

Yellow Flag 7B21N6W017

BIN 3338900

Flag Date: November 16, 2021

Photo Number: 3

Photo Filename: 03\_Begin Left Wingwall\_20\_DSCN5553.JPG



***Attachment Description: Begin Left Wingwall***

## New York State Department of Transportation Yellow Flag 7B21N6W018

By: Russell P. Dunderdale  
Flag Date: November 16, 2021

*Superseding Information:*  
This flag supersedes: YF 7B2095W004

### Structure Information

*BIN:* 3338900

*Feature Carried:* 971HX

*Feature Crossed:* BLACK RIVER

*Orientation:* 2 - NORTHEAST

*Posted Load Matches Inventory:* Yes

*Posted Load in field :* Code 88 - No Vehicles with R Permits

*Primary Owner:* New York State Department of Transportation

*Primary Maintenance Responsibility:* New York State Department of Transportation

*Typical or Main Span Type:* 3 - Steel, 10 - Truss - Thru

This Bridge is not a Ramp

*Number of Spans:* 1

*Region:* 07 - WATERTOWN

*County:* JEFFERSON

*Political Unit:* Town of HOUNSFIELD

*Approximate Year Built:* 1954

### Verbal Notification Information

*Person Notified:* Jeffrey Grill

*Date:* November 16, 2021 11:45:00 AM

*Of:* NYSDOT

### Signature Information

*Signature:* Russell P. Dunderdale, P.E. 074648-1

*Date:* November 16, 2021

*Reviewed By:* William Dritz

*Date:* November 17, 2021

*Attachments:* 5

Yellow Flag 7B21N6W018

BIN 3338900

Flag Date: November 16, 2021

**Flagged Elements**

Parent Element	Element	Total Quantity	Unit
<i>Span Number : 1</i>			
	810 - Sidewalk	810	SQUAR

**Flagged Condition Description**

Background: The superstructure consists of a welded steel truss with overhead bracing (flag photo 1). The concrete filled steel deck is supported by stringers and floorbeams (flag photo 2). Floorbeams and truss nodes are numbered starting with 0 at the begin abutment bearings and ending with 8 at the end abutment bearings. The span length is 180 feet. The width of the deck from curb to curb is 24 feet. There is a sidewalk on the outside of the left truss. This is a repeat flag.

History: Red Flag 7B20M8W027 was issued during the 2020 inspection due to heavy section loss of the channel that is embedded in the left deck fascia. This channel originally supported the sidewalk floor beams between the cantilevered portion of the actual floor beams (intermediate sidewalk floor beams).

Region 7 Bridge Maintenance installed small angle bolsters lagged to the left deck fascia to support the intermediate sidewalk floorbeams. Red Flag 7B20M8W027 was removed by NYSDOT Regional Personnel due to these permanent repairs.

Yellow flag 7B2095W004 was issued after the above-mentioned repairs (bolsters lagged to the left deck fascia) due to the heavy section loss with perforations in the steel channel embedded in the left deck fascia that still remains.

2021 Flag Conditions: The steel channel embedded in the left deck fascia still has heavy section loss with perforations throughout the length of the bridge therefore this repeat yellow flag is issued (flag photos 3 through 5). Conditions have not changed significantly since Yellow Flag 7B2095W004 was issued.

Significance: Section loss of the steel channel embedded in the left deck fascia reduces the capacity of the left sidewalk.



**Flag Photographs**

Photo Number: 1

Photo Filename: 01\_Left Elevation from Beginning\_21\_DSCN5549.



**Attachment Description: Left Elevation from Begin**



Yellow Flag 7B21N6W018

BIN 3338900

Flag Date: November 16, 2021

Photo Number: 2

Photo Filename: 02\_Underside of Superstructure from



***Attachment Description: Underside of Superstructure from Begin***



Photo Number: 3

Photo Filename: 03\_Left Fascia Channel between L02 and L03 from



**Attachment Description: Left Fascia Channel between L02 and L03 from Begin**



Photo Number: 4

Photo Filename: 04\_Left Fascia Channel between L05 and L06 from



**Attachment Description: Left Fascia Channel between L05 and L06 from Begin**



Yellow Flag 7B21N6W018

BIN 3338900

Flag Date: November 16, 2021

Photo Number: 5

Photo Filename: 05\_Left Fascia Channel betweenL06 and L07 Near



***Attachment Description: Left Fascia Channel betweenL06 and L07 near L06 from End***



## New York State Department of Transportation Yellow Flag 7B21N6W019

By: Russell P. Dunderdale  
Flag Date: November 22, 2021

Superseding Information:  
No Flags Superseded

### Structure Information

**BIN: 3338900**

Feature Carried: 971HX

Feature Crossed: BLACK RIVER

Orientation: 2 - NORTHEAST

Posted Load Matches Inventory: Yes

Posted Load in field : Code 88 - No Vehicles with R Permits

Primary Owner: New York State Department of Transportation

Primary Maintenance Responsibility: New York State Department of Transportation

Typical or Main Span Type: 3 - Steel, 10 - Truss - Thru

This Bridge is not a Ramp

Number of Spans: 1

Region: 07 - WATERTOWN

County: JEFFERSON

Political Unit: Town of HOUNSFIELD

Approximate Year Built: 1954

### Verbal Notification Information

Person Notified: Not Contacted

Date:

Of:

### Signature Information

Signature: Russell P. Dunderdale, P.E. 074648-1

Date: November 24, 2021

Reviewed By: William Dritz

Date: November 28, 2021

Attachments: 5

Yellow Flag 7B21N6W019

BIN 3338900

Flag Date: November 22, 2021

**Flagged Elements**

Parent Element	Element	Total Quantity	Unit
<i>Span Number : 1</i>			
	120 - Steel Truss	360	ft

**Flagged Condition Description**

Background: The superstructure consists of a welded steel truss with overhead bracing (flag photo 1). The bottom chords of both trusses were retrofitted in the past with a steel tension rod system. The concrete filled steel deck is supported by stringers and floorbeams (flag photo 2). Floorbeams and truss nodes are numbered starting with 0 at the begin abutment bearings and ending with 8 at the end abutment bearings. Floorbeam hangers (i.e., truss vertical members) exist at the odd panel points. The span length is 180 feet. The width of the deck from curb to curb is 24 feet. There is a sidewalk on the outside of the left truss. This flag was issued after discussion with the QC engineer.

2021 Flag Conditions:

The following vertical members in tension have heavy section loss as follows:

Right truss vertical member L05-U05 has 29% left flange section loss, 23% right flange section loss, and 59% web loss. The total section loss for the member is 35% (flag photo 3). The previous inspection indicates that section loss of flanges was 5% and 17%.

Left Truss L01-U01 vertical member section loss readings were taken just above the sidewalk. The left flange has approximately 30% section loss; the right flange has approximately 32% section loss, the web has approximately 14% section loss. The total section loss for the member is 27% (flag photo 4). Deterioration for this member was previously estimated to have 10% section loss.

See Truss Member Section Loss Sketch.

Significance: Section loss of the verticals at the odd panel points, which are fracture-critical members, could affect the load carrying capacity of the bridge as these directly support the ends of the floorbeams.

Mitigating Conditions: The bridge is posted for "No Trucks with R Permits".

Additional Information: Right truss vertical compression member L06-U06 has 4% left flange section loss, 19% right flange section loss and 39% web section loss. The total section loss for the member is 19%. The previous inspection indicates that section loss for this member was approximately 9%. See Truss Member Section Loss Sketch.

The remaining truss verticals have up to 15% +/- overall section loss.



**Flag Photographs**

Photo Number: 1

Photo Filename: 01\_Left Elevation from Beginning\_21\_DSCN5549.



**Attachment Description: Left Elevation from Beginning**



Photo Number: 2

Photo Filename: 02\_Underside of Superstructure from



***Attachment Description: Underside of Superstructure from Begin***



Photo Number: 3

Photo Filename: 03\_End Face of Right Truss Vertical Member



**Attachment Description: End Face of Right Truss Vertical Member L05\_U05 at Top of Floorbeam**



Photo Number: 4

Photo Filename: 04\_End Face of Left Truss Vertical Member L01\_U01



**Attachment Description: End Face of Left Truss Vertical Member L01\_U01 at Top of Sidewalk**

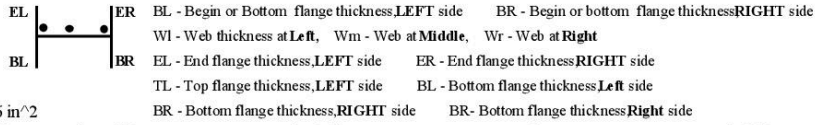


Photo Number: 5

Photo Filename: 02\_21\_Truss SLR3.jpg

BIN 3338900

**SECTION LOSS DOCUMENTATION:**



A = 15.6 in<sup>2</sup>  
 Section Size: W12 x 53    Flg. Width: 9.995    Flg. thickness: 0.575    Beam hgt. 12.060    Web thick.: 0.345

Location											SECTION LOSS SUMMARY				
Date	By	LEFT Flange			Web				RIGHT Flange			LEFT Flange	RIGHT Flange	Web	Total
		BL	holes	EL	WI	Wm	Wr	holes	BR	holes	ER				
11/17/21	RPD	0.510	0.000	0.300	0.200	0.345	0.345	0.000	0.40	0.00	0.38	30%	32%	14%	27%

A = 15.6 in<sup>2</sup>  
 Section Size: W12 x 53    Flg. Width: 9.995    Flg. thickness: 0.575    Beam hgt. 12.060    Web thick.: 0.345

Location											SECTION LOSS SUMMARY				
Date	By	LEFT Flange			Web				RIGHT Flange			LEFT Flange	RIGHT Flange	Web	Total
		BL	holes	EL	WI	Wm	Wr	holes	BR	holes	ER				
11/17/21	RPD	0.540	0.000	0.560	0.180	0.226	0.226	0.000	0.39	0.00	0.54	4%	19%	39%	19%

A = 11.2 in<sup>2</sup>  
 Section Size: W12 x 45    Flg. Width: 8.045    Flg. thickness: 0.575    \*\*Beam hgt. 6.060    Web thick.: 0.335

Location											SECTION LOSS SUMMARY				
Date	By	LEFT Flange			Web				RIGHT Flange			LEFT Flange	RIGHT Flange	Web	Total
		TL	holes	BL	WI	Wm	Wr	holes	TR	holes	BR				
11/17/21	RPD	0.330	0.000	0.500	0.250	0.250	0.250	0.000	0.33	0.00	0.44	28%	33%	25%	30%
		No flag is issued for this condition due to the presence of the steel tension rods that were added in the past and since the bridge is posted for "No Trucks with R Permits".													

A = 15.6 in<sup>2</sup>  
 Section Size: W12 x 53    Flg. Width: 9.995    Flg. thickness: 0.575    Beam hgt. 12.060    Web thick.: 0.345

Location											SECTION LOSS SUMMARY				
Date	By	LEFT Flange			Web				RIGHT Flange			LEFT Flange	RIGHT Flange	Web	Total
		BL	holes	TL	WI	Wm	Wr	holes	BR	holes	TR				
11/17/21	RPD	0.400	0.000	0.420	0.120	0.180	0.120	0.000	0.450	0.000	0.430	29%	23%	59%	35%

\*\* - Accounts for 6 inch wide cutout in Web of bottom chord  
 \*\*\* - Minor Compression Member

**Attachment Description: Truss Member Section Loss Sketch**

## New York State Department of Transportation Yellow Flag 7B21N6W021

By: Russell P. Dunderdale  
Flag Date: December 03, 2021

Superseding Information:  
No Flags Superseded

### Structure Information

**BIN: 3338900**

Feature Carried: 971HX

Feature Crossed: BLACK RIVER

Orientation: 2 - NORTHEAST

Posted Load Matches Inventory: Yes

Posted Load in field : Code 88 - No Vehicles with R Permits

Primary Owner: New York State Department of Transportation

Primary Maintenance Responsibility: New York State Department of Transportation

Typical or Main Span Type: 3 - Steel, 10 - Truss - Thru

This Bridge is not a Ramp

Number of Spans: 1

Region: 07 - WATERTOWN

County: JEFFERSON

Political Unit: Town of HOUNSFIELD

Approximate Year Built: 1954

### Verbal Notification Information

Person Notified: Jeffrey Grill

Date: December 03, 2021 11:00:00 AM

Of: NYSDOT

### Signature Information

Signature: Russell P. Dunderdale, P.E. 074648-1

Date: December 06, 2021

Reviewed By: William Dritz

Date: December 07, 2021

Attachments: 8



Yellow Flag 7B21N6W021

BIN 3338900

Flag Date: December 03, 2021

**Flagged Elements**

Parent Element	Element	Total Quantity	Unit
<i>Span Number : 1</i>			
	120 - Steel Truss	360	ft

**Flagged Condition Description**

Background: The superstructure consists of a welded steel truss with overhead bracing (flag photo 1). The bottom chords of both trusses were retrofitted in the past with a steel tension rod system. The concrete filled steel deck is supported by stringers and floorbeams (flag photo 2). Floorbeams and truss nodes are numbered starting with 0 at the begin abutment bearings and ending with 8 at the end abutment bearings. Floorbeam hangers (i.e., truss vertical members) exist at the odd panel points. Vertical truss members at the even panel points are minor compression ("0 force") members. The span length is 180 feet. The width of the deck from curb to curb is 24 feet. There is a sidewalk on the outside of the left truss. This flag was issued after discussion with the Region and the QC Engineer.

2021 Flag Conditions:

Right truss vertical member L04-U04 has 10% (estimated) inner (left) flange section loss, 30% outer (right) flange section loss, and up to 100% web loss below the elevation of the top of the floorbeam. The total section loss for the member below the top of the floorbeam is 41% (flag photos 3 through 6).

See Right Truss L04-U04 Section Loss Sketch.

Significance: The lower portion of this minor compression ("zero force") member is connected to the floorbeam and transmits the vertical floorbeam loads to the truss diagonal members (U03-L04 and L04-U05) through the gusset plates (flag photo 6).

Mitigating Conditions: The bridge is posted for "No Trucks with R Permits" (flag photo 7). The floorbeam is connected to the inner (left) flange of right truss vertical member L04-U04. The inner (left) flange of L04-U04 has 10% (estimated) section loss where it is connected to the floorbeam. The inner gusset plates at L04 have 10% to 15% section loss. The outer gusset plates at right truss L04 have been repaired (flag photo 5) in response to Red Flag 7B21N6W016.

**Flag Photographs**

Photo Number: 1

Photo Filename: **Flag 01\_Left Elevation from**



**Attachment Description: Left Elevation from Beginning**



Yellow Flag 7B21N6W021

BIN 3338900

Flag Date: December 03, 2021

Photo Number: 2

Photo Filename: **Flag 02\_Underside of Superstructure from**



***Attachment Description: Underside of Superstructure from Begin***

Photo Number: 3

Photo Filename: **Flag 03\_Lower Portion of Right Truss Vertical**



***Attachment Description: Lower Portion of Right Truss Vertical L04-U04\_from Begin***



Photo Number: 4

Photo Filename: **Flag 04\_Lower Portion of Right Truss Vertical**



***Attachment Description: Lower Portion of Right Truss Vertical L04-U04 from End***



Yellow Flag 7B21N6W021

BIN 3338900

Flag Date: December 03, 2021

Photo Number: 5

Photo Filename: Flag 05\_Right Truss at L04 from Right\_21\_



**Attachment Description: Right Truss at L04 from Right**

Photo Number: 6

Photo Filename: Flag 06\_Begin Face of Floorbeam 4 Connection to



**Attachment Description: Begin Face of Floorbeam 4 Connection to Right Truss L04**



Yellow Flag 7B21N6W021

BIN 3338900

Flag Date: December 03, 2021

Photo Number: 7

Photo Filename: **Flag 07\_Begin Approach\_21\_DSCN4836.JPG**



***Attachment Description: Begin Approach***

Yellow Flag 7B21N6W021

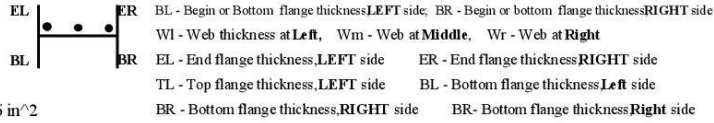
BIN 3338900

Flag Date: December 03, 2021

Photo Number: 8 Photo Filename: Flag 08\_21\_ Right Truss L04-U04 Section Loss

BIN 3338900

SECTION LOSS DOCUMENTATION:



A = 15.6 in<sup>2</sup>

Section Size: W12 x 53 Flg. Width: 9.995 Flg. thickness: 0.575 Beam hgt. 12.060 Web thick.: 0.345

Location ***L04-U04 Right Truss Below T/Floorbeam Elevation												SECTION LOSS SUMMARY			
Date	By	LEFT Flange			Web				RIGHT Flange			LEFT Flange	RIGHT Flange	Web	Total
		BL	holes	EL	Wl	Wm	Wr	holes	BR	holes	ER				
12/3/21	RPD	---	0.000	---	0.000	0.000	0.000	12.06	0.40	0.00	0.40	EST 10%	30%	100%	41%

Section Size: Flg. Width: Flg. thickness: Beam hgt. Web thick.:

Location												SECTION LOSS SUMMARY			
Date	By	LEFT Flange			Web				RIGHT Flange			LEFT Flange	RIGHT Flange	Web	Total
		BL	holes	EL	Wl	Wm	Wr	holes	BR	holes	ER				

Section Size: Flg. Width: Flg. thickness: \*\*Beam hgt. Web thick.:

Location												SECTION LOSS SUMMARY			
Date	By	LEFT Flange			Web				RIGHT Flange			LEFT Flange	RIGHT Flange	Web	Total
		TL	holes	BL	Wl	Wm	Wr	holes	TR	holes	BR				

Section Size: Flg. Width: Flg. thickness: Beam hgt. Web thick.:

Location												SECTION LOSS SUMMARY			
Date	By	LEFT Flange			Web				RIGHT Flange			LEFT Flange	RIGHT Flange	Web	Total
		BL	holes	TL	Wl	Wm	Wr	holes	BR	holes	TR				

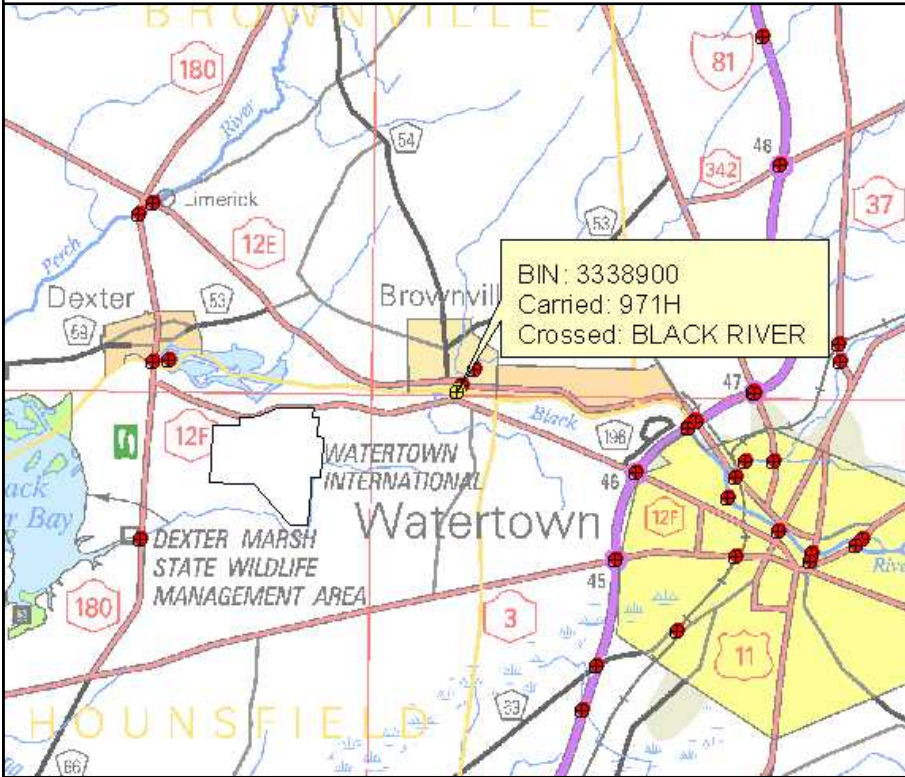
\*\*\* - Minor Compression or "Zero Force Member"

**Attachment Description: Right Truss L04-U04 Section Loss Sketch**

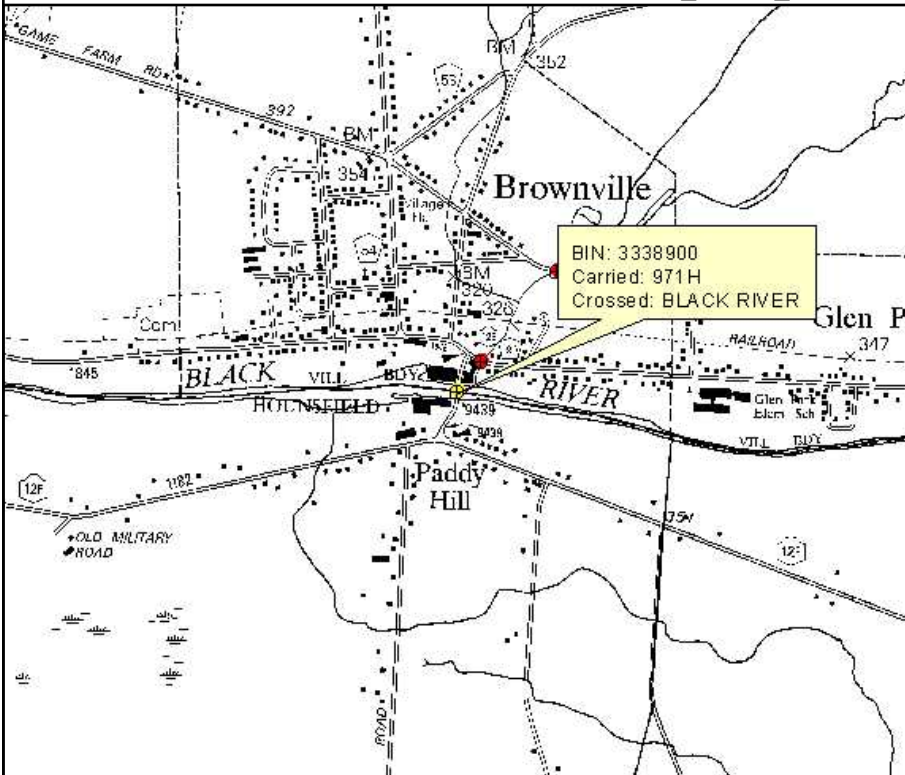


**Standard Photographs**

3338900\_LOCATION\_MAP.JPG



3338900\_QUAD\_MAP.JPG



AbutmentBegin.20.JPG



AbutmentEnd.20.JPG





ApproachBegin.20.JPG



ApproachEnd.20.JPG

