



BRIDGE LOAD RATING SUMMARY REPORT

OFFICE OF STRUCTURAL ENGINEERING OHIO DEPARTMENT OF TRANSPORTATION

SFN	BRIDGE NUMBER	DISTRICT	GPS COORDINATES	
			LATITUDE:	LONGITUDE:
7700370	SUM-8-0199L	4	41 05' 20.08"	81 30' 02.25"
ORIGINAL CONSTRUCTION YEAR	REHABILITATION YEAR	OVERALL STRUCTURE LENGTH	FEATURE INTERSECTED	
2019		1620 ft	Little Cuyahoga River, North Street, Railroads	

SPECIAL ASSUMPTIONS & COMMENTS

New Six Span continuous steel girder with composite reinforced concrete deck.
 Analyzed with AASHTOWare BrR 3D FEM software
 60 psf Future Wearing Surface included.
 Based on Proposed Construction Plans.
 Controlling Girder: Exterior Girder 1
 Location: 933.50' (Span 3, 100%)
 Limit State: Strength I-Steel Flexure Stress

The structure was also rated using 5C1 Truck Train loading as specified in BDM Section 918.
 The 5C1 Truck Train was loaded in the right-most lane with a single 5C1 truck in the adjacent left lane and was analyzed using the Distribution Factor Analysis.

PLEASE SELECT ON RIGHT, WHERE APPROPRIATE, BY USING THE DROP DOWN ARROW BUTTON	
LOAD RATING PURPOSE :	1 - Initial Load Rating
GENERAL APPRAISAL (0-9) :	9
(708) LOAD RATING SOFTWARE :	3 - AASHTO BrR (VIRTIS)
SOFTWARE VERSION :	6.8.3.3001
(709) RATING SOURCE :	1 - Plan information available for load rating analysis
(63)(65) RATING METHOD :	8 - Load & Resistance Factor Rating (LRFR) reported by rating factor (RF)
(31) ORIGINAL DESIGN LOADING :	A - HL93

STRUCTURE RATING SUMMARY

OHIO LEGAL VEHICLES				DESIGN VEHICLE		
Loading Type	GVW (Tons)	Operating Rating RF	Legal Weight (Tons)	Loading Type	Rating by RF	
					Operating	Inventory
2F1	15	8.498	15.00	HL93 Loading	1.529	1.180
3F1	23	5.694	23.00			
4F1	27	4.896	27.00			
5C1	40	2.107	40.00			
SPECIALIZED HAULING VEHICLES (SHV)				Sign Posting Recommendation:		
SU4	27	4.889	27.00			
SU5	31	4.297	31.00			
SU6	34.75	3.837	34.75			
SU7	38.75	3.458	38.75			
EMERGENCY VEHICLES (EV)						
Check box if this is an NBI bridge <input checked="" type="checkbox"/>						
EV2	28.75	6.647	28.75			
EV3	43	4.406	43.00			
Overall Legal Posting Rating						
Posting Recommendation				No Load Posting is Recommended		

AGENCY/FIRM/OFFICE	ms consultants, inc	Report Date	9/18/2019
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	Rated By	Reviewed By
Name:	Kevin Livengood	Samuel J Ranno
PE Number:	OH 84741	OH 57211
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BRIDGE LOAD RATING SUMMARY REPORT

OFFICE OF STRUCTURAL ENGINEERING

OHIO DEPARTMENT OF TRANSPORTATION

SFN	BRIDGE NUMBER	DISTRICT	GPS COORDINATES	
			LATITUDE:	LONGITUDE:
7700371	SUM-8-0199R	4	41 05' 19.79"	81 30' 00.71"
ORIGINAL CONSTRUCTION YEAR	REHABILITATION YEAR	OVERALL STRUCTURE LENGTH	FEATURE INTERSECTED	
2019		1588 ft	Little Cuyahoga River, North Street, Railroads	

SPECIAL ASSUMPTIONS & COMMENTS

New Six Span continuous steel girder with composite reinforced concrete deck.
 Analyzed with AASHTOWare BrR 3D FEM software
 60 psf Future Wearing Surface included.
 Based on Proposed Construction Plans.
 Controlling Girder: Exterior Girder 7
 Location: 832.00' (Span 3, 100%)
 Limit State: Strength I-Steel Flexure Stress

The structure was also rated using 5C1 Truck Train loading as specified in BDM Section 918.
 The 5C1 Truck Train was loaded in the right-most lane with a single 5C1 truck in the adjacent left lane and was analyzed using the Distribution Factor Analysis.

PLEASE SELECT ON RIGHT, WHERE APPROPRIATE, BY USING THE DROP DOWN ARROW BUTTON	
LOAD RATING PURPOSE :	1 - Initial Load Rating
GENERAL APPRAISAL (0-9) :	9
(708) LOAD RATING SOFTWARE :	3 - AASHTO BrR (VIRTIS)
SOFTWARE VERSION :	6.8.3.3001
(709) RATING SOURCE :	1 - Plan information available for load rating analysis
(63)/(65) RATING METHOD :	8 - Load & Resistance Factor Rating (LRFR) reported by rating factor (RF)
(31) ORIGINAL DESIGN LOADING :	A - HL93

STRUCTURE RATING SUMMARY

OHIO LEGAL VEHICLES				DESIGN VEHICLE		
Loading Type	GVW (Tons)	Operating Rating RF	Legal Weight (Tons)	Loading Type	Rating by RF	
					Operating	Inventory
2F1	15	7.452	15.00	HL93 Loading	1.885	1.454
3F1	23	5.027	23.00			
4F1	27	4.394	27.00			
5C1	40	2.648	40.00			
SPECIALIZED HAULING VEHICLES (SHV)				Sign Posting Recommendation:		
SU4	27	4.376	27.00			
SU5	31	3.885	31.00			
SU6	34.75	3.501	34.75			
SU7	38.75	3.225	38.75			
EMERGENCY VEHICLES (EV)						
Check box if this is an NBI bridge <input checked="" type="checkbox"/>						
EV2	28.75	6.122	28.75			
EV3	43	4.127	43.00			
Overall Legal Posting Rating						
Posting Recommendation				No Load Posting is Recommended		

AGENCY/FIRM/OFFICE	ms consultants, inc	Report Date	9/18/2019
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