Contracting LP 17474 - 56 Avenue, Surrey, British Columbia V3S 1C3 604-575-7020

DGP First Response Form			
Label	01650-Latimer Rd U/P (192nd) (revision)		
8	MLM Construction Crew		
26	Tuesday, July 12th 2022, 7:53 PM (PDT -07:00)		
Claim Information Required as per the Ministry/CMC Form			
Region Number: 1			
Highway District Name: Lower Mainland			
Service Area:			
> Service Area 43B			
Exact Location (Hwy#, Intersection, and Km marker)		Hwy1 WB	
Locatio	n:	γ 19.170827, -122.692817	
City:		Surrey	
Copyright		01650-Latimer Rd U/P	
Inciden		July 12, 2022	
Describe Type of Damage:			
Overhead impact due to oversize load (Excavator)			



WB Lanes



Girder 1



Girder 3



Girders going WB



Girder 2



Girder 4







Girder 1 and 2

Brief Description of Event:

8:12-Rick phoned. 192nd Impact Damage.

•EMS and MOTI on site. MLM on site.

9:00-BC on Site

9:05-Collect photos and information.

•Phoned Nucor, Spectratec, Tiger Traffic.

•MOTI has phoned engineers to inspect bridge.

9:40-AE on site

10:00-Kent on site.

10:35-MLM Patch Truck on site.

10:58-SpectraTec sweeping.

11:02-HOV WB Open

11:05-Spoke to Clover Towing regarding smoking around diesel spills.

11:27-Inspections of girders underway.

11:45-TigerTraffic on site.

12:03-Cobra on Site. Switch Traffic signals toe flash Amber.

12:05-AccuSource update.

12:06-MLM Haib on site with barriers.

12:30-RCMP off site.

13:01-AccuSource Update. 192nd Closed on bridge. WB HOV open. WB Mainline closed.

13:16-Clover Towing off site.

13:35-SpectraTec sweeper done and off site. Nucor off site.

14:00-AccuSource Update. No change to lane closures. Waiting on crew to come in and start earlier.

14:25-Start removal of debris at impact site.

15:13-AccuSource updated. No changes.

15:30-TigerTraffic setting up signs for potential alternating traffic. Waiting for confirmation that we could proceed.

15:58-AccuSource Updated. No change from previous.

16:00-Night Crew on site.

*Night Shift will be updating AccuSource.

16:13-Email from MOT(Kent) regarding procedures.

16:25-PSI for rest of work.

18:30-Girder 1-Loose debris removed.

19:00-Forming up locations.

19:30-Setting up TMP Signs

19:52-Open 192nd to alternating traffic.

20:00-BC and Rick off site.



Looking East



Looking West

Police File #:



2022-1812



Police Detachment: Highway Patrol-Burnaby

Officer's Name:

Cst. Karol Szkwarek

Vehicle Plate No: Refer photos.



Trailer- 1952-8K



Truck hauling.

Neil Smith Construction-(Truck hauling excavator)





Trailer that was hauling excavator



Truck- NP1243



Truck Decal

Province/State:	BC
Owner(s):	Neil Smith Construction
Insurance Company:	No comments
Policy/Claim Number:	No comments



Vehicle 1



Vehicle 1



Vehicle 2



Vehicle 1



Vehicle 1



Vehicle 2



Vehicle 3



Vehicle 3



Excavator 1



Vehicle 3



Vehicle 3



Excavator 1



Excavator 1



Excavator 1



Excavator 1



Excavator 1



Excavator 1



Excavator 1



Excavator 1



Sidewalk. Material in joint shows signs of being disturbed.





Excavator 1



Sidewalk. Material in joint shows signs of being disturbed.



Sidewalk. Material in joint shows signs of being disturbed.

















Inspections of girders.







Tandem hoisting onto flat deck.



Barrier layout for 192nd Alternating Traffic. Isolating the affected area.





Traffic Lights flashing Amber to SB and NB traffic.





















Asphalt damage



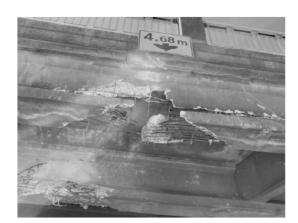
Removal of girder reinforcing and other loose debris.



Asphalt damage



Asphalt damage











17:30-Looking South







17:30-Looking South



17:40-Looking North



17:40-Looking North



Flashing Red for Ramp Traffic.(When opening)



Road gouge Area 1

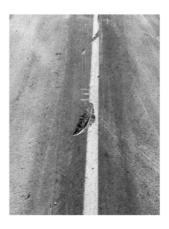


17:40-Looking North





Road gouge Area 2



Road gouge Area 3



Road gouge Area 5,6



Road gouge Area 8



Road gouge Area 4



Road gouge Area 7



Road gouge Area 9,10,11



Road gouge Area 12



Road gouge Area 14



Road gouge Area 16



Road gouge Area 13



Road gouge Area 15

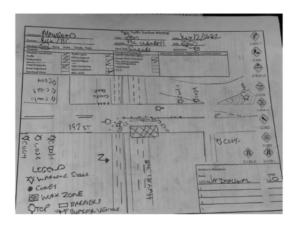


Road gouge Area 17



Road gouge Area 18







19:52- 192nd-Open to alternating traffic.



Road gouge Area 19





Original <u>View</u>

Barend Thirion, *Bridge Inspector* July 12th 2022, 7:53 PM (PDT -07:00)

Q 49.1719502, -122.6907718



Revised on July 12th 2022, 9:20 PM (PDT -07:00)

Current View

Barend Thirion, *Bridge Inspector* July 12th 2022, 9:20 PM (PDT -07:00)

Q 49.0370904, -122.7665054

