

2020

BRIDGE CONDITION REPORT

City, County, Railroad and Private Bridges



Kennedy Ave Bridge



Oakley Pedestrian Bridges

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INTRODUCTION

Bridges are an essential part of Cincinnati's transportation network, linking roadways and communities. Timely maintenance is critically important for the safety and welfare of the traveling public. The Department of Transportation and Engineering (DOTe) is the city agency primarily responsible for inspecting, maintaining, and improving the transportation system within the City of Cincinnati. The Bridge Program (BP) is the specific program within DOTe charged with the responsibility of maintaining the bridges within this transportation system. This report is the annual update to City Council informing Council of the condition of the bridges in Cincinnati and DOTe's efforts to maintain Cincinnati's bridge infrastructure.

In conformance with state law, every bridge in Cincinnati is inspected on an annual basis. The Ohio Revised Code 5501.47 defines a bridge as "Any structure, of 10 feet or more clear span, or 10 feet or more in diameter on, above, or below a highway...". Within the City limits there are about 450 structures which meet these criteria and are therefore classified as bridges. Of these 450 bridges, 234 (which include the 2 pedestrian/trail bridges not over highways at Hutton Street & Wasson Way over Ault Park) are inspected by DOTe Bridge Program personnel, as well as 4 additional bridges outside of the City limits that were purchased by the City as part of the Wasson Way acquisition. These inspections are performed in accordance with the guidelines specified in the ODOT Bridge Inspection Manual. The remaining bridges, which are part of the Interstate and State Highway Systems are inspected by ODOT. As the City has no inspection or major maintenance responsibility for these bridges, they are not included in this report.

The objectives of DOTe's Bridge Inspection Program are to:

1. Provide a current information base on the condition of bridges within Cincinnati so that maintenance, repair, and replacement projects can be programmed efficiently.
2. Ensure that the structures continue to satisfy present service and safety requirements.
3. Determine the need for establishing or revisiting weight restrictions on bridges.
4. Determine and locate the extent of any structural weakness or damage so that appropriate corrective actions can be taken to ensure public safety.
5. Satisfy state and federal regulations.

Following the completion of each annual bridge inspection cycle, this report is issued by DOTe to inform City Council of the condition of the bridges in Cincinnati which are specifically inspected by DOTe personnel. This report also functions as an annual update to inform City Council on how the funds allocated to the Bridge Program are being utilized.



Kennedy Ave Bridge 1933 and 2020

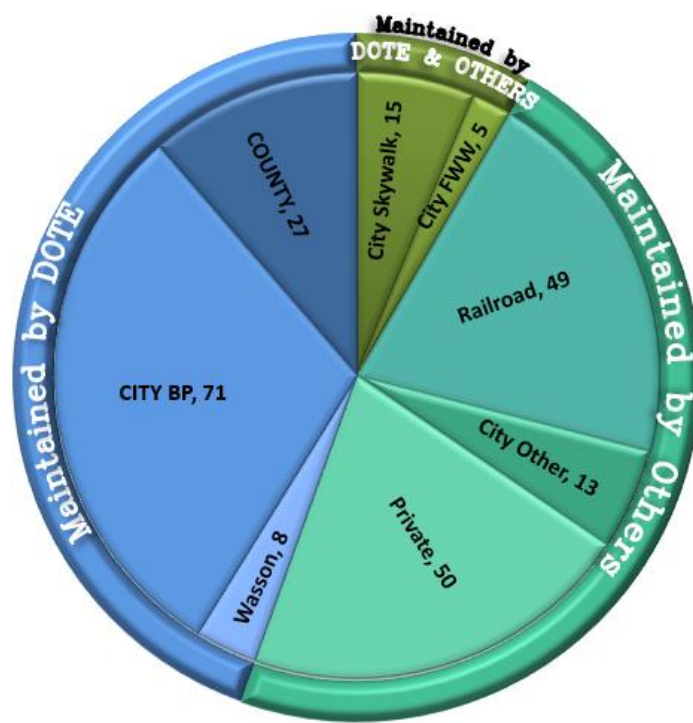
Based upon maintenance responsibility, the 238 DOTE-inspected bridges are divided into the following eight categories:

1. **City (Bridge Program) Bridges • 71 bridges:** Vehicular and pedestrian bridges owned by the City and maintained by DOTE with designated bridge program funds, 18 of which are pedestrian only structures. (See page 11 for details).
2. **County Bridges • 27 bridges:** Vehicular bridges within City limits that support improved roads which are of general and public utility running into or through Cincinnati. The current count of 27 includes the Galbraith Rd Bridge over Anthony Wayne Ave that is currently under construction. By contractual agreement with Hamilton County, DOTE maintains these bridges. Hamilton County funds the work performed on these bridges with the Municipal Road Fund. (See page 13 for details).
3. **Wasson Way Bridges • 8 bridges:** Acquired by the City from Norfolk Southern in September 2016 to carry a future trail and possible light rail facilities. The trail including the bridges are being developed and maintained with designated DOTE Wasson Way funds.
4. **Fort Washington Way Bridges • 5 bridges:** Bridges over Ft. Washington Way constructed with the Ft. Washington Way reconstruction project. DOTE shares maintenance responsibility for these bridges with ODOT.
5. **City (Skywalk) Bridges • 15 bridges:** Central Business District pedestrian bridges on the skywalk system owned by the City. The Department of Public Services and property owners adjacent to the bridges maintain these structures. Generally, DOTE is responsible for the major rehabilitation of these bridges, while other entities perform the routine maintenance.
6. **City (Other) Bridges • 13 bridges:** Unique City owned structures located on, over, or under a roadway that technically qualify as bridges. Various City agencies including Parking Facilities, Stormwater Management Utility and the Park Board maintain these bridges.

7. **Railroad Bridges • 49 bridges:** Railroad bridges that cross over public roadways. CSXT, IORY (GWRR), Norfolk-Southern, and SORTA own and maintain these bridges.
8. **Private Bridges • 50 bridges:** Privately owned, mostly pedestrian and utility bridges that cross over public roadways. The applicable private owners maintain these bridges.

Throughout the remainder of this report, most of the discussion will be focused on the 71 City (BP) bridges, the 27 County bridges and the 8 Wasson Way bridges as DOTE is responsible for maintaining these 106 bridges.

The individual 2020 bridge inspection reports for all 238 bridges under the City's inspection responsibility are included in Appendix B of this annual report. The bridge inspection reports are grouped in the order listed above (#1 through #8). Within each group, the individual bridge inspection reports are arranged alphabetically by bridge name.



BRIDGE PROGRAM FUNCTION AND PERFORMANCE MEASURES

The goal of the Bridge Program is to preserve the structural integrity of all bridges that DOTE maintains so that they remain safe for the traveling public. DOTE established the following performance measures to track its progress in accomplishing this objective.

1. Performance Measure:

Bridge Program personnel will annually inspect all bridges on, over, or under public roadways within the City of Cincinnati (excluding bridges inspected by ODOT) and submit this annual bridge condition report, in compliance with the Ohio Revised Code, Section 723.54.

Progress: During the 2020 bridge inspection cycle, all such 238 bridges were inspected. The results of those inspections are compiled in this report.

2. Performance Measure:

Bridge Program personnel will develop plans, request funding, schedule, and manage bridge maintenance,

repair, and replacement work, so as to maintain a Weighted Average Bridge Rating of 6 or better for bridges maintained by the DOTE Bridge Program (BP). A rating of 6 represents a “Satisfactory” condition, which indicates that all primary structural elements are sound but may show some minor deterioration.

Progress: As identified in this report, the present Weighted Average Bridge Rating for City (BP) bridges is 6.90.

3. Performance Measure:

Bridge Program personnel will develop plans, request funding, schedule, and manage bridge maintenance, repair, and replacement work so that no less than 95% of City (BP) bridges are open with no load restrictions.

Progress: As identified in this report, 94% of all City (BP) bridges are currently open with no load restrictions. Two bridges have posted restrictions for commercial vehicles; and two bridges have posted restrictions for emergency vehicles. Further details are provided in the following pages.



Bridge repair work at pedestrian bridge over Madison Rd in Oakley.

BRIDGE LOAD RATINGS, POSTING AND OVERLOADS

BACKGROUND

In accordance with the National Bridge Inspection Standards (NBIS), all bridges on public roads must be load rated for all legal vehicles and, if necessary, posted with a weight restriction. In recent years, the trucking industry has introduced closely-spaced, multi-axle single unit trucks, such as dump trucks, construction vehicles, solid waste trucks and other hauling trucks, which typically have 4 to 7 axles. In addition, the FHWA recognized that “heavy-rescue” type emergency vehicles typically used by fire departments have tended to become larger and heavier. These 2 or 3 axle emergency vehicles violate typical axle weight limits, but have become more and more common in many fire departments, including the City of Cincinnati.

The response to these observations was the creation of new load configurations mandated by Federal law to be used in load rating bridges. These load configurations take the form of representative “vehicles” with specific axle loads and spacings. These loads are referred to as “SHVs” (or Special Hauling Vehicles) which represent the commercial trucks, and “EV’s” (or Emergency Vehicles) which represent the heavy-rescue type emergency vehicles, both of which are now considered legal under current federal and state criteria. Recent studies have found that the effect of these vehicles could cause overloading of certain in-service bridges beyond acceptable standards.

If the results of a load rating analysis indicate the need for a bridge to be posted, one of two types of signs are now required: one for Emergency vehicles only and one for all commercial vehicles. A bridge that is posted for commercial vehicles does not need additional posting for Emergency vehicles. The latest version of load posting signs in Ohio are shown to the right.

Generally, load postings are a result of either new loads (SHV’s or EV’s) on bridges that were designed for different load configurations, a result of reduced load

carrying capacity due to deterioration of the bridge, or a combination of both.



Current Load posting signs for bridges in Ohio.

Above top: Posting for commercial vehicles

Above bottom: Posting for Emergency vehicles

Cincinnati Bridge Posting and Overload

There are a total of 91 bridges on Cincinnati public streets for which DOTE is responsible for posting weight limits if necessary. Through continued efforts by DOTE, all Federal and State requirements for updated load ratings have been met to date. Currently 7 of these bridges have active load restrictions:

Four City (BP) bridges currently have load restrictions. The Brighton Street Approach Bridge over Central Parkway and the Stillwell Rd Bridge over Amberley Creek both have posted restrictions for commercial vehicles. Additionally, the Spring Lawn Ave Bridge over Ludlow Run and the Park Ave Bridge over Kemper Lane are load posted for EVs as a result of the newly required EV rating loads previously discussed. These four posted bridges result in 94% of City (BP) bridges being open with no load restriction, which is slightly below the goal of 95% for Performance Measure #3. The cause of this situation is two-fold.

First, the Brighton Approach bridge was added to the City's inventory in 2018, having previously been ODOT's responsibility and for which ODOT had already posted a load restriction. At that time, DOTE still met the 95% goal, and had already initiated planning activities for a project to address the structural deficiencies of the bridge and eliminate the load restriction. DOTE has since secured a \$2M federal grant to partially fund the project, which is currently slated for construction to begin in 2023.

Second, the addition of the new "EVs" to the required load rating vehicles resulted in the need to post weight restrictions on the two bridges mentioned above, with no change in the bridges' condition.

The result of this is that the percentage of bridges open with no weight restrictions is slightly below the stated goal due solely to circumstances beyond DOTE's control. However, as previously mentioned, DOTE is currently undertaking a project that will ultimately eliminate the load restriction on the Brighton Approach bridge, and we continue to identify and pursue potential outside funding sources to address the remaining load restricted bridges.

There are two County bridges with load restrictions for commercial loads. The East Fork Rd Bridge over the Duck Creek has been posted since 1993 due its condition. The Western Hills Viaduct was load posted in spring 2020 due to a combination of new legal loads and capacity reductions due to the condition of the structure.

The only City (Other) bridge with load restrictions for commercial vehicles is the Martin Drive Coal Room in Eden Park. The signage for this structure was installed in 2019.

In addition to these 7 bridges, there are 2 more posted bridges within the City of Cincinnati, both maintained by ODOT. Those are the Martin Drive Ramp bridges off US 50.

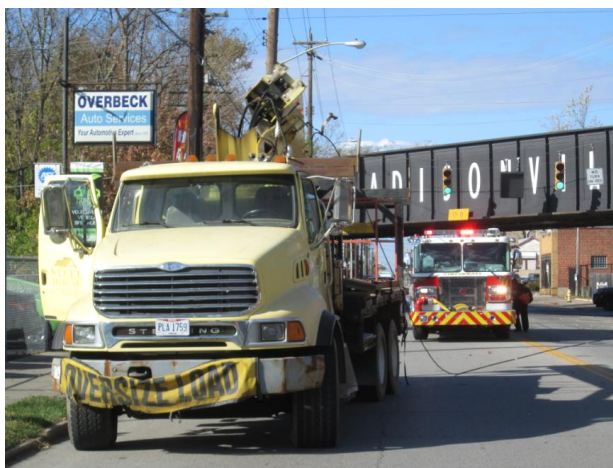


East Fork Bridge with Load Posting Sign

In concert with the increased legal loads, the transportation industry is continuing to push the limits of oversize and overweight vehicles. DOTE's bridge section reviews all permit applications for transports that exceed the legal load and dimension limits. The review of such permits is necessary to minimize the risk of overloading or damage by oversize or overweight vehicles, and the number of permit applications is growing each year. During the 2020 calendar year, the structures section reviewed more than 700 permits for oversize or

overweight transports, which is a 15% increase over the former record number established in 2019.

In 2020, as in years past, there were numerous cases of drivers ignoring vertical clearance restrictions and colliding with overhead structures. The most impacted bridges in the city limits are the railroad overpasses over Collins Ave and Madison Rd at Kenwood, despite a new advanced warning system for Madison Rd truck traffic.



Vehicle after impact with railroad bridge at Madison Rd near Kenwood.



Low clearance automated warning system at railroad overpass over Madison Rd near Kenwood.

BRIDGE CONDITIONS

In accordance with the ODOT Bridge Design Manual, all bridges inspected by DOTE are assigned a condition rating using a 0 to 9 scale, as summarized in the table below. The individual bridge ratings for all 71 City (BP) bridges, all 27 County bridges, and all 8 Wasson Way bridges are

shown on [pages 11, 13 and 14](#) respectively. A summary of the bridge ratings for all 238 inspected bridges is shown in tabular form on [page 15](#).

EXPLANATION OF RATING SYSTEM

Rating	Description
<i>9 • Excellent</i>	
<i>8 • Very Good</i>	No problems noted.
<i>7 • Good</i>	Some minor problems.
<i>6 • Satisfactory</i>	Structural elements show some minor deterioration.
<i>5 • Fair</i>	All primary members are sound, but have minor section loss, etc.
<i>4 • Poor</i>	Advance section loss, etc.
<i>3 • Serious</i>	Loss of section has seriously affected primary members, local failures possible.
<i>2 • Critical</i>	Advance deterioration of primary members. Unless closely monitored, bridge closure possible.
<i>1 • Imminent Failure</i>	Major deterioration, bridge is closed.
<i>0 • Failed</i>	Out of service, beyond corrective action.

WEIGHTED AVERAGE BRIDGE RATING

In addition to assigning each bridge an individual condition rating, DOTE also uses a Weighted Average Bridge Rating to monitor the performance and communicate the effectiveness of the Bridge Program. The Weighted Average Bridge Rating is an adjusted average of all individual bridge condition ratings that accounts for the importance of the bridge as determined by its size. The weighted average is calculated using a size multiplication factor (SMF) between 1 and 5 as shown below.

The SMF for individual City and County bridges are listed in the tables on [pages 11 and 13](#).

Size Multiplication Factor SMF	Deck Area (ft ²)	Number of City BP Bridges	Number of County Bridges
1	Under 5,000	39	9
2	5,000–10,000	4	11
3	10,001–20,000	11	2
4	20,001–40,000	13	2
5	Over 40,000	4	3

DOTe has been using the Weighted Average Bridge Rating for over thirty years and has found it to be an effective tool to stress the importance of larger viaducts while not ignoring the conditions of smaller structures. The Weighted Average Bridge Rating for both City (BP) bridges and County bridges from 1987 to 2020 is shown in graphical form at the bottom of [page 15](#).

The current Weighted Average Bridge Rating for City (BP) bridges is **6.90**. The current Weighted Average Bridge Rating for County bridges within the City limits is **6.60**.

The average bridge rating for the newly acquired Wasson Way bridges is shown on [page 14](#) and is just the straight average as some of these bridges do not have bridge decks and therefore a weighted average by deck size would not be appropriate.



Above: Quebec Rd Bridge - Deck Area: 2,379 SF, SMF = 1



Second Street over Transit Center - Deck Area: 178,641 SF, SMF = 5

2020 CITY (BP) INDIVIDUAL BRIDGE RATINGS

Bridge	Structural File No.	Deck Area (sq. ft.)	SMF	Year Built	Last Rehabbed	Inspection Ratings	
						2019	2020
Aaron Raines Street over RR (Burns Street Ramp)	3160270	3,321	1	2009	2009	7	7
Beekman Street Pedestrian Overhead at Elmore	3160068	1,035	1	1970	1970	7	7
Bramble Avenue Bridge over Little Duck Creek	3160556	2,565	1	1931	1989	7	7
Brighton Approach Bridge	3101533	3,520	1	1925	1925	4	4
Celestial Street Pedestrian Bridge over Columbia Parkway	3103455	1,320	1	1938	1958	6	6
Central Incinerator Approach Bridge over Mill Creek	3160610	9,019	2	1953	1953	5	5
Central Parkway over Rapid Transit Tubes S. of Hopple Street	3199924	18,711	3	1924	1924	5	5
Central Parkway over Rapid Transit Tubes - Walnut to Draper	3199937	422,280	5	1922	1922	5	5
Coliseum Pedestrian Bridge from Taylor Southgate Bridge	3199928	1,000	1	1995	1995	6	6
Coliseum Pedestrian Bridge over Taylor Southgate Bridge	3101355	11,300	3	1975	1975	7	7
Coliseum/Stadium Plaza Overhead over Broadway (Platform A)	3101940	38,525	4	1975	1975	6	6
Dalton Avenue under C.U.T. Approach Drive	3160017	25,248	4	1931	1931	7	7
Dana Avenue Pedestrian Bridge North of Madison Road	3161455	3,468	1	1973	1973	7	7
Dreman Avenue Bridge over West Fork Channel	3160432	3,693	1	1999	1999	8	8
Duck Creek Rd Extension over Deerfield Creek	3161945	3,000	1	2017	2017	8	8
Elm Street Cable Stayed Pedestrian Bridge over FWW - East Side	3106179	2,845	1	2000	2000	8	8
Elm Street Cable Stayed Pedestrian Bridge over FWW - West Side	3160603	2,845	1	2000	2000	8	8
Elm Street over Pete Rose Way and Parking Lots	3161978	36,960	4	2000	2000	7	7
Elmhurst Street Pedestrian Bridge over Torrence Parkway	3162494	1,155	1	1950	1950	5	5
Erie Avenue Bridge over Duck Creek	3160882	4,136	1	1900	1980	7	7
Erie Avenue Bridge over Wasson Way	3160602	1,955	1	2001	2001	6	6
Erie Avenue Bridge over Red Bank Road	3160998	12,800	3	1943	1980	7	7
Erie Avenue Bridge over SORTA	3160939	12,800	3	1943	1980	7	7
Este Avenue Extension Culvert at Ridgewood Arsenal	3161412	2,250	1	1990	1990	7	7
Freedom Way Center over Parking Garage between Race and Rosa Parks Street	3165337	34,604	4	2011	2011	8	8
Freedom Way East over Parking Garage between Walnut and Main Streets	3165396	34,869	4	2011	2011	8	8
Freedom Way West over Parking Garage between Elm and Race	3165280	24,450	4	2011	2011	8	8
Gest Street Bridge over CIND Railroad	3161277	2,195	1	1919	1999	7	7
Gest Street Bridge over Mill Creek	3161749	4,373	1	1997	1997	8	8
Gest Street Ramp E. of Linn Street	3161358	3,049	1	1963	1992	6	6
Gest Street Ramp W. of Linn Street	3161366	3,049	1	1963	1992	6	6
Gilbert Ave. Pedestrian Overhead S of Court Street	3100774	807	1	1970	1970	7	7
Grand Ave over Lick Run	3160003	3,273	1	2019	2019	8	8
Hutton Avenue Pedestrian Bridge over SORTA	3169920	1,150	1	1930	1930	5	5
Ida Street Viaduct over Wareham	3160076	14,356	3	1931	2015	8	8
Joe Nuxhall (Main Street) Bridge over Parking Garage	3161900	27,730	4	2004	2004	8	8
Kebler Avenue over Lick Run	3160004	1,761	1	2019	2019	8	8
Kennedy Connector Bridge over Duck Creek	3162958	11,031	3	2013	2013	8	8
Kennedy Connector Bridge over SORTA/IORY	3163008	23,432	4	2013	2013	8	8
Kenton Street Bridge over Florence	3160130	13,275	3	1998	1998	7	7
Lincoln Avenue Bridge over Open Land	3161838	16,500	3	1953	1953	7	7
Madison Road Pedestrian Bridge East of IORY	3161935	773	1	1959	1982	5	
Madison Road Pedestrian Bridge East of IORY	3161936	816	1	2020			8
Madison Road Pedestrian Bridge West of IORY	3161889	774	1	1959	1982	5	5
Main Street Cable Stayed Pedestrian Bridge over FWW - East Side	3106462	2,845	1	2000	2000	7	7
Main Street Cable Stayed Pedestrian Bridge over FWW - West Side	3106403	2,845	1	2000	2000	8	8
Marian Spencer Lane over Parking Garage (Walnut)	3162877	22,185	4	2004	2004	7	7
Mehring Way Pedestrian Overhead Bridge to Coliseum	3101371	13,262	3	1975	1975	6	6
Mitchell Avenue Bridge over Mill Creek	3160440	14,347	3	1959	1959	6	6
Monastery Street Bridge over Open Land	3161404	11,324	3	1984	1984	5	5
Park Avenue Bridge over Kemper	3160777	30,680	4	1917	1939	6	6
Powers Street Bridge over West Fork Channel	3160904	4,799	1	2001	2001	8	8
Quebeck Rd over Lick Run	3160006	2,397	1	2019	2019	8	8
Race Street Bridge over Pete Rose Way and Parking Lots	3162036	52,629	5	2000	2000	8	8
Railroad (Abandoned) over I-71 North of Elsinore	3106748	5,440	2	1970	1970	6	6
Roe Street Bridge over Little Duck Creek	3161005	1,692	1	1930	2002	7	7
Rosa Parks Bridge (former Vine) over Parking Garage	3161781	22,214	4	2003	2003	8	7
Roslyn Drive Bridge over Duck Creek	3162338	2,820	1	1943	1943	7	6
Second Street Connector from Clay Wade Bailey (Ramp D)	3160661	25,617	4	2001	2001	8	8
Second Street over Transit Center - East End	3160866	61,812	5	2001	2001	5	5
Second Street over Transit Center - Elm to Main Streets	3160696	178,641	5	2001	2001	8	8
Second Street over Transit Center - West Approach	3160688	27,302	4	2001	2001	8	8
Settle Street Bridge over Little Duck Creek	3161188	1,888	1	1996	1996	7	7
Sixth Street Expressway Pedestrian Bridge West of Harriet	3102831	1,251	1	1965	1965	6	6
Sonoma Court Culvert	3162753	1,474	1	2004	2004	8	8
Southside Avenue over Conrail/CSX	3161528	5,263	2	1992	1992	8	8
Spring Lawn Avenue Bridge over Branch of Ludlow Run	3161285	434	1	1925	1925	5	5
Stillwell Road Bridge over Amberly Creek (N. of Summit)	3161331	840	1	1954	1954	5	5
Van Hart Street over Lick Run	3160005	1,710	1	2019	2019	8	8
Victory Parkway Pedestrian Overhead South of I-71	3161374	2,090	1	1972	1972	6	6
West Eighth Street Bridge over Fairbanks Avenue	3162702	8,568	2	1955	1955	7	7
West Eighth Street Bridge over Woodlawn Avenue	3162656	4,704	1	1955	1955	6	6
Total Deck Area (sq. ft.)						Average Weighted Rating	
1,359,091						6.91	6.90

CHANGES IN AVERAGE BRIDGE CONDITIONS OVER THE PAST YEAR – CITY BRIDGE PROGRAM

The change in Weighted Average Bridge Rating for City (BP) Bridges that occurred over the past year (from 6.91 in 2019 to 6.90 in 2020) was the cumulative result of the following 4 changes:

1. The condition rating of the **Rosa Parks Ave Bridge over Parking Garage, SFN 3161780** was reduced from 8 (Very good condition) to 7 (good condition), due to the condition of the pier caps.
2. The condition rating of the **Rosslyn Drive Bridge over Duck Creek, SFN 3162338** was reduced from 7 (good condition) to 6 (satisfactory condition), due to the condition of the substructure.
3. The **Madison Road Pedestrian Bridge East of IORY, SFN 3161935** with a former condition rating of 5 (fair condition) was removed from the inventory.
4. The new **Madison Road Pedestrian Bridge East of IORY, SFN 3161936** was added to the inventory with a condition rating of 8 (very good condition).

The Madison Road Pedestrian Bridge West of IORY also underwent extensive restoration. However, the construction was not completed in time for the 2020 inspection cycle, and therefore, the results of this project will be reflected in the 2021 bridge report.



Installation of the prefabricated arch on the Madison Road Pedestrian overpass east of IORY



Construction activity at the Madison Road Pedestrian overpass west of IORY

2020 COUNTY INDIVIDUAL BRIDGE RATINGS

Bridge	Structural File Number	Deck Area (sq. ft.)	SMF	Year Built / Reconst.	Last Rehabbed	Inspection Ratings		
						2019	→	2020
Anthony Wayne Avenue Bridge over Mill Creek	3136388	6,452	2	1992		8	→	8
Beekman Street Bridge over West Fork Channel	3136426	3,256	1	1912	1995	7	→	7
Berkshire Lane Culvert 400' North of Beechmont	3136450	1,767	1	1986		7	→	7
Center Hill Avenue Bridge over Mill Creek	3136469	6,702	2	2014		8	→	8
Clifton Avenue Bridge over Mill Creek	3136353	8,729	2	1935	2010	8	→	8
East Fork Avenue Bridge over Little Duck Creek	3136574	1,512	1	1952		5	→	5
Eighth Street Over Railroads, W. of Eighth Street Viaduct	3136639	7,110	2	2008		7	→	7
Eighth Street Viaduct over Evans Street, Mill Creek, Etc.	3136582	190,610	5	1929	2008	6	→	6
Galbraith Road Bridge over Anthony Wayne and Conrail	3136612	20,808	4	1949		5	→	5
Harrison Ave over Lick Run	3136338	9,833	2	2019		8	→	8
Hopple Street Viaduct over Mill Creek, Railroad & Spring Grove Avenue	3136337	115,560	5	1916	1986	6	→	6
Kennedy Avenue Bridge over IORY	3136671	9,723	2	1933		4		
Kennedy Avenue Bridge over IORY	3136672	6,992	2	2020			→	8
Madison Road Bridge over Duck Creek E. of Ridge Road	3136728	2,352	1	1929	1992	7	→	7
Marburg Avenue Bridge over former RR	3130003	5,104	2	2017		9	→	9
North Bend Road Bridge over Kirby Road	3136795	6,776	2	1951		5	→	5
North Bend Road Bridge over Mill Creek	3137139	8,404	2	1995		8	→	8
Plainville Road Arch over Little Duck Creek	3136817	1,188	1	1915		6	→	6
Red Bank Expressway Culvert at Deerfield Channel N. of Duck Creek Rd	3136841	3,570	1	1969		6	→	6
Red Bank Expressway Culvert At Deerfield Channel S. of Madison Rd.	3136868	28,000	4	1970		7	→	7
Seymour Avenue Bridge over Mill Creek	3136922	8,326	2	1994		8	→	7
Spring Grove Avenue Bridge over Mill Creek E. of Kings Run	3137074	13,448	3	1993		7	→	7
Spring Grove Avenue Bridge over Mill Creek South of Colerain	3137031	17,365	3	1970		7	→	7
West Fork Road Bridge over Tributary of West Fork Channel	3137155	2,755	1	2000		8	→	8
West Fork Road Bridge over West Fork Channel - 2nd W. of Montana	3137147	3,143	1	2000		8	→	8
West Fork Road Bridge over West Fork Channel at Montana	3137090	3,476	1	1928	1991	6	→	6
Western Hills Viaduct	3137082	221,920	5	1931	1978	4	→	4
Wooster Road Bridge over Duck Creek	3137112	5,816	2	1961		7	→	7
		<i>Total Deck Area (sq. ft.)</i>						
		710,974						
						<i>Average Weighted Rating</i>		
						6.50	→	6.60

CHANGES IN AVERAGE BRIDGE CONDITIONS OVER THE PAST YEAR – COUNTY

The change in weighted average rating of County bridges from 6.50 in 2019 to 6.60 in 2020 is the cumulative result of the following 3 changes:

- 1) The condition rating of the **Seymour Avenue Bridge over the Millcreek, SFN 3136922** was reduced from 8 (very good condition) to a 7 (good condition) due to the condition of the substructure.
- 2) The removal of the **Kennedy Avenue Bridge over IORY, SFN 3136671** with a previous condition rating of 4 (poor).
- 3) The addition of the newly constructed **Kennedy Avenue Bridge over IORY, SFN 3136672** with a condition rating of 8 (very good condition).



Setting the first beam of the Kennedy Ave Bridge over IORY

WASSON WAY

2020 WASSON WAY INDIVIDUAL BRIDGE RATINGS

Bridge	Structural File Number	Bridge Length (ft.)	Year Built / Reconst.	Last Rehabbed	Inspection Ratings		
					2019	→	2020
Wasson Way Culvert over Little Duck Creek ^{1,2}	3199930	40	1940		5	→	5
Wasson Way over Ault Park ²	3199931	225	1924		3	→	3
Wasson Way over Columbia Parkway ¹	3103846	129	1962	2013	8	→	7
Wasson Way over Grovedale Place	3161073	54	1929	2018	8	→	8
Wasson Way over I-71	3114759	267	1972	2019	7	→	7
Wasson Way over Ramp from SB I-71	3114740	106	1973	2019	7	→	8
Wasson Way over Red Bank Rd ¹	3140032	430	1914	1924	4	→	4
Wasson Way over Wooster Rd ¹	3140024	79	1895	1924	2	→	2
					Average Rating		
					5.50	→	5.50

¹ Outside of Cincinnati City Limits

² Not over a highway

In 2016, the City purchased a 4.1 mile long former railroad corridor from Norfolk Southern to create a mixed use trail. As part of this acquisition, eight structures formerly owned by the railroad became City property, with four of these bridges located outside of the City limits in Fairfax.

The average rating for the Wasson Way Bridges over the past year remained constant at 5.50, however two individual ratings changed during that period.

- 1) The condition of the **Wasson Way Bridge over Ramp from SB I-71, SFN 3114740** was increased from 7 (good condition) to 8 (very good condition) as a result of the completed rehab work in late 2019.
- 2) The condition of the **Wasson Way Bridge over Columbia Parkway, SFN 3103846** was reduced from an 8 (very good condition) to 7 (good condition) due to the condition of the substructure.



Newly installed Signage on the Wasson Way Bridge over I-71

2020 INDIVIDUAL BRIDGE RATINGS SUMMARY

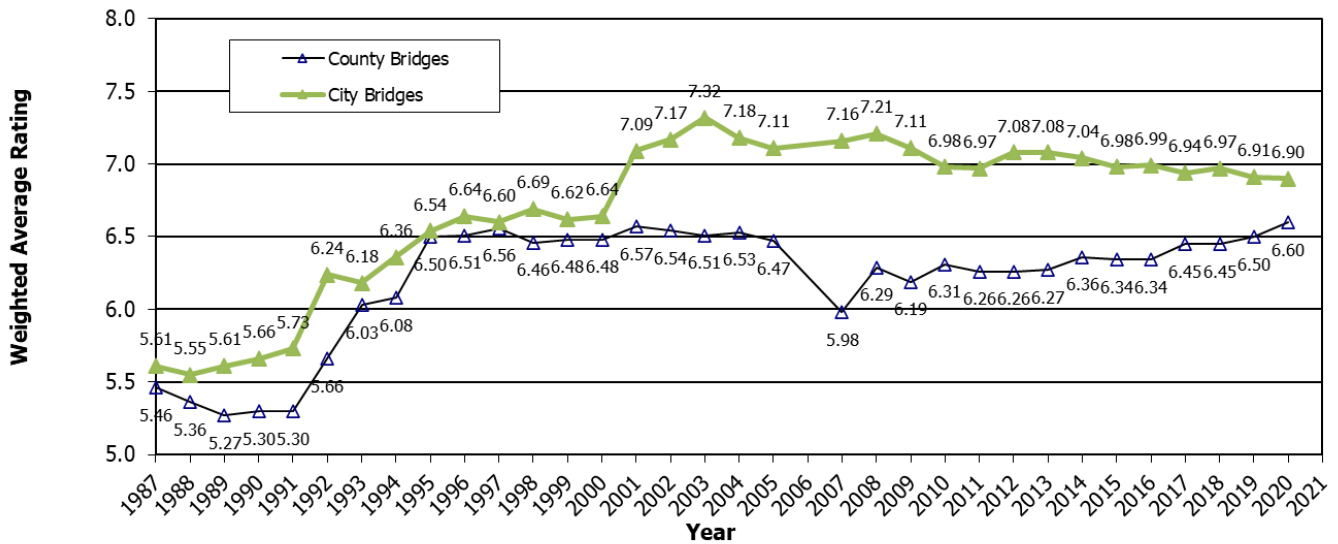
Number of Bridges: 2019 → 2020

	City (BP)	County	Wasson	FWW	City Skywalk	City Other	Railroad	Private	TOTAL
9 • Excellent	0 → 0	1 → 1	0 → 0	0 → 0	0 → 0	0 → 0	0 → 0	1 → 1	2 → 2
8 • Very Good	25 → 25	8 → 8	2 → 2	5 → 4	3 → 2	0 → 0	1 → 1	11 → 11	55 → 53
7 • Good	21 → 21	8 → 9	2 → 2	0 → 1	9 → 9	5 → 5	8 → 8	12 → 12	65 → 67
6 • Satisfactory	13 → 14	5 → 5	0 → 0	0 → 0	2 → 1	6 → 7	15 → 15	11 → 11	52 → 53
5 • Fair	11 → 10	3 → 3	1 → 1	0 → 0	2 → 0	2 → 1	3 → 3	8 → 8	30 → 26
4 • Poor	1 → 1	2 → 1	1 → 1	0 → 0	0 → 2	0 → 0	8 → 8	5 → 5	17 → 18
3 • Serious	0 → 0	0 → 0	1 → 1	0 → 0	0 → 0	0 → 0	13 → 12	2 → 2	16 → 15
2 • Critical	0 → 0	0 → 0	1 → 1	0 → 0	0 → 0	0 → 0	1 → 2	0 → 0	2 → 3
1 • Imminent Failure	0 → 0	0 → 0	0 → 0	0 → 0	0 → 1	0 → 0	0 → 0	0 → 0	0 → 1
0 • Failed	0 → 0	0 → 0	0 → 0	0 → 0	0 → 0	0 → 0	0 → 0	0 → 0	0 → 0
Total	71 → 71	27 → 27	8 → 8	5 → 5	16 → 15	13 → 13	49 → 49	50 → 50	239 → 238

Explanation of changes in bridge inventory numbers:

CITY Skywalk: Removal of the Skywalk across 5th Street East of Race (SFN 3161773)

Weighted Average Bridge Ratings



PROJECT STATUS OF BRIDGES RATED IN POOR OR WORSE CONDITION

Condition Rating = 1 (Imminent Failure)

The only bridge with a condition rating of 1 is the *Plum Street Pedestrian Overhead North of 6th Street*. This City Skywalk bridge is owned and maintained by the Port of Cincinnati. Removal of some cladding panels revealed the severe deterioration of some of the concealed structural members. The bridge was immediately closed to all traffic and shored. The port has been working with a consultant to develop repair plans, and construction is currently underway.

Condition Rating = 2 (Critical)

There are three bridges in critical condition.

The first is the *Wasson Way over Wooster Road* bridge for which the stringers have advanced deterioration affecting the loadpath. While the bridge is unsafe to carry live loads, it poses no danger to traffic below, provided it is not loaded, and the bridge is closed and fenced off to all traffic.

The second one is the *Lancaster pedestrian tunnel under SORTA*. The cracked walls and heaved floors are a concern for the overall stability of the tunnel. Since it no longer serves a purpose it should be filled in or removed. The condition of the tunnel was brought to the attention of the owner (SORTA) and rail operator (I&O), and access through the tunnel has been closed off by DOTE in 2019.

The third one is the *Gest Street Chessie Overhead – 1st East of Mill Creek* which is owned and maintained by CSX. The condition of the floorbeams with perforated members is controlling the rating. The concerns have been brought to the attention of CSX.

Condition Rating = 3 (Serious)

Fifteen bridges have a condition rating of 3. Twelve of these bridges are owned and maintained by railroads and two by private owners. The conditions of these bridges have been called to the attention of their respective owners.

The only City-owned bridge with a condition rating of 3 is the *Wasson Way Bridge over Ault Park* which is part of the

City's Wasson Way inventory. It has extensive widespread age-related deterioration, particularly to the substructure units. The bridge is currently closed to all traffic, but the restoration of this structure will be part of the upcoming Wasson Way Phase 4/5 construction.



Above and below: Deteriorated floorbeam at the Plum Street Pedestrian Overpass north of 6th Street.



Condition Rating = 4 (Poor)

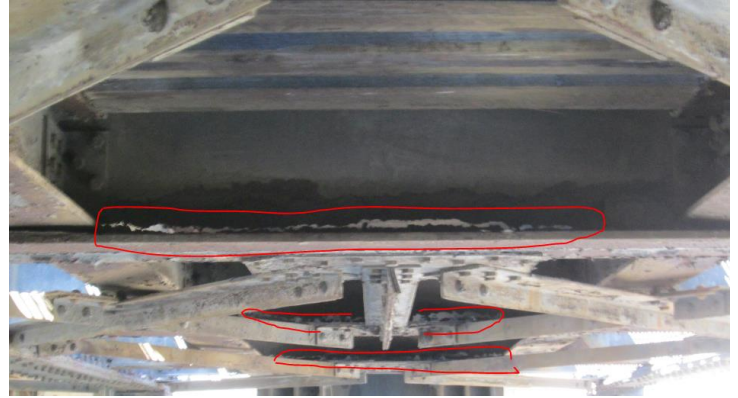
Eighteen bridges have a condition rating of 4. Eight are owned and maintained by railroads and five by private owners. The conditions of these bridges have been called to the attention of their respective owners.

Two of these bridges are part of the skywalk system. The first one is the *Sixth Street Pedestrian Overhead East of Plum Street*, which is owned and maintained by the Port of Cincinnati. Removal of cladding panels revealed the underlying deterioration of structural members. The bridge is currently closed to all traffic and shored. The port worked with a consultant to develop repair plans and construction is ongoing.

The second skywalk bridge in poor condition is the *5th Street Pedestrian Overhead West of Elm Street*, which is maintained by the City and the Convention Center. The bridge is closed to all traffic.

The remaining three bridges in “poor” condition are maintained by DOTE: one Wasson Way Bridge, one County Bridges and one City BP structure, as follows:

- *Wasson Way Bridge over Red Bank Road*: The condition of the substructure units, namely the concrete pier caps and west abutment, govern the rating of this bridge. Extensive repairs will be necessary before the bridge can be put into service. The bridge is currently closed to all traffic.
- *Western Hills Viaduct (County Bridge)*: Planning and design work is continuing for the replacement of the Western Hills Viaduct. A full discussion of the Western Hills Viaduct can be found on [page 23](#) of this report.
- *Brighton Approach Bridge over Central Parkway (City BP Bridge)*: This bridge was transferred from ODOT’s bridge inventory to the City in 2018. Prior to the bridge transfer, ODOT had initiated a study to repair, replace or remove this load restricted structure. DOTE is continuing to advance the project to remove, repair, or replace the bridge with input and involvement from the community. A portion of the necessary funds have been secured in the form of a \$2M federal grant.



Above: Perforated floorbeams under the Gest Street Chessie overhead – 1st East of the Mill Creek.



Sheared off bolts and corrosion holes at stringer to floorbeam connection on the 5th Street Chessie overhead west of Linn Street



INVESTMENT IN OUR BRIDGE INFRASTRUCTURE

CITY (BP) BRIDGES

Maintenance, repair, and replacement of City (BP) bridges is funded with both City operating and capital funds. These funds are leveraged, when possible, with state and federal funds.

DOTe's goals are to maintain a weighted average bridge rating of 6, "Satisfactory" condition, or better and to have at least 95% of City (BP) bridges open without load restrictions. The Smale Infrastructure Commission Report recommended an annual investment of \$2,000,000 to maintain this portion of the city's bridge infrastructure. This recommendation was in 1988 dollars to maintain a deck area of approximately 1,000,000 square feet. Since 1988, the bridge program has been maintaining a steadily increasing bridge deck area which at this time is over 1,359,000 square feet and has an estimated replacement value of \$750,000,000. The current 2021 Operating and Capital funding levels for City (BP) bridges are \$0 and \$569,000 respectively. The funding for 2022 is \$60,000 and \$569,000, respectively.

The current level of City funding alone is insufficient to achieve the program goals and a reliance on outside

funding has been and will continue to be necessary. DOTe aggressively pursues outside funding sources to maintain Cincinnati's public infrastructure. Successful leveraging of outside funds is imperative to maintaining and improving the condition of Cincinnati's bridges. However, even with successful leveraging of outside funds, it is becoming increasingly difficult to keep up the steadily increasing capital maintenance needs, and at some point the replacement value may be too great to overcome.

The following table indicates the level of outside funding that the City has obtained over the past 28 years for the City Bridge Program. Due to a 2007 change in State law (H.B. 67 07-03-2007 affecting ORC 5501.49 and ORC 5591.02) that removed bridges over state routes from the local inventory, many of the below listed bridges are no longer in the City's bridge inventory.

The data show that leveraged funding for remaining City owned bridges (bridges not on State Routes) is less likely to be awarded and typically requires more local matching funds.

1993-PRESENT LEVERAGED FUNDING SUMMARY
CITY (BP) BRIDGE PROGRAM

Year	Bridge Name	Contract Bid Cost	% Fed	% State	% SCIP	% Local	Leveraged	Local
1993	Sixth Street Expressway (2 bridges) ★	\$1,555,990	75%	25%			\$1,555,990	\$0
1996	Gest Street over the Mill Creek	\$839,550			80%	20%	\$671,640	\$167,910
1997	Kenton Street over Florence	\$1,589,170			80%	20%	\$1,271,336	\$317,834
1998	Dreman Ave. Bridge over West Fork Channel	\$1,887,370			70%	30%	\$1,321,159	\$566,211
1998	Gest Street over CIND Railroad	\$552,000			55%	45%	\$303,600	\$248,400
2000	Erie Avenue Bridge over N & W Railroad	\$731,620			68%	32%	\$498,968	\$232,652
2003	Martin Drive Ramp over Columbia Parkway (Bridge Work Only)★	\$162,333		100%		0%	\$162,333	\$0
2003	Celestial Street Pedestrian Bridge (Bridge Work Only)	\$172,727		57%		43%	\$98,477	\$74,250
2003	Roadway and Aesthetic Improvements with Columbia Parkway Bridge Project ★	\$2,201,695		81%		19%	\$1,781,337	\$420,358
2006	Freeman Avenue over 6 th Street Expressway with 6 th Street Expressway★	\$103,702		100%		0%	\$103,702	\$0
2007	Waldvogel Real Estate Purchase of Hilltop Property★	\$5,000,000	84%			16%	\$4,196,786	\$803,214
2008	Burns Street Ramp – Replacement	\$1,205,224			17%	83%	\$204,888	\$1,000,336
2010	Waldvogel Railroad Relocation (Const. Contract)★	\$6,012,400	84%			16%	\$5,035,000	\$977,400
2010	Waldvogel Real Estate Reimbursement ★	\$2,974,387	80%			20%	\$2,379,510	\$594,877
2011	Waldvogel Real Estate Reimbursement ★	\$1,419,698	80%			20%	\$1,135,758	\$283,940
2011	Waldvogel Reconstruction (Const. Contract)★	\$37,632,522	78%	1%	14%	7%	\$35,111,294	\$2,521,228
2013	Waldvogel Real Estate Reimbursement ★	\$634,261	80%			20%	\$507,409	\$126,852
2019	Brighton Approach Bridge Rehab/Repalcement	TBD	95% max			5%	\$2,000,000	\$105,263
Total Costs		\$64,674,649					\$58,339,187	\$8,440,725

★ Bridges moved from the City Inventory to ODOT Inventory \$57,696,988 ★
 Bridges remaining in the City Inventory \$6,977,661 \$51,969,119 \$5,727,869 ★
 \$6,370,068 \$2,712,856

COUNTY BRIDGES

By contractual agreement with Hamilton County, the City of Cincinnati receives \$1,000,000 annually from the Hamilton County Municipal Road Fund to inspect and maintain bridges that support improved roads which are of general and public utility running into or through Cincinnati. This funding level has remained constant since the initiation of the agreement in the late 1970's. As with City (BP) Bridges, this funding alone is insufficient to achieve the program goals and a reliance on outside funding has been and will continue to be necessary.

DOTe aggressively pursues outside funding sources to maintain public infrastructure. Successful leveraging of outside funds is imperative to maintaining and improving the condition of Cincinnati's bridges.

The following table indicates the level of outside funding that DOTe has obtained over the past years for the County Bridge Program. Because of the generally higher traffic volumes on these bridges, especially when over state routes, the funds received from Hamilton County are more likely to be successfully leveraged with outside funding sources. Due to a 2007 change in State Law (H.B. 67 07-03-2007 affecting ORC 5501.49 and ORC 5591.02) many of the below bridges were moved from the County's bridge inventory to the State inventory.

As the data in the below table indicate, leveraging funds for the remaining bridges, which are not on State routes, is less likely and generally requires more local matching funds.

1993-PRESENT LEVERAGED FUNDING SUMMARY
COUNTY BRIDGE PROGRAM

Year	Project	Contract Bid Cost	% Fed	% State	% SCIP	% Local	Leveraged	Local
1993	Columbia Parkway (2 bridges) ★	\$1,497,545	70%	30%			\$1,497,545	\$0
1993	River Road over Muddy Creek ★	\$759,740	75%	25%			\$759,740	\$0
1993	Sixth Street Expressway (10 bridges) ★	\$4,130,761	75%	25%			\$4,130,761	\$0
1993	Spring Grove over Mill Creek	\$2,065,260			80%	20%	\$1,652,208	\$413,052
1994	Seymour Avenue over Mill Creek	\$1,945,780	80%		20%		\$1,945,780	\$0
1994	Beechmont Avenue Viaduct ★	\$5,067,402	75%	25%			\$5,067,402	\$0
1995	Beekman Avenue over West Fork	\$967,222			80%	20%	\$773,778	\$193,444
1995	North Bend Road over Mill Creek	\$1,302,647	80%		20%		\$1,302,647	\$0
1993	Ludlow Avenue Viaduct ★	\$9,229,975	75%	25%			\$9,229,975	\$0
1997	Columbia Parkway Viaduct ★	\$10,900,000		100%			\$10,900,000	\$0
1999	Fort Washington Way Viaduct (3rd St. Viaduct) ★	\$27,208,420		100%			\$27,208,420	\$0
1999	West Fork Bridges over West Fork Channel	\$1,555,310			70%	30%	\$1,088,717	\$466,593
1999	River Road/Hillside Culvert at Bender ★	\$2,198,465		100%			\$2,198,465	\$0
2001	Kellogg and Salem Avenue Bridges ★	\$397,097		100%			\$397,097	\$0
2002	Western Hills Viaduct - West Plaza Repairs	\$161,296			90%	10%	\$145,166	\$16,130
2003	Columbia Parkway Bridge West of Martin Drive Ramp (Bridge Work Only) ★	\$3,599,019		100%			\$3,599,019	\$0
2004	Clay Wade Bailey Approach ★	\$1,400,000		100%			\$1,400,000	\$0
2005	Norwood Lateral over Paddock and Reading Road Bridges ★	\$396,755		100%			\$396,755	\$0
2006	6th Street Expressway Project (10 Bridges) ★	\$631,560		100%			\$631,560	\$0
2007	Columbia Parkway over Beechmont, Linwood, Heekin & Ramp to Eastern ★	\$73,830		100%			\$73,830	\$0
2008	8 th Street Viaduct and 8 th Street Bridge West of 8 th Street Viaduct	\$20,593,768	63%		17%	20%	\$16,475,014	\$4,118,754
2009	Clifton Avenue Bridge Superstructure Replacement	\$1,535,000			70%	30%	\$1,074,500	\$460,500
2010	Western Hills Viaduct - Upper Deck Rehabilitation	\$1,836,273			50%	50%	\$918,136	\$918,136
2012	Center Hill Avenue Bridge - Replacement	\$3,415,883			33%	67%	\$1,137,500	\$2,278,383
2014	Western Hills Viaduct - ROW acquisition	\$6,750,000			80%	20%	\$5,400,000	\$1,350,000
2017	Marburg Avenue Bridge Replacement	\$2,098,818	51%		49%		\$2,098,818	\$0
2017	Western Hills Viaduct - Detailed Design (TRAC)	\$6,250,000		80%		20%	\$5,000,000	\$1,250,000
2017	Western Hills Viaduct - ROW acquisition (TRAC)	\$6,250,000		80%		20%	\$5,000,000	\$1,250,000
2018	Kennedy Ave Bridge Replacement	\$2,886,000	100%				\$2,886,000	\$0
2019	Galbraith Rd Bridge Deck Replacement	\$5,730,438			48%	52%	\$2,640,000	\$2,860,000
Total Costs		\$132,834,263					\$117,028,833	\$15,574,992

★	Bridges moved from the City Inventory to ODOT Inventory	\$67,490,569	★	\$67,093,472	\$0
	Bridges remaining in the City Inventory	\$65,343,694		\$49,935,361	\$15,574,992

2020/2021 BRIDGE PROJECT SUMMARY

The following summarizes major activities on City (BP), County, and Wasson Way bridges that occurred in 2020 or will occur in 2021. Except as noted, DOTE staff performed plan development and construction management for these bridge projects.

2020/2021 CITY (BP) BRIDGE PROJECTS

2020 Sidewalk Paver and curb replacement (FWW bridges)

In 2020, City crews replaced deteriorated sidewalk pavers and curbs of the Race Street Bridge over Fort Washington Way. The increasing deterioration of the 20 year old pavers was creating an ongoing tripping hazard and making the bridge decks vulnerable to deterioration which led to the decision to replace the existing concrete pavers with colored concrete as a low maintenance long term solution. The cost for paver replacement in 2020 was \$52,000 and paid out of operating and capital funds. With this project the replacement of sidewalk pavers on the Fort Washington Way Bridges, which was started in 2019, was completed.

Celestial Street Ped. Bridge – Deck Membrane Application (City (BP) Bridge in Mt Adams)

This project consisted of the application of a liquid applied membrane to the deck for external protection and extended service life. The membrane on this structure was applied by City crews.

Gilbert Ave Ped. Overhead – Deck Membrane Application (City (BP) Bridge in Central Business District and Mt Adams)

This project consisted of the application of a liquid applied membrane to the deck for external protection and extended service life. The membrane on this structure was applied by City crews.

Newly applied deck membrane on the Gilbert Ave Pedestrian overpass.

2020 Central Incinerator Approach (Mill Creek Rd) Bridge - Fracture Critical Bridge Inspection (City (BP) Bridge in South Cumminsville)

This project consisted of performing the federally required 24-month-interval “arm’s reach” inspection of the Central Incinerator Approach (Millcreek Rd) Bridge over the Mill Creek. The inspection was performed by a City directed consultant in May 2020 and is being funded with capital funds.

Madison Rd Ped. Bridges – Superstructure Replacement & Repairs (City (BP) Bridges in Oakley)

This project consisted of the superstructure replacement of one of two existing 60 year old pedestrian bridges over Madison Rd. to accommodate an Oakley community “gateway” project, and rehab work on the second structure. The project was funded primarily by a combination of TIF and other economic development funds with a cost of \$1.7M. The ribbon cutting for the eastern pedestrian bridge was in December 2020, and the finishing touches will be applied to both bridges in spring 2021.

2nd Street Bridges PT inspection (City (BP) Bridges in Central Business District)

As part of this project, a city directed consultant will perform an in-depth inspection of the condition of the post tensioning systems in the second street bridges over the transit center and the east approach of the transit center. Post tensioning systems are critical to structures but cannot be inspected with typical non-destructive methods. ODOT’s nearby bridges of a similar construction method were investigated and found to be in need for repair. This project will determine the need for repairs to the post tensioning system in the future. The project will be paid out of City capital funds and the investigation phase is expected to be completed by fall 2021.



2020/2021 COUNTY BRIDGE PROJECTS

Western Hills Viaduct – Routine Maintenance

(County Bridge in CUF and South Fairmont)

This project consisted of performing routine maintenance to keep the Western Hills Viaduct safe for the traveling public. It included the repair of impact attenuators and removal of loose concrete over traveled areas and select locations in the railroad yard, as well as cleaning of the drainage system. The maintenance was performed by the City's Public Services Department.

Kennedy Ave Bridge over SORTA – Bridge Replacement

(County Bridge in Kennedy Heights)

This project replaced the existing 87-year old structure. Construction began in April 2020 and the new bridge was opened to traffic in January 2021. The project was funded with 100% outside funds at a total cost of \$2.7M.

Galbraith Road over Anthony Wayne – Deck Replacement

(County Bridge in Hartwell)

This project replaces the deck, sidewalks and railings of the 70 year old structure. Outside funding in the amount of \$2.64M was secured to cover a portion of the total \$5.73M project. Construction began in 2020 and will be completed in two phases in order to maintain traffic on the bridge. Construction is currently scheduled to be completed in late 2022.



Ongoing construction at the Galbraith Rd Bridge over Anthony Wayne and railroads.



Kennedy Ave Bridge over IORY after reconstruction

Western Hills Viaduct – Debris Netting

(County Bridge in CUF and South Fairmont)

This project consisted of installing a debris shield under a portion of the upper deck, just west of Spring Grove Ave. This will eliminate the risk of debris falling onto the traveling public at this location. The project award cost was \$37,000 and work was completed in June 2021.

2021 Western Hills Viaduct - Fracture Critical

Inspection (County Bridge in CUF and South Fairmont)

This project consisted of performing a "hands on" inspection of every visible fracture critical member and selected fatigue-prone members within arm's length distance on the Western Hills Viaduct. Federal regulations require this inspection to be performed every 24 months. This inspection was completed by a directed consultant in May 2021. The project was funded with County MRF bridge funds. No critical findings were discovered during the inspection.

2020/2021 WASSON WAY BRIDGE PROJECTS

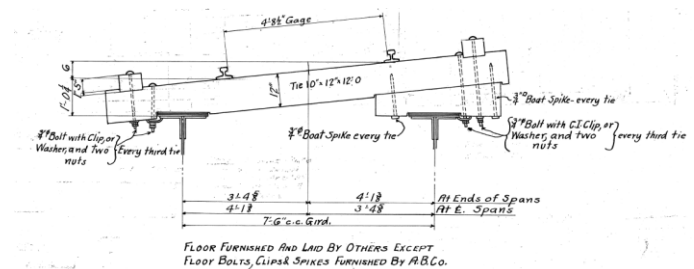
The Wasson Way corridor that was acquired in late 2016 from Norfolk Southern railroad is being developed into a multi-use trail in phases as funding becomes available. More details regarding the overall project can be found on the bike program website. <http://www.cincinnati.gov/bikes/bike-projects/the-wasson-way-trail-network/> Outlined below are 2020/2021 projects that involve bridges along the Wasson Way corridor.

Wasson Way over Ault Park – In-depth Inspection and Deck Type Study (Wasson Way Bridge in Mt Lookout)

In preparation for phase 5 of the Wasson Way trail, City directed consultants performed an in-depth inspection of the existing 97-year old bridge. The outcome of this inspection is used to define the scope for the upcoming repair contract. The total project cost was \$21,500 and was paid out of Wasson Way funds.



Also in preparation for phase 5 of the Wasson Way trail, City directed consultants performed a study to determine the most advantageous deck type for a transformation of the former railroad bridge to a trail bridge. The selection of the deck type is a critical step for the upcoming repair contract, particularly considering the challenging aspects of this bridge with very limited access and accelerated construction. The total cost for the deck type study was \$27,000 and was paid for out of Wasson Way funds.



Original (1924) detail of the super-elevated track attachment on the Wasson Way bridge over Ault Park.

Wasson Way over Ault Park – Bridge Rehabilitation (Wasson Way Bridge in Mt Lookout)

As part of phase 5 of the Wasson Way, the 97-year old former railroad bridge will be transformed into a trail bridge. Based on the findings of the in-depth inspection and deck type study, a design build team will create plans and construct the new bridge deck. The substantial completion of this project is scheduled for winter 2021, with painting of the superstructure following in 2022. The estimated cost for this project is \$1.2M and will be paid for with a combination of Wasson Way funds and STP grant funds.

WESTERN HILLS VIADUCT

(County Bridge in South Fairmount, Queensgate, West End, Camp Washington and CUF)

This project will replace the aging double decked viaduct with a new bridge on a new alignment. The viaduct was built in 1932 and carries 55,000 vehicles per day.

The existing viaduct is rated in poor condition (condition rating of 4). It is structurally deficient due to advanced and widespread deterioration of numerous members, is posted for weight limits, and is also functionally obsolete, meaning it does not meet current roadway geometric standards. At locations where the deterioration is at its worst, supplemental supports have been added beneath the bridge to avoid a partial closure, which would restrict traffic from the lower deck. Spalling concrete falling from the upper deck to the lower deck is a continual safety problem which is being routinely addressed by installation of netting at a critical area and regular closures of the lower deck in order to remove loose and delaminated concrete.



Debris netting under the Western Hills Viaduct west of Spring Grove Avenue

Currently, the design of the new bridge is being advanced and right-of-way acquisition is under way. The total estimated cost of the project is \$335 million.

To date, over \$150 million of local and non-local funds have been secured for right-of-way acquisition, detailed design work and construction. In 2017, significant progress was made to secure the local funding match. The Hamilton County Commissioners dedicated a portion of the revenue of a \$5 license plate cost increase to the Western Hills Viaduct, and the Cincinnati City Council passed an ordinance allowing the issuance of debt to be dedicated to the Western Hills Viaduct project over the next six years. The expected total from the above sources will provide up to \$66 million for the project.

Also, in 2020, Hamilton County residents voted to impose a 0.8% sales tax for 25 years to invest in transportation infrastructure across the County which is estimated to amass more than \$900 million over the life of the tax. SORTA will manage the proceeds collected from the new tax and is expected to direct \$205 million for the construction of the new viaduct over the next 25 years. A majority of the \$205 million is intended to be used as debt service against bonds or the like issued for the project.

City (BP) Bridges - Six Year Plan 2021 through 2026

Carry-Over ¹ City Bridge Program Funds	New ² City Bridge Program Funds	Projects by Calendar Year Funds are Encumbered	Estimated Total Cost	Projected Funding ³						Estimated Remaining Funds
				Bridge Program Fund Portion		Outside Funding Portion ⁴			Funding Shortfall	
				Amount	%	Amount	%	Secured		
\$1,730,697	\$569,000	c	2021							
	\$0	o	Bridge Inspection & Program Management	\$200,000	\$200,000	100%	\$0	0%	N/A	
			Project Design & Management	\$200,000	\$200,000	100%	\$0	0%	N/A	
			Bridge Maintenance - TROD	\$25,000	\$25,000	100%	\$0	0%	N/A	
			Bridge Maintenance - Contract	\$25,000	\$25,000	100%	\$0	0%	N/A	
			Bridge Inspection - Contract (2nd St PT, Monastery)	\$465,000	\$465,000	100%	\$0	0%	N/A	
			Brighton Approach Bridge Preliminary Engineering	\$150,000	\$150,000	100%	\$0	0%	N/A	
			Totals		\$1,065,000					\$1,234,697
\$1,234,697	\$717,000	c	2022							
	\$70,000	o	Bridge Inspection & Program Management	\$200,000	\$200,000	100%	\$0	0%	N/A	
			Project Design & Management	\$200,000	\$200,000	100%	\$0	0%	N/A	
			Bridge Maintenance - TROD	\$50,000	\$50,000	100%	\$0	0%	N/A	
			Bridge Maintenance - Contract	\$25,000	\$25,000	100%	\$0	0%	N/A	
			Bridge Inspection - Contract (Fracture Critical)	\$20,000	\$20,000	100%	\$0	0%	N/A	
			Bridge Inspection - Contract (Underwater)	\$20,000	\$20,000	100%	\$0	0%	N/A	
			2nd Street Bridge PT Tendon Repairs	\$500,000	\$500,000	100%	\$0	0%	No	
			Brighton Approach Bridge Detailed Design	\$260,000	\$260,000	100%	\$0	0%	N/A	
			Monastery Street Bridge Repairs	\$200,000	\$200,000	100%	\$0	0%	N/A	
			Totals		\$1,475,000					\$546,697
\$546,697	\$703,000	c	2023							
	\$60,000	o	Bridge Inspection & Program Management	\$200,000	\$200,000	100%	\$0	0%	N/A	
			Project Design & Management	\$200,000	\$200,000	100%	\$0	0%	N/A	
			Bridge Maintenance - TROD	\$50,000	\$50,000	100%	\$0	0%	N/A	
			Bridge Maintenance - Contract	\$25,000	\$25,000	100%	\$0	0%	N/A	
			Brighton Approach Bridge Replacement (C & CE)	\$3,425,000	\$225,000	7%	\$3,200,000	93%	Yes	
			Central Incinerator Approach Bridge Repairs & Painting	\$250,000	\$250,000	100%	\$0	0%	N/A	
			Totals		\$950,000					\$359,697
\$359,697	\$765,000	c	2024							
	\$60,000	o	Bridge Inspection & Program Management	\$200,000	\$200,000	100%	\$0	0%	N/A	
			Project Design & Management	\$200,000	\$200,000	100%	\$0	0%	N/A	
			Bridge Maintenance - TROD	\$50,000	\$50,000	100%	\$0	0%	N/A	
			Bridge Maintenance - Contract	\$50,000	\$50,000	100%	\$0	0%	N/A	
			Bridge Inspection - Contract (Fracture Critical)	\$25,000	\$25,000	100%	\$0	0%	N/A	
			Totals		\$525,000					\$659,697
\$659,697	\$770,000	c	2025							
	\$60,000	o	Bridge Inspection & Program Management	\$200,000	\$200,000	100%	\$0	0%	N/A	
			Project Design & Management	\$200,000	\$200,000	100%	\$0	0%	N/A	
			Bridge Maintenance - TROD	\$50,000	\$50,000	100%	\$0	0%	N/A	
			Bridge Maintenance - Contract	\$25,000	\$25,000	100%	\$0	0%	N/A	
			Park Avenue Bridge Rehabilitation - Phase 1 ⁵	\$5,000,000	\$1,000,000	20%	\$4,000,000	80%	Partial	\$500,000
			Totals		\$1,475,000					\$14,697
\$14,697	\$753,000	c	2026							
	\$60,000	o	Bridge Inspection & Program Management	\$200,000	\$200,000	100%	\$0	0%	N/A	
			Project Design & Management	\$200,000	\$200,000	100%	\$0	0%	N/A	
			Bridge Maintenance - TROD	\$50,000	\$50,000	100%	\$0	0%	N/A	
			Bridge Maintenance - Contract	\$50,000	\$50,000	100%	\$0	0%	N/A	
			Bridge Inspection - Contract (Fracture Critical)	\$25,000	\$25,000	100%	\$0	0%	N/A	
			Elmhurst Pedestrian Bridge Replacement ⁵	\$1,700,000	\$0	0%	\$1,700,000	100%	No	\$1,700,000
			Totals		\$525,000					\$302,697
Total										\$ 2,200,000.00

- 1 End of previous calendar year (i.e. Dec 31)
- 2 As of the beginning of fiscal year (i.e. July 1)
- 3 Additional leveraged funds will be pursued and will be used to supplement local funds as secured.
- 4 For purposes of this table, outside funding is considered to be any funding other than City Bridge Funds.
- 5 Project is dependent on securing outside funds and is shown with only a minimal amount of local matching funds being utilized. Securing outside funding for these particular bridges will be difficult given that they are bridges which either carry low volume vehicular traffic or are bridges for pedestrian use only. Historically, these types of bridge projects do not compete well for the outside funding sources which are currently available, particularly with only a small amount of local match being applied to the project. These projects will most likely slip to the out years until additional City capital finds can be allocated to the City Bridge Program.

The projects are grouped by the year of expected bid. This plan is flexible and will be revised as necessary if future bridge inspections reveal unexpected changes in the condition of any bridge, if anticipated bridge funding amounts change, if unexpected leveraged funding sources become available or are withdrawn, if the timing of any bridge project requires adjustment to coordinate with other infrastructure improvement or development projects, or if City Council or the City Administration redirect priorities. The estimated project costs are preliminary and are only intended to establish basic funding needs and are not considered engineer's estimates. Bridge conditions will be continually monitored during the six-year period and the plan will be adjusted as needed to best maintain the bridge infrastructure.

The funds programmed for the City Bridge Maintenance Contracts may also be used, wholly or in part, to support other projects listed in the six-year plan whose expenses exceed the preliminary estimations listed in the six-year plan.

County Bridge - Six Year Plan

2021 through 2026

Carry-Over ¹ County Bridge Funds	New ² County Bridge Funds	Projects by Calendar Year Contract Awarded	Estimated Total Cost	Projected Funding ³					Estimated Remaining Funds
				County Bridge Fund Portion		Outside Funding Portion ⁴			
			Amount	%	Amount	%	Secured		
\$650,000	\$1,000,000	2021							
		Bridge Inspection & Program Management	\$50,000	\$ 50,000	100%	\$ -	0%	N/A	
		Project Design & Management	\$300,000	\$ 300,000	100%	\$ -	0%	N/A	
		TROD and Contract Maintenance Work	\$70,000	\$ 70,000	100%	\$ -	0%	N/A	
		Galbraith Road Bridge Deck Replacement - Constr. Mgt & Testing	\$200,000	\$ 200,000	100%	\$ -	0%	N/A	
		Galbraith Road Bridge Deck Replacement - RR Force Account	\$150,000	\$ 150,000	100%	\$ -	0%	N/A	
		Kennedy Avenue Bridge Replacement - RR Force Account	\$90,000	\$ 90,000	100%	\$ -	0%	N/A	
		Western Hills Viaduct Netting	\$40,000	\$ 40,000	100%	\$ -	0%	N/A	
		Western Hills Viaduct - R/W Acquisition West Approach	\$1,100,000	\$ 220,000	20%	\$ 880,000	80%	Yes ⁵	
		Western Hills Viaduct - R/W Acquisition East Approach	\$1,175,000	\$ 47,000	4%	\$ 1,128,000	96%	Yes ⁵	
		Western Hills Viaduct - Fracture Critical Inspection	\$65,000	\$ 65,000	100%	\$ -	0%	N/A	
		Western Hills Viaduct - Detailed Design	\$6,250,000	\$ 250,000	4%	\$ 6,000,000	96%	Yes ⁵	
		Total Expenses		\$ 1,482,000					\$168,000
\$168,000	\$1,000,000	2022							
		Bridge Inspection & Program Management	\$50,000	\$ 50,000	100%	\$ -	0%	N/A	
		Project Design & Management	\$300,000	\$ 300,000	100%	\$ -	0%	N/A	
		Underwater Inspections	\$25,000	\$ 25,000	100%	\$ -	0%	N/A	
		TROD and Contract Maintenance Work	\$50,000	\$ 50,000	100%	\$ -	0%	N/A	
		Galbraith Road Bridge Deck Replacement - Constr. Mgt & Testing	\$200,000	\$ 200,000	100%	\$ -	0%	N/A	
		Galbraith Road Bridge Deck Replacement - RR Force Account	\$270,000	\$ 270,000	100%	\$ -	0%	N/A	
		Western Hills Viaduct - R/W Acquisition East Approach	\$600,000	\$ 24,000	4%	\$ 576,000	96%	Yes ⁵	
		Western Hills Viaduct - R/W Acquisition West Approach	\$1,100,000	\$ 220,000	20%	\$ 880,000	80%	Yes ⁵	
		Total Expenses		\$ 1,139,000					\$29,000
\$29,000	\$1,000,000	2023							
		Bridge Inspection & Program Management	\$50,000	\$ 50,000	100%	\$ -	0%	N/A	
		Project Design & Management	\$300,000	\$ 300,000	100%	\$ -	0%	N/A	
		TROD and Contract Maintenance Work	\$50,000	\$ 50,000	100%	\$ -	0%	N/A	
		Western Hills Viaduct - Fracture Critical Inspection	\$75,000	\$ 75,000	100%	\$ -	0%	N/A	
		Galbraith Road Bridge Deck Replacement - Constr. Mgt & Testing	\$100,000	\$ 100,000	100%	\$ -	0%	N/A	
		Galbraith Road Bridge Deck Replacement - RR Force Account	\$150,000	\$ 150,000	100%	\$ -	0%	N/A	
		Western Hills Viaduct - South Trough Removal Pilot Project	\$100,000	\$ 100,000	100%	\$ -	0%	N/A	
		Total Expenses		\$ 825,000					\$204,000
\$204,000	\$1,000,000	2024							
		Bridge Inspection & Program Management	\$50,000	\$ 50,000	100%	\$ -	0%	N/A	
		Project Design & Management	\$300,000	\$ 300,000	100%	\$ -	0%	N/A	
		TROD and Contract Maintenance Work	\$50,000	\$ 50,000	100%	\$ -	0%	N/A	
		Spring Grove Ave over Mill Crk. S. of Colerain - Deck Overlay	\$350,000	\$ 350,000	100%	\$ -	0%	N/A	
		Western Hills Viaduct Maintenance	\$100,000	\$ 50,000	100%	\$ 50,000	50%	N/A	
		Total Expenses		\$ 800,000					\$404,000
\$404,000	\$1,000,000	2025							
		Bridge Inspection & Program Management	\$50,000	\$ 50,000	100%	\$ -	0%	N/A	
		Project Design & Management	\$300,000	\$ 300,000	100%	\$ -	0%	N/A	
		TROD and Contract Maintenance Work	\$50,000	\$ 50,000	100%	\$ -	0%	N/A	
		Western Hills Viaduct - Fracture Critical Inspection	\$75,000	\$ 75,000	100%	\$ -	0%	N/A	
		Seymour Ave over Mill Creek - Deck Overlay	\$250,000	\$ 150,000	60%	\$ 100,000	40%	No	\$100,000
		Anthony Wayne over Mill Creek - Painting	\$200,000	\$ 200,000	100%	\$ -	0%	N/A	
		Western Hills Viaduct Maintenance	\$100,000	\$ 50,000	100%	\$ 50,000	50%	N/A	
		Total Expenses		\$ 875,000					\$529,000
\$529,000	\$1,000,000	2026							
		Bridge Inspection & Program Management	\$50,000	\$ 50,000	100%	\$ -	0%	N/A	
		Project Design & Management	\$300,000	\$ 300,000	100%	\$ -	0%	N/A	
		TROD and Contract Maintenance Work	\$50,000	\$ 50,000	100%	\$ -	0%	N/A	
		North Bend Road over Kirby - Deck Replacement	\$1,500,000	\$ 900,000	60%	\$ 600,000	40%	No	\$600,000
		Western Hills Viaduct Maintenance	\$100,000	\$ 50,000	100%	\$ 50,000	50%	N/A	
		Total Expenses		\$ 1,350,000					\$179,000

Total \$ **700,000.00**

- 1 End of previous calendar year (i.e. Dec 31)
- 2 Receipt of new funds occur mid calendar year.
- 3 Additional leveraged funds will be pursued and will be used to supplement local funds as secured.
- 4 For purposes of this table, outside funding is considered to be any funding other than the County Bridges Funds.
- 5 SCIP funding secured through OPWC.
- 6 STP funding secured through OKI.
- 7 Ohio Bridge Partnership Program funding secured through the County Engineer's Association of Ohio.
- 8 Outside funding is a combination of federal grants secured through TRAC, Municipal Road Funds, County Engineer Funds and City Capital Improvement Funds.
- 9 Outside funding is a combination of federal grants secured through TRAC, Municipal Road Funds, County Engineer Funds and City Capital Improvement Funds.

The projects are grouped by the year of expected bid or expenditures as is the case in right of way acquisition for the Western Hills Viaduct. This plan is flexible and will be revised as necessary if future bridge inspections reveal unexpected changes in the condition of any bridge, if anticipated bridge funding amounts change, if unexpected leveraged funding sources become available or are withdrawn, if the timing of any bridge project requires adjustment to coordinate with other infrastructure improvement or development projects, or if City Council or the City Administration redirect priorities. The estimated project costs are preliminary and are only intended to establish basic funding needs and are not considered engineer's estimates. Bridge conditions will be continually monitored during the six-year period and the plan will be adjusted as needed to best maintain the bridge infrastructure.

Replacement of the Western Hills Viaduct is a major project and construction is expected to cost approximately \$300 million. Only the portions of the project being funded through the County Bridge fund are listed in the six-year plan.

The funds programmed for the County Bridge Maintenance Contracts may also be used, wholly or in part, to support other projects listed in the six-year plan whose expenses exceed the preliminary estimates listed in the six-year plan.

Appendix A

EXPLANATION OF RATING SYSTEM

In accordance with the Code of Federal Regulations, Part 650, Subpart C and the Ohio Revised Code, Section 5501.47, the City annually inspects all structures with a clear span of 10 feet or more that fall under its inspection responsibility. These inspections follow the procedures established by the National Bridge Inspection Standards (NBIS). All inspections are performed by a trained and licensed professional engineer, employed by DOTE, whose training and education meets or exceeds the requirements set forth by the NBIS.

The Bridge Inspection Engineer rates the condition of each bridge using criteria established by the State of Ohio Department of Transportation and records the rating on the Bridge Inspection Report. The Bridge Inspection Report contains up to 65 rating items which are grouped into seven main sections.

These main sections are:

1. **Bridge Deck**
2. **Bridge Superstructure**
3. **Bridge Substructure**
4. **Culverts** (*These items are only applicable to culvert type structures*)
5. **Channels** (*These items are only applicable to bridges over waterways*)
6. **Bridge Approaches**
7. **General Information**

The last rating item in each of the seven main sections is a **summary rating** for that section. This number summarizes the overall condition of that portion of the bridge. All other rating items within each section are **individual ratings**. These numbers represent the condition of specific bridge components. Not all components and main sections necessarily apply to any given bridge. For example, the components relating to truss bridges

would not apply, and therefore would not be rated on an arch bridge, and vice versa. Any bridge reports for bridges not over waterways will not include the main section "Channels".

The overall summary rating (rating item N59) is the summary rating for the entire bridge and is titled the **General Appraisal** rating. The **Operational Status** of the bridge is noted to the immediate right of the General Appraisal rating on the inspection report. The operational status indicates any restrictions, such as load limitations, placed on the use of the bridge.

The condition ratings are in accordance with the ODOT 2014 Bridge Inspection Manual http://www.dot.state.oh.us/Divisions/Engineering/Structures/bridge%20operations%20and%20maintenance/Manual%20of%20Bridge%20Inspection%202014%20v8/Chapter%208_Assigning%20Condition%20Ratings%20to%20the%201-4%20Items.pdf

All applicable individual items, are rated on a scale of 9 to 0, with "9" representing the best condition and "0" representing the worst. In the attached bridge inspection reports all individual items are rated on the 9 to 0 scale, with the alternate 1 to 4 rating indicated as well for consistency with previous reports and ODOT reports. This dual rating system occurred when the pre-existing 1 to 4 rating system created by the State of Ohio was merged with the 0 to 9 rating system of the Federal Government.

The vertical clearance (Item 65) is rated either "1" for no change since the last inspection, "2" lower clearance since last inspection or "N" does not apply or clearance exceeds 25 ft.

The following pages lists the bridge conditions associated with the specific individual and summary numeric ratings.

OPERATIONAL STATUS

Operational Code Status	Description
A	Open, no restriction.
B	Open, posting recommended but not legally implemented (all signs not in place).
D	Open, would be posted or closed except for temporary shoring, etc., to allow for unrestricted traffic.
E	Open, temporary structure in place to carry legal loads while original structure is closed and awaiting replacement or rehabilitation.
G	New structure, not yet open to traffic.
K	Bridge closed to all traffic.
N	Not applicable – typically used for Safety Inspections only
P	Posted for load (may include other restrictions).
R	Posted for other than load-carrying capacity restriction (speed, number of vehicles on bridge, etc.)
X	Bridge closed for other reasons.

INSPECTION MANUAL GUIDE

Condition Rating Guide			
1-4 Individual Component	9-0 NBIS Summary		Inspector Guidelines (Quantitative comments include the Location, Extent & Severity of the deficiency)
1-GOOD	9 - Excellent	No problems noted: no section loss, general deterioration.	Make brief comments as necessary. Communicate the predominant deficiency.
	8 - Very Good		
2-FAIR	7 - Good	Some minor problems (ex. extent of concrete deterioration is up to 1% spalling or up to 5% saturation)	Document deficiencies quantitatively. Consider taking photos or making sketches.
	6 - Satisfactory	Structural elements show some minor deterioration (ex. extent of concrete deterioration is up to 5% spalling or up to 10% saturation)	
3-POOR	5 -Fair	Structural elements show deterioration but are sound (ex. extent of concrete deterioration is up to 10% spalling or up to 20% saturation)	Candidate to establish monitoring benchmarks to track the rate-of-change. Take photos, make sketches and document quantitatively in order to determine if a re-load rating is possible. Include in-service conditions to verify capacity
	4 - Poor	Advanced* (ex. extent of concrete deterioration is more than 10% spalling or more than 20% saturation). Usually the load path appears to be affected for primary members or there are obvious structural changes since the as-built condition that are advanced.	
4-CRITICAL	3 - Serious	4-Poor. . . And local failures possible.	Above. . . And discuss the deficiency immediately with Control Authority.
	2 - Critical	3-Serious. . . And Unless closely monitored it may be necessary to close the bridge until corrective action is taken.	Above. . . And the bridge is a candidate to dispatch road closure and/or immediate repairs and/or increased monitoring (Interim Inspections). Confirm in writing, critical finding.
	1 -Imminent Failure	2-Critical. . . And Major deterioration is affecting stability. Bridge or lane(s) shall be closed to traffic but corrective action may put bridge back into light service.	Above. . . And Dispatch immediate lane or bridge closure. Contact the Control Authority. Stay at the bridge until the safety of the traveling public is achieved. Confirm in writing.
	0 - Failed	1-Imm Failure. . . And Out of service - beyond corrective action.	

Poor
Structurally Deficient**

* **Advanced** –widespread deficiencies or a likely reduction to capacity (more examples on following page).

** **Structurally Deficient (SD)** –Bridge Deck, Superstructure, or Substructure Summary rated 4-Poor or below. A bridge can also be classified as structurally deficient if its load carrying capacity is significantly below current design standards or if a waterway below frequently overtops the bridge during floods.

EXPLANATION OF ABBREVIATIONS

Abbr.	Explanation	Abbr.	Explanation	Abbr.	Explanation
&	and	deter.	deterioration, deteriorated	loc.	location, locations, located
@	at	deter.	deterioration	lrg.	large
<	less than	diff.	differential	MC	Mill Creek
>	greater than	discont.	discontinuous	mat'l.	material
accum.	accumulated	dist.	distortion	mem.	member
adj.	adjacent	drwg.	drawing	mod.	modified, modifications, moderate
add'l	additional	E	east	mvmt.	movement
alum.	aluminum	EB	eastbound	N	north
amt.	amount	efflor.	efflorescence	NB	northbound
AS	approach slab	elast.	elastomeric, elastic	num.	numerous
ASR	Alkali Silika Reaction	embank.	embankment	obs.	observation, observed
b/n	beneath	emb.	embedded, embedment	OB	outbound
b/o	because of, block-out	equip.	equipped, equipment	occas.	occasional, occasionally
bet.	between	esp.	especially	orig.	original, originally
BF	bottom flange	est.	estimate, estimated	PB	pull box
bldg.	building	EW	end wall	PD	partial depth
BW	back wall	exp.	expansion, exposed	part.	particularly, partial, partly
CIP	cast in place	ext.	extensive, extreme	ped.	pedestrian
CL	center line	FD	full depth	pen.	penetrating, penetration
CLF	chain link fence	flex.	flexural, flexure	perf.	perforated
circ.	circle, circular	fir.	floor	plt.	plate
CMD	corrugated metal deck	found.	foundation	port.	portable, portion
CMP	corrugated metal pipe	freq.	frequent	poss.	possible, possibly
C/P	cover plate	GCWW	Greater Cincy Water Works	press.	pressure
cant.	cantilever	GFR	gravity fed resin	prev.	previous, previously
col.	column	galv.	galvanized	prop.	propagate, propagating
comb.	combination, combined	gen.	general, generally	prot.	protect, protection
comp.	compression	horiz.	horizontal	pvm.	pavement
conc.	concrete	HMWM	high molecular weight methacrylate	RR	railroad
cond.	condition	HW	head wall	RCP	reinforced concrete pipe
conn.	connection, connected	IA	impact attenuator	reflect.	reflecting, reflective
const.	construction, constructed	IB	inbound	reg.	regular, regularly
cont.	continuous	inter.	intermediate, intermittent	reinf.	reinforcing
corr.	corroded, corroding	isol.	isolated	rem.	removed
DL	dead load	jt.	joint	repl.	replaced
DS	downstream	junct.	junction	rt.	right
d/s	downspout	lat.	lateral, laterally	ROW	right-of-way
d/t	due to	LC	lower chord	sat.	saturation, saturated
decor.	decorative	LLB	lower lateral bracing	S	south
deform.	deformation	LMC	Latex Modified Concrete	SB	southbound
deg.	degrees	LL	live load	SIP	stay in place
delam.	delaminated, delaminations	long.	longitudinal, longitudinally	sep.	separate, separated, separating
dep.	deposition, deposit,	LOS	loss of section	sev.	severe

EXPLANATION OF ABBREVIATIONS

(CONTINUED)

Abbr.	Explanation	Abbr.	Explanation	Abbr.	Explanation
s/w	sidewalk	TF	top flange	vert.	vertical
sig.	significant	typ.	typical	vib.	vibrating, vibrate, vibration
slt.	slight	trans.	transverse	W	west
sm.	small	UG	underground	w	with
stiff.	stiffener, stiffeners	US	upstream	w/o	without
sys.	system	util.	utility, utilities	WB	westbound
TC	top chord	VC	vertical clearance	WF	wide flange
term.	termination	veg.	vegetation	WW	wing wall
TLB	top lateral bracing	veg.	vegetation		

Appendix B

City (BP) Bridges

Bridge Inspection Report | Routine Inspection

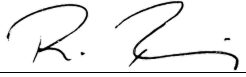
SFN: 3160270

Aaron Raines Ln (former Burns Street Ramp)

Date Inspected: 04/14/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #01

Route: BURNS Unit: 0000

Bridge Type 321 / NNN

Date Built / Date Rehabbed: 2009 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Single crack w efflor. @ SW.	1	8
C7.2. Edge of Floor: Honeycombing @ N near center.	1	8
C8. Wearing Surface: One fiber nest detected @ SW.	1	8
C9. Curbs/Sidewalks:	1	8
C11. Railing: Isol. corrosion of metal railing; widespread cracking @ windows in S railing w initial efflor. ; 2 rust stains; vert. cracks w efflor in curb of N railing; full height crack @ SW light pole (fascia side).	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage: Minor ponding along the south curb.	2	6
C13. Expansion Joints: Partially filled with debris; armor corrosion @ retainers; minor spalling of concrete around armor on approach slab side @ W.	1	7
N58. Deck Summary:	Summary Rating: 8	
C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Weathering steel - ends painted; scrapes on BF's over tracks from impact.	1	8
C16. Diaphragms/X-Frames:	1	8
C26. Bearing Devices: Elastomeric. (concealed)	1	8
C30. Protective Coating System (PCS): System: OZEU Year: 2008 Weathering steel with the ends painted; brown w orange freckles.	PCS Rating: 8	
N59. Superstructure Summary:	Summary Rating: 8	
C33. Abutment Walls: Isol. HL vert. and diag. cracks, widespread patched areas; widespread minor spalls (unpatched).	1	7
C34. Abutment Caps: Vert. cracking in newly constructed abutment caps.	1	7
C39. Backwalls: Mostly concealed by diaphragms.	1	7
C40. Wingwalls: SE wall (new 2009) with minor cracking and widespread areas of cold joints/honeycombing; SW WW limits to newer sealed conc portion only.	1	7
N60. Substructure Summary:	Summary Rating: 7	

Bridge Inspection Report | Routine Inspection

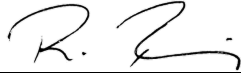
SFN: 3160270

Aaron Raines Ln (former Burns Street Ramp)

Date Inspected: 04/14/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #01

C1. Pavement: Asphalt @ E & partially @ W; joint between approach slab & asphalt not sealed. 1 8

C2. Approach Slabs: One full length long. crack, from hairline up to 1/4 inch wide, noted in each approach slab; apparent fine HL cracking throughout. 1 8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary:

Summary Rating: 8

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 7 A

Inspection Notes: Sidewalk separating from Curb @ approaches allowing plants to grow.
New building @ SE in front of WW w landscaping in front of wall eliminated uncontrolled overgrowth.
2020 element level data on file.

Bridge Inspection Report

Element Level Inspection

Bridge: Aaron Raines Ln (former Burns Street Ramp)
Number: City (BP) #01
SFN: 3160270

Inspector: RMR
Inspector: BL
Date: 4/14/2020

Deck		Condition state					
		qty	1	2	3	4	TR
c7.1	Floor/Slab [SF]	3092	3089	3			1.00
c7.2	Edge of Floor/Slab [LF]	186	168	18			1.14
c8.	Wearing Surface [SF]	2232	2225	7	0		1.00
c9.	Curb/Sidewalk [LF]	93	77	16			1.24
c10.	Median [LF]						
c11.	Railing [LF]	186	107	76	3		1.68
N36	Safety feat. Rail [1,0,N]						1.00
c12.	Drainage [EA]						
c13.	Exp. Joint [LF]	159	115	44			1.36
N58. Deck Summary							8

Substructure		Condition state					
		qty	1	2	3	4	TR
c33.	Abutment Walls [LF]	66.5	31.5	32	3		1.96
c34.	Abutment Caps [LF]	66.5	57.5	9			1.19
c35.	Abut. Columns [EA]						
c36.	Pier Walls [LF]						
c37.	Pier Caps [LF]						
c38.	Pier Columns [EA]						
c39.	Backwalls [LF]	66.5	53.5	13			1.27
c40.	Wingwalls [EA]	2	2				1.00
c42.	Scour [EA]						
c43.	Slope Protection [EA]						
N 60. Substructure Summary							7

Superstructure		Condition state					
		qty	1	2	3	4	TR
c14.	Alignment [EA]	1	1				1
c15.1	Beams/Girders [LF]	957	957				1
c15.2	Slab [SF]						
c16	Diaphragm/x Frame [EA]	50	50				1
c17.	Stringers [LF]						
c18.	Floorbeams [LF]						
c19.	Truss Verticals [EA]						
c20.	Truss Diagonals [EA]						
c21	Truss Upper Chord [EA]						
c22.	Truss Lower Chord [EA]						
c23.	Truss Gusset Plates [EA]						
c24.	Lateral Bracing [EA]						
c25.	Sway Bracing [EA]						
c26.	Bearing Devices [EA]	22	22				1
c27	Arch [LF]						
c28.	Arch Column/Hange[EA]						
c29.	Arch Spandrel Wall [LF]						
c30	Prot Coating System [LF]	957	957				1
c31	Pins/Hangers/Hinge[EA]						
c32.	Fatigue [LF]						
N59. Superstructure Summary							8

Culvert		Condition state					
		qty	1	2	3	4	TR
c44.	General [LF]						
c45.	Alignment [LF]						
c46.	Shape [LF]						
c47.	Seams [EA]						
c48.	Headwalls/Endwalls [EA]						
c49.	Scour [EA]						
c50.	Abutments [LF]						
N 62. Culvert Summary							

Channel		Condition state					
		qty	1	2	3	4	TR
c51.	Alignment [LF]						
c52.	Protection [LF]						
c53.	Hydraulic Opening [EA]						
c54.	Navigation Lights [EA]						
N 61. Channel Summary							

Approach		Condition state					
		qty	1	2	3	4	TR
c1.	Wearing Surface [EA]	2	2				1.00
c2.	Approachslab [SF]	1280	1238	36	6		1.12
c3.	Relief Joint [LF]						
c4.	Embankment [EA]						
c5.	Guardrail [EA]						
N36	Safety fet. TR, GR, TM			N	N	N	
N 61. Approach Summary							8

Sign/Utility		Condition state					
		qty	1	2	3	4	TR
c55.	Signs [EA]						
c56.	Sign Supports [EA]						
c57	Utilities [LF]						

N 59. General Appraisal and Operational Status							7	A
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Bridge Inspection Report | Routine Inspection

SFN: 3160068

Beekman Street Pedestrian Overhead at Elmore

Date Inspected: 03/20/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #02

Route: BEEKM Unit: 2971

Bridge Type 321 / NNN

Date Built / Date Rehabbed: 1970 /

Load Rating Percent 000

(Main/Approach Spans)

Inspection Information

Rating
1 to 4Rating
9 to 0

C7.1. Floor: Trans. cracks w minor efflor. - more pronounced on approach ramps; rusting of exp. Steel standoffs otherwise no rust staining; delam. & exp. corroding rebar under ramp @ E under ramp; spalls @ E & W end cover plates. 1 7

C7.2. Edge of Floor: Isol. trans. HL cracking; spalling & efflor. under joint to ramps; spalling @W end over W abutment; otherwise very good. 1 7

C9. Curbs/Sidewalks: Trans. cracks (full height); popouts; cracking w heavy built-up of efflor. @ top of SE ramp; widespread large delams @ E lower ramp, not @ any other locations.

C11. Railing: Chain link fence (2001). 1 8

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C12. Drainage: 4 inlets w d/s on bridge & ramps; d/s @ ends of span corr; all inlets appear open. 1 9

C13. Expansion Joints: Open joint no gland; slight vert. offsets @ E & W approaches; painted (2001). 1 7

N58. Deck Summary: Top of deck & fascias to drip groove sealed w silane sealer (1998). Summary Rating: 7

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Widespread freckled rust @ fascias; scrapes @ E; steel end plates painted (2001); widespread discoloration BF. 1 8

C16. Diaphragms/X-Frames: Rust; widespread discoloration & isol flaking; bird feces accumulating. 1 7

C26. Bearing Devices: Appear to be in hot weather mode @ 70F; heavily greased. 1 7

C30. Protective Coating System (PCS): System: Year: 1971 PCS Rating: 4
Spot rust @ fascias; fading esp @ bottom flanges; intermediate coat showing through; paint appears to have been scraped off over NB lane - possibly by impact.

N59. Superstructure Summary: Not redundant - not fatigue prone. Summary Rating: 8

C33. Abutment Walls: Several vert. cracks w minor efflor, some continuing into ramp deck; 3 sides of abutment walls covered w murals. 1 7

N60. Substructure Summary: Summary Rating: 7

Bridge Inspection Report | Routine Inspection

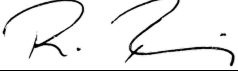
SFN: 3160068

Beekman Street Pedestrian Overhead at Elmore

Date Inspected: 03/20/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #02

C56. Sign Supports: Turning lane signs bolted to outside of conc. deck (4 of them); rusting. 1 7

C57. Utilities: Electric conduit with duct tape wrapped at W. 2 6

Utilities On Structure: Y N N N N N N

65. Vertical Clearance: Measured 15'-2" - not signed Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: Vandal protective fencing (22-27-22) General Appraisal / Operational Status: 7 A

Recommended Maintenance:

1. Seal deck and ramps, or apply membrane.
2. Consider repairing delaminated conc. on lower portion of E ramp (wearing surface).
3. Consider adding closed cell joint filler into open joints to direct water away from the structure.

Assigned to:

TROD
TROD
TROD

Bridge Inspection Report | Routine Inspection

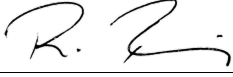
SFN: 3160556

Bramble Avenue Bridge over Little Duck Creek

Date Inspected: 03/24/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #03

Route: BRAMB Unit: 4751

Bridge Type 231 / NNN

Date Built / Date Rehabbed: 1931 / 1989

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: See item 15.	1	8
C7.2. Edge of Floor: Very few cracks w efflor; staining.	1	7
C8. Wearing Surface: Numerous full-length longitudinal cracks reflective over beams; 3 patches @ S (2 scaling badly), 1 spall w exp rebar @ S; (20 SQF) del area near patch @ S center	2	6
C9. Curbs/Sidewalks: Small (random) hole in curb @ N; no cracking in walk; several small popouts in	1	8
C11. Railing: Vert. cracks with and without efflorescence in the parapet wall.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage: Off bridge.	1	7
C13. Expansion Joints: Several areas of torn compression seal, minor leakage @ 2 locations 1 E & 1 W; widespread minor spalling around joint headers.	1	7

N58. Deck Summary: Summary Rating: 8

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Minor staining and graffiti; wider gap between some beams but no leakage {construction}.	1	8
C26. Bearing Devices: Concealed.	1	8

N59. Superstructure Summary: Summary Rating: 8

C33. Abutment Walls: Isolated hairline vertical cracks, some w efflor.; isolated areas of poor consolidation; graffiti; drain notches @ E abutment only.	1	7
C39. Backwalls: Widespread staining {green growth}; moisture.	1	8
C40. Wingwalls:	1	8
C42. Scour: Concrete channel lined under bridge, silt accumulation @ E.	1	8

Scour Inspection Type 1

N60. Substructure Summary: Summary Rating: 7

C51. Channel Alignment: Channel upstream @ slight angle {~20 degrees}.	1	7
C52. Channel Protection: Concrete channel lined under bridge.	1	8
C53. Hydraulic Opening: Minor build-up of sediments under bridge (2017 storms removed portions of the sediments).	1	8

Bridge Inspection Report | Routine Inspection

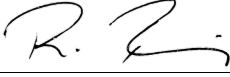
SFN: 3160556

Bramble Avenue Bridge over Little Duck Creek

Date Inspected: 03/24/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #03

N62. Channel Summary:

Summary Rating: 7

C1. Pavement: New {2019}	1	9
C2. Approach Slabs: Cracks perpendicular to backwall.	1	7
C4. Embankment:	1	8
C5. Guardrail: Wood blocks are used.	1	8
N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):	0	
N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):	1	
N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):	1	

C6. Approaches Summary:

Summary Rating: 7

C57. Utilities: Storm drains and sanitary overflow in the abutment walls.

Utilities On Structure: N N N N N N N

65. Vertical Clearance:

Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 7 A

Recommended Maintenance:

1. Plan for expansion joint replacement.
2. Square off and patch S curb lane delaminated areas.
3. Cut back vegetation from railings & 10' from each corner.
4. Develop wearing surface repair strategy.

Assigned to:

Contract
TROD
TROD
Contract

Bridge Inspection Report | Routine Inspection


SFN: 3101533

Brighton Approach Bridge over Central Parkway

Date Inspected: 06/15/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 4 P

Signature: 

Bridge No.: CITY (BP) #04

Route: 0027R Unit: 0358 Bridge Type 122 / NNN Date Built / Date Rehabbed: 1925 /
Load Rating Percent 100 (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor:	Widespread trans cracking w some efflor; spall (+/- 3 SF) near inlet with inlet bottom plate visible; condition better in E approach spans.	1	7
C7.2. Edge of Floor:	(Considers the original concrete railing): isol. map cracking esp. @ rail post & built-up efflor @ railing some pylons @ S approach; widespread staining; full length hor. crack @ midheight of fascia reveal; stalactites on fascias in approach spans.	2	6
C8. Wearing Surface:	Few wider cracks; smooth riding without bounce; one delam detected @ trans. crack near N approach extending over 2/3 of the roadway width.	1	7
C9. Curbs/Sidewalks:	Transverse sidewalk cracks; curb spalling/undermining at inside of curve.	1	7
C11. Railing:	New concrete barriers with VPF in front of original concrete railing (only barriers and fence considered here, concrete railing taken as edge of floor). Staining; brace in VPF at NE damaged.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N):	1		
C12. Drainage:	Some inlets partially filled, severe corrosion of some downspout parts.	2	6
C13. Expansion Joints:	Sig. corrosion at joint header (laminating corr. w LOS to headers); widespread minor spalling of concrete around headers.	2	6

N58. Deck Summary: Summary Rating: 7

C14. Alignment of Members:		1	8
C15.1. Beams/Girders:	Widespread large (> 50% of length) spalls w exp. bottom reinforcement (up to 3 visible rows @ webs) and stirrups (very little LOS on exposed rebar); widespread delaminations of concrete and gunnite from previous repairs; wide cracks (del areas) in some approach spans; E approach spans and W fascia beam in better condition; one small location of rust staining in E approach span.	3	4
C18. Floor Beams:	Only one FB in main span: several spalls w exp rebar.	2	5

N59. Superstructure Summary: Summary Rating: 4

C33. Abutment Walls:	At N only: mapcracking, efflor, and some spalling. Most defects in the lower sloped portion.	2	6
C37. Pier Caps:	Widespread del. areas, esp. @ corners; one pier cap with map cracking; efflor and rust stains, near drainpipe; condition better in E approach.	2	5
C38. Pier Columns:	Widespread delams, spalls, and cracking; some columns with delam around entire circumference, wide cracks (in delaminated material not base material) and spalls (considerable LOS of concrete). Many cracks, delam. and corner spalls. E most spans much better. little exposed rebar @ columns; apparent fire staining @ E approach column.	3	4
C39. Backwalls:	Full hight wall at E.	1	7

Bridge Inspection Report | Routine Inspection

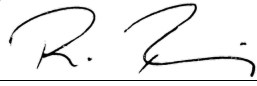
SFN: 3101533

Brighton Approach Bridge over Central Parkway

Date Inspected: 06/15/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 4 P

Signature: 

Bridge No.: CITY (BP) #04

C40. Wingwalls: Isol. vert. HL cracking; minor map cracking with areas of built-up efflor @ wall joints, mostly at top. 1 7

N60. Substructure Summary: Summary Rating: 4

C1. Pavement: Asphalt at N: aligator cracking. 2 6
Concrete @ S, ramp: few wider cracks, three small areas of crushing in gutter at construction joints.

C2. Approach Slabs: 1 7

C5. Guardrail: 1 7

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): 1

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 1

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Summary Rating: 6

C55. Warning Signs: Load Rating signs in stalled 2018; V.C. signs. 1 8

65. Vertical Clearance: Signed 13'-6". Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 4 P

Inspection Notes: Camp under bridge & lots of feces on substructure during 2020 inspection. (placed CSR for cleanup).
Apparent fire staining in E approach near column.

General Notes: Bridge transferred from ODOT to City inventory in 2018.
Plans for rehab/removal pending.

Recommended Maintenance:

Assigned to:

- | | |
|--|------------|
| 1. Repair loose bracing of VPF at NE | TROD |
| 2. Clean inlets. | TROD |
| 3. Seal Cracks in S approach (ramp) with hot applied asphalt. | TROD |
| 4. Repair inlet @ bottom of ramp | Stormwater |
| 5. Seal bot of sidewalk curb/gutter interface with hot applied asphalt. | TROD |
| 6. Seal small spall in wearing surface (over EB lane) with hot applied asphalt. | TROD |
| 7. Chip loose concrete over sidewalks and traffic lanes. | TROD |

Bridge Inspection Report | Routine Inspection

SFN: 3103455

Celestial Street Pedestrian Bridge over Columbia Parkway

Date Inspected: 03/26/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #05

Route: 50 Unit: 2217 Bridge Type 112 / NNN Date Built / Date Rehabbed: 1938 /
 Load Rating Percent 000 (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Some scrapes & impact damage in N 2 spans; patched areas w mapcracking & efflor in S span (reappearing through coating); coating flaking esp. in N most span.	2	6
C7.2. Edge of Floor: Vertical cracks w efflor often originating from railing posts; NW end of S span, top of pier, map cracking with discoloration & delams; spall @ SE edge over S pier; construction joints visible; 2019 2 spalls in 2nd span from N over W bound lanes(2sqft x 4" deep)	2	6
C9. Curbs/Sidewalks: Popouts esp @ N; 4 larger patched areas (w HL mapcracking developing); trans cracks over piers (mostly sealed & epoxy injected) are reappearing, vertical cracks in curbs; few delaminated areas @ N (10' to 15' from N end w some spalling).	2	6
C11. Railing: VPF (2005); welds attaching handrail to brackets corr; cheeseplates rusting heavily, non stainless bolts @ cheese plates very corroded; railing post over center span @ W corroding @ base; several zip ties on various rail members esp over center span; scrapes @ gates (from banners?) damaging paint.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: 2 inlets w d/s @ N end of bridge, 1 inlet cover missing; 2 scuppers piped to UG @ S end.	1	7
C13. Expansion Joints: Slight staining under joint @ S (steps).	1	8
N58. Deck Summary: Cracks epoxy injected (2005).	Summary Rating: 6	
C14. Alignment of Members:	1	8
C15.2. Slab: Trans. cracks on top @ piers sealed & epoxy injected, but reappearing; spall @ N (impact); cracking & efflor. esp. N most span. (see items 7.1 floor & 7.2 Edge of Floor)	2	6
C26. Bearing Devices: Mostly integral N pier only.(not visible)	1	8
C30. Protective Coating System (PCS): System: Year: 2005 Conc. surfaces coated; galvanized "cheese plates" start to corr. from center outward.	PCS Rating:	
N59. Superstructure Summary: Redundant; not fatigue prone.	Summary Rating: 6	
C36. Pier Walls: Repaired & coated (2005); minor flex. cracks @ S pier; pier seats integral-spall @ SE edge of S pier; HL cracking elsewhere; spall @ E side of N most pier. (N support on Wall without backfill, hence considered pier, not abutment).	1	7
N60. Substructure Summary:	Summary Rating: 7	

Bridge Inspection Report | Routine Inspection

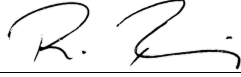
SFN: 3103455

Celestial Street Pedestrian Bridge over Columbia Parkway

Date Inspected: 03/26/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #05

C55. Warning Signs: Posted 13'-6" VC on bridge.

1 8

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 6 A

Inspection Notes: N struct. approach steps have cracks, spalls & conc. deterioration w debris & exp. rebar are in marginal condition. Central steps cracked @ base w spalls & exp rebar; railings on all steps corr; paint peeling leaving stains on steps.
Bridge conc. repaired & recoated under ODOT HAM 50-22.39 contract (2004/2005).
Impact attenuator (Quadguard - 6 bay) installed E of 2nd pier from N.
N support on wall without backfill, hence treated as pier not abutment. Railings on steps are in dire need of repair/replacement w many posts having sig. LOS & several fasteners are corroded away. Could be combined w repainting of gates on bridge & possible redipping of cheeseplates.

General Notes: HAM-50-2217

Recommended Maintenance:

1. Reseal fence post @ bottom sleeve.
2. Seal deck w membrane (wearing surface).
3. Consider replacing bolts in cheeseplates where corroding.

Assigned to:

TROD
TROD
Contract

Bridge Inspection Report | Routine Inspection

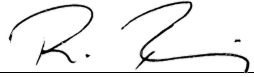
SFN: 3160610

Central Incinerator Approach Bridge over Mill Creek

Date Inspected: 08/21/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: CITY (BP) #06

Route: INCTR Unit: 2961

Bridge Type 344 / 322

Date Built / Date Rehabbed: 1953 /

Load Rating Percent 100

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor:	Few trans. cracks with efflor.; rust staining mainly in outer bays; several delams some w exp rebar.	2	6
C7.2. Edge of Floor:	Regularly spaced transverse cracking with efflorescence, esp @ N, spalling some w. exposed rebar typically near FB connections.	2	6
C8. Wearing Surface:	2015 wearing surface over the truss span. Small (< 1 ft) asphalt potholes in the other spans; several wider trans cracks in E approach.	1	7
C9. Curbs/Sidewalks:	Several wider trans cracks, delams, & curb spalling w exp rebar, minor popouts; rust staining; main span condition governs rating.	2	5
C11. Railing:	Spalling with exposed rebar at the base; diag crack through all panel @ SW approach.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N):			
C12. Drainage:	All inlets open; 1 scupper @ S missing extension pipe.	1	8
C13. Expansion Joints:	Debris in the joints, apparently all joints are water tight; sev. corrosion to the joint armor; some spalling around headers.	1	7

N58. Deck Summary:

Summary Rating: 6

C14. Alignment of Members:	Some members bent, see 2020 FC report.	1	7
C15.1. Beams/Girders:	(Approach spans)/ missing bolt @ splice @ N beam (in E approach spans).	1	8
C16. Diaphragms/X-Frames:	(Approach spans)	1	8
C17. Stringers:	Laminar corrosion at the connections between the floorbeams in main span; corr. on top flanges.	2	6
C18. Floor Beams:	Pitting up to 1/8" in most members; laminating corr. of TF's @ ends of FB's; pack rust @ connections; surface corrosion and laminating corrosion at the ends on the flanges. Cracked tack welds . Missing rivets & severe LOS on some nuts (see FC report); conc FB @ W approach; cracks, rust stains, & apparent delams.	2	5
C19. Truss Verticals:	Pack rust @ connections.	1	7
C20. Truss Diagonals:	Laminar corrosion and pack rust at the gusset plate lower connecton interface; 1/8" painted over pitting.	1	7
C21. Upper Chord:		1	7
C22. Lower Chord:	Up to 1/4" pack rust between the plates.	1	7
C23. Truss Gusset Plates:	Pitting, pack rust @ connections.	2	6
C25. Sway Bracing:	Impact damage at 2 locations.	2	6
C26. Bearing Devices:	Laminating corrosion to the sliding bearings at the approach; W approach bearings may no longer be able to move due to corrosion; E abutment bearings in hot	2	5

Bridge Inspection Report | Routine Inspection

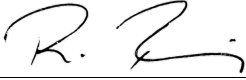
SFN: 3160610

Central Incinerator Approach Bridge over Mill Creek

Date Inspected: 08/21/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: CITY (BP) #06

weather mode with many anchor bolts leaning; anchor bolts cut under end diaphragms.

C30. Protective Coating System (PCS): System: Year: PCS Rating: 6
6-15% surface area failed; candidate for zone painting; non matching paint @ S railing(modified for trail).

C32. Fatigue Prone Details: See latest (2020) FC report. 1 7

N59. Superstructure Summary: Flow debris trapped @ BF's (2020 flooding). Also see 2020 FC report detailing cracked tack welds, etc. Summary Rating: 5

C33. Abutment Walls: Cracking w minor efflor @ E; minor spalls. 1 7

C36. Pier Walls: 1 8

C37. Pier Caps: Shallow spalling on top of N end of E pier; horiz crack w efflor and larger unsound patch @ W. 1 7

C38. Pier Columns: 2 corner spalls w exp rebar @ the East pier of main span. 1 7

C39. Backwalls: HL to narrow cracking with widespread staining 1 7

C40. Wingwalls: 1 8

C42. Scour: Rip-rap is around the pier 1 8

Scour Inspection Type

N60. Substructure Summary: Flow debris around bearings. Summary Rating: 7

C51. Channel Alignment: 2 streams converge upstream (close to bridge). The 2nd stream comes in at approximately 45 degrees causing areas of deep water. 2 6

C52. Channel Protection: Rip-rap is at the E Pier. 1 7

C53. Hydraulic Opening: 1 9

N62. Channel Summary: Summary Rating: 6

C1. Pavement: Random transverse cracks, mostly in bike lane (still smooth ride, no bounce), some asphalt patches; breaking up @ E end @ interface w approach slab. 2 6

C4. Embankment: Overgrown. 1 8

C5. Guardrail: 1 8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): 1

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 1

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 1

C6. Approaches Summary: Summary Rating: 6

Bridge Inspection Report | *Routine Inspection*


SFN: 3160610

Central Incinerator Approach Bridge over Mill Creek

Date Inspected: 08/21/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: CITY (BP) #06

C55. Warning Signs: 14'-0" clearance sign bent @ W; A traffic signal is in place to cross the bridge (2015); 1 7
single lane with bike/pedestrian path.

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 5 A

Inspection Notes: FC inspection May 2020 by B&N on file.
Bike path delineators no longer on bridge.
Apparent ODOT (Walsh) detour route on bridge causing significant semi-truck traffic in 2019.

Recommended Maintenance:

1. Consider bearing replacement @ W approach.
2. Consider curb patching.
3. See FC report.

Assigned to:

Contract
T ROD
Owner

Bridge Inspection Report | Routine Inspection

SFN: 3199937

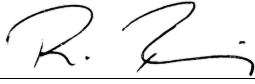
Central Parkway over Rapid Transit Tubes - Walnut to Draper

Date Inspected: 11/17/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 5 A

Signature: _____



Bridge No.: CITY (BP) #07

Route: Unit: Bridge Type 172 / Date Built / Date Rehabbed: 1924 /
 Load Rating Percent (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

- | | | | |
|---|---|---|---|
| C7.1. Floor: | General deterioration mostly limited to section joints or stations: seepage, efflor., stalactites, spalls & some exp. reinf. are typical at joints; large portions of the tunnel have been repaired with gunnite; currently the worst conditions can be found at Mohawk and esp. Brighton Station with several large spalls exposing more than 12 bars, some with LOS. One bay at the E end of the Race St Station has pronounced cracking and efflor. (E most bay with beams). | 2 | 5 |
| C8. Wearing Surface: | Wearing surface on fill; portion S of WHV replaced 2010; reflective cracking at several locations, not necessarily tunnel related; wider reflective cracks at the end of the 2010 repair areas, esp at Brighton. Long. cracking in the W bikelane N of WHV could be a result of differential settlement at the curved portion of the tunnel roof. | 1 | 7 |
| C11. Railing: | Conc. WPA @ N end along Central Pkwy; weathered; delam & several spalls with exposed rebar @ some posts. Many railing segments were replaced in kind because of frequent impact from vehicles. | 2 | 6 |
| N36. National Safety Feature - Bridge Railing (0, 1 or N): N | | | |
| C12. Drainage: | Seepage into tunnels (mostly attributed to jts.); water entering tunnel through needle-head size hole at Station 106 (E wall, brought to attention of WW to see if this is groundwater or a main); Sig built-up of efflor around slab portion of vent shafts in Race Street station with stalagmites forming below.
During 2020 inspection all floordrains were found to be functioning, but areas of build-up debris and mood near these drains. | 2 | 6 |
| C13. Expansion Joints: | Covered by fill: widespread seepage @ both exp. & const. jts. causing conc. deter. @ several locations - esp. @ Brighton jts. and W&E of Race Street Station; no joints visible from the top. | 2 | 5 |

N58. Deck Summary:

Summary Rating: 5

- | | | | |
|-----------------------------------|---|---|---|
| C14. Alignment of Members: | | 1 | 8 |
| C15.1. Beams/Girders: | Only present in the stations: Isol. seepage; some spalling mostly due to low cover of stirrups; gen. conc. deter. where there is seepage - part. @ Brighton Sta and E part of Race station; exp. rebar; few beams w damaged exposed bars (E of Race station, one beam with 4 exp. Bars; Brighton Station S of track: beam with concrete deterioration, delamination and spalling with 2 exposed main bars, 2 failed (100% LOS) stirrups). | 2 | 5 |
| C15.2. Slab: | Also see item floor: Spalling w exp. rebar mostly due to low concrete cover; diag. crack @ S portion of Race Street E of Race; long. cracks w efflor in some bays between beams close to Elm Street. | 2 | 5 |

N59. Superstructure Summary: Redundant, not fatigue prone.

Summary Rating: 5

Bridge Inspection Report | Routine Inspection


SFN: 3199937

Central Parkway over Rapid Transit Tubes - Walnut to Draper

Date Inspected: 11/17/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: CITY (BP) #07

- | | | |
|---|---|---|
| C33. Abutment Walls: Conc. deter. - part. @ exp. & constr. jts.; isolated seepage @ many locations. needlehead size holes "shoots" out water S of station 106 (not observed in 2020). | 2 | 6 |
| C36. Pier Walls: Conc. deter. - part. @ exp. & constr. jts.; cracking @ pier on platform @ Brighton Sta; bases of piers beginning to deter. on platform @ Brighton Sta. (poss. d/t cont. seepage thru walls); base segment removed @ Brighton Station 2009; several spalls @ corners of pier columns w exp. rebar; large delamination/crack in one pier wall between Brighton Station and N portal, and generally more delaminations, cracks and spalls in this northern most portion of the tunnel. | 2 | 6 |
| C37. Pier Caps: One location at Brighton where (impact ?) caused a small spall in the middle of a pier cap, area was pached, but concrete in the vicinity is cracked, though without exposed rebar. | 1 | 7 |
| C38. Pier Columns: (Small columns in the stations only): LOS to S column at the E end of the Race station platform (under expansion joint), many stirrups visible due to low cover, and deeper spalls w exp. main bar at bottom. | 2 | 6 |

N60. Substructure Summary:

Summary Rating: 6

65. Vertical Clearance:

Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 5 A

Inspection Notes: Watermain leaking (2020) at WW STA 106 (notified WW). Generally moist from condensation S of Liberty where vent area is smaller, much dryer N of there. N portal has new (2020) lock due to repeated vandal entry. The 2002 lock does no longer fit inside the modified lock box. (WW repaired at the day of the 2020 inspection). Firedamage inside the tunnel at Elm street melted cone and timber tie. Grate from Vent Shavt bent N of Findlay at East walk (WW will tack weld this). Large opening in brick blocks of former vent opening just north of WHV (Sta 128) where vandals enter.

Recommended Maintenance:

1. Repair leaking pipe at STA 106
2. Repair W wall of tunnel at STA 128 to prevent vandal entrance
3. Remove trash and construction material out of the tunnels.

Assigned to:

GCWW
TROD
GCWW

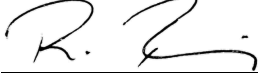
Bridge Inspection Report | Routine Inspection

SFN: 3199924

Central Parkway over Rapid Transit Tubes South of Hopple Street

Date Inspected: 04/22/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: CITY (BP) #08

QA/QC Inspector: STEPHEN C. GRESSEL, P.E.

Signature: 

Route: 27 Unit: Bridge Type 172 / Date Built / Date Rehabbed: 1924 /
Load Rating Percent 100 (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Mostly concealed by gunnite; trans. cracks w seepage & efflor @ const. jts.; widespread spalls & delam. of gunite; some exp. reinf.; rust stains; few minor stalactites forming; minor leakage @ some locations. 1 wider and deeper crack all around the tunnel (through floor, deck, pier and abutments at +/- 75' from the S end of the W tunnel.	2	5
C11. Railing: Old WPA type railing; some spalling & cracking; some exp. reinf. - especially over S entrance.	2	6
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: 4 floor drains. During the 2019 inspection most of the tunnel was filled with water, up to 2' deep, high enough to go over the separation wall between the E and the W tunnel; water levels in 2020 insp. much lower; 2 S. drains not submerged.	4	0

N58. Deck Summary: Summary Rating: 5

C14. Alignment of Members: 1 8

C15.2. Slab: See "FLOOR" Above. 2 5

N59. Superstructure Summary: Highly redundant; not fatigue prone. Summary Rating: 5

C33. Abutment Walls: Covered with gunnite; vert. cracking and some rust staining @ const. joints; isol seepage; graffiti. 2 6

C38. Pier Columns: Covered with gunnite; few del. areas @ corners; few exp. rebar; rust staining and cracking @ constr. Joints; cracking mostly at joints. Deep and wider crack at +/- 75' from S end of W tube. 2 5

C40. Wingwalls: Seepage; cracks w efflor; wide WW jt. 3" @ S entrance, opening slightly; possible delam. areas & spalls. 2 6

N60. Substructure Summary: Cracks and heaving in tunnel floor @ S (E tube). Summary Rating: 5

C1. Pavement: 2016 Hopple street, ODOT project; few trans. cracks. 1 8

C4. Embankment: Grass. 1 8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

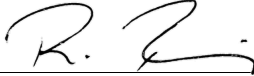
Bridge Inspection Report | Routine Inspection

SFN: 3199924

Central Parkway over Rapid Transit Tubes South of Hopple Street

Date Inspected: 04/22/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: CITY (BP) #08

QA/QC Inspector: STEPHEN C. GRESSEL, P.E.

Signature: 

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: New ODOT fence along interstate starting to overgrow. Summary Rating: 8

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 5 A

Inspection Notes: Substantial accum. of garbage in tunnels; signs of several former camp site. All but the N most portion of the tunnel was filled with water in 2019; up to 2' deep; 2020 water levels much lower.

Recommended Maintenance:

1. Consider filling.
2. Consider repairing floordrains.
3. Monitor global crack at +/- 75' ft from S end of W tube.

Assigned to:

Owner
Owner
Owner

Bridge Inspection Report | Routine Inspection

SFN: 3199928

Coliseum Pedestrian Bridge from Taylor Southgate Bridge

Date Inspected: 07/08/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #09

Route: Unit: Bridge Type 122 / NNN Date Built / Date Rehabbed: 1995 /
Load Rating Percent (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor:	Conc. stairs; sig. efflor. & minor rust stains @ long. const. jt & W jt.	2	6
C7.2. Edge of Floor:	Widespread staining; minor efflor.	1	7
C9. Curbs/Sidewalks:	CIP conc. stairs; "humped" repair areas @ precast panel attachment points; 3M waterproofing membrane applied (2005) repaired 2011; membrane peeling esp @ vertical face of steps; cracking (some wider cracks) & some rust staining, esp. over long. construction jt; cracking, spalling, & delaminations & rust staining, esp @ const. jnt.; gum stains & trash on floor.	2	6
C11. Railing:	Precast conc. panels (1995); some H/L cracking; canopy posts rusting @ bases; rust on welds of posts' supports; handrail paint flaking; cracked & spalled panel bottom corner @ NE; spall w exp. rebar at bottom of railing @ NE; algae growing in panel @ N; 2 small spalls w rust stains inside face (below deck) railing @ S	2	6
N36. National Safety Feature - Bridge Railing (0, 1 or N):	N		
C12. Drainage:	No inlets on struct; water appears to drain thru exp. jt. onto E pier.	1	8
C13. Expansion Joints:	Some debris in bottom jt.; jt. @ top of stairs replaced (2005), cover plate thermal spray treated to have slip-resistant surface (2016); rusting.	1	8

N58. Deck Summary: Summary Rating: 6

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Widespread minor flexural H/L cracking along bottom sides of beams, few w efflor.; many patches on N beam; E end of N beam has widespread rusting of embedded wire ties and nails, etc. (mess in formwork not cleaned). 1 7

N59. Superstructure Summary: Not redundant; not fatigue prone. Summary Rating: 7

C37. Pier Caps: Minor flex. cracks @ pier caps - some w efflor; horiz. crack w seepage & rust staining; damp areas under joint @ W; apparent del. at S end of W pier cap; horiz crack w rust staining 3" below top of both piers. 2 6

C38. Pier Columns: Flex. cracking on N faces of piers some w rust staining (NE @ E column, NW @ W column), some map cracking; larger bottom spalls w exp. rebar (deep spall w build up of efflor., shallow spall from low cover @ W). 2 6

N60. Substructure Summary: Summary Rating: 6

Bridge Inspection Report | Routine Inspection

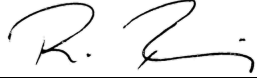
SFN: 3199928

Coliseum Pedestrian Bridge from Taylor Southgate Bridge

Date Inspected: 07/08/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #09

C57. Utilities: Conduit added (strapped) to E pier; conduit & boxes below deck corroding; cracked light conduit @ E pier; corroding pull boxes & conduits. 2 5

Utilities On Structure: NNNNNNN

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 6 A

General Notes: Structure widened (2000); one beam added @ N; canopy also added.

Recommended Maintenance:

1. Repair membrane and underlying stairs as necessary.
2. Clean base of handrail + canopy columns + extend membrane to bottom of columns (after cleaning column bases).
3. Clean debris, salt, etc. on steps, pressure wash.
4. Repair broken conduits, replace pull-box covers.

Assigned to:

Owner
Owner
TROD
Traffic

Bridge Inspection Report | Routine Inspection

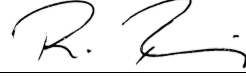
SFN: 3101355

Coliseum Ped Bridge over Taylor Southgate Bridge

Date Inspected: 08/21/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #10

Route: 27 Unit: 15 Bridge Type 322 / NNN Date Built / Date Rehabbed: 1976 /
 Load Rating Percent 150 (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Minor cracks & few patches @ exp. jts (retro fit); few H/L cracks w minor efflor. over center span.	1	8
C7.2. Edge of Floor: Cracks w efflor. @ joints, esp @ corners; staining on railing overhangs; possible delam @ S end of exp jnt. over 2nd pier from E.	1	7
C9. Curbs/Sidewalks: 3M Traffic Membrane (1994); re-applied (2005).	1	8
C11. Railing: Precast railing (1993); sealed (2005); rust on new weld conn. plates @ SE; vert. HL cracks on inside of most panels.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: 10 inlets (all appear open) w d/s (w near horiz. runs); all appear open.	1	9
C13. Expansion Joints: Peterson jt. installed (2000) @ E when parking garage was constructed; remaining jts. replaced (2005) w WABO seismic span; jt. to SE steps loose & bulging; apparent minor leakage over piers w corr. of diaphragms & bearings (sig leakage @ NE), mostly @ fascia.	1	8

N58. Deck Summary: Lots of de-icing course salt on deck during 2019 inspection. **Summary Rating: 8**

C14. Alignment of Members: 1" horiz. offset @ SE steps.	1	8
C15.1. Beams/Girders: Rolled beams in approach spans, built up beams of different heights in main span.	1	8
C16. Diaphragms/X-Frames: E end diaphragms not painted on parking garage side w significant rusting where galvanizing was scratched around pre drilled holes (former beam attachments?); filler plates originally welded to diagonals are seperated/cracked @ most diaphragms.	1	8
C18. Floor Beams: NW & SE only, supporting railing.	1	8
C26. Bearing Devices: Many bearings @ W pier in hot weather mode @ 50F; rust stains under S-most bearing @ E & center pier; rust @ NE (exp. joint end); bearings @ center pier in cold-weather mode @ 80F; W span exp. bearings apparently on coliseum side.	1	7
C30. Protective Coating System (PCS): System: EEU Year: 1994 PCS Rating: 7 Failing @ beam ends under exp. jnts.; unpainted, ugly welds @ fascia beam @ SE from welding precast attachments.		

N59. Superstructure Summary: Redundant, fatigue prone. **Summary Rating: 8**

C37. Pier Caps: H/L flex. cracks with little efflor. @ top (w moist cracks at W pier); rust staining from rebar standoffs, & under some bearings.	1	7
C38. Pier Columns: Full height vert. cracks w efflor. on street side of W (HBC arena) piers (conc.-encased steel); minor spalling @ NE pier.	1	7

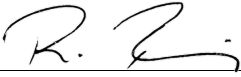
N60. Substructure Summary: Widespread rusting from rebar standoff. (Rating driven by **Summary Rating: 7**

Coliseum Ped Bridge over Taylor Southgate Bridge

Date Inspected: 08/21/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #10

assumed condition of concrete-encased steel pier @ W);
anchor bolt w cut off copper wire @ N end of W pier cap.

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:General Appraisal /
Operational Status: 7 A

Inspection Notes: Random steel post attached to N side of cantilever of E pier.
Base covers of light posts on Plaza rusting w LOS (perforations), some lights of the same type in other areas of the plaza have failed. Condition of these lights was brought to the attention of TSB. 2020 ongoing work in E garage adjacent steps closed.

General Notes: HAM 27 0015**Recommended Maintenance:**

1. Spot paint unpainted steel & under exp. jnts.
2. Check concrete in S deck overhang @ 2nd pier from E & @ NW.
3. Check/replace light fixtures on the Plaza.

Assigned to:

Contract
TROD
TSB

Bridge Inspection Report | Routine Inspection

SFN: 3101940

Coliseum/Stadium Plaza Overhead over Broadway (Platform A)

Date Inspected: 05/29/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #11

Route: 0027D Unit: 0183 Bridge Type 321 / NNN Date Built / Date Rehabbed: 1975 /
Load Rating Percent 0 (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

- C7.1. Floor:** Spalls @ var. loc. w some exp. rebar & efflor. esp. under exp. jts.; minor trans. cracks w efflor. esp @ const. jts. & under planters; isol. spalling of conc. @ TF's, esp @ SW; spalled conc. in bird netting near jnts; rust staining & efflor. @ SW near flagpoles. 1 7
- C7.2. Edge of Floor:** Conc. spalls w exp. rebar & efflor. @ W (Reds stadium jnt.).
- C9. Curbs/Sidewalks:** Waterproofing membrane applied (1993); re-applied (2005); membrane broken @ SW inlet & @ many locations mostly @ gates to reds stadium (w corrosion) & W of flagpoles; new 2016 drilled holes for gate pins @ Reds Bleacher entrance; several delaminated areas detected under apparently intact membrane. 1 7
- C11. Railing:** Precast railing installed (1993); some panels cracked vert; plaques (SW) bent & corr, some missing; NW panel w corner spall & several vertical & horiz. cracks (injected) w efflor @ front crack; top corner broken out behind sign panel @ SW. 1 7
- N36. National Safety Feature - Bridge Railing (0, 1 or N):** N
- C12. Drainage:** 18 inlets w d/s (w near horiz. runs); scuppers partially clogged, some corr around grates; isol. severe corr. @ drain pipe connections under the deck (apparent leakage). 2 6
- C13. Expansion Joints:** Replaced w WABO seismic span (2005), cover plates loose with attachments corroded through; C/P @ SW show slight vert. offset; portion of N C/P (County joint) misaligned, shifted towards GABP 3.5"; evidence of leakage @ all jts (stained plywood & rusting on BF's); some plywood panels starting to weather; 90 deg bend @ ticket office has crack in compression seal causing leakage below. 2 5

N58. Deck Summary: All adjacent private (wide) cover plates have shifted. Summary Rating: 7

- C14. Alignment of Members:** 3 (Westmost) knee braces (angle & fin) supporting outside S stringer are bent (construction?). 1 7
- C15.1. Beams/Girders:** Localized pitting with LOS @ (beam end @ center pier under intersection of 2 jts) arrested by spot painting; spalling conc. due to rusting @ TF & leaking exp jnts.; rusting BF @ jnt., between beams 13 & 14 and 23 & 24 from N; spalling of haunch from top flange @ SW (10' from exp jnt. to GABP). (Rating based on apparent condition under exp. jnt.). 1 7
- C16. Diaphragms/X-Frames:** Minor corr. 1 8
- C17. Stringers:** See beams (15.1) 1 8
- C18. Floor Beams:** Floor beams @ SE only; minor corr. arrested by painting. 1 8
- C26. Bearing Devices:** Elastomeric; many concealed. 1 8
- C30. Protective Coating System (PCS):** System: EEU Year: 1994 PCS Rating: 7
Spot painting (2005); isol. peeling; failure under jnts.

N59. Superstructure Summary: Redundant, fatigue prone - also not redundant, not fatigue prone. Rating based on apparent condition under exp joints. Summary Rating: 7

Bridge Inspection Report | Routine Inspection

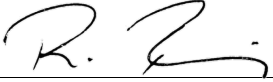
SFN: 3101940

Coliseum/Stadium Plaza Overhead over Broadway (Platform A)

Date Inspected: 05/29/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #11

C37. Pier Caps: Plaster @ coliseum damaged & spalled, allowing birds to enter. 2 6
Conc. pier caps: part. depth repairs (2005) -map cracking w efflor, stalactites, & rust staining from fasteners of bird netting, worse condition @ center pier @ S jt; larger spalls @ SW cap (chipping of delam conc.) w exp rebar +/- 6 locations.

C38. Pier Columns: Steel columns, conc. encased under arena; gunite repairs (1993); HL map cracking @ 2 6
W with spalls, some w exp. rebar, patches & sev. delams; larger vert. cracks @ E, (fingerwide @ SE conc. encased steel columns); several corner spalls w exp. rebar @ W pier {esp large @ S most column}

N60. Substructure Summary: Condition controlled by worst areas @ SW column & cap. Summary Rating: 6

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 6 A

Inspection Notes: Piers of Coliseum (U.S. Bank Arena) show significant cracks, but they are conc. encased steel. Some spalled conc. caught in bird netting, mainly @ SW & under center exp. jnt. New 2016 memorial sign/post attached at top through membrane.

General Notes: Formerly SFN 3161579 - Inventoried and inspected by ODOT 2/22/2005. Precast panel @ S that was destroyed during sign maintenance replaced (December 2002). Anti-bird netting installed (2006).

Recommended Maintenance:

1. Repair bird netting as necessary between w pier & GABP.
2. Repair leaking jnts throughout.
3. Reset jt. plates where shifted or loose. (Shift @ N plate 3.5" toward GABP)
4. Repair holes drilled in the Plaza @ Bleacher Entrance gates.
5. Remove fallen concrete from brid netting over US arena parking & repair netting.
6. Check city joints for leakage.
7. Replace missing light on plaza & cover protruding bolts.
8. Repair 90 deg bend in compression seal @ ticket office Heritage Bank.

Assigned to:

Owner
County
County
County
TROD
TROD
CSR
TROD

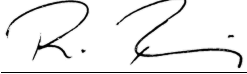
Bridge Inspection Report | Routine Inspection

SFN: 3160017

Dalton Avenue Under C.U.T. Approach Drive

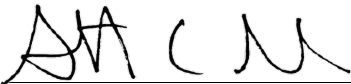
Date Inspected: 04/22/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #12

QA/QC Inspector: STEPHEN C. GRESSEL, P.E.

Signature: 

Route: DALTO Unit: 2927

Bridge Type 321 / NNN

Date Built / Date Rehabbed: 1931 / 2018

Load Rating Percent 000

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Rehab work 2017/2018; epoxy injections and patching; staining & possible cracking @ N most vent shaft; loose concrete in bay 3 from N @ E abutment. 1 8

C11. Railing: 1 9

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C12. Drainage: New drain pipes added below during 2017/2018 construction; 2020 inspection during dry weather & fountain out of service. 1 9

C13. Expansion Joints: New 2018.

N58. Deck Summary: Summary Rating: 8

C14. Alignment of Members: Stringers @ exp. jts. appear shifted +/- 2" E-ward on knee bracing (const. issue that knee bracing was misplaced?); some knee bracings not in full contact w stringers. 1 7

C15.1. Beams/Girders: Former corr repainted 2018; very minor pitting at isol. locations arrested. 1 8

C17. Stringers: Former corr repainted 2018; very isol minor pitting arrested by new paint 2018. 1 7

C18. Floor Beams: Repainted 2018 1 8

C30. Protective Coating System (PCS): System: Year: 1992 PCS Rating: 8
Large areas spot painted 2018; isol. area's staining @ stringer ends from floor patching.

N59. Superstructure Summary: Redundant; not fatigue prone. Summary Rating: 7

C33. Abutment Walls: Mostly concealed @ W; patched & epoxy injected 2018; isol. areas of moisture @ E. 1 8

C34. Abutment Caps: Steel beams bet. Columns @ W mostly concealed; wrapped in bird netting 2018; partially assumed rating. 1 7

C35. Abutment Columns: Conc. encased steel columns. 1 8

C40. Wingwalls: Façade repairs 2017/2018 1 8

N60. Substructure Summary: Summary Rating: 7

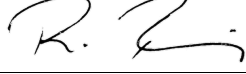
Bridge Inspection Report | Routine Inspection

SFN: 3160017

Dalton Avenue Under C.U.T. Approach Drive

Date Inspected: 04/22/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #12

QA/QC Inspector: STEPHEN C. GRESSEL, P.E.

Signature: 

C55. Warning Signs: VC posted 13'-9". 1 9

C57. Utilities: Many pipes replaced during 2017-2018 rehab; some electrical conduits separated, few abandoned pipes left; sev. missing/broken pipe hangers; 3 light covers missing, some lights not working & 1 @ NE broken. 2 6

Utilities On Structure: UUUUUUU

65. Vertical Clearance: Posted 13'-9" (measured as 14'-0" @ N in 2020). Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Inspection Notes: Fountain not filled with water at the time of the 2020 inspection.
Ex amounts of pigeons below the structure.

Recommended Maintenance:

Assigned to:

- | | |
|---|-------|
| 1. Replace missing pipe hangers (example bay 4 from N). | Owner |
| 2. Replace missing light fixture @ NE. | Owner |
| 3. Reomove all loose conc. from floor (bay 3 from N @ E). | Owner |
| 4. Remove all unused utilities, there appear to be many of them (pipes/conduits & hangers). | Owner |

Bridge Inspection Report | Routine Inspection

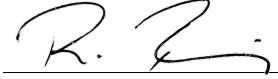
SFN: 3161455

Dana Avenue Pedestrian Bridge North of Madison Road

Date Inspected: 03/17/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #13

Route: DANA Unit: 4071

Bridge Type 322 / NNN

Date Built / Date Rehabbed: 1973 /

Load Rating Percent 000

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Trans. cracks w efflor esp. over piers & mid span of main span (N ramp); rust stains from rebar standoffs. 1 7

C7.2. Edge of Floor: Minor crack delam. @ fascia w isol. efflor. (cold joint between deck & curb); evenly spaced HL trans. shrinkage cracks w efflor in negative moment; rust stains from rebar standoffs. 1 7

C9. Curbs/Sidewalks: Rough broom finish; popouts - some scaling; trans. cracks extend thru slab in neg. moment regions; some older patches.

C11. Railing: Horiz members pulled out of exp. sleeve mostly @ W (see inspection notes); some posts @ E have sheared off nuts (impact damage from fallen tree); slightly loose vandal fence; tree near bridge scraping railing. 1 7

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C12. Drainage: 6 inlets w & w/o d/s; all appear open; evidence of minor ponding, (leaves & debris accumulation @ curb); moss in drain grates. 1 7

C13. Expansion Joints: Very minor conc. spalling @ comp. seals; larger opening @ W joint to railing (see Inspection Notes); sliding plate @ W corroding d/t larger expansion. 1 8

N58. Deck Summary: Top deck @ fascias to drip groove sealed w silane sealer (1998). Summary Rating: 7

C14. Alignment of Members: Slight mis-alignment over Dana @ splice - bridge moved 1" S @ W pier (see Inspection Notes); vertical offset (7/8") @ bottom of ramp @ W. 2 6

C15.1. Beams/Girders: Impact damage - bent BF @ S & N beams @ splice and adjacent; gouged from impact @ S beam over N bound lane; minor initial corr. @ flanges (top flanges at haunches); slight pitting arrested by painting. 1 7

C16. Diaphragms/X-Frames: Minor corr. 1 8

C26. Bearing Devices: Paint flaking (1992); anchor bolts bent w nut missing @ E pier; bent anchor bolts @ N pier of W ramp; corroding @ E abutment. 1 7

C30. Protective Coating System (PCS): System: Year: 1992 PCS Rating: 7
Widespread fading; flaking - esp. @ E where reachable height; several runs & tears throughout.

C31. Pins/Hangers/Hinges: 1 8

N59. Superstructure Summary: Not redundant; not fatigue prone. Summary Rating: 7

C33. Abutment Walls: Stubs. 1 8

C36. Pier Walls: Minor cracks; minor impact damage @ pier of E steps; spall @ w exp rebar @ W pier of main bridge (hand sized). 1 8

C37. Pier Caps: HL cracks (one cap with efflor.) in cantilever; minor vert. HL crack @ cap under W landing cracked @ 2 faces @ W (both ends); sealed w silane sealer (1998). 1 7

Bridge Inspection Report | Routine Inspection

SFN: 3161455

Dana Avenue Pedestrian Bridge North of Madison Road

Date Inspected: 03/17/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #13

C39. Backwalls: Minor popouts @ E. 1 8

C40. Wingwalls: Minor popouts; minor vert. HL 1 8

N60. Substructure Summary: Summary Rating: 7

65. Vertical Clearance: 14'-9" Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Inspection Notes: Jt. bet. W ramp & bridge appears to have opened +/-1" since last painting (result of impact). C/P's exposed 1" of rust & railing is pulled out of exp. piece; ramp bearings indicate no movement, but bridge bearings @ W pier have moved 1" to S.

Recommended Maintenance:

1. Consider sealing deck or deck cracks or applying membrane.
2. Trim tree near playground (E of Dana) to prevent scraping against bridge railing/fence.

Assigned to:

Contract
CRC

Bridge Inspection Report | Routine Inspection

SFN: 3160432

Dreman Avenue Bridge over West Fork Channel

Date Inspected: 03/20/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #14

Route: DREMN Unit: 2831

Bridge Type 321 / NNN

Date Built / Date Rehabbed: 1999 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: HL cracking esp in the lighter colored conc. portion w efflor. @ some trans cracks.	1	8
C7.2. Edge of Floor: Cracks w efflor esp @ S.	1	8
C8. Wearing Surface: Isolated hairline transverse & long. cracks; few popouts.	1	8
C9. Curbs/Sidewalks: Hairline transverse and vertical curb cracks w efflor.; vegetation growing through joints of curbs & railings.	1	7
C11. Railing: Hairline vertical cracks some w efflor.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N):		
C12. Drainage: Off bridge.	1	9
C13. Expansion Joints: Debris filled with concrete spalling @ the headers on backwall side; sidewalk cover plate missing 1 bolt.	1	7

N58. Deck Summary: Summary Rating: 8

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: No flange transition on Beam 2; graffiti.	1	8
C16. Diaphragms/X-Frames:	1	8
C26. Bearing Devices:	1	8
C30. Protective Coating System (PCS): System: Year: PCS Rating: 8 Painted 1999; isol scraping from vegetation.		

N59. Superstructure Summary: Summary Rating: 8

C33. Abutment Walls: Isolated hairline vertical cracks w efflor; graffiti; staining @ top of abutment.	1	8
C39. Backwalls: Few vert cracks, 1 w efflor @ W; slight spalling @ exp jnt armor.	1	8
C40. Wingwalls:	1	8
C42. Scour: Scour hole @ E behind channel wall (hence not affecting bridge).	1	7

Scour Inspection Type

N60. Substructure Summary: Summary Rating: 8

Bridge Inspection Report | Routine Inspection

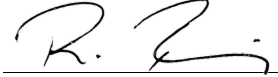
SFN: 3160432

Dreman Avenue Bridge over West Fork Channel

Date Inspected: 03/20/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #14

C51. Channel Alignment: Concrete lined channel. 1 9

C52. Channel Protection: Channel itself is very good, but fill behind channel walls is washed out during floods; E channel wall cracked @ erosion hole. 1 7

C53. Hydraulic Opening: 1 9

N62. Channel Summary: Summary Rating: 7

C1. Pavement: Few cracks (mostly sealed) @ utilities. 1 8

C2. Approach Slabs: Diagonal/longitudinal hairline cracks are typical. One diagonal crack, measuring up to 1/8 inch wide, is located in the South corner of the West Approach slab. The crack has previous sealant over a portion of the length. 1 7

C4. Embankment: Overgrowing around WWs. 1 8

C5. Guardrail: Timber Guardrail. 1 7

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): 1

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 1

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 1

C6. Approaches Summary: Summary Rating: 7

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 A

Inspection Notes: Nearby construction US ongoing in 2020 (many vehicles parked on bridge).

Recommended Maintenance:

Assigned to:

1. Clean vegetation joint between sidewalk & railing, & sidewalk & curb; seal joints w caulk.

TROD

Bridge Inspection Report | Routine Inspection

SFN: 3161945

Duck Creek Rd Extension over Deerfield Creek

Date Inspected: 03/19/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #15

Route: DUCKC Unit: Bridge Type / Date Built / Date Rehabbed: 2017 /
 Load Rating Percent 150 (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N):

C44. Culvert - General:	Long. HL cracks near midspan most unit; few spalls (construction) patched.	1	8
C45. Culvert - Alignment:	Very minor offset (transverse) of individual segments (construction).	1	8
C47. Culvert - Seams:	Minor offset (transverse) at some seams (less than 1/2").	1	8
C48. Culvert - Head/End Walls:	Few minor spalls patched as part of punchlist.	1	8
C49. Culvert - Scour:	Concrete slab invert;	1	9

Culvert Scour Inspection Type: 1

N60. Culvert Summary: Debris accumulating in N half of culvert (up to inlet of Culvert from the West); graffiti. Summary Rating: 8

C51. Channel Alignment:		1	9
C52. Channel Protection:	Type B (at culvert) and D (upstream) with some bare spots (protection not going all the way into streambed by design; silt fences still in place collecting trash.	1	7
C53. Hydraulic Opening:	Approx. 18" sediment/debris buildup on top of concrete slab invert in the US portion (from inlet to inlet of culvert from W); accum. of rocks DS of culvert causes +/- 18" of water in the culvert at little flow.	1	8

N62. Channel Summary: Summary Rating: 7

C1. Pavement:	New 2017; patches near inlets N of culvert at Red Bank (top of wall).	1	9
C4. Embankment:	Vegetated.	1	9
C5. Guardrail:		1	9
N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):	1		
N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):	1		
N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):	1		

C6. Approaches Summary: Summary Rating: 9

Bridge Inspection Report | Routine Inspection

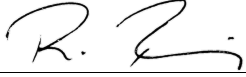
SFN: 3106179

Elm Street Cable Stayed Pedestrian Bridge over FWW - East Side

Date Inspected: 08/31/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #16

Route: 71 Unit: 66 Bridge Type 3A4 / Date Built / Date Rehabbed: 2000 /
 Load Rating Percent 000 (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Trans. cracks w little efflor. & moisture; spalling @ NW corner (< 2 SF) crushing against vehicular bridge; honeycombing @ S.	1	7
C7.2. Edge of Floor: Staining; material {caulk?} squeezing out between deck & beam.	1	8
C9. Curbs/Sidewalks: Walks sealed 2015; trans. cracks 5-10' avg. spacing; diag. cracks in corners; cracks @ back of curbs @ lights where stainless steel grates attach; spall @ SW where sign was hit in 2018 accident.	1	7
C11. Railing: ; cracking concrete parapet esp around recess lighting; SE most panel repaired after spring 2018 accident.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		

N58. Deck Summary: Wearing surface sealed in 2015-2016 **Summary Rating: 7**

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Widespread staining esp on BF.	1	9
C16. Diaphragms/X-Frames:	1	8
C18. Floor Beams: Minor widespread corrosion - especially @ staining on BF cantilevers.	1	8
C24. Lateral Bracing:	1	8
C26. Bearing Devices: Minor rust @ pier.	1	8
C30. Protective Coating System (PCS): System: IZEU Year: 2000 Some peeling @ cable term; isol. areas of missing topcoat on cables; isol corr (not cables).	PCS Rating: 7	

N59. Superstructure Summary: Widespread staining on bottom of beams. **Summary Rating: 8**

C33. Abutment Walls: Concealed, assumed rating.	1	8
C37. Pier Caps: (under tower only); cracks w. efflor. & rust stains @ bottom of steel tower.	1	8
C38. Pier Columns: H/L cracks above grates; H/L horiz. & vert. shrinkage cracks @ E face of pier.	1	8

N60. Substructure Summary: **Summary Rating: 8**

Bridge Inspection Report | Routine Inspection

SFN: 3106179

Elm Street Cable Stayed Pedestrian Bridge over FWW - East Side

Date Inspected: 08/31/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #16

C91. Deck Anchors:	Init. Corrosion at some floorbeam connections.	1	8
C92. Tower Anchors:	No issues detected.	1	9
C96. Cable Alignment:	Vibration of the outer 4 cables (thinner, with less load).	1	9
C97. Cable Condition:	Fading paint on main stays; corrosion on ornamental stays near turnbuckles (not considered for the rating).	1	8

Summary Rating: 8

C57. Utilities: Light cannon {2nd from N} turned upside down, without lightbulb. 3 4

Utilities On Structure: Y N N N N N

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 A

Inspection Notes: 1 out of 4 bolts missing @ grating to parapet connection in N span; 1 grate beam to gusset connection not tight apparently (const issue); grating: some nuts/bolts conn. grating L-beam to concrete corr. (bottom side).
New 2020 overlay on I-71.

Recommended Maintenance:

Assigned to:

- | | |
|---|----------|
| 1. Consider painting floor beams. | Contract |
| 2. Add preformed PEJF to seal gaps between pedestrian bridge & roadway bridge @ both abutments. | TROD |
| 3. Replace lights on FWW. | Traffic |
| 4. Repair & reset 2nd light (cannon) from N & 2nd light (cannon) from S. | Traffic |
| 5. Recualk @ lights in railing in parapet. | Traffic |

Bridge Inspection Report | Routine Inspection

SFN: 3106063

Elm Street Cable Stayed Pedestrian Bridge over FWW - West Side

Date Inspected: 08/31/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #17

Route: 71 Unit: 64 Bridge Type 3A4 / Date Built / Date Rehabbed: 2000 /
 Load Rating Percent 000 (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

- C7.1. Floor: Minor trans. cracks w little efflor; spalling @ NE corner (< 1 SF); honeycombing @ S; some nails sticking out of floor. 1 7
- C7.2. Edge of Floor: Minor cracking; horiz cracks 2" below top of W railing fascia; E fascia full length patch over const. joint & some vertical cracking w efflor.; material {caulk?} squeezing out between deck & beam. 1 8
- C9. Curbs/Sidewalks: Sealed 2015; trans. cracks - 3 to 10' spacing esp. @ midspan; diag. cracks @ corners. 1 7
- C11. Railing: Small spall @ interface w NW corner of pier; vert. cracks in conc. parapet, esp @ light fixtures; minor cracks in back of concrete portion where stainless steel grating is attached. 1 8
- N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Wesring Surface selaed (2015-2016) Summary Rating: 7

- C14. Alignment of Members: 1 8
- C15.1. Beams/Girders: Surface corr. w possible pitting @ T-bracing attachment; widespread staining on FB's; isol. rust cells @ webs. 1 8
- C16. Diaphragms/X-Frames: 1 9
- C18. Floor Beams: Poss. crack in stiffener weld @ base - 2nd outrigger from S (upon closer inspection this hor. line was declared to be a paint line), also above @ S-most outrigger; widespread corrosion - @ overhang portion; widespread staining of BF. 1 8
- C24. Lateral Bracing: Some possible loose bolts on galvanized T's; initial corr. on BF over T's. 1 8
- C26. Bearing Devices: Initial corr.; only pier bearing visible. 1 8
- C30. Protective Coating System (PCS): System: IZEU Year: 2000 PCS Rating: 7
 Peeling @ cable term; missing topcoat on portions of cables; isol. rusting @ cant., esp. @ welds & @ T connections.

N59. Superstructure Summary: Widespread staining on underside. Summary Rating: 8

- C33. Abutment Walls: Concealed, assumed rating. 1 8
- C37. Pier Caps: (under tower only); cracking w efflor. & rust stains immediately below steel tower; patched @ SE corner. 1 8
- C38. Pier Columns: HL vert. & horiz. cracking esp. @ W face; minor popouts. 1 8

N60. Substructure Summary: Summary Rating: 8

Bridge Inspection Report | Routine Inspection


SFN: 3106063

Elm Street Cable Stayed Pedestrian Bridge over FWW - West Side

Date Inspected: 08/31/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #17

C91. Deck Anchors:	Init. corrosion at floorbeam connection.	1	8
C92. Tower Anchors:	No issues detected.	1	9
C96. Cable Alignment:	As designed. Cibraton on thinner, outer (4) cables that carry less load.	1	9
C97. Cable Condition:	Paint fading from main stays; ornamental bot. stays corroding near turnbuckles (not considered for rating).	1	8

Summary Rating: 8

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 8 A

Inspection Notes: Some "stainless steel" grate fastener corroding, many bent.
Support rod for deck form left in place @ NW splice.
Shirt hanging over N shoulder @ decorative stay support.

Recommended Maintenance:

1. Consider painting floorbeam cant. & cable conn. to floorbeams and BF of beams.
2. Repair S most light fixture (wire strung to secure the lid).

Assigned to:

Contract
Traffic

Bridge Inspection Report | Routine Inspection

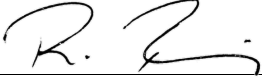
SFN: 3161978

Elm Street Over Pete Rose Way and Parking Lots

Date Inspected: 03/31/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #18

Route: ELM Unit: 0000 Bridge Type 112 / NNN Date Built / Date Rehabbed: 2000 /
Load Rating Percent 140 (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Widespread honeycombing under the bottom reinforcing with initial cracking; the bottom layer of rebar can be detected visually (const issue); HL long., trans, & map cracking; wider cracks w efflor & some rust staining typical often originating from pier caps or drains; worst area's N of Freedom Way; moisture around many cracks after rain.	1	7
C7.2. Edge of Floor: Some cracking, widespread staining, efflor. and isol, spalling, moisture accum. between deck and topping slab.	1	7
C8. Wearing Surface: Ext map cracking (random sizes; minor up to wide); sealed with SRS (2001); long cracks spaced at 9"; small spalls where cracks intersect w grooves, no delams detected 2019.	2	6
C9. Curbs/Sidewalks: Cracks & spalls at the NW jnt; ext localized curb spalls; widespread cracking & peeling of walking surface (overfinished concrete esp @ E); troweled joints turning into small potholes; all issues N of Freedom Way.	2	6
C11. Railing: 1 nut missing at the W (S of the roadway); the post spacing is too large making it impossible to install the nuts; field adjustments are causing anchor plate to corrode; widespread paint peeling; some anchor bolts are corroded.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage:	1	7
C13. Expansion Joints: Center joint replaced (2009) 3 perforations in gland daylighting through center jnt; curb cracked at joints; severe debris accum. in joints; slight vertical offset between the N end (higher < 1/4") and 2nd St; apparent leakage @ distinct locations; moist areas under 2nd St. jnt.	1	7

N58. Deck Summary: Summary Rating: 7

C14. Alignment of Members: 1 8

C15.2. Slab: See item floor. 1 7

N59. Superstructure Summary: Summary Rating: 7

C33. Abutment Walls: The N CMU wall is unintentionally attached to the first pier (not an abutment), bridge movement resulted in cracks and spalls at the 2 top wall courses and 1 pier top. MSE wall at S with slight joint variation, but no sand in joints. 1 8

C34. Abutment Caps: Cast in place concrete at S: cracking w slight efflor. 1 8

C38. Pier Columns: Minor scrapes, stains, random cracks and isol. minor spalls; some exp. rebar; 1 column w 5 main bars exposed & corr. @ notch. 1 8

C40. Wingwalls: Misalignment (bowing) of the MSE wall at the SW corner. 1 7

N60. Substructure Summary: Summary Rating: 8

Bridge Inspection Report | Routine Inspection

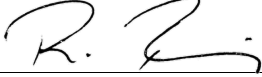
SFN: 3161978

Elm Street Over Pete Rose Way and Parking Lots

Date Inspected: 03/31/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #18

C1. Pavement: S only: partially resurfaced in 2011; wider trans & long. cracks S of approach slab; possible delams (unsound). 1 7

C2. Approach Slabs: S only: long cracks; ext cracking/spalling in curn on approach slab; seal at the S end of the approach slab is sticking up with minor tears causing minor ponding off the bridge. 1 7

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Summary Rating: 7

C57. Utilities: Pipes corroding; leaking conduit junction box under Freedom Way intersection. 1 7

Utilities On Structure: N N N N N N N

65. Vertical Clearance: 17' 3" measured 8-27-2019 over Pete Rose Way. Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Inspection Notes: See attached element level inspection report (2020)
2 trees @ W missing, 1 tree grate unplated (CSR following 2019 inspection).

Recommended Maintenance:

1. Plan for sidewalk improvements.
2. Consider sealing wearing surface.

Assigned to:

Contract
Contract

Bridge Inspection Report

Element Level Inspection

Bridge: Elm Street over Pete Rose Way and Parking Lots
Number: City BP #18
SFN: 3161978

Inspector: RMR
Inspector: PMC
Date: 3/31/2020

		Condition state					TR
		qty	1	2	3	4	
c7.1	Floor/Slab [SF]	34848	32228	2500	120		1.16
c7.2	Edge of Floor/Slab [LF]	1056	937	110	9		1.28
c8.	Wearing Surface [SF]	23232	0	22932	300		2.07
c9.	Curb/Sidewalk [LF]	981	563	399	19		1.71
c10.	Median [LF]						
c11.	Railing [LF]	787	780	7	0		1.01
N36	Safety feat. Rail [1,0,N]						1.00
c12.	Drainage [EA]						
c13.	Exp. Joint [LF]	140	0	137	3		2.12
N58. Deck Summary							7

		Condition state					TR
		qty	1	2	3	4	
c14.	Alignment [EA]	18	18				1
c15.1	Beams/Girders [LF]						
c15.2	Slab [SF]	36960	34340	2500	120		1.2
c16.	Diaphragm/x Frame [EA]						
c17.	Stringers [LF]						
c18.	Floorbeams [LF]						
c19.	Truss Verticals [EA]						
c20.	Truss Diagonals [EA]						
c21.	Truss Upper Chord [EA]						
c22.	Truss Lower Chord [EA]						
c23.	Truss Gusset Plates [EA]						
c24.	Lateral Bracing [EA]						
c25.	Sway Bracing [EA]						
c26.	Bearing Devices [EA]						
c27.	Arch [LF]						
c28.	Arch Column/Hangt [EA]						
c29.	Arch Spandrel Wall [LF]						
c30.	Prot Coating System [LF]						
c31.	Pins/Hangers/Hing [EA]						
c32.	Fatigue [LF]						
N59. Superstructure Summary							7

		Condition state					TR
		qty	1	2	3	4	
c55.	Signs [EA]						
c56.	Sign Supports [EA]						
c57.	Utilities [LF]						

		Condition state					TR
		qty	1	2	3	4	
c33.	Abutment Walls [LF]	70	68	2			1.04
c34.	Abutment Caps [LF]	70	59	11			1.22
c35.	Abut. Columns [EA]						
c36.	Pier Walls [LF]						
c37.	Pier Caps [LF]						
c38.	Pier Columns [EA]	72	68	4			1.08
c39.	Backwalls [LF]	70	60	10			1.20
c40.	Wingwalls [EA]	2	2				1.00
c42.	Scour [EA]						
c43.	Slope Protection [EA]						
N 60. Substructure Summary							8

		Condition state					TR
		qty	1	2	3	4	
c44.	General [LF]						
c45.	Alignment [LF]						
c46.	Shape [LF]						
c47.	Seams [EA]						
c48.	Headwalls/Endwalls [EA]						
c49.	Scour [EA]						
c50.	Abutments [LF]						
N 62. Culvert Summary							

		Condition state					TR
		qty	1	2	3	4	
c51.	Alignment [LF]						
c52.	Protection [LF]						
c53.	Hydraulic Opening [EA]						
c54.	Navigation Lights [EA]						
N 61. Channel Summary							

		Condition state					TR
		qty	1	2	3	4	
c1.	Wearing Surface [EA]	2	2				1.00
c2.	Approachslab [SF]	726	661	65			1.13
c3.	Relief Joint [LF]						
c4.	Embankment [EA]						
c5.	Guardrail [EA]						
N36	Safety fet. TR, GR, TM		N	N	N		
N 61. Approach Summary							7

N 59. General Appraisal and Operational Status						7	A
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Bridge Inspection Report | Routine Inspection

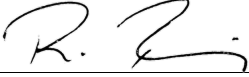
SFN: 3162494

Elmhurst Street Pedestrian Bridge over Torrence Parkway

Date Inspected: 03/17/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: CITY (BP) #19

Route: TOREN Unit: 3751

Bridge Type 172 / NNN

Date Built / Date Rehabbed: 1950 /

Load Rating Percent 000

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor:	Gunite coated (1985)(conceals much of underlying structures); spalls/delams. in several locs; areas of map cracking w severe build-up of efflor; stalactites.	2	5
C7.2. Edge of Floor:	Gunite coated (1985) and patches; widespread ext. palling with exp. rebar up to railing posts; widespread mapcracking in gunite & build up of efflor. & stalactites, staining.	3	3
C9. Curbs/Sidewalks:	Between railings cracking, & spalling (see edge of floor); many patches; edge of floor spalls begin to affect the walking surface.	3	4
C11. Railing:	Painted (2001); initial corrosion mostly at connections & isol. locs.; widespread flaking of top coat.	2	6
N36. National Safety Feature - Bridge Railing (0, 1 or N):	N		
C12. Drainage:	Over the side; moisture & tree debris causes slight slippery surface @ W.	1	7
C13. Expansion Joints:	Seals replaced (1991).	1	8

N58. Deck Summary: Top deck & fascia sealed w masonry coating (1998) - peeling. Summary Rating: 5

C14. Alignment of Members:	Slight vert. offset @ W & E (approach walk).	1	8
C15.2. Slab:	See floor and edge of floor: many deep spalls on fascia w exp. rebar & conc. deter.; many patches in neg. moment region; ext. efflor; coating is chipping off or bulging @ various locs.; extensive seepage & stalactites; gunite concealing most of superstructure; wide spread unsound areas (see edge of floor).	2	5
C26. Bearing Devices:	Integral @ piers; elastomeric @ abuts., covered by gunite.	1	7

N59. Superstructure Summary: Redundant; not fatigue prone; spalls in flash coating reveal sound areas & build up of excessive efflor. Summary Rating: 5

C33. Abutment Walls:	Large delams. of gunite coating & efflor @ E; spalling of gunite; rust stains & build up of excessive efflor @ W.	2	6
C36. Pier Walls:	Gunite coating conceals pier walls (1985); delam. @ gunite coating; cracking w seepage; ext. efflor. build up, esp. @ corners.	2	6
C40. Wingwalls:	Moss; gunite-coated.	1	7

N60. Substructure Summary: Substructure flashcoated w gunite; widespread apparent (sounded) flashcoat delam; flashcoating conceals substructure elements; spalls in flash coating reveal sound areas & build up of excessive efflor. Summary Rating: 6

Bridge Inspection Report | Routine Inspection

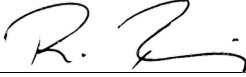
SFN: 3162494

Elmhurst Street Pedestrian Bridge over Torrence Parkway

Date Inspected: 03/17/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: CITY (BP) #19

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 5 A

Inspection Notes: Residential const. @ NE ongoing.
Hole @ end of walk below @ W.
Vertical offset @ both ends of bridge w sidewalk 1.5"@E & 1"@ W.
Notified TROD after 2020 inspection about need to chip loose concrete from fascias (edge of floor).

General Notes: Entire structure coated (1991) (masonry coat).
Core tests by Thelen (Winter 2009).

Recommended Maintenance:

Assigned to:

1. Carefully chip loose concrete from fascia.
2. Perform edge of floor test patch.

TROD
TROD

Bridge Inspection Report | Routine Inspection

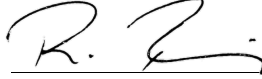
SFN: 3160882

Erie Avenue Bridge over Duck Creek

Date Inspected: 03/26/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #20

Route: ERIE Unit: 0278

Bridge Type 231 / NNN

Date Built / Date Rehabbed: 1900 / 1980

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor:	No actual floor, but beams. efflor. & leakage between beams under curbs (2 joints out of 17); rusting former curb drains; patched areas near sewer pipe; rusting and delam detected in one location (2nd beam from N).	1	7
C7.2. Edge of Floor:		1	8
C8. Wearing Surface:	Asphalt: map cracking developing in N half of bridge; widespread delams & spalling of concrete next to exp jnts.	1	7
C9. Curbs/Sidewalks:	Few popouts in walks; isol HL cracking; several spalls @ bottom of curbs.	1	7
C11. Railing:	Vert cracks in conc portion w minor efflor.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N):			
C12. Drainage:	Evidence of ponding along the curb.	2	6
C13. Expansion Joints:	Filled w debris; rusting armor; widespread deep spalling around headers & delaminated areas.	2	6

N58. Deck Summary: **Summary Rating: 7**

C14. Alignment of Members:		1	8
C15.1. Beams/Girders:	Few apparently sound patches in the beams around sewer pipe (utility installation issue?); traces of leakage between beams under curbs {stalactites}; larger {3sqft}, but shallow spall over PVC utilities; delam of 6th beam from S @ West; delaminated corner w rust stain @ 2nd beam from N; delam @ 2nd beam from S @ W.	1	8
C26. Bearing Devices:	Not visible.	1	8

N59. Superstructure Summary: **Summary Rating: 8**

C33. Abutment Walls:	Staining; graffiti; apparently sound patches; built-up of gunk in wheephole; spall w exposed rebar @ NW.	1	7
C34. Abutment Caps:	Staining; few vert cracks w efflor (mostly @ const joints) to abutment wall; isol. moisture @ W. widespread moisture @ E.	1	7
C39. Backwalls:	Only top side visible; widespread spalling, delams, & patches around header, some patched areas, but still smooth riding; compression seal to approach wearing surface ripped out @ SE	2	6
C40. Wingwalls:	Hairline map cracking with efflorescence; build up of efflor @ wall top; graffiti; poison ivy.	1	7
C42. Scour:		1	9

Bridge Inspection Report | Routine Inspection


SFN: 3160882

Erie Avenue Bridge over Duck Creek

Date Inspected: 03/26/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #20

Scour Inspection Type 1

N60. Substructure Summary:

Summary Rating: 7

C51. Channel Alignment:	Conc channel.	1	9
C52. Channel Protection:	Wide spread conc det. @ panel joints; some areas w exp rebar around low flow channel; condition under bridge much better.	2	5
C53. Hydraulic Opening:		1	9

N62. Channel Summary:

Summary Rating: 5

C1. Pavement:	Trans cracking & some map cracking; settlement @ manholes.	2	6
C4. Embankment:	Overgrown.	1	8
C5. Guardrail:	Several posts have rot; rusting perforated GR @ SW.	2	6
N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):	0		
N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):	1		
N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):	1		

C6. Approaches Summary:

Summary Rating: 6

C57. Utilities:	Gas main in good condition; many phone ducts broken or loose; sewer encasement apparently loose & rusting w LOS @ abutments.	2	5
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Utilities On Structure: N Y N Y N Y N

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 7 A

Recommended Maintenance:

1. Remove/repair PVC conduits.
2. Plan for joint replacement including armors.
3. Seal cracks in asphalt wearing surface w hot applied sealer.
4. Seal bottom of curbs/gutter w hot applied sealer.
5. Monitor wearing surface to plan for replacement as necessary.

Assigned to:

Private Utility
Contract
TROD
TROD
Owner

Bridge Inspection Report | Routine Inspection

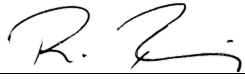
SFN: 3160602

Erie Avenue Bridge over Wasson Way

Date Inspected: 03/26/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #21

Route: SERIE Unit: 0220

Bridge Type 231 / NNN

Date Built / Date Rehabbed: 2001 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: See item 15.1 beams.	1	8
C7.2. Edge of Floor: Vines along fascias.	1	8
C8. Wearing Surface: Few long. cracks are reflective over beams; long. const. jnt. in center.	1	8
C9. Curbs/Sidewalks: Small popouts, isol cracking in walk @ bridge ends; curb delam @ NE.	1	7
C11. Railing: HL vert cracks w precursor to efflor.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N):		
C12. Drainage: Off the bridge; minor debris @ NE in bike lane.	1	8

N58. Deck Summary: Summary Rating: 8

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Single small spall @ W abutment; many unused threaded inserts, many overdrilled holes; evidence of minor leakage @ center joint.	1	8
C26. Bearing Devices: Mostly not visible; pier cantilever bearings @ NE sticking out slightly {+/- 1"}	1	8

N59. Superstructure Summary: Summary Rating: 8

C33. Abutment Walls: Stone deterioration (typically less than 2" deep); majority of masonry sounds hollow; cracking; weep holes of new conc. abutments drain water onto masonry below.	2	6
C34. Abutment Caps: Small spall @ NE under bearing.	1	8
C40. Wingwalls: Diagonal crack w efflor @ SW; graffiti; widespread hollow sounding masonry blocks.	1	7

N60. Substructure Summary: Summary Rating: 6

C1. Pavement: Wider transverse and longitudinal cracks esp @ W; widespread minor potholes forming @ interface of bridge deck, esp @ SW.	2	6
C4. Embankment: Overgrown; poison ivy.	1	8
C5. Guardrail: Only at the Northeast.	1	8
N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): 0		
N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 1		

Bridge Inspection Report | Routine Inspection

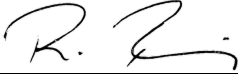
SFN: 3160602

Erie Avenue Bridge over Wasson Way

Date Inspected: 03/26/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #21

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 1

C6. Approaches Summary:

Summary Rating: 6

C57. Utilities:

1 7

Utilities On Structure: N Y N Y N Y N

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 6 A

General Notes: Formerly over NS RR now over Wasson Way Trail

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Fill gap between deck and approach pavement w asphalt. | TROD |
| 2. Patch curb @ NE @ exp joints. | TROD |
| 3. Design measures to protect masonry abutments from weeping water thru conc. abut weep holes. | Owner |

Bridge Inspection Report | Routine Inspection

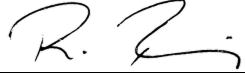
SFN: 3160998

Erie Avenue Bridge over Red Bank Road

Date Inspected: 04/07/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #22

Route: ERIE Unit: 0300 Bridge Type 322 / NNN Date Built / Date Rehabbed: 1943 / 1980
 Load Rating Percent 150 (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Cracks w rust staining & delams esp in approach spans; spalls, & rust stains @ 45 deg @ bridge ends often w exp. rebar; widespread spalling of haunches; wet spots after rain.	2	6
C7.2. Edge of Floor: Few cracks throughout; cracks w efflor. @ ends.	1	7
C8. Wearing Surface: LMC overlaid (2002); diag. mostly HL cracks @ corners; minor trans. HL cracks; several long. HL cracks @ both ends of the bridge; some cracks sealed w asphalt sealer.	1	7
C9. Curbs/Sidewalks: Trans. cracks in the sidewalk; popouts exist; silane applied (1995); curb patches 2017; 2019 breaking up @ NW.	1	7
C11. Railing: Minor vert. cracking; some efflor @ bot; intial ASR @ some joints; popouts; minor scrapes/dings (N end).	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage: Street inlets off ends of bridge; minor ponding @ curbs.	1	7
C13. Expansion Joints: Compression seal w some area's torn & sections pulled out @ E.	2	5

N58. Deck Summary: Summary Rating: 6

C14. Alignment of Members:	1	7
C15.1. Beams/Girders: Spot rust; widespread minor pitting; isolated minor LOS at the flanges with active corr. under the deck cracks; some corr. at the abutment/ concrete interface where the beams are cast into the abutment; the N fascia beam top flange is bent at the 2nd diaphragm from the W (construction issue); beams in center span sagging slightly.	1	7
C16. Diaphragms/X-Frames: Spot rust, widespread minor pitting; some bent; some cast into abut; cracked weld @ some damaged X-frames @ abut.; end x-frames may not be needed since beams ends are integral in back wall.	2	6
C26. Bearing Devices: Painted (1988); minor surface corr; rockers reset (2002); dirt & debris; some nuts missing.	1	7
C30. Protective Coating System (PCS): System: Year: 1981 PCS Rating: 4 (1981) Widespread failure to top coat w isol. spot rust; minor surface corr; white granular mat'l deposited throughout; corr. @ TF; dust covered throughout; widespread workmanship issues: tears, fins & drops.		

N59. Superstructure Summary: Redundant; not fatigue prone. Summary Rating: 7

C33. Abutment Walls: Integral; few HL cracks w minor efflor.	1	8
C37. Pier Caps: Isol. minor cracks on the W pier; HL flexure cracks at the SW underside of the cap w exp rebar; several areas patched; patches cracking; minor HL cracks in the patches and some debris on the pier seats; horiz. cracking under some bearings.	1	7

Bridge Inspection Report | Routine Inspection

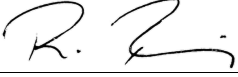
SFN: 3160998

Erie Avenue Bridge over Red Bank Road

Date Inspected: 04/07/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #22

C38. Pier Columns:	Patched area's; some w cracks & unsound.	1	7
C39. Backwalls:	Some efflor @ NE; moisture below back wall.	1	7
C40. Wingwalls:		1	8
C43. Slope Protection:	Conc. slope protection (full height - both sides) w minor cracks & some debris.	1	8

N60. Substructure Summary: Summary Rating: 7

C1. Pavement:	Asphalt overlaid (2002) new 2019 @ E; large long. and trans cracks (W); few trans cracks @ E.	1	7
C2. Approach Slabs:	LMC overlaid (2002); few HL cracks.	1	8
C3. Relief Joints:	Through curbs; bulging potholes forming @ W.	2	6
C4. Embankment:	Overgrown.	1	8
C5. Guardrail:	Widespread wood posts and block rotting; loose end terminal @ SW corner; impact damage at the NW guardrail; post blocks rotated (typ); many posts not embedded.	4	2
N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):	0		
N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):	1		
N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):	1		

C6. Approaches Summary: Summary Rating: 2

C57. Utilities:	Utility sag significantly under the bridge (enough that pedestrians can touch it) (probably fallen from empty utility hanger above the wire)	2	5
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Utilities On Structure: N N N N N N N

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Inspection Notes: 2020 element level inspection on file.

Recommended Maintenance:

Assigned to:

- | | |
|---------------------------------------|----------|
| 1. Replace GR posts & blockouts. | CSR |
| 2. Chip loose concrete over roadway. | TROD |
| 3. Grind and repave relief joint @ W. | TROD |
| 4. Resecure utility. | TROD |
| 5. Consider sealing decks w HMMW. | Contract |
| 6. Replace compression seals. | TROD |
| 7. Repair curb @ NW. | TROD |

Bridge Inspection Report

Element Level Inspection

Bridge: Erie Ave Bridge over Red Bank Road
Number: City (BP) #22
SFN: 3160998

Inspector: Reiner Reising
Inspector: Phil McCoy
Date: 4-7-2020

		Condition state					TR
		qty	1	2	3	4	
c7.1	Floor/Slab [SF]	11500	9055	1850	595		1.78
c7.2	Edge of Floor/Slab [LF]	316	255	60	1		1.31
c8.	Wearing Surface [SF]	9480	8915	565			1.09
c9.	Curb/Sidewalk [LF]	316	227	83	6		1.57
c10.	Median [LF]						
c11.	Railing [LF]	316	241	67	8		1.59
N36	Safety feat. Rail [1,0,N]						
c12.	Drainage [EA]	0	0				
c13.	Exp. Joint [LF]	168	120	20	28		2.33
N58. Deck Summary						6	

		Condition state					TR
		qty	1	2	3	4	
c33.	Abutment Walls [LF]	168	137	31			1.25
c34.	Abutment Caps [LF]						
c35.	Abut. Columns [EA]						
c36.	Pier Walls [LF]						
c37.	Pier Caps [LF]	168	109	55	4		1.68
c38.	Pier Columns [EA]	12	8	4			1.43
c39.	Backwalls [LF]	168	115	53			1.41
c40.	Wingwalls [EA]	4	4				1.00
c42.	Scour [EA]						
c43.	Slope Protection [EA]						
N 60. Substructure Summary						7	

		Condition state					TR
		qty	1	2	3	4	
c14.	Alignment [EA]	1	1				1.00
c15.1	Beams/Girders [LF]	2212	212	2000			1.93
c15.2	Slab [SF]						
c16	Diaphragm/x Frame [EA]	156	139	17			1.16
c17.	Stringers [LF]						
c18.	Floorbeams [LF]						
c19.	Truss Verticals [EA]						
c20.	Truss Diagonals [EA]						
c21	Truss Upper Chord [EA]						
c22.	Truss Lower Chord [EA]						
c23.	Truss Gusset Plates [EA]						
c24.	Lateral Bracing [EA]						
c25.	Sway Bracing [EA]						
c26.	Bearing Devices [EA]	28	0	28			2.00
c27	Arch [LF]						
c28.	Arch Column/Hangt [EA]						
c29.	Arch Spandrel Wall [LF]						
c30	Prot Coating System [LF]						
c31	Pins/Hangers/Hingt [EA]						
c32.	Fatigue [LF]						
N59. Superstructure Summary						7	

		Condition state					TR
		qty	1	2	3	4	
c44.	General [LF]						
c45.	Alignment [LF]						
c46.	Shape [LF]						
c47.	Seams [EA]						
c48.	Headwalls/Endwalls [EA]						
c49.	Scour [EA]						
c50.	Abutments [LF]						
N 62. Culvert Summary							

		Condition state					TR
		qty	1	2	3	4	
c51.	Alignment [LF]						
c52.	Protection [LF]						
c53.	Hydraulic Opening [EA]						
c54.	Navigation Lights [EA]						
N 61. Channel Summary							

		Condition state					TR
		qty	1	2	3	4	
c55.	Signs [EA]						
c56.	Sign Supports [EA]						
c57	Utilities [LF]						

		Condition state					TR
		qty	1	2	3	4	
c1.	Wearing Surface [EA]	2	2				1.00
c2.	Approachslab [EA]	2	2	0	0		1.00
c3.	Relief Joint [LF]	2	1	1	0		
c4.	Embankment [EA]						
c5.	Guardrail [EA]	4	0		4		3.00
N36	Safety fet. TR, GR, TM [1,0,N]		N	N	N		
N 61. Approach Summary						2	

N 59. General Appraisal and Operational Status 7 A

Bridge Inspection Report | Routine Inspection

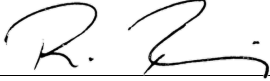
SFN: 3160939

Erie Avenue Bridge over SORTA

Date Inspected: 04/06/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #23

Route: ERIE Unit: 0290

Bridge Type 322 / NNN

Date Built / Date Rehabbed: 1943 / 1980

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor:	Diag. cracks with efflor. & rust stains at corners; widespread trans. cracks; widespread delams, efflor & rust staining; widespread spalling of haunches.	2	6
C7.2. Edge of Floor:	Rust staining; rebar corrosion (shallow cover) at the South fascia; exposed rebar {wire?} almost over entire length.	2	6
C8. Wearing Surface:	LMC overlaid (2002); several diagonal cracks at corners; some hairline longitudinal and transverse cracks.	1	7
C9. Curbs/Sidewalks:	Silane applied (1995); trans. cracks; popouts; curb spalled, some w exp. rebar; sev. spalling/curb det @ all bridge ends; large delam at the SW.	2	6
C11. Railing:	Minor hairline cracking; widespread Alkali Silica damage @ bottom of conc panel joints, esp @ N railing, severe with deep spall @ NW {1 location}; minor scratch marks and dents on the tubes; excessive bugholes @ SE.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N):	1		
C12. Drainage:	Street inlets off bridge.	1	7

N58. Deck Summary:

Summary Rating: 6

C14. Alignment of Members:		1	8
C15.1. Beams/Girders:	Spot rust; widespread minor pitting; beams integral with the abutments; active laminating corrosion with initial loss of section in the top flange causing haunch spalls; beams seperating from deck {non composite}.	1	7
C16. Diaphragms/X-Frames:	LOS due to torch cutting at the West; some bent at the abutments with cracks in the welds; spot rust & minor corrosion; beams modified to be integral.	1	7
C26. Bearing Devices:	Rockers reset (2002); painted (1988); minor corr; some anchor plt. nuts not completely fastened; semi-integral @ abutments (bearings not exposed); expansion bearings show surface corr.	1	7
C30. Protective Coating System (PCS):	System: Year: 1981 Widespread freckled rust; dark staining over tracks; laminating corr @ TF's.		PCS Rating: 6
C32. Fatigue Prone Details:		1	7

N59. Superstructure Summary:

Summary Rating: 7

C33. Abutment Walls:	Stub, integral: minor HL cracking w isol efflor.	1	8
C37. Pier Caps:	Minor cracks; several patched spalls.	1	8
C38. Pier Columns:	Minor cracks; patches from previous repair; some patches cracked & delaminated; graffiti.	1	7
C39. Backwalls:	Widespread vertical cracks originating from bearings; isol efflor around bearing & interface to deck w rust stains @ W.	2	6

Bridge Inspection Report | Routine Inspection

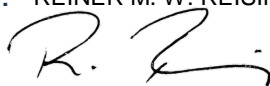
SFN: 3160939

Erie Avenue Bridge over SORTA

Date Inspected: 04/06/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #23

C40. Wingwalls: 1 8

C43. Slope Protection: 4' high, unprotected dirt & gravel terrace placed @ E of main span. 1 7

N60. Substructure Summary: Summary Rating: 7

C1. Pavement: Asphalt overlaid (2002). long. and trans. cracks {turning alligator} with potholes forming; E worst, W in better condition. 2 6

C2. Approach Slabs: LMC (2002);HL long. cracks. 1 8

C3. Relief Joints: Cracking & deep pothole forming @ NW; cracking elsewhere. 2 6

C4. Embankment: Overgrown 1 8

C5. Guardrail: Minor impact damage at the SW and SE approaches; widespread wood posts det. w up to 100% LOS are rotting; panels fading; rusting; broken block out at the SW; rotated under the blocks. 3 3

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): 0

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 1

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 1

C6. Approaches Summary: Summary Rating: 3

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Inspection Notes: Initiated CSR for guardrail following the 2019 inspection. Lots of trash from campsite accumulated below bridge.
2020 element level inspection on file.

Recommended Maintenance:

1. Consider sealing deck.
2. Repair curb @ N.(4 locations).
3. Repair relief joints (grind & pave).
4. Apply hot applied sealer @ exp. joints.

Assigned to:

Contract
TROD
TROD
TROD

Bridge Inspection Report

Element Level Inspection

Bridge: Erie Avenue Bridge over SORTA
Number: CITY (BP) #23
SFN: 3160939

Inspector: RMR
Inspector: PMC
Date: 04/06/2020

		Condition state					TR
		qty	1	2	3	4	
c7.1	Floor/Slab [SF]	10500	9665	505	330		1.50
c7.2	Edge of Floor/SLF	298	254	39	5		1.42
c8.	Wearing Surfac[SF]	8880	8271	600	9		1.11
c9.	Curb/Sidewalk [LF]	298	225	56	17		1.84
c10.	Median [LF]						
c11.	Railing [LF]	298	209	74	15		1.84
N36	Safety feat. Rail [1,0,N]						
C12.	Drainage [A]						
c13.	Exp. Joint [LF]	148	128	12	8		1.74
N58.	Deck Summary						6

		Condition state					TR
		qty	1	2	3	4	
c14.	Alignment [A]	1	1				1
c15.1	Beams/Girders[LF]	2072	1212	852	8		1.6
c15.2	Slab [SF]						
c16	Diaphragm/x Fr[A]	156	131	25			1.2
c17.	Stringers [LF]						
c18.	Floorbeams [LF]						
c19.	Truss Verticals [A]						
c20.	Truss Diagonal[A]						
c21	Truss Upper Ch[A]						
c22.	Truss Lower Ch[A]						
c23.	Truss Gusset Pl[A]						
c24.	Lateral Bracing [A]						
c25.	Sway Bracing [A]						
c26.	Bearing Device[A]	28	13	15			1.6
c27	Arch [LF]						
c28.	Arch Column/H[A]						
c29.	Arch Spandral [LF]						
c30	Prot Coating Sy[LF]						
c31	Pins/Hangers/[A]						
c32.	Fatigue [LF]						
N59.	Superstructure Summary						7

		Condition state					TR
		qty	1	2	3	4	
c55.	Signs [A]						
c56.	Sign Supports [A]						
c57	Utilities [LF]						
N60.	Sign/Utility Summary						3

		Condition state					TR
		qty	1	2	3	4	
c33.	Abutment Wall [LF]	148	121	27			1.25
c34.	Abutment Caps [LF]						
c35.	Abut. Columns [EA]						
c36.	Pier Walls [LF]						
c37.	Pier Caps [LF]	148	123	25			1.23
c38.	Pier Columns [EA]	12	10	2			1.23
c39.	Backwalls [LF]	148	77	57	14		2.17
c40.	Wingwalls [EA]						
c42.	Scour [EA]						
c43.	Slope Protectio[EA]						
N 60.	Substructure Summary						7

		Condition state					TR
		qty	1	2	3	4	
c44.	General [LF]						
c45.	Alignment [LF]						
c46.	Shape [LF]						
c47.	Seams [EA]						
c48.	Headwalls/End[EA]						
c49.	Scour [EA]						
c50.	Abutments [LF]						
N 62.	Culvert Summary						

		Condition state					TR
		qty	1	2	3	4	
c51.	Alignment [LF]						
c52.	Protection [LF]						
c53.	Hydraulic Open [EA]						
c54.	Navigation Ligh[EA]						
N 61.	Channel Summary						

		Condition state					TR
		qty	1	2	3	4	
c1.	Wearing Surfac [EA]	2	0	1	1		3.00
c2.	Approachslab [SF]	2	2	0	0		1.00
c3.	Relief Joint [LF]	2	0	1	1		3.00
c4.	Embankment [EA]						
c5.	Guardrail [EA]	4	0	2	2		3.00
N36	Safety fet. TR, GR, TI[1,0,N]		N	N	N		
N 61.	Approach Summary						3

N 59.	General Appraisal and Operational Status						7	A
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Bridge Inspection Report | Routine Inspection


SFN: 3161412

Este Avenue Extension Culvert at Ridgewood Arsenal

Date Inspected: 03/23/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #24

Route: ESTE Unit: 3643

Bridge Type 695 / NNN

Date Built / Date Rehabbed: 1990 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N):

C44. Culvert - General:	5 small holes {3 white, possible corr.} & 2 punctures @ E.	1	8
C45. Culvert - Alignment:		1	9
C46. Culvert - Shape:	1 visible depression in bottom segments of the culvert;. isol. hollow sounding at walls near both ends, fairly widespread at bottom; very minor distortion @ 2 bottom long. seams throughout the culvert.	1	7
C47. Culvert - Seams:	Some minor leakage at bolts near both ends and rust stains below these leaks; 2020 leaking @ bolts near DS headwall after rain.	1	8
C48. Culvert - Head/End Walls:		1	8
C49. Culvert - Scour:		1	

Culvert Scour Inspection Type: 1

N60. Culvert Summary: Large rock in culvert indicating occasional heavy flow. Summary Rating: 7

C51. Channel Alignment:		1	9
C52. Channel Protection	Minor slumping US exposing filter fabric.	1	7
C53. Hydraulic Opening:	Concrete slab in channel DS; vegetation growing US & DS.	1	9

N62. Channel Summary: Summary Rating: 7

C1. Pavement:	Single crack in center (chevron) lane, otherwise new overlay.	1	8
C4. Embankment:	Overgrown.	1	8
C5. Guardrail:		1	8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 1

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 0

C6. Approaches Summary: Summary Rating: 8

Bridge Inspection Report | *Routine Inspection*

SFN: 3161412

Este Avenue Extension Culvert at Ridgewood Arsenal

Date Inspected: 03/23/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 7 A

Signature:  _____

Bridge No.: CITY (BP) #24

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 7 A

General Notes: 2016- TROD grouted under bottom of culvert US end to prevent water from seeping underneath culvert. Sounding revealed areas that appear undermined (see culvert general).

Recommended Maintenance:

Assigned to:

1. Clear vegetation from channel US & DS to increase hydraulic opening.
2. Consider injection at bottom of culvert where hollow sounding if undermining continues.

Stormwater
Contract

Bridge Inspection Report | Routine Inspection

SFN: 3165337

Freedom Way Center Between Race & Rosa Parks

Date Inspected: 04/24/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #25

Route: FRDOM Unit: 0000

Bridge Type 112 / NNN

Date Built / Date Rehabbed: 2009 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: See item 15; flexure HL cracking in the slab center; wide trans. cracks in the conc. utility trough (E-W trough) in the S portions of the center span.	1	8
C7.2. Edge of Floor: Deep spalls chipped by TROD 2017 & 2019 @ N & S fascias (very widespread), w exp rebar @ S, (almost entire S fascia).	3	4
C8. Wearing Surface: Extensive trans. & long. cracking ; widespread spalling @ curbs; many patched fiber nests; sev scaling in N parking lane; area near curbs control rating.	2	6
C9. Curbs/Sidewalks: 2 transverse full width cracks in the S walk; minor curb edge spalls (typical); widespread fiber nests and surface scaling in walks.	1	7
C11. Railing: Flagpole base strapped to second railing post from W.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage: All inlets open.	1	8
C13. Expansion Joints: Debris filled (typical); corr. in the headers; W joint down spout connection apparently broken.	1	8

N58. Deck Summary:

Summary Rating: 8

C14. Alignment of Members:	1	8
C15.2. Slab: Widespread HL flexure cracks typically at midspan (transverse to the bridge).	1	8

N59. Superstructure Summary:

Summary Rating: 8

C37. Pier Caps: Widespread HL flexure cracks in the pier caps (w efflorescence @ S pier 32), esp. in N bays.	1	8
C38. Pier Columns: Very minor deficiencies (scrapes, stains).	1	8

N60. Substructure Summary:

Summary Rating: 8

C1. Pavement: E only, pavers & conc @ Rosa Parks.	1	8
N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N		
N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N		
N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N		

C6. Approaches Summary:

Summary Rating: 8

Bridge Inspection Report | *Routine Inspection*

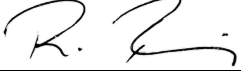
SFN: 3165337

Freedom Way Center Between Race & Rosa Parks

Date Inspected: 04/24/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #25

C55. Warning Signs: 1

C57. Utilities: Fire Hydrant supply running through pier cap (minor leakage around pipe). 1 7

Utilities On Structure: Y N N N N N Y

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 8 A

Inspection Notes: 2020 Element level data available.

Recommended Maintenance:

Assigned to:

1. Discuss wearing surface repair.

Bridge Inspection Report

Element Level Inspection

Bridge: Freedom Way Center
Number: City (BP) #25
SFN: 3165337

Inspector: RMR
Inspector: PMC
Date: 4/24/2020

Deck		Condition state					
		qty	1	2	3	4	TR
c7.1	Floor/Slab [SF]						
c7.2	Edge of Floor/Slab [LF]	782	248	184	350		3.00
c8.	Wearing Surface [SF]	17204	15020	2128	56		1.22
c9.	Curb/Sidewalk [LF]	782	671	109	2		1.23
c10.	Median [LF]						
c11.	Railing [LF]	391	375	16			1.06
N36	Safety feat. Rail [1,0,N]						1.00
C12.	Drainage [EA]						
c13.	Exp. Joint [LF]	240	185	55			1.31
N58. Deck Summary							8

Substructure		Condition state					
		qty	1	2	3	4	TR
c33.	Abutment Walls [LF]						
c34.	Abutment Caps [LF]						
c35.	Abut. Columns [EA]						
c36.	Pier Walls [LF]						
c37.	Pier Caps [LF]	1335	1230	102	3		1.15
c38.	Pier Columns [EA]	60	59	1			1.02
c39.	Backwalls [LF]						
c40.	Wingwalls [EA]						
c42.	Scour [EA]						
c43.	Slope Protection [EA]						
N 60. Substructure Summary							8

Superstructure		Condition state					
		qty	1	2	3	4	TR
c14.	Alignment [EA]	1	1				1
c15.1	Beams/Girders [LF]						
c15.2	Slab [SF]	24119	22594	1525			1.1
c16	Diaphragm/x Frame [EA]						
c17.	Stringers [LF]						
c18.	Floorbeams [LF]						
c19.	Truss Verticals [EA]						
c20.	Truss Diagonals [EA]						
c21	Truss Upper Chord [EA]						
c22.	Truss Lower Chord [EA]						
c23.	Truss Gusset Plates [EA]						
c24.	Lateral Bracing [EA]						
c25.	Sway Bracing [EA]						
c26.	Bearing Devices [EA]						
c27	Arch [LF]						
c28.	Arch Column/Hange[EA]						
c29.	Arch Spandrel Wall [LF]						
c30	Prot Coating System [LF]						
c31	Pins/Hangers/Hinge[EA]						
c32.	Fatigue [LF]						
N59. Superstructure Summary							8

Culvert		Condition state					
		qty	1	2	3	4	TR
c44.	General [LF]						
c45.	Alignment [LF]						
c46.	Shape [LF]						
c47.	Seams [EA]						
c48.	Headwalls/Endwalls [EA]						
c49.	Scour [EA]						
c50.	Abutments [LF]						
N 62. Culvert Summary							

Channel		Condition state					
		qty	1	2	3	4	TR
c51.	Alignment [LF]						
c52.	Protection [LF]						
c53.	Hydraulic Opening [EA]						
c54.	Navigation Lights [EA]						
N 61. Channel Summary							

Approach		Condition state					
		qty	1	2	3	4	TR
c1.	Wearing Surface [EA]						
c2.	Approachslab [SF]						
c3.	Relief Joint [LF]						
c4.	Embankment [EA]						
c5.	Guardrail [EA]						
N36	Safety fet. TR, GR, TM			N	N	N	
N 61. Approach Summary							

Sign/Utility		Condition state					
		qty	1	2	3	4	TR
c55.	Signs [EA]						
c56.	Sign Supports [EA]						
c57	Utilities [LF]						

N 59. General Appraisal and Operational Status							8	A
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Bridge Inspection Report | Routine Inspection

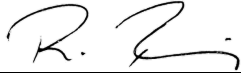
SFN: 3165396

Freedom Way East over Parking Garage Between Walnut & Main

Date Inspected: 04/27/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #26

Route: FRDOM Unit: 0000

Bridge Type 112 / NNN

Date Built / Date Rehabbed: 2009 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor:	See slab/pier caps; hairline transverse cracks in the concrete utility duct; 2 through plates bolted @ SE (hotel), covered in fireproof foam.	1	8
C7.2. Edge of Floor:	(Outside of ROW) delam in fascias at long jnts esp between columns 14 & 15; delams & spalls in fascias.	2	6
C8. Wearing Surface:	Widespread long. and trans. cracks up to 1/16" (reflective of rebar); pavers @ E replaced with colored concrete in 2018; shifting of W crosswalk pavers opening gaps up to 5/8" wide.	2	6
C9. Curbs/Sidewalks:	Cracking at the SW curb ramp; isol. minor cracking and curb edge spalls; restaurant fences, planters, & street furniture on walks outside of ROW; isol. paver det in sidewalk.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N):	N		
C12. Drainage:	10 inlets, many partially clogged.	2	5
C13. Expansion Joints:	Excessive leakage over the entire length at the E (jnt was new in 2016, appears watertight); trough not connected to the Freedom Way side at the SE expansion joint up to 10 ft long; private long. jnt. @ SE has failed (ultra block); traces of dirt/mud under E jnt indicate seepage through pavers (rating applies to roadway jnt not leakage below); New joint gland @ W (2018).	1	7

N58. Deck Summary: ROW is 70' wide, which includes half the sidewalk width. Summary Rating: 8

C14. Alignment of Members: 1 8

C15.2. Slab: Isolated hairline cracks at the center of the spans. 1 8

N59. Superstructure Summary: Summary Rating: 8

C37. Pier Caps: HL flexure cracks mostly in the N bay w some wider cracks. 1 8

C38. Pier Columns: HL vertical cracking on several columns. 1 8

N60. Substructure Summary: Summary Rating: 8

C1. Pavement: W only: Wide transverse and longitudinal cracks (turning into map cracking) in the two concrete panels; pavers shifting, slight settlement; small asphalt patch in paver area. 2 6

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Summary Rating: 6

Bridge Inspection Report | Routine Inspection

SFN: 3165396

Freedom Way East over Parking Garage Between Walnut & Main

Date Inspected: 04/27/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #26

C57. Utilities: Several overdrilled holes in the slab; gas main crossing under S long. jnt. apparently modified/damaged (staining @ ceiling). No apparent allowance for joint expansion at some of the utility crossings. 1 7

Utilities On Structure: Y N N N N N Y

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 8 A

Inspection Notes: New 2018 fireproofing under slab of hotel @ SE; 75% of width fenced off to private parking below. 2020 element level inspection data on file.

Recommended Maintenance:

1. Replace/repair troughs @ E including Main st.
2. Consider replacing pavers w colored conc. @ Walnut.
3. Chip loose conc from N fascia between columns 14 & 15 (notified garage).

Assigned to:

Contract
Contract
Owner

Bridge Inspection Report

Element Level Inspection

Bridge: Freedom Way East
Number: City (BP) #26
SFN: 3165396

Inspector: RMR
Inspector: PMC
Date: 4/24/2020

Deck		Condition state					
		qty	1	2	3	4	TR
c7.1	Floor/Slab [SF]						
c7.2	Edge of Floor/Slab [LF]	786	632	148	6		1.36
c8.	Wearing Surface [SF]	17292	13542	3750			1.29
c9.	Curb/Sidewalk [LF]	786	707	77	2		1.18
c10.	Median [LF]						
c11.	Railing [LF]						
N36	Safety feat. Rail [1,0,N]						1.00
c12.	Drainage [EA]	10	1	5	3	1	3.00
c13.	Exp. Joint [LF]	178	178				1.00
N58. Deck Summary							

Substructure		Condition state					
		qty	1	2	3	4	TR
c33.	Abutment Walls [LF]						
c34.	Abutment Caps [LF]						
c35.	Abut. Columns [EA]						
c36.	Pier Walls [LF]						
c37.	Pier Caps [LF]	1335	1241	94	0		1.10
c38.	Pier Columns [EA]	60	60	0			1.00
c39.	Backwalls [LF]						
c40.	Wingwalls [EA]						
c42.	Scour [EA]						
c43.	Slope Protection [EA]						
N 60. Substructure Summary							8

Superstructure		Condition state					
		qty	1	2	3	4	TR
c14.	Alignment [EA]	1	1				1
c15.1	Beams/Girders [LF]						
c15.2	Slab [SF]	24297	23484	813			1.00
c16	Diaphragm/x Frame [EA]						
c17.	Stringers [LF]						
c18.	Floorbeams [LF]						
c19.	Truss Verticals [EA]						
c20.	Truss Diagonals [EA]						
c21	Truss Upper Chord [EA]						
c22.	Truss Lower Chord [EA]						
c23.	Truss Gusset Plates [EA]						
c24.	Lateral Bracing [EA]						
c25.	Sway Bracing [EA]						
c26.	Bearing Devices [EA]						
c27	Arch [LF]						
c28.	Arch Column/Hange[EA]						
c29.	Arch Spandrel Wall [LF]						
c30	Prot Coating System [LF]						
c31	Pins/Hangers/Hinge[EA]						
c32.	Fatigue [LF]						
N59. Superstructure Summary							8

Culvert		Condition state					
		qty	1	2	3	4	TR
c44.	General [LF]						
c45.	Alignment [LF]						
c46.	Shape [LF]						
c47.	Seams [EA]						
c48.	Headwalls/Endwalls [EA]						
c49.	Scour [EA]						
c50.	Abutments [LF]						
N 62. Culvert Summary							

Channel		Condition state					
		qty	1	2	3	4	TR
c51.	Alignment [LF]						
c52.	Protection [LF]						
c53.	Hydraulic Opening [EA]						
c54.	Navigation Lights [EA]						
N 61. Channel Summary							

Approach		Condition state					
		qty	1	2	3	4	TR
c1.	Wearing Surface [EA]	1	0	1			2.00
c2.	Approachslab [SF]						
c3.	Relief Joint [LF]						
c4.	Embankment [EA]						
c5.	Guardrail [EA]						
N36	Safety fet. TR, GR, TM			N	N	N	
N 61. Approach Summary							6

Sign/Utility		Condition state					
		qty	1	2	3	4	TR
c55.	Signs [EA]						
c56.	Sign Supports [EA]						
c57	Utilities [LF]						

N 59. General Appraisal and Operational Status							8	A
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Bridge Inspection Report | Routine Inspection

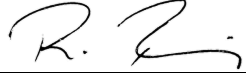
SFN: 3165280

Freedom Way West over Parking Garage Between Elm & Race

Date Inspected: 04/24/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #27

Route: FRDOM Unit: 0000

Bridge Type 112 / NNN

Date Built / Date Rehabbed: 2009 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating
1 to 4Rating
9 to 0

C7.1. Floor: See item 15, slab; round metal plate surrounded by stalactites in floor @ 2nd pier from E @ N curb; several overdrilled holes near W jnt gland w buildup of efflor.	1	8
C7.2. Edge of Floor: Small spalls @ the fascias where the structural slab meets the topping slab; HL cracking visible during rain.	1	7
C8. Wearing Surface: Extensive longitudinal and transverse cracks (some with efflor), some attributed to low bar cover, (typically less than 0.03); map cracking; spalls, fibernests; pavers @ E replaced w colored concrete (2016); handsize spall in wearing surface @ SW.	1	7
C9. Curbs/Sidewalks: Widespread cracks, small spalls & popouts from fibers.	1	7
C11. Railing: Isol surface corr.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N):		
C12. Drainage: Ponding at the W exp jnt. PEJF is coming out at the SW inlet; lots of water making its way into E trough (under sidewalk cover plate?); all inlets open.	2	6
C13. Expansion Joints: Debris filled; former drainage through pavers eliminated with concrete, now no more water in troughs and associated issues; corr. of joint armor.	1	8

N58. Deck Summary:

Summary Rating: 8

C14. Alignment of Members:	1	8
C15.2. Slab: Minor discoloration; shallow rebar cover; isol HL cracks in the slab. HL flexure cracking in the N bays.	1	8

N59. Superstructure Summary:

Summary Rating: 8

C37. Pier Caps: Trans. HL cracking; small patched area in S bay.	1	8
C38. Pier Columns: Isolated minor issues; slight impact damage @ N columns around garage entrance; HL cracking of columns.	1	8

N60. Substructure Summary:

Summary Rating: 8

Bridge Inspection Report | Routine Inspection

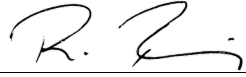
SFN: 3165280

Freedom Way West over Parking Garage Between Elm & Race

Date Inspected: 04/24/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #27

C56. Sign Supports: Pedestrian sign secured to railing (clamps & 1/8" +/- metal rope) by parking garage (will be removed). 3 4

C57. Utilities: New 2017? open wires added to existing metal conduit; PVC conduits @ E exp jnts seperated (they appear to be empty w no wires). 1 7

Utilities On Structure: Y N N N N N Y

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 8 A

Inspection Notes: Pedestrian stairway sign mounted to outside of S railing w wire ties. Element data available for 2020 inspection.

Recommended Maintenance:

1. Discuss sealing of wearing surface.
2. Clean drip groove @ S fascia in 3rd bay from E (@ cable connection).

Assigned to:

Contract
Owner

Bridge Inspection Report

Element Level Inspection

Bridge: Freedom Way West
Number: City (BP) #27
SFN: 3165280

Inspector: RMR
Inspector: PMC
Date: 4/24/2020

Deck		Condition state					
		qty	1	2	3	4	TR
c7.1	Floor/Slab [SF]						
c7.2	Edge of Floor/Slab [LF]	555	529	23	3		1.15
c8.	Wearing Surface [SF]	11400	7944	3450	6		1.40
c9.	Curb/Sidewalk [LF]	517	451	66			1.18
c10.	Median [LF]						
c11.	Railing [LF]	555	498	56	1		1.17
N36	Safety feat. Rail [1,0,N]						1.00
C12.	Drainage [EA]						
c13.	Exp. Joint [LF]	240	180	60			1.33
N58. Deck Summary							8

Substructure		Condition state					
		qty	1	2	3	4	TR
c33.	Abutment Walls [LF]						
c34.	Abutment Caps [LF]						
c35.	Abut. Columns [EA]						
c36.	Pier Walls [LF]						
c37.	Pier Caps [LF]	998	957	38	3		1.11
c38.	Pier Columns [EA]	45	44	1			1.03
c39.	Backwalls [LF]						
c40.	Wingwalls [EA]						
c42.	Scour [EA]						
c43.	Slope Protection [EA]						
N 60. Substructure Summary							8

Superstructure		Condition state					
		qty	1	2	3	4	TR
c14.	Alignment [EA]	1	1				1
c15.1	Beams/Girders [LF]						
c15.2	Slab [SF]	14781	14621	160			1.02
c16	Diaphragm/x Frame [EA]						
c17.	Stringers [LF]						
c18.	Floorbeams [LF]						
c19.	Truss Verticals [EA]						
c20.	Truss Diagonals [EA]						
c21	Truss Upper Chord [EA]						
c22.	Truss Lower Chord [EA]						
c23.	Truss Gusset Plates [EA]						
c24.	Lateral Bracing [EA]						
c25.	Sway Bracing [EA]						
c26.	Bearing Devices [EA]						
c27	Arch [LF]						
c28.	Arch Column/Hange[EA]						
c29.	Arch Spandrel Wall [LF]						
c30	Prot Coating System [LF]						
c31	Pins/Hangers/Hinge[EA]						
c32.	Fatigue [LF]						
N59. Superstructure Summary							8

Culvert		Condition state					
		qty	1	2	3	4	TR
c44.	General [LF]						
c45.	Alignment [LF]						
c46.	Shape [LF]						
c47.	Seams [EA]						
c48.	Headwalls/Endwalls [EA]						
c49.	Scour [EA]						
c50.	Abutments [LF]						
N 62. Culvert Summary							

Channel		Condition state					
		qty	1	2	3	4	TR
c51.	Alignment [LF]						
c52.	Protection [LF]						
c53.	Hydraulic Opening [EA]						
c54.	Navigation Lights [EA]						
N 61. Channel Summary							

Approach		Condition state					
		qty	1	2	3	4	TR
c1.	Wearing Surface [EA]						
c2.	Approachslab [SF]						
c3.	Relief Joint [LF]						
c4.	Embankment [EA]						
c5.	Guardrail [EA]						
N36	Safety fet. TR, GR, TM			N	N	N	
N 61. Approach Summary							

Sign/Utility		Condition state					
		qty	1	2	3	4	TR
c55.	Signs [EA]						
c56.	Sign Supports [EA]						
c57	Utilities [LF]						

N 59. General Appraisal and Operational Status							8	A
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Bridge Inspection Report | Routine Inspection

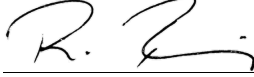
SFN: 3161277

Gest Street Bridge over CIND Railroad

Date Inspected: 04/02/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #28

Route: GEST Unit: 0196

Bridge Type 111 / NNN

Date Built / Date Rehabbed: 1919 / 1999

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: See item 15.	1	7
C7.2. Edge of Floor: Regularly spaced +/- 6" HL trans cracks; few wider cracks, some w minor efflor.	1	7
C8. Wearing Surface: Longitudinal cracks; reflective of beams; few small spalls; map cracking w delams @ both ends of bridge +/- 1' wide w delaminated or crushed conc; wider sealed long. crack in center of bridge {full length, sealed}.	1	7
C9. Curbs/Sidewalks: Wider cracks @ walk @ corners; few vertical cracks in curbs.	1	7
C11. Railing: Vines growing; spalling @ joints between conc. panels; cracking w minor efflor. at bottom of concrete parapet; corroding bottom of posts of steel railing.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): 0		
C12. Drainage:	1	8
C13. Expansion Joints: Small compression seals; bulged @ NE & some areas ripped or missing @ N; survey nail @ NW in gland.	2	6

N58. Deck Summary: Summary Rating: 7

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Evenly spaced flexure HL cracks +/- 6" at most beams, most pronounced @ fascia's; slight efflor under centerline; apparent leakage thru center w moist cracks between beams 4&5.	1	7
C26. Bearing Devices: Elasto.; not visible.	1	8

N59. Superstructure Summary: Summary Rating: 7

C33. Abutment Walls: Full height crack @ S; graffiti; map cracking w efflor @ SW corner; spalling @ bottom of S abutment.	1	7
C34. Abutment Caps: Center crack w some efflor. @ N.	1	8
C40. Wingwalls: Cracking and spalling @ SE; 2 full length horiz. cracks; spall @ interface of abutment w exposed rebar; overgrown w poison ivy.	2	6

N60. Substructure Summary: Summary Rating: 7

C1. Pavement: Wide map cracking; the construction joint is tearing; potholes forming @ ends of approach slabs; condition is worst @ N.	2	6
C2. Approach Slabs: HL long cracks.	1	7
C3. Relief Joints: Bulging; cracking & intial pothole forming: S side much better.	2	6

Bridge Inspection Report | Routine Inspection

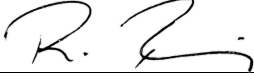
SFN: 3161277

Gest Street Bridge over CIND Railroad

Date Inspected: 04/02/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #28

C4. Embankment: Concrete blocks @ NW offset; overgrown. 1 7

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Summary Rating: 6

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Inspection Notes: Extremely muddy below bridge.
2020 element level inspection available.

Recommended Maintenance:

Assigned to:

- | | |
|--|------|
| 1. Plan overlay repairs/replacement (@ min) near joints. | TROD |
| 2. Grout pockets @ bases of steel railing. | TROD |
| 3. Remove vines from railings & sidewalks. | TROD |
| 4. Seal deck {long. center joint @ minimum}. | TROD |
| 5. Grind & fill pressure relief joint @ N. | TROD |
| 6. Fill exp joints w hot applied asphalt. | TROD |

Bridge Inspection Report

Element Level Inspection

Bridge: Gest Street Bridge over CIND Railroad
Number: CITY (BP) #28
SFN: 3161277

Inspector: RMR
Inspector: PMC
Date: 04/02/2020

		Condition state					TR
		qty	1	2	3	4	
c7.1	Floor/Slab [SF]						
c7.2	Edge of Floor/[SLF]	92	67	24	1		1.48
c8.	Wearing Surface[SF]	1380	1121	219	40		1.58
c9.	Curb/Sidewalk [LF]	92	39	50	3		1.91
c10.	Median [LF]						
c11.	Railing [LF]	92	67	24	1		1.48
N36	Safety feat. Rail [1,0,N]						
C12.	Drainage [A]		0				
c13.	Exp. Joint [LF]	89	75	10	4		1.69
N58.	Deck Summary						7

		Condition state					TR
		qty	1	2	3	4	
c33.	Abutment Wall [LF]	99	70	23	6		1.90
c34.	Abutment Caps [LF]	45	42	3			1.10
c35.	Abut. Columns [EA]						
c36.	Pier Walls [LF]						
c37.	Pier Caps [LF]						
c38.	Pier Columns [EA]						
c39.	Backwalls [LF]						
c40.	Wingwalls [EA]	4	2	2			1.60
c42.	Scour [EA]						
c43.	Slope Protection [EA]						
N 60.	Substructure Summary						7

		Condition state					TR
		qty	1	2	3	4	
c14.	Alignment [A]	1	1				1
c15.1	Beams/Girders[LF]	368	0	276	92		2.7
c15.2	Slab [SF]						
c16	Diaphragm/x Fr[A]						
c17.	Stringers [LF]						
c18.	Floorbeams [LF]						
c19.	Truss Verticals [A]						
c20.	Truss Diagonal[A]						
c21	Truss Upper Ch[A]						
c22.	Truss Lower Ch[A]						
c23.	Truss Gusset Pl[A]						
c24.	Lateral Bracing [A]						
c25.	Sway Bracing [A]						
c26.	Bearing Device[A]	48	35	10	3		1.9
c27	Arch [LF]						
c28.	Arch Column/H[A]						
c29.	Arch Spandrel [LF]						
c30	Prot Coating Sy[LF]						
c31	Pins/Hangers/[A]						
c32.	Fatigue [LF]						
N59.	Superstructure Summary						7

		Condition state					TR
		qty	1	2	3	4	
c44.	General [LF]						
c45.	Alignment [LF]						
c46.	Shape [LF]						
c47.	Seams [EA]						
c48.	Headwalls/End[EA]						
c49.	Scour [EA]						
c50.	Abutments [LF]						
N 62.	Culvert Summary						

		Condition state					TR
		qty	1	2	3	4	
c51.	Alignment [LF]						
c52.	Protection [LF]						
c53.	Hydraulic Open [EA]						
c54.	Navigation Ligh [EA]						
N 61.	Channel Summary						

		Condition state					TR
		qty	1	2	3	4	
c55.	Signs [A]						
c56.	Sign Supports [A]						
c57	Utilities [LF]						

		Condition state					TR
		qty	1	2	3	4	
c1.	Wearing Surface [EA]	2	2				1.00
c2.	Approachslab [SF]	2	2				1.00
c3.	Relief Joint [LF]	2	1	1			1.60
c4.	Embankment [EA]						
c5.	Guardrail [EA]						
N36	Safety fet. TR, GR, TM			1	1	1	
N 61.	Approach Summary						6
N 59.	General Appraisal and Operational Status						7 A

Bridge Inspection Report | Routine Inspection

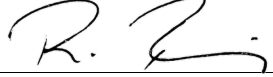
SFN: 3161749

Gest Street Bridge over Mill Creek

Date Inspected: 03/09/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #29

Route: GEST Unit: 0050

Bridge Type 231 / NNN

Date Built / Date Rehabbed: 1997 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Very little staining (see latest underwater inspection report).	1	8
C7.2. Edge of Floor: Cracking on fascias, see beams; some cracking w efflor under railing.	1	7
C8. Wearing Surface: Hairline map cracking (trans & diagonal) near the bridge limits; scraping near centerline; isol. small bare spots where mambrane was damaged.	1	7
C9. Curbs/Sidewalks: Many transverse HL cracks, often continuing into curb and bottom of railings (esp. @ N railing); map cracking @ bridge ends.	1	7
C11. Railing: Many HL vertical cracks some efflor.; scaling with exposed aggregate @ top of railing (areas of former grinding?); widespread staining on S railing (from former trees?).	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): 0		
C12. Drainage: Off the bridge.	1	7

N58. Deck Summary: Summary Rating: 8

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: HL cracking on fascia beams: diagonal racks at beam ends; hor. disturbance (originating from cold joints during beam casting?) mostly paralell to bottom of beam, mostly 5" higher. (This hor. disturbance can be found over a length of 15% on the S fascia and over 40% on the N fascia). 1 8

N59. Superstructure Summary: Summary Rating: 8

C33. Abutment Walls: Masonry walls are not abutment walls, hence no rating, see channel Protection.

C34. Abutment Caps: Concrete cap on piling; stone wall is not part of abutment. 1 8

C42. Scour: See underwater report (for masonry wall), bridge is on piles. 1 8

Scour Inspection Type

N60. Substructure Summary: See latest Underwater Inspection 5-3-2017 Summary Rating: 8

C51. Channel Alignment: 1 8

C52. Channel Protection: Widespread deterioration of masonry blocks and mortar, especially above the normal water level. Up to 18" deep at W and >12" deep at East. (See latest underwater inspection report, actual stone depth unknown). 2 6

C53. Hydraulic Opening: 1 8

N62. Channel Summary: Summary Rating: 6

Bridge Inspection Report | Routine Inspection

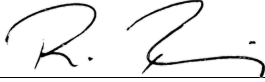
SFN: 3161749

Gest Street Bridge over Mill Creek

Date Inspected: 03/09/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #29

- | | | |
|---|---|---|
| C1. Pavement: Moderate transverse cracks at the West end. Transverse cracks up to 2" wide at the East end. Asphalt breaking up at W approach slab. Pothole along the approach slab at the East; 4' x 3' patch at the East; map cracking, rutting near manhole lid at the East. | 2 | 6 |
| C2. Approach Slabs: Medium longitudinal crack in the middle of the West approach slab. | 1 | 8 |
| C3. Relief Joints: Bulging & potholes forming @ E; no bulging but potholed @ W. Traffic bounce is borderline subtle. | 2 | 5 |
| C4. Embankment: Overgrown; fenced off; signed "contaminated area" by health department. | 1 | 8 |
| C5. Guardrail: Timber posts are aging. Guardrail on the approach sides only (NE and SW). | 1 | 6 |
| N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): | 0 | |
| N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): | 0 | |
| N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): | 1 | |

C6. Approaches Summary:

Summary Rating: 5

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 8 A

Inspection Notes: UW inspection by STANTEC 5-3-2017.

Recommended Maintenance:

Assigned to:

1. Grind and pave relief joints on both ends of the bridge.
2. Patch E compression seal w hot applied asphalt.

TROD
TROD

Bridge Inspection Report | Routine Inspection

SFN: 3161358

Gest Street Ramp East of Linn Street

Date Inspected: 05/21/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #30

Route: GEST Unit: 0133

Bridge Type 322 / NNN

Date Built / Date Rehabbed: 1963 / 1992

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor:	Minor trans. cracks - some w efflor; few spalls w exposed rebar.	1	7
C7.2. Edge of Floor:	Widespread trans cracking w. efflor under railing joints & elsewhere ; isol spalling; worst under street light bump-out.	2	6
C8. Wearing Surface:	MMC overlay (1992); very few HL cracks; asphalt spills @ W; widespread small delams detected.	1	7
C11. Railing:	GM Barrier w vert. & horiz. cracks & efflor; var. scrapes; spalls on fascia overhang w exp. reinf. @ lightpole bump-out; stalacites over E pier.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N):	1		
C12. Drainage:	2 scuppers w d/s & horiz. run; plants growing out of scuppers (no ponding due to slope).	4	2
C13. Expansion Joints:	Strip seal replaced (1992); joint has corr. throughout but no leakage.	1	7

N58. Deck Summary: See Element Level Inspection Report. Summary Rating: 7

C14. Alignment of Members:	Slight wavieness of BFs at sev locations.	1	7
C15.1. Beams/Girders:	Widespread corr; large areas w failed paint and pitting.	1	7
C16. Diaphragms/X-Frames:	Widespread paint failing; initial corr.	1	7
C18. Floor Beams:	LOS @ bottom flange and web on W side of FB as a result of leaking joint at Linn (LOS of flange ~ 10%); LOS appears to have stabilized (recent ODOT joint replacement).	2	6
C26. Bearing Devices:	Rehabbed (1992); covered w debris & corr. @ abut.; some bronze plates apparently bent; S bearing @ abutment possibly frozen.	1	7
C30. Protective Coating System (PCS):	System: OZEU Year: 1992 Widespread flaking of top coat on webs and frackled rusting on bot of BF; more than 50% failed; chalking and fading throughout.		PCS Rating: 0

C32. Fatigue Prone Details: Cover plates & splices over piers. 1 8

N59. Superstructure Summary: Redundant, fatigue prone. See Element Level Report. See 2019 FC report. Summary Rating: 6

C33. Abutment Walls:	HL cracks.	1	8
C38. Pier Columns:	Minor spalls @ column tops; sound patch @ W column top N.	1	8
C39. Backwalls:	Few vert cracks; staining from jnt former leakage.	1	7
C40. Wingwalls:	Minor cracks some w efflor, mostly at joints; popouts; horiz. HL cracks @ abutment (both sides).	1	8

Gest Street Ramp East of Linn Street

Date Inspected: 05/21/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #30

N60. Substructure Summary:

Summary Rating: 7

C1. Pavement: Widespread cracks; map cracking; areas of slight settlement. 2 6

C2. Approach Slabs: Replaced (1992); few short hairline cracks; two small spalls at expansion joint corners; seal @ backwall sticking up @ S; widespread micro cracking. 1 8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary:

Summary Rating: 6

C56. Sign Supports: 1 7

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 6 A

Inspection Notes: Hold off on major maintenance for now since bridge may be removed during I-75 widening. See 2020 Element Level Report

Bridge Inspection Report

Element Level Inspection

Bridge: Gest Street Ramp E. of Linn Street
Number: CITY (BP) #30
SFN: 3161358

Inspector: Reiner Reising
Inspector: Phil McCoy
Date: 5/21/2020

Item	Description	Unit	Quantity	Condition States				TR
				CS 1	CS 2	CS 3	CS 4	
331	Reinforced Concrete Bridge Railing	LF	242	155	86	1		1.50
12	Reinforced Concrete Deck	SF	2541	1897	630	14		1.40
815	Deck Drainage Grates & Scuppers	EA	2	2				1.00
300	Strip Seal Expansion Joint	LF	25	0	25			2.00
1	Deck Summary	0						7
107	Steel Open Girder/Beam	LF	363	36	314	13		2.13
152	Steel Floor Beam	LF	43	0	6	37		3.00
313	Fixed Bearing	EA	4	4				1.00
311	Moveable Bearing	EA	7	1	4	2		2.68
2	Superstructure Summary	0						6
215	Reinforced Concrete Abutment	LF	25	24	1			1.06
205	Reinforced Concrete Column	EA	8	8				1.00
830	Abutment Backwall	LF	25	17	8			1.41
3	Substructure Summary	0						7
1.5	General Appraisal	0						6

Bridge Inspection Report | Routine Inspection

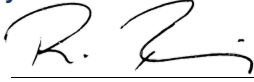
SFN: 3161366

Gest Street Ramp West of Linn Street

Date Inspected: 05/21/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #31

Route: GEST Unit: 0129

Bridge Type 322 / NNN

Date Built / Date Rehabbed: 1963 / 1992

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor:	Trans HL cracks (some with efflor); isol. minor spalls in haunches at TF; few spalls with exp rebar.	1	7
C7.2. Edge of Floor:	Isol HL cracks some with efflor and adjacent dampness; spalling at street light bump-out.	2	6
C8. Wearing Surface:	MMC (1992). Few wider trans cracks; minor scaling pop-outs; efflor @ jnts w parapet; 3 delam areas @ N.	1	7
C11. Railing:	Cracks (mostly vertical) with efflorescence; scrape marks at the top of the ramp.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N):			
C12. Drainage:	2 scupper with downspouts & horizontal run.	1	8
C13. Expansion Joints:	Strip seals (1992). Filled with dirt and debris. Slight vertical offset at the sidewalk cover plates (Linn street ODOT joint not part of this rating); slight spalling around armor @ W.	1	8

N58. Deck Summary: Summary Rating: 7

C14. Alignment of Members:	Slight wavieness of BF at several locations.	1	7
C15.1. Beams/Girders:	Widespread corrosion; large areas w failed paint system and varying degrees of corrosion.(worst @ TF of S fascia beam @ lightpole w laminating corr.) 2 dents in the web of the center beam in the center span.	1	7
C16. Diaphragms/X-Frames:	Bent at the abutment; widespread paint flaking & initial corrosion.	1	7
C18. Floor Beams:	LOS to the BF (up to 1/4" deep x 1/4 flange width) and the web; worst condition over a 10" long area @ NE bearing.	2	6
C26. Bearing Devices:	Reset & rehabbed (1992); covered with debris & rusting at the abutment; center and N bearing at W most pier offset of the bearing plate by +/- 3/4" (original construction issue?)	1	7
C30. Protective Coating System (PCS):	System: OZEU 1992; widespread paint failure (> 50%). White granular material deposits, flaking and chalking throughout.	PCS Rating: 0	
C32. Fatigue Prone Details:	Cover plates & splices over the piers.	1	8

N59. Superstructure Summary: See FC report of same day. Summary Rating: 6

C33. Abutment Walls:	Horiz. cracks at the N and S ends. Patched area (under center bearing); corner spalls & open jnt between WW & abutment.	1	7
C38. Pier Columns:	Minor pop-outs at top of columns; honeycombing.	1	8
C39. Backwalls:	HL vert cracks, some with efflor.; isol. spalling @ top.	1	8

Bridge Inspection Report | Routine Inspection

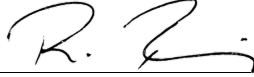
SFN: 3161366

Gest Street Ramp West of Linn Street

Date Inspected: 05/21/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #31

C40. Wingwalls: Vertical cracks, some with efflorescence, usually at joints. Joint material missing at 1 location on the SW. 1 7

N60. Substructure Summary: Summary Rating: 7

C1. Pavement: Widespread longitudinal & transverse cracks in the asphalt. 2 6

C2. Approach Slabs: Only at the West end. New (1992). Very minor hairline cracking; corner spall @ NE; grass growing @ interface w GM barrier. 1 8

C5. Guardrail: GM barrier continuing down the ramp.

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Summary Rating: 6

C56. Sign Supports: 1 7

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 6 A

Inspection Notes: Hold off on major maintenance for now since bridge may be removed with I-75 widening. See 2020 Element Level Report; See latest FC report.

Bridge Inspection Report

Element Level Inspection

Bridge: Gest Street Ramp W. of Linn Street
Number: CITY (BP) #31
SFN: 3161366

Inspector: Reiner Reising
Inspector: Phil McCoy
Date: 5/21/2020

Item	Description	Unit	Quantity	Condition States				TR
				CS 1	CS 2	CS 3	CS 4	
331	Reinforced Concrete Bridge Railing	LF	242	175	64	3		1.50
12	Reinforced Concrete Deck	SF	2541	2203	320	18		1.28
815	Deck Drainage Grates & Scuppers	EA	2	2				1.00
300	Strip Seal Expansion Joint	LF	25	4	21			1.89
1	Deck Summary	0						7
107	Steel Open Girder/Beam	LF	363	43	305	15		2.14
152	Steel Floor Beam	LF	43	0	26	17		3.00
313	Fixed Bearing	EA	4	3	1			1.33
311	Moveable Bearing	EA	7	0	5	2		2.71
2	Superstructure Summary	0						6
215	Reinforced Concrete Abutment	LF	25	18	7			1.37
205	Reinforced Concrete Column	EA	8	8				1.00
830	Abutment Backwall	LF	25	13	12			1.58
3	Substructure Summary	0						7
1.5	General Appraisal	0						6

Bridge Inspection Report | Routine Inspection

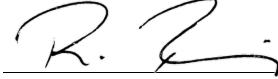
SFN: 3100774

Gilbert Ave Ped. Overpass S. of Court Street

Date Inspected: 06/11/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #32

Route: 00022 Unit: 0111

Bridge Type 321 / NNN

Date Built / Date Rehabbed: 1970 /

Load Rating Percent 000

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Conc. deter., efflor., rust staining & stalactites under joints; trans. cracks w/ some efflor.; 9 spalls w/ exp. rebar. in main span under cracks in wearing surface; rating reflects typical condition, bridge ends are worse.	2	6
C7.2. Edge of Floor: Long cracks w rust stains, efflor. & delam. @ N side of W steps; 2 areas of deep spalling & exp. rebar @ steps; (steps rating =5 not considered for overall rating.)	1	7
C9. Curbs/Sidewalks: Minor spalls & many cracks on steps; few transverse HL cracks directly reflective of spalls below, widespread minor scaling w some popouts; spalling & conc breaking up around jnt armor on both sides.	1	7
C11. Railing: Untightened anchor bolt @ bottom of W steps; widespread corrosion on stair railing members; widespread paint flaking or missing on bridge handrail; some insert panels (black) slightly loose or bent; esp end panels; handrail cap @ top of W steps missing.	2	6
N36. National Safety Feature - Bridge Railing (0, 1 or N):		
C12. Drainage: 2 inlets open.	1	9
C13. Expansion Joints: Open joint by design: coverplate corroding @ E & W w/ conc. breaking up @ jt. header; vert. misalignment of coverplates @ SE (3/4" step w/ partially loose coverplate)	2	5

N58. Deck Summary: Steps not considered for rating.

Summary Rating: 6

C14. Alignment of Members: Slight vert. offset @ E (see expansion joint).	1	8
C15.1. Beams/Girders: Paint flaking; corr w/ pitting @ beam ends under exp. joints, esp. @ E; active corrosion along BF edges, esp @ one location at SE; webs appear slightly deformed @ 3 out of 4 beam ends.	1	7
C16. Diaphragms/X-Frames: Insignificant corrosion.	1	8
C26. Bearing Devices: Corroding.	1	7
C30. Protective Coating System (PCS): System: Year: PCS Rating: 5 Corroding @ beam ends under expansion jt, widespread corr along bottom flanges full length; many areas of paint patches.		

N59. Superstructure Summary:

Summary Rating: 7

C37. Pier Caps: Minor staining; minor HL flex. Cracking & small spalling under one piercap & W steps; small rust stains from embedded objects.	1	8
C38. Pier Columns: Few minor stains.	1	8

N60. Substructure Summary: Efflor., staining, cracking & slight offsets (some bolts missing caulk deteriorating) in cladding in bell tower piers (not considered for rating).

Summary Rating: 8

Bridge Inspection Report | Routine Inspection

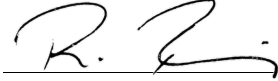
SFN: 3100774

Gilbert Ave Ped. Overpass S. of Court Street

Date Inspected: 06/11/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #32

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):

C57. Utilities: Corroding elec. conduit, clamps & hanger; continuation of conduit under ODOT steps completely corroded through, apparently bypassed with wires from traffic pole. 3 4

Utilities On Structure: Y N N N N N N

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 7 A

Inspection Notes: Efflor @ corners of bell tower @ W; water dripping through junction box @ electric conduit under NE corner of Freedom Way; up coming ODOT project on struct & steps to the E will impact this struct as well, this bridge may be part of the ODOT project due to VC concerns with ODOT's bridge.

General Notes: The inspection limits for this bridge include the W steps, but end at the east expansion joint. Steps at East are inspected by ODOT as part of SFN 3106632 (per letter from ODOT 2/9/2011); condition of steps not reflected in the rating of this report.

Recommended Maintenance:

Assigned to:

- | | |
|--|------|
| 1. Chip loose concrete from below steps. | TROD |
| 2. Fill overdrilled hole @ 2nd railing post from SWw backer rod & caulk. | TROD |
| 3. Apply membrane to deck surface(see measurements). | TROD |
| 4. Add evozote to joints. | TROD |
| 5. Remove joint cover plates, patch deck below & reset plates. | TROD |

Bridge Inspection Report | *Routine Inspection*

SFN: 3160003

Grand Ave over Lick Run

Date Inspected: 09/16/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #33

Route: Unit: Bridge Type / Date Built / Date Rehabbed: /
 Load Rating Percent (Main/Approach Spans)

Inspection Information Rating 1 to 4 Rating 9 to 0

C7.1. Floor:	See item beams.	1	9
C7.2. Edge of Floor:		1	9
C8. Wearing Surface:	1 long. crack developing near W curb.	1	9
C9. Curbs/Sidewalks:	Many pop outs or visible locations of fastener attachments (wear); vert. HL cracks in curb; cracking through walk @ backwall.	1	7
C11. Railing:	Not yet completed; decorative railing "top balls" missing; raised areas of metal railing (fins/tears?); cut railing anchor bolts corroding; conc portion on bridge sealed, unsealed w cracking in approaches.		
N36. National Safety Feature - Bridge Railing (0, 1 or N):			
C12. Drainage:	Off the bridge.	1	9
C13. Expansion Joints:	Filled with debris.	1	9

N58. Deck Summary: Summary Rating: 9

C14. Alignment of Members:		1	9
C15.1. Beams/Girders:	Composite box beams.	1	9
C26. Bearing Devices:	Mostly concealed.	1	9

N59. Superstructure Summary: Summary Rating: 9

C33. Abutment Walls:	Stub abutments: full height vert. HL cracks, up to 0.033" wide, sev. very small HL cracks.	1	8
C39. Backwalls:	Trans. cracks on top; cracking w build up of efflor. in utility bays.	1	7
C40. Wingwalls:		1	9
C42. Scour:	Bridge on deep foundations.	1	9

Scour Inspection Type

N60. Substructure Summary: Summary Rating: 8

C51. Channel Alignment:	Per design.	1	9
C52. Channel Protection:	Man-made, rocks, filter fabric and plants.	1	9

Bridge Inspection Report | Routine Inspection

SFN: 3160003

Grand Ave over Lick Run

Date Inspected: 09/16/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #33

C53. Hydraulic Opening: As designed. 1 9

N62. Channel Summary: Summary Rating: 9

C1. Pavement: New 2020; single dent @ SE. 1 9

C2. Approach Slabs: No separation between backwall and approach walks causing cracks in walk; actual approach slabs are excellent w very minor long. cracking. 1 7

C3. Relief Joints: Pressure relief jnt. slightly cracked; not continued through curb at NW; not continued in railings @ S. 1 8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Summary Rating: 7

C57. Utilities: 2 duct banks with PVC pipes supported by stainless steel hangers. 1 9

Utilities On Structure:

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 A

Inspection Notes: 2020 ongoing construction; punch list to be created; sidewalks used to store const. equipment; bridge bounces under light const. equipment.

Recommended Maintenance:

Assigned to:

1. Punch list to be created once construction is completed.
2. Protect cut off anchor bolts (railing posts).

Owner
Contract

Bridge Inspection Report | Routine Inspection

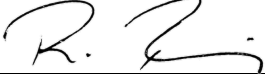
SFN: 3169920

Hutton Avenue Pedestrian Bridge over SORTA

Date Inspected: 03/25/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 5 A

Signature: 

Bridge No.: CITY (BP) #34

Route: Unit: Bridge Type / Date Built / Date Rehabbed: /
 Load Rating Percent (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Gunite repairs (1987); several spalls, 2 larger areas (1 near N steps 4'x3') w exp.rebar corroding {possible LOS}; cracks w minor efflor; possible delam.; rust stains in 4 bays; apparent water seeping through deck; stalactites on beams between lower beams 4 & 5 & halfway 3 to 4; 2 drain holes added in floor in late 2019. 2 5

C9. Curbs/Sidewalks: Membrane applied in 2019; foot imprints visible. 1 8

C11. Railing: Cracks & spalls - mainly on stairs; stains, moss; coating peeling; graffiti; isol.exp. rebar at steps; several small holes (from embedded wood) 6" deep at bottoms of posts; 4 drilled holes in railing in center pylon @ W {fascia} 1 7

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C12. Drainage: Deck opening w pipe extension @ S; 2 new (2019) drain holes @ N; corr; slight ponding @ bottom steps to Eastern & @ N end of bridge. 1 7

C13. Expansion Joints: New evozote 2019: collecting debris. 1 8

N58. Deck Summary: **Summary Rating: 5**

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: (Steel beams concrete encased not visible - part. assumed rating): Minor efflor. of conc. encasement; gunite repaired (1987); minor cracks {typical horiz crack @ BF elevation} & delam.; NE spall w exp. steel corr. over knee bracing; isol. stalactites; unsound areas of conc encasement @ BF fascia's. 2 6

C18. Floor Beams: Efflor. & wide cracking of conc. encasement; gunite repaired (1987); 6 FB w significant cracks or spalls on encasement (assumed rating d/t encasement); rust staining on 2 FB's; 1 FB w spalled conc exposing portions of steel beam. 2 5

N59. Superstructure Summary: **Not redundant; not fatigue prone; main span including substructure is concrete encased steel, approaches are reinforced concrete.** **Summary Rating: 5**

C38. Pier Columns: Columns gunite repaired (1987); mainly vert. cracks some isol rust stains; (approach piers are concrete without steel encasement, but not considered for this rating since the spans are less than 10'; some approach columns have vertical cracks in the corners (esp. SW column). 2 5

N60. Substructure Summary: **Summary Rating: 5**

Bridge Inspection Report | *Routine Inspection*

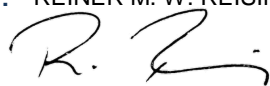
SFN: 3169920

Hutton Avenue Pedestrian Bridge over SORTA

Date Inspected: 03/25/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 A

Signature:  _____

Bridge No.: CITY (BP) #34

65. Vertical Clearance:

Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: Bridge is inventoried in SMS (formerly known as SFN 3199920).

General Appraisal / Operational Status: 5 A

Inspection Notes: S steps not on plans w pier columns suspected to be conc uncased steel steps not part of rating.

Recommended Maintenance:

1. Sweep deck & stairs.
2. Remove vegetation from N stairs.

Assigned to:

TROD
TROD

Bridge Inspection Report | Routine Inspection

SFN: 3160076

Ida Street Viaduct over Wareham

Date Inspected: 08/19/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #35

Route: IDA00 Unit: 3351

Bridge Type 153 / 172

Date Built / Date Rehabbed: 1931 / 2015

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Widespread delaminations, shallow spalls. of all sizes, some w exp rebar (in approach spans); sawcut in main span S of roadway; some patches have mapcracking and efflor. 1 loc. w rust staining; measurements written on floor with sharpie in main span. 2 6

C7.2. Edge of Floor: New 2016; very isol cracking; sealed in 2018. 1 8

C8. Wearing Surface: New 2016; very fine hairline map cracking throughout possible originating from curbs (smooth ride); 2 HL long. cracks in 2nd span from S w rust staining (low rebar cover?) 1 7

C9. Curbs/Sidewalks: New 2016; many trans crack in walk & vertical cracks in curb w minor efflor 1 7

C11. Railing: New 2016; flowerboxes added near pylons; 1 crack @ top under planter box w efflor. Cracks and effl. At top of railing pylons (tall pier pylons). 1 9

N36. National Safety Feature - Bridge Railing (0, 1 or N): 0

C12. Drainage: Several areas of minor ponding @ curb. 2 6

C13. Expansion Joints: New 2016; filled w debris; bats roosting in joint openings below. 1 8

N58. Deck Summary: Deck summary rated differently from floor. Floor is original 1931 concrete. New structural deck was applied in 1981 and new wearing surface in 2016. The visible floor is "formwork" for the actual deck. **Summary Rating: 7**

C14. Alignment of Members: 1 8

C18. Floor Beams: Widespread sound patches (2018), 1 not coated. 1 8

C24. Lateral Bracing: Patched and coated in 2018; 3 out of 4 appear to be not level (original construction). 1 8

C27. Arch: Patched and coated 2018. 1 9

C28. Arch Columns/Hangers: Patched and coated 2018. 1 9

N59. Superstructure Summary: Extensive patching work completed 2017/2018 **Summary Rating: 8**

C33. Abutment Walls: Patched and coated 2018, 1 8

C38. Pier Columns: Patched and coated 2018. 1 9

C40. Wingwalls: Patched and coated 2018; some "bowing" observed. 1 9

C43. Slope Protection: Dump rock in some areas, grass otherwise. 1 8

N60. Substructure Summary: Only a small portion of weepholes appear to be weeping. **Summary Rating: 8**

Bridge Inspection Report | Routine Inspection

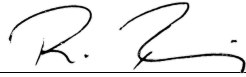
SFN: 3160076

Ida Street Viaduct over Wareham

Date Inspected: 08/19/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #35

C1. Pavement: New 2016; 1 trans. & 1 long. crack @ S originating from sewer manhole. 1 8

C4. Embankment: Seeded; rocks along wingwall. 1 8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Summary Rating: 8

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 A

Recommended Maintenance:

1. Seal interface between backwall & pavement w hot applied asphalt.
2. Fill in railing opening @ NE between abutment & church railing.
3. Paint over written measurements on the floor in the main span (punch list).

Assigned to:

Contract
Contract
Contract

Bridge Inspection Report | Routine Inspection

SFN: 3161900

Joe Nuxhall (Main Street) over Parking Garage

Date Inspected: 06/03/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #36

Route: MAIN Unit: 0000 Bridge Type 112 / NNN Date Built / Date Rehabbed: 2003 /
 Load Rating Percent 150 (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

- C7.1. Floor: Mostly isol. HL cracking in floor; widespread small rust staining apparently @ edges of formwork panels {formwork fasteners}. 1 8
- C7.2. Edge of Floor: Integral at E (flex cracking in N-S beam under Reds ballpark); partially concealed at W by trough; former spalling & delams apparent at SW (S of Freedom Way); widespread staining from former leakage @ SW {2018 no leakage detected}; HL cracks in W edge beam. 1 7
- C8. Wearing Surface: Widespread map cracking throughout with sev spalling at inlets w exp rebar & @ jnt armor; spalls along the poured joint (2' diameter); colored conc in crosswalks cracking near interfaces to existing conc. 2 6
- C9. Curbs/Sidewalks: Curbs painted while at N; decorative sidewalk pavers disintegrating just N of Freedom Way w five deeper holes developing in W walk. 1 7
- N36. National Safety Feature - Bridge Railing (0, 1 or N):
- C12. Drainage: S abutment trough filled w water & inlets, 8 inlets most are partially filled w debris. 2 6
- C13. Expansion Joints: W compression seal tearing; private joints @ SW {hotel} hot sealed; cover plates shifted & bent; S joint has widespread shredding of gland in N bound lanes; approach on walk settled causing slight step. 2 5

N58. Deck Summary: There are ground off fenceposts at the West side of the joint at the hotel, sticking out of the "walk" that could seriously hurt someone walking with bare feet (not in ROW). Summary Rating: 8

- C14. Alignment of Members: 1 8
- C15.2. Slab: Isol. HL cracking; build up of efflor @ W end of slab W of third inlet from N (under vehicle detection loop). 1 8

N59. Superstructure Summary: Vehicle detection loop in W sidewalk may cause water to enter into and casue damage to the slab. Summary Rating: 8

- C33. Abutment Walls: MSE walls that do not support structure.
- C37. Pier Caps: HL cracking under several conduit openings @ N end of bridge. 1 8
- C38. Pier Columns: Some columns twisted, random HL cracking; all but 7 N most rows are sealed by anti graffiti coating? 1 8

N60. Substructure Summary: Summary Rating: 8

- C1. Pavement: S only {concrete}: Localized narrow map cracking in 3' strip S of joint, much better to the S; staining & few small patches. 1 7
- N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N
- N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

Bridge Inspection Report | Routine Inspection

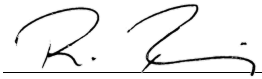
SFN: 3161900

Joe Nuxhall (Main Street) over Parking Garage

Date Inspected: 06/03/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #36

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Settlement @ S due to wall settlement (older issue).

Summary Rating: 7

C57. Utilities: Crowded with several utilities protruding the expansion joint trough and causing non-intended high points in troughs; S trough drain has little or no fall to main drain. 2 6

Utilities On Structure: Y N N N N N N

65. Vertical Clearance:

Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 8 A

Inspection Notes: Main drain line inspected in 2018; 2020 element level data available.

Recommended Maintenance:

1. Cut down fence post stumps W of bridge on Private (Hotel) property need to be removed!
2. Square off and repair broken wearing surface around inlets
3. Clean inlets.

Assigned to:

Hotel/Banks
TROD
Contract

Bridge Inspection Report

Element Level Inspection

Bridge: Joe Nuxhall
Number: City (BP) #36
SFN: 3161900

Inspector: RMR
Inspector: PMC
Date: 6/4/2020

Deck		Condition state					
		qty	1	2	3	4	TR
c7.1	Floor/Slab [SF]	26334	25700	625	9		1.04
c7.2	Edge of Floor/Slab [LF]	462	398	34	30		1.82
c8.	Wearing Surface [SF]	20328	13653	6585	90		1.47
c9.	Curb/Sidewalk [LF]	880	776	99	5		1.25
c10.	Median [LF]						
c11.	Railing [LF]						
N36	Safety feat. Rail [1,0,N]						N
c12.	Drainage [EA]	8	1	6	1		2.42
c13.	Exp. Joint [LF]	171	92	57	22		2.28
N58. Deck Summary							8

Superstructure		Condition state					
		qty	1	2	3	4	TR
c14.	Alignment [EA]	1	1				1
c15.1	Beams/Girders [LF]						
c15.2	Slab [SF]	15504	14870	625	9		1.1
c16.	Diaphragm/x Frame [EA]						
c17.	Stringers [LF]						
c18.	Floorbeams [LF]						
c19.	Truss Verticals [EA]						
c20.	Truss Diagonals [EA]						
c21.	Truss Upper Chord [EA]						
c22.	Truss Lower Chord [EA]						
c23.	Truss Gusset Plates [EA]						
c24.	Lateral Bracing [EA]						
c25.	Sway Bracing [EA]						
c26.	Bearing Devices [EA]						
c27.	Arch [LF]						
c28.	Arch Column/Hange[EA]						
c29.	Arch Spandrel Wall [LF]						
c30.	Prot Coating System [LF]						
c31.	Pins/Hangers/Hinge[EA]						
c32.	Fatigue [LF]						
N59. Superstructure Summary							8

Sign/Utility		Condition state					
		qty	1	2	3	4	TR
c55.	Signs [EA]						
c56.	Sign Supports [EA]						
c57.	Utilities [LF]						

Substructure		Condition state					
		qty	1	2	3	4	TR
c33.	Abutment Walls [LF]						
c34.	Abutment Caps [LF]						
c35.	Abut. Columns [EA]						
c36.	Pier Walls [LF]						
c37.	Pier Caps [LF]	1083	1083				1.00
c38.	Pier Columns [EA]	57	57				1.00
c39.	Backwalls [LF]						
c40.	Wingwalls [EA]						
c42.	Scour [EA]						
c43.	Slope Protection [EA]						
N 60. Substructure Summary							8

Culvert		Condition state					
		qty	1	2	3	4	TR
c44.	General [LF]						
c45.	Alignment [LF]						
c46.	Shape [LF]						
c47.	Seams [EA]						
c48.	Headwalls/Endwalls [EA]						
c49.	Scour [EA]						
c50.	Abutments [LF]						
N 62. Culvert Summary							

Channel		Condition state					
		qty	1	2	3	4	TR
c51.	Alignment [LF]						
c52.	Protection [LF]						
c53.	Hydraulic Opening [EA]						
c54.	Navigation Lights [EA]						
N 61. Channel Summary							

Approach		Condition state					
		qty	1	2	3	4	TR
c1.	Wearing Surface [EA]						
c2.	Approachslab [SF]						
c3.	Relief Joint [LF]						
c4.	Embankment [EA]						
c5.	Guardrail [EA]						
N36	Safety fet. TR, GR, TM			N	N	N	
N 61. Approach Summary							

N 59. General Appraisal and Operational Status 8 A

Bridge Inspection Report | Routine Inspection

SFN: 3160004

Kebler Ave over Lick Run

Date Inspected: 09/16/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #37

Route: Unit: Bridge Type / Date Built / Date Rehabbed: /
 Load Rating Percent (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: See item beams.	1	9
C7.2. Edge of Floor: Vert. HL cracking @ E.	1	8
C8. Wearing Surface: 2 long. cracks; stained from const. debris.	1	8
C9. Curbs/Sidewalks: Vert. HL cracks in curbs; scrapes, stains, & abrasion spalls on sidewalk from conc. barriers; HL cracking developing in sidewalks.	1	8
C11. Railing: Conc portion sealed; metal w uneven paint (fins/tears). Cut-off anchor bolts corroding.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N):		
C12. Drainage: Off bridge.		
C13. Expansion Joints: Filled w debris.	1	9

N58. Deck Summary: Summary Rating: 9

C14. Alignment of Members:	1	9
C15.1. Beams/Girders: Slight isol. honey combing.	1	9
C26. Bearing Devices: Mostly concealed.	1	9

N59. Superstructure Summary: Summary Rating: 9

C33. Abutment Walls: Reg. spaced vert. cracks +/- 5 per abutment; conduit protruding @ N abutment; crack w buildup of efflor @ SE pilaster footer.	1	8
C39. Backwalls: Trans. HL cracks @ top.	1	8
C40. Wingwalls:	1	9
C42. Scour:	1	9

Scour Inspection Type

N60. Substructure Summary: Summary Rating: 8

C51. Channel Alignment: Artificial channel, lay out by design.	1	9
C52. Channel Protection: Man-made, rocks, filter fabric and plants.	1	9
C53. Hydraulic Opening:	1	9

N62. Channel Summary: Summary Rating: 9

Bridge Inspection Report | Routine Inspection

SFN: 3160004

Kebler Ave over Lick Run

Date Inspected: 09/16/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #37

C1. Pavement: New 2020. 1 9

C3. Relief Joints: 1 9

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Summary Rating: 9

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 A

Inspection Notes: Pavement markings peeling off.
Punch list to be developed once construction is completed.
Construction ongoing 2020.

Recommended Maintenance:

Assigned to:

1. Punch list will be developed, bridge still under contractor's control.

Bridge Inspection Report | Routine Inspection

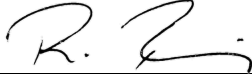
SFN: 3162958

Kennedy Connector Bridge over Duck Creek

Date Inspected: 04/10/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #38

Route: KENDY Unit: Bridge Type 155 / Date Built / Date Rehabbed: 2013 /
 Load Rating Percent 150 (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor:	See item 27.	1	8
C8. Wearing Surface:	Concrete	1	8
C9. Curbs/Sidewalks:	Isol. cracks & small spalls from aggregate cracks in colored concrete portion; few popouts in walks.	1	8
C11. Railing:	Regularly spaced vert. HL cracks w slight efflor.(shrinkage cracks due to missing panel joints); coating starting to peel @ railing cracks.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N):	1		
C12. Drainage:	Off the bridge; preformed joints between colored conc. & regular walk appear to allow water to enter.	1	8

N58. Deck Summary: Per ODOT, the deck summary of filled arches should be coded "N" Summary Rating:

C14. Alignment of Members:	Slight offset of adjacent arches; uneven jnt. width {construction}	1	8
C27. Arch:	+/- 4 sq ft. patches in the North span (3rd & 7th segments from the W);2 spalls in the 2nd segment from the E&W of the S span; HL trans. flexure cracks in the floor appear widespread and closely spaced (less than 1") but very narrow (<.04"), these cracks appear to be concentrated @ mid span of arches & are only visible from close range; leakage between adjacent segments near the pier in the S span; efflor built up @ tie holes over pier; graffiti	1	8
C29. Arch Spandrel Walls:	Crack on the E side; considerable drainage/seepage through the E and W drain pipes at the pier, spall in the SW wall; widespread indentations of rebar spacers esp @ E.	1	8

N59. Superstructure Summary: Summary Rating: 8

C36. Pier Walls:	Horiz. crack with efflor. on the S side; horiz. offset of pier (const. issue) between the utility and the bridge; vetical cracks @ N; graffiti; staining from leakage.	1	8
C42. Scour:	Conc channel bed.	1	9
Scour Inspection Type	1		
C43. Slope Protection:	Few cracks on sloped section.	1	8

N60. Substructure Summary: Widespread leakage @ pier; E drain pipe has steady dripping 1 day after rain, W drain dry. Summary Rating: 8

C51. Channel Alignment:		1	9
C52. Channel Protection	Cracks, in sloped areas, some w efflor.	1	8

Bridge Inspection Report | Routine Inspection

SFN: 3162958

Kennedy Connector Bridge over Duck Creek

Date Inspected: 04/10/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #38

C53. Hydraulic Opening: Minor build up of soil @ pier in S span. 1 8

N62. Channel Summary: Summary Rating: 8

C1. Pavement: 1 8

C4. Embankment: Well vegetated. 1 8

C5. Guardrail: On Duck Creek Rd side only.

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): 1

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 1

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 1

C6. Approaches Summary: Summary Rating: 8

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 A

General Notes: Watermain shares pier, but is not considered as part of this report.

Recommended Maintenance:

Assigned to:

1. Remove vegetation from joint between walks and railing, then caulk joints.
2. Caulk preformed joints between colored conc. & regular s/w conc.

TROD
TROD

Bridge Inspection Report | Routine Inspection

SFN: 3163008

Kennedy Connector Bridge over SORTA/IORY

Date Inspected: 05/20/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #39

Route: KENDY Unit: 0002

Bridge Type 195 / NNN

Date Built / Date Rehabbed: 2013 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating
1 to 4Rating
9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N):

C44. Culvert - General:	Isol HL map cracking on sev segments; 2 loc. w minor leakage @ top of arch, 1 w moderate leakage (segment 11 from E) & after rain segment 11 from W; graffiti.	1	8
C45. Culvert - Alignment:	Slight stepping between adjacent segments @ the top of the arch (by design); 9th segment from W has opposite step; there is a wider gap between 1st & 2nd segment from both ends @ tops only; slight transverse shift @ center joint (not in a straight line).	1	8
C47. Culvert - Seams:	See culvert General; leakage at one location in particular (between segments 10, 11, 22, & 23 from E).	1	8
C48. Culvert - Head/End Walls:	Some scrapes on isol. panels @ the SW; slight variations in some joint spacings; graffiti.	1	8

N60. Culvert Summary: Adjacent wingwalls: 1 panel broken @ SW, few minor scrapes and graffiti. Summary Rating: 8

C1. Pavement:	Concrete w grooves but not cut, hence irregular groove pattern; mostly long. cracks in left N bound lane; 1 crack in S bound lanes.	1	8
C4. Embankment:	Well vegetated.	1	8
C5. Guardrail:	New guardrail (but wood blocks were used) extending way beyond bridge limits.	1	8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Summary Rating: 8

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 A

Inspection Notes: Settlement of ground below bridge 2' S of N footer almost full length; erosion channels inside culvert @ NW; 2020 inspection after extreme rain showed leaking @ segment 11 from W, that was not previously observed; ongoing construction (2020) @ SE w large stock piles of dirt near duke pole. 2020 Element Level data on file.

Bridge Inspection Report

Element Level Inspection

Bridge: Kennedy Connector Bridge over SORTA/IORY

Inspector: Reiner Reising

Number: CITY (BP) #39

Inspector: Phil McCoy

SFN: 3163008

Date: 5/20/2020

Item Number	Description	Unit	Quantity	Condition States				TR
				CS 1	CS 2	CS 3	CS 4	
241	Reinforced Concrete Culvert	LF	228	217	11			1.07
835	Culvertg End Treatment	EA	2	2				1.00
845	Culvert Roadway Condition	EA	1	1				1.00
4	Culvert Summary		0					8
330	Metal Bridge Railing	LF	170	170				1.00
1.5	General Appraisal		0					8

Bridge Inspection Report | Routine Inspection

SFN: 3160130

Kenton Street Bridge over Florence

Date Inspected: 05/04/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #40

Route: KENTN Unit: 3361

Bridge Type 322 / NNN

Date Built / Date Rehabbed: 1998 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Widespread trans. cracks w efflor.	1	7
C7.2. Edge of Floor: Widespread transverse cracking w efflor. at fascia.	1	7
C8. Wearing Surface: Trans. cracks; wider over piers; few short long. HL cracks, no delam detected.	1	7
C9. Curbs/Sidewalks: Many wide trans. cracks with efflor.; HL map cracking, popouts, and scaling; isol edge spalling along the top of the curb.	1	7
C11. Railing: Trans. cracking along the top; cracks w efflor. are propagating from the openings; the grout is spalling over the PEJF E railing pilasters; isol. edge spalling along the posts; 3rd panel from NE cold joint w 1 wide crack; isol. areas of buildup of efflor.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage: Street inlets off bridge.	1	9
C13. Expansion Joints: Lots of debris in the joints; HL long. cracks in the joint (conc header) w minor spalling.	1	8

N58. Deck Summary:

Summary Rating: 7

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: The N beam top flange at the E end is <1" away from backwall; rust on the TF of beams @ few deck cracks (these are the only areas of corr.)	1	8
C16. Diaphragms/X-Frames:	1	8
C26. Bearing Devices: Many anchor bolts stick out high @ the piers; excess threads painted but nuts not tighten to flanges; some anchor bolts leaning; 2 bearings at the E pier are not in total bearing with the pier seat; bearings @ W in slight hot weather mode.	2	6
C30. Protective Coating System (PCS): System: IZEU Year: 1999 IZEU (1999) - Interior coat shows through the top coat (small spots - workmanship issue); active corr. along the top flange at the widest deck cracks; bolted connection at the SW abutment is only brushed paint.		PCS Rating: 8
C32. Fatigue Prone Details: Full weld connection @ 2 locations (points of inflection); category D	1	8

N59. Superstructure Summary:

Summary Rating: 8

C33. Abutment Walls: Minor cracks and spalling in the stone; E (masonry is part of old abutment; new conc. abutments are on drilled shafts hence masonry condition is not considered for the rating); minor HL vert. cracks in the concrete.	1	8
C37. Pier Caps: Many vertical cracks some with minor efflor.; bugholes.	1	7
C38. Pier Columns: HL map cracking and vertical cracks.; bugholes.	1	7

Bridge Inspection Report | Routine Inspection

SFN: 3160130

Kenton Street Bridge over Florence

Date Inspected: 05/04/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #40

C39. Backwalls:	Trans cracks on the top; shrinkage cracks and minor vertical cracks with efflor. (0.013").	1	7
C40. Wingwalls:	Isol. stone deter w spalling, cracking and mortar deter; crack and efflor at the top on the NW wingwall.	1	8
C43. Slope Protection:	Dump rock; extreme amount of trash including used toilet paper.	1	8

N60. Substructure Summary: Summary Rating: 7

C1. Pavement:	few cracks; shallow pothole @ SW intersection of streets.	1	7
C4. Embankment:	Overgrown @ N; trash accumulating; cleared and seeded @ SE.	1	8
N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):	N		
N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):	N		
N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):	N		

C6. Approaches Summary: Summary Rating: 7

65. Vertical Clearance: Bridge taller than 25'. Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Inspection Notes: Camps on both abutment platforms; widespread feces on W abutment wall & slope protections.

Recommended Maintenance:	Assigned to:
1. Trim trees & vines from railing and bridge @ N side.	TROD
2. Remove tree @ NE scrapping against bridge.	TROD
3. Consider deck sealing.	TROD

Bridge Inspection Report | Routine Inspection

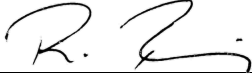
SFN: 3161838

Lincoln Avenue Bridge over Open Land

Date Inspected: 05/12/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #41

Route: LINCN Unit: 3701

Bridge Type 322 / NNN

Date Built / Date Rehabbed: 1953 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor:	Delaminations; few small spalls along the haunches; rust staining along the centerline const jnt; widespread HL mapcracking (some w minor efflor) & many patched areas; spalls at the utility connections with exposed rebar; several trans. cracks w exp. bars & patched & isol rust staining areas esp under N walk.	2	6
C7.2. Edge of Floor:	Isol. cracking in some fascia spalls.	1	7
C8. Wearing Surface:	Short piece of rusted rebar visible @ center of bridge; few short isol. HL cracks.	1	8
C9. Curbs/Sidewalks:	Map cracking & delaminating @ 6 locations; N walk & N curb top layer delamination (over-finished concrete).	1	7
C11. Railing:	Some bolts missing/lifted; cracking through conc. horiz members; spalling @ some conc. pedestals, some w exp rebar.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N):			
C12. Drainage:	2 Drains @ E side, partially clogged.	1	7
C13. Expansion Joints:	New 2020 seal @ E (this is the side that takes all the expansion); filled w debris @ W; corr. of joint armor esp @ W.	1	8

N58. Deck Summary:

Summary Rating: 6

C14. Alignment of Members:		1	8
C15.1. Beams/Girders:	Cover plates almost over the entire beam length; very few haunch spalls @ TF corroding.	1	8
C16. Diaphragms/X-Frames:		1	8
C26. Bearing Devices:	Bolts missing at various rocker bearings (E Abutment (4); surface corr on the rockers; fixed bearing @ W abutment w surface rust; up to sev corr on E abut bearings others much better.	2	6
C30. Protective Coating System (PCS):	System: Painted 2007; very isol minor rusting @ fascia's. Year: 2007	PCS Rating: 8	
C32. Fatigue Prone Details:	Many cover plates, all visible welds intact. (2nd span from W, 2nd beam from N has a small "cut" in the cover plate end, but the surrounding weld is intact; full penetration splice welds.	1	8

N59. Superstructure Summary:

Summary Rating: 8

C33. Abutment Walls:	Vert cracking; single rust stain @ E; horiz. HL cracks.	1	7
C37. Pier Caps:	HL vert cracks under some bearings	1	8
C38. Pier Columns:	Small spall @ bottom of E pier w exp rebar; larger spall adjacent to delam @ bottom of 2nd pier from E.	1	8

Bridge Inspection Report | Routine Inspection

SFN: 3161838

Lincoln Avenue Bridge over Open Land

Date Inspected: 05/12/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #41

C39. Backwalls: Minor spalling at the W backwall near the utilities and at the S end; full length patch from joint/approach slab reconstruction. 1 7

C40. Wingwalls: Partially assumed rating. 1 7

N60. Substructure Summary: Summary Rating: 7

C1. Pavement: Asphalt pavement @ E; concrete @ W. 1 8

C2. Approach Slabs: Very minor HL cracks. 1 8

C3. Relief Joints: @ W only. 1 8

C4. Embankment: Overgrown 1 8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Summary Rating: 8

C57. Utilities: Corrosion at the ends & utility hangers. 2 6

Utilities On Structure: N N N Y N N N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Inspection Notes: Access gate on underside had city lock replaced in 2017; gates below found open during 2018 inspection; locks not properly daisy chained during the 2020 inspection; element level data available for 2020 inspection.

General Notes: Shared access with Frisches proves to be difficult since the locks are usually not found in properly daisy chained... access during emergency is questionable.

Recommended Maintenance:

Assigned to:

1. Trim trees along bridge @ SW.

TROD

Bridge Inspection Report

Element Level Inspection

Bridge: Lincoln Ave over open Land
Number: City (BP) #41
SFN: 3161838

Inspector: RMR
Inspector: PMC
Date: 05/12/2020

		Condition state					TR
		qty	1	2	3	4	
c7.1	Floor/Slab [SF]	14750	12677	1950	123		1.31
c7.2	Edge of Floor/Slab [LF]	546	504	40	2		1.16
c8.	Wearing Surface [SF]	12000	11799	200	1		1.03
c9.	Curb/Sidewalk [LF]	546	423	123			1.30
c10.	Median [LF]						
c11.	Railing [LF]	546	518	26	2		1.13
N36	Safety feat. Rail [1,0,N]						
c12.	Drainage [EA]	2	0	2			2.00
c13.	Exp. Joint [LF]	108	38	70			1.73
N58. Deck Summary						6	

		Condition state					TR
		qty	1	2	3	4	
c14.	Alignment [EA]	5	5				1
c15.1	Beams/Girders [LF]	2184	2157	27			1.02
c15.2	Slab [SF]						
c16	Diaphragm/x Frame [EA]	133	133				1.00
c17.	Stringers [LF]						
c18.	Floorbeams [LF]	42	42				1.00
c19.	Truss Verticals [EA]						
c20.	Truss Diagonals [EA]						
c21	Truss Upper Chord [EA]						
c22.	Truss Lower Chord [EA]						
c23.	Truss Gusset Plates [EA]						
c24.	Lateral Bracing [EA]						
c25.	Sway Bracing [EA]						
c26.	Bearing Devices [EA]	48	35	10	3		1.90
c27	Arch [LF]						
c28.	Arch Column/Hang[EA]						
c29.	Arch Spandrel Wall [LF]						
c30	Prot Coating System [LF]						
c31	Pins/Hangers/Hinge[EA]						
c32.	Fatigue [LF]						
N59. Superstructure Summary						8	

		Condition state					TR
		qty	1	2	3	4	
c55.	Signs [EA]						
c56.	Sign Supports [EA]						
c57	Utilities [LF]						

		Condition state					TR
		qty	1	2	3	4	
c33.	Abutment Walls [LF]	108	46	59	3		1.88
c34.	Abutment Caps [LF]						
c35.	Abut. Columns [EA]						
c36.	Pier Walls [LF]						
c37.	Pier Caps [EA]	200	183	17			1.12
c38.	Pier Columns [EA]	8	8				1.00
c39.	Backwalls [LF]	108	49	59			1.64
c40.	Wingwalls [EA]	2	2				1.00
c42.	Scour [EA]						
c43.	Slope Protection [EA]						
N 60. Substructure Summary						7	

		Condition state					TR
		qty	1	2	3	4	
c44.	General [LF]						
c45.	Alignment [LF]						
c46.	Shape [LF]						
c47.	Seams [EA]						
c48.	Headwalls/Endwalls [EA]						
c49.	Scour [EA]						
c50.	Abutments [LF]						
N 62. Culvert Summary							

		Condition state					TR
		qty	1	2	3	4	
c51.	Alignment [LF]						
c52.	Protection [LF]						
c53.	Hydraulic Opening [EA]						
c54.	Navigation Lights [EA]						
N 61. Channel Summary							

		Condition state					TR
		qty	1	2	3	4	
c1.	Wearing Surface [EA]	2	2				1.00
c2.	Approachslab [SF]	1320	1245	74	1		1.09
c3.	Relief Joint [LF]	1	1				1.00
c4.	Embankment [EA]						
c5.	Guardrail [EA]						
N36	Safety fet. TR, GR, TM			1	1	1	
N 61. Approach Summary						8	

N 59. General Appraisal and Operational Status						7	A
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Bridge Inspection Report | Routine Inspection

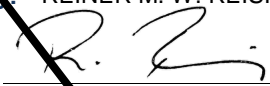
SFN: 3161935

Madison Road Pedestrian Bridge East of IORY

Date Inspected: 07/19/2019

Inspected By: REINER M. W. REISING, P.E.

Summary Rating / Operational Status: 5 A

Signature: 

Bridge No.: CITY (BP) #42

Route: MADSN Unit: 0357

Bridge Type: 321 / NNN

Date Built / Date Rehabbed: 1959 / 1982

Load Rating Percent: 000

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Seepage precast jts; stalactites near joints; spall in E span @ jnt w exp rebar.	2	6
C7.2. Edge of Floor: Stalactites near joints.	1	7
C9. Curbs/Sidewalks: Sealed w silane sealer (1998); trans. cracks @ precast jts; minor cracking @ handrail anchorage; grout damage @ some lift holes; few spalls; delaminations @ one precast joint.		
C11. Railing: Inter. coating showing thru paint top coat; posts not mounted on original base plates, not all anchor bolts could be installed due to offset base plate (const. issue); in addition to current vinyl remc	1	7
N36. National Safety		
C12. Drainage: O	1	8
C13. Expansion Joi	2	6

REMOVED

N58. Deck Summary

Rating: 6

C14. Alignment of Members: Bridge slightly higher than approaches (3/4" @ S - 1/2" @ N); flanges not lined up vertically over pier (const.).	1	7
C15.1. Beams/Girders: LOS @ web - part. @ jts; gunite overspray @ S beam end; debris on BF; heavy pitting on stiffeners & iso. BF locs.; TF corroding under deck joints; corr on w beam in S span @ top of BF, fascia side; graffiti.	2	5
C16. Diaphragms/X-Frames: Crack in welds @ several beam connections; pitting on individual members.	2	5
C24. Lateral Bracing: Rusting w LOS at member ends; cracks in welds of several beam connections; 1st brace S of pier no longer connected on 1 side, S most braces @ W beam possibly no longer connected; lateral bracing no longer effective.	3	3
C26. Bearing Devices: Corr. & LOS; poor initial alignment; anchor bolts in poor cond. (LOS); gunite overspray @ S beam end; anchor nuts not completely tightened down @ S abut; anchor bolt of fixed bearing over pier lifted.	2	5
C30. Protective Coating System (PCS): System: OZEU Year: 1992 Top coat peeling/bubbling; widespread paint failure; active corrosion, esp @ jts, worse @ W.		PCS Rating: 4

N59. Superstructure Summary: Not redundant, not fatigue prone, bridge consists of 2 simple spans.

Summary Rating: 5

C33. Abutment Walls: Gunite repaired (1988/1997); cracks built-up of efflor at top; patched 2012 @ S.	2	6
C36. Pier Walls: Gunite repaired (1988); aparent delams & map cracking w efflor. @ top; patched spall @ SE {cracked but sound}; rust stains; crack @ SW near bearing w build up of efflor.	2	5

Bridge Inspection Report | Routine Inspection

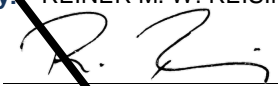
SFN: 3161935

Madison Road Pedestrian Bridge East of IORY

Date Inspected: 07/19/2019

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status: 5 A

Signature: 

Bridge No.: CITY (BP) #42

C39. Backwalls: Minor HL cracks.

1 7

N60. Substructure Summary:

Summary Rating: 5

65. Vertical Clearance: Signed clearance applies to adjacent RR bridge.

Vert. Clearance Rating: 1

N59. General Approach and Oper. Status:

al / us: 5 A

Inspection Notes:

REMOVED

ame

General Notes: AC
Reinforcement and deck replacement planned as part of Oakley Gateway project.

Recommended Maintenance:

Assigned to:

1. Plans for superstructure replacement is part of Oakley Gateway, ongoing.

Bridge Inspection Report | Routine Inspection

SFN: 3161936

Madison Road Pedestrian Bridge East of IORY

Date Inspected: 12/09/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: City (BP) #42

Route: MADSN Unit: 0357

Bridge Type 322 / NNN

Date Built / Date Rehabbed: 1959 / 2020

Load Rating Percent 000

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor:	(new CIP floor 2020).	1	9
C7.2. Edge of Floor:	Drip edges installed.	1	9
C9. Curbs/Sidewalks:	New 2020		
C11. Railing:	New 2020 ped. handrail on both sides and decorative arch at E. Handrail anchor bolts cut (not yet painted). Arch needs covers on electric handholes.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N):	N		
C12. Drainage:	Over the side.	1	9
C13. Expansion Joints:	New 2020, evazote with WABO cover plates.	1	9

N58. Deck Summary: Summary Rating: 9

C14. Alignment of Members:		1	8
C15.1. Beams/Girders:	(2020 rolled beams with splice in N span).	1	9
C16. Diaphragms/X-Frames:	(2020 new C sections). Pigeons starting to roost.	1	9
C26. Bearing Devices:	(2020 elastomeric bearings).	1	9
C30. Protective Coating System (PCS):	System: IZEU Year: 2020 Not completed at time of inspection (splices, and touch up elsewhere).	PCS Rating:	8

N59. Superstructure Summary: Summary Rating: 9

C33. Abutment Walls:	Patched and sealed 2020, tops rebuilt in 2020. All sound, but former patches detectable through sealant.	1	8
C36. Pier Walls:	Patched and sealed 2020, top rebuild in 2020. All sound, but former patches detectable through sealant.	1	8
C39. Backwalls:	New 2020.	1	9

N60. Substructure Summary: Summary Rating: 8

Bridge Inspection Report | *Routine Inspection*

SFN: 3161936

Madison Road Pedestrian Bridge East of IORY

Date Inspected: 12/09/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: City (BP) #42

65. Vertical Clearance: 14'-5" in both directions (measured).

Vert. Clearance Rating: 1

**N59. General Appraisal
and Oper. Status:**

**General Appraisal /
Operational Status: 8 A**

Inspection Notes: Ribbon cutting 12-18-2020
Some punchlist items remaining.

General Notes: Access to S structural steps is provided through MH @ S end of bridge.

Recommended Maintenance:

Assigned to:

1. See Punchlist

Bridge Inspection Report | Routine Inspection

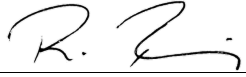
SFN: 3161889

Madison Road Pedestrian Bridge West of IORY

Date Inspected: 07/14/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: CITY (BP) #43

Route: MADSN Unit: 0355

Bridge Type 321 / NNN

Date Built / Date Rehabbed: 1959 / 1982

Load Rating Percent 000

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Minor seepage @ precast jts; 1 transverse crack w efflor; HL trans cracks both sides of N pier; bearing material between beams and slab irregularly squeezing out.	1	7
C7.2. Edge of Floor: Spall @ NE (6" long 1" deep @ top edge).	1	7
C9. Curbs/Sidewalks: Sealed with silane sealer (1998); trans. cracks @ precast jts, some w/ spalls; stains from painting; popouts of grout @ lift holes, esp @ E; spall @ E under railing post & W over wbound lane; cracking @ deck joint over E bound traffic.		
C11. Railing: Inter. coat showing thru top coat of paint; minor dings; some baseplates appear cracked at one anchor bolt; waviness in handrails; some railing exp jnts appear tight.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: Over the side.	1	9
C13. Expansion Joints: Armor uneven @ N pier - approx 3/4" {vertically}; new comp. seals (1991); minor conc. Spalling around header over N pier & @ N abutment; no metal armor on abutment side of the abutment joints; beams being so close to deck of adjacent span may impact ability to expand (see item alignment).	2	6

N58. Deck Summary:

Summary Rating: 7

C14. Alignment of Members: Beams misaligned vert. @ N pier; slight sag in beams @ center span; center span beam (W) extending over exp. jt (N), almost touching N deck; vert. offset over N pier @ W beam; several dents in BF over EB traffic (only affectin g flange, not the web).	2	6
C15.1. Beams/Girders: 3 dents from impacts @ SW bottom flange; LOS, heavy pitting (esp @ jts.); beams misaligned vert. @ pier; slight sag in center span; isol corr @ top of BF's.	2	5
C16. Diaphragms/X-Frames: Corr. w initial LOS; birds roosting.	2	6
C24. Lateral Bracing: LOS.	2	6
C26. Bearing Devices: Top retainer bracket failed @ E (over S pier); gunite overspray on bearings @ S pier; bolts & nuts heavy LOS and pack rust at all bearings (movement most likely restricted due to rust); fixed bearings over S pier aparently disintegrating from pack rust.	3	4
C30. Protective Coating System (PCS): System: Year: 1992 Widespread flaking w underlying rust particularly in center span.		PCS Rating: 3

N59. Superstructure Summary: Non redundant; not fatigue prone.

Summary Rating: 5

Bridge Inspection Report | Routine Inspection

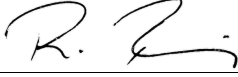
SFN: 3161889

Madison Road Pedestrian Bridge West of IORY

Date Inspected: 07/14/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 5 A

Signature: 

Bridge No.: CITY (BP) #43

C33. Abutment Walls:	Gunite repaired (1997); cracks w efflor; delams.; rust staining @ both abutments; curtain wall @ NE spalled w exp. rebar..	2	6
C36. Pier Walls:	Gunite repaired (1997), patched (2011); delam. of gunnite cracking w heavy efflor. & rust staining on both piers, esp @ top; full width cut @ N face of N pier as part of upcoming const.	2	6
C39. Backwalls:	Cracks w built-up of efflor. - esp. around corners; minor spalls.	2	6

N60. Substructure Summary:

Summary Rating: 6

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 5 A

Inspection Notes: Rehab work upcoming summer 2020 as part of Oakley gateway project. Bridge was closed during this inspection to traffic but barriers have been moved by vandals. Rehab contract will include painting, bearing replacement, substructure patching/repairs, and girder heat straightening.

General Notes: Adjacent RR bridge controls vertical clearance restriction.

Bridge Inspection Report | Routine Inspection

SFN: 3106462

Main Street Cable Stayed Pedestrian Bridge over FWW - East Side

Date Inspected: 08/27/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #44

Route: 71 Unit: 101 Bridge Type 3A4 / NNN Date Built / Date Rehabbed: 2000 /
 Load Rating Percent 000 (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Trans. cracks w minor efflor; honeycombing @ S; thin delams flaking @ N abut, crushing against vehicular bridge; honeycombing @ S; full length patch @ E fascia over const. jnt.	1	7
C7.2. Edge of Floor: Vertical cracks w slight efflor.; wires sticking out of the concrete {W} fascia S pier; material {caulk}, squeezing out between deck & beam @ NW.	1	7
C9. Curbs/Sidewalks: Sealed in 2015; many wider trans. cracks (spaced less than 5'); diag. cracks @ corners.	1	7
C11. Railing: Horiz. crack @ E fascia {const jnt?}; vert. cracks w efflor; cracks in back of parapet @ anchors for stainless steel grating coinciding w light locs; loose anchor bolt @ grating support N of pier.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		

N58. Deck Summary:

Summary Rating: 7

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Many distinct areas of corrosion @ BF (from former attachments/transport?); widespread staining on BF.	1	7
C16. Diaphragms/X-Frames: Minor rusting @ N abut; end diaphragm @ S apparently cracked between splices, wiped off dirt indicates close up inspection.	1	8
C18. Floor Beams: Minor rust - esp @ cantilever kinks, esp #2 from S; widespread staining on BF.	1	8
C24. Lateral Bracing: Not real bracing; loose bolts on galvanized T's; isolated initial corr.	1	8
C26. Bearing Devices: Intitial corr. over pier.	1	7
C30. Protective Coating System (PCS): System: IZEU Year: 2000		PCS Rating: 6
Rusting BF esp @ several distinct locations {3 areas w laminating corr}, possible erection damage locations; slight corr. on lower bracing {esp ends} and fasteners; also @ SE beam splice @ filler plate & cantilever pins; paint failing on cables.		

N59. Superstructure Summary:

Summary Rating: 7

C33. Abutment Walls: Concealed, assumed rating.	1	8
C37. Pier Caps: Cracks w sig. efflor.; patches @ corners @ bottom of steel tower.	1	8
C38. Pier Columns: Minor HL cracking esp @ E face.	1	8

N60. Substructure Summary:

Summary Rating: 8

Bridge Inspection Report | Routine Inspection

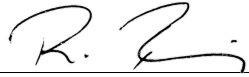
SFN: 3106462

Main Street Cable Stayed Pedestrian Bridge over FWW - East Side

Date Inspected: 08/27/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #44

C91. Deck Anchors:	Various degrees of corrosion at pins at floorbeam cantilevers.	1	8
C92. Tower Anchors:	No issues detected.	1	9
C96. Cable Alignment:	Only the two center cables carry significant load (thicker cables to offset the pier support). The outer two cables are easily "plucked". Bottom stays are decorative only.	1	9
C97. Cable Condition:	Paint fading; secondary decorative cables corroding near turnbuckles (not considered for rating).	1	8

Summary Rating: 8

C57. Utilities:	Wires coming from W edge of floor dangling below S of pier. everal spot lights may not work, but there are potential plans to replace lights with LED	1	7
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Utilities On Structure: Y N N N N N N

65. Vertical Clearance:		Vert. Clearance Rating: 1
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N59. General Appraisal and Oper. Status:		General Appraisal / Operational Status: 7 A
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Inspection Notes: Streetcar drilled bolts for the OCS into the tower. Two wires across main street were added (2015-16)
S; some decorative cables vibrating under ambient load.
New (2020) wearing surface on I-71
Grates: many fasteners corroding or not fully tightened, some support tabs rotated and not fully seated.

General Notes: HAM-71-0100

Recommended Maintenance:		Assigned to:
1. Fill gap between ped and vehicular bridge at ends with PEJF.		TROD
2. Fill in void in grassy area @ NE.		TROD

Bridge Inspection Report | Routine Inspection

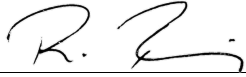
SFN: 3106403

Main Street Cable Stayed Pedestrian Bridge over FWW - West Side

Date Inspected: 08/27/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #45

Route: 71 Unit: 99 Bridge Type 3A4 / NNN Date Built / Date Rehabbed: 2000 /
 Load Rating Percent 000 (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Trans. cracks w minor efflor & mapcracking @ S; minor spalls @ N abut, crushing against vehicular bridge; honeycombing @ S; full length patch @ E fascia over const. jnt.	1	7
C7.2. Edge of Floor: Vertical cracks w slight efflor.; material {caulk?} squeezing out between deck & beam.	1	7
C9. Curbs/Sidewalks: Sealed in 2015; trans. cracks (some wider, spaced @ 3'-5'); diag. cracks @ corners; 2 minor potholes @ S; broken light fixture @ N.	1	7
C11. Railing: Cracks w efflor @ NW corner; sleeve in handrail loose @ S; cracks in back of parapet where stainless steel grating is anchored coincide w light locs.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		

N58. Deck Summary: **Summary Rating: 7**

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Widespread staining @ BF.	1	8
C16. Diaphragms/X-Frames:	1	8
C18. Floor Beams: Slight corrosion - esp. @ kink in cantilever portion; widespread staining @ BF.	1	8
C24. Lateral Bracing: (Decorative T's rather than actual bracing).	1	8
C26. Bearing Devices: Corr. @ pier @ anchor plate.	1	7
C30. Protective Coating System (PCS): System: IZEU Year: 2000 PCS Rating: 7 Some rusting on horiz. tie-rod; rusting on decor. rods; paint missing (topcoat) on cables; isol. rusting on outriggers & lower lateral bracing.		

N59. Superstructure Summary: **Some areas (esp fasteners) touched up w cold galvanized spray (silver).** **Summary Rating: 8**

C33. Abutment Walls: Concealed, assumed rating.	1	8
C37. Pier Caps: Cracks w efflor. @ bottom of steel tower; patches @ corners below steel tower.	1	8
C38. Pier Columns: Minor HL cracking.	1	8

N60. Substructure Summary: **Summary Rating: 8**

Bridge Inspection Report | Routine Inspection

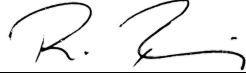
SFN: 3106403

Main Street Cable Stayed Pedestrian Bridge over FWW - West Side

Date Inspected: 08/27/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #45

C91. Deck Anchors:	Varying degrees of corrosion around the pins at the floorbeam anchorage.	1	8
C92. Tower Anchors:	No issues detected. (2015) streetcar added OCS attachment.	1	9
C96. Cable Alignment:	Only the Cneter cables carry significant load (to counter pier support), the outside cables are smaller and less tensioned (can be "plucked easily). The bottom left and right stays are purely decorative.	1	9
C97. Cable Condition:	Fading of paint.	1	8

Summary Rating: 8

C57. Utilities: Fasteners corr. Several spot lights may not work, but there are potential plans to replace lights with LED. 1 7

Utilities On Structure: Y N N N N N N

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 A

Inspection Notes: Streetcar drilled bolts for the OCS into the tower. Two wires across main street were added (2015-16)
Some support tabs of the grating are turned, compromising connection; corr. of many fasteners , some nuts not fully tight.
New 2020 wearing surface on I-71.

General Notes: HAM-71-0100

Recommended Maintenance:

1. Fill gap between ped and vehicular bridge at ends with PEJF
2. Fill void in grassy area @ SW.
3. Repair broken curb light @ N.

Assigned to:

TROD
TROD
Traffic

Bridge Inspection Report | Routine Inspection

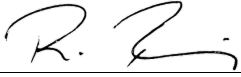
SFN: 3162877

Marian Spencer (Former Walnut) Bridge over Parking Garage

Date Inspected: 04/30/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #46

Route: WALNT Unit: 0000

Bridge Type 112 / 122

Date Built / Date Rehabbed: 2003 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor:	See slab.	1	8
C7.2. Edge of Floor:	HL vertical cracks in E support beam; several trans cracks in E most span (E of loading dock).	1	8
C8. Wearing Surface:	Wide map cracking across the entire length; deep spalling around the inlets on the E & W with exp. rebar; paver settlement & deter. @ S; spalling around inlets, sometimes with exp. rebar.	2	6
C9. Curbs/Sidewalks:	Long. multi cracks in E walk +/- 8' from E exp jnt; spalling cracking @ W curb/sidewalk interface; widespread paver damage @ E walk.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N):	N		
C12. Drainage:	Street inlets open.	1	8
C13. Expansion Joints:	New (2016) @ N; joints @ S compressed, movement/expansion predominantly @ N; S wall apparently settled causing slight offset @ S joint (5/8").	1	7

N58. Deck Summary: Summary Rating: 8

C14. Alignment of Members:		1	8
C15.1. Beams/Girders:	Loading docks only.	1	8
C15.2. Slab:	Isol HL cracking (typical), HL mapcracking in spans 3 & 4 from N(aisles C & D); leaking w stalactites over drive @ E @ cold const. jnt.; spall w exposed rebar in aisle D; widespread minor flaking of paint in S most spans; NW loading dock diaphragm (25' S of N curb) treepit? inlet cracked w efflor	1	7

N59. Superstructure Summary: Slab rating based on condition in spans 3 & 4 from N. Summary Rating: 7

C37. Pier Caps:	HL cracking under some utility conduits.	1	8
C38. Pier Columns:		1	8

N60. Substructure Summary: Summary Rating: 8

C1. Pavement:	S only: Some map cracking (some wider) in the intersection; some paver deterioration and settlement.	2	6
N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):	N		
N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):	N		
N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):	N		

C6. Approaches Summary: Summary Rating: 6

Bridge Inspection Report | *Routine Inspection*

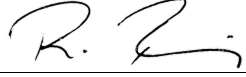
SFN: 3162877

Marian Spencer (Former Walnut) Bridge over Parking Garage

Date Inspected: 04/30/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #46

**N59. General Appraisal
and Oper. Status:**

**General Appraisal /
Operational Status: 7 A**

Inspection Notes: Distinct areas of staining from moisture in E loading masonry wall where water ponds in top garage level; NE jnt repairs in 2018 appear to have arrested or shifted eastward the leaking from open corner lot; loading dock doors to be replaced by SORTA.
See 2020 Element Level report for this structure

Recommended Maintenance:

Assigned to:

1. Chip & patch wearing surface around inlets.

TROD

Bridge Inspection Report

Element Level Inspection

Bridge: Marian Spencer over Parking Garage
Number: City (BP) #46
SFN: 3162877

Inspector: RMR
Inspector: PMC
Date: 4/30/2020

Deck		Condition state					
		qty	1	2	3	4	TR
c7.1	Floor/Slab [SF]	15400	13228	2150	22		1.22
c7.2	Edge of Floor/Slab [LF]	365	330	32	3		1.25
c8.	Wearing Surface [SF]	13920	9799	4100	21		1.40
c9.	Curb/Sidewalk [LF]	580	371	200	9		1.61
c10.	Median [LF]						
c11.	Railing [LF]						
N36	Safety feat. Rail [1,0,N]						1.00
c12.	Drainage [EA]	4	3	1			1.33
c13.	Exp. Joint [LF]	154	100	51	3		1.64
N58. Deck Summary							7

Superstructure		Condition state					
		qty	1	2	3	4	TR
c14.	Alignment [EA]	1	1				1
c15.1	Beams/Girders [LF]						
c15.2	Slab [SF]	13860	11688	2150	22		1.2
c16	Diaphragm/x Frame [EA]						
c17.	Stringers [LF]						
c18.	Floorbeams [LF]						
c19.	Truss Verticals [EA]						
c20.	Truss Diagonals [EA]						
c21	Truss Upper Chord [EA]						
c22.	Truss Lower Chord [EA]						
c23.	Truss Gusset Plates [EA]						
c24.	Lateral Bracing [EA]						
c25.	Sway Bracing [EA]						
c26.	Bearing Devices [EA]						
c27	Arch [LF]						
c28.	Arch Column/Hange[EA]						
c29.	Arch Spandrel Wall [LF]						
c30	Prot Coating System [LF]						
c31	Pins/Hangers/Hinge[EA]						
c32.	Fatigue [LF]						
N59. Superstructure Summary							7

Sign/Utility		Condition state					
		qty	1	2	3	4	TR
c55.	Signs [EA]						
c56.	Sign Supports [EA]						
c57	Utilities [LF]						

Substructure		Condition state					
		qty	1	2	3	4	TR
c33.	Abutment Walls [LF]						
c34.	Abutment Caps [LF]						
c35.	Abut. Columns [EA]						
c36.	Pier Walls [LF]						
c37.	Pier Caps [LF]	616	503	113			1.25
c38.	Pier Columns [EA]	32	32				1.00
c39.	Backwalls [LF]						
c40.	Wingwalls [EA]						
c42.	Scour [EA]						
c43.	Slope Protection [EA]						
N 60. Substructure Summary							8

Culvert		Condition state					
		qty	1	2	3	4	TR
c44.	General [LF]						
c45.	Alignment [LF]						
c46.	Shape [LF]						
c47.	Seams [EA]						
c48.	Headwalls/Endwalls [EA]						
c49.	Scour [EA]						
c50.	Abutments [LF]						
N 62. Culvert Summary							

Channel		Condition state					
		qty	1	2	3	4	TR
c51.	Alignment [LF]						
c52.	Protection [LF]						
c53.	Hydraulic Opening [EA]						
c54.	Navigation Lights [EA]						
N 61. Channel Summary							

Approach		Condition state					
		qty	1	2	3	4	TR
c1.	Wearing Surface [EA]	1	1				1.00
c2.	Approachslab [SF]	1	0	1			2.00
c3.	Relief Joint [LF]						
c4.	Embankment [EA]						
c5.	Guardrail [EA]						
N36	Safety fet. TR, GR, TM			N	N	N	
N 61. Approach Summary							

N 59. General Appraisal and Operational Status 7 A

Bridge Inspection Report | Routine Inspection

SFN: 3101371

Mehring Way Pedestrian Overhead Bridge to Coliseum

Date Inspected: 07/08/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #47

Route: 27 Unit: 33 Bridge Type 363 / Date Built / Date Rehabbed: 1975 /
 Load Rating Percent 000 (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

- C7.1. Floor: Few cracks w efflor. - esp. over center pier; widespread cracks, delams, patches & rust staining @ monumental steps; cracking & delam. next to railing panels; delam. conc. @ E exp joint; staining and apparent seepage around inlet @ S; delam. & spalls of haunches around exp jnts. (over bird netting) 2 6
- C9. Curbs/Sidewalks: Rehabbed (1993); 3M traffic membrane reapplied (2005), repaired (2011) not applied @ most stairs; isol. damaged areas esp @ joints; membrane not adhering around inlet @ S, allowing water to enter; apparent large delam's beneath membrane @ S steps & landings; excessive staining due to ponding @ main stair landing. 2 6
- C11. Railing: Precast railings installed (1993); sealed (2005); widespread vert. HL cracking, some w efflor; connection angles corroding beneath stairs; isol. minor delams; long. cracking w rust staining @ bottom of stair panels @ S & inside vert. of that panel; W most plaza panel has widespread cracking on inside face. 2 6
- N36. National Safety Feature - Bridge Railing (0, 1 or N): N
- C12. Drainage: 13 inlets w d/s (nearly horiz. runs), all appear open; gratings replaced (2005); rust stains on E-most horizontal run; ponding @ stair landing (uneven surface); downspout @ steps not connected. 1 7
- C13. Expansion Joints: Comp. seals @ bldg. doorways replaced (2005); WABO seismic span jts. installed (2005); rusting along bldg. side of comp. seals; apparent leaking @ coliseum arena side. 2 6

N58. Deck Summary: Condition of steps governs the rating. Summary Rating: 6

- C14. Alignment of Members: 1 8
- C15.1. Beams/Girders: Some apparent not fully snug bolts @ S end of beams (5th & 6th in from E end); spalls w exp rebar (several bars) @ one concrete beam under steps, others w patched area's; concrete beams @ steps govern the rating. 2 6
- C16. Diaphragms/X-Frames: 1 8
- C17. Stringers: See beams. 1 8
- C18. Floor Beams: See beams. 1 8
- C26. Bearing Devices: 1 8
- C30. Protective Coating System (PCS): System: EEU Year: 1994 PCS Rating: 7
 Iso. flaking/peeling esp @ connections; rusting @ pins & hanger conn.'s; catcher beam rusting @ N & S w some pack rust.
- C31. Pins/Hangers/Hinges: 2 pinned conn. @ S fascia beam; retrofitted (1994); corrosion & packrust esp. on catcher beams. 2 6

N59. Superstructure Summary: Summary Rating: 6

Bridge Inspection Report | Routine Inspection

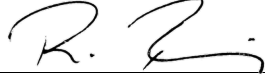
SFN: 3101371

Mehring Way Pedestrian Overhead Bridge to Coliseum

Date Inspected: 07/08/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #47

- | | | |
|---|---|---|
| C36. Pier Walls: Supporting steps; large delam @ SE; several patched area's; several delams @ SE +/- 6' diam spall w exp rebar. | 1 | 7 |
| C37. Pier Caps: Minor cracking, some minor patches. | 1 | 8 |
| C38. Pier Columns: Apparent minor impact damage on several columns; S of Mehring Way columns have widespread honeycombing @ bottom resulting in delams, spalls, & exp rebar; many patched areas with patches cracking w efflor. & minor delam.;vert. & ladder (closely spaced horiz. flexure cracks originating from corners) cracks in concrete of N piers (steel columns conc. encased). | 1 | 7 |

N60. Substructure Summary:

Summary Rating: 7

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 6 A

Inspection Notes: South Monumental stairs repaired (1993).

General Notes: Formerly SFN 3199927 - Inventoried by ODOT 2/22/2005.
Bridge inspected by ODOT since Mehring Way is a State Route.

Recommended Maintenance:

Assigned to:

- | | |
|---|----------|
| 1. Replace/tighten loose bolts @ FB connections (see item 14). | Contract |
| 2. Paint railing support angles @ E end. | Contract |
| 3. Replace support bracket on step-railing. | Contract |
| 4. Re-attach membrane around inlet & seal. | Contract |
| 5. Consider repairing wearing surface on landings and reapplying membrane to bottom or railing panels on steps. | Contract |
| 6. Chip delaminated conc around S steps. | TROD |
| 7. Trim Sycamore branches from plaza. | Parks |
| 8. Consider repainting connections/fatigue prone details. | Contract |

Bridge Inspection Report | Routine Inspection

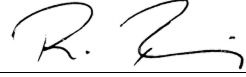
SFN: 3160440

Mitchell Avenue Bridge over Mill Creek

Date Inspected: 08/15/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #48

Route: MITCH Unit: 3402

Bridge Type 322 / NNN

Date Built / Date Rehabbed: 1959 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

- | | | | |
|---|---|---|---|
| C7.1. Floor: | Widespread discoloration from fire; trans cracks with efflor, no new efflor after fire; spalling/delam areas; isol minor exp rebar; spalling at the long jnt; minor map cracking in isol areas. | 1 | 7 |
| C7.2. Edge of Floor: | Many transverse HL cracks with efflor; few spalls with exp rebar and multiple area's of minor corr.; built up efflor. @ SW. | 2 | 6 |
| C8. Wearing Surface: | LMS (2004). Sealed w HMWM (2016): Minor trans cracks; long HL cracks in S half w unsound areas, N half in much better condition. | 1 | 8 |
| C9. Curbs/Sidewalks: | Minor trans cracks, minor spalls, and popouts; cracks in the S Approach & corners of sidewalks where backwall is integral to walk; 1 inch vertical offset between the approach slab sidewalk and the roadway sidewalk at the SW corner; large delam (shifted) at the NW corner near the bridge limit; widespread efflor @ S curb (horiz line) | 1 | 7 |
| C11. Railing: | Vert. HL cracking with efflor. and exposed rebar on both fascias; minor spalls. | 1 | 7 |
| N36. National Safety Feature - Bridge Railing (0, 1 or N): | | | |
| C12. Drainage: | 22 scuppers with downspouts; all open; minor debris at the curbs. | 1 | 7 |
| C13. Expansion Joints: | Minor vertical offset at the E; debris in the joints; minor spalls around the joint headers. | 1 | 7 |

N58. Deck Summary:

Summary Rating: 7

- | | | | |
|--|---|---|---|
| C14. Alignment of Members: | | 1 | 8 |
| C15.1. Beams/Girders: | Cleaned and painted (2004)(2016 in E span); minor pitting at the exp jnts. | 1 | 7 |
| C16. Diaphragms/X-Frames: | Cleaned and painted (2004)(2016 in E span); some in E span are slightly dented or bowed (fire damage). | 1 | 7 |
| C26. Bearing Devices: | Minor rust on several bearings. Slight difference in direction (expansion/contraction mode). | 1 | 7 |
| C30. Protective Coating System (PCS): | System: 1 Year: PCS Rating: 8
OZEU (2004)- Cleaned and painted (2004)(2016 in E span). The fascia beams have spotting. It appears portions of the previous paint system painted over. Overspray or undercoat showing through. Missing areas and scrapes. Soot and fire damage. | | |
| C32. Fatigue Prone Details: | Cover plates. | 1 | 8 |

N59. Superstructure Summary:

Summary Rating: 7

Bridge Inspection Report | Routine Inspection

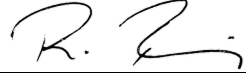
SFN: 3160440

Mitchell Avenue Bridge over Mill Creek

Date Inspected: 08/15/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #48

C33. Abutment Walls: Minor vertical cracks; minor spalling/fire damage on the East.	1	7
C36. Pier Walls: Large cracking and spalling at the center construction joint at the E pier; cracking under the bearings at the E pier, W face next to construction jnt.	2	6
C39. Backwalls: Vertical cracks with efflorescence; concrete repairs (1987). Rust stains and minor spalling/fire damage; cracks on the top side.	2	6
C40. Wingwalls: Minor cracks with efflorescence; shrub growing out of pier wall under utility bridge.	1	7
C42. Scour: Channel completely concrete lined.	1	9

Scour Inspection Type 1

N60. Substructure Summary: Summary Rating: 6

C51. Channel Alignment:	1	9
C52. Channel Protection: Slight abrasion.	1	8
C53. Hydraulic Opening:	1	9

N62. Channel Summary: Summary Rating: 8

C1. Pavement: Large transverse cracks and map cracking at both approaches; asphalt pushed up the curb at the SW; potholes @ both approach slabs.	2	5
C2. Approach Slabs: HL to narrow (up to 1/8 inch wide maximum) long. cracks; approximately 2/3 of the prefabricated compression seal is missing at the E approach.	1	7
C3. Relief Joints: @ W, widespread cracking; potholes.	2	5
C4. Embankment: Overgrown.	1	8
C5. Guardrail: W only; the posts and blocks are deteriorated; very minor impact damage at the NW and SW; blocks are missing at the NW and SW and treatment; no bridge end terminals.	2	6
N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):	0	
N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):	1	
N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):	1	

C6. Approaches Summary: Summary Rating: 5

C57. Utilities: Lighting on the bridge; 1 of 4 anchor bolts not fully threaded at the N light pole bases; deteriorated stream gauge box along the S fascia; wire hanging from N bay in center span into creek.	2	6
---	---	---

Utilities On Structure: N N N N N N N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 6 A

Bridge Inspection Report | *Routine Inspection*

SFN: 3160440

Mitchell Avenue Bridge over Mill Creek

Date Inspected: 08/15/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #48

General Notes: New fence installed @ SE in 2016; camps under bridge @ both abutments 2020.

Recommended Maintenance:

1. Remove wire hanging from deck.
2. Fill S sidewalk @ relief joint w asphalt.
3. Fill gap between backwall & approach slab w hot applied asphalt where comp seal is missing.
4. Remove metal housing for former stream monitoring @ S walk.

Assigned to:

Traffic
Fladding
TROD
Owner

Bridge Inspection Report | Routine Inspection

SFN: 3161404

Monastery Street Bridge over Open Land

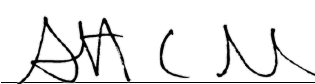
Date Inspected: 03/23/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: CITY (BP) #49

QA/QC Inspector: STEPHEN C. GRESSEL, P.E.

Signature: 

Route: MNSTY Unit: 3352 Bridge Type 112 / NNN Date Built / Date Rehabbed: 1984 /

Load Rating Percent 150 (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: HL cracking throughout; general large long. crack in center w delams, isol. cracks w efflor & rust staining; cracks with efflor are reflective of cracks in wearing surface.	1	7
C7.2. Edge of Floor: Closely spaced trans cracks, some w efflor; wider cracks/delams @ exp jnts.	1	7
C8. Wearing Surface: HL cracks, diagonal near jnts.; spilled conc hardened @ S end of bridge.	1	7
C9. Curbs/Sidewalks: HL map cracking at the steps; trans. cracks with 2' x 3" x 3" spall in the curb along the E long. joint; up to 2" of settlement in the safety curb along the W side of the approach and the approach slab; vegetation growth between the limits; water infiltration; breaking up @ SE.	1	7
C11. Railing: Trans. cracks; efflor; minor spalls.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage: Street inlets off bridge.	1	7
C13. Expansion Joints: Filled with Sika product over strip seal at the N; compression seal ripped at the curb top at the middle of the bridge; silicone joint at the wall interface has failed at the steps; evidence of leakage at piers with joints; conc. breaking up at the S abutment & N most jnt.; 1/2" vertical offset at the N exp. joint; spall in the curb along the E long. joint; structural steel plates with laminar corr.	2	6

N58. Deck Summary: Summary Rating: 7

C14. Alignment of Members: 1 8

C15.2. Slab: See Item 1; diagonal cracks in Spans 4 & 5. 1 7

N59. Superstructure Summary: Not fatigue prone; redundant. Summary Rating: 7

C33. Abutment Walls: Conc. spalling, delams, stains, rust stains, efflor & seepage at the N abutment wall (especially at the S end of the wall & under pier caps); HL vertical crack at the center of the S abutment, efflor & some rust staining; hollow spot @ W corner of S abutment(3sqft); pair of stainless steel angles mounted on each side of abutment wall gap (left over from wall repair?); worst areas @ wall joints and under pier caps. 2 6

C37. Pier Caps: See attached element level results. Piers 3,4, & 5 show widespread det. w cracking efflor., spalling, delams, & rust staining, other piers are in very good condition; 2 5

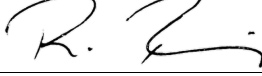
Bridge Inspection Report | Routine Inspection

SFN: 3161404

Monastery Street Bridge over Open Land

Date Inspected: 03/23/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: CITY (BP) #49

QA/QC Inspector: STEPHEN C. GRESSEL, P.E.

Signature: 

C38. Pier Columns:	See attached element level results; minor fire damage @ pier 1 center column)	2	5
C40. Wingwalls:	Hairline diag. crack @ SW w efflor.; joint @ SW opening w backfill coming out.	1	7
C43. Slope Protection:	Conc. paved; cracking with vegetation growing in the joints, partially severe cracking.	1	7

N60. Substructure Summary: Summary Rating: 5

C1. Pavement:	Conc. at the S end; asphalt at the N end; wide trans. cracks at the S (~ 1"); new (2018) asphalt around joint @ N; settlement @ sewer manhole @ S with vegetation growing.	2	6
C2. Approach Slabs:	Approach slab @ S end only; isol. cracking with & without previous sealant; spall behind seal @ bridge end allows water infiltration.	1	7
C3. Relief Joints:	S only; relief jnt. is way off the bridge; buckling, cracking, & curb crushing @ S.	2	5
C4. Embankment:	Vegetation	1	8
C5. Guardrail:	Deter. to the posts and blocks; wood blocks are used.	2	6
N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):	0		
N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):	0		
N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):	1		

C6. Approaches Summary: Summary Rating: 5

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 5 A

Inspection Notes: Erosion hole around the grate at the SW; slab over drain in slope cracked through on top of chamber.
See Element level notes for pier columns and pier caps.

Recommended Maintenance:

1. Plan for rehab work @ piers 3 & 4.
2. Consider jnt replacement of transverse jnts.
3. Wedge S jnt in sidewalk w hot applied asphalt.
4. Replace broken curbs @ relief jnts w asphalt.

Assigned to:

- Contract
Contract
TROD
TROD

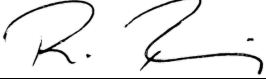
Bridge Inspection Report | *Routine Inspection*

SFN: 3161404

Monastery Street Bridge over Open Land


Date Inspected: 03/23/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: CITY (BP) #49

QA/QC Inspector: STEPHEN C. GRESSEL, P.E.

Signature: 

- | | | |
|----|---|------|
| 5. | Patch sidewalk @ SE. | TROD |
| 6. | Remove tree from pier column & wingwall @ SE. | TROD |
| 7. | Replace jnt cover plate @ sidewalk to street. | TROD |

Bridge Inspection Report | Routine Inspection

SFN: 3160777

Park Avenue Bridge over Kemper

Date Inspected: 07/21/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #50

Route: PARK Unit: 3712

Bridge Type 153 / 172

Date Built / Date Rehabbed: 1917 / 1939

Load Rating Percent 100

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

- | | | | |
|---|---|---|---|
| C7.1. Floor: | Minor trans. cracking w efflor; minor spalls; large areas covered w gunite; form work left in some areas; some delams areas not over roadway. | 1 | 7 |
| C7.2. Edge of Floor: | Widespread spalling/crumbling under walks & railings w stalactites forming, localized heavy efflor, some full depth patches, & isolated delam. (not over traffic) & some exp. rebar; severe LOS & exp. rebar @ SW fascia near exp. jt. | 2 | 5 |
| C8. Wearing Surface: | Overlaid (1988) with LMC & CP; minor cracks (trans & long); very few delam. detected; conc patches (2011) at the E end; diag. crack near the NW exp. jt; sev. small shallow spalls (potholes); failed patches @ NE. | 1 | 7 |
| C9. Curbs/Sidewalks: | Minor cracks; spalls at the exp. jts; surface scaling; wide long. curb crack w large delam. @ NW; sidewalk cracks several ft. long @ NW; more damage at the NW approach walk (spall & failing section of the sidewalk is patched with asphalt); 15' long crack in S curb w rust staining; several delams detected by souding. | 2 | 6 |
| C11. Railing: | Cracking w efflor.; widespread localized crumbling of the railing & the fascia; isolated spalls w exp. rebar & LOS esp. railing pylons; shallow spalling; recent accident showed internal railing rebar had LOS @ sidewalk interface reducing railing capacity, possibly similar @ other locations. | 3 | 4 |
| N36. National Safety Feature - Bridge Railing (0, 1 or N): 0 | | | |
| C12. Drainage: | 4 scuppers on bridge. | 1 | 8 |
| C13. Expansion Joints: | Strip seals (2000); rust stains on the underside; conc det. w exp. rebar below; leakage from the gland partially separated from the joint armor; joint filled w debris; slight spalling around armor; bats roosting in joints. | 2 | 6 |

N58. Deck Summary:

Summary Rating: 7

- | | | | |
|-----------------------------------|---|---|---|
| C14. Alignment of Members: | | 1 | 8 |
| C17. Stringers: | Large sections covered w gunite; gunite repaired (1990);
A) fascia beams (spandrel): extensive cracking w efflor. & stalactites (some exp. rebar) esp. over approach spans.
B) Interior stringers (inside of spandrels): some wider long. cracks @ some of the stringers and at the SE. See element level rating. | 2 | 6 |
| C18. Floor Beams: | Gunite repaired (1990); some cracking w efflor; bracket @ N (center of arch) conc. det; struct. cracks, delam's.(some deeper), rust staining, delams, & spalls w exp. rebar under exp. jts; FBs under exp. jts. in worst condition. | 2 | 6 |
| C27. Arch: | Gunite repaired (1990); cracks with efflor & delams forming along the edges, esp. on the W (possible coating delam.); few spalls w exposed rebar; the struts have minor cracking & delaminations (mostly in the gunite coating). | 1 | 7 |
| C28. Arch Columns/Hangers: | Gunite repaired (1990); some cracking w efflor; cracks @ decor. bases; isol. spalling w exp. rebar on few columns. | 1 | 7 |

N59. Superstructure Summary:

Summary Rating: 6

Bridge Inspection Report | Routine Inspection

SFN: 3160777

Park Avenue Bridge over Kemper

Date Inspected: 07/21/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #50

C33. Abutment Walls:	Gunite coated (1990) concealing conc below; minor cracking w efflor. & seepage; dampness; cracks in arched portion @ SE.	1	7
C38. Pier Columns:	Gunite repaired (1990); minor efflor. @ bases; some spalling; shallow gunite flaking; ext. ivy growth @ SW.	1	7
C40. Wingwalls:	Gunite coated (1990); cracking w seepage & efflor; spalling at the NW; map cracking with efflor at all corners.	1	7
C43. Slope Protection:	Washed out under the W scuppers - dump rock repaired; erosion between the scuppers along the conc. pier at the W (hole measures 15' x 5' x 3' deep).	2	6

N60. Substructure Summary: Gunite concealing much of the substructure. Summary Rating: 7

C1. Pavement:	Map cracking along the joint at the East and West ends. Random cracking at the East and West ends. Asphalt patch at the W turning into pothole; asphalt @ W mapcracking turning into deep potholes.	2	6
C4. Embankment:	Overgrown.	1	8
N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):	N		
N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):	N		
N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):	N		

C6. Approaches Summary: Summary Rating: 6

C57. Utilities:	Corroding & separating conduits @ S fascia; some attachments missing; open hand hole @ street light @ S walk.	2	5
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Utilities On Structure: UUUUUUU

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 6 A

Inspection Notes: Shrub dumping @ E below bridge, camp site @ W.

General Notes: Bridge on 6 year list for extensive sidewalk/railing/expansion joint and wearing surface replacement; gunite concealing much of the structure.

Recommended Maintenance:

1. Chip loose conc from edge of floor/railing.
2. Plan for extensive rehab of walks, exp jnts, railings, & edge of floor.
3. Trim branches overhanging sidewalk. Cover open light pole hand hole on S side.

Assigned to:

TROD
Contract
Traffic

Bridge Inspection Report | Routine Inspection

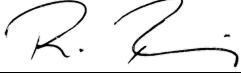
SFN: 3160904

Powers Street Bridge over West Fork Channel

Date Inspected: 03/20/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #51

Route: POWER Unit: 2832

Bridge Type 112 / NNN

Date Built / Date Rehabbed: 2000 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: See item 15, slab.	1	8
C7.2. Edge of Floor: Some efflor. originating from top of struct. slab.	1	7
C8. Wearing Surface: Isolated hairline transverse cracks over the piers.	1	8
C9. Curbs/Sidewalks: Vert. cracking w efflor in curbs; widespread minor popouts; trans cracks over walks near piers; slight separation of curb from wearing surface possibly allowing water to enter.	1	7
C11. Railing: Hairline vertical cracks; widespread staining esp @ N face of both railings; lichen.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N): 0		
C12. Drainage: Off bridge.	1	8
C13. Expansion Joints: Small spalls around the concrete around header; ext. corrosion or armor; debris in the joint.	1	8

N58. Deck Summary: Summary Rating: 8

C14. Alignment of Members:	1	8
C15.2. Slab: HL flex cracks in pos. moment region turning longitudinal @ pier {center span only}; graffiti. Slab: some areas of slight honey combing under rebar in W approach span.	1	8
C26. Bearing Devices: Concealed, assumed rating.	1	8

N59. Superstructure Summary: Summary Rating: 8

C33. Abutment Walls: Few full-height hairline vertical cracks; graffiti.	1	8
C36. Pier Walls: Hairline vertical cracks over the center of the pier arch; graffiti	1	8
C39. Backwalls: Widespread spalling at top edge to approach slab (up to 1.5" wide from edge) esp. @ W.	2	6
C40. Wingwalls: Stained.	1	8
C42. Scour: Slight scour hole behind channel walls adjacent to slope protection.	1	8

Scour Inspection Type

C43. Slope Protection:	1	9
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N60. Substructure Summary: Summary Rating: 8

Bridge Inspection Report | Routine Inspection

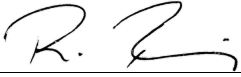
SFN: 3160904

Powers Street Bridge over West Fork Channel

Date Inspected: 03/20/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #51

C51. Channel Alignment: Concrete lined channel. 1 9

C52. Channel Protection: Continued erosion behind channel wall @ W adjacent to slope protection; cracking & efflor on some channel walls; worst conditions further away from bridge (not considered). 1 7

C53. Hydraulic Opening: 1 9

N62. Channel Summary: Summary Rating: 7

C1. Pavement: Newly resurfaced 2019(?). 1 9

C2. Approach Slabs: 3 minor (not full length) cracks @ E; 2 scrape lines @ E (aparent impact); small spall @ W const jnt. 1 8

C4. Embankment: Well vegetated. 1 8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Summary Rating: 8

C57. Utilities: 3 manholes under the West span; 1 manhole at the East pier.

Utilities On Structure: N N N N N N N

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 A

Inspection Notes: Underside of bridge all wet during 2020 inspection due to condensation (concealing cracking).

Recommended Maintenance:

Assigned to:

1. Seal joint between wearing surface and curbs w hot applied asphalt.
2. Pressure wash railing & curbs, afterwards seal with clear sealer.

TROD
TROD

Bridge Inspection Report | Routine Inspection

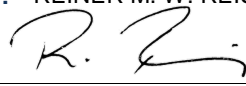
SFN: 3160006

Quebec Rd over Lick Run

Date Inspected: 09/16/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #52

Route: Unit: Bridge Type / Date Built / Date Rehabbed: /
Load Rating Percent (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: See item beams; not yet sealed.	1	9
C7.2. Edge of Floor: Slight wave in formwork.	1	8
C8. Wearing Surface:	1	9
C9. Curbs/Sidewalks:	1	9
C11. Railing: Fins, etc.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N):		
C13. Expansion Joints: Filled w debris.	1	9
N58. Deck Summary: Ongoing construction.	Summary Rating: 9	
C14. Alignment of Members: Slight vert. offset between 2 adj. beams in center.	1	8
C15.1. Beams/Girders:	1	9
C26. Bearing Devices: Mostly concealed elastomeric.	1	9
N59. Superstructure Summary:	Summary Rating: 9	
C33. Abutment Walls: Stub abutments: vert. full height HL cracks.	1	8
C39. Backwalls: Few trans. cracks @ top; spalling of curb @ jnt coverplates.	1	8
N60. Substructure Summary:	Summary Rating: 8	
C51. Channel Alignment: Man-made by design.	1	9
C52. Channel Protection: Man-made: rocks, filter fabric and plants.	1	9
C53. Hydraulic Opening: As designed, no obstructions.	1	9
N62. Channel Summary:	Summary Rating: 9	
C1. Pavement: Asphalt 2019.	1	9
N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):	N	
N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):	N	

Bridge Inspection Report | Routine Inspection

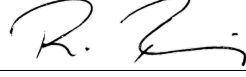
SFN: 3160006

Quebec Rd over Lick Run

Date Inspected: 09/16/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #52

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary:

Summary Rating: 9

C57. Utilities: 2 duct banks, 1 PVC pipe only supported by temporary wire ties.

1 8

Utilities On Structure:

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 8 A

Inspection Notes: Ongoing work 2020. Punchlist to be created once construction is completed.

Recommended Maintenance:

Assigned to:

1. Punch list to be created once construction is completed.

Bridge Inspection Report | Routine Inspection

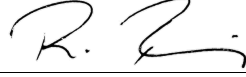
SFN: 3162036

Race Street Bridge over Pete Rose Way and Parking Lots

Date Inspected: 03/18/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #53

Route: RACE Unit: 0000

Bridge Type 112 / NNN

Date Built / Date Rehabbed: 2001 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Honeycombing @ N; irregular cold jnts at the E & W from bridge widening; several overdrilled holes for the utility supports; epoxy injections N of Freedom Way at the cold jnts; minor HL cracking @ some locations.	1	8
C7.2. Edge of Floor: Embedded objects (aparently corroding) in one distinct area N of Freedom Way, E fascia, same location has protruding utility conduits that are open, corroding w stalctites; rest much better; stalactites forming @ fascia just W of Freedom Way.	1	8
C8. Wearing Surface: Many full length longitudinal cracks, measuring hairline to moderate (max) north of Freedom Way. Very good S of Freedom Way; Freedom Way pavers replaced w colored conc (2016), cracking in E leg of colored conc, but smooth riding.	1	7
C9. Curbs/Sidewalks: Isolated minor curb spalls and many small fiber popouts all N of Freedom Way; staining from curing agent S of Freedom Way.	1	8
C11. Railing: Steel railing and temporary wooden rail in blocked off areas at S.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage: Trough drain @ SW corner of Freedom intersection leaking @ pipe joint; planters S of Freedom Way not draining properly. Split pipe S of Freedom Way, some pipes pushed apart. (Pipes cleaned and repaired by Public Services 9-2020).	2	6
C13. Expansion Joints: No apparent leakage through jnts; dripping through bladder of W Freedom Way; debris filled (typical); E joint (not part of the rating) isol leaking & joint material hanging loose.	1	8

N58. Deck Summary: **Summary Rating: 8**

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Located in the N most spans only; full height cracks on both sides of the beams above interior columns; excessive honeycombing. 1 8

C15.2. Slab: See item 7.1; accumulation of cobwebs W of Freedom Way. 1 8

N59. Superstructure Summary: **Summary Rating: 8**

C37. Pier Caps: Very isol HL cracking under conduits N of Freedom Way. 1 8

C38. Pier Columns: Very minor hairline cracking on several columns. The 7th column from the North - center column is slightly twisted; scrapes from traffic. 1 8

N60. Substructure Summary: **Summary Rating: 8**

Bridge Inspection Report | Routine Inspection

SFN: 3162036

Race Street Bridge over Pete Rose Way and Parking Lots

Date Inspected: 03/18/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #53

C57. Utilities: Many; ext. leaking out of utility conduits and pullboxes in the area N of Freedom Way; many conduits not positively identified; some conduits separated @ W; electrical conduits crossing W trough @ Freedom Way are corroding; corrosion on and under pipes. 2 5

Utilities On Structure: N N N N N N N

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 8 A

Inspection Notes: S end beyond the parking garage ramp is blocked off to traffic and used for music venue construction.
Water dripping through junction boxes @ elect conduit under NE corner of Freedom Way (2019); no trees in planters S of Freedom Way; chain attached to railing SW of Freedom Way.

General Notes: Portion S of Freedom Way added in 2016.

Recommended Maintenance:

Assigned to:

- | | |
|---|-------|
| 1. Investigate leaking in utilities (3 conduit junction boxes). | Owner |
| 2. Repair pipe joints. (9-2020) | TROD |
| 3. Clean drain pipes SW of Race & Freedom. (9-2020) | TROD |

Bridge Inspection Report | Routine Inspection

SFN: 3106748

Railroad (Abandoned) over I-71 North of Elsinore

Date Inspected: 09/16/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 6 K

Signature: 

Bridge No.: CITY (BP) #54

Route: 71 Unit: 231 Bridge Type 364 / Date Built / Date Rehabbed: 1970 /
 Load Rating Percent 000 (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Metal deck on floor beams; no obvious defects; sidewalk plate splice @ SE cracked into pieces & rusting, crack terminates @ vert. web stiffener; area's of pitted sidewalk plates around web stiffeners; inside of rail trough clad w cementitious material {waterproofing?}. 1 7

C11. Railing: Thru girders serve as railing.

N36. National Safety Feature - Bridge Railing (0, 1 or N): 0

C12. Drainage: Deck drainage system excavated & broken over S pier expansion joint; downspout @ E pier slightly perf. 2 5

C13. Expansion Joints: Jt. over SW pier excavated, apparently leaking; loose armor over W pier. 3 4

N58. Deck Summary: Both ends of the bridge deck are heavily overgrown. Summary Rating: 7

C14. Alignment of Members: Noticable horiz wave of beam flanges of both main spans. 1 7

C15.1. Beams/Girders: LOS to webs +/- 1/4" & vert. stiffeners {arrested by painting}; widespread freckled rusting @ fascias & isol. corr cells elsewhere; minor scrapes @ BF - several locs.; active corr. @ splices; graffiti; TF of W bridge slightly bent up over vertical web stiffeners. 2 6

C16. Diaphragms/X-Frames: Slight misalignment (const. issue?). 1 8

C18. Floor Beams: Minor surface rusting, widespread w initial LOS over traffic lanes. 2 6

C25. Sway Bracing: Knee braces; LOS arrested by painting; heavy pitting @ bottom webs esp. @ SE (some minor perforations); flanges with only slight LOS; some deformations @ connections to web stiffeners (due to former corrosion). 2 6

C26. Bearing Devices: Minor rust stains; dirt & debris; SE abut bearing stained (which looks like a crack). 1 8

C30. Protective Coating System (PCS): System: OZEU Year: 1996 PCS Rating: 6
 Chalking/fading; graffiti; girders rusting along flanges, splices & other locs. esp. over N bound lanes; condition is worse @ underside & fascias.

N59. Superstructure Summary: Not redundant; fatigue prone. Summary Rating: 6

C33. Abutment Walls: Stains @ W; some cracking @ E. 1 7

C36. Pier Walls: Vert., horiz., & diag. HL cracks w minor efflor.; seepage 1 7

C39. Backwalls: Hairline cracks. 1 8

C40. Wingwalls: Lichen & staining @ W. 1 8

N60. Substructure Summary: Summary Rating: 7

Bridge Inspection Report | *Routine Inspection*

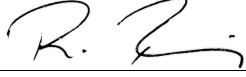
SFN: 3106748

Railroad (Abandoned) over I-71 North of Elsinore

Date Inspected: 09/16/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 K

Signature: 

Bridge No.: CITY (BP) #54

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 6 K

Inspection Notes: Crack in walk plate (Maintenance item #2) appears stable; 2020 camp w tent & lots of trash on structure; vegetation becoming impassable on deck & in I-71 median.

Recommended Maintenance:

1. Clear vegetation from deck.
2. Monitor crack @ NE in walk plate to guarantee it does not extend into base metal of beams.
3. Consider areas of paint repair in conjunction w ODOT.
4. Evaluate need for repairing deck drainage system.

Assigned to:

TROD
Owner
Contract
Contract

Bridge Inspection Report | Routine Inspection

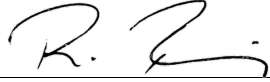
SFN: 3161005

Roe Street Bridge over Little Duck Creek

Date Inspected: 03/24/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #55

Route: ROE Unit: 4752

Bridge Type 231 / NNN

Date Built / Date Rehabbed: 1930 / 2002

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor:	Very minor stains on bottom of box beams; small spall at W (See beam).	1	8
C7.2. Edge of Floor:	2 HL cracks w efflor, 2 @ S.	1	8
C8. Wearing Surface:	Few minor popouts; minor initial H/L cracking.	1	8
C9. Curbs/Sidewalks:		1	9
C11. Railing:	Minor HL cracks below window openings; moss @ S.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N):	1		
C12. Drainage:	Street inlets off bridge; minor debris @ bridge ends.	1	7

N58. Deck Summary: Summary Rating: 8

C14. Alignment of Members:		1	8
C15.1. Beams/Girders:	Small spall @ W abut. (beam 4 from N); white stains in 2 locations, these stains reflect the pattern of the strands.	1	8
C26. Bearing Devices:	Plain elastomeric (mostly concealed).	1	8

N59. Superstructure Summary: Redundant; not fatigue prone. 2 diaphragm tension rods on each fascia were not grouted. Summary Rating: 8

C33. Abutment Walls:	Cracking w heavy efflor. @ corners; few vertical cracks w efflor below abutment seat; crumbling @ back of E abut. @ N end, concrete @ NE abut. Jt. to WW; graffiti; reconstructed abut. seat in very good condition.	1	7
C40. Wingwalls:	Few cracks w minor efflor; WW @ NW losing backfill due to channel alignment combined w high water events.	1	8
C42. Scour:	Conc. channel bottom under bridge; scour hole in front of NW WW where unreinforced concrete apron was undermined (condition stable over past years); actual footer of wingwall not exposed.	1	7

Scour Inspection Type 1

N60. Substructure Summary: Summary Rating: 7

C51. Channel Alignment:	US curve pushes flow against and behind NW WW causing erosion; recent clearing widened channel US.	2	6
C52. Channel Protection:	Paved bottom in good condition, partly covered with silt; Gunnite/concrete protection undermined US @ W of bridge; channel bottom of bridge not undermined	2	6

Bridge Inspection Report | Routine Inspection

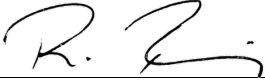
SFN: 3161005

Roe Street Bridge over Little Duck Creek

Date Inspected: 03/24/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #55

C53. Hydraulic Opening: Minor dep. of rock & soil mat'l @ E abut; flow debris US & DS. 1 8

N62. Channel Summary: Summary Rating: 6

C1. Pavement: E asphalt patched 2018; cracking @ edges of bridge; a few long. & trans. cracks limited to interface w bridge deck {6" wide strip full width} 1 7

C2. Approach Slabs: (No real approach slabs present. Asphalt overlay over concrete pavement per drawings)

C4. Embankment: Steep by design; mostly overgrown. 1 7

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: 1" vertical offset @ NW walk (off the bridge @ end of approach railing) Summary Rating: 7

C57. Utilities: Gas & water; only 2 out of 4 water main supports active; gas main supports bent. 1 7

Utilities On Structure: N Y N N N Y N

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Recommended Maintenance:

Assigned to:

1. Seal joint between approach pavement & bridge with hot applied asphalt.
2. Consider channel wall stabilization US @ curve where trail is being undermined by flow.

TROD
Stormwater

Bridge Inspection Report | Routine Inspection

SFN: 3161781

Rosa Parks Bridge (former Vine) over Parking Garage

Date Inspected: 04/28/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #56

Route: VINE Unit: 0000 Bridge Type 112 / NNN Date Built / Date Rehabbed: 2002 /
 Load Rating Percent 150 (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor:	See item 15.2 Slab.	1	8
C7.2. Edge of Floor:	@ W only; patches & spalls @ locations of former railing connections.	2	6
C8. Wearing Surface:	Many long. & trans. cracks; diag. cracks, some wide; spalling @ inlets, some w exp rebar; conc around grates breaking up.	1	7
C9. Curbs/Sidewalks:	Ex. cracking & hollow sound in private portion of W walk (GE building) and the GE driveway. Concern about non continuous exp jnts at GE doorway that could cause cracking in the adjacent walks; popouts in conc walk; minor paver damage; efflor, cracking & hollow sound @ SE curb ramp.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N):	N		
C12. Drainage:	Ponding on private walk. E curb regrated around inlet (2016).	1	8
C13. Expansion Joints:	N joint repaired 2016; apparent leakage @ NW; W long joint (private) was modified (non-continuous) at revolving door, leaking delam conc & new bladder drain @ N. (not considered in this rating); widespread corr. of joint armor & cover plates.	1	8

N58. Deck Summary: With the 2016 repairs being completed it appears the remaining leakage at the N joint is probably water from the paver area N of the joint (2nd Street). **Summary Rating: 8**

C14. Alignment of Members:		1	8
C15.1. Beams/Girders:	E beam (not part of structure limits): flex cracks @ midspans, (patched in span 5 from N).		
C15.2. Slab:	Minor long. HL cracks w efflor. org @ d/s in span 5 from N & span 2 from S (stalactites); trans. HL flex. cracks (east-west) @ center of most spans; stalactites around Duke vaults.	1	8

N59. Superstructure Summary: **Summary Rating: 8**

C37. Pier Caps:	Mostly HL cracks (greater than 5% cracked) centered under most utility conduits (w efflor. build-up @ isol. locations, worst cond. in N-most pier); leaking out of N most conduits (grates).	1	7
C38. Pier Columns:		1	8
C40. Wingwalls:	MSE wall @ S; spalls; discoloration; efflor; several misalignments up to 1"; leakage @ SE from 3 utility ducts causing damp bottom of wall & damp areas throughout; MSE wall settled causing joint offset	2	6

N60. Substructure Summary: **Summary Rating: 7**

Bridge Inspection Report | Routine Inspection

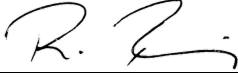
SFN: 3161781

Rosa Parks Bridge (former Vine) over Parking Garage

Date Inspected: 04/28/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #56

C1. Pavement: At S only; diag crack in slab; some pavers shifting. 1 8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Summary Rating: 8

C57. Utilities: Widespread paint flaking; some hangers bent; rust staining & ext. efflor. @ NW conduit (capped off); leaking @ S abutment from utility ducts; 3 ducts going from top of MSE wall into slab. 1 7

Utilities On Structure: Y N N N N N N

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Inspection Notes: See 2020 Element level inspection data for this structure.

General Notes: Grating in roadway @ N end for access to utilities in garage. Gratings replaced (2008). N joint and inlet repaired (2016).
Lift-out panels in both walks for access to utilities in garage (caulked 2019).

Recommended Maintenance:	Assigned to:
1. Observe condition of walk/long joint at W at GE revolving door.	Owner
2. Chip & repair spalling around inlets.	TROD
3. Repair utility leak @ S abutment.	Owner

Bridge Inspection Report

Element Level Inspection

Bridge: Rosa Parks over Garage
Number: City (BP) #56
SFN: 3161781

Inspector: RMR
Inspector: PMC
Date: 4/28/2020

Deck		Condition state					TR	Substructure		Condition state					TR
		qty	1	2	3	4				qty	1	2	3	4	
c7.1	Floor/Slab [SF]							c33.	Abutment Walls [LF]						
c7.2	Edge of Floor/Slab [LF]	290	201	88	1	1.44		c34.	Abutment Caps [LF]						
c8.	Wearing Surface [SF]	13920	11364	2525	31	1.28		c35.	Abut. Columns [EA]						
c9.	Curb/Sidewalk [LF]	580	490	88	2	1.26		c36.	Pier Walls [LF]						
c10.	Median [LF]							c37.	Pier Caps [LF]	847	775	68	4	1.19	
c11.	Railing [LF]							c38.	Pier Columns [EA]	44	44			1.00	
N36	Safety feat. Rail [1,0,N]					1.00		c39.	Backwalls [LF]						
c12.	Drainage [EA]	4	4			1.00		c40.	Wingwalls [EA]						
c13.	Exp. Joint [LF]	154	54	100		1.74		c42.	Scour [EA]						
N58. Deck Summary						8		c43.	Slope Protection [EA]						
								N 60. Substructure Summary						7	

Superstructure		Condition state					TR	Culvert		Condition state					TR
		qty	1	2	3	4				qty	1	2	3	4	
c14.	Alignment [EA]	1	1			1		c44.	General [LF]						
c15.1	Beams/Girders [LF]							c45.	Alignment [LF]						
c15.2	Slab [SF]	13860	13008	852		1.1		c46.	Shape [LF]						
c16.	Diaphragm/x Frame [EA]							c47.	Seams [EA]						
c17.	Stringers [LF]							c48.	Headwalls/Endwalls [EA]						
c18.	Floorbeams [LF]							c49.	Scour [EA]						
c19.	Truss Verticals [EA]							c50.	Abutments [LF]						
c20.	Truss Diagonals [EA]							N 62. Culvert Summary							
c21.	Truss Upper Chord [EA]														
c22.	Truss Lower Chord [EA]														
c23.	Truss Gusset Plates [EA]														
c24.	Lateral Bracing [EA]														
c25.	Sway Bracing [EA]														
c26.	Bearing Devices [EA]														
c27.	Arch [LF]														
c28.	Arch Column/Hange [EA]														
c29.	Arch Spandrel Wall [LF]														
c30.	Prot Coating System [LF]														
c31.	Pins/Hangers/Hinge [EA]														
c32.	Fatigue [LF]														
N59. Superstructure Summary						8									

Sign/Utility		Condition state					TR	Channel		Condition state					TR
		qty	1	2	3	4				qty	1	2	3	4	
c55.	Signs [EA]							c51.	Alignment [LF]						
c56.	Sign Supports [EA]							c52.	Protection [LF]						
c57.	Utilities [LF]							c53.	Hydraulic Opening [EA]						
								c54.	Navigation Lights [EA]						
								N 61. Channel Summary							

Approach		Condition state					TR	Approach Summary		Condition state					TR
		qty	1	2	3	4				qty	1	2	3	4	
c1.	Wearing Surface [EA]	1	1			1.00									
c2.	Approachslab [SF]														
c3.	Relief Joint [LF]														
c4.	Embankment [EA]														
c5.	Guardrail [EA]														
N36	Safety fet. TR, GR, TM			N	N	N									
N 61. Approach Summary															

N 59. General Appraisal and Operational Status 7 A

Bridge Inspection Report | Routine Inspection

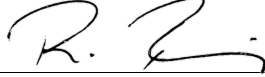
SFN: 3162338

Rosslyn Drive Bridge over Duck Creek

Date Inspected: 03/26/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #57

Route: ROSLN Unit: 4541

Bridge Type 321 / NNN

Date Built / Date Rehabbed: 1943 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Several full depth patches, many trans cracks w efflor; delaminated areas; spalls w exp rebar; stalactites forming @ NW; spalling of haunches; few small rust stains.	2	6
C7.2. Edge of Floor: Patched areas; some cracking; some exp rebar & delam @ N.	1	7
C8. Wearing Surface: Transverse cracks, measuring from hairline up to 1/8 inch wide; smooth riding; no delams detected.	1	7
C9. Curbs/Sidewalks: Hairline transverse cracks; few patches (sound); concrete crumbling in small area of walk @ SE.	1	7
C11. Railing: Widespread concrete cracking, spalling and some exposed rebar; rusting of metal tubes; patching at fascia of railing bases.	2	5
N36. National Safety Feature - Bridge Railing (0, 1 or N): 0		
C12. Drainage: All inlets tend to clog.	1	7
C13. Expansion Joints: Filled w debris; possible leakage @ E.	1	7

N58. Deck Summary:

Summary Rating: 6

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Corr mostly at fascia corners & TF's; 3 scrapes, rusting @ N fascia BF.	1	7
C16. Diaphragms/X-Frames: Laminating corrosion at the end cross frames esp @ NE.	1	7
C26. Bearing Devices: Not visible, assumed rating.	1	7
C30. Protective Coating System (PCS): System: Year: 1986 PCS Rating: 5 Paint failure at the beam ends. Chalky throughout with isolated areas of peeling paint and speckled rust; beam ends & other area's painted over.		

N59. Superstructure Summary:

Summary Rating: 7

C33. Abutment Walls: Some cracks w minor efflor.; severe stains under weep holes @ E; graffiti; spalling, exp. rebar & delams @ top of abutments under beams, esp @ E.	2	6
C39. Backwalls: Cracks with efflorescence; spall & staining @ SW; unsightly construction joints from exp joint replacement; areas of unsound conc (sounding).	2	6
C40. Wingwalls: Moss, staining; graffiti; HL vertical cracks.	1	8
C42. Scour:	1	9

Scour Inspection Type 1

N60. Substructure Summary:

Summary Rating: 6

Bridge Inspection Report | Routine Inspection

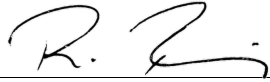
SFN: 3162338

Rosslyn Drive Bridge over Duck Creek

Date Inspected: 03/26/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #57

C51. Channel Alignment: Concrete lined channel. 1 9

C52. Channel Protection: Deep spalls w exposed rebar in the concrete channel protection outside of the flume. Concrete benches in front of abutment walls w severe spalling under outlet pipes. 2 5

C53. Hydraulic Opening: 1 9

N62. Channel Summary: Summary Rating: 5

C1. Pavement: Few, mostly longitudinal cracks. 1 7

C4. Embankment: Severely overgrown. 1 8

C5. Guardrail: Wood blocks are used; few small dents. 1 7

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): 0

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 0

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 1

C6. Approaches Summary: Summary Rating: 7

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 6 A

General Notes: Waterworks to replace/upgrade watermain in same bay where the existing main is located.

Recommended Maintenance:	Assigned to:
1. Consider sealing deck.	Owner
2. Plan for railing replacement or extensive repair.	Owner
3. Consider exp. joint gland replacement.	TROD

Bridge Inspection Report | Routine Inspection

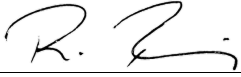
SFN: 3160661

Second Street Connector from Clay Wade Bailey (Ramp D)

Date Inspected: 08/12/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #58

Route: SECON Unit: 0000

Bridge Type 222 / 112

Date Built / Date Rehabbed: 2001 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor:	Isol. cracks w minor efflor in the slab; vert crack @ the slab fascia @ the N(2nd span from the W).	1	8
C7.2. Edge of Floor:	Very isol cracking.	1	8
C8. Wearing Surface:	Trans cracks over piers intersecting w few long. cracks (no delams detected); HMWM applied 2016; portion over beams in excellent condition.	1	8
C9. Curbs/Sidewalks:	Minor trans cracks, popouts, & minor scaling; large cracks over the approach section(slab); filled core holes over slab section.	1	8
C11. Railing:	Conc barriers w mapcracking and efflor build up @ E; some popouts; long and horiz cracks @ the top of the barriers 40' esp @ E; the steel railing has some rusting on the galvanized steel posts (S side).	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N):			
C12. Drainage:		1	8
C13. Expansion Joints:	Jnts filled w sand/light debris.	1	8

N58. Deck Summary: See element level report.

Summary Rating: 8

C14. Alignment of Members:		1	8
C15.1. Beams/Girders:	Very minor impact damage; impact @ N beam, W most span; small spall @ BF over piers @ some locations; spall of grout connection @ BF over 2nd pier from W w exp rebar.	1	8
C15.2. Slab:	Isol cracking w minor efflor, esp @ center portion under island; patched/stained areas under island.	1	8
C16. Diaphragms/X-Frames:	Vert cracks developing in line of beam flanges @ some diaphragms (over piers only @ non exp joints but not fixed piers)	1	7
C18. Floor Beams:	Only located in 2nd bay from E.	1	8
C26. Bearing Devices:	Concealed.	1	8

N59. Superstructure Summary:

Summary Rating: 8

C37. Pier Caps:	HL flexure cracks w minor efflor in cantilever portions; debris @ W end of beam section; SW pier cap has HL vert cracks @ bottom of cantilevers & horiz crack in cap over column	1	8
C38. Pier Columns:	Minor map cracking; minor scrape @ columns from cars; areas of honeycombing, many buckholes (some grout filled); SE most column is spalling w rust staining & exp stirrups @ bottom (low cover).	1	8

N60. Substructure Summary:

Summary Rating: 8

Bridge Inspection Report | Routine Inspection

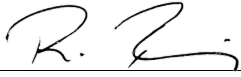
SFN: 3160661

Second Street Connector from Clay Wade Bailey (Ramp D)

Date Inspected: 08/12/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #58

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):

C55. Warning Signs: Merge sign and a yield sign.

1 7

65. Vertical Clearance:

Vert. Clearance Rating: N

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 8 A

Inspection Notes: See element level report (2020).

Recommended Maintenance:

1. Consider repairing/sealing GM barriers.
2. Consider replacing missing light pole over rail @ NW.
3. Fill holes (former signs) in wearing surface of traffic island.
4. Remove loose conc from diaphragms over piers.

Assigned to:

Contract
Traffic
Traffic
TROD

Bridge Inspection Report

Element Level Inspection

Bridge: Second Street Connector from Clay Wad	Inspector: Reiner Reising
Number: CITY (BP) #58	Inspector: Phil McCoy
SFN: 3160661	Date: 8/12/2020

Item	Description	Unit	Quantity	Condition States				TR
				CS 1	CS 2	CS 3	CS 4	
330	Metal Bridge Railing	LF	1050	948	92	10		1.27
331	Reinforced Concrete Bridge Railing	LF	2100	1839	200	61		1.52
300	Strip Seal Expansion Joint	LF	200	148	52			1.35
303	Assembly Joint with Seal	LF	40	25	15			1.47
815	Deck Drainage Grates & Scuppers	EA	9	8	1			1.16
510	Wearing Surface	SF	11813	11743	70			1.01
12	Reinforced Concrete Deck	SF	13446	13414	32			1.00
1	Deck Summary	0						8
38	Reinforced Concrete Slab	SF	4068	3769	299			1.11
109	Prestressed Concrete Open Girder / Beam	LF	635	631	3	1		1.03
155	Reinforced Concrete Floorbeam	LF	10	10				1.00
2	Superstructure Summary	0						8
205	Reinforced Concrete Column	EA	25	25				1.00
234	Reinforced Concrete Pier Cap	LF	462	418	44			1.14
3	Substructure Summary	0						8
1.5	General Appraisal	0						8

Bridge Inspection Report | Routine Inspection

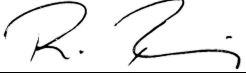
SFN: 3160866

Second Street over Transit Center - East End

Date Inspected: 08/31/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: CITY (BP) #59

Route: SECND Unit: 0069

Bridge Type 132 / NNN

Date Built / Date Rehabbed: 2001 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Ext. widespread HL cracking; long. HL cracks with efflor. at the W end and near the piers (appear to be lined up with the rebar pattern); numerous trans. cracks in the ramp LL span 3 & main bridge E of the const. jnt., some efflor(stalactites) @ ramp LL const. jnt.; concentrated cracks at the locations of internal diaphragms; honeycombing with exp. reinf. at some locations. (typical crack width equal to or less than 0.01" exceeding HL definition for post tensioned conc.); patched areas under diaphragm @ 2nd pier from W.	2	6
C7.2. Edge of Floor: Spalled edges (impact) E span of ramp LL (where clearance is low); efflor staining along the outside faces of the webs; trans cracks @ over hang; some diag. shear cracking with efflor. @ the fascias.	2	6
C8. Wearing Surface: Trans. cracks - over Pier 2 (from W); minor to moderate map cracking at the ends of the E span of the main bridge; few isol. long. HL cracks; some grooves in wearing surface filled w light material; no delams detected by sounding.	1	8
C9. Curbs/Sidewalks: Popouts; trans crack in walk over 2nd pier from W; minor curb spalls; sign removed @ 435+00 causing spall & delam in s/w; SE most reds barriers removed leaving fasteners & rust stains in sidewalk.	1	7
C11. Railing: Vert. & horiz. cracks w efflor; slight localized rust on metal railing; 5 posts missing behind street lights & over exp. jts; several posts not connected to horiz. railings w bolts; isol rust stains.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): 0		
C12. Drainage: Partially clogged grates along the N shoulder scupper.	1	7
C13. Expansion Joints: Joints at the E and W are filled with debris; joint at the NE is leaking at 1 location; damaged armor plate for 2 ft section at the NE joint of the Main bridge; joint armor(2 center segments) at the W is bent in N half. 3 distinct places of leakage w efflor @ SW (under sidewalk)	1	7

N58. Deck Summary:

Summary Rating: 6

C15.1. Beams/Girders: See Item 7.1 Notes. Ext. cracks at the inside connection between the web and diaphragm; selected beams were entered as part of the 2019 inspection & no crack widening was detected; only diaphragm cracks are wider (>.02"), all other cracks are much smaller.	2	6
C26. Bearing Devices: (Mostly concealed); elast. bearings @ end piers & E abut; crack in seismic pedestal @ E abut. @ ramp LL.	1	7

N59. Superstructure Summary:

Summary Rating: 6

C33. Abutment Walls: Horiz. & vert. cracking almost full depth @ N cheekwall (see wingwall); seismic pedestals only connected to the abutment seat by shear friction of rebar; layer of polystyrene was cast underneath the pedestals and between beams and backwall; the NE pedestal is cracked through (cast too close to the beam without allowing for beam movement at the exp. abutment?); sev crack w efflor at N side at top of cheekwall, with efflor.(ranging from 1.5" @ E to 0" @ W apparently from wall top turning/rotating toward bridge; apparently the polystyrene does not allow enough movement at the abutment.	2	5
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Bridge Inspection Report | Routine Inspection

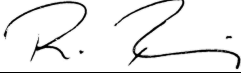
SFN: 3160866

Second Street over Transit Center - East End

Date Inspected: 08/31/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: CITY (BP) #59

C37. Pier Caps: Widespread HL cracking; see item floor.	1	7
C38. Pier Columns: Some horiz. & vert. HL cracking w efflor; minor spalls & scrapes (impact).	1	8
C39. Backwalls: Many cracks with efflor.; seepage; backwall behind the beams was covered with polystyrene layers and plywood; polystyrene at the NE is partially burned away; and conc spalls visible (fire damage?).	2	6
C40. Wingwalls: Edge cracks/spalls on the MSE panel at the SE; the wall appears to be bowed inward at the top (2 locations) at the SE; vert. HL cracks; severe cracking behind abutment @ NE, where abutment is not adequately separated from the WW.	2	5
C43. Slope Protection:	1	9

N60. Substructure Summary: Summary Rating: 5

C1. Pavement: (Bottom of ramp LL only) long. & trans. cracking & severe shoving/rutting (heavy in N outside lane); slight settlement in walk @ E approach @ light pole w sidewalk breaking off.	3	3
C2. Approach Slabs: E only (LL rmap): Trans. cracks in the overlay at the end of the backwall (the overlay is breaking up; 61 cm from the exp joint); full width crack widening & pothole forming.	2	6
N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):	N	
N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):	N	
N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):	N	

C6. Approaches Summary: Lanes were shifted a few years back, since then the lane markings and RPMs do not line up. (Traffic is aware of this). Summary Rating: 3

C57. Utilities: Lighting underneath; corr.

Utilities On Structure: N N N N N N N

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 5 A

Inspection Notes: New locks (not City locks) at gate to area below ramp LL. Some boxes entered as part of the (2019) inspection.

Recommended Maintenance:

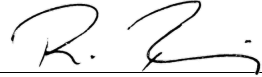
- Clean out inlets
- Consider grout testing in PT ducts.
- Monitor abutment cracking to develop repair strategy.
- Remove corroded fasteners from sidewalk where Reds barrier used to be attached.

Assigned to:

Stormwater
Contract
Owner
Sidewalks

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #60

Route: SECND Unit: 0030

Bridge Type 262 / NNN

Date Built / Date Rehabbed: 2001 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Mostly covered in main span; few areas where cover is loose or removed esp @ S due to leakage near curb in isol areas; corr. is sev. in some areas under the plena w LOS to the SIP forms. (NW hatch has collapsed, all hatches are permanently open).	1	7
C7.2. Edge of Floor: N Plenum - widespread cracking with efflor. S Plenum - widespread cracking with heavy efflor. build-up and stalactites at many trans. cracks; S edge between Elm & Race spalling in 5' intervals (grout over PT anchors).	2	6
C8. Wearing Surface: Pavers shifting & crumbling esp in turn lanes at all intersections; concrete- ext map cracking w irregularly spaced edge spalls (1'Lx3"x2"D) to pavers @ 3 sides on Elm (not N (concrete approach slab)); trans cracks throughout often extending into walk & appear to be located over PT ducts (5' spacing) see edge of floor (also present in new concrete/curb S of street car); map cracking esp in Freedom Center block w isolated spalls, worst condition in 3-S most lanes, N 2 lanes have less cracking. Smooth riding throughout; 2 deep ruts transverse 5 to 6' apart in middle of block between Race & Vine w buildup of efflor & adjacent patched pothole. New (2018) concrete crosswalk accross S side of Race Street; spalled map cracking W of E Walnut joint {street car built overlay}.	1	7
C9. Curbs/Sidewalks: Ext. widespread map cracking with efflor. at the S sidewalk esp between Elm and Race; some wider sidewalk cracks turning into shallow popouts/spalls. Ext. spalling around the lightpoles on the S side; widespread curb crumbling & spalling between the walk and the curb; water leaking through curbs causing curb damage & build up of efflor.; widespread caulk deter. at the curbs and around pole foundations; circle crack through several blocks of walk between Race & Vine in S walk at stations (511, 525, & 529); S walk E of main, long cracking around sidewalk block joints; new N walks cracks sealed, with apparently no new cracks forming; gap between S walk & railing base conc. not sealed between Elm & Race where water can enter; S side governs rating.	2	5
C11. Railing: S only: Isolated corrosion.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage: Many inlets @ N clogged; ext debris below sidewalk grates. Drain in the S plenum not connected at station 855 leaking water into plenum. Plenum leakage at some other locations (see detailed plenum observations), mostly at intersections in N plenum.	3	4
C13. Expansion Joints: Replaced (2005); minor leakage at all of the joints; loose armor & ripped gland @ the exp. joint E of Elm (pothole behind the joint armor with exp. rebar up to 6' long & armor squeezed @ S curb); 6' x 1' x 3" hooks exposed fully; vegetation East of Race. Debris filled (typ).	2	5

N58. Deck Summary:

Summary Rating: 7

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Rust stains on the sides of the T's originating from metal fasteners or embedded objects; efflors. at the ends of several T's (especially at the S); minor discoloration; few minor spalls, some patched; ext. efflor at some T beams (@ 440, S pier); 45 deg cracks w efflor in flanges over S pier at 3 locations where cover is removed,	1	8

Bridge Inspection Report | Routine Inspection

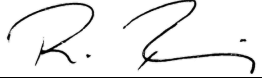
SFN: 3160696

Second Street over Transit Center - Elm to Main Streets

Date Inspected: 08/28/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #60

one other location appears to have bubbling cover (assumed crack as well); web w moisture & efflor @ 560.

C16. Diaphragms/X-Frames: (over piers between beam webs). Cracking with efflorescence (isolated heavy) @ S. 1 7

N59. Superstructure Summary: Summary Rating: 8

C37. Pier Caps: HL flexure crack at Piers 4-36; seepage stains; saturated at some locations; shear crack at the S over Pier 7 from the W; shear crack @ S station 440 w build up of efflor.; coated cables sticking out @ bottom of pier cap @ mid span (P.T. duct hold down?). 1 8

C38. Pier Columns: Vertical and horizontal HL cracks; minor honeycombing; spalls at bases; 4th pier from the E on the N side has cracks and patched spalls. 1 8

N60. Substructure Summary: S CMU wall has vertical cracks, some in tile area; horiz. tile crack @ isol locations esp. @ station 603 @ S. Summary Rating: 8

C55. Warning Signs: There are numerous signs along this bridge; detectable warning @ E Race contradict "no walking" signs; no-parking sign in N walk hit/bent between Elm & Race. 1 8

C56. Sign Supports: Sign in S walk, W of Vine has 1 sheared anchor bolt. 2 6

C57. Utilities: Many, some corroding, others as new, leaking at some conduits. Electrical utilites in Plenums are severely corroded, with conduits separated and light fixtures rusted off and hanging by their wires. 3 3

Utilities On Structure: N N N N N N N

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 A

Inspection Notes: See detailed inspectio notes; 2020 inspection during excessive drought, no leakage observed; parking and storage in tunnel in 2020; during 2020 inspection fans appeared to switch into "Hurricane" wind mode.

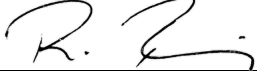
Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Seal gap between N approach slabs & wearing surface w hot applied joint filler. | TROD |
| 2. Repair wearing surface @ Walnut intersection {streetcar built wearing surface} where spalled. | SORTA |
| 3. In south plenum, attach PVC drain @ station 855 to drain pipes | SORTA |
| 4. Plan for comprehensive transit repairs particularly plenums. | SORTA |
| 5. Repair broken utility conduits in plena (many locations). | SORTA |

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 8 A

Signature:  _____

Bridge No.: CITY (BP) #60

- | | | |
|-----|---|------------|
| 6. | ODOT contractor for pump replacement to clean out construction site (tripping hazard, pavement markings). | Owner |
| 7. | Plan for expansion joint replacement at Elm Street. | Owner |
| 8. | Clean out N curb inlets. | Stormwater |
| 9. | Remove stored palets from Transit Center (fire hazard). | SORTA |
| 10. | Discuss possibilities to mitigate leaking at S curb. | Owner |

Our pier #	Pier # to plans	Stationing	South Plenum - Comments 08/25/2020
Expansion Jt #10		960	
1	9+3	955	
2	9+2	935	open switch box
3	9+1	915	
Expansion Jt #9	West Main	911	
4	8+6	908	
5	8+5	887	877: efflor @ N wall & ceiling
6	8+4	866	area of full depth deck repair 850-860
7	8+3	844	855: Leakage @ N wall, no drain pipe attached!
8	8+2	823	
9	8+1	802	
Expansion Jt #8	East Walnut	799	
10	7+2	795	severe corrosion to ductwork
11	7+1	773	
Expansion Jt #7	West Walnut	769	
12	6+6	766	
13	6+5	745	
14	6+4	724	
15	6+3	702	712 electrical conduit separated by corrosion
16	6+2	681	
17	6+1	670	
Expansion Jt #6	East Vine	657	
18	5+2	653	640 to 650: CMU deter @ S wall (Rosa Parks grating)
19	5+1	631	
Expansion Jt #5	West Vine	627	
20	4+6	624	
21	4+5	603	603: Ext efflor & est. staining
22	4+4	582	Between exp jt 5 & 6: Ceiling cracks w stalactites
23	4+3	560	
24	4+2	539	
25	4+1	518	
Expansion Jt #4	East Race	515	
26	3+2	511	
27	3+1	489	
Expansion Jt #3	West Race	485	
28	2+6	482	
29	2+5	461	
30	2+4	440	448 open electrical junction box corroding
31	2+3	418	
32	2+2	397	tes, rusted / broken electrical conduit severely corroded el
33	2+1	376	
Expansion Jt #2	East Elm	373	
34	1+3	369	heavy stalactites and broken conduit 376
35	1+2	351	
36	1+1	334	
Expansion Jt #1		329	

Our pier #	Pier # to plans	Stationing	Inside Transit Center - Comments 08/25/20
Expansion Jt #10		960	
1	9+3	955	ext. leakage from S curb
2	9+2	935	
3	9+1	915	
Expansion Jt #9	West Main	911	
4	8+6	908	
5	8+5	887	
6	8+4	866	
7	8+3	844	ex rust staining on beam web
8	8+2	823	E floordrain clogged
9	8+1	802	
Expansion Jt #8	East Walnut	799	
10	7+2	795	
11	7+1	773	
Expansion Jt #7	West Walnut	769	
12	6+6	766	
13	6+5	745	Dripping @ S drain pipe from slab (Freedom Center Plaza drain)
14	6+4	724	near 730 initial leak in center of span
15	6+3	702	small S curb leak
16	6+2	681	initial S curb leak
17	6+1	670	
Expansion Jt #6	East Vine	657	
18	5+2	653	
19	5+1	631	
Expansion Jt #5	West Vine	627	Leakage adjacent to funnel under jt
20	4+6	624	
21	4+5	603	hor. Cracks in S wall tile leak bet. Beams at curb (?)
22	4+4	582	
23	4+3	560	beam w moisture and efflor in web (W side)
24	4+2	539	
25	4+1	518	leakage and efflor. under S curb
Expansion Jt #4	East Race	515	widespread joint leakage
26	3+2	511	leaking conduit above (traffic lights?)
27	3+1	489	
Expansion Jt #3	West Race	485	drainage funnel clogged @ N stalactites accumulating
28	2+6	482	leakage near S curb
29	2+5	461	
30	2+4	440	
31	2+3	418	
32	2+2	397	
33	2+1	376	
Expansion Jt #2	East Elm	373	Leakage through exp jt & trough; joint appears tighter at top
34	1+3	369	
35	1+2	351	
36	1+1	334	
Expansion Jt #1		329	

Our pier #	Pier # to plans	Stationing	North Plenum - Comments 08/25/2020
Expansion Jt #10		960	
1	9+3	955	
2	9+2	935	
3	9+1	915	915 separated elec. Conduit @ wall
Expansion Jt #9	West Main	911	
4	8+6	908	
5	8+5	887	
6	8+4	866	broken light & socket
7	8+3	844	
8	8+2	823	
9	8+1	802	
Expansion Jt #8	East Walnut	799	
10	7+2	795	780-790 N elect. conduit broken and supported by wires only
11	7+1	773	3 interior wall panels shifted (bot pushed outward) @ 770, widest
Expansion Jt #7	West Walnut	769	
12	6+6	766	
13	6+5	745	
14	6+4	724	broken light at 725
15	6+3	702	ve720 vent housing steel tower supports not properly seated
16	6+2	681	
17	6+1	670	
Expansion Jt #6	East Vine	657	broken utility conduits at several locations, leaking
18	5+2	653	
19	5+1	631	
Expansion Jt #5	West Vine	627	broken utility conduits at several locations, leaking
20	4+6	624	
21	4+5	603	trans crack in concrete floor.
22	4+4	582	590 open electrical box
23	4+3	560	576 fan blade door dislodged
24	4+2	539	Light fixture corroded away
25	4+1	518	
Expansion Jt #4	East Race	515	
26	3+2	511	
27	3+1	489	
Expansion Jt #3	West Race	485	bottom of divider wall corroded severe LOS
28	2+6	482	
29	2+5	461	
30	2+4	440	top of divider wall leaning N open electrical box at 444
31	2+3	418	425 broken door to outside ventroom (dead opossum?)
32	2+2	397	
33	2+1	376	387 crack in N plenum floor
Expansion Jt #2	East Elm	373	
34	1+3	369	365 separated conduit/ hanger 100 LOS
35	1+2	351	350 separated conduit 100 % LOS
36	1+1	334	
Expansion Jt #1		329	Bot Vents closed off (S side), only open between 460 and 820

	Pier # to plans	Stationing	Top Deck (2nd Street) 08/25/2020
Expansion Jt #10		960	
			Curb damage
	Pole 532	936	
	Pole 531	915	
Expansion Jt #9	West Main	911	
	Pole 528	882	
	Pole 527	855	
	Pole 526	827	
Expansion Jt #8	East Walnut	799	WS breaking up at joint (Streetcar patch?)
	Pole 525	794	
	Pole 524	773	
Expansion Jt #7	West Walnut	769	joint compressed in walk
	Pole 521	742	
			Pump station contractor pavement markings
	Pole 520	713	Pump Station walk offset
	Pole 519	658	
Expansion Jt #6	East Vine	657	
	Pole 518	652	
	Pole 517	631	
Expansion Jt #5	West Vine	627	
	Pole 514	598	
	Pole 513	571	cracking in WS with water and efflor.
			water on sidewalk (from Radius building)
	Pole 512	543	
			522 kiosk with water leak in S walk
Expansion Jt #4	East Race	515	
	Pole 511	510	
	Pole 510	489	
Expansion Jt #3	West Race	485	
	Pole 507	456.5	
	Pole 506	428	Effl on S edge of floor
	Pole 505	401	
Expansion Jt #2	East Elm	373	
	Pole 504	368	
Expansion Jt #1	West Elm	329	

Bridge Inspection Report | Routine Inspection

SFN: 3160688

Second Street over Transit Center - West Approach

Date Inspected: 05/14/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #61

Route: SECND Unit: 0024

Bridge Type 322 / NNN

Date Built / Date Rehabbed: 2001 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor:	HL transverse cracks with efflor; spall w exp steel plate @ center of E terminus under exp jnt.	1	7
C7.2. Edge of Floor:	Efflor. under light pole @ NW; reg. spaced trans cracks w efflor.	1	8
C8. Wearing Surface:	Minor cracking; areas w honeycombing, other areas ground down; 2 spalls (1 sqft each) @ E.	1	8
C9. Curbs/Sidewalks:	Widespread minor pop-outs.	1	8
C11. Railing:	Vert. and horiz. cracks with ext. efflor. and intial concrete deter. & rust staining in the GM barrier spall @ N under barrier pull box; widespread chalking/fading, isol. corr. on the metal railing; conc. barrier controls this rating.	2	6
N36. National Safety Feature - Bridge Railing (0, 1 or N):	1		
C12. Drainage:	5 scuppers with downspouts - all appear open. On the sidewalk, some areas appear to drain towards the GM barrier.	1	8
C13. Expansion Joints:	Debris; E joint strip seal leaking @ center w joint.	1	7

N58. Deck Summary: Summary Rating: 7

C14. Alignment of Members:		1	8
C15.1. Beams/Girders:	Center beam has shorter BF than other beams @ E end; area of thicker beam section over center pier has vertical stiffeners on N side of beam only, other areas have stiffeners only @ connections.	1	8
C16. Diaphragms/X-Frames:	Rust @ top horiz @ 2nd from E @ S (under deck crack); possible warped diaphragms @ bottom horiz, bending toward W @ center of bays?; webs of some diaphragms members appear to be dented; slight seperation of diaphragm members from gussets (gusset bent between top and bottom welds of diaphragm members).	1	7
C18. Floor Beams:	Only at the East end where the bridge meets the transit bridge. (FC report)	1	8
C26. Bearing Devices:	Minor corrosion at the East pier.	1	8
C30. Protective Coating System (PCS):	System: (2000) Foreign material embedded in the paint; paint accumulaton at the bottom of the stiffeners; workmanship issues. Year: PCS Rating:		8
C32. Fatigue Prone Details:		1	8

N59. Superstructure Summary: Summary Rating: 8

Bridge Inspection Report | Routine Inspection

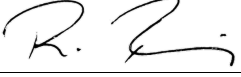
SFN: 3160688

Second Street over Transit Center - West Approach

Date Inspected: 05/14/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #61

C37. Pier Caps: HL vertical & diagonal over center column w minor efflor. 1 8

C38. Pier Columns: Isolated honeycombing; scratch marks from traffic; S sidewalk @ center pier is cracked & heaved; "ladder" HL cracking @ E columns, no delams detected. 1 8

N60. Substructure Summary: Summary Rating: 8

C55. Warning Signs: 1 8

C56. Sign Supports: Mortar deterioration & efflor @ sign bases (see item 11); surface corrosion; leveling nuts rusted where exposed. 2 6

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 A

Inspection Notes: Bridge vibration is noticable under traffic; latest FC inspection of E FB Sept 2019.

General Notes: 2020 element level data available.

Recommended Maintenance:	Assigned to:
1. Consider repair/replacement of G.M. barriers.	Contract
2. Consider repair of E joint gland @ center.	Contract

Bridge Inspection Report

Element Level Inspection

Bridge: Second Street over Transit Center - Wes
Number: CITY (BP) #61
SFN: 3160688

Inspector: Reiner Reising
Inspector: Phil McCoy
Date: 5/14/2020

Item	Description	Unit	Quantity	Condition States				TR
				CS 1	CS 2	CS 3	CS 4	
12	Reinforced Concrete Deck	SF	29072	28446	626			1.03
7.2	Sidewalk/Curb	LF	316	306	10			1.05
510	Wearing Surface	SF	23384	23262	120	2		1.01
331	Reinforced Concrete Bridge Railing	LF	632	371	224	37		1.96
330	Metal Bridge Railing	LF	316	247	69			1.30
300	Strip Seal Expansion Joint	LF	82	53	29			1.45
303	Assembly Joint with Seal	LF	82	74	8			1.14
1	Deck Summary	0						7
107	Steel Open Girder/Beam	LF	2528	2525	3			1.00
152	Steel Floor Beam	LF	95	92	3			1.05
311	Moveable Bearing	EA	10	10				1.00
313	Fixed Bearing	EA	8	8				1.00
2	Superstructure Summary	0						8
205	Reinforced Concrete Column	EA	8	8				1.00
234	Reinforced Concrete Pier Cap	LF	164	145	19			1.16
3	Substructure Summary	0						8
1.5	General Appraisal	0						8

Bridge Inspection Report | Routine Inspection

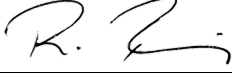
SFN: 3161188

Settle Street Bridge over Little Duck Creek

Date Inspected: 03/24/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #62

Route: SETLE Unit: 4753

Bridge Type 231 / NNN

Date Built / Date Rehabbed: 1996 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Algae(?) or lichen growing on underside.	1	8
C7.2. Edge of Floor: Widespread staining, HL cracking at railing pilasters w very little efflor.	1	8
C8. Wearing Surface: Hairline longitudinal cracks; reflective of beams; 15 sqft delam in center of roadway @ N abutment around center crack.	1	7
C9. Curbs/Sidewalks: Transverse cracks in walks; some cracks w efflor. in curbs.	1	7
C11. Railing: Hairline vertical cracks (typical); widespread staining, lichen, & bugholes.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N): 0		
C12. Drainage: Off bridge.	1	8
C13. Expansion Joints: Leaking @ curbs/fascias where no joint gland; moist styrofoam behind box beams.	1	7

N58. Deck Summary:

Summary Rating: 8

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: See item "7.1 Floor."	1	8
C26. Bearing Devices: Mostly concealed, good contact where visible.	1	8

N59. Superstructure Summary:

Summary Rating: 8

C33. Abutment Walls: Evidence of leakage at the top of the walls esp @ NE. Isolated vertical cracks w efflor; 1 moist crack @ center of S abutment; 1 weep hole below water level.	1	7
C39. Backwalls: Mostly concealed.	1	8
C40. Wingwalls:	1	8
C42. Scour:	1	8

Scour Inspection Type 1

N60. Substructure Summary:

Summary Rating: 7

C51. Channel Alignment: Channel straight for more than 100 ft upstream, at normal flow levels channel is within concrete walls.	1	8
C52. Channel Protection: Concrete walls adjacent to bridge.	1	8

Bridge Inspection Report | *Routine Inspection*

SFN: 3161188

Settle Street Bridge over Little Duck Creek

Date Inspected: 03/24/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: _____

Bridge No.: CITY (BP) #62

C53. Hydraulic Opening: 1 9

N62. Channel Summary: Summary Rating: 8

C1. Pavement: Map cracking and scaling of the asphalt. 2 6

C2. Approach Slabs: Cracks perpendicular to backwall. 1 7

C4. Embankment: 1 8

C5. Guardrail: Wood blocks are used. Loose block at the NE; 2 posts completely broken @ NW. 2 5

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): 1

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 1

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 1

C6. Approaches Summary: Summary Rating: 6

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Recommended Maintenance:

1. Pressure wash railings and reseal.
2. Discuss deck sealing.
3. Consider adding joint material in curbs.

Assigned to:

TROD
TROD
TROD

Bridge Inspection Report | Routine Inspection

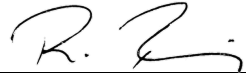
SFN: 3102831

Sixth Street Expressway Pedestrian Bridge West of Harriet

Date Inspected: 05/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #63

Route: 50 Unit: 1936 Bridge Type 322 / Date Built / Date Rehabbed: 1965 /
 Load Rating Percent 000 (Main/Approach Spans)

Inspection Information

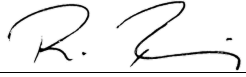
	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Trans. cracks w efflor; spalling & efflor. @ TF's; small delams developing @ some trans cracks.	1	7
C7.2. Edge of Floor: Few stalactites @ fascia; patches with efflor. at VPF posts (retrofit), cracks & minor spalls @ VPF posts.	2	6
C9. Curbs/Sidewalks: Popouts; minor shrinkage cracks; cracks, spalls and delaminations developing @ bases of VPF posts; surface scaling.	1	7
C11. Railing: VPF installed (1994); paint peeling @ stair handrail where painted; kickplate fasteners broken adjacent to lifted rail post; several handrail post welds cracked at baseplates; almost all railing fasteners corroding due to non-matching metals.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: 2 drain openings spill onto shoulder of road.	1	9
C13. Expansion Joints: C/P's slightly offset @ W side of N exp. jt. bet. bridge deck & stairway; minor spalls @ N & S jt. armor; conflict between coverplate & base of stair railing @ NW.	1	7
N58. Deck Summary:	Summary Rating: 7	
C14. Alignment of Members: Horiz. misalignment of W beam - S span @ midspan (impact ?).	1	7
C15.1. Beams/Girders: Several scrapes on BF; W beam @ S bent (SEE ITEM C14); widespread corr cells w minor pitting; BF cover plate @ NE of pier corroding @ end.	2	6
C26. Bearing Devices: Very minor corr. @ N.	1	8
C30. Protective Coating System (PCS): System: OZEU Year: 1994 Scrapes (impact) on BF's & widespread active corrosion (95% of length has corrosion issues somewhere around circumference).	PCS Rating: 4	
C32. Fatigue Prone Details: (Cover plates @ pier, beam splice over pier); rough welds @ cover plate ends.	1	8
N59. Superstructure Summary: Not redundant; fatigue prone; noticeable vibration from traffic below.	Summary Rating: 6	
C36. Pier Walls: Thorosealed (1993); very minor HL cracking.	1	8
C37. Pier Caps: Thorosealed (1993); minor spall w exp. reinf. (< 1 SF) @ N; staining.	1	8
N60. Substructure Summary:	Summary Rating: 8	

Sixth Street Expressway Pedestrian Bridge West of Harriet

Date Inspected: 05/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #63

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:General Appraisal /
Operational Status: 6 A

Inspection Notes: Stairs @ have minor delaminations near supports; water stains on bottom.
S and center pier area severely undermined by groundhogs.
Bottom of N & S stair handrails replaced w/ steel; individual tubes rusting, deforming.
Mud accumulation @ base of N steps with plants growing in sidewalk.

General Notes: HAM-50-1936**Recommended Maintenance:****Assigned to:**

- | | |
|--|----------|
| 1. Cut vegetation from railing and landing @ South and below S approach. | TROD |
| 2. Consider applying membrane on the deck and curbs. | TROD |
| 3. Notch joint cover plate @ NW to allow proper expansion around railing base. | TROD |
| 4. Repair broken welds @ handrail post bases. | Contract |
| 5. Reset/lower 6th post from N @ W VPF & clear drainage of posts. | TROD |
| 6. Then replace/repair kick plate fasteners. | TROD |
| 7. Chip loose conc. from floor @ trans cracks. | TROD |
| 8. Repair perforated portion of handrail @ S steps (center of steps). | TROD |
| 9. Seal/cualk around all railing post sleeves(vandal fence). | TROD |

Bridge Inspection Report | Routine Inspection


SFN: 3162753

Sonoma Court Culvert

Date Inspected: 03/19/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #64

Route: SONOM Unit: 0001

Bridge Type 195 / NNN

Date Built / Date Rehabbed: 2004 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating
1 to 4Rating
9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N): 0

C44. Culvert - General: Lift holes not fully grouted; minor staining; very minor spalling & delams around liftholes. 1 8

C45. Culvert - Alignment: 1 8

C47. Culvert - Seams: 1 8

C48. Culvert - Head/End Walls: Staining & moss on headwalls & WW's; minor isol. efflor. @ US wingwall. Vertical offset of wings toward headwalls (3" @ SE). 1 8

C49. Culvert - Scour: 1 8

Culvert Scour Inspection Type: 1

N60. Culvert Summary: Widespread white longitudinal scrape marks. Summary Rating: 8

C51. Channel Alignment: Trees growing in channel US & DS. 1 7

C52. Channel Protection 1 8

C53. Hydraulic Opening: Minor silt & debris build up inside of culvert. 1 7

N62. Channel Summary: Summary Rating: 7

C1. Pavement: 2 cracks, do not appear culvert related. 1 8

C4. Embankment: Overgrown, and maintained grass. 1 8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Summary Rating: 8

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 A

Inspection Notes: Stormwater outfall pipes @ DS WW's. W pipe below ground level.

Bridge Inspection Report | *Routine Inspection*

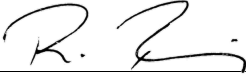
SFN: 3162753

Sonoma Court Culvert

Date Inspected: 03/19/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 8 A

Signature:  _____

Bridge No.: CITY (BP) #64

Recommended Maintenance:

1. Remove trees growing in channel.

Assigned to:

Stormwater

Bridge Inspection Report | Routine Inspection


SFN: 3161528

Southside Avenue over Conrail/CSX

Date Inspected: 05/11/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #65

Route: SOUTH Unit: 0673

Bridge Type 322 / NNN

Date Built / Date Rehabbed: 1992 /

Load Rating Percent 140

(Main/Approach Spans)

Inspection Information

Rating
1 to 4

Rating
9 to 0

C7.1. Floor:	Widespread transverse cracks with efflor. - esp. in negative moment region.	1	7
C7.2. Edge of Floor:	Many transverse cracks with efflor. - originating often from railing control joints.	1	7
C8. Wearing Surface:	Many transverse cracks; some long. cracks.	1	7
C9. Curbs/Sidewalks:	Spall near the N exp. joint; vert. cracks in curb/trans. at walk - esp in negative moment region continuing from wearing surface; long. cracks in sidewalk over pier; popouts in walk.	1	7
C11. Railing:	Cracking w efflor. @ mid height of GM barrier (bot. of control joints); railing @ NW approach continuously hit, w cracked conc; NW approach railing not considered for rating.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N):			
C12. Drainage:	Both scuppers are clogged; water apparently still able to run off due to the slope of the bridge.	3	3
C13. Expansion Joints:	Widespread shallow spalling along joint header, no apparent leakage; squeeking sound @ SW exp. jnt. under truck loads.	1	7

N58. Deck Summary: Widespread staining over tracks.

Summary Rating: 7

C14. Alignment of Members:		1	8
C15.1. Beams/Girders:	Some rusting at TF where deck is cracked; minor surface corrosion elsewhere; sev. staining over tracks & some corr. over tracks.	1	8
C16. Diaphragms/X-Frames:	Moderate surface freckling with no LOS.	1	7
C26. Bearing Devices:	Partially assumed rating; some anchor bolts bent.	1	8
C30. Protective Coating System (PCS):	System: ZV 4 Year: 1992	PCS Rating: 6	
	Widespread chalking; light surface corrosion; active corrosion at TF (see beam) & @ distinctive BF locations (where beams were supported?)		

N59. Superstructure Summary: Widespread staining over tracks.

Summary Rating: 8

C33. Abutment Walls:	Vert. HL cracking w very little efflor.	1	8
C36. Pier Walls:		1	8
C37. Pier Caps:		1	8
C39. Backwalls:	Staining; spalling around header and minor cracking at top.	1	7
C40. Wingwalls:	Veg. growing bet. MSE panels; graffiti; settlement of MSE wall portion (3.25" @ SE, 3.5" @ SW) appears to have stabilized; long. cracking in pvmt. and gaps bet. approach walk and curb indicate possible rotation of walls (assumed to have stabilized but will be	1	7

Bridge Inspection Report | Routine Inspection

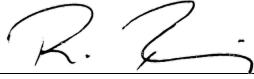
SFN: 3161528

Southside Avenue over Conrail/CSX

Date Inspected: 05/11/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #65

monitored).

N60. Substructure Summary:

Summary Rating: 8

- | | | |
|---|---|---|
| C1. Pavement: Wide map cracking turning into grooves where vegetation is growing (long. cracks may be related to WW rotation); pothole forming @ N center. | 2 | 6 |
| C2. Approach Slabs: Many cracks perpendicular to backwall; one wider crack (0.05") in S approach slab curb spall @ SW. | 2 | 6 |
| C4. Embankment: | 1 | 8 |
| N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): | 1 | |
| N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): | 1 | |
| N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): | 1 | |

C6. Approaches Summary: Monitor gap width between approach walk and curb at set locations.

Summary Rating: 5

Railing on MSE wall settled 3.25" @ SE and 3.5" @ SW compared to railing over tieback wall.

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 8 A

Inspection Notes: 2020 encampment in front of N abutment (abandoned); very noticeable vibration during truck traffic; sev. impact damage @ NW railing. 2020 element level report available.

Recommended Maintenance:

- | Recommended Maintenance: | Assigned to: |
|---|--------------|
| 1. Remove veg. from WW's (clear 10' wide strip to allow for wall inspection). | TROD |
| 2. Seal control joints in GM barriers and railing parapets with watertight expansion material (Sikaflex). | TROD |
| 3. Clean inlets. | Stormwater |
| 4. Seal railings and GM barriers with silane. | Contract |
| 5. Seal deck with HMWM. | Contract |
| 6. Repair NW approach railing. | TROD |

Bridge Inspection Report

Element Level Inspection

Bridge: Southside Ave over RR
Number: City (BP) #65
SFN: 3161528

Inspector: RMR
Inspector: PMC
Date: 05/11/2020

		Condition state					TR
		qty	1	2	3	4	
c7.1	Floor/Slab [SF]	5040	4490	550			1.16
c7.2	Edge of Floor/Slab [LF]	288	219	66	3		1.44
c8.	Wearing Surface [SF]	4039	3189	850			1.29
c9.	Curb/Sidewalk [LF]	144	83	61			1.52
c10.	Median [LF]						
c11.	Railing [LF]	288	198	90			1.41
N36	Safety feat. Rail [1,0,N]						
C12.	Drainage [EA]	2	0			2	4.00
c13.	Exp. Joint [LF]	92	25	65	2		1.95
N58. Deck Summary							7

		Condition state					TR
		qty	1	2	3	4	
c14.	Alignment [EA]	2	2				1
c15.1	Beams/Girders [LF]	720	595	125			1.2
c15.2	Slab [SF]						
c16	Diaphragm/x Frame [EA]	50	28	22			1.5
c17.	Stringers [LF]						
c18.	Floorbeams [LF]						
c19.	Truss Verticals [EA]						
c20.	Truss Diagonals [EA]						
c21	Truss Upper Chord [EA]						
c22.	Truss Lower Chord [EA]						
c23.	Truss Gusset Plates [EA]						
c24.	Lateral Bracing [EA]						
c25.	Sway Bracing [EA]						
c26.	Bearing Devices [EA]	15	15				1
c27	Arch [LF]						
c28.	Arch Column/Hang[EA]						
c29.	Arch Spandrel Wall [LF]						
c30	Prot Coating System [LF]						
c31	Pins/Hangers/Hinge[EA]						
c32.	Fatigue [LF]						
N59. Superstructure Summary							8

		Condition state					TR
		qty	1	2	3	4	
c55.	Signs [EA]						
c56.	Sign Supports [EA]						
c57	Utilities [LF]						

		Condition state					TR
		qty	1	2	3	4	
c33.	Abutment Walls [LF]	92	92				1.00
c34.	Abutment Caps [LF]	92	92				1.00
c35.	Abut. Columns [EA]						
c36.	Pier Walls [LF]	14	14				1.00
c37.	Pier Caps [LF]	39	39				1.00
c38.	Pier Columns [EA]						
c39.	Backwalls [LF]	92	36	56			1.70
c40.	Wingwalls [EA]	2	2				1.00
c42.	Scour [EA]	3	3				1.00
c43.	Slope Protection [EA]	2	2				1.00
N 60. Substructure Summary							8

		Condition state					TR
		qty	1	2	3	4	
c44.	General [LF]						
c45.	Alignment [LF]						
c46.	Shape [LF]						
c47.	Seams [EA]						
c48.	Headwalls/Endwalls [EA]						
c49.	Scour [EA]						
c50.	Abutments [LF]						
N 62. Culvert Summary							

		Condition state					TR
		qty	1	2	3	4	
c51.	Alignment [LF]						
c52.	Protection [LF]						
c53.	Hydraulic Opening [EA]						
c54.	Navigation Lights [EA]						
N 61. Channel Summary							

		Condition state					TR
		qty	1	2	3	4	
c1.	Wearing Surface [EA]	2	0	2			2.00
c2.	Approachslab [SF]	1514	1192	322			1.29
c3.	Relief Joint [LF]						
c4.	Embankment [EA]						
c5.	Guardrail [EA]						
N36	Safety fet. TR, GR, TM			1	1	1	
N 61. Approach Summary							5

N 59. General Appraisal and Operational Status							8 A
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Bridge Inspection Report | Routine Inspection

SFN: 3161285

Spring Lawn Avenue Bridge over Branch of Ludlow Run

Date Inspected: 04/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 5 P

Signature: 

Bridge No.: CITY (BP) #66

Route: SPGLN Unit: 2981

Bridge Type 171 / NNN

Date Built / Date Rehabbed: 1925 /

Load Rating Percent 100

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor:	Widespread, mostly long. cracks with sig efflor, stalactites; large portions gunnite repaired (middle third of bridge); rust stains; delams @ S near fascia (See item 15); widespread exposed +/-3" long rebar (standoffs ?).	2	5
C7.2. Edge of Floor:	Heavy efflor, stalactites, delam and large spall @ S (4 ft long), with exposed rebar and LOS to bar.	3	4
C8. Wearing Surface:	Full width cracks reflective at ends of bridges turning into map cracking; asphalt overlay on bridge sounds hollow but rides smoothly.	1	7
C11. Railing:	Concrete railing with widespread severe spalling at bottom w. exposed rebar; N railing leaning outward.	3	4
N36. National Safety Feature - Bridge Railing (0, 1 or N):	0		
C12. Drainage:	Off bridge; debris at bottom of railing traps water.	1	7

N58. Deck Summary: **Summary Rating: 5**

C14. Alignment of Members:		1	8
C15.2. Slab:	Large portions covered with gunnite (center 1/3of bridge); cracking w efflor. and stalactites, rust staining elsewhere; delam @ S. see item Floor 7.1	2	5

N59. Superstructure Summary: **Summary Rating: 5**

C33. Abutment Walls:	Gunnite coated, widespread built-up of efflor.; some areas of delam gunnite.	2	6
C40. Wingwalls:	Cracking and spalling, efflor; delam & spall exposed rebar @ NW.	2	6
C42. Scour:	Small scour hole US exposing portions of the vertical bottom slab {+/- 2'}, but no undermining; stream bed under bridge- gunnite covered w some cracking & delams.	2	6

Scour Inspection Type

N60. Substructure Summary: **Mostly covered by gunnite partially assumed rating.** **Summary Rating: 6**

C51. Channel Alignment:	Slight curve US & DS of bridge	2	6
C52. Channel Protection	Undermining of poured concrete and blocks DS of bridge; slumping of banks US w trees fallen.	2	6
C53. Hydraulic Opening:	Severly vegetated channel DS	1	8

N62. Channel Summary: **Summary Rating: 6**

Bridge Inspection Report | Routine Inspection

SFN: 3161285

Spring Lawn Avenue Bridge over Branch of Ludlow Run

Date Inspected: 04/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 5 P

Signature: 

Bridge No.: CITY (BP) #66

C1. Pavement: Smooth riding despite few trans cracks & hollow sounding areas. 1 8

C4. Embankment: Overgrowing; possible erosion of riprap DS; some minor erosion @ bridge ends @ US side. 2 6

C5. Guardrail: Widespread minor dents & previous impact w leaning posts @ NW. 2 6

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 0

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 0

C6. Approaches Summary: Summary Rating: 6

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 5 P

Inspection Notes: Element level inspection 2020.

General Notes: Posted for EV in 2019.

Recommended Maintenance:

1. Consider bridge replacement
2. Sweep deck (esp at bottoms of railings)

Assigned to:

Contract
TROD

Bridge Inspection Report

Element Level Inspection

Bridge: Spring Lawn Avenue Bridge over Branch of Ludlow Run
Number: CITY (BP) #66
SFN: 3161285

Inspector: RMR
Inspector: PMC
Date: 04/01/2020

		Condition state					TR
		qty	1	2	3	4	
c7.1	Floor/Slab [SF]	372	0	150	222		3.00
c7.2	Edge of Floor/S[LF]	24	0	4	20		3.00
c8.	Wearing Surfac[SF]	372	216	80	76		2.46
c9.	Curb/Sidewalk [LF]						
c10.	Median [LF]						
c11.	Railing [LF]	28	0	10	18		3.00
N36	Safety feat. Rail [1,0,N]						
C12.	Drainage [A]						
c13.	Exp. Joint [LF]	89	75	10	4		1.69
N58.	Deck Summary						5

		Condition state					TR
		qty	1	2	3	4	
c14.	Alignment [A]	1	1				1
c15.1	Beams/Girders[LF]						
c15.2	Slab [SF]	372	0	150	222		3
c16	Diaphragm/x Fr[A]						
c17.	Stringers [LF]						
c18.	Floorbeams [LF]						
c19.	Truss Verticals [A]						
c20.	Truss Diagonal[A]						
c21	Truss Upper Ch[A]						
c22.	Truss Lower Ch[A]						
c23.	Truss Gusset Pl[A]						
c24.	Lateral Bracing [A]						
c25.	Sway Bracing [A]						
c26.	Bearing Device[A]						
c27	Arch [LF]						
c28.	Arch Column/H[A]						
c29.	Arch Spandrel [LF]						
c30	Prot Coating Sy[LF]						
c31	Pins/Hangers/[A]						
c32.	Fatigue [LF]						
N59.	Superstructure Summary						5

		Condition state					TR
		qty	1	2	3	4	
c55.	Signs [A]	4	4				1
c56.	Sign Supports [A]						
c57	Utilities [LF]						
N60.	Sign/Utility Summary						1

		Condition state					TR
		qty	1	2	3	4	
c33.	Abutment Wall [LF]	62	0	19	43		3.00
c34.	Abutment Caps [LF]						
c35.	Abut. Columns [EA]						
c36.	Pier Walls [LF]						
c37.	Pier Caps [LF]						
c38.	Pier Columns [EA]						
c39.	Backwalls [LF]						
c40.	Wingwalls [EA]						
c42.	Scour [EA]						
c43.	Slope Protectio[EA]						
N 60.	Substructure Summary						6

		Condition state					TR
		qty	1	2	3	4	
c44.	General [LF]						
c45.	Alignment [LF]						
c46.	Shape [LF]						
c47.	Seams [EA]						
c48.	Headwalls/End[EA]						
c49.	Scour [EA]						
c50.	Abutments [LF]						
N 62.	Culvert Summary						

		Condition state					TR
		qty	1	2	3	4	
c51.	Alignment [LF]	100	50	50			1.6
c52.	Protection [LF]	100	50	50			1.6
c53.	Hydraulic Open [EA]	1	1				1
c54.	Navigation Ligh[EA]						
N 61.	Channel Summary						6

		Condition state					TR
		qty	1	2	3	4	
c1.	Wearing Surfac [EA]	2	2				1.00
c2.	Approachslab [SF]						
c3.	Relief Joint [LF]						
c4.	Embankment [EA]						
c5.	Guardrail [EA]	4	2	1	1		2.56
N36	Safety fet. TR, GR, TM			1	1	1	
N 61.	Approach Summary						6

N 59.	General Appraisal and Operational Status						5 p
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Bridge Inspection Report | Routine Inspection

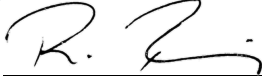
SFN: 3161331

Stillwell Road Bridge over Amberly Creek (North of Summit)

Date Inspected: 04/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 5 P

Signature: 

Bridge No.: CITY (BP) #67

Route: STILL Unit: 4011

Bridge Type 111 / NNN

Date Built / Date Rehabbed: 1954 /

Load Rating Percent 100

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor:	Gunite repaired 1987; spalling around the drains; 6 distinct full length long. disturbances (crack, delam, rust staining); several qualify as wide cracks; widespread mottling.	2	5
C7.2. Edge of Floor:	Delamination & spalling; map cracking w efflor and stalactites esp. @ W.	2	5
C8. Wearing Surface:	Few HL cracks (mostly long.); asphalt stains.	1	7
C9. Curbs/Sidewalks:	Crushing at ends w deep spalls & asphalt patches; several areas of sidewalk patches (cracking); bottom of curb spalling.	2	6
C11. Railing:	Rusting throughout; dent in handrail @ SW.(3ft)	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N):	0		
C12. Drainage:		1	9

N58. Deck Summary: Summary Rating: 5

C14. Alignment of Members:		1	8
C15.2. Slab:	Delaminations; spall around the drain; rust staining & wider long cracks (6 distinct locations) see item 1.	2	5

N59. Superstructure Summary: Summary Rating: 5

C33. Abutment Walls:	Vertical cracks with efflorescence(built up), some rust staining.	2	6
C40. Wingwalls:	Cracking with efflorescence; full height diag. map cracking (2' wide) @ SW {ASR ?}; sound patches & efflor build up @ corner to abutment.	2	6
C42. Scour:		1	8

Scour Inspection Type

N60. Substructure Summary: Summary Rating: 6

C51. Channel Alignment:	Straight alignment confined in concrete walls.	1	8
C52. Channel Protection	Conc. walls & rip rap.	1	8
C53. Hydraulic Opening:	2017 all vegetation cleaned out of creek.	1	8

N62. Channel Summary: Summary Rating: 8

Bridge Inspection Report | Routine Inspection

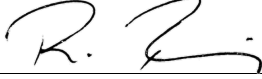
SFN: 3161331

Stillwell Road Bridge over Amberly Creek (North of Summit)

Date Inspected: 04/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 5 P

Signature: 

Bridge No.: CITY (BP) #67

C1. Pavement: {2018} Very minor short trans cracks. 1 8

C4. Embankment: Sidewalk settlement @ NW adjacent to sewer. 2 6

C5. Guardrail: Timber aging. 1 7

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 0

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 1

C6. Approaches Summary: Summary Rating: 6

C57. Utilities: Gas line has 1 loose support & 1 severely corroded, protective coating is failing on the utility; rusting of E utility @ bottom. 3 4

Utilities On Structure: N Y N N N Y N

N59. General Appraisal and Oper. Status: Posted (new signs installed 6-2019). General Appraisal / Operational Status: 5 P

Inspection Notes: All vegetation cleaned out of channel (2017).
2020 Element Level Data available.

Recommended Maintenance:

1. Plan for curb replacement.
2. Repair gas main attachment.
3. Seal deck.

Assigned to:

TROD
Private Utility
TROD

Bridge Inspection Report

Element Level Inspection

Bridge: Stillwell Road Bridge over Amberly Creek (N. of Summit)
Number: CITY (BP) #67
SFN: 3161331

Inspector: RMR
Inspector: PMC
Date: 04/01/2020

		Condition state					TR
		qty	1	2	3	4	
c7.1	Floor/Slab [SF]	759	531	88	140		2.38
c7.2	Edge of Floor/S[LF]	44	6	6	32		3.00
c8.	Wearing Surfac[SF]	550	475	69	6		1.33
c9.	Curb/Sidewalk [LF]	44	12	17	15		3.00
c10.	Median [LF]						
c11.	Railing [LF]	44	0	41	3		2.31
N36	Safety feat. Rail [1,0,N]						
C12.	Drainage [A]	6	6				1.00
c13.	Exp. Joint [LF]						
N58.	Deck Summary						5

		Condition state					TR
		qty	1	2	3	4	
c14.	Alignment [A]	1	1				1
c15.1	Beams/Girders[LF]						
c15.2	Slab [SF]	759	531	88	140		2.4
c16	Diaphragm/x Fr[A]						
c17.	Stringers [LF]						
c18.	Floorbeams [LF]						
c19.	Truss Verticals [A]						
c20.	Truss Diagonal[A]						
c21	Truss Upper Ch[A]						
c22.	Truss Lower Ch[A]						
c23.	Truss Gusset Pl[A]						
c24.	Lateral Bracing [A]						
c25.	Sway Bracing [A]						
c26.	Bearing Device[A]						
c27	Arch [LF]						
c28.	Arch Column/H[A]						
c29.	Arch Spandrel [LF]						
c30	Prot Coating Sy[LF]						
c31	Pins/Hangers/[A]						
c32.	Fatigue [LF]						
N59.	Superstructure Summary						5

		Condition state					TR
		qty	1	2	3	4	
c55.	Signs [A]						
c56.	Sign Supports [A]						
c57	Utilities [LF]						
N60.	Sign/Utility Summary						0

		Condition state					TR
		qty	1	2	3	4	
c33.	Abutment Wall [LF]	69	46	17	6		2.06
c34.	Abutment Caps [LF]						
c35.	Abut. Columns [EA]						
c36.	Pier Walls [LF]						
c37.	Pier Caps [LF]						
c38.	Pier Columns [EA]						
c39.	Backwalls [LF]						
c40.	Wingwalls [EA]						
c42.	Scour [EA]						
c43.	Slope Protection [EA]						
N 60.	Substructure Summary						6

		Condition state					TR
		qty	1	2	3	4	
c44.	General [LF]						
c45.	Alignment [LF]						
c46.	Shape [LF]						
c47.	Seams [EA]						
c48.	Headwalls/End[EA]						
c49.	Scour [EA]						
c50.	Abutments [LF]						
N 62.	Culvert Summary						0

		Condition state					TR
		qty	1	2	3	4	
c51.	Alignment [LF]	50	50				1
c52.	Protection [LF]	50	50				1
c53.	Hydraulic Open [EA]	1	1				1
c54.	Navigation Ligh [EA]						
N 61.	Channel Summary						8

		Condition state					TR
		qty	1	2	3	4	
c1.	Wearing Surfac [EA]	2	2				1.00
c2.	Approachslab [SF]						
c3.	Relief Joint [LF]						
c4.	Embankment [EA]						
c5.	Guardrail [EA]	4	4				1.00
N36	Safety fet. TR, GR, TI[1,0,N]		N	N	N		
N 61.	Approach Summary						6

N 59.	General Appraisal and Operational Status						5	P
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Bridge Inspection Report | Routine Inspection

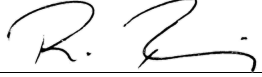
SFN: 3160005

Van Hart Street over Lick Run

Date Inspected: 09/16/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #68

Route: Unit: Bridge Type / Date Built / Date Rehabbed: /
 Load Rating Percent (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: See item Beams.	1	9
C7.2. Edge of Floor: Not yet sealed.	1	9
C8. Wearing Surface: 2 long. reflective cracks +/- 5' from each curb.	1	8
C9. Curbs/Sidewalks: Closely spaced vert. HL cracks in curb; spalls @ exp. jnt. cover plate; sidewalk largely concealed by concrete barriers.	1	8
C11. Railing: Widespread paint issues (fins/tears).		
N36. National Safety Feature - Bridge Railing (0, 1 or N):		
C12. Drainage: Off bridge.		
C13. Expansion Joints:	1	8
N58. Deck Summary: Splashed conc. throughout needs cleaned up.		Summary Rating: 9
C14. Alignment of Members:	1	9
C15.1. Beams/Girders: Composite box beams.	1	9
C26. Bearing Devices: Mostly concealed elastomeric.	1	9
N59. Superstructure Summary:		Summary Rating: 9
C33. Abutment Walls: Several full height HL cracks; sealed w colored sealer (not like Grand or Kebler)	1	8
C39. Backwalls: Trans cracks @ top; small spalls @ approach side.	1	8
N60. Substructure Summary:		Summary Rating: 8
C51. Channel Alignment:	1	9
C52. Channel Protection: Combination of racks, filter fabric, and plants being installed.	1	9
C53. Hydraulic Opening:	1	9
N62. Channel Summary:		Summary Rating: 9
C1. Pavement: Asphalt	1	9
C2. Approach Slabs: Curb at SE & NW broken.	2	6
N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N		

Bridge Inspection Report | Routine Inspection

SFN: 3160005

Van Hart Street over Lick Run

Date Inspected: 09/16/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #68

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: **Broken curb @ SE approach needs to be replaced; ongoing construction.** Summary Rating: 6

C57. Utilities: No duct banks but PVC pipe protruding through N abut wall.

Utilities On Structure:

65. Vertical Clearance:

Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 8 A

Inspection Notes: Ongoing construction activity in 2020.

Recommended Maintenance:

1. Punch list will be developed once construction is completed.
2. Seal interface of pavement w backwall, w hot applied material.
3. Protect cut-off railing anchor bolts from corrosion.

Assigned to:

Contract
Contract
Contract

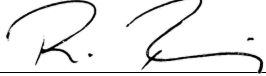
Bridge Inspection Report | Routine Inspection

SFN: 3161374

Victory Parkway Pedestrian Overhead South of I-71


Date Inspected: 05/27/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #69

QA/QC Inspector: BRANDON M. LECRONE, P.E.

Signature: 

Route: VCTRY Unit: 3691 Bridge Type 322 / NNN Date Built / Date Rehabbed: 1972 /
Load Rating Percent 000 (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Minor spall under drain @ pier; trans. HL cracks, some w minor efflor.	1	8
C7.2. Edge of Floor: Isol. trans.HL cracking, very few w minor efflor; rust stains from rebar standoffs.	1	8
C9. Curbs/Sidewalks: Minor trans. cracks, esp near pier, widespread popouts; some minor spalls.	1	7
C11. Railing: Minor rusting throughout; paint fading & wearing; slight waviness in top of railings; conc around end posts delaminated/cracked (@ both ends); new VPF @ W (ODOT 2017)	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: 2 inlets on bridge; both open.	1	8
C13. Expansion Joints: Sliding plates, no gland by design; dirt accumulating; minor cracking @ the headers.	1	8

N58. Deck Summary: Summary Rating: 8

C14. Alignment of Members: Poss. slight horiz. misalignment of beams @ SE splice.	1	7
C15.1. Beams/Girders: Widespread rust - esp. @ BF's; pitting of webs & BF's @ stiffners (worse pitting over pier & @ splices); concrete splashes on W beam from ODOT construction.	2	6
C16. Diaphragms/X-Frames: Spot rust w no noticed LOS; pitting of webs @ pier.	1	7
C26. Bearing Devices: LOS @ anchor bolts; severe corr. & packrust esp. @ W.	2	5
C30. Protective Coating System (PCS): System: OZEU Year: 1992 PCS Rating: 0 Widespread peeling of top coat; freckled rust & fading throughout esp. on BF's; heavy pack rust @ vert. stiffners, esp @ W beam and over pier.		

N59. Superstructure Summary: Fatigue prone, not redundant. Summary Rating: 6

C33. Abutment Walls: Very minor rust stains - apparently caused by water coming thru exp. jt. @ S; horiz. HL cracks @ N.	1	8
C37. Pier Caps: Small spall w exp. reinf. due to low cover; staining from earlier drain issue.	1	8
C38. Pier Columns: Minor HL cracking; some minor patching; minor bugholes.	1	8

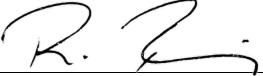
Bridge Inspection Report | Routine Inspection

SFN: 3161374

Victory Parkway Pedestrian Overhead South of I-71


Date Inspected: 05/27/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #69

QA/QC Inspector: BRANDON M. LECRONE, P.E.

Signature: 

C39. Backwalls: Stained. 1 8

C40. Wingwalls: Minor efflor. @ const. joints; vertical H/L cracks @ NE railing posts; joint material missing @ interface w abutment. 1 8

N60. Substructure Summary: Summary Rating: 8

65. Vertical Clearance: 15'-4". Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 6 A

Inspection Notes: New "Jersey" barrier in median of Victory Pkwy protecting pier columns (2016).
New VPF by ODOT (2017).
Element Level data available for 2020 inspection.

Recommended Maintenance:

1. Consider repainting bridge.
2. Consider sealing wearing surface.
3. Cut vegetation from rails & wingwalls.

Assigned to:

Contract
TROD
TROD

Bridge Inspection Report

Element Level Inspection

Bridge: Victory Parkway Pedestrian Overhead Sc	Inspector: Reiner Reising
Number: CITY (BP) #69	Inspector: Brandon Lechrone
SFN: 3161374	Date: 5/27/2020

Item	Description	Unit	Quantity	Condition States				TR
				CS 1	CS 2	CS 3	CS 4	
330	Metal Bridge Railing	LF	438	8	430			1.99
12	Reinforced Concrete Deck	SF	1971	1809	160	2		1.13
304	Open Expansion Joint	LF	19	11	8			1.52
805	Wearing Surface – Monolithic Concrete	SF	1752	1472	280			1.22
815	Deck Drainage Grates & Scuppers	EA	2	2				1.00
1	Deck Summary	0						8
107	Steel Open Girder/Beam	LF	438	1	418	19		2.21
313	Fixed Bearing	EA	2	0	2			2.00
311	Moveable Bearing	EA	4	0	4			2.00
2	Superstructure Summary	0						6
215	Reinforced Concrete Abutment	LF	24	22	2			1.12
205	Reinforced Concrete Column	EA	2	2				1.00
234	Reinforced Concrete Pier Cap	LF	12	11	1			1.12
830	Abutment Backwall	LF	18	18				1.00
3	Substructure Summary	0						8
1.5	General Appraisal	0						6

Bridge Inspection Report | Routine Inspection

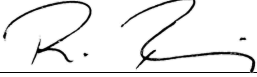
SFN: 3162702

West Eighth Street Bridge over Fairbanks Avenue

Date Inspected: 07/23/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #70

Route: EIGHT Unit: 0175

Bridge Type 322 / NNN

Date Built / Date Rehabbed: 1955 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating
1 to 4Rating
9 to 0

- C7.1. Floor:** Many spalls, 7 w exposed rebar in main span (center bay & fascia bays), few others in approaches esp near jnt.; patches, many failed, trans cracking, few w efflor some long. w efflor; several delaminated area's; mottling under curbs; minor rust staining under N curbs; widespread HL map cracking. 2 6
- C7.2. Edge of Floor:** Some cracks w efflor; sound patches; small spall w exp rebar @ N over traffic (vertical face) 1 7
- C8. Wearing Surface:** Few trans/ diagonal HL cracks mostly @ bridge ends; 2 small delams detected by sounding. 1 8
- C9. Curbs/Sidewalks:** Few HL trans cracks; 1 delaminated area in walk @ N center. 1 7
- C11. Railing:** Pedestals cracking; minor chips/popouts. 1 7
- N36. National Safety Feature - Bridge Railing (0, 1 or N):**
- C12. Drainage:** Off the bridge; abut. weep hole @ NW not draining. 1 8
- C13. Expansion Joints:** Compression seals; spalled conc under the jnts; jnt tight; W seal is bulging out & torn in sev places; minor spalling around headers @ W, E seal fixed, very tight but torn; railing almost touching over jnt @ SW; little to no leakage during rain. 1 7

N58. Deck Summary:

Summary Rating: 6

- C14. Alignment of Members:** Slight offset (vert. kink) @ beam splices @ center span (visible @ cover plates). 1 7
- C15.1. Beams/Girders:** Separating from deck @ corners w apparent laminating TF; isol small areas of corr.; 2nd beam from N @ E splice in main span has slight offset w apparent bend in BF coverplate. 1 7
- C16. Diaphragms/X-Frames:** Corrosion at the ends, severe under telephone ducts(former duct banks). 1 7
- C26. Bearing Devices:** Corrosion @ W abutment throughout; 3 N most bearings @ E abutment (due to leaking utility ducts); pier bearings appear in very good condition. 2 6
- C30. Protective Coating System (PCS):** System: Year: PCS Rating: 7
Issues under utilities, cross frames, & bearings.
- C32. Fatigue Prone Details:** Minor corr @ cover plate welds. 1 8

N59. Superstructure Summary:

Summary Rating: 7

- C33. Abutment Walls:** Stubs; coated; widespread discoloration; chipped corner under E utility; conc crumbling @ E between bearings 1 & 2 from N caused by leak of utility; staining @ W abutments @ utilities & SW corner. 1 7
- C37. Pier Caps:** Coated. 1 8

Bridge Inspection Report | Routine Inspection

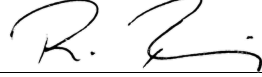
SFN: 3162702

West Eighth Street Bridge over Fairbanks Avenue

Date Inspected: 07/23/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #70

C38. Pier Columns:	Coated; walk cracked around all 4 columns.	1	8
C39. Backwalls:	Cracking at the W abut; spalled conc under the jnt at the E abut; crack w efflor @ utility protrusion & rust staining.	1	7
C40. Wingwalls:	Staining.	1	7
C43. Slope Protection:	Steep conc.	1	8

N60. Substructure Summary: Summary Rating: 7

C1. Pavement:	Rutting at the approaches; map cracking; manhole sinking; (E bound lanes repaved +/- 10' adjacent to approach slabs).	2	6
C2. Approach Slabs:	Longitudinal cracks, many epoxy injected (2015); crack sealer breaking up esp @ SW; delam between cracks @ SW (approach slab)	1	7
C4. Embankment:	Overgrown; some bare soil adjacent to steps.	1	7
N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):	0		
N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):	0		
N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):	0		

C6. Approaches Summary: Summary Rating: 6

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Inspection Notes: Former leaking telephone conduits removed 2019 and are leaking throughout @ both abutments.

Recommended Maintenance:

1. Fill/cap utility conduits stubs @ abutments. (hydraulic cement)
2. Chip delaminated conc over W sidewalk.
3. Consider patching E abutment where conc damaged.

Assigned to:

TROD
TROD
Contract

Bridge Inspection Report | Routine Inspection

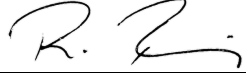
SFN: 3162656

West Eighth Street Bridge over Woodlawn Avenue

Date Inspected: 07/23/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #71

Route: EIGHT Unit: 0181 Bridge Type 321 / NNN Date Built / Date Rehabbed: 1955 /
 Load Rating Percent 150 (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: HL cracks & patches; widespread map cracking, rust staining, & leakage under N curb w efflor & stalactites; mottling under center const. jnt.	2	6
C7.2. Edge of Floor: Spalling @ expansion jnts. Over pier w exposed rebar @ NW.	1	7
C8. Wearing Surface: Very minor cracking.	1	8
C9. Curbs/Sidewalks: Horiz const. jnt. w delam in N curb/walk (constr. joint?).	1	7
C11. Railing: Widespread popouts; some cracks & spalls; deteriorated posts (1 w exp rebar).	2	6
N36. National Safety Feature - Bridge Railing (0, 1 or N):		
C12. Drainage: Off bridge.	1	8
C13. Expansion Joints: Compression seals: mostly tight; severe bulging @ center & along curbs; spalling around header; cuts & tears @ NE curb; spalling @ exp. jnts. over pier.	2	6

N58. Deck Summary: Summary Rating: 6

C14. Alignment of Members: Beams in main span slightly sagging esp N fascia.	1	7
C15.1. Beams/Girders: Separation of deck from TF @ fascia's, w corr @ TF's; 1/2" gap in approach span @ S over 75% of beam length; noticeable deflection of fascia beams in main span.	1	7
C16. Diaphragms/X-Frames: Rusting @ pier & W abutment.	1	7
C26. Bearing Devices: Widespread corr esp @ fascia bearing & all pier bearings	2	6
C30. Protective Coating System (PCS): System: Year: PCS Rating: 7 Scrapes @ SE fascia beam; rusting under joints & fascia beams.		
C32. Fatigue Prone Details: Coverplates.	1	7

N59. Superstructure Summary: Summary Rating: 7

C33. Abutment Walls: Coated @ W w some delams; conc patches on masonry @ E w some delam areas; E s/w abutment sits back @ end of approach slab w cracking & spalling (N & S).	2	6
C34. Abutment Caps: E only; minor staining.	1	8
C37. Pier Caps: Horiz cracks w corr. at cantilevers; patches, some unsound; 1 spall w exp rebar @ NE; 1 SF delam; various minor delams.	2	6
C38. Pier Columns: Coated; isol flaking of coating & small delams.	1	7
C39. Backwalls: Cracking at the W backwall near the utilities; spalling along the edges of exp jnt.	1	7
C40. Wingwalls: Cracking & efflor; cracking of the shotcrete at the NE; coated @ W; conc det. & deep	2	6

Bridge Inspection Report | Routine Inspection

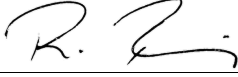
SFN: 3162656

West Eighth Street Bridge over Woodlawn Avenue

Date Inspected: 07/23/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #71

spall @ corner @ SE.

C43. Slope Protection: Step railing elements missing on the W side of the bridge. 1 8

N60. Substructure Summary: Summary Rating: 6

C1. Pavement: Potholes forming; rutting; map cracking (some sealed) apparent settlement @ SE (1"). 2 6

C2. Approach Slabs: E approach slab breaking up @ E w potholes forming long. cracks elsewhere. 2 6

C4. Embankment: Overgrown w some bare soil around steps. 1 7

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): 0

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 0

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 0

C6. Approaches Summary: Summary Rating: 6

C57. Utilities: Telephone line up against the bridge beams; telephone conduits cracked & not resting on all hangers. 2 6

Utilities On Structure: N N N Y N N N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 6 A

Recommended Maintenance:

1. Plan for exp jnt replacement.
2. Cut back vegetation from bridge railings.
3. Square off & patch E end of E approach slab.
4. Seal curb, walk, gutter, & railing @ N w clear sealer.
5. Trim squeezed out exp. jnt. in walk @ SW.

Assigned to:

Contract
TROD
TROD
TROD
TROD

County Bridges

Bridge Inspection Report | Routine Inspection

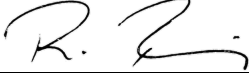
SFN: 3136388

Anthony Wayne Avenue Bridge over Mill Creek

Date Inspected: 08/14/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: COUNTY #01

Route: ANTHY Unit: 3821

Bridge Type 322 / NNN

Date Built / Date Rehabbed: 1992 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: HL map cracks; trans. cracks w efflor; mottling in bay 2 from N.	1	7
C7.2. Edge of Floor: Many trans cracks w efflor.	1	7
C8. Wearing Surface: MSC overlay (original const); several wider cracks mostly long; no delams detected (2020).	1	7
C9. Curbs/Sidewalks: Trans. cracks in walk, wider but narrowly spaced over pier; s/w pitted; widespread shallow opouts.	1	7
C11. Railing: Vert. cracks in concrete parapet, some w efflor, many full height; minor spalling front & back; several end tube C/P missing.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage: 10 scuppers - all open; bottom ends of d/s corroding.	1	7
C13. Expansion Joints: Strip seals, filled w debris; cover plates & joint armor corr. w minor spalls in adjacent conc.	1	7

N58. Deck Summary:

Summary Rating: 7

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Initial corr. esp @ top and bottom flanges.	1	8
C16. Diaphragms/X-Frames:	1	8
C26. Bearing Devices: Some pier anchor bolts slightly bent.	1	8
C30. Protective Coating System (PCS): System: OZEU Year: 1993		PCS Rating: 0
Ext. flaking and widespread top coat failure exposing green & white coats below; greater than 50% corrosion, esp in W span; white coat in NW 3 beams, elsewhere green base coat, white base coat almost completely exposed.		

N59. Superstructure Summary: Redundant - not fatigue prone.

Summary Rating: 8

C33. Abutment Walls: Vert. cracks @ E, 1 w minor efflor.; graffiti.	1	8
C36. Pier Walls: HL cracks, 1 with little efflor.	1	8
C37. Pier Caps: Minor flex. cracks @ cantilevers; minor efflor. @ horiz. cold jt.	1	8
C39. Backwalls: Some spalling @ topside; (seal to approach torn)	1	7
C40. Wingwalls: New WW adj. to bridge @ E; old @ E walls further away have widespread deep spalling, large delam., and conc. Deter.; walls @ W are in satisfactory condition.	2	5
C42. Scour:	1	8

Bridge Inspection Report | Routine Inspection

SFN: 3136388

Anthony Wayne Avenue Bridge over Mill Creek

Date Inspected: 08/14/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: COUNTY #01

Scour Inspection Type 1

N60. Substructure Summary: Summary Rating: 8

C51. Channel Alignment:	Curve upstream.	1	8
C52. Channel Protection:	Conc. wall in front of both abut.	1	9
C53. Hydraulic Opening:	Minor flow debris @ pier; channel very wide under bridge.	1	9

N62. Channel Summary: Summary Rating: 8

C1. Pavement:	Trans. & long. cracks - most sealed; potholes and rutting.	2	6
C2. Approach Slabs:	Long. cracks, spalls @ backwall interface w compression seal partially torn & potholes forming.	1	7
C4. Embankment:	Steep, but well vegetated.	1	8
C5. Guardrail:	Slight impact damage but functional.	1	7
N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):	1		
N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):	1		
N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):	1		

C6. Approaches Summary: Summary Rating: 6

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 A

General Notes: Direction definition: Mill Creek goes S to N.

Recommended Maintenance:

1. Clean & paint steel.
2. Consider sealing wearing surface & walks.

Assigned to:

Contract
Contract

Bridge Inspection Report | Routine Inspection

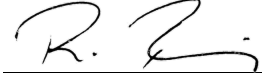
SFN: 3136426

Beekman Street Bridge over West Fork Channel

Date Inspected: 04/28/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: COUNTY #02

Route: BEEKM Unit: 2961

Bridge Type 321 / NNN

Date Built / Date Rehabbed: 1912 / 1995

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Map cracking under E walk; diag. cracks w efflor leading from scuppers; trans. cracks w efflor esp. under W walk; some delam area's @ beam ends; trans cracks in center of bridge w initial corr over beams 3&4 from E {TF}	1	7
C7.2. Edge of Floor: Trans. cracking w efflor.; vines growing @ SE & SW.	1	7
C8. Wearing Surface: Diag. cracks @ all corners; many HL long. & trans. cracks; map cracking, still smooth riding, no delaminations detected.	1	7
C9. Curbs/Sidewalks: Many trans. cracks & map cracking in walks; diag. crack in s/w from railing to approach slabs; minor widespread popouts; apparent curb undermining @ NW.	2	6
C11. Railing: Decor. conc. (1995); isol. efflor.; widespread shrinkage cracks w efflor. @ base & crown of most windows; lichen/moss growth.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage: 4 inlets w d/s - all clean.	1	9
C13. Expansion Joints: Thin compression seals; slightly torn & punctured.		

N58. Deck Summary:

Summary Rating: 7

C14. Alignment of Members:	1	9
C15.1. Beams/Girders: Initial corr. @ N & S abut. beam ends (flange corners on several interior beams(+/- 10 beam ends); isol @ bottom half of web @ backwalls; isol TF corr @ beams 3&4 from E under deck cracks in center of bridge.	1	8
C16. Diaphragms/X-Frames: Birds nesting between crossframe members.	1	9
C30. Protective Coating System (PCS): System: IZEU Year: 1995 Isolated small area's rusting @ TF's and BF's @ beam ends of interior beams.		PCS Rating: 8

N59. Superstructure Summary: Redundant; not fatigue prone.

Summary Rating: 8

C33. Abutment Walls: Integral; widespread HL cracks, some w minor efflor. & other staining esp. @ bottom; graffiti on both abuts; ivy, moss (wide spread green staining); (visible facing 6" deep was added to original abutments in 1995); weep holes filling w gunk.	1	7
C39. Backwalls: Small patch @ S; HL cracks w minor efflor.	1	8
C40. Wingwalls: Cracks, some w efflor. & seepage. Esp. @ S; vines growing {poison ivy} @ S; mapcracking @ NW; WW @ SE seperating from abutment(cracked).	1	7
C42. Scour: Conc. channel.	1	9

Bridge Inspection Report | Routine Inspection

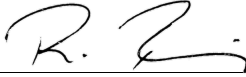
SFN: 3136426

Beekman Street Bridge over West Fork Channel

Date Inspected: 04/28/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: COUNTY #02

Scour Inspection Type 1

N60. Substructure Summary: Summary Rating: 7

C51. Channel Alignment: 1 9

C52. Channel Protection: Wall: offset @ jts, cracks (several wider thru cracks) w seepage; channel bottom: 2 6
cracks in floor w isol. deeper spalling @ jts.

C53. Hydraulic Opening: 1 9

N62. Channel Summary: Summary Rating: 6

C1. Pavement: Asphalt; cracks esp. @ S, breaking up @ edge of appr. slab, minor potholes forming; N in 1 7
better condition.

C2. Approach Slabs: Long. & trans. cracks esp. @ N, some wide (up to 0.08"); comp. seal bet. approach 1 7
slab & deck torn @ some locs.

C4. Embankment: Extremely steep, overgrown. 1 8

C5. Guardrail: Provided @ all 4 corners; minor initial wood deter. 1 7

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): 1

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 1

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 1

**C6. Approaches Summary: Gaps bet. approach walk & WW, were sealed in 2012 and do 7
not appear to be widening; approach walks settling. Summary Rating: 7**

C57. Utilities: Gas pipe not resting on all hangers; 6 out of 8 not touching. 1 7

Utilities On Structure: N Y N N N N N

65. Vertical Clearance: Vert. Clearance Rating: N

**N59. General Appraisal and Oper. Status: General Appraisal / 7 A
Operational Status:**

Inspection Notes: 2016 & 2020 inspection was done using Element Level Inspection.

Recommended Maintenance:

Assigned to:

- | | |
|--|----------|
| 1. Seal deck, curbs & sidewalks w HMWM. | Contract |
| 2. Remove vines & vegetation from railing & bridge ends. | TROD |
| 3. Seal interface between curb & gutter @ W {inbound lanes} w hot applied asphalt. | TROD |

Bridge Inspection Report

Element Level Inspection

Bridge: Beekman Street over West Fork
Number: COUNTY #02
SFN: 3136426

Inspector: RMR
Inspector: PMC
Date: 04/28/2020

		Condition state					TR
		qty	1	2	3	4	
c7.1	Floor/Slab [SF]	3253.5	2629	625			1.26
c7.2	Edge of Floor/Slab [LF]	108	92	16			1.21
c8.	Wearing Surface [SF]	2160	1719	441			1.28
c9.	Curb/Sidewalk [LF]	108	19	89			1.88
c10.	Median [LF]						
c11.	Railing [LF]	108	61	47			1.54
N36	Safety feat. Rail [1,0,N]						
c12.	Drainage [EA]	4	4				1.00
c13.	Exp. Joint [LF]	92	51	27	14		2.34
N58. Deck Summary							7

		Condition state					TR
		qty	1	2	3	4	
c14.	Alignment [EA]	1	1				1
c15.1	Beams/Girders [LF]	486	473	13			1
c15.2	Slab [SF]						
c16	Diaphragm/x Frame [EA]	24	24				1
c17.	Stringers [LF]						
c18.	Floorbeams [LF]						
c19.	Truss Verticals [EA]						
c20.	Truss Diagonals [EA]						
c21	Truss Upper Chord [EA]						
c22.	Truss Lower Chord [EA]						
c23.	Truss Gusset Plates [EA]						
c24.	Lateral Bracing [EA]						
c25.	Sway Bracing [EA]						
c26.	Bearing Devices [EA]						
c27	Arch [LF]						
c28.	Arch Column/Hangr [EA]						
c29.	Arch Spandrel Wall [LF]						
c30	Prot Coating System [LF]	486	473	13			1
c31	Pins/Hangers/Hingr [EA]						
c32.	Fatigue [LF]						
N59. Superstructure Summary							8

		Condition state					TR
		qty	1	2	3	4	
c55.	Sigs [EA]						
c56.	Sign Supports [EA]						
c57	Utilities [LF]						

		Condition state					TR
		qty	1	2	3	4	
c33.	Abutment Walls [LF]	120.5	69.5	51			1.52
c34.	Abutment Caps [LF]						
c35.	Abut. Columns [EA]						
c36.	Pier Walls [LF]						
c37.	Pier Caps [LF]						
c38.	Pier Columns [EA]						
c39.	Backwalls [LF]	120	116	4			1.05
c40.	Wingwalls [EA]	4	3	1			1.33
c42.	Scour [EA]	2	2				1.00
c43.	Slope Protection [EA]	2	2				1.00
N 60. Substructure Summary							7

		Condition state					TR
		qty	1	2	3	4	
c44.	General [LF]						
c45.	Alignment [LF]						
c46.	Shape [LF]						
c47.	Seams [EA]						
c48.	Headwalls/Endwalls [EA]						
c49.	Scour [EA]						
c50.	Abutments [LF]						
N 62. Culvert Summary							

		Condition state					TR
		qty	1	2	3	4	
c51.	Alignment [LF]	200	200				1.00
c52.	Protection [LF]	200	151	24	25		2.18
c53.	Hydraulic Opening [EA]	1	1				1.00
c54.	Navigation Lights [EA]						
N 61. Channel Summary							6

		Condition state					TR
		qty	1	2	3	4	
c1.	Wearing Surface [EA]	2	1	1			1.60
c2.	Approachslab [SF]	1600	1419	181			1.16
c3.	Relief Joint [LF]						
c4.	Embankment [EA]	4	4				1.00
c5.	Guardrail [EA]	4	4				1.00
N36	Safety fet. TR, GR, TM			1	1	1	
N 61. Approach Summary							7

N 59. General Appraisal and Operational Status						7	A
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Bridge Inspection Report | Routine Inspection

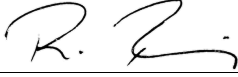
SFN: 3136450

Berkshire Lane Culvert 400' North of Beechmont

Date Inspected: 03/25/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: COUNTY #03

Route: BERKS Unit: 5091

Bridge Type 195 / NNN

Date Built / Date Rehabbed: 1986 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating
1 to 4Rating
9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C44. Culvert - General: Exposed rebar (mesh) in fillet region of several (6) culvert sections (rebar was not placed as per plan); flex HL cracks (+/- 3 per section) up to 0.013" wide (all dry) in the center of prefabricated sections; rust staining & leakage @ 2 segment jts.; crack at joint chamfer @ both end segments and 1 w exp rebar in center of culvert. 1 7

C45. Culvert - Alignment: Minor horiz. offset bet. some segments; slight diff. in joint widths bet. segments. 1 8

C47. Culvert - Seams: Some wider gaps between sections; 2 seams @ about 1/3 points of culvert leak water toward N. 1 7

C48. Culvert - Head/End Walls: Const. jt. crack @ culvert & HW & EW interfaces; staining - moss/lichen. 1 8

C49. Culvert - Scour: Possible scour hole developing @ US end. 1 8

Culvert Scour Inspection Type: 2

C50. Culvert - Abutments: Minor spalls on edges. 1 8

N60. Culvert Summary: Rebar not placed in precast members as shown in the plans. Summary Rating: 7

C51. Channel Alignment: Two creeks merging just US. 1 8

C52. Channel Protection: Banks severly eroding DS @ SE. 2 5

C53. Hydraulic Opening: Minor vegetation @ US end; some debris accumulaton; huge tree fallen over channel DS with potential for trapping debris. 2 5

N62. Channel Summary: Summary Rating: 5

C1. Pavement: Asphalt overlay (2013); 2 minor cracks. 1 8

C4. Embankment: Overgrown. 1 8

C5. Guardrail: Steel beam guardrail; several impacts by fallen trees DS of culvert; widespread partial det. on wooden posts. 3 4

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 1

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 1

C6. Approaches Summary: Summary Rating: 4

Bridge Inspection Report | *Routine Inspection*

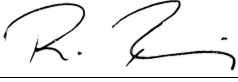
SFN: 3136450

Berkshire Lane Culvert 400' North of Beechmont

Date Inspected: 03/25/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: COUNTY #03

65. Vertical Clearance:

Vert. Clearance Rating: N

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 7 A

Inspection Notes: Huge tree fallen into channel DS @ end of WW.
PVC pipe (4" - 6") exposed crossing channel US from bridge.

General Notes: GCWW water main under W side of roadway - depth is 3'-6" to top of 16" pipe measured from pvmt.
surface.
Duke Energy gas main under E side of roadway.

Bridge Inspection Report | Routine Inspection

SFN: 3136469

Center Hill Bridge over Mill Creek

Date Inspected: 03/25/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: COUNTY #04

Route: Unit: Bridge Type 122 / Date Built / Date Rehabbed: 2014 /
 Load Rating Percent 150 (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Isol. very fine HL cracking.	1	9
C7.2. Edge of Floor: Ext. birds nest @ S fascia.	1	9
C8. Wearing Surface: HL trans. cracks over pier; few popouts.	1	8
C9. Curbs/Sidewalks: HL trans. cracks & popouts in walks, esp. over pier; more extensive cracking @ W approach walk.	1	8
C11. Railing: Evenly spaced HL shrinkage cracks w minor efflor. in conc. parapet; isol areas of paint flaking (back sides).	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage: Minor debris @ gutters on approach slabs & S curb.	1	8
C13. Expansion Joints: Filled with debris; SW curb opening @ 70 deg is 10.9 cm.	1	8

N58. Deck Summary: Summary Rating: 9

C14. Alignment of Members:	1	9
C15.1. Beams/Girders: Slight staining on bottom of some beams (from formwork); very minor (shallow) "flaking" or honeycombing apparent on surface of beams; many birds nests on beams.	1	9
C16. Diaphragms/X-Frames: Possible HL cracking in concrete pier diaphragm between two S-most beams (W side).	1	8
C26. Bearing Devices: Elastomeric; slight hot weather mode, esp @ E (max. horiz. deflect. +/- 9mm @ 60 deg (@ NE bearing inside)); horiz. mark on pier first bearing from W; pier bearings have apparent sharpie marks on E side, staining from field welding bearings to beam plate.	1	8

N59. Superstructure Summary: Summary Rating: 9

C33. Abutment Walls: Weep hole blocked @ SE; graffiti.	1	9
C36. Pier Walls: Single vert. HL crack with minor efflor. in center of E & W face (2/3 of vertical height); graffiti.	1	8
C37. Pier Caps: Few HL cracks between top of pier and hor. cold joint in pier cap @ E; single HL crack w efflor. @ W abutment (1 location)	1	8
C39. Backwalls: HL cracks @ roadway level; crack w efflor @ W abutment; crack/delam @ S sidewalk in backwall.	1	8
C40. Wingwalls: HL cracking @ SE; staining.	1	8
C42. Scour: Detailed monitoring of the channel implemented (Stantec).	1	9

Bridge Inspection Report | Routine Inspection

SFN: 3136469

Center Hill Bridge over Mill Creek

Date Inspected: 03/25/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: COUNTY #04

Scour Inspection Type 1

C43. Slope Protection: Dump rock; overgrowing with vines. 1 9

N60. Substructure Summary: Summary Rating: 8

C51. Channel Alignment: Heavy brush growing in channel under bridge. 1 8

C52. Channel Protection: Large rip rap. 1 9

C53. Hydraulic Opening: Banks under bridge @ E overgrown. 1 8

N62. Channel Summary: Summary Rating: 8

C1. Pavement: Manhole @ W apparently raised. 1 9

C2. Approach Slabs: 3 long. full length cracks @ E; 1 full length wider crack @ W, one diag crack @ W. 1 8

C4. Embankment: See channel protection. 1 9

C5. Guardrail: Steel beam guardrail @ W side only. 1 9

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):

C6. Approaches Summary: Summary Rating: 8

C57. Utilities: Light stains on pipe; some pipe supports appear to be not touching. 1 9

Utilities On Structure: N N Y N N N N

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 A

Inspection Notes: 2016 sensor (water level monitoring ?) installed @ S fascia; lots of dumping on W embankment.

Recommended Maintenance:

Assigned to:

- Cut down vegetation below bridge @ E & @ 10' along bridge each side. TROD
- Remove vegetation from joint between approach walks and railings @ all 4 corners, then caulk joints. TROD

Bridge Inspection Report | Routine Inspection

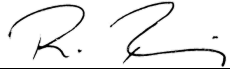
SFN: 3136353

Clifton Avenue Bridge over Mill Creek

Date Inspected: 08/14/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: COUNTY #05

Route: CLIFT Unit: 3261

Bridge Type 322 / NNN

Date Built / Date Rehabbed: 1935 / 2010

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor:	Transverse cracks w efflor.; initial efflor @ closure pours.	1	8
C8. Wearing Surface:	Concrete placed 2010; HL cracking throughout, fiber nest popouts larger than a quarter size (30 on W side, 13 on E side of bridge) number slightly increasing over time; no delams detectable.	1	7
C9. Curbs/Sidewalks:	Trans. cracks in walk esp. over pier; widespread popouts due to aggregate frost damage.	1	7
C11. Railing:	Widespread shrinkage cracks in concrete curb under metal rail w efflor (possible ASR); few locations w active corr.; popouts form non-frost resistant aggregate; 1 sheared bolt @ E.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N):	1		
C12. Drainage:	Off bridge, minor ponding observed during rain; debris in gutters.	2	6
C13. Expansion Joints:	Filled w debris; curb spalls around joint armor gland retainer severly corroded @ center(high point outside of traffic lane).	1	8

N58. Deck Summary: Debris build up in gutters; cobwebs building up under structure. Summary Rating: 8

C14. Alignment of Members:		1	9
C15.1. Beams/Girders:	Rolled sections, composite with deck; surface weathering.	1	8
C16. Diaphragms/X-Frames:		1	8
C26. Bearing Devices:	Painted elastomeric bearings; (paint flaking esp from skewed bearings); mostly concealed.	1	8
C30. Protective Coating System (PCS):	System: Year: 2010 PCS Rating: 8		
	Weathering steel only the outermost 10' painted; minor scrapes, intermediate coat shining through at some loc, esp @ interface w unpainted area.		

N59. Superstructure Summary: Not fatigue prone; redundant; covered w cobwebs. Summary Rating: 8

C33. Abutment Walls:	Minor cracks w efflor. around weep holes of exist. portions of abutments; staining; few patched areas. Abutments of adjacent water works bridge crushing @ interface of abutments.	1	8
C34. Abutment Caps:	New (2010); isol. HL cracking.	1	8
C36. Pier Walls:	3 full height cracks in original pier section epoxy injected (2010); buildup of efflor. @ N face of W most crack (from former bridge); spall @ DS end of wall w plant growing.	1	8
C37. Pier Caps:	New (2010).	1	9
C39. Backwalls:	Cracks on top side; several cracks w efflor. @ const joint.	1	7
C40. Wingwalls:	Small transition pieces between abutments and crib walls; minor staining.	1	8

Bridge Inspection Report | Routine Inspection

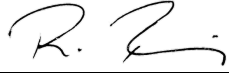
SFN: 3136353

Clifton Avenue Bridge over Mill Creek

Date Inspected: 08/14/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: COUNTY #05

C42. Scour: Concrete lined. 1 9

Scour Inspection Type 1

N60. Substructure Summary: Summary Rating: 8

C51. Channel Alignment: 1 9

C52. Channel Protection: Conc. channel floor, slope protection & crib walls; minor cracking in slope prot.; initial conc. deter. under sewer outfalls; comp seal torn out of channel protection joint under sewer outfall @ NW w possible undermining; storm water outlet washed out crater in accumulated sediments @ S abutment. 1 7

C53. Hydraulic Opening: Little flow debris, sediment built-up @ S abutment. 1 8

N62. Channel Summary: Summary Rating: 7

C1. Pavement: Installed (2010); minor trans. cracks @ N intersection; 1 pothole forming @ S next to approach slab; asphalt patches. 1 7

C2. Approach Slabs: Many long. HL alligator cracks @ S; cracks turning diag. @ skew; fiber nest popouts: 17 @ S, 6 @ N. 1 7

C3. Relief Joints: Paved over (12' wide @ N - 1' wide @ S including curb); wider trans. cracks forming @ S w slight upward bulge. 1 7

C4. Embankment: Overgrown; conc channel protection. 1 8

C5. Guardrail: 3 corners only; 1 sheared bolt, several nuts were loose (re tightened by hand where possible 2015) 1 9

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): 1

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 1

C6. Approaches Summary: Summary Rating: 7

C57. Utilities: Water main supported in E most bay (2010); 2 spare electrical conduits ending @ backwall in W-most bay. Water main brackets bent. 1 9

Utilities On Structure: UUUUUYU

65. Vertical Clearance: Vert. Clearance Rating: N

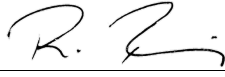
N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 AInspection Notes: Traffic lines fading (chevron).
Flow monitor(?) (added @ SE 2016).

Clifton Avenue Bridge over Mill Creek

Date Inspected: 08/14/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature:  _____

Bridge No.: COUNTY #05

Recommended Maintenance:

1. Consider sealing railing curbs & wearing surface.
2. Sweep curbs.
3. Fix fiber popouts in deck.
4. Re attach SE grass feature to pylon using urethane adhesive.

Assigned to:

TROD
Other
Contract
TROD

Bridge Inspection Report | Routine Inspection

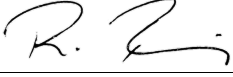
SFN: 3136574

East Fork Avenue Bridge over Little Duck Creek

Date Inspected: 03/24/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 P

Signature: 

Bridge No.: COUNTY #06

Route: EFORK Unit: 4761

Bridge Type 121 / NNN

Date Built / Date Rehabbed: 1952 /

Load Rating Percent 070

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor:	Widespread water saturation between beams, efflor. spalling, rust staining; some spalls with exposed rebar w LOS; some deep spalls; many stalactites; 1 area of significant moisture from deck onto beams; E 1/3 is slightly better.	3	4
C7.2. Edge of Floor:	Only on S side of bridge; 1 small spall.	1	7
C8. Wearing Surface:	Widespread asphalt and concrete patches (+/- 50%); potholes(reforming); widespread unsound area's on original concrete and patches(+/- 75%); 4 sqft @ SW near curb spalling; 2 sqft area of dirt {completely disintegrated conc.}	3	3
C9. Curbs/Sidewalks:	Widespread cracking w efflor @ curbs, some with minor spalling or rust stains); very minor spalls or cracks in walk. (Walk on S side only); delams @ walk over curb spall @ SE.	2	5
C11. Railing:	Decor. conc. bridge railing; weathered; moss/lichen growing, few spalls.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N):	0		
C12. Drainage:	Street inlets off structure; leaves accumulating in S gutter.	1	7
C13. Expansion Joints:	Clogged w dirt; seepage; advanced corrosion to joint armor with no spalls though; little to no room for mvmt; apparently leaking; cover plate @ W raised.	2	5

N58. Deck Summary: **Summary Rating: 4**

C14. Alignment of Members:		1	8
C15.1. Beams/Girders:	T-beams: flanges see item 1 Deck. Stem portion of T-beams in much better condition than flanges, but: shear cracks with spalls, rust staining and/or exposed bars over most bearings as a result of frozen bearings; two beams with cracking (delamination) along bottom corner over several feet in length (indicating corroding long. bars in main tension region, still no delam detectable by sounding); few minor delaminations, efflor. elsewhere.	2	5
C16. Diaphragms/X-Frames:	Some rust staining mostly @ end diaphragms; some minor cracking, efflor.; moisture; end diaphragms not included in rating.	1	7
C26. Bearing Devices:	Ext. corr. appears to be completely inhibiting the movement of most bearings; apparent damage to beam ends as a result of the malfunctioning bearings; 3 bearings over spalls up to bearing plate.	3	3

N59. Superstructure Summary: Redundant, not fatigue prone. **Summary Rating: 5**

C33. Abutment Walls:	Coated with gunnite @ E, actual abutment mostly concealed: widespread cracking, rust stains, build-up of efflor.; single wide hor. crack @ E abutment; damp from joint leaking; spalling of abutment at 3 bearings up to bearing plate.	2	5
C39. Backwalls:	Mostly concealed; widespread cracks; deep spall w exposed rebar @ SW.	2	5
C40. Wingwalls:	Cracking; efflor. esp @ NW; partially gunnite coated.	2	6

Bridge Inspection Report | Routine Inspection

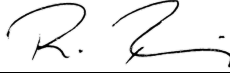
SFN: 3136574

East Fork Avenue Bridge over Little Duck Creek

Date Inspected: 03/24/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 P

Signature: 

Bridge No.: COUNTY #06

C42. Scour: Rock fill placed in scour holes (1991); no footer exp. 1 8

Scour Inspection Type 1

N60. Substructure Summary: Deeper @ outfall pipe @ W. Summary Rating: 5

C51. Channel Alignment: 1 8

C52. Channel Protection: None provided US (natural channel banks slumped); private rock retaining wall @ SE mostly failed. 1 7

C53. Hydraulic Opening: DS trees falling into channel. Evidence of possible overtopping with driftwood on abutment seats, and build-up of driftwood etc. at wingwalls. No restriction during normal flow; apparent build up of sediment/rocks below bridge as visible from stormwater outfall invert below sediment buildup. 2 6

N62. Channel Summary: Summary Rating: 6

C1. Pavement: Widespread concrete cracking and delam.; asphalt patches and spalls esp. @ W. 3 4

C2. Approach Slabs: Patched; benchmark 8031 AZ set into base of railing @ NE, several delam. areas. 3 4

C4. Embankment: Overgrowing. 1 8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Summary Rating: 4

C55. Warning Signs: New (2018) posting sign. 1 8

C57. Utilities: Gas main not seated in saddles; exposed wire @ W abutment into CSO outlet. 2 6

Utilities On Structure: UUUUUUU

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 5 P

Inspection Notes: 2 trees @ S touching overhead utilities.

Recommended Maintenance:

1. Plan for extensive repair/replacement work.
2. Discuss wearing surface repair options w BL.

Assigned to:

Contract
Owner

Bridge Inspection Report | Routine Inspection

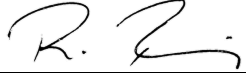
SFN: 3136639

Eighth Street Over Railroads West of Eighth Street Viaduct

Date Inspected: 04/14/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: COUNTY #07

Route: EIGHT Unit: 1
Load Rating Percent 150

Bridge Type 321 / NNN
(Main/Approach Spans)

Date Built / Date Rehabbed: 2008 /

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Very few minor trans. crack w efflor @ NW.	1	8
C7.2. Edge of Floor:	1	9
C8. Wearing Surface: Few small fiber nests detected, several patched; very minor HL cracks throughout.	1	8
C9. Curbs/Sidewalks: Vert. cracks in curbs; curb spall @ exp. joints esp @ SE; patches in sidewalk @ joints, no cracking in walk.	1	8
C11. Railing: HL crack w some efflor - esp. around windows throughout.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage: 1 scupper - slightly filled with debris but still functioning.	1	7
C13. Expansion Joints: Jt. filled w debris, corr. of joint armor; small spalls around armor on approach slab sides, esp @ W.	1	7

N58. Deck Summary: Summary Rating: 8

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Weathering steel - beam ends painted; scrapes from train over tracks at all beams, but no obvious deformation of the beams.	1	8
C16. Diaphragms/X-Frames: Minor bending @ 2nd bay from S - 2nd full x-frame from W.	1	8
C26. Bearing Devices: Elastomeric.(concealed)	1	8
C30. Protective Coating System (PCS): System: OZEU Year: 2008 Painted only @ beam ends; weathering steel turning to dark brown; scrapes are expected to self-heal, widespread small orange stains @ bottom flange edges.		PCS Rating: 9

N59. Superstructure Summary: Summary Rating: 8

C33. Abutment Walls: Largely reused from prev. struct; spalls (patched) & vert. cracks (sealed); isol. delams.	1	7
C34. Abutment Caps: Full height vert. HL cracks in new abutment seats, (horiz cracks @ E abutment most of the width of cap)	1	7
C39. Backwalls: Minor cracking on top; isol. cracks w efflor. on vertical face; mostly concealed	1	8

N60. Substructure Summary: Summary Rating: 7

Bridge Inspection Report | Routine Inspection

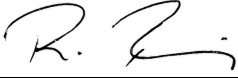
SFN: 3136639

Eighth Street Over Railroads West of Eighth Street Viaduct

Date Inspected: 04/14/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: COUNTY #07

C1. Pavement: Conc. @ E; deep & wide circular crack/spall E of approach slab but smooth riding; asphalt @ W. 1 7

C2. Approach Slabs: Many long. cracks perp. to BW @ E & W, some splitting into multiple parallell HL cracks. 1 7

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Summary Rating: 7

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Inspection Notes: Train scrape marks on all beams detected in 2016 (worse in 2017?). Wall @ NE is inspected as part of the 8th Street Viaduct. 2020 element level inspection on file.

Recommended Maintenance:

1. Repair fiber nests in wearing surface.
2. Consider sealing the railing.

Assigned to:

Contract
TROD

Bridge Inspection Report

Element Level Inspection

Bridge: 8th Street Bridge over RR W of Viaduct
Number: COUNTY #07
SFN: 3136639

Inspector: Reiner Reising
Inspector: Phil McCoy
Date: 4/14/2020

		Condition state					TR
		qty	1	2	3	4	
c7.1	Floor/Slab [SF]	7378	7368	10			1.00
c7.2	Edge of Floor/Slab [LF]	186	183	3			1.01
c8.	Wearing Surface [SF]	7230	7174	54	2		1.03
c9.	Curb/Sidewalk [LF]	186	175	10	1		1.29
c10.	Median [LF]						
c11.	Railing [LF]	89	0	88	1		1.47
N36	Safety feat. Rail [1,0,N]						1.00
C12.	Drainage [EA]	1	0	1			
c13.	Exp. Joint [LF]	257	170	87			1.40
N58. Deck Summary						8	

		Condition state					TR
		qty	1	2	3	4	
c33.	Abutment Walls [LF]	164	113	50	1		2.11
c34.	Abutment Caps [LF]	164	92	72			1.17
c35.	Abut. Columns [EA]						
c36.	Pier Walls [LF]						
c37.	Pier Caps [LF]						
c38.	Pier Columns [EA]						
c39.	Backwalls [LF]	164	118	45	1		1.21
c40.	Wingwalls [EA]						
c42.	Scour [EA]						
c43.	Slope Protection [EA]						
N 60. Substructure Summary						7	

		Condition state					TR
		qty	1	2	3	4	
c14.	Alignment [EA]	1	1				1.00
c15.1	Beams/Girders [LF]	875	875				1.00
c15.2	Slab [SF]						
c16	Diaphragm/x Frame [EA]	36	35	1			1.00
c17.	Stringers [LF]						
c18.	Floorbeams [LF]						
c19.	Truss Verticals [EA]						
c20.	Truss Diagonals [EA]						
c21	Truss Upper Chord [EA]						
c22.	Truss Lower Chord [EA]						
c23.	Truss Gusset Plates [EA]						
c24.	Lateral Bracing [EA]						
c25.	Sway Bracing [EA]						
c26.	Bearing Devices [EA]	20	20				1.00
c27	Arch [LF]						
c28.	Arch Column/Hangr [EA]						
c29.	Arch Spandrel Wall [LF]						
c30	Prot Coating System [LF]	875	875				1.01
c31	Pins/Hangers/Hingr [EA]						
c32.	Fatigue [LF]						
N59. Superstructure Summary						8	

		Condition state					TR
		qty	1	2	3	4	
c44.	General [LF]						
c45.	Alignment [LF]						
c46.	Shape [LF]						
c47.	Seams [EA]						
c48.	Headwalls/Endwalls [EA]						
c49.	Scour [EA]						
c50.	Abutments [LF]						
N 62. Culvert Summary							

		Condition state					TR
		qty	1	2	3	4	
c51.	Alignment [LF]						
c52.	Protection [LF]						
c53.	Hydraulic Opening [EA]						
c54.	Navigation Lights [EA]						
N 61. Channel Summary							

		Condition state					TR
		qty	1	2	3	4	
c55.	Signs [EA]						
c56.	Sign Supports [EA]						
c57	Utilities [LF]						

		Condition state					TR
		qty	1	2	3	4	
c1.	Wearing Surface [EA]	2	1	1			1
c2.	Approachslab [SF]	3160	2810	348	2		1.1
c3.	Relief Joint [LF]						
c4.	Embankment [EA]						
c5.	Guardrail [EA]						
N36	Safety fet. TR, GR, TM [1,0,N]		N	N	N		
N 61. Approach Summary						7	

N 59. General Appraisal and Operational Status 7 A

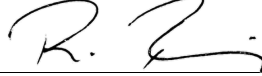
Bridge Inspection Report | Routine Inspection

SFN: 3136582

Eighth Street Viaduct over Evans Street, Mill Creek, Etc.


Date Inspected: 04/15/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: COUNTY #08

QA/QC Inspector: BRANDON M. LECRONE, P.E.

Signature: 

Route: EIGHT Unit: 310 Bridge Type 371 / Date Built / Date Rehabbed: 1929 /
Load Rating Percent 150 (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: New struct. deck on ex. deck; old deck: widespread cracks w efflor, spalls w exp. rusted reinf & rust staining; many spalls are large and/or deep; rating reflects condition of old floor; some areas appear delam.	3	4
C7.2. Edge of Floor: Mostly replaced with walks in 2008/2009; poor condition with spalls and delams. just W of Mill Creek at locations of former ramps.; trans. cracks w efflor. under new walks; steel beam spans have spalling under corr. rebar & more apparently delaminated (rust staining areas); delam @ S span 12 {entrance to yard}	1	7
C8. Wearing Surface: Smooth riding surface throughout, but extensive cracking esp. in N-half; (trans. Cracks more pronounced in 2 center lanes); widespread map cracking (mostly HL); very distinct differences in appearance and cracking between different sections of the viaduct.	1	7
C9. Curbs/Sidewalks: Walks: wider trans. cracks often w efflor below & through fascia beam wider cracks measured .07" Curb: minor vert. cracks w initial efflor, esp. @ N; minor spalls @ exp. jts.	1	8
C11. Railing: Conc. railing on approaches, on bridge chain link fence with steel curb rail. minor trans. cracks in top of SW approach railing; steel rail: paint @ curb rail peeling - widespread & areas of initial corr. mostly @ jnts.; isol. rusting @ perf. fence plates; scaling @ conc. light post bases in splash zone; isol corr of kick plate fasteners {retrofit} causing fasteners to shear off; some splice anchor bolts over exp jnt very loose but still attached; top rail at S bent at 1 loc.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage: 58 scuppers & inlets; many partially or completely clogged.	2	5
C13. Expansion Joints: Replaced (2008/2009); minor thumping @ E abut; filled w debris; minor rust on armor; isol. initial minor spalls around joint armor.	1	8
N58. Deck Summary: Summary rating not considering the condition of the old floor, but th new deck.	Summary Rating: 7	
C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Exp. stirrups throughout (low original cover); widespread spalls, patches & cracks some w efflor.; delam. areas; exp. rebar; isol. wider cracks; beam ends @ W abutment det esp #2&3 from S reducing bearing area.	2	6
C16. Diaphragms/X-Frames: Some spalling w some exp. reinf; isol. cracking @ bottom of some diaphragms; wider cracks.	1	7

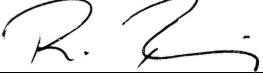
Bridge Inspection Report | *Routine Inspection*

SFN: 3136582

Eighth Street Viaduct over Evans Street, Mill Creek, Etc.

Date Inspected: 04/15/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 6 A

Signature:  _____

Bridge No.: COUNTY #08

QA/QC Inspector: BRANDON M. LECRONE, P.E.

Signature:  _____

C17. Stringers: Present only @ a few locs; conc. encased steel(assumed rating); stringer at W of span 30 with exp. rebar. Span 29 N fascia (over RR) bot hor. Crack indicates possible delam over 75% of span, similar in span 30. 1 7

C18. Floor Beams: Conc. encased - present only @ a few isol. locs; gunited (assumed rating). 1 7

C26. Bearing Devices: Elastomeric (2008); concealed; spalling @ abutment bearings (see abutments) 1 8

N59. Superstructure Summary: Redundant; not fatigue prone. Summary Rating: **6**

C33. Abutment Walls: Epoxy sealed (2009); some delams & cracks w efflor @ E; severe cracks @ NE fascia beam & spalls (no allowance for bearing movement @ NE & SE) continuous widespread spalling under bearings @ W w undermining of bearings (3&5 from N and 2 & 3 from S). 2 6

C37. Pier Caps: Reconstructed @ all former exp. jts; cracks & spalls sealed @ old piers w isol rusting of exp. rebar; isol. flex. cracks in new pier bents; impact damage (scrapes & spall) @ piers 1, 3 & 72); coating peeling @ some piers. 2 6

C38. Pier Columns: Reconstructed @ former exp. jts; some cracking & rust staining on existing columns; spalling, & cracking @ pier corners w isol. exp. main rebar.; sig. delams or spalling w exp. rebar @ some columns; ext spalling w exp rebar @ piers. 2 6

C39. Backwalls: Minor cracks topside, otherwise mostly concealed. 1 8

C40. Wingwalls: Minor random cracking & popouts, mostly sealed; vegetation @ bottom of WW in pvmt jts; many horiz. cracks thru sealant @ NW w rust staining w exp. rebar.; E wingwalls in very good condition. 1 7

C42. Scour: Diving inspection 2017. (see report) 1 7

Scour Inspection Type 3

N60. Substructure Summary: See element level inspection report for details. Summary Rating: **6**

C51. Channel Alignment: 1 9

C52. Channel Protection: Banks well vegetated. 1 8

C53. Hydraulic Opening: 1 9

N62. Channel Summary: Summary Rating: **8**

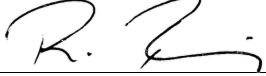
Bridge Inspection Report | Routine Inspection

SFN: 3136582

Eighth Street Viaduct over Evans Street, Mill Creek, Etc.

Date Inspected: 04/15/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: COUNTY #08

QA/QC Inspector: BRANDON M. LECRONE, P.E.

Signature: 

C1. Pavement: Two spalls (impact) @ E; cracking @ SW; large crack @ SW w minor pothole. 1 8

C2. Approach Slabs: Minor long. cracks. 1 8

C3. Relief Joints: E side only; very bumped up and w grass growing in bike paths, otherwise smooth. 2 6

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Summary Rating: 6

C55. Warning Signs: Posted 12'-3" VC @ W. Evidence of multiple impacts (minor spalls). 1 8

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 6 A

Inspection Notes: Last underwater inspection 2017. (Stantec)

General Notes: Spans 17 to 18 and 29 to 30 have structural steel & floor system - all other spans are concrete. Walls bet. viaduct & 8th Street Bridge are inspected as part of the Viaduct.

Recommended Maintenance:

1. Clean inlets.
2. Plan for beam rehab @ W abutment where beam ends are cracking over bearings.
3. Plan for widespread chipping action (list submitted to TROD and completed in 2020)
4. Trim back tree branches & ivy over N sidewalk E of Mill Creek
5. Grind down pressure relief joint @ E (bike lanes and in center).

Assigned to:

TROD
Contract
TROD
TROD
TROD

Bridge Inspection Report | Routine Inspection

SFN: 3136612

Galbraith Road Bridge over Anthony Wayne and Conrail

Date Inspected: 08/27/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: COUNTY #09

Route: GALBR Unit: 823

Bridge Type 322 / NNN

Date Built / Date Rehabbed: 1949 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Widespread cracks; mottling; efflor; stalactites, rust stains, delams & spalls w exp. rusting reinf; severe conc. det. esp under curbs; widespread seepage throughout.	3	3
C7.2. Edge of Floor: Widespread spalling, cracking & exp rebar, efflor.; rusting of beam TF is widespread.	4	2
C8. Wearing Surface: Spalls, some deep w exp rebar & debris; map cracking; conc. overlay (1987) w more than 20% asphalt patches; many delam. areas; S half in better condition; N half removed for const. 2020.	4	2
C9. Curbs/Sidewalks: Many trans. cracks & unsound areas in walks; widespread popouts; spalling @ exp. jt.; hollow sounding areas esp @ SW; N curb/walk removed for const. 2020.	2	5
C11. Railing: Repainted (EEU - 2005); paint chipping/flaking off; many scratches in paint; corr. hole @ S center (bot. horiz. Member); leaning inward @ bridge ends; top rail dented @ N; minor impact damage @ SE, N railing removed.	3	4
N36. National Safety Feature - Bridge Railing (0, 1 or N): 0		
C12. Drainage: Scuppers w d/s - inlets clogged; all D/S broken/clogged & disconnected.	4	0
C13. Expansion Joints: Some sep. bet. seal & armor @ W -widespread leaking; comp. seal not continuous @ curbs; CPs do not extend full width over curb; sidewalk cover plates do not allow expansion.	2	5
N58. Deck Summary: N deck removed during the 2020 inspection, ratings previously controlled by the north portion were not raised.	Summary Rating: 3	
C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Former pitting @ gutterline & along fascia beams; widespread active corrosion; some LOS; heavy pitting under exp. jts.; worst condition in beams adj. to long. joint & fascia beam; N fascia beam replaced 2020.	2	5
C16. Diaphragms/X-Frames: Widespread corr. w LOS @ gutterline & exp. jts; sev. LOS w pitting @ SE; isol diaphragms w severe corr.; pack rust @ end diaphragms causing partial separation of plates @ W.	2	6
C26. Bearing Devices: Abut. & W pier bearings realigned (2000); mvmt. of several bearing plates since realignment; resulting in mixed hot & cold weather modes; corr. under joints w heavy pitting on several bearings; 1 bearing plate @ W abutment moved against wall; some light observed under mason plates.	3	3
C30. Protective Coating System (PCS): System: ZV Year: 1987 Frackled rust throughout; Rusting w LOS - esp. on fascia beams; rusting along TF; ext. peeling; rusting on diaphragms & bearings.	PCS Rating: 2	
C32. Fatigue Prone Details: Cover plates & splices over pier; ugly (cracked?) welds @ cover plates esp. over center piers; full penetration welds @ piers are continuous in flanges and web; (partially concealed).	2	6

N59. Superstructure Summary: Redundant - fatigue prone. Ongoing construction in 2020. **Summary Rating: 5**

Bridge Inspection Report | Routine Inspection

SFN: 3136612

Galbraith Road Bridge over Anthony Wayne and Conrail

Date Inspected: 08/27/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: COUNTY #09

C33. Abutment Walls:	Stub abutments: minor HL cracking; graffiti.	1	7
C37. Pier Caps:	4 spalls w exp. rebar.	1	7
C38. Pier Columns:	Minor HL flex cracks @ W side of center (fixed) pier; graffiti.	1	8
C39. Backwalls:	Seepage @ C/L jt. & walks (cracks w efflor.); minor cracks & spalls; efflor; rust stains; cracks & many spalls on top.	2	6
C40. Wingwalls:	Minor cracks & spalls; cracks on top; some popouts.	1	8
C43. Slope Protection:	Conc. slope prot. @ W w dirt accum. under jts. & fascia; erosion @ SE d/t disconnected scupper.	2	6

N60. Substructure Summary: Summary Rating: 7

C1. Pavement:	Paved @ W (2017); trans. cracks & map cracking, mostly sealed; paved E (2008); map cracking near approach slab.	1	8
C2. Approach Slabs:	Cracks; minor spalls along edges; potholes @ BW; jts. to BW breaking up @ E & W.	2	5
C3. Relief Joints:	E does not extend thru curbs or walks; W filled w conc.		
C4. Embankment:	Overgrown.	1	8
C5. Guardrail:	Widespread severe wood posts & b/o deter esp @ SE. Guardrai at SE attached to concrete pylon (over exp. joint).	3	4
N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):	0		
N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):	1		
N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):	N		

C6. Approaches Summary: Ongoing construction 2020 (N half of the bridge including approaches is closed to all traffic) Summary Rating: 4

C57. Utilities: All utilities removed.

Utilities On Structure: UUUUUUU

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 5 A

Inspection Notes: Ongoing rehab in 2020 w N half of bridge under const. & all traffic diverted to S half. Ratings that were previously controlled by the N portion of the bridge were not raised during this inspection.

Bridge Inspection Report | Routine Inspection

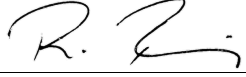
SFN: 3136338

Harrison Ave over Lick Run

Date Inspected: 09/18/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: COUNTY #10

Route: Unit: Bridge Type / Date Built / Date Rehabbed: /
 Load Rating Percent (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: See beams.

C7.2. Edge of Floor: Sealing ongoing 2020.

1 9

C8. Wearing Surface:

1 9

C9. Curbs/Sidewalks: S/w concealed by conc. barriers; cracking over backwalls.

C11. Railing: Installed but not yet accepted.

N36. National Safety Feature - Bridge Railing (0, 1 or N):

C12. Drainage: Off bridge.

C13. Expansion Joints: Strip seals filled w debris.

1 9

N58. Deck Summary:

Summary Rating: 9

C14. Alignment of Members: E fascia has slight horiz. offset over S pier.

1 9

C15.1. Beams/Girders: Composite box beams- HL long. cracks in some beams @ drain holes; 2 HL cracks w efflor. & possible rust staining @ E fascia main span; 2 beams w impact damage (scrape & spall) beams 6 & 7 from W @ N of main span.

1 8

N59. Superstructure Summary:

Summary Rating: 8

C33. Abutment Walls: Vert. HL cracks {const. issue}; many patched spalls (noticeable as dark dots).

1 8

C37. Pier Caps: Few HL cracks w efflor @ columns, spall (impact) @ S pier.

1 8

C38. Pier Columns:

1 8

C39. Backwalls: Backwall s/w not seperated from approach slab & cracking sev.; HL trans. cracks on top of wall.

1 7

C40. Wingwalls: HL cracks some w initial build up of efflor. @ bottom.

1 8

C42. Scour: Structure on deep shafts.

1 9

Scour Inspection Type

N60. Substructure Summary:

Summary Rating: 8

Bridge Inspection Report | Routine Inspection

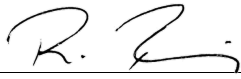
SFN: 3136338

Harrison Ave over Lick Run

Date Inspected: 09/18/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: COUNTY #10

C51. Channel Alignment: By design. 1 9

C52. Channel Protection: Man made, Rock, filter fabric and plants; const. ongoing 2020. 1 9

C53. Hydraulic Opening: As designed. 1 9

N62. Channel Summary: Summary Rating: 9

C1. Pavement: New 2020. 1 9

C2. Approach Slabs: Widespread cracking perpendicular to backwall. 1 7

C3. Relief Joints: Relief jnts. @ both ends have slight cracking. 1 8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Summary Rating: 7

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 A

Inspection Notes: Construction ongoing, but open to traffic with lane and sidewalk restrictions; punch list to be developed.

Bridge Inspection Report | Routine Inspection

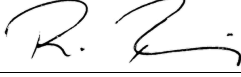
SFN: 3136337

Hopple Street Viaduct over Mill Creek, Railroad & Spring Grove

Date Inspected: 08/11/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 6 A

Signature: 

Bridge No.: COUNTY #11

Route: HOPPL Unit: 547

Bridge Type 221 / NNN

Date Built / Date Rehabbed: 1916 / 1986

Load Rating Percent 100

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Few trans. cracks w efflor; full depth hole patched in span 2 in rail yard; most floor issues are in the N half of the bridge, S condition generally better. Staining from fire (2019) in span 26.	1	7
C7.2. Edge of Floor: Trans. cracks w efflor.	1	7
C8. Wearing Surface: LMC; some cracking aparently random, sometimes wider mostly in N half; and long. crack @ center bridge; widesread often severe spalling @ exp. jt. headers; some random spalls w isol. potholes forming mostly in center; diag. crack @ abut. Corners; no delams detected by sounding.	2	6
C9. Curbs/Sidewalks: Trans. cracks; isol. popouts; curb scrapes; 2 sqft spall of curb/walk W ov Spring Grove; evidence of cars mounting curb.	1	7
C11. Railing: Vert. cracks w efflor in parapet; back up tube missing in top rail over Spring Grove; extremely large bolt holes @ some VPF baseplate W of Spring Grove; 1 metal post destroyed by impact).	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage: 36 inlets, partially to mostly filled w debris.	2	5
C13. Expansion Joints: Strip seals installed (2000); joint at pier #26 replaced 2016; all others are leaking; widesread severe spalls @ joint headers, most headers at least partially loose and/or separated from deck (jt. header broken & studs sheared off); both abutment joint glands completely removed and severely leaking.	3	3

N58. Deck Summary:

Summary Rating: 7

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Prestressed conc. beams (1987); beam 2 from N in span 3 flex. cracks w efflor. in bottom flange (only one face) also beam 3 from S in span 11 (with HL cracking @ top of BF forming). Beams 3,4,6,7 @ W abutment, diagonal crack/small spall, just beyond bearing. The cast in place concrete portion connecting the fascica beams is spalled in some locations over the piers where beams were made continuous, with bent up extended strand exposed at least in one location. Beam 1 from S in span 8 over pier 8; end spall w rust on fascia, also @ other exp jnts.	1	8
C16. Diaphragms/X-Frames: Conc. x-frames; vert. cracks turning into spalls @ some end crossframes (only at piers without expansion joints), esp pier 19 (w 4 adjacent diaphragms cracking), also piers 3,18,13 (cracks only).	1	7
C26. Bearing Devices: Elast. pad bearings; mostly concealed hence assumed rating.	1	7

N59. Superstructure Summary: Redundant; not fatigue prone.

Summary Rating: 8

Bridge Inspection Report | Routine Inspection

SFN: 3136337

Hopple Street Viaduct over Mill Creek, Railroad & Spring Grove

Date Inspected: 08/11/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: COUNTY #11

C33. Abutment Walls:	Vert. cracks mainly @ W; ext. seepage (w efflor & rust staining @ W); most seismic(?) pedestals @ W abutment cracked.	2	6
C36. Pier Walls:	Widespread minor cracks, delam., & spalls on surface of old conc. piers w isol. exposed rebar (old piers are much wider than new pier caps); widespread gunite repairs; efflor & leakage esp @ expansion piers.	1	7
C37. Pier Caps:	Some cantilevers w long. cracks 4" from top (@ Mill Creek & W); vert. crack w efflor. & some rust stain under exp. jt. most @ cantilevers; vert. full height crack @ S face pier cap 16. Flex. HL cracks at bottom of new (1986) RC pier caps (piers 2-5); honeycombing in newer (1986) concrete.	2	6
C38. Pier Columns:	Widespread minor cracks, delam., & spalls on old conc. piers w isol. exposed rebar; widespread gunite repairs; see also pier walls.	1	7
C39. Backwalls:	Mostly concealed d/t conc. x-frames; seepage; cracks w efflor; trans. cracks and spalls @ pvmt. level.	2	6
C40. Wingwalls:	NE rotated outward approx. 1-1/4" - evident by misalignment in rail; cracking & efflor. esp. in cap; graffiti.	1	7
C42. Scour:	Underwater inspection (2017); no maintenance recommended @ this time; approx. 8' soil diff. @ W creek pier; flat w no scour @ E creek pier.	1	7

Scour Inspection Type 3

N60. Substructure Summary: Summary Rating: 6

C51. Channel Alignment:		1	9
C52. Channel Protection:	Conc. spalled @ E @ top of conc. wall.	1	9
C53. Hydraulic Opening:	Overgrown embankments.	1	9

N62. Channel Summary: Summary Rating: 9

C1. Pavement:	Asphalt overlaid @ W in 2014; mapcracking in asphalt @ E, rutting with some vehicle bounce @ E; ongoing improvements at W in 2020.	2	6
C2. Approach Slabs:	Minor cracking.	1	8
C3. Relief Joints:	Extended thru curbs @ N only; cracked @ E (areas patched 2019).	2	6
C5. Guardrail:	Steel beam approach guardrail @ SW corner only; rotting timber w 1 block out missing ; minor impact damage.	2	6

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):

C6. Approaches Summary: Settlement of walk (behind wingwall) @ E where change of slope from curb to railing causing ponding on walk; widespread severe cracking in E walk. Summary Rating: 6

Bridge Inspection Report | Routine Inspection

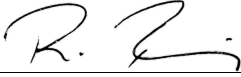
SFN: 3136337

Hopple Street Viaduct over Mill Creek, Railroad & Spring Grove

Date Inspected: 08/11/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: COUNTY #11

C57. Utilities: Gas on S side but only in W half of the bridge, vertical portion of the gas main is unprotected in railyard (for collision of derailling trains); splices rusting; conduit @ W abut. (street light ?) severely corroding. 2 5

Utilities On Structure: N Y N Y N N N

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 6 A

Inspection Notes: Underwater inspection - May 2017.
Firestaining in span 26 (2019); chain link fence in span 1 repaired in 2019 and area cleaned out.
2020 Element Level Inspection Data available.

Recommended Maintenance:

1. Replace compression seals at both abutments.
2. Sound & repair pier seats, esp. @ W.
3. Plan replacement of all expansion joints.
4. Patch curb/walk spall W of Spring Grove.
5. Replace destroyed railing post west of Spring Grove Ave.

Assigned to:

TROD
Contract
Contract
TROD
TROD

Bridge Inspection Report

Element Level Inspection

Bridge:	Hopple Street Viaduct over Mill Creek, R.	Inspector:	Reiner Reising
Number:	COUNTY #11	Inspector:	Phil McCoy
SFN:	3136337	Date:	8/11/2020

Item	Description	Unit	Quantity	Condition States				TR
				CS 1	CS 2	CS 3	CS 4	
331	Reinforced Concrete Bridge Railing	LF	3793	3533	260	0	0	1.10
330	Metal Bridge Railing	LF	1898	1876	17	5		1.06
815	Deck Drainage Grates & Scuppers	EA	36	4	16	6	10	4.00
510	Wearing Surface	SF	100200	98258	1770	172	0	1.06
300	Strip Seal Expansion Joint	LF	820	73	483	264	0	3.00
1	Deck Summary	0						
109	Prestressed Concrete Open Girder / Be	LF	12753	12648	105	0	0	1.01
310	Elastomeric Bearing	EA	364	364				1.00
2	Superstructure Summary	0	0	0				
215	Reinforced Concrete Abutment	LF	164	146	18	0	0	1.16
205	Reinforced Concrete Column	EA	75	65	9	1	0	1.36
234	Reinforced Concrete Pier Cap	LF	2132	1887	201	44	0	1.42
3	Substructure Summary	0						
1.5	General Appraisal	0						
City Item	Curb / Sidewalk	LF	1898	1677	207	14	0	1.27

Bridge Inspection Report | Routine Inspection

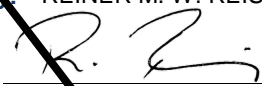
SFN: 3136671

Kennedy Avenue Bridge over IORY

Date Inspected: 08/14/2019

Inspected By: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 4 D

Signature: 

Bridge No.: COUNTY #12

Route: KENDY Unit: 4511

Bridge Type 321 / 172

Date Built / Date Rehabbed: 1933 /

Load Rating Percent 100

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Water sat; widespread trans. cracks w efflor & delam.; spalling & rust staining; some large/deep spalls w many exp. bars esp. under walks.	3	4
C7.2. Edge of Floor: Staining; efflor.; isol. rust @ standoffs; isol. minor spalls, some w exp. rebar; trans cracks w efflor.; deep spalling @ joints; severe conc. det. w/ spalling & delam. @ SE adjacent to WW.	2	5
C8. Wearing Surface: MSC overlay w polypropylene fibers (1999); map cracking esp. around jts. & over main span; wide long. cracks reflective of main span beams; still smooth riding; few corr stains; only few delams. detected near jnts.	2	6
C9. Curbs/Sidewalk	2	6
C11. Railing: Con (mu)	1	7
N36. National Safet		
C12. Drainage: S	2	6
C13. Expansion Joi..... Comp. seals (1999); rebar @ cold joints; joint cover gauges; joint cover is partially torn; some spalling around headers.	2	6

REMOVED

N58. Deck Summary: Summary Rating: 4

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: 3 4
 1 conc encased steel beams over main span: widespread wide cracking of conc. encasement, spalling w/exp mesh and struct steel; widespread apparent delams; sev spalling over bearings.
 2-R.C. beams: diagonal cracks & spalling esp over bearings w exp rebar (frozen bearings) mostly N of railroad tracks; vertical cracks w/efflor (through crack apparently from restricted bearing movement @ fixed pier N of railroad); 4 shores installed @ N abutment (2015); sev spalling over pier N of railroad.

C16. Diaphragms/X-Frames: Cracks w heavy efflor., rust staining, water saturation & conc. deter.; ext. spalls w exp rebar & LOS. 3 4

C17. Stringers: Vert. cracks, some w efflor.; conc. deter. @ center span @ cold jts. w large spalls & exp. reinf; cracks in fascia beams up to 0.05"; E fascia joists 3 del. @ midspan w spalls w exp. Reinf. & LOS; (see beams). 3 4

C18. Floor Beams: Cracks & spalls; some exp. rebar; delaminated areas; heavy efflor. @ S most FB; wide crack in 1st floor beam from N @ beam 2 connection (bearing issue?) 2 6

C26. Bearing Devices: Many bearings have ext. corr. & apparently frozen causing damage to beam ends & pier seats; corr. inhibiting exp.; apparently getting worse over piers adjacent to rail road. 4 2

N59. Superstructure Summary: Redundant; not fatigue prone. Summary Rating: 4

Bridge Inspection Report | Routine Inspection

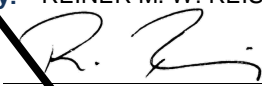
SFN: 3136671

Kennedy Avenue Bridge over IORY

Date Inspected: 08/14/2017

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status: 4 D

Signature: 

Bridge No.: COUNTY #12

C35. Abutment Columns:	Isol. spalling w exp rebar; rust staining from bearings @ N.	2	6
C37. Pier Caps:	Ext. spalling w exp rebar, widespread delam, rust staing, water saturation & conc. deter & exp rebar w LOS; efflor buildup; sev det spalling w potential loss of bearing area under apparently frozen bearings; long. horiz crack w rust stains on N face of N pier, 4" below top.	3	4
C38. Pier Columns:	Approach span columns in good condition, main span has ext. delam, cracking, spalling, & exp. rebar w LOS.	2	5
C39. Backwalls:	Map cracking @ S (top side).	2	6
C40. Wingwalls:	Minor cracks w efflor.	1	7
C43. Slope Protection:	Sev animal holes; erosion under N abuttment.		

N60. Substructure Summary: Summary Rating: 4

C1. Pavement:	A: @	2	6
C2. Approach Slab		1	7
C4. Embankment:		1	7
C5. Guardrail:	Gu	1	8

REMOVED

- N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):
- N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 1
- N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 0

C6. Approaches Summary: Summary Rating: 6

C57. Utilities: Loose or separated electrical conduits. 2 5

Utilities On Structure: UUUUUUU

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 4 D

Inspection Notes: New Duke steel pole E of bridge replacing wood pole (2016). Camp @ S abutment of bridge; fallen tree supported by railing slightly overhanging walk @ SE.

General Notes: Bridge to be replaced in early 2020 when federal funding will be available.

Recommended Maintenance: Assigned to:

1. Replacement forthcoming, funding secured.

Bridge Inspection Report | Routine Inspection

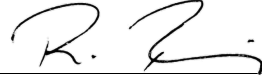
SFN: 3136672

Kennedy Avenue over IORY

Date Inspected: 01/12/2021

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: COUNTY #12

Route: 0700 Unit: 2.81

Bridge Type 232 /

Date Built / Date Rehabbed: 2021 /

Load Rating Percent 100

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Prestressed box beams. Long HL cracks up to 0.004" in some beams (List of beams with cracks on file). 1 9

C7.2. Edge of Floor: Slight staining from scaffolding, portions still concealed by scaffolding at time of inspection.

C8. Wearing Surface: Portions still concealed by construction equipment at time of this inspection. Widespread scrapes from construction activity, 2 HL cracks developing at S end. 1 8

C9. Curbs/Sidewalks: Portions still concealed by construction equipment at time of this inspection. No cracking observed. 1 9

C11. Railing: Portions still concealed by construction equipment at time of this inspection. Fence not yet installed, portions of railing blanketed for curing. 1 9

N36. National Safety Feature - Bridge Railing (0, 1 or N): 1

C12. Drainage: Off the bridge. 1 9

C13. Expansion Joints: Semi integral bridge.

N58. Deck Summary: Summary Rating: 9

C14. Alignment of Members: 1 9

C15.1. Beams/Girders: Prestressed box beams (CB 21x48). Long HL cracks (up to 0.004 inches wide) observed in several beams, list of cracked beams attached to report). 1 8

N59. Superstructure Summary: Summary Rating: 8

C33. Abutment Walls: Stubs, vert. full height cracks near center. Crack at S 0.033" wide, crack at N 0.04" wide. Surface ground in areas where uneven between formwork. Not yet coated with anti graffiti coating. 1 8

C36. Pier Walls: No deficiencies noted. Not yet sealed. N pier has graffiti. 1 9

C37. Pier Caps: No deficiencies noted. 1 9

N60. Substructure Summary: Summary Rating: 8

C1. Pavement: Portions still concealed by construction equipment at the time of the inspection. 1 9

C2. Approach Slabs: 20 and 25 ft long. No cracks observed. Portions still concealed by construction equipment. 1 9

C4. Embankment: Per design, seeded. 1 9

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

Bridge Inspection Report | Routine Inspection

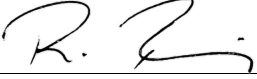
SFN: 3136672

Kennedy Avenue over IORY

Date Inspected: 01/12/2021

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 8 A

Signature: 

Bridge No.: COUNTY #12

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary:

Summary Rating: 9

65. Vertical Clearance:

Vert. Clearance Rating: N

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 8 A

Inspection Notes: Bridge to be opened to traffic days after this inspection. Still some work outstanding. Portions of the structure concealed by construction equipment.

Recommended Maintenance:

Assigned to:

1. Punch list to be created once all construction is completed (spring 2021).

Kennedy Ave Bridge

01/13/2021

CB 21-48 Beam cracking

Number of cracks detected

Span/ Beam	1 (S)	2*	3 (N)
1 (W)	1		
2	1**		1
3	1		1
4	1**	2	
5	1	2	1
6			1
7		1**	1**
8		2	1
9			
10			
11			
12 (E)	1**	1	

* not measured, only visible with binoculars

** shorter cracks

All cracks are longitudinal HL cracks.



Bridge Inspection Report | Routine Inspection

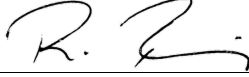
SFN: 3136728

Madison Road Bridge over Duck Creek East of Ridge Road

Date Inspected: 03/30/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: COUNTY #13

Route: MADSN Unit: 410

Bridge Type 231 / NNN

Date Built / Date Rehabbed: 1929 / 1992

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Minor efflor. stalactites forming @ SE in 1 beam joint; minor honeycomb (semi circle pattern) @ beam ends of many beams; leakage (slightly wet) in center b/w beams 2 & 3 from S.	1	7
C7.2. Edge of Floor: Vertical cracks w efflor @ S.	1	7
C8. Wearing Surface: Reflective cracks over beam jts; slight wearing in wheel path.	1	7
C9. Curbs/Sidewalks: Many trans. cracks; popouts @ S; minor curb spalling @ SE; curb @ S spalled and undermined at gutter, see leakage comment in floor.	2	6
C11. Railing: Vert. cracks w efflor. esp @ S.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage: Street inlets @ both ends of bridge; debris collecting @ S curb.	2	6
C13. Expansion Joints: Repaired 2014 with hot applied asphalt but isolated leakage through to substructure; gland asphalt torn @ several locations.	1	7
N58. Deck Summary:	Summary Rating: 7	
C14. Alignment of Members:	1	8
C15.1. Beams/Girders: (SEE ITEM 7.1); precast conc. box beams (1992); minor horiz. crack @ NE fascia beam; small isol. rust stains from rebar standoffs; smile shape honeycombing @ bot. of many beam ends.	1	8
C26. Bearing Devices: Elast. bearings (1992), not visible (assumed rating).	1	8
N59. Superstructure Summary: Redundant, not fatigue prone.	Summary Rating: 8	
C33. Abutment Walls: Patched & coated (1992); many vert. cracks some with initial efflor; spall @ NW; graffiti; minor cracks w leakage; leakage from top (exp. jts) apparent due to widespread staining.	1	7
C39. Backwalls: Many cracks @ roadway surface; few isol spalls.	1	7
C40. Wingwalls: Minor cracks w efflor. & spalls @ all four corners.	2	6
C42. Scour: Channel entirely conc. lined.	1	9

Scour Inspection Type 1

N60. Substructure Summary:

Summary Rating: 7

Bridge Inspection Report | Routine Inspection

SFN: 3136728

Madison Road Bridge over Duck Creek East of Ridge Road

Date Inspected: 03/30/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: COUNTY #13

C51. Channel Alignment: Concrete channel as part of floodwall system. 1 9

C52. Channel Protection: Widespread concrete deterioration w/ spalls & exp. rebar, mostly along joints (especially DS). 2 6

C53. Hydraulic Opening: 1 9

N62. Channel Summary: Summary Rating: 6

C1. Pavement: Asphalt overlaid (2004); many cracks & patches @ (E); newer asphalt @ W (2008 floodwall); 2 potholes @ NW beyond floodgate; spalling around flood gate tracks. 2 6

C2. Approach Slabs: Crack @ E; long. cracks (perp. To BW's); new approach slab @ W. 1 7

C4. Embankment: Overgrown. 1 8

C5. Guardrail: Many missing nuts @ transition pieces @ S; missing bolt @ SW transition (broken out). 1 6

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): 0

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 1

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 0

C6. Approaches Summary: Summary Rating: 6

C57. Utilities: Gas, electric; minor rusting on brackets. 1 7

Utilities On Structure: N Y N N N N N

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Recommended Maintenance:

1. Plan to replace S curb.
2. Repair conc. channel lining where deter.
3. Seal jt between base of abutment and conc. channel lining.
4. Consider sealing deck and curbs with HMWM
5. Remove vegetation from railings & the joint between walk & railing.
6. Fill (exp) joints w hot applied asphalt.

Assigned to:

- Contract
- Stormwater
- Stormwater
- Contract
- TROD
- TROD

Bridge Inspection Report | Routine Inspection


SFN: 3130003

Marburg Avenue Bridge over Wasson Way

Date Inspected: 04/02/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 9 A

Signature: 

Bridge No.: COUNTY #14

Route: MARB Unit: Bridge Type 132 / Date Built / Date Rehabbed: 2017 /
 Load Rating Percent 100 (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor:	See item 15, beams.	1	9
C7.2. Edge of Floor:	Cracks w build up of efflor over piers.	1	8
C8. Wearing Surface:	Built-up of sand from HMWM sealing in some locations; asphalt staining at SW; few HL long. cracks (mostly visible @ ends where not grooved) other trans cracks developing from curbs +/- 2', some w intial efflor; full width HL trans crack over N pier.	1	8
C9. Curbs/Sidewalks:	Transverse HL cracks (full width) through walk and curb over piers (4); long. sidewalk crack @ NE (4').	1	8
C11. Railing:	Trans HL cracks @ top, (some w efflor) continuing down into ornamental grooves.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N):			
C12. Drainage:	Off the bridge.		

N58. Deck Summary: Summary Rating: 9

C14. Alignment of Members:		1	9
C15.1. Beams/Girders:	6 beams @ NW have dark staining, also 6" wide dark edge @ fascia bottoms in all spans (anti graffiti overspray).	1	9
C26. Bearing Devices:	Mostly concealed; assumed rating; some bearings not in contact w beams @ S abutment (4 bearings completely loose)	1	8

N59. Superstructure Summary: Summary Rating: 9

C33. Abutment Walls:		1	9
C36. Pier Walls:	Vert HL crack @ S pier.	1	9
C37. Pier Caps:	HL crack in center of piers (visible from abutments only).	1	9
C40. Wingwalls:		1	9
C43. Slope Protection:	Steep concrete slope protection; 1 crack @ SE.	1	8

N60. Substructure Summary: Summary Rating: 9

C1. Pavement:	New 2017; slight step @ SE between pavement & bridge (slight bounce to vehicles)	1	7
C4. Embankment:	Well vegetated; steep	1	9
C5. Guardrail:	Continued concrete railing at N end, (off bridge).		

Bridge Inspection Report | *Routine Inspection*

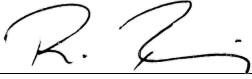
SFN: 3130003

Marburg Avenue Bridge over Wasson Way

Date Inspected: 04/02/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 9 A

Signature:  _____

Bridge No.: COUNTY #14

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary:

Summary Rating: 7

65. Vertical Clearance:

Vert. Clearance Rating: N

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 9 A

General Notes: Bridge opened to public 9-15-17.

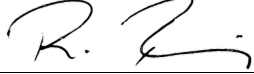
Bridge Inspection Report | Routine Inspection

SFN: 3136795

North Bend Road Bridge over Kirby Road


Date Inspected: 04/21/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: COUNTY #15

QA/QC Inspector: STEPHEN C. GRESSEL, P.E.

Signature: 

Route: NBEND Unit: 436

Bridge Type 322 / NNN

Date Built / Date Rehabbed: 1951 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Widespread trans. cracks; efflor; delam.; spalls; rust stains; iso. mapcracking; many full depth repairs (entire E span repaired); exp. rebar @ several loc., esp. @ N overhang; long. center crack w efflor. & rust stains. 2 5

C7.2. Edge of Floor: Conc. edge beams: shear crack @ S conc. edge beam; spalled w exp. rebar & sev LOS; LOS & delam @ SW; conc. beam @ N fascia cracked & delam. @ E & W. 2 5

C8. Wearing Surface: LMC w CP (1986); spalls filled w asphalt in E-bound lanes; trans. cracking; some wider cracks; some areas of map cracking; 2 delam. areas detected. 2 6

C9. Curbs/Sidewalks: Rehabbed/sealed (1991); CP removed from walks; S walk reoverlaid w MMC (2000); minor HL cracking in S walk; Curbs: isolated deep spalling in S curb w exp. rebar and rust staining (N curb much better); unsound walk @ SW. 2 6

C11. Railing: No gap bet. railing on & off bridge @ NE (fixed end); inter. coat of paint showing thru top coat; minor conc. spalls; impact damage to conc @ center of N railing. 1 7

N36. National Safety Feature - Bridge Railing (0, 1 or N): 0

C12. Drainage: 4 scuppers w d/s - all open; minor debris @ gutters. 1 8

C13. Expansion Joints: Slight vert. offset @ both ends (vehicle bounce esp. @ SW); leakage w partially torn gland @ W; widespread conc. spalling around jt.; no room for exp. @ NE (railing touching over jt.); jnt. armor missing (replaced w asphalt 2019) @ W center lane; joint armor missing & repalced w asphalt in 2019. 2 5

N58. Deck Summary: SEE 2017 ELEMENT LEVEL INSPECTION REPORT

Summary Rating: 5

C14. Alignment of Members: Minor kink (impact) N-most beam; W abutment apparently shifted N (see bearings). 2 6

C15.1. Beams/Girders: Steel beams: freckled rust (throughout); minor impact damage to 2 N-most beams @ center span (repaired 1992); heavy pitting of flanges w LOS @ W abutment; active corrosion throughout; separation bet. TF & floor @ fascia beams; worst reduction @ BF thickness from .64" to .47" @ SW (max. observed during routine inspection). 2 5

C16. Diaphragms/X-Frames: Widespread freckled rusting; pitting; sig. LOS w perforations @ end x-frames @ W abut esp @ SW; light to moderate corr. elsewhere. 2 6

C18. Floor Beams: Sidewalk support brackets (heavy pitting on top tension flanges - LOS) on the first two brackets from each expansion joint. (In the SMS these brackets are inventoried as diaphragms); SW bracket almost 100% LOS on diagonal compression member. 2 5

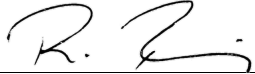
Bridge Inspection Report | Routine Inspection

SFN: 3136795

North Bend Road Bridge over Kirby Road


Date Inspected: 04/21/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: COUNTY #15

QA/QC Inspector: STEPHEN C. GRESSEL, P.E.

Signature: 

C26. Bearing Devices: Elast. @ W abut., tilted N-ward; all bearings corr. & debris; some lifted anchor bolts, widespread surface rusting. 2 6

C30. Protective Coating System (PCS): System: ZV Year: 1986 PCS Rating: 4
Rust & peeling w initial LOS @ beam ends; flanges & diaphragms; minor pitting; freckling throughout.

C32. Fatigue Prone Details: Cover Plates: minor rusting. 2 6

N59. Superstructure Summary: Redundant; fatigue prone. Summary Rating: 5

C33. Abutment Walls: Stub abuts: widespread horiz. crack (full length) w seepage, spalls w exp. rebar, & rust stains @ W; cond. @ E much better; spall @ SW up to bearing. 2 5

C37. Pier Caps: Debris, masonry coated. 1 8

C38. Pier Columns: Masonry coated. 1 8

C39. Backwalls: Widespread rust staining & efflor. from top; minor vertical cracking; structural diag. cracking w seepage & rust staining @ all 4 corners; spall w conc. deter. & exp rebar @ NW; built-up efflor. & cracking @ NE. 2 5

C40. Wingwalls: Ext. cracks; efflor; widespread delam & conc. deter. @ W; wall top cracked @ NW & large spall w exp rebar (full height); mapcracking & seepage; cond. @ E much better. 2 5

C43. Slope Protection: Gravel/rocks; erosion esp. along road under abut. D/S (NW & NE). 1 7

N60. Substructure Summary: Cathodic Protection - mounted on piers (1986). (turned off) Summary Rating: 5

C1. Pavement: Asphalt overlaid (2007); map cracking; erosion of Kirby pavement into travel lane (below not considered as part of this rating). 2 6

C2. Approach Slabs: Asphalt overlaid (2007); not visible; 2 trans cracks over slab; mapcracking; severe curb deter. @ SW & SE approach.

C3. Relief Joints: Installed (1991); not cont. thru curbs (assumed rating); curbs @ all 4 corners crumbling/crushing. 2 5

C4. Embankment: Overgrown, steep w some bare soil @ SE. 1 7

C5. Guardrail: Installed (1991); minor impact damage @ E; initial signs of timber deterioration. 1 7

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): 0

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 1

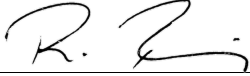
Bridge Inspection Report | Routine Inspection

SFN: 3136795

North Bend Road Bridge over Kirby Road

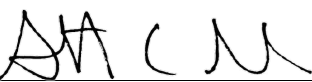
Date Inspected: 04/21/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: COUNTY #15

QA/QC Inspector: STEPHEN C. GRESSEL, P.E.

Signature: 

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 1

C6. Approaches Summary: **Severe curb spalls @ S @ both sides adjacent to bridge.** Summary Rating: 5

C55. Warning Signs: VC signs (new 2013). 1 9

C57. Utilities: Gas main removed, only end stubs remain, very corroded, perforated @ E; leaking seal @ E abut., sand washed onto abut seat; N conduit attached to delam. @ 2 loc. pushing down conduit. 3 3

Utilities On Structure: UUUUUUU

65. Vertical Clearance: Posted 13'-6"; measured 13'-10". Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 5 A

Inspection Notes: Cathodic protection mounted on piers (1986), and abandoned.
2017 Inspection was element level inspection.
Contacted Duke Energy about condition of the gas stubs after the 2019 inspection.

Recommended Maintenance:

1. Replace exp. jnts. including armor @ W abutment.
2. Repaint structure, (includes painting of Superstructure)
3. Patch/repair NW wingwall w abutment & backwall.
4. Chip loose conc over roadway @ N & S overhang.
5. Plan for deck replacement w new bearings & making beams composite.
6. Repair SW most sidewalk bracket by adding steel plate.{talk to TROD}
7. Check conduits under bridges where attached to delaminated concrete.
8. Repair perforated gas main stubs (forwarded to Duke after inspection).
9. Repair drop off at W side of Kirby with gravel (washed out).
10. Tighten or remove nuts on a brackets @ E.

Assigned to:

- Contract
- Contract
- Contract
- TROD
- Contract
- TROD
- Traffic
- Duke - Gas
- TROD
- TROD

Bridge Inspection Report | Routine Inspection

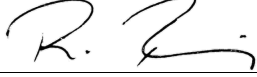
SFN: 3137139

North Bend Road Bridge over Mill Creek

Date Inspected: 03/25/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: COUNTY #16

Route: NBEND Unit: 3631

Bridge Type 322 / NNN

Date Built / Date Rehabbed: 1995 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Trans. cracks w efflor. throughout.	1	7
C7.2. Edge of Floor: Few crack with efflor. extending from parapet; widespread staining.	1	7
C8. Wearing Surface: (Monolithic). Minor scaling; long. & trans. HL cracks, esp at bridge ends; diag. crack @ SW; no delams detected.	1	7
C9. Curbs/Sidewalks: Minor popouts; many trans. cracks in walk.	1	7
C11. Railing: Vert. cracks (some wider) w efflor; 2 nuts missing (N), 1 loose (S).	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage: 12 scuppers w d/s; tend to get clogged; nests on many downspouts.	1	7
C13. Expansion Joints: Filled w debris; hole over 3rd beam from N @ W abut w sign leakage; possible leakage at NE; widespread corrosion of joint armor and spalling around headers.	1	7

N58. Deck Summary:

Summary Rating: 7

C14. Alignment of Members: Slight vertical curvature in W span beams (apparent sag, per design).	1	8
C15.1. Beams/Girders: Slight sag in W span; slight impact damage E (wall const.); graffiti painted over @ E; minor BF scrapes @ N fascia E span.	1	8
C16. Diaphragms/X-Frames: Isolated corrosion @ ends.	1	8
C26. Bearing Devices: Elast. bearing pads; some anchor bolts slightly bent @ pier; some pads deformed lat; slight hot weather mode, no seismic ped; minor surface corrosion on bottom of a few load plates.	1	8
C30. Protective Coating System (PCS): System: IZEU Year: 1995 Primer showing through in some locs; scratches @ E abutment repaired by Sunesis 2011, corrosion reappearing; initial corr. @ bearings; initial corrosion @ some cross frames; graffiti patches @ E.		PCS Rating: 7

N59. Superstructure Summary: Redundant, not fatigue prone.

Summary Rating: 8

C33. Abutment Walls: Minor vert. H/L cracks; debris at W abut. from exp joint hole; graffiti.	1	8
C36. Pier Walls: HL cracking.	1	8
C37. Pier Caps: Flex. cracks with very minor efflor. In cap cantilever.	1	8
C39. Backwalls: Few vert. cracks w excessive efflor; cracks & minor spalling on top around joint armor; 6"x3" spall @ SE at approach slab joint.	1	7
C40. Wingwalls:	1	8
C42. Scour: Deep water in E span slightly DS from pier does not seem to affect the pier.	1	8

Bridge Inspection Report | Routine Inspection

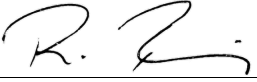
SFN: 3137139

North Bend Road Bridge over Mill Creek

Date Inspected: 03/25/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: COUNTY #16

Scour Inspection Type 1

N60. Substructure Summary:

Summary Rating: 8

C51. Channel Alignment:	Flow slightly from NW to SE; direction of flow promotes the accumulation of flow debris at the pier.	1	7
C52. Channel Protection:	Conc. rubble rip-rap (replaced @ pier - 2009); loss of vegetation and exposed erosion control material US east bank.	1	7
C53. Hydraulic Opening:		1	9

N62. Channel Summary:

Summary Rating: 7

C1. Pavement:	Trans. crack; filled potholes; spall @NW just off approach slab.	1	7
C2. Approach Slabs:	Long. H/L cracks @ E & W; settlement @ NE walk.	1	8
C3. Relief Joints:	Extend through curbs; cracking; slight bulge.	2	6
C4. Embankment:	Overgrowing.	1	8
C5. Guardrail:	Minor impact damage; broken and missing b/o; minor post deter.	1	7

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): 1

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 1

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 1

C6. Approaches Summary: Crack in approach walk @ NE & SE prop. from end of WW; trans. crack in approach walk @ NW & SW.

Summary Rating: 6

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 8 A

Inspection Notes: Recent (2019) fire staining under E abutment; large camp w at least 4 tents & gas grill on E abutment concealing abutments camp had been previously called in CSR because of multiple stored propane tanks.

Recommended Maintenance:

1. Consider sealing deck w/ HMWM.
2. Cut 10' wide strip of vegetation @ WW's.

Assigned to:

Contract
TROD

Bridge Inspection Report | Routine Inspection

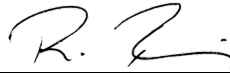
SFN: 3136817

Plainville Road Arch over Little Duck Creek

Date Inspected: 03/24/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: COUNTY #17

Route: PLAIN Unit: 4762 Bridge Type 155 / NNN Date Built / Date Rehabbed: 1915 /
Load Rating Percent 150 (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C8. Wearing Surface: Asphalt resurfaced (1997); widespread deep cracks in top course; potholes forming, esp around sewer MH.	2	5
C9. Curbs/Sidewalks: Slight open joint between walk and railing; small curb spalled @ W.	1	7
C11. Railing: Decor. conc. bridge railing w masonry coating; cracks w built-up of efflor. esp. in top portion of railing; some cracks & delam; some hollow sounding areas on inside face.	2	6
N36. National Safety Feature - Bridge Railing (0, 1 or N): 0		
C12. Drainage: Inlet at E considerably lowered {4"} than wearing surface (appears to be intentional not sunken?).	1	7

N58. Deck Summary: Per ODOT, filled arch deck summaries should be coded "N" **Summary Rating:**

C14. Alignment of Members:	1	8
C27. Arch: Gunite coated; many small spalls some w exp. reinf.(low cover); efflor. @ bottom of arch; multiple delam. areas (mostly only gunite delamination); rust stains @ S @ bottom in one location; seepage @ several locs (bottom both sides); larger spalls @ NW & SW corner near bottom; apparent crack (moist staining) @ center cold joint (covered with gunite).	2	6
C29. Arch Spandrel Walls: Coated; few cracks w efflor; gunite repairs (1995 bottom both sides) no delams detected.	1	7

N59. Superstructure Summary: Redundant, not fatigue prone. **Summary Rating: 6**

C33. Abutment Walls: Concealed,(4' wide by 5' deep full length walls); assumed rating	1	7
C40. Wingwalls: (See spandrel wall); minor cracks; overgrown w vines; poss. delam.; spall w exp. rebar @ SW; potential global crack (evident by efflor) @ W headwall.	1	7
C42. Scour: Rock fill placed (1991); no scour holes; flow along N side of bridge, bottom concrete pad covered with gravel deposits everywhere except very N.	1	9

Scour Inspection Type 1

N60. Substructure Summary: **Summary Rating: 7**

C51. Channel Alignment: channel makes sharp curve +/- 80' US ; stream flows against N arch wall under bridge.	2	6
C52. Channel Protection: 6" thick concave conc. channel liner under bridge, mostly covered with gravel; continued severe erosion of the embankments US.	2	5
C53. Hydraulic Opening: Significant accumulaton of gravel under bridge.	1	7

N62. Channel Summary: **Summary Rating: 5**

Bridge Inspection Report | Routine Inspection

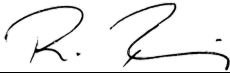
SFN: 3136817

Plainville Road Arch over Little Duck Creek

Date Inspected: 03/24/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: COUNTY #17

C1. Pavement: Resurfaced (1996/97); utility cuts; cracking (see WEARING SURFACE); potholes. 2 5

C4. Embankment: Steep drop @ SW; overgrown everywhere. 1 7

C5. Guardrail: Installed (1992) SE only; minor deter. wood posts & blockouts. 1 7

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): 1

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 1

C6. Approaches Summary: Summary Rating: 5

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 6 A

Recommended Maintenance:

1. Discuss patching spalls in arch & protecting rebar w B. Lecrone.
2. Seal joint between railing and walks with Sika Flex.
3. Sweep gutters and walks along railing.
4. Resurface with approaches.

Assigned to:

Other
TROD
TROD
Street Rehab

Bridge Inspection Report | Routine Inspection

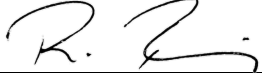
SFN: 3136841

Red Bank Expwy Culvert at Deerfield Channel North of Duck Creek

Date Inspected: 03/24/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: COUNTY #18

Route: REDBK Unit: 123

Bridge Type 195 / NNN

Date Built / Date Rehabbed: 1969 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C44. Culvert - General: Seepage w efflor. - part. @ jts; settlement produced trans. cracks (1 @ center open 3/8"); see "Under Water Inspection Report" 2 6

C45. Culvert - Alignment: Slight offsets (orig const); apparent settlement produced cracking. (See underwater report) 2 6

C48. Culvert - Head/End Walls: N HW & W WW spalled @ W end w loss of support for most W railing post; efflor. @ top of culvert; slope failure @ end of S WW has caused the failure of the most E railing (soil has slid over WW); cracks & sig. efflor; {ASR?} @ metal handrail post bases @ SW impacting 2 railing posts; S wing walls driving rating, N in much better condition. 2 5

C49. Culvert - Scour: No scour d/t excess. soil & rock accum. 1 9

Culvert Scour Inspection Type: 3

N60. Culvert Summary: **CLF surrounds the US end. Latest under water inspection 4/18/2017** **Summary Rating: 6**
Unable to access culvert due to depth of water inside.
Chain link fence & poison ivy.

C51. Channel Alignment: E embankment moderate slumping (DS); channelized US. 1 8

C52. Channel Protection: US concrete; DS natural stream bed. 1 8

C53. Hydraulic Opening: Permanently partially filled with water. 2 6

N62. Channel Summary: **Summary Rating: 6**

C1. Pavement: Asphalt overlayed (2018). 1 9

C4. Embankment: Red Bank embankment on pile wall 2017 mitigating previous erosion issues. 1 8

C5. Guardrail: New street widening 2017. Guardrail ends beyond culvert. 1 9

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 1

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: **Summary Rating: 8**

Bridge Inspection Report | *Routine Inspection*

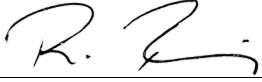
SFN: 3136841

Red Bank Expwy Culvert at Deerfield Channel North of Duck Creek

Date Inspected: 03/24/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: COUNTY #18

65. Vertical Clearance:

Vert. Clearance Rating: N

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 6 A

Inspection Notes: Overgrown north entrance (2019). Water level at US end assumed to be +/- 4 ft during low flow conditions.

General Notes: Underwater inspection by FMSM - June 2007.
Underwater inspection by Stantec - June 2012.
Underwater inspection by Terracon 4/18/2017
DS pile wall construction (2017) as part of the Duck Creek Rd Extension project.

Recommended Maintenance:

Assigned to:

1. Consider repairing railing @ S headwall.

Contract

Bridge Inspection Report | Routine Inspection

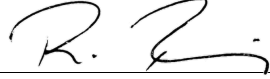
SFN: 3136868

Red Bank Expwy Culvert at Deerfield Channel South of Madison

Date Inspected: 12/03/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: COUNTY #19

Route: REDBK Unit: 65

Bridge Type 195 / NNN

Date Built / Date Rehabbed: 1970 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N):

C44. Culvert - General:	Numerous trans. cracks w efflor; staining/rust, stalactites mostly @ construction jts; otherwise minor, and mostly HL, cracking w some efflor; 1 crack w ext. stalactites just N of inlet of big sewer pipe.	1	7
C45. Culvert - Alignment:	Slight (orig. const.) offsets @ jts.	1	8
C48. Culvert - Head/End Walls:	S: area of efflor. (alcali silica) and spalling at fence post base. N: single spall at bottom at east and widespread minor concrete damage (less than 1: deep) at top of opening.	1	7
C49. Culvert - Scour:	Lined w conc. inside culvert & also US.	1	9

Culvert Scour Inspection Type: 1

N60. Culvert Summary: Summary Rating: 7

C51. Channel Alignment:		1	9
C52. Channel Protection:	Minor slumping US of conc. apron; conc. in very good condition.	1	7
C53. Hydraulic Opening:	Slight debris build-up in culvert @ US end; +/- 1' water @ DS end in low flow.	1	8

N62. Channel Summary: Summary Rating: 7

C1. Pavement:	Asphalt overlay- many wider{apparently reflective} cracks, rutting asphalt; isol. potholes forming.	2	6
C4. Embankment:	Overgrown.	1	8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Summary Rating: 6

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Inspection Notes: New buildings and access route (2020) on N side of S entrance. Inlet pipe near DS end appears to

Bridge Inspection Report | *Routine Inspection*

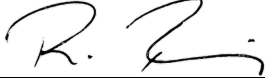
SFN: 3136868

Red Bank Expwy Culvert at Deerfield Channel South of Madison

Date Inspected: 12/03/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: COUNTY #19

be filling with concrete? (due to construction?) notified stormwater about this after the 2019 inspection.
See 2020 Element Level data.

Recommended Maintenance:

1. Consider concrete repairs to S headwall now that the area is more visible.

Assigned to:

Owner

Bridge Inspection Report

Element Level Inspection

Bridge: Red Bank Expwy Culvert at Deerfield S of Madison
Number: COUNTY #19
SFN: 3136868

Inspector: RMR
Inspector:
Date: 12/03/2020

	qty	Condition state					TR
		1	2	3	4		
c7.1 Floor/Slab [SF]							
c7.2 Edge of Floor/Slab [LF]							
c8. Wearing Surface [SF]							
c9. Curb/Sidewalk [LF]							
c10. Median [LF]							
c11. Railing [LF]							
N36 Safety feat. Rail [1,0,N]						N	
C12. Drainage [EA]							
c13. Exp. Joint [LF]							
N58. Deck Summary							

	qty	Condition state					TR
		1	2	3	4		
c14. Alignment [EA]							
c15.1 Beams/Girders [LF]							
c15.2 Slab [SF]							
c16. Diaphragm/x Frame [EA]							
c17. Stringers [LF]							
c18. Floorbeams [LF]							
c19. Truss Verticals [EA]							
c20. Truss Diagonals [EA]							
c21. Truss Upper Chord [EA]							
c22. Truss Lower Chord [EA]							
c23. Truss Gusset Plates [EA]							
c24. Lateral Bracing [EA]							
c25. Sway Bracing [EA]							
c26. Bearing Devices [EA]							
c27. Arch [LF]							
c28. Arch Column/Hang[EA]							
c29. Arch Spandrel Wall [LF]							
c30. Prot Coating System [LF]							
c31. Pins/Hangers/Hinge[EA]							
c32. Fatigue [LF]							
N59. Superstructure Summary							

	qty	Condition state					TR
		1	2	3	4		
c55. Signs [EA]							
c56. Sign Supports [EA]							
c57. Utilities [LF]							

	qty	Condition state					TR
		1	2	3	4		
c33. Abutment Walls [LF]							
c34. Abutment Caps [LF]							
c35. Abut. Columns [EA]							
c36. Pier Walls [LF]							
c37. Pier Caps [LF]							
c38. Pier Columns [EA]							
c39. Backwalls [LF]							
c40. Wingwalls [EA]							
c42. Scour [EA]							
c43. Slope Protection [EA]							
N 60. Substructure Summary							

	qty	Condition state					TR
		1	2	3	4		
c44. General [LF]	1400	1126	212	62		1.72	
c45. Alignment [LF]	1400	1400				1	
c46. Shape [LF]							
c47. Seams [EA]							
c48. Headwalls/Endwalls [EA]	2	1	1	0		1.6	
c49. Scour [EA]	2	2				1	
c50. Abutments [LF]							
N 62. Culvert Summary						7	

	qty	Condition state					TR
		1	2	3	4		
c51. Alignment [LF]	200	200				1	
c52. Protection [LF]	200	150	50			1.3	
c53. Hydraulic Opening [EA]	1	1				1	
c54. Navigation Lights [EA]							
N 61. Channel Summary						7	

	qty	Condition state					TR
		1	2	3	4		
c1. Wearing Surface [EA]	1	0	1			2.00	
c2. Approachslab [SF]							
c3. Relief Joint [LF]							
c4. Embankment [EA]	4	4				1.00	
c5. Guardrail [EA]	2	2				1.00	
N36 Safety fet. TR, GR, TM			N		1 N		
N 61. Approach Summary						6	

N 59. General Appraisal and Operational Status 7 A

Bridge Inspection Report | Routine Inspection

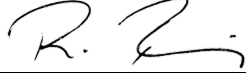
SFN: 3136922

Seymour Avenue Bridge over Mill Creek

Date Inspected: 03/23/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: COUNTY #20

Route: SEYMR Unit: 3641

Bridge Type 322 / NNN

Date Built / Date Rehabbed: 1994 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: HL cracking (mostly trans.) w very minor efflor; staining from fire @ E.	1	8
C7.2. Edge of Floor: Isol HL cracking; efflor; staining.	1	8
C8. Wearing Surface: Few HL cracks, isolated pop-outs; 2 larger spalls patched 2018; 2 smaller spalls 1'x1' (2019); 14 delaminated areas detected (2018), still smooth riding.	1	7
C9. Curbs/Sidewalks: Walk on N side & curb @ S; HL vert. cracks in curbs some w minor efflor., widespread scaling w exp aggregate in walk; N curb @ E approach slab broken; minor settlement @ NW approach walk.	1	7
C11. Railing: Regularly spaced vert. cracks w efflor.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage: 10 scuppers w d/s @ S, all open.	1	9
C13. Expansion Joints: Filled w debris; rust on armor @ fascias; widespread minor conc. spalls around armor; isolated leakage, seal torn @ SE.	2	6

N58. Deck Summary:

Summary Rating: 8

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Graffiti; staining from fires @ E.	1	8
C16. Diaphragms/X-Frames: Abut. x-frames @ gas utility field modified (1995) d/t interference; minor initial corr. @ abut. x-frames d/t leakage.	1	8
C26. Bearing Devices: Elast. bearing pads; slight rusting; few pads @ beams exhibit minor lat. dist. towards (US).	1	8
C30. Protective Coating System (PCS): System: IZEU Year: 1994 Rusting @ bearings; general fading and widespread staining; stains in utility bays; possible isolated areas of peeling and flaking with minor corrosion.		PCS Rating: 8

N59. Superstructure Summary: Redundant; not fatigue prone.

Summary Rating: 8

C33. Abutment Walls: Few minor shrinkage cracks; vert. cracking w minor efflor.; graffiti; slight fire staining @ E; spalls around utility protrusions.	1	7
C36. Pier Walls: Graffiti	1	8
C37. Pier Caps: Minor cantilever HL flexural cracks w. slight efflor.	1	8
C38. Pier Columns: (Pedestals)	1	9
C39. Backwalls: Minor vert. cracks w efflor; ext. rust stains from above @ W& SE; cracks & widespread spalls on topside @ jt. armor (see expansion joint); seal to approach slab torn in isol. locations.	1	8

Bridge Inspection Report | Routine Inspection

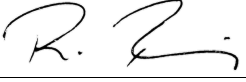
SFN: 3136922

Seymour Avenue Bridge over Mill Creek

Date Inspected: 03/23/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: COUNTY #20

C40. Wingwalls: 1 8

C42. Scour: Scour hole forming US side of pier, appears to be filling with sand. 1 8

Scour Inspection Type 1

C43. Slope Protection: Dump rock @ abutments. 1 8

N60. Substructure Summary: Summary Rating: 7

C51. Channel Alignment: All flow to W of pier; silt build-up @ E; scour hole forming @ pier US; flow E of pier in oppositedirection (N ward) from drain pipe leading into Mill Creek S of the bridge. 1 7

C52. Channel Protection: Dump rock @ both abuts. 1 8

C53. Hydraulic Opening: Sandbar DS. 1 9

N62. Channel Summary: Summary Rating: 7

C1. Pavement: 1 7

C2. Approach Slabs: Few long. HL cracks; few full length long. cracks, many smaller shorter cracks; compression seal between approach slab and backwall torn at some locations. 1 8

C3. Relief Joints: Extends through curb; wider gap @ W, with map cracking; cracking @ E; small pothole @ W relief joints. 2 6

C4. Embankment: Overgrowing; cleared at SE with cuttings dumped down the embankment. 1 8

C5. Guardrail: Minor wood deter. & some dents, esp. @ SW. 1 7

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): 1

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 1

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 1

C6. Approaches Summary: Summary Rating: 6

C57. Utilities: Water main not supported on 2nd hanger from W & 1st from E; corr. in utility bays. Condensation and or leakage of center pipe ongoing w dirt/drip marks below. 1 7

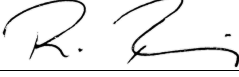
Utilities On Structure: UYUUYU

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature:  _____

Bridge No.: COUNTY #20

Recommended Maintenance:

1. Consider replacing exp. jt. seals.
2. Grind and pave relief joints.
3. Square off & patch w fast set concrete at two small spalls in wearing surface.
4. Plan for overlay replacement.

Assigned to:

- Contract
- TROD
- TROD
- Contract

Bridge Inspection Report | Routine Inspection

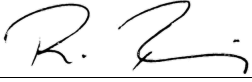
SFN: 3137074

Spring Grove Avenue Bridge over Mill Creek East of Kings Run

Date Inspected: 04/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: COUNTY #21

Route: SPRNG Unit: 490

Bridge Type 322 / NNN

Date Built / Date Rehabbed: 1993 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Covered with spider webs; possible HL cracking w/o efflor.; staining around 2nd scupper from W @ S, where wearing surface is delaminating.	1	8
C7.2. Edge of Floor: 2 bars @ NW cant. visible (very low cover); transverse & horiz cracks, some w efflor.	1	8
C8. Wearing Surface: Wearing surface @ N replaced (1999); very minor isol. cracks; 3 small delams detected @ W/SW.	1	8
C9. Curbs/Sidewalks: Trans. cracks, wider in negative moment region; widespread popouts; spalls; patch @ NW walk; minor ponding @ S curb.	2	6
C11. Railing: Parapet w double pipe rail; some cracks w efflor esp. @ rail posts; wide gaps bet. alum. pipes @ exp. jts; severe cracking w efflor. @ SE approach (embedded wood) & sev. ASR on outside of railing; impact dent @ S center; widespread bug holes in concrete portion of railing; missing cap @ SW top rail.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage: 16 scuppers w d/s - all open; minor ponding at S curb.	1	8
C13. Expansion Joints: Strip seals tight (See Item 24); missing bolt @ NW cover plate; debris filled; isol apparent leakage, esp @ NE and N half of W joint; spalls in conc. header around jt. armor, esp @ W; NE joint armor severly corroding w LOS near curb; joint armor may be too corroded to allow installation of new gland.	2	6

N58. Deck Summary:

Summary Rating: 8

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Minor initial corr. @ some beam ends (see bearings).	1	8
C16. Diaphragms/X-Frames: Rust w initial LOS @ end x-frame @ SW & NW and esp. @ NE joint under leak.	1	8
C26. Bearing Devices: Elast. bearing pads; abut. bearings in hot weather mode @ 40 degrees SE bearing leaning .3" (16%) @ 40deg; (except SW bearings); corrosion esp @ 2nd and 3rd from N @ W and 1st and 2nd from N @ E.	1	7
C30. Protective Coating System (PCS): System: OZEU Year: 1993 Widespread flaking of top coat - esp. on x-frames & beams esp. in E span; chalking @ fascia beams; inter. coat mostly intact; rust forming @ bearings bottom of flanges.		PCS Rating: 4

N59. Superstructure Summary: Noticeable LL vibration.

Summary Rating: 8

C33. Abutment Walls: Stub abutments; widespread vert. HL shrinkage cracks w minor efflor; exp. reinf. @ face of W abut. from insufficient cover; graffiti; moisture & wet stains @ N half of W abutment.	1	7
C36. Pier Walls: Minor vert. crack @ center	1	8

Bridge Inspection Report | Routine Inspection

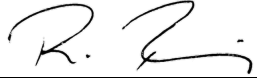
SFN: 3137074

Spring Grove Avenue Bridge over Mill Creek East of Kings Run

Date Inspected: 04/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: COUNTY #21

C37. Pier Caps: Minor flex. cracks @ S cantilever. 1 8

C39. Backwalls: Vert. cracks w efflor @ W; spalling; rust stains @ S & N (outer bays); cracks on top side. 1 7

C40. Wingwalls: NE WW settled 1"; several cracks w efflor. @ SE. 1 7

C42. Scour: Conc. channel-lining. 1 9

Scour Inspection Type 1

N60. Substructure Summary: Summary Rating: 7

C51. Channel Alignment: Concrete channel US and DS 1 9

C52. Channel Protection: Conc. lined channel; some spalling around joints. 1 8

C53. Hydraulic Opening: Minor flow debris at pier. 1 8

N62. Channel Summary: Summary Rating: 8

C1. Pavement: Cracks on W sides of bridge extending full width - sealed; some long. cracks w potholes forming @ W, alligator cracking in wheel path @ SW; better @ E. 2 6

C2. Approach Slabs: Cracks perp. to BW. 1 8

C4. Embankment: 1 9

C5. Guardrail: S side only; minor discoloration; initial wood det. 1 7

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): 1

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 1

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 1

C6. Approaches Summary: Slight settlement of approach walks. Summary Rating: 6

C57. Utilities: Leakage @ utility backwall protrusion @ W causing corr @ end diaphragm. 1 7

Utilities On Structure: N Y N Y N N N

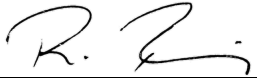
65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Inspection Notes: Excessive spider webs cover entire structure and conceal possible cracking; 2020 12" diameter PVC pipe running in front of N abutment; canadian geese @ NW preventing access to abutments.

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 7 A

Signature: 

Bridge No.: COUNTY #21

Recommended Maintenance:

1. Clean structural steel & abuts. of spider webs & dust, and repaint struct. steel.
2. Discuss replacing joint glands.
3. Cap top railing tube @ SW approach.
4. Consider repainting (beam ends/bearings).

Assigned to:

Contract
TROD
Contract
Contract

Bridge Inspection Report | Routine Inspection

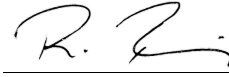
SFN: 3137031

Spring Grove Avenue Bridge over Mill Creek South of Colerain

Date Inspected: 07/17/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: COUNTY #22

Route: SPRNG Unit: 245

Bridge Type 322 / NNN

Date Built / Date Rehabbed: 1970 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Few trans. cracks throughout w little efflor; much worse in North span w isol. map cracking w efflor. (stalactites) esp one area @ N center; formwork left in place; few deep spalls w exp rebar; full depth patches w exp rebar @ perimeter.	1	7
C7.2. Edge of Floor: Some wider cracks w built up efflor	1	7
C8. Wearing Surface: MMC overlay w polyfibers (1999); HL cracks throughout; long. & map cracks; many shallow spalls (+/- 67) some filled w asphalt, 1 large pothole w exp rebar @ N, otherwise smooth riding surface; widespread delams detected by sounding throughout.	2	5
C9. Curbs/Sidewalks: Minor trans. cracks; curb delam & spalls @ E; NW walk wedge to exp. jt. breaking up; minor long cracks @ top of curb forming.	1	7
C11. Railing: Vert. cracks w effl. @ fascia; 1/8" gap @ NW bet. railing & parapet @ abut. @ 80 F; spall @ outside SE; spall @ NW pilaster; SW internal splice tube not connecting both rail tubes (top rail); railing @ NE covered w conc from ODOT work above.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage: 6 inlets, mostly clogged.	3	4
C13. Expansion Joints: Strip seals installed (1999); debris in jt; missing bolts @ many s/w coverplates.	1	8
N58. Deck Summary:	Summary Rating: 7	
C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Insignificant LOS @ exp. jts. - arrested by painting (initial corr. reappearing); 1-1/2" removed on beams @ S to allow for exp. (1991); slight def. of BF (bottom flange wave) of 5th beam from E - N span and W most beam @ N; initial corr. @ bearing; corrosion of beam ends over some bearings @ S abutment & isol @ TF's (@ utilities & E fascia); corr. & stalactites from TF @ N under large pothole.	1	7
C16. Diaphragms/X-Frames: LOS & active corrosion @ exp. jts - under utilities; 1 end diaphragm torch cut; N abut. beam 2nd from W, painted over; corr. of end diaphragms @ S abut. under utilities; very isol corr.	1	7
C26. Bearing Devices: Rehabbed (1991); mixed between extreme hot/cold weather modes caused by sliding of mason plates; many bearings tilted significantly esp @ S (see attached movable bearing inspection form); corr. on bearings; pitting near utility protrusion.	2	6
C30. Protective Coating System (PCS): System: OZEU Year: 2004	PCS Rating: 7	
Top coat appears thin in several locs; foreign objects embedded in paint; minor corr. starting @ abut. bearings & BF.		
C32. Fatigue Prone Details: Coverplates: end weld on beam 1 from E missing in N center span.	1	8

N59. Superstructure Summary: Redundant; fatigue prone.**Summary Rating: 7**

Bridge Inspection Report | Routine Inspection

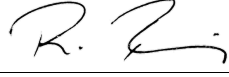
SFN: 3137031

Spring Grove Avenue Bridge over Mill Creek South of Colerain

Date Inspected: 07/17/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: COUNTY #22

C33. Abutment Walls:	Stub abutments: vert. cracks, some w efflor & S; minor popouts; moisture.	1	7
C36. Pier Walls:	Minor vert. cracks w efflor. @ N face of N pier; pier on piles.	1	8
C39. Backwalls:	Vert. cracks; seepage w efflor; rust stains/leakage @ utilities; sev. cracks and spalls on top of B/W @ roadway surface.	2	6
C40. Wingwalls:		1	8
C42. Scour:	Rock fill placed @ S pier (1991).	1	9

Scour Inspection Type 1

N60. Substructure Summary: Summary Rating: 7

C51. Channel Alignment:		1	9
C52. Channel Protection:	Rip-rap protection on banks only.	1	8
C53. Hydraulic Opening:	Some minor flow debris & trash @ both piers.	1	8

N62. Channel Summary: Summary Rating: 8

C1. Pavement:	Few cracks.	1	8
C2. Approach Slabs:	Overlaid (1999); map cracking w deep potholes forming near BW @ N & S; long cracks; deep holes forming @ edge of pavement; full depth patch @ N(duke energy work) 2019.	2	6
C4. Embankment:	Overgrown & steep.	1	8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Approach walk settled SW; curb spalls (some deep w exp. rebar) @ approaches. Summary Rating: 6

C57. Utilities:	Some broken straps on PVC conduit (phone?); many transite conduits broken @ N & S (many empty); noise from inside of pipes; leakage & rust stains & efflor. @ BW @ utilities.	2	6
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Utilities On Structure: N N N Y N N N

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Inspection Notes: Downstream conduit bundle is transite (ACM). Conduit broken in various locations. Abandoned camps @ both abutments 2020. 2019/2020 ongoing ODOT construction causing debris in inlets & gutters & splattering portions of walks & railing.

Bridge Inspection Report | *Routine Inspection*

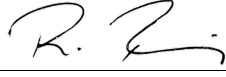
SFN: 3137031

Spring Grove Avenue Bridge over Mill Creek South of Colerain

Date Inspected: 07/17/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature:  _____

Bridge No.: COUNTY #22

General Notes: Beam ends cut (1991).

Recommended Maintenance:

1. Clean out inlets.
2. Plan for wearing surface replacement and curb repairs
3. Reset abutment bearing plates & add anchor bolts to prevent shifting.
4. Remove vegetation from railing.
5. Patch large pothole at N.

Assigned to:

ODOT
Contract
Contract
TROD
TROD

Bridge Inspection Report | Routine Inspection

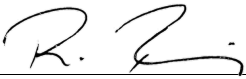
SFN: 3137155

West Fork Road Bridge over Tributary of West Fork Channel

Date Inspected: 03/30/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: COUNTY #23

Route: WFORK Unit: 598

Bridge Type 231 / NNN

Date Built / Date Rehabbed: 1999 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: See item 15.	1	8
C7.2. Edge of Floor: Few cracks w efflor.	1	8
C8. Wearing Surface: Ext. HL long. & some HL map cracking; many wide, but not deep cracks; smooth riding, no delam detected.	1	7
C9. Curbs/Sidewalks: Curb replaced 2012; minor scattered popouts in walk.	1	7
C11. Railing: Stone mortar deter; settlement of decor. stone @ pillars; minor vert. cracks @ railing windows & top of railing; top of SE pillar concrete crumbling.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage: Debris accumulating @ NE & SE off end of bridge.	2	6
C13. Expansion Joints: Sealed with hot asphalt (2014).	1	8

N58. Deck Summary:

Summary Rating: 8

C14. Alignment of Members:	1	9
C15.1. Beams/Girders: 1 patched spall (beam 2 from E); fascia grout det. in vert. wedge b/w beam end & BW (vert. beam edge is rough); very minor random microcracking @ bottom of fascia beams; rusting utility threads @ abutments(where no rods were inserted) in the beam carrying sewer pipe.	1	8
C26. Bearing Devices: Elast. (concealed).	1	8

N59. Superstructure Summary: Redundant; not fatigue prone.

Summary Rating: 8

C33. Abutment Walls: Minor HL cracks around sewer pipe; traces of leakage of sewer pipe seal (S); graffiti; moisture @ all 4 corners (fascia); minor spall @ SW corner; graffiti.	1	8
C40. Wingwalls: Few minor hairline cracks w little efflor.	1	8
C42. Scour:	1	9
Scour Inspection Type 1		
C43. Slope Protection: Dump rock and old abutments.	1	9

N60. Substructure Summary:

Summary Rating: 8

Bridge Inspection Report | Routine Inspection

SFN: 3137155

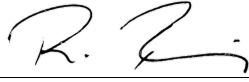
West Fork Road Bridge over Tributary of West Fork Channel

Date Inspected: 03/30/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: _____



Bridge No.: COUNTY #23

C51. Channel Alignment: 1 8

C52. Channel Protection Old bridge abut. & T-wall (1991); channel slumping US with apparent continued erosion; minor conc. damage (spalling) to old abutment walls, concrete channel breaking up under bridge w exp rebar & initial undermining. 2 5

C53. Hydraulic Opening: 1 9

N62. Channel Summary: Summary Rating: 5

C1. Pavement: Settlement west off approach slab 2 1/8" with ponding @ NE & SW; minor pavement cracking developing @ S. 1 8

C2. Approach Slabs: Long. cracks, full length @ N (2) & S. 1 7

C4. Embankment: Steep and overgrown. 1 8

C5. Guardrail: Wood; deter. of wood - esp. b/o @ SW & NW 2 6

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): 0

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 0

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 0

C6. Approaches Summary: Settlement 2 1/8" @ NE pavement. Summary Rating: 6

C57. Utilities: 4 S-most pipe hangers not effective (ongoing condition which has not been an apparent problem). 2 5

Utilities On Structure: N N Y N N N N

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 A

Inspection Notes: Tie rod ends not grouted @ fascia beams.

Recommended Maintenance:

- | Recommended Maintenance: | Assigned to: |
|---|--------------|
| 1. Seal deck and curb w/ HMWM. | Contract |
| 2. Replace guardrail blockouts at SW. | TROD |
| 3. Flex Seal gap b/w exp. jt. seal & railing pylon in SW approach walk and cover exp. PEJF @ SW bridge pylon. | TROD |
| 4. Seal joint between approach pavement & approach slab with hot applied asphalt. | TROD |

Bridge Inspection Report | Routine Inspection

SFN: 3137147

West Fork Road Bridge over West Fork Channel - 2nd W of Montana

Date Inspected: 03/30/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: COUNTY #24

Route: WFORK Unit: 589

Bridge Type 231 / NNN

Date Built / Date Rehabbed: 1999 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Some stained areas w minor efflor. bet. some beams @ abuts; see Beams.	1	8
C7.2. Edge of Floor: Isol. HL cracks w efflor.; formties exposed.	1	8
C8. Wearing Surface: Long. HL cracks; small spalls (2 w exp rebar) & delams @ E (+/- 20' sqft delam).	1	7
C9. Curbs/Sidewalks: N curb replaced (2012); popouts & scrapes from vehs.; settlement @ E approach (2" @ NE); sidewalk cracked/delamed @ E appr. slab +/- 1 sf; cracks under S curb (water stop issue) with curb being undermined @ several locations; lots of gravel/debris on sidewalk.	2	6
C11. Railing: Small vert. cracks from windows no efflor.; 2 pilasters @ NE with in pact damage and decorative stones shifted or missing; widespread scrapes from impact.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage: 2 street inlets off S end of bridge; ponding off approach slabs.	2	6
C13. Expansion Joints: Covered w hot applied asphalt; deteriorated & deformed @ E.	1	7

N58. Deck Summary:

Summary Rating: 8

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Spall @ SE fascia beam bottom; minor isolated staining in center; minor microcracking (long.) at bottom corners of some beams; minor delam @ W{4th beam from N}; minor rust staining @ E abutment {3rd beam from S}; 3 joints @ W abutment & 5 joints @ E have sligth staining & little efflor.	1	8
C26. Bearing Devices: Elast. (barely visible).	1	8

N59. Superstructure Summary: Redundant; not fatigue prone.

Summary Rating: 8

C33. Abutment Walls: Isol. vert. HL cracks esp. @ weepoles; scaling under weepole @ E; graffiti; 2x4 stuffed in weepole; 2 spots of staining (lichen) @ E abutment indicating active leakage.	1	8
C40. Wingwalls: Vert. HL crack @ SE w minor efflor.	1	8
C42. Scour: Old abuts. act as conc. channel protection.	1	9

Scour Inspection Type 1

C43. Slope Protection:	1	8
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N60. Substructure Summary:

Semi-integral; exp. top of drilled shafts - some backfill may be washed out. Summary Rating: 8

Bridge Inspection Report | Routine Inspection

SFN: 3137147

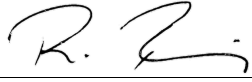
West Fork Road Bridge over West Fork Channel - 2nd W of Montana

Date Inspected: 03/30/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: _____



Bridge No.: COUNTY #24

C51. Channel Alignment: 1 9

C52. Channel Protection Channel walls; grouted conc. rip-rap @ channel floor; rip-rap bet. abut. & channel wall; grouted rip-rap sev. undermined in front of old abut; US channel eroding @ NW. 2 6

C53. Hydraulic Opening: 1 9

N62. Channel Summary: Summary Rating: 6

C1. Pavement: Approach pvmt. smooth, but settled @ E settling - approx. 1-1/2" offset bet. pvmt. & approach slab (settlement @ E bouncing vehicles upon entering). 2 6

C2. Approach Slabs: Scaling/spalling of conc. walk along railing @ NE; scaling & crack @ approach walks; long. cracks in slab. 1 8

C4. Embankment: Overgrowing; very steep. 1 7

C5. Guardrail: Ext. wood deter; severe impact damage @ NE & SE; 3 posts broken @ SE; severe post deter. @ NW. 33 3

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): 1

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 1

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 1

C6. Approaches Summary: Approach curb settled & cracked @ NE; 1-1/4" offset bet. approach slab curb & approach curb; 1-3/4" @ NE appr. walk. Summary Rating: 3

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 A

Inspection Notes: Lots of gravel @ curbs & walks.

General Notes: This route goes through the park, maintaining agency not quite clear (Parks?, County?)

Recommended Maintenance:	Assigned to:
1. Replace guardrails.	Parks
2. Replace S curb where spalled.	Parks
3. Sweep deck's and walks.	Parks
4. Place hot applied seal over exp joints where cracked.	Parks
5. Seal deck with HMWM.	Parks
6. Patch deck overlay spalls before sealing deck.	TROD

Bridge Inspection Report | Routine Inspection

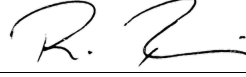
SFN: 3137090

West Fork Road Bridge over West Fork Channel at Montana

Date Inspected: 05/04/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: COUNTY #25

Route: WFORK Unit: 646

Bridge Type 231 / NNN

Date Built / Date Rehabbed: 1928 / 1991

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor:	Stains along portion of several beam jts. (const. grout?); some moisture leaking thru jnts in N span indicate seepage; see item 10.	1	7
C8. Wearing Surface:	Full-length partially wider long. Cracks (reflective of beams); some trans. cracks over pier; isol. popouts; few patches @ back wall.	1	7
C9. Curbs/Sidewalks:	Widespread trans. cracks; popouts; walks sealed w silane (2000); E curb rebuilt 2019; patched esp. around joints.	1	7
C11. Railing:	Impact damage. at several locations; 1 rail post no longer fully connected, some tubular members bent or split; Few vert. cracks w efflor. in portion; additional impact damage to metal railing adjacent to bridge.	2	5
N36. National Safety Feature - Bridge Railing (0, 1 or N):	1		
C12. Drainage:	Street inlets off bridge (minor debris accum. in gutter).	1	8
C13. Expansion Joints:	Small compression seal; leakage @ N; many areas covered w hot applied asphalt.	1	7

N58. Deck Summary: Summary Rating: 7

C14. Alignment of Members:		1	8
C15.1. Beams/Girders:	Prestressed box beams (1992); seepage & efflor. stains @ several jts. w damp areas; beam 4 from E in N span has apparent shallow delam near midspan. {+/- 3' long}	1	7
C26. Bearing Devices:	Elast. (1992) - concealed.	1	8

N59. Superstructure Summary: Redundant; not fatigue prone. Summary Rating: 7

C33. Abutment Walls:	Original construction: Full height cracks w efflor. up to 0.07" @ N center; 2 spalls @ horiz. crack const. jnt. @ N abut and 1 @ S abutment, isolated gunite peeling & heavy built-up efflor. @ S; both abuts. wet from jt. leakage; widespread staining; crack @ E side of N abutment; graffiti; widespread gunite spray.	2	6
C34. Abutment Caps:	Rehabbed top portion of abutment (4 feet+/-): Ext. cracking w efflor. esp. @ N; seepage through cracks & spalling; cracks are wide and often originating from weepholes; abutment cap @ N w distinctive wet area's.	2	6
C36. Pier Walls:	Original pier on spread footing: HL cracks w efflor. -one full height crack; moss; graffiti; efflor. @ US pier nose; partially covered w gunite.	1	7
C37. Pier Caps:	Rehabbed top of pier: moss, minor crack w efflor.	1	8
C39. Backwalls:	Only top visible; trans crack; patched spalls.	2	6
C40. Wingwalls:	Cracking w efflor; gunite coating w efflor. on older portion; large cracked area @ NE.	1	7
C42. Scour:	Conc. channel.	1	9

Bridge Inspection Report | Routine Inspection

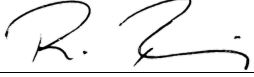
SFN: 3137090

West Fork Road Bridge over West Fork Channel at Montana

Date Inspected: 05/04/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: COUNTY #25

Scour Inspection Type 1

C43. Slope Protection: Conc.; minor settlement @ both abutments; some cracking. 1 7

N60. Substructure Summary: Summary Rating: 6

C51. Channel Alignment: 1 9

C52. Channel Protection: Widespread cracks, scaling & spalls in channel bottom - esp. @ const. jts; allowing floods to undermine the slope protection of the bridge; water migrating under pier @ NE (water running out of gap between channel protection and pier); widespread washing out of backfill behind channel walls US and DS of bridge. 2 6

C53. Hydraulic Opening: 1 9

N62. Channel Summary: Summary Rating: 6

C1. Pavement: New pvmt. (2006); trans. cracks; small potholes forming @ end of appr. slabs; N approach to be treated w friction course in late 2020. 1 7

C2. Approach Slabs: Full length crack @ NW; diag. crack @ NE; impact damage @ curbs; cracks perp. to BW; curb settled @ SW. 1 7

C4. Embankment: Overgrown, steep, NW no longer walkable due to tree and private wall collapse. 1 7

C5. Guardrail: 1991. (only S), low @ SW. 1 8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): 1

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 0

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 1

C6. Approaches Summary: Summary Rating: 7

C57. Utilities: 1 8

Utilities On Structure: N Y N Y N N N

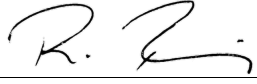
65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 6 A

Inspection Notes: Bridge to receive membrane overlay as part of a safety upgrade in 2020. Element level report for 2020 inspection available.

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: COUNTY #25

Recommended Maintenance:

1. Replace metal portion of railing where necessary to eliminate impact damage.
2. Sweep sidewalks.
3. Fill gap between pier wall and channel protection with hydraulic cement.

Assigned to:

TROD
TROD
TROD

Bridge Inspection Report

Element Level Inspection

Bridge: West Fork Road @ Montana
Number: COUNTY #25
SFN: 3137090

Inspector: RMR
Inspector: PMC
Date: 05/04/2020

	qty	Condition state					TR
		1	2	3	4	TR	
c7.1 Floor/Slab [SF]							
c7.2 Edge of Floor/Slab [LF]	162	149	13			1.12	
c8. Wearing Surface [SF]	2440	1880	554	6		1.34	
c9. Curb/Sidewalk [LF]	162	100	62			1.48	
c10. Median [LF]							
c11. Railing [LF]	162	120	32	10		1.88	
N36 Safety feat. Rail [1,0,N]							
c12. Drainage [EA]							
c13. Exp. Joint [LF]							
N58. Deck Summary						7	

	qty	Condition state					TR
		1	2	3	4	TR	
c14. Alignment [EA]	2	2				1	
c15.1 Beams/Girders [LF]	858	779	76	3		1.2	
c15.2 Slab [SF]							
c16. Diaphragm/x Frame [EA]							
c17. Stringers [LF]							
c18. Floorbeams [LF]							
c19. Truss Verticals [EA]							
c20. Truss Diagonals [EA]							
c21. Truss Upper Chord [EA]							
c22. Truss Lower Chord [EA]							
c23. Truss Gusset Plates [EA]							
c24. Lateral Bracing [EA]							
c25. Sway Bracing [EA]							
c26. Bearing Devices [EA]	88	88				1	
c27. Arch [LF]							
c28. Arch Column/Hang[EA]							
c29. Arch Spandrel Wall [LF]							
c30. Prot Coating System [LF]							
c31. Pins/Hangers/Hinge[EA]							
c32. Fatigue [LF]							
N59. Superstructure Summary						7	

	qty	Condition state					TR
		1	2	3	4	TR	
c55. Signs [EA]							
c56. Sign Supports [EA]							
c57. Utilities [LF]							

	qty	Condition state					TR
		1	2	3	4	TR	
c33. Abutment Walls [LF]	98	10	74	14		2.47	
c34. Abutment Caps [LF]	98	61	32	5		1.90	
c35. Abut. Columns [EA]							
c36. Pier Walls [LF]	54	22	30	2		1.95	
c37. Pier Caps [LF]	54	46	7	1		1.44	
c38. Pier Columns [EA]							
c39. Backwalls [LF]	98	79	18	1		1.39	
c40. Wingwalls [EA]	4	3	1			1.33	
c42. Scour [EA]	3	3				1.00	
c43. Slope Protection [EA]	2	2				1.00	
N 60. Substructure Summary						6	

	qty	Condition state					TR
		1	2	3	4	TR	
c44. General [LF]							
c45. Alignment [LF]							
c46. Shape [LF]							
c47. Seams [EA]							
c48. Headwalls/Endwalls [EA]							
c49. Scour [EA]							
c50. Abutments [LF]							
N 62. Culvert Summary							

	qty	Condition state					TR
		1	2	3	4	TR	
c51. Alignment [LF]	200	200				1	
c52. Protection [LF]	200	161	25	14		1.9	
c53. Hydraulic Opening [EA]	2	2				1	
c54. Navigation Lights [EA]							
N 61. Channel Summary						7	

	qty	Condition state					TR
		1	2	3	4	TR	
c1. Wearing Surface [EA]	2	2				1.00	
c2. Approachslab [SF]	1320	1260	59	1		1.08	
c3. Relief Joint [LF]							
c4. Embankment [EA]	4	4				1.00	
c5. Guardrail [EA]	2	2				1.00	
N36 Safety fet. TR, GR, TM			1	1	1		
N 61. Approach Summary						7	

N 59. General Appraisal and Operational Status 6 A

Bridge Inspection Report | Routine Inspection

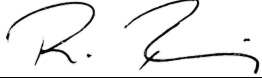
SFN: 3137082

Western Hills Viaduct

Date Inspected: 07/13/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 P

Signature: 

Bridge No.: COUNTY #26

Route: WHVIA Unit: 0

Bridge Type 363 / 153

Date Built / Date Rehabbed: 1931 / 1978

Load Rating Percent 100

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor:	3	4
C7.2. Edge of Floor:	4	1
C8. Wearing Surface:	1	7
C9. Curbs/Sidewalks:	2	6
C11. Railing:	3	4
N36. National Safety Feature - Bridge Railing (0, 1 or N):		
C12. Drainage:	4	1
C13. Expansion Joints:	2	6
N58. Deck Summary:	Summary Rating: 4	
C14. Alignment of Members:	1	8
C15.1. Beams/Girders:	3	4
C15.2. Slab:	3	4
C16. Diaphragms/X-Frames:	2	6
C17. Stringers:	2	6
C18. Floor Beams:	3	4
C26. Bearing Devices:	3	4
C27. Arch:	2	5
C28. Arch Columns/Hangers:	2	5
C29. Arch Spandrel Walls:	3	4
C30. Protective Coating System (PCS): System: Year: 1978	PCS Rating: 3	
C32. Fatigue Prone Details:	1	7

N59. Superstructure Summary:

Summary Rating: 4

Bridge Inspection Report | Routine Inspection

SFN: 3137082

Western Hills Viaduct

Date Inspected: 07/13/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 P

Signature: 

Bridge No.: COUNTY #26

C33. Abutment Walls:	2	6
C37. Pier Caps:	3	4
C38. Pier Columns:	3	4
C40. Wingwalls:	2	6
C42. Scour:	1	9

Scour Inspection Type 1

N60. Substructure Summary: Summary Rating: 4

C51. Channel Alignment:	1	9
C52. Channel Protection:	1	8
C53. Hydraulic Opening:	1	9

N62. Channel Summary: Summary Rating: 8

C1. Pavement:	1	7
C4. Embankment:	1	8
C5. Guardrail:	2	6

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):

C6. Approaches Summary: Summary Rating: 6

C57. Utilities:	4	1
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Utilities On Structure: Y Y N Y N Y Y

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 4 P

Inspection Notes: New overlay & guard rail @ State st. 2020 (as part of Lick Run Project, guardrail installed incorrectly, needs to be modified, contractor notified.).

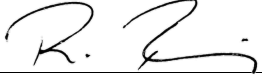
General Notes: For details see 2020 reports for SFN 3199909 and SFN 3199910. Detailed design for replacement bridge ongoing (TY Lin).

Western Hills Viaduct

Date Inspected: 07/13/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 P

Signature:  _____

Bridge No.: COUNTY #26

Recommended Maintenance:

Assigned to:

1. See 2020 reports for 3199909 and 3199910.

Bridge Inspection Report | Routine Inspection

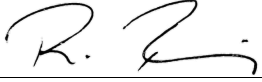
SFN: 3199909

Western Hills Viaduct - Top Deck (1 of 2) & Plaza

Date Inspected: 07/13/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 P

Signature: 

Bridge No.: COUNTY #26B

Route: WHVIA Unit: 0

Bridge Type 363 / 153

Date Built / Date Rehabbed: 1931 / 1978

Load Rating Percent 100

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

- | | | | |
|---|---|---|---|
| C7.1. Floor: | Upper deck: widespread spalling w exp. rebar; isol. rust stains, isol areas of seepage; widespread cracks some w efflor.
Plaza: heavy seepage; stalactites; full depth spalling in utility banks w utilities exp. | 2 | 5 |
| C7.2. Edge of Floor: | Plaza: Cracking w heavy efflor (plants growing out of conc., stalactites @ N; additional spalling and concrete deterioration over E and S edges of plaza floor.
Main portion in better condition with only some cracks, some spalling; some spall w exp rebar & efflor; isol possible delams esp. @ N fascia. | 2 | 5 |
| C8. Wearing Surface: | New asphalt overlay (2010); wearing surface breaking up around plaza expansion joints, and isol potholes forming at E.(some patched). | 1 | 7 |
| C9. Curbs/Sidewalks: | Cracks; isol deep curb spalls with exposed rebar; rust staining; few delams detected. | 2 | 6 |
| C11. Railing: | Minor vert. cracks; impact damage top S side to alum. rail @ several locations; conc. damaged @ posts in some instances; widespread rust stains and spalling @ N barrier; steel post missing over SE plaza {impact}; sev conc. det. on plaza railings {not considered for summary rating}; height of S railing +/- 38". | 2 | 5 |
| N36. National Safety Feature - Bridge Railing (0, 1 or N): 1 | | | |
| C12. Drainage: | 64 scuppers w d/s on upper portion - most partially or completely clogged; portions of d/s broken out @ some piers. | 4 | 1 |
| C13. Expansion Joints: | New strip seals installed (2010); (Wabo Flex) @ W plaza breaking up w clanking, leakage & exp studs; strip seal joints in very good condition, wabo joints in serious(3) condition. | 2 | 6 |

N58. Deck Summary:

Summary Rating: 5

- | | | | |
|-----------------------------------|---|---|---|
| C14. Alignment of Members: | | 1 | 8 |
| C15.1. Beams/Girders: | Corrosion on steel members w widespread freckled rust and LOS at fascias. (See 2019 FC inspection report).
Various degrees of cracking, efflor. (some heavy on fascia side), rust staining, spalling and delaminations of conc. encased fascia beams. | 2 | 5 |
| C15.2. Slab: | Plaza: Widespread cracking w built-up of efflor. (stalctites), seepage, delam. w exp. rebar and rust staining; large patched (gunnite) areas cracking; worst condtion near joints & @ utilities. | 3 | 4 |
| C16. Diaphragms/X-Frames: | Severe LOS at end diaphragms @ exp. joints; elsewhere widespread surface freckling. | 2 | 6 |
| C17. Stringers: | Cracks & spalls (some w exposed structural steel) in conc. encasement; widespread freckling of steel joists. | 2 | 6 |
| C18. Floor Beams: | Widespread cracking and spalls in conc. encasement (some with exposed structural steel);
Steel floor beams with LOS especially under expansion joints w web perf. @ bents 18, 53, 56 & 58, LOS @ 24; flange LOS @ 53, 56, & 58;
Concrete: exp. rebar (5 adjacent bars) w LOS & delam. under E arch. (See 2019 FC report 3 FBs rated 4). | 2 | 5 |

Bridge Inspection Report | Routine Inspection

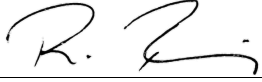
SFN: 3199909

Western Hills Viaduct - Top Deck (1 of 2) & Plaza

Date Inspected: 07/13/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 P

Signature: 

Bridge No.: COUNTY #26B

- C27. Arch: Both arches tied; cracks w efflor. & seepage, spalls w exp. rebar; E arch spalls w exp. rebar & LOS (10 adjacent bars) possible delam. areas. 2 5
- C28. Arch Columns/Hangers: Cracks & spalls - esp. @ exp. jts; delam; many exposed bars in W arch columns. 2 6
- C29. Arch Spandrel Walls: At E arch spalls w rust staining & delam. w exp rebar under exp. jts. 2 6
- C30. Protective Coating System (PCS): System: Year: 1978 PCS Rating: 3
Widespread freckled rust; corrosion w LOS @ exp. jts; ext. rusting w LOS @ W; spot painting (2007).
- C32. Fatigue Prone Details: Surface rust @ welded BF c/p; all in all 6 cracks identified during 2019 FC inspection, none in the base metal. 1 7

N59. Superstructure Summary: Redundant, fatigue prone & not redundant, not fatigue prone. Summary Rating: 4

- C33. Abutment Walls: Few cracks, widespread built-up of efflor. & spalls @ W; seepage from top. 2 6
- C37. Pier Caps: Widespread conc. cracking w efflor., rust stains & spalling @ conc. encased members, esp. under exp. joints. (For steel pier caps see 2019 FC report). 3 4
- C38. Pier Columns: Cracks & delams, widespread spalls (conc. encased) some w exp. struct. steel (LOS) with laminating corr. & rivet deter.; worst condition at expansion joint columns (widespread spalling and exposed steel); delaminations on fascia sides of expansion joint columns; crack in column 52 - epoxy injected (2007); corner angles near interstate ramps separating from columns & leaning into ped. pathway. 2 5
- C40. Wingwalls: Cracks, spalls some with exposed rebar, efflor and rust staining. 2 6

N60. Substructure Summary: Summary Rating: 4

- C1. Pavement: W only, asphalt overlaid (2010). 1 8
- C4. Embankment: 1 8
- C5. Guardrail: Minor impact damage at W plaza guardrail. 1 7
- N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): 0
- N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 1
- N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 1

C6. Approaches Summary: Severe conc. deter @ railing @ W end. Summary Rating: 7

- C57. Utilities: Concrete encasement for telephone conduits spalled @ W plaza. w loose conc. hanging from rebar and water leaking; 2017 added supplemental water main supports hung from topdeck. 3 3

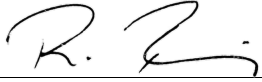
Utilities On Structure: Y Y N Y N Y Y

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: 2019 Load rating resulted in posting of bridge. General Appraisal / Operational Status: 4 P

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 4 P

Signature: 

Bridge No.: COUNTY #26B

Inspection Notes: This report is only for that portion of the structure west of I-75.
Fracture Critical Inspection performed by HDR in Summer 2009 by URS in Summer 2011 and Spring 2017, HDR in June 2013, B&N in May 2015 and May 2019.
Upper Deck Rehabilitation & Joint Replacement in Summer 2010.
Area under W plaza cleared out (City yard removed), now used for storage for Lick Run Project.
Sounded and chipped bi-annually over roadway.
Const. signs (Lick Run) attached to N railing.

Recommended Maintenance:**Assigned to:**

- | | |
|--|------|
| 1. Ext. list created for TROD including: | |
| 2. Clean out inlets. | TROD |
| 3. Continue to chip delaminated concrete as necessary. | TROD |
| 4. Consider repair expansion joint at W plaza (temporarily fill with asphalt). | TROD |
| 5. Remove loose corner angles from pier columns. | TROD |
| 6. Repair railing @ Plaza. | TROD |

Bridge Inspection Report | Routine Inspection

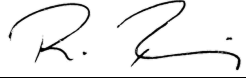
SFN: 3199910

Western Hills Viaduct - Bottom Deck (2 of 2)

Date Inspected: 07/13/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 P

Signature: 

Bridge No.: COUNTY #26A

Route: Unit: Bridge Type 363 / Date Built / Date Rehabbed: 1931 / 1978
 Load Rating Percent 100 (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Widespread cracking, efflor., delaminations and spalls w exp. steel & rebar; isol. stalactites; concrete cond. worse @ W end of railyard; 2.5' diameter full depth hole next to center ramp @ span 56 (not under roadway or walk), several other holes developing nearby in similar area. spans 45- 47: large spalls with many exposed bars (>10); span 48 & 49: 2 exp. rebar (full length longitudinal bars) in first bay from S & N w moisture & ext rust staining; Several full depth holes in isol. sections of the duct banks.	3	4
C7.2. Edge of Floor: Includes the N and S utility trough: widespread severely deteriorating concrete with exp. rebar and many full depth holes in troughs; exp rebar has LOS, sometimes 100% w individual bars hanging onto power lines below; supplemental watermain support in N trough added in 2016. S trough full depth holes mostly at expansion joints, except in spans 48, 49.	4	1
C8. Wearing Surface: Asphalt overlaid (2006); minor gouges; few isol. potholes around inlets, joints, or manholes. S ramp to EB bottom deck with widesprad deterioration of the wearing surface.	1	7
C9. Curbs/Sidewalks: Bottom deck has only limited sidewalk but rather wider curbs. trans. cracks deep spall; ext. deter. @ W arch; walk deter. near Spring Grove Ave (off structure); ; rust staining.	2	6
C11. Railing: Widespread deterioration; delaminations, cracks & spalls w exposed rebar; rust staining; ext. deter. @ W arch with exp. reinf. steel (protruding into path of pedestrians) w LOS (railing offset back from pier columns).	3	4
N36. National Safety Feature - Bridge Railing (0, 1 or N): 0		
C12. Drainage: 33 scuppers w d/s; most of them fully or part. clogged; some downspouts broken/disconnected or sev. corr. in intermodal yard below; 4 downspouts @ State st, being modified 2020, pipes currently not connected to underground sewer.	4	1
C13. Expansion Joints: Some strip seals replaced in 2006; several other joints leaking; minor spalling of wearing surface around joints; (bottom deck does not see as much water as the top deck, hence leaking is not as pronounced when glands are broken); some joints clanking. Strip seals generally in good condition. Wabo elastoflex joints at ramps in much worse condition, with isol. exposed studs and widespread wearing surface deterioration.	2	6

N58. Deck Summary: Summary Rating: 4

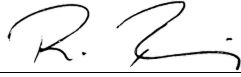
C14. Alignment of Members: 1 8

C15.1. Beams/Girders: a) Concrete beams (not concrete encased steel beams): Widespread delaminations, cracking & spalls w exp. rebar; efflor., rust staining; gunite repairs; severe concrete and rebar det. in span 1 from E; shoring for 1st span from E installed (2007), 2nd span from E shows det. w rebar w LOS, build up of efflor. & ext. delams; flex. cracking on S fascia beam span 1&2 from E in rail yard; W center ramp full height cracks w efflor. & bottom delam (S fascia beam); 2 beams over State Avenue w 8 adjacent exposed bars.

b) Steel beams (W ramps): pack rust w pinholes @ bearings; corr. w LOS on N-

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 4 P

Signature: 

Bridge No.: COUNTY #26A

Fascia beam of NW ramp (see 2019 FC report for North ramp beams).

C) Concrete encased steel beams are mostly concealed w widespread delaminations, cracks, spalling and staining.

C16. Diaphragms/X-Frames:	At far W steel ramps: laminating corrosion w severe pitting @ several end diaphragms, otherwise freckled surface rust.	1	7
C17. Stringers:	Mostly concealed by concrete encasement; widespread cracks in conc. encasements; delams, spalls & exp. steel.	2	6
C18. Floor Beams:	a) Concrete encased steel members: widespread cracks/spalls/delam. in conc. encasement; corr. of underlying steel & rivet deterioration w LOS (see 2019 FC report for condition of pier 40, also 2019 inspection of FB #42). b) Reinforced concrete floor beams: delam. & rust stains @ FBs @ center of W arch.	3	4
C26. Bearing Devices:	E abutment bearing apparently frozen (w beam 2 from N cracking next to bearing plate, movement apparently restricted).	3	4
C27. Arch:	Cracks & spalls some exp. rebar.	2	5
C28. Arch Columns/Hangers:	Cracks & spalls; widespread exp. rebar @ W arch.	2	5
C29. Arch Spandrel Walls:	(Spandrel) Beams @ W arch have widespread motteling, efflor, stalactites, & rust staining.	3	4

N59. Superstructure Summary: **Redundant; fatigue prone & not redundant; not fatigue prone; many primary members not visible d/t concrete encasement.** **Summary Rating: 4**

C33. Abutment Walls:	Cracks @ E; partially concealed in center.	2	6
C37. Pier Caps:	Actual steel members mostly concealed by concrete encasement: widespread concrete deterioration with cracking, delam. & spalling esp. @ expansion piers; sign. exposed rebar or structural steel @ exp jnts w sev LOS & rivet det.; apparent LOS of steel esp @ pier 40 and 42 (both were investigated close up in 2019 as part of load rating efforts).	3	4
C38. Pier Columns:	Concrete encased steel columns: ext. cracking; delam. & spalls (some large) - esp. @ expansion jts. w exp. rebar; corr. of underlying steel w LOS (laminating corr. & rivet deterioration).	3	4
C39. Backwalls:	E abut. only: not rated since mostly concealed.		

N60. Substructure Summary: **Widespread conc. deter. w delam., spalls & corr. of underlying steel, esp. @ split piers; not all primary element visible d/t concrete encasement hence partially assumed rating. All underlying steel where exposed has sev LOS.** **Summary Rating: 4**

C51. Channel Alignment:		1	9
C52. Channel Protection:	Concrete channel lining with few plants growing in joints around arches.	1	8
C53. Hydraulic Opening:		1	9

N62. Channel Summary: **Summary Rating: 8**

Bridge Inspection Report | Routine Inspection

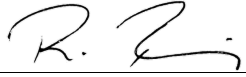
SFN: 3199910

Western Hills Viaduct - Bottom Deck (2 of 2)

Date Inspected: 07/13/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 P

Signature: 

Bridge No.: COUNTY #26A

C1. Pavement: Asphalt overlaid (2006); HL cracks @ E, potholes forming at W approach to bottom deck. 2 6

C5. Guardrail: Ongoing crashes and repairs at impact attenuators and guardrails at all ramps. 2 6

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): 0

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 1

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 1

C6. Approaches Summary: Summary Rating: 6

C57. Utilities: Encased utility ducts in serious condition at manholes. Many existing conduits/ducts appear abandoned. Power line below N trough may transfer current into steel supports; see edge of floor for utility trough. S trough railing conduit pulled from top of rail into trough in E half of bridge. Power line below N trough supposedly no longer active, but not yet cut. Watermain break 12/2019 at E. 4 1

Utilities On Structure: Y Y N Y N Y Y

65. Vertical Clearance: Ramp to Harrison posted 14'-3" (sign mounted half way down the ramp should be moved). Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: Temporary shoring of Concrete beams @ E end. 2019 Load rating resulted in load posting of the entire viaduct. General Appraisal / Operational Status: 4 P

Inspection Notes: This report is only for that portion of the structure west of I-75. CSX now requires right of entry and flagging for inspection of portions inside the RR yard. (Not intermodal yard).

Recommended Maintenance:

Assigned to:

- | | |
|--|------|
| 1. Extensive maintenance list developed and submitted to TROD including: | TROD |
| 2. Sounding and chipping of concrete | TROD |
| 3. Repair of guardrail and impact attenuators | TROD |
| 4. Clean out inlets. | TROD |

Bridge Inspection Report | Routine Inspection

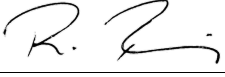
SFN: 3137112

Wooster Road Bridge over Duck Creek

Date Inspected: 03/25/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: COUNTY #27

Route: WOOST Unit: 30

Bridge Type 322 / NNN

Date Built / Date Rehabbed: 1961 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Mostly HL trans. cracks w some efflor; spalls @ TF of beams; some older full depth patches; spall over pier @ NE.	1	7
C7.2. Edge of Floor: Some trans. cracks, a few with efflor.; 2 minor spalls w exposed rebar @ NE.	1	7
C8. Wearing Surface: LMC overlay (2004); HL trans. & long. cracks, esp over piers; at least 3 small delaminated areas detected.	1	7
C9. Curbs/Sidewalks: Trans. cracks in walk, minor popouts.	1	8
C11. Railing: Minor vert. HL cracks; conc. crushing @ NW (gland depressed); 2 barrier panels w det. conc. {ASR} @ E; 1 w embedded piece of wood; 1 location spalling @ top of barrier.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage: 8 scuppers w d/s; d/s corr. @ ends; minor ponding @ W curb w debris in gutter; water from S-most scupper is eroding slope prot.; weep holes working as designed.	1	7
C13. Expansion Joints: Comp. seals (2004) & walk armor (2000); filled w debris; possible damage to gland (depressed unevenly); full length minor conc. spalling around jt. armor @ both abutments.	1	7

N58. Deck Summary: **Summary Rating: 7**

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Isol. pitting @ beam ends @ fascia beams with minor LOS; spalls w rust @ TF - esp; minor scrapes @ bottom of BF's from recent high water event; noticeable floodline @ mid height of webs.	1	7
C16. Diaphragms/X-Frames: Pitting & minor LOS @ end diaphragms w active corr. @ S jt.; slight corrosion elsewhere.	1	7
C26. Bearing Devices: Rusting; possibly bowed bearing plates @ abutments (smiley face shape).	1	7
C30. Protective Coating System (PCS): System: Year: 1989 PCS Rating: 6 Rusting @ beam ends & along TF's; isol. top coat flakes @ S {without corrosion}.		
C32. Fatigue Prone Details: Coverplates, pier splices, cover plate welds not over full length of flange.	1	8

N59. Superstructure Summary: Redundant; fatigue prone. **Summary Rating: 7**

C33. Abutment Walls: Stub abutments: 1 wide vertical crack (0.12") @ N abut., with smaller cracks around weepholes; weepholes almost covered by debris, resulting in moisture against wall.	1	7
C36. Pier Walls: Large spall @ bottom of S pier; minor HL cracks @ cants.; graffiti.	1	8
C37. Pier Caps: Crack on N pier apparently repaired; flow debris {spring 2018 flood}	1	8
C39. Backwalls: Some vert. cracks w efflor; cracks @ road surface; diag. crack efflor. @ SW corner;	1	7

Bridge Inspection Report | Routine Inspection

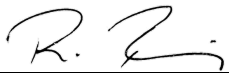
SFN: 3137112

Wooster Road Bridge over Duck Creek

Date Inspected: 03/25/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: COUNTY #27

widespread staining from former leakage.

C40. Wingwalls: Mapcracking (possible ASR) @ NW w minor water sat. (sound conc); minor crack w significant efflor. SW. 2 6

C42. Scour: Rip-rap added (1990); dump rock fill around piers (2004). 1 8

Scour Inspection Type 1

N60. Substructure Summary: Summary Rating: 7

C51. Channel Alignment: Sharp bend in channel DS of bridge. 1 8

C52. Channel Protection: Dump rock around bridge; US & DS banks undermining & eroding, w big trees being undermined US. 2 5

C53. Hydraulic Opening: 1 9

N62. Channel Summary: Summary Rating: 5

C1. Pavement: Asphalt overlaid (2002); mapcracking @ end of N approach slab; new (2018) conc @ S. 2 6

C2. Approach Slabs: Diagonal cracks @ NW & SW backwall w spall @ curb on SW; HL long cracks. 1 8

C3. Relief Joints: S only; new (2018) 1 9

C4. Embankment: Overgrown. 1 8

C5. Guardrail: Post deter; minor denting @ NE off bridge; b/o missing & minor impact damage @ NW. 1 7

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): 1

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 1

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 1

C6. Approaches Summary: Vertical offset in approach walk @ SW Summary Rating: 6

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Inspection Notes: 2020 inspection during flood w both piers surrounded by water.

General Notes: Direction definition: Bridge going from S to N, not E to W

Recommended Maintenance:

1. Consider painting beam ends.
2. Sweep curbs and walks.
3. Replace Guardrail block out @ NW.

Assigned to:

Contract
TROD
TROD

Wasson Way Bridges

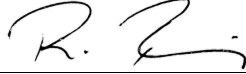
Bridge Inspection Report | *Routine Inspection*

SFN: 3199930

Wasson Way Culvert over Little Duck Creek

Date Inspected: 04/21/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 5 K

Signature: 

Bridge No.: WASSON #01

QA/QC Inspector: STEPHEN C. GRESSEL, P.E.

Signature: 

Route: Unit: Bridge Type / Date Built / Date Rehabbed: /
 Load Rating Percent (Main/Approach Spans)

Inspection Information

Rating Rating
 1 to 4 9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

- | | | | |
|---------------------------------------|--|---|---|
| C44. Culvert - General: | West Culvert with efflor. build-up @ segmental jnts; isol exp rebar (low cover); isol gap between bottom of culvert & walls; some portions w standing water. Center Culvert sounded with few "hollow" (sounded) areas esp @ ends and S; one plug missing @ E side ; bottom concrete fill starting to deteriorate at few locations; minor water seepage @ jnts. near end. East Culvert with deterioration in center (overload?): wide long cracks in center segments at top and bottom of pipe with up to 2" deflection (see attachment), exp. rebar. | 2 | 5 |
| C45. Culvert - Alignment: | Slight bending in E culvert near DS end (apparently from earlier reconstruction in S portion).
Minor ponding in W culvert. | 1 | 8 |
| C46. Culvert - Shape: | (Center Culvert): Slight flattening of the top under fill (starting +/- 20' from each end). Height decreased by up to 8 inches and width increased by up to 7 inches in the deformed sections (Span dimension within +/- 6%).
Shape of the round E pipe deflected (height reduction and widening) of almost 2" in maximum regions under fill, see attached spreadsheet. | 2 | 6 |
| C47. Culvert - Seams: | West Culvert: Built up of efflor. at some joints.
Center Culvert: All seams tight, slight cusping, but no bolt shearing; slight water infiltration at bottom, 20' from US end); slight dripping @ few seams.
East Culvert: Spalls in pipes adjacent to seams in the S portion of the culvert w some exposed rebar; widespread minor spalling of grout in joints (esp. top half of joints at S end of culvert). | 1 | 7 |
| C48. Culvert - Head/End Walls: | N wall and W portion of S wall built in 1940: Cracking, esp. around pipes and efflor.; wider diag. cracks at SW; many closely spaced horiz cracks w efflor @ N.
S Wall east portion (around center and E culvert). This wall is more recent without any deficiencies; wider horiz crack @ N over W pipe; lichen @ N; graffiti. | 2 | 6 |
| C49. Culvert - Scour: | Culverts on RC footing; edge of footing exposed at S (DS) end by +/- 18", but no undermine. (Appears to be as a result of high water velocity during storms); large scour hole developing DS beyond footing. | 2 | 6 |

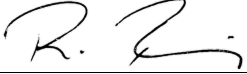
Bridge Inspection Report | Routine Inspection

SFN: 3199930

Wasson Way Culvert over Little Duck Creek


Date Inspected: 04/21/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 5 K

Signature: 

Bridge No.: WASSON #01

QA/QC Inspector: STEPHEN C. GRESSEL, P.E.

Signature: 

Culvert Scour Inspection Type:

N60. Culvert Summary: W culvert is cast in place (Ped. tunnel); 6'-5" wide x 9'-1" tall. Center culvert is corrugated steel culvert +/- 10.5' diameter. E culvert is 6' diameter precast concrete pipe. E culvert governs the rating, (however, extent was taken into consideration, since worst areas of the E culvert are in poor condition). **Summary Rating: 5**

C51. Channel Alignment: Slight curvature US of culvert; apparently causing slight flow against the W wing. 1 7

C52. Channel Protection: Slumping, trees undermining, deep scour holes in the channel US (50' away) and DS (10' away from culvert); slight errorrosion at NW WW. 2 6

C53. Hydraulic Opening: 1 9

N62. Channel Summary: **Summary Rating: 6**

C4. Embankment: Tall (+/- 25' of fill over top of culverts) and steep, but overgrown with little slumping @ bottoms. 1 8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: **Summary Rating: 8**

N59. General Appraisal and Oper. Status: Rating governed by E culvert. **General Appraisal / Operational Status: 5 K**

Inspection Notes: For benchmark monitoring of the cracking in the E culvert, see attached spreadsheet.

General Notes: Culvert added to inventory in 2016 as part of Wasson Way purchase added to ODOT SMS 2018.

Recommended Maintenance:

1. Monitor cracking in E culvert.
2. Evaluate hydraulic need for E tunnel & possibilities of filling it.

Assigned to:

- Owner
Owner

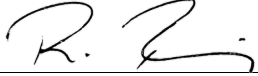
Bridge Inspection Report | Routine Inspection

SFN: 3199931

Wasson Way over Ault Park

Date Inspected: 04/08/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 3 K

Signature: 

Bridge No.: WASSON #02

QA/QC Inspector: BRANDON M. LECRONE, P.E.

Signature: 

Route: Unit: Bridge Type 321 / Date Built / Date Rehabbed: 1924 /
Load Rating Percent (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Open RR ties: general timber deterioration, especially at top side; S portion of the ties are cut out and wedges added (superelevation?); isol severe det. of ties. 3 4

N36. National Safety Feature - Bridge Railing (0, 1 or N):

N58. Deck Summary: Summary Rating: 4

C14. Alignment of Members: 1 7

C15.1. Beams/Girders: Widespread LOS to flanges & rivets; debris covered horizontal surfaces retain water and promote laminating corrosion and rivet deterioration; many stiffeners perforated at bottom; severe LOS @ gussets. 2 5

C16. Diaphragms/X-Frames: LOS to gussets & horiz members. 3 4

C24. Lateral Bracing: Severe LOS to gussets and connections of lateral bracing with perforated member ends; bot. lat. bracing @ W no longer connected. 3 3

C26. Bearing Devices: Corroded; potentially frozen. 2 5

C30. Protective Coating System (PCS): System: 1924 Year: PCS Rating: 0
Top coat no longer effective with active corrosion on all flanges and horizontal surfaces.

N59. Superstructure Summary: Accumulation of debris on all horizontal surfaces trapping moisture and promoting corrosion. Summary Rating: 5

C33. Abutment Walls: Stubs only visible at E: minor horiz cracking w some efflor but sound. 1 7

C36. Pier Walls: Widespread concrete cracking at corners and along construction joints, possible ASR (no rebar visible); widespread cracking and severe built-up of efflor. 2 5

C37. Pier Caps: Severe concrete deterioration; W pier cap with large patch (cracking) apparently extending beyond bearing, and widespread cracks w efflor.; E pier cap with map cracking, efflor. and crumbling undermining to bearing plate. 3 3

C39. Backwalls: Minor isol. crumbling at top @ W, otherwise sound concrete. 1 7

N60. Substructure Summary: Partially assumed rating controlled by top +/- 10 ft of piers. Summary Rating: 3

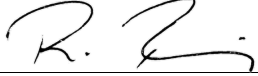
Bridge Inspection Report | *Routine Inspection*

SFN: 3199931

Wasson Way over Ault Park

Date Inspected: 04/08/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 3 K

Signature:  _____

Bridge No.: WASSON #02

QA/QC Inspector: BRANDON M. LECRONE, P.E.

Signature:  _____

N59. General Appraisal and Oper. Status:

General Appraisal /
Operational Status: 3 K

Inspection Notes: RR removed tracks in 2017 and ends fenced off; graffiti throughout super & substructure; fence at both ends continues to be vandalized.
In-depth inspection by DLZ in spring 2020 (on file) as basis for design for bridge rehab.

General Notes: Bridge became part of the inventory as part of Wasson Way purchase in 2016.

Recommended Maintenance:

1. Clean debris off entire superstructure to prevent further corrosion.
2. Place no trespassing signs on bridge ends, independent of fence.
3. Longterm: Repair/paint steel.
4. Longterm: Repair and seal piers.
5. Longterm: Gather concrete samples from piers to determine best repair strategy.
6. Consider removal of portions of the wooden ties to discourage people from walking over the bridge.
7. Repair fence.

Assigned to:

Owner
Owner
Contract
Contract
Contract
Owner
Owner

Bridge Inspection Report | Routine Inspection

SFN: 3103846

Wasson Way over Columbia Parkway

Date Inspected: 08/31/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 K

Signature: 

Bridge No.: WASSON #03

Route: Unit: Bridge Type / Date Built / Date Rehabbed: 1962 / 2013
 Load Rating Percent (Main/Approach Spans)

Inspection Information

C7.1. Floor: Steel painted 2013; isol corr @ top angles holding back ballast. Rating 1 to 4: 1, Rating 9 to 0: 8

C7.2. Edge of Floor: Some steel angles holding back ballast @ top of deck corroding. Rating 1 to 4: 1, Rating 9 to 0: 7

N36. National Safety Feature - Bridge Railing (0, 1 or N):

N58. Deck Summary: Ballast filled deck. Summary Rating: 8

C14. Alignment of Members: Rating 1 to 4: 1, Rating 9 to 0: 8

C15.1. Beams/Girders: Slightly 'roughened' surface under new coat of paint; no evidence of any significant LOS; BF scraped over in bound lane, 1 rivet sheared off; scrapes in paint @ this location. Rating 1 to 4: 1, Rating 9 to 0: 8

C16. Diaphragms/X-Frames: Knee braces @ SW appear to have cracked angles but cracks lines have been determined to be painters caulk; traces of green staining on some knee braces indicate over the deck drainage. Rating 1 to 4: 1, Rating 9 to 0: 8

C18. Floor Beams: Slightly 'roughened' surface under new coat of paint; no evidence of any significant LOS. Rating 1 to 4: 1, Rating 9 to 0: 8

C26. Bearing Devices: Apparent LOS on nuts of anchor bolts at NE painted over; lifted bolt over pier. Rating 1 to 4: 1, Rating 9 to 0: 7

C30. Protective Coating System (PCS): System: OZEU Year: 2013 PCS Rating: 8

N59. Superstructure Summary: Painted 2013 Summary Rating: 8

C33. Abutment Walls: Staining @ S under bearings; efflor buildup @ SE{corner to WW}; minor HL cracks sealed; sealed 2013. Rating 1 to 4: 1, Rating 9 to 0: 8

C36. Pier Walls: Minor staining; sealed 2013; minor cracks sealed; minor buckholes. Rating 1 to 4: 1, Rating 9 to 0: 8

C37. Pier Caps: Sealed; vert. cracks, apparently originating from under bearings esp. @ W where crack exceeds HL limits over portion of the length; staining under bearings; minor bugholes. Rating 1 to 4: 1, Rating 9 to 0: 7

C39. Backwalls: Sealed 2013. Rating 1 to 4: 1, Rating 9 to 0: 8

C40. Wingwalls: Sealed 2013; poison ivy growing in joint. Rating 1 to 4: 1, Rating 9 to 0: 8

N60. Substructure Summary: Summary Rating: 7

C4. Embankment: Steep but overgrown. Rating 1 to 4: 1, Rating 9 to 0: 8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):

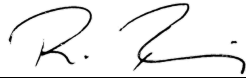
N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):

Wasson Way over Columbia Parkway

Date Inspected: 08/31/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 K

Signature: 

Bridge No.: WASSON #03

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):**C6. Approaches Summary:**

Summary Rating: 8

65. Vertical Clearance:

Vert. Clearance Rating: 1

**N59. General Appraisal
and Oper. Status:**General Appraisal /
Operational Status: 7 K

Inspection Notes: Both ends fenced off 2017.

General Notes: Bridge ownership transferred as part of Wasson Way in 2016.

Recommended Maintenance:**Assigned to:**

1. Control vegetation on bridge.
2. Control excess ballast on bridge.
3. Consider epoxy injection of cracks in pier cap.

Owner

Owner

Owner

Bridge Inspection Report | Routine Inspection

SFN: 3161073

Wasson Way over Grovedale Pl.

Date Inspected: 03/17/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: WASSON #04

Route: Unit: Bridge Type 131 / 171 Date Built / Date Rehabbed: 2018 /
Load Rating Percent 0 (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: See item 15, beams; threaded inserts in fascia beams grouted; patches in approach spans (2018).	1	8
C7.2. Edge of Floor: Decorative panels.	1	9
C8. Wearing Surface: Asphalt on fill.	1	9
C11. Railing: HL cracking in conc portion, some w efflor; some anchor bolts not fully tightened; some spots w loss of galvanizing & initial corr.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N):		
C12. Drainage: Stains from ponding water in caulked joint; low spots @ N railing.	1	2

N58. Deck Summary:

Summary Rating: 8

C14. Alignment of Members:	1	9
C15.1. Beams/Girders: PS box beams.	1	9

N59. Superstructure Summary:

Summary Rating: 9

C33. Abutment Walls: Original 1929 Walls: patched, and sealed (2018); minor HL cracks remaining, no efflor.	1	8
C37. Pier Caps: New Pier caps 2018; HL cracks w slight efflor in center of both pier caps.	1	8
C38. Pier Columns: Original 1929 Pier Columns: patched, and sealed (2018); minor HL cracks remaining; cold joints @ all column tops; delam & efflor build up @ NW column (not supporting Superstructure)	1	8
C40. Wingwalls: Cracks, epoxy injected (2018); SE crack reopening slightly.	1	8

N60. Substructure Summary:

Summary Rating: 8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):

Bridge Inspection Report | *Routine Inspection*

SFN: 3161073

Wasson Way over Grovedale Pl.

Date Inspected: 03/17/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: WASSON #04

65. Vertical Clearance: 15'-6" measured 7/24/19.

Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: Opened to traffic in July 2018.

General Appraisal / Operational Status: 8 A

Bridge Inspection Report | Routine Inspection

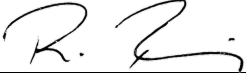
SFN: 3114759

WASSON WAY over I-71

Date Inspected: 08/20/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: WASSON #05

Route: 0071R Unit: 0616

Bridge Type 322 / NNN

Date Built / Date Rehabbed: 1972 / 2019

Load Rating Percent 000

(Main/Approach Spans)

Inspection Information

Rating
1 to 4Rating
9 to 0

C7.1. Floor: Very isol. HL cracks. 1 8

C7.2. Edge of Floor: Widespread rust staining @ rebar standoffs; patch @ NE (former spall). 1 8

C9. Curbs/Sidewalks: New deck poured over ballast 2019; several HL cracks detected; sealed w HMWM 2020; several HL cracks detected. 1 8

C11. Railing: New w vandal fence 2019; vert cracks w efflor in conc portion (sealed 2020) of railing. 1 7

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C12. Drainage: New 2019. 1 9

C13. Expansion Joints: Rebuilt 2019. 1 9

N58. Deck Summary: Summary Rating: 8

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Pitting (measurable but very minor) without sig. LOS esp bottom of BF's over I-71. 1 7

C16. Diaphragms/X-Frames: Minor pitting arrested by painting. 1 7

C24. Lateral Bracing: Minor pitting arrested by painting. 1 7

C26. Bearing Devices: Repainted fall 2019. 1 7

C30. Protective Coating System (PCS): System: OZEU Year: 2019 PCS Rating: 9
New (10-2019) OZEU.

N59. Superstructure Summary: Summary Rating: 7

C33. Abutment Walls: Staining @ E. 1 8

C36. Pier Walls: Ivy growing. 1 8

C39. Backwalls: Partially concealed; minor staining. 1 8

C40. Wingwalls: Very minor spall @ E w exposed rebar. 1 8

N60. Substructure Summary: Summary Rating: 8

Bridge Inspection Report | *Routine Inspection*

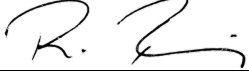
SFN: 3114759

WASSON WAY over I-71

Date Inspected: 08/20/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: WASSON #05

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 7 A

Inspection Notes: Rehabbed and painted in 2019.
Deck and vertical concrete railing surface sealed with HMWM 2020.

General Notes: Bridge added to the system as part of the Wasson Way in 2016.

Bridge Inspection Report | Routine Inspection

SFN: 3114740

Wasson Way over ramp from SB I-71

Date Inspected: 08/20/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 8 A

Signature: 

Bridge No.: WASSON #06

Route: Unit: Bridge Type 321 / NNN Date Built / Date Rehabbed: /
 Load Rating Percent 000 (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Few trans. HL cracks.	1	8
C7.2. Edge of Floor: Vret. cracks w efflor (in new curb area); rust spots @ rebar standoffs.	1	7
C9. Curbs/Sidewalks: New curb/wearing surface to be installed on top of ballast in 2019; many HL cracks, sealed w HMWM 2020.	1	8
C11. Railing: New w vandal fence 2019; vert. portion of concrete railing sealed with HMWM in 2020; vertical cracks w efflor in conc. portion of railing.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N):		
C12. Drainage:	1	9
C13. Expansion Joints: New 2019.	1	9

N58. Deck Summary: Summary Rating: 8

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Painted 2019; insignificant LOS.	1	8
C16. Diaphragms/X-Frames: Repainted 2019.	1	8
C24. Lateral Bracing: Repainted 2019.	1	8
C26. Bearing Devices: Mostly concealed; slight lifting of some anchor bolts; repainted 2019.	1	8
C30. Protective Coating System (PCS): System: OZEU Year: 2019 New OZEU 2019.	PCS Rating: 9	

N59. Superstructure Summary: Summary Rating: 8

C33. Abutment Walls:	1	8
C40. Wingwalls:	1	8

N60. Substructure Summary: Summary Rating: 8

- N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):
- N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):
- N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):

Bridge Inspection Report | *Routine Inspection*

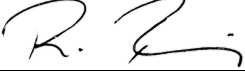
SFN: 3114740

Wasson Way over ramp from SB I-71

Date Inspected: 08/20/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature:  _____

Bridge No.: WASSON #06

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 8 A

Inspection Notes: Rehab and painting in 2019; wearing surface and vert. portion of concrete railing sealed with HMWM 2020.

General Notes: Bridge aquired as part of Wasson Way in 2016.

Recommended Maintenance:

Assigned to:

1. Remove styrofoam in NE exp. joint below bridge (punch list, 1 year warranty).

Contract

Bridge Inspection Report | Routine Inspection

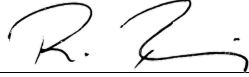
SFN: 3140032

Wasson Way over Red Bank Rd

Date Inspected: 09/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 K

Signature: 

Bridge No.: WASSON #07

Route: Unit: Bridge Type / Date Built / Date Rehabbed: 1914 / 1924
 Load Rating Percent (Main/Approach Spans)

Inspection Information Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Open ties, general & localized sev. timber det. 3 4

N36. National Safety Feature - Bridge Railing (0, 1 or N):

N58. Deck Summary: Fenced off @ E not @ W. Summary Rating: 4

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Partially assumed rating; minor LOS, rivet det. & widespread minor pitting at topflanges. 2 5

C16. Diaphragms/X-Frames: 2 5

C24. Lateral Bracing: Pitting hole @ gusset on 2nd pier from E. 2 5

C26. Bearing Devices: Widespread corr.: apparently frozen bearings at W abut causing horiz. forces on abutment cap; conc. det. @ top of river pier extending almost to base plate of steel column; 1 bent(smiling) bearing plate @ 1st pier from E, N beam. 3 4

C30. Protective Coating System (PCS): System: Year: PCS Rating: 0
 No paint visible.

N59. Superstructure Summary: Not all members accessible, partially assumed condition. Summary Rating: 5

C33. Abutment Walls: W abutment: conc. coated masonry with full height cracks through stones on both sides of the abutment indicating horizontal bearing forces "pulling" (isol stone surfaces spalled away) 3 4
 E abutment: widespread concrete cracking and crumbling w efflor (no rebar detected) @ WW edges, rating controlled by W abutment.

C34. Abutment Caps: W: crumbling concrete, cracked/separating from backwall. 3 4

C36. Pier Walls: Concrete spalled corners; cracking w efflor; ivy; concrete crumbling @ river pier almost up to bearings of steel columns; apparently unreinforced concrete (with embedded rr tracks under bearings). 2 5

C37. Pier Caps: 3rd pier from the E has ext. concrete deterioration at all 4 corners, unsound concrete apparently up to bearings. 2 5

C38. Pier Columns: Steel columns with surface corrosion without significant section loss. 2 6

C39. Backwalls: Widespread unsound and crumbling concrete @ E; E, damage to top portion of backwall; W damage @ bottom w deep spalling. 3 4

C40. Wingwalls: Concrete and stone deterioration; timber portion deteriorating with isolated timber sections shifted @ W; large areas of unsound concrete. 3 4

C42. Scour: 3rd pier from E is in the creek; sides of footer partially exposed but not undermined; footer on piles. 1 7

Bridge Inspection Report | Routine Inspection

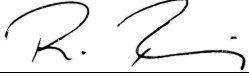
SFN: 3140032

Wasson Way over Red Bank Rd

Date Inspected: 09/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 K

Signature: 

Bridge No.: WASSON #07

Scour Inspection Type 1

N60. Substructure Summary: No rebar detected in substructure units, but widespread poor concrete condition; rating controlled by W abutment. **Summary Rating: 4**

C51. Channel Alignment: Continuing erosion slumping of channel banks; flow hits W channel protection wall and causes sev. erosion behind the wall. 3 4

C52. Channel Protection: Slumping US, (erosion potentially affecting adjacent RR tracks (not considered in this rating); some channel walls w back fill erosion US & leaning wall @ E DS; grouted channel bottom near pier appears to be undermined (flow below grout @ low river levels 2020). 2 5

C53. Hydraulic Opening: Flow debris in channel, but no significant reduction of opening; tree across channel @ DS railroad bridge. 1 7

N62. Channel Summary: **Summary Rating: 4**

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):

65. Vertical Clearance: **Vert. Clearance Rating: N**

N59. General Appraisal and Oper. Status: **General Appraisal / Operational Status: 4 K**

Inspection Notes: UW inspection performed in 2017; Tracks were removed in early 2017; 2020 widespread overgrowth of Kudzu climbing up piers to bottom of Superstructure.

General Notes: Bridge transferred from RR as part of Wasson Way acquisition in 2016.

Recommended Maintenance:

Assigned to:

- | | |
|--|------------|
| 1. Place "No Trespassing" signs on W approach to prevent unauthorized access. | Owner |
| 2. Consider repairing undermined grout in channel protection. | Stormwater |
| 3. Plan for extensive substructure improvements before putting bridge into service, esp. W abutment. | Owner |
| 4. Extend concrete channel wall @ W side of creek to prevent water from eroding behind the wall. | Stormwater |
| 5. Remove Kudzu from piers before it reaches deck level & conceals RR ties. | Owner |

Bridge Inspection Report | Routine Inspection

SFN: 3140024

Wasson Way over Wooster Rd.

Date Inspected: 04/02/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 2 X

Signature: 

Bridge No.: WASSON #08

Route: Unit: Bridge Type / Date Built / Date Rehabbed: 1895 / 1924
 Load Rating Percent (Main/Approach Spans)

Inspection Information

C7.1. Floor: Open ties, deteriorating; planked walk portions failed (rotting, missing); long. (used) planks added during track removal 2016 concealing stringers; entire deck overgrown w vines. Rating 1 to 4: 4, Rating 9 to 0: 2

N36. National Safety Feature - Bridge Railing (0, 1 or N):

N58. Deck Summary: Summary Rating: 2

C14. Alignment of Members: Rating 1 to 4: 1, Rating 9 to 0: 8

C15.1. Beams/Girders: Surface corr. throughout; 2 panels with plated (bolted) web sections @ SW (apparent retrofit); broken rivet @ SW. Rating 1 to 4: 2, Rating 9 to 0: 6

C17. Stringers: Built up members with (flange cover plates) @ longer stringers & end spans; large portions concealed by tracks and ties: Widespread LOS to flanges (thinning and serrated edges), packrust and debris built-up on BF; NW most stringer has extreme LOS on top and bottom flanges with two cracks in remaining top flange, large perforation of BF over bearing. (Rating based on NW most stringer from earlier observations, stringers concealed in 2017 by added long ties); S stringers attached higher @ FB's +/- 3" apparently by design. Rating 1 to 4: 4, Rating 9 to 0: 2

C18. Floor Beams: Pitting and rivet deterioration on top flanges, esp. @ W; broken TF rivet @ SW. Rating 1 to 4: 2, Rating 9 to 0: 6

C24. Lateral Bracing: Some impact damage to several members; rivet deter. at some connections to stringers and FB's.(2 connections appear to have failed) Rating 1 to 4: 2, Rating 9 to 0: 5

C26. Bearing Devices: Rating 1 to 4: 2, Rating 9 to 0: 5

C30. Protective Coating System (PCS): System: Year: PCS Rating: 4
 Apparent little active corr. on main beams, appears to be weathering steel.

N59. Superstructure Summary: Large portions concealed by timber decking & new timber long. ties (rating based on condition of stringers). Summary Rating: 2

C33. Abutment Walls: Masonry walls with widespread stone deter.; surface unsound/spalling over 2/3 of abutment area @ E with spalling less than 1/4 of stone depth, widespread unsound area's detected @ W but not yet spalled; ivy @ W. Rating 1 to 4: 2, Rating 9 to 0: 5

C34. Abutment Caps: Concrete cap with built-up of efflor esp @ corners; caps overgrown w vines; map cracking (ASR). Rating 1 to 4: 2, Rating 9 to 0: 6

C40. Wingwalls: Masonry walls with stone surface deterioration esp @ NW; overgrown. Rating 1 to 4: 2, Rating 9 to 0: 5

N60. Substructure Summary: Summary Rating: 5

C4. Embankment: Steep, mostly overgrown. Rating 1 to 4: 1, Rating 9 to 0: 7

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):

Bridge Inspection Report | Routine Inspection

SFN: 3140024

Wasson Way over Wooster Rd.

Date Inspected: 04/02/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 2 X

Signature: 

Bridge No.: WASSON #08

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):

C6. Approaches Summary:

Summary Rating: 7

65. Vertical Clearance: Clearance slightly over 14' (measured 11/14/16).

Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: Portions of the superstructure are currently concealed by ties, ivy and planking. Rating driven by condition of stringers that was previously observed.

General Appraisal / Operational Status: 2 X

Inspection Notes: Top fenced off with gates (2017), gates no longer effective due to timber det.

General Notes: Bridge became part of Wasson Way property in 2016.

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Consider removal of all ties and timber planking, before they fall into traffic (and to keep people off). | Owner |
| 2. Plan for extensive masonry repair work @ abutments & super structure repairs when trail is built. | Owner |
| 3. Remove vegetation from bridge deck before it conceals unsafe deck walking surface. | Owner |
| 4. Clean falling debris (stones from abutments) from walk. | TROD |

Fort Washington Way Bridges

Bridge Inspection Report | Routine Inspection

SFN: 3106071

Elm Street Bridge over Fort Washington Way

Date Inspected: 08/31/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (FWW) #01

Route: 71 Unit: 65 Bridge Type 132 / Date Built / Date Rehabbed: 2000 /
 Load Rating Percent 150 (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: See item 10 beams.	1	8
C7.2. Edge of Floor: Saturation along horiz. const. joint; vertical HL cracking w efflor.	1	7
C8. Wearing Surface: Polycarb Flexogrid overlay (2003 - spot repair 2011); minor peeling, minor trans. and long. cracks @ midspan.	1	8
C11. Railing: Minor vert. cracks (some w efflor.) in conc. barrier.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage: Minor ponding @ curbs esp. W; not observed in 2020 (dry).	2	6

N58. Deck Summary: Summary Rating: 8

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Minor cracks/rust stains @ fascia beams immed. S & N of pier (W side); traces of poss. isol. leakage bet. beams; W fascia minor horz. HL crack N & S of pier; many minor isol. rust stains; isol honeycombing at underside of beams.	1	8
C26. Bearing Devices: Concealed, assumed rating.	1	8

N59. Superstructure Summary: Summary Rating: 8

C33. Abutment Walls: Concealed, assumed rating.	1	8
C37. Pier Caps: Minor delam. in cantilever portion @ W (N face); minor HL cracking.	1	8
C38. Pier Columns: Minor HL cracking; crack w moisture @ E & W most columns.	1	8

N60. Substructure Summary: Summary Rating: 8

C1. Pavement: Several wide (> 1/2") cracks in N concrete pavement, (cracking limited to S most lane of 3rd street).	2	5
C2. Approach Slabs: New (2014) @ S w long. cracks; curb @ NW replaced w asphalt; widespread paver det. @ N.	1	7
N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):	N	
N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):	N	
N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):	N	

C6. Approaches Summary: Summary Rating: 5

Bridge Inspection Report | Routine Inspection

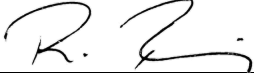
SFN: 3106071

Elm Street Bridge over Fort Washington Way

Date Inspected: 08/31/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (FWW) #01

C57. Utilities: Light conduit seperated @ E fascia, just S of pier; some lights still wrapped in plastic; some light covers broken/missing @ E. 1 7

Utilities On Structure: NNNNNNN

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 8 A

Inspection Notes: Moisture from hor. deck joint @ 1 loc. @ E fascia, just S of pier.
2020: new overlay on I-71.

General Notes: HAM 71-0065

Recommended Maintenance:

Assigned to:

1. Replace broken/missing light covers below bridge.

Traffic

Bridge Inspection Report | Routine Inspection

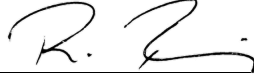
SFN: 3106500

Main Street Bridge over Fort Washington Way

Date Inspected: 08/27/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 7 A

Signature: 

Bridge No.: CITY (FWW) #02

Route: 71 Unit: 100 Bridge Type 132 / Date Built / Date Rehabbed: 2000 /
 Load Rating Percent 150 (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor:	SEE ITEM 10: BEAMS	1	8
C7.2. Edge of Floor:	Widespread cracking w efflor. & apparent seepage @ E esp around pier.	1	7
C8. Wearing Surface:	Polycarb Flexogrid overlay (2003 - spot repaired 2011); portions @ center replaced by streetcar; some area's w damaged flexogrid in vicinity of streetcar track esp @ S.	1	8
C11. Railing:	Many vert. cracks w some w minor efflor.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N):	1		
C12. Drainage:	Off bridge slight ponding @ W.	1	7

N58. Deck Summary: Isol honeycombing on box beam bottoms. Summary Rating: 8

C14. Alignment of Members:		1	8
C15.1. Beams/Girders:	Spalling of beam ends over pier of E & W fascia beams w deeper spall & exposed rebar @ E (mostly concealed by tower pier); cracked corners @ beam ends just N of pier (3); long crack w efflor. beam 5 from W @ S abutment; long cracks beam 5 from E in S span, w efflor; cracked corner of NE fascia beam S of pier; corner spall beam 6 from E, N of pier; both corners cracked beam 5 from E north of pier.	1	7

N59. Superstructure Summary: Summary Rating: 7

C33. Abutment Walls:	Concealed, assumed rating.	1	8
C37. Pier Caps:	Crack w minor efflor. @ W cantilever & moist stains; apparent spall, & exp rebar with LOS @ W fascia (concealed by pedestrian bridge).	1	8
C38. Pier Columns:	Minor random HL cracks.	1	8

N60. Substructure Summary: Summary Rating: 8

C1. Pavement:	N only, concrete; brick pavers @ NW settling & disintegrating.	1	8
C2. Approach Slabs:	New approach slabs 2014/2015. (streetcar project); long. crack @ SE & NW. (sewer MH); abrasion @ NW interface to bricks.	1	8
N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):	N		
N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):	N		
N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):	N		

C6. Approaches Summary: Summary Rating: 8

Bridge Inspection Report | *Routine Inspection*

SFN: 3106500

Main Street Bridge over Fort Washington Way

Date Inspected: 08/27/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (FWW) #02

C57. Utilities: Plastic wrapping on lights; light cover @ E {below} missing.

Utilities On Structure: N N N N N N N

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 7 A

Inspection Notes: New (2020) wearing surface on I-71.

General Notes: HAM 71-100

Recommended Maintenance:

1. Monitor condition (cracking and spalling) of beams around pier.
2. Replace broken lights on I-71 under bridge.

Assigned to:

Owner
Traffic

Bridge Inspection Report | Routine Inspection

SFN: 3106195

Race Street Bridge over Fort Washington Way

Date Inspected: 08/28/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 8 A

Signature: 

Bridge No.: CITY (FWW) #03

Route: 71 Unit: 73 Bridge Type 132 / Date Built / Date Rehabbed: 2000 /
 Load Rating Percent 150 (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

- C7.1. Floor: See item 10 beams; stalactites between (E & W most 3 beams) & S abutment (planters?). 1 8
- C7.2. Edge of Floor: Cast in place overhang and fascia: Spall in fascia @ SW; (stalactites & dripping under planter jnts.); trans cracks esp. @ pier w seepage; minor random rust stains; E fascia vertical cracks next to control jnts around pier. 1 7
- C8. Wearing Surface: Polycarb Flexogrid overlay (2003 - localized repairs 2011, S span); minor cracking; widespread peeling w exp conc in 2nd lane from W. 1 7
- C9. Curbs/Sidewalks: New 2020; trans cracks in curbs; long. cracking @ W side of W walk. 1 8
- C11. Railing: Loose nut @ base plate @ W VPF; few cracks some w efflor. in planters; severe planter staining @ SW; missing nuts @ some joints @ top of railing panels. 1 8
- N36. National Safety Feature - Bridge Railing (0, 1 or N): 1
- C12. Drainage: Off bridge; ponding @ NW approach & (minor) along curbs; possible leakage through planters esp @ SE. 1 7

N58. Deck Summary: Drainage system cleaned out 10-31-2016 by Queen City Mechanical. Summary Rating: 8

- C14. Alignment of Members: 1 8
- C15.1. Beams/Girders: Many small rust stains on some beams; dampness around isol. drain holes; shallow spall S of pier @ 3rd beam from W; ext. honeycombing @ beam 6 from E @ N {1drain hole missing?}. 1 8

N59. Superstructure Summary: Isol. honeycombing on bottom of box beams. Summary Rating: 8

- C33. Abutment Walls: Concealed, mostly assumed rating; recent 2019 truck accident damaging several wall panels @ N w exp. rebar/spalling. 1 8
- C37. Pier Caps: Efflor. 1 8
- C38. Pier Columns: Minor horiz HL cracking w efflor. @ E & W upper portions columns. 1 8

N60. Substructure Summary: Summary Rating: 8

- C1. Pavement: N concrete in very good condition; pavers in crosswalk det., some missing. 1 7
- C2. Approach Slabs: N - covered w pavers (lifted 2012); S new 2012 w widespread long. H/L cracks; nails in concrete around inlet @ SE; vert. offset @ N toward 3rd Street; (settled full width, vert difference between approach slab & pavement is up to 2.5") gap bet. approach slab & 3rd street pavement. 2 5

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

Bridge Inspection Report | *Routine Inspection*

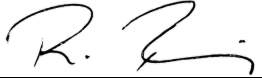
SFN: 3106195

Race Street Bridge over Fort Washington Way

Date Inspected: 08/28/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (FWW) #03

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary:

Summary Rating: 5

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 8 A

Inspection Notes: Widespread paint flaking from streetlights; new (2020) wearing surface on I-71.

General Notes: HAM 71 - 0073

Recommended Maintenance:

1. Plan for paver replacement is scheduled for 2020.
2. Consider repainting light poles.
3. Replace lights along I-71.
4. Replace broken light bulbs @ railing pedestals.

Assigned to:

TROD
Architecture
Traffic
Traffic

Bridge Inspection Report | Routine Inspection

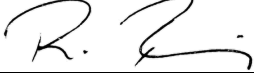
SFN: 3106209

Vine Street Bridge over Fort Washington Way

Date Inspected: 08/28/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (FWW) #04

Route: 71 Unit: 82 Bridge Type 132 / Date Built / Date Rehabbed: 2000 /
 Load Rating Percent 150 (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: SEE ITEM 10: BEAMS	1	8
C7.2. Edge of Floor: (Cast in place portion of the deck): Cracks w efflor. & staining; minor stalactites SW @ abut; minor staining; small 6" long. scrapes spaced @ 3'+/- on W & E overhangs (N of pier); evidence of seepage through 3 railing jnts. over pier @ E side; seepage @ 2 locations @ W fascia.	1	8
C8. Wearing Surface: Polycarb Flexogrid overlay 2003 - (spot repaired 2011), breaking up @ E curb where water is ponding (almost full length); isol. spalling/flaking elsewhere.	2	6
C9. Curbs/Sidewalks: New curbs and colored concrete sidewalks 2019; curbs have vert HL cracks turning into trans HL cracks; colored concrete walk at East side with shrinkage mapcracking (concrete was cracked by the time the control joints were cut); and extensive staining from tire (?) marks on colored conc. staining from planter over walks @ SW.	1	7
C11. Railing: Minor spalling & efflor. around fascia joints; vert. cracks w efflor. in flower beds; top of railing panel joints should be: 1 end w slotted bolt, 1 end welded but 2 welds @ E not apparent.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage: Water ponding @ NE approach and at curbs; inlet filled @ NW leaking through E planter (where membrane is clearly punctured @ many locations.	2	6

N58. Deck Summary: **Summary Rating: 8**

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Spall in box beam @ S abut; backer rod hanging out of jt. - N side; slight vert. offset bet. beams @ midspan N (beams 1 & 2 from E); build-up of efflor. & dampness @ some drainholes; seepage and stalactites between beams 2 & 3 from E esp S of pier; deep honey comb N of pier, beam 9 from W (same beam has rust staining @ drain hole); small corner delam N of pier beam 7 from W; many small rust stains from embedded objects.	1	8

N59. Superstructure Summary: Isol. honeycombing on box beam bottoms. **Summary Rating: 8**

C33. Abutment Walls: Concealed, assumed rating.	1	8
C37. Pier Caps: Vert. HL crack w efflor; moisture @ jt. on N side near E end; full height HL cracks w efflor. S side W cant. @ first span from W.	1	8
C38. Pier Columns: Minor HL cracking.	1	8

N60. Substructure Summary: **Summary Rating: 8**

Bridge Inspection Report | Routine Inspection

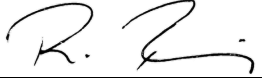
SFN: 3106209

Vine Street Bridge over Fort Washington Way

Date Inspected: 08/28/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (FWW) #04

C1. Pavement: Sev pavers det. & settling @ N; severe in pedestrian crosswalks on 3rd st. 2 6

C2. Approach Slabs: Raised @ N 2012; new slab @ S (2012) w 2 long. cracks; ext. cracking in center @ top of backwall @ N; paver det @ N. 1 8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Summary Rating: 6

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 A

Inspection Notes: New wearing surface on I-71 in 2020

General Notes: HAM 71-0082.

Recommended Maintenance:	Assigned to:
1. Repair caulk around concrete benches in S span approach E & W side.	TROD
2. Replace lights on FWW 3/4 not working.	Traffic
3. Repair membrane of E planter (warranty?)	Contract
4. Consider overlay repairs at E curb.	Contract
5. Check planter drainage esp @ SW.	Parks

Bridge Inspection Report | Routine Inspection

SFN: 3106314

Walnut Street Bridge over Fort Washington Way

Date Inspected: 08/25/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 8 A

Signature: 

Bridge No.: CITY (FWW) #05

Route: 71 Unit: 91 Bridge Type 132 / Date Built / Date Rehabbed: 2000 /
Load Rating Percent 150 (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: SEE: ITEM 10 BEAMS.	1	8
C7.2. Edge of Floor: Trans. cracks w efflor. & minor rust stains in overhangs; spalling @ feet of bar chairs; seepage over pier @ fascia's; distinct leakage locations @ E & W with mineral buildup {also @ W w heavy buildup @ S}; W w heavy buildup on S.	1	7
C8. Wearing Surface: Polycarb Flexogrid overlay (2003 & spot repairs 2011); isol. peeling (w long. cracking) of flexogrid around streetcar track; blistering & peeling @ E curb w isol. cracking.	1	7
C9. Curbs/Sidewalks: New curbs & colored concrete sidewalks 2019; W curb has HL trans cracks; widespread staining (wheels?) on sidewalks; sidewalk crushing @ SE @ interface w 2nd St. walk.	1	8
C11. Railing: Spalled @ edge of planter @ NW; cracks w efflor. in planters, some w spalling; possible weld missing @ top of one railing panel joint @ W; ext. staining @ SE planter.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage: Minor ponding @ curbs; water proofing @ planters broken noticeably @ several locations where fasteners poke through membrane.	2	6
N58. Deck Summary:	Summary Rating: 8	
C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Small spall @ 3 beam from W @ S abut; staining (stalactites) between beams 2 thru 4 from E in S span & between beam 2 & 3 @ W; several backer rods sticking out between beams; small spall (patched) at 10 beam from W over S bound lanes; small corner spall S of pier on W most beam; many small rust stains from embedded objects.	1	8
N59. Superstructure Summary: Areas w pronounced honeycombing.	Summary Rating: 8	
C33. Abutment Walls: Concealed, assumed rating.	1	8
C37. Pier Caps: Minor HL cracking @ some locations.	1	8
C38. Pier Columns: Horiz. HL cracks @ cold jts., esp. W face of E column.	1	8
N60. Substructure Summary:	Summary Rating: 8	
C1. Pavement: Mostly new 2015 due to streetcar.	1	8
C2. Approach Slabs: New 2015 (street car); long. cracking @ (around sewer MH's) N & 1 @ S; minor crushing on bridge side @ N.	1	7
N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N		
N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N		

Bridge Inspection Report | *Routine Inspection*

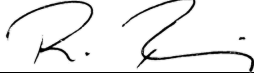
SFN: 3106314

Walnut Street Bridge over Fort Washington Way

Date Inspected: 08/25/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (FWW) #05

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary:

Summary Rating: 7

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 8 A

Inspection Notes: Planter drains cleaned 10-31-16; New (2020) wearing surface on I-71.

General Notes: HAM 71- 0091

Recommended Maintenance:

1. Backfill void @ SW in grassy area.
2. Replace lights on I-71.
3. Consider replacement of wearing surface strip next to E curb +/- 1' wide.
4. Seal planter boxes, repair punctured membrane.
5. Check leak in irrigation @ SW.
6. Check/repair planter drainage @ SE.

Assigned to:

TROD
Traffic
Contract
Warranty?
Parks
Parks

City Skywalk Bridges

Bridge Inspection Report | Routine Inspection

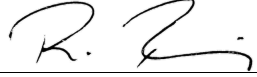
SFN: 3199982

Chiquita Center Paulding Alley Pedestrian Overhead

Date Inspected: 07/28/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY SKYWALK #01

Route: Unit: Bridge Type 363 / Date Built / Date Rehabbed: 1986 /
Load Rating Percent (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Corr. steel form deck filled w conc; enclosed; not visible; stains esp. near vent @ E; minor dent/scrape from impact @ S.	1	7
C9. Curbs/Sidewalks: Pavers; vertical tiles stained below windows.		
C11. Railing: Steel pipe handrail.	1	9
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: "Carlisle" roof membrane; apparent water damage (former?) @ SE.	1	9
C13. Expansion Joints: Tear in seal @ outside @ W (bottom); E inside joint cover (top) not attached @ center joint.	1	7
N58. Deck Summary: Deck floor not visible; completely glass enclosed; part. Assumed rating.	Summary Rating: 7	
C14. Alignment of Members:	1	8
C15.1. Beams/Girders: 2 bays; 3 rolled girders support bridge from below; enclosed; not visible.		
C17. Stringers: Joists support roof structure; enclosed; not visible.		
C18. Floor Beams: WF's support deck; enclosed; not visible.		
C19. Truss Verticals: Steel columns support roof jts; bear on girders; connections not visible.	1	8
C24. Lateral Bracing: Steel bar X-bracing both bays; enclosed; not visible.		
C30. Protective Coating System (PCS): System: Year: 1986	PCS Rating: 8	
N59. Superstructure Summary: Superstructure not visible; assumed rating.	Summary Rating: 8	
C37. Pier Caps: Cracked conc. fascia on E bldg. below E end of bridge - strike plate installed (1 bolt missing - impact) many others bent/scraped; minor cracks & scrapes @ E pier beam; W concealed by façade.	1	7
C38. Pier Columns: Repeated impacts @ SE column (loading dock); (2017) steel column colars for protection against impact.	1	7
N60. Substructure Summary: Substructure not visible; assumed rating.	Summary Rating: 7	

Bridge Inspection Report | *Routine Inspection*

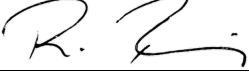
SFN: 3199982

Chiquita Center Paulding Alley Pedestrian Overhead

Date Inspected: 07/28/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY SKYWALK #01

65. Vertical Clearance: Measured 15'-7".

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 7 A

General Notes: Skywalk 052
2017 steel colars installed around E pier columns for impact protection (full height @ N under bridge,
partial height @ S).
VC reduced by camera to 14' 10".
Bridge maintained by Federal Bldg {per plaque}.

Recommended Maintenance:

Assigned to:

1. Reattach joint cover plates @ E inside bridge @ top center.

Owner

Bridge Inspection Report | Routine Inspection

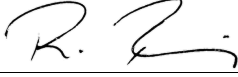
SFN: 3199810

Convention Way Pedestrian Overhead from Race to Vine Street

Date Inspected: 07/28/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY SKYWALK #02

Route: Unit: Bridge Type 372 / Date Built / Date Rehabbed: 1970 / 1996
Load Rating Percent (Main/Approach Spans)

Inspection Information

Rating
1 to 4 Rating
9 to 0

C7.1. Floor: Covered by panels; stains; plaster coating bulging @ several loc.'s; some panels missing, cracked, broken, stained or loose; impact damage to floor @ loading dock. 1 7

C9. Curbs/Sidewalks: Widespread cracking of marble floor inside (trans & long) only in W half (governs the rating). 2 6

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Summary Rating: 7

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Steel I beams - not visible.

C18. Floor Beams: Steel I beams - not visible.

N59. Superstructure Summary: Redundant; not fatigue prone; not visible, even inside of W building no longer accessible - assumed rating. Summary Rating: 7

C38. Pier Columns: Steel I beams; conc. encased; minor cracking; minor efflor; minor impact damage @ some columns; full height vert. cracks; HL mapcracking @ NE most column. Efflor. @ N first pier from E - up to 0.016"; wide horiz. crack 5' of ground wrapping around N column, #3 from W. Some columns equipped with corner steel angles for impact protection. 1 7

N60. Substructure Summary: Summary Rating: 7

65. Vertical Clearance: Vert. Clearance Rating: 1

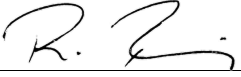
N59. General Appraisal and Oper. Status: Superstructure completely enclosed, partially assumed rating. General Appraisal / Operational Status: 7 A

Inspection Notes: Skywalk 025, 036 & 037; inside mostly blocked off (W of post office) since 2019.

General Notes: These 2 bldgs. (525 Vine & Fountain Square West) are built over Convention Way Right-of-Way. Skywalk goes through 525 Vine lobby & Skywalk area in Fountain Square West. Skywalk to E & W removed.

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature:  _____

Bridge No.: CITY SKYWALK #02

Recommended Maintenance:

Assigned to:

- 1. Repair/replace broken ceiling panels.
- 2. Perform inside inspection of blocked off area to be aware of possible maintenance items.

Owner
Owner

Bridge Inspection Report | Routine Inspection

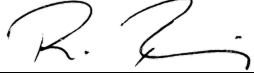
SFN: 3199993

Elm Street Convention Way Pedestrian Overhead

Date Inspected: 07/27/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY SKYWALK #03

Route: Unit: Bridge Type 364 / Date Built / Date Rehabbed: 1986 /
Load Rating Percent (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Conc. filled CMD; enclosed; not visible; widespread staining - efflor.(?) in metal decking; apparent blistering on corners of many panels; jt. mat'l. rough/disintegrating @ several locs; cladding below SE end of bridge lifting at panel edge.	2	6
C9. Curbs/Sidewalks: Tile; widespread discoloration.		
C11. Railing: Metal handrailing in very good condition; some window panels slightly condensated; some inside railing slats removed & apparently stored behind railing(2020).	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: New roof (2013).	1	8
C13. Expansion Joints: Joint @ E repaired.	1	7
N58. Deck Summary: Deck floor not visible; inside closed off 2020; part. assumed rating.	Summary Rating: 6	
C14. Alignment of Members:	1	8
C15.1. Beams/Girders: 2 welded plate girders @ floor level; enclosed not visible.		
C17. Stringers: Joists run between columns, enclosed, not visible.		
C18. Floor Beams: Rolled WF sections support deck floor & roof; enclosed, not visible.		
C19. Truss Verticals: 14 tubular col. on each side; (6th @ S from E has a "filled" sound when being tapped, while all others sound hollow); conn. Not visible.	1	8
C30. Protective Coating System (PCS): System: Year: 1999 Vert. and handrails painted.	PCS Rating: 8	
N59. Superstructure Summary: Condition based on previously observed leakage, inside not accessible in 2020; mostly assumed rating.	Summary Rating: 6	
C37. Pier Caps: Enclosed @ W; painted concrete @ E	1	8
C38. Pier Columns: W end supported on bldg, granite enclosed not visible; E end supported on painted conc. Pier; coated (2014).	1	8
N60. Substructure Summary: W substructure not visible; partially assumed rating.	Summary Rating: 8	

Bridge Inspection Report | *Routine Inspection*

SFN: 3199993

Elm Street Convention Way Pedestrian Overhead

Date Inspected: 07/27/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY SKYWALK #03

65. Vertical Clearance: 16'-4"

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 6 A

Inspection Notes: New roof installed in fall of 2013 after extended leakage through the structure.
2020, inside of bridge some ceiling slats removed and apparently stored behind handrailing
(noticeable from outside below bridge).
2020 hotel & bridge closed, no access to the inside possible.

Recommended Maintenance:

Assigned to:

1. Maintenance needs to be determined based on future use of structure.

Bridge Inspection Report | Routine Inspection

SFN: 3199994

Elm Street Pedestrian Overhead South of 5th Street

Date Inspected: 07/27/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY SKYWALK #04

Route: Unit: Bridge Type 364 / Date Built / Date Rehabbed: 1983 /
Load Rating Percent (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Conc. on metal decking; enclosed not visible; minor isol stains @ bldg. connections & @ several bottom panels over center of roadway (esp. numbers 8 & 9 from E).	1	7
C9. Curbs/Sidewalks: Carpet, worn/ stained		
C11. Railing: Completely glass enclosed; metal handrail; cracked caulking on top of windows inside; 3 new windows installed (2017).	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: Ballasted membrane roof w 2 inlets at third points (staining of ballast near drains); water damage at W.	3	4
C13. Expansion Joints: Jt. material missing @ SE (inside); water damage @ E; ceiling panel @ E sagging and light fixture (can) loose.	1	8
N58. Deck Summary: Deck floor not visible; part. assumed rating. Inside of bridge closed, not accessed 2020.	Summary Rating: 7	
C14. Alignment of Members:	1	8
C15.1. Beams/Girders: 2 welded plate girders @ roof level; enclosed - not visible.		
C17. Stringers: WF's along fascia support deck floor beams; enclosed - not visible.		
C18. Floor Beams: Rolled WF sections support decks & roof; not visible.		
C19. Truss Verticals: 12 columns on each side; enclosed - not visible.		
N59. Superstructure Summary: Not redundant; fatigue prone; superstructure is not visible - assumed rating, partially based on previous leakage and general appearance.	Summary Rating: 7	
C38. Pier Columns: Supported on buildings on both ends; enclosed, not visible; minor spalling of brick @ E building; slight water stains around outside of building.	1	8
N60. Substructure Summary: Substructure not visible - assumed rating.	Summary Rating: 8	

Bridge Inspection Report | *Routine Inspection*

SFN: 3199994

Elm Street Pedestrian Overhead South of 5th Street

Date Inspected: 07/27/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY SKYWALK #04

65. Vertical Clearance: Measured 17'-0".

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 7 A

Inspection Notes: Inside blocked (around June 2020) by Hotel, could not be inspected 2020.

General Notes: Skywalk 016

Recommended Maintenance:

Assigned to:

1. Maintenance need will depend on future use of structure.

Bridge Inspection Report | Routine Inspection

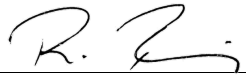
SFN: 3161765

Fifth Street Pedestrian Overhead East of Main Street

Date Inspected: 07/24/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY SKYWALK #05

Route: FIFTH Unit: 0059 Bridge Type 344 / 344 Date Built / Date Rehabbed: /
Load Rating Percent 000 (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Metal decking; enclosed, not visible; assumed rating.	1	8
C9. Curbs/Sidewalks: Granite pavers inside.		
C11. Railing: Completely enclosed skywalk w windows; metal handrail; few scrapes and stains on fascias; loose cladding above window @ W side over 2 S most lanes.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: Membrane roof w 4 inlets (3 on bridge one on S approach); minor staining from ponding on top; Inside of S approach (SW of bridge) there is evidence of waterdamage at the veiling/corner.	1	7
C13. Expansion Joints: Visible @ S inside only.		

N58. Deck Summary: Deck floor not visible; part. assumed rating. Summary Rating: 8

C14. Alignment of Members:	1	8
C18. Floor Beams: Enclosed, not visible.		
C19. Truss Verticals: Enclosed, not visible.		
C21. Upper Chord: Enclosed, not visible.		
C22. Lower Chord: Enclosed, not visible.		
C26. Bearing Devices: Enclosed, not visible.		

N59. Superstructure Summary: Assumed rating. Summary Rating: 8

C37. Pier Caps: Concealed.	1	8
C38. Pier Columns: Conc. & steel columns; not visible.	1	8

N60. Substructure Summary: Substructure not visible; assumed rating. Summary Rating: 8

Bridge Inspection Report | *Routine Inspection*

SFN: 3161765

Fifth Street Pedestrian Overhead East of Main Street

Date Inspected: 07/24/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature:  _____

Bridge No.: CITY SKYWALK #05

65. Vertical Clearance: 17'-6".

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 8 A

Inspection Notes: Skywalk 053; loose cladding above window @ W side over 2 S most lanes. Inside ceiling cladding @ S removed during 2020 inspection (utility work.)

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Trim tree branches @ S to prevent scraping against bridge. | Owner |
| 2. Reset & fasten cladding above windows @ W side over street (2 locations over 2 S most lanes). | Owner |
| 3. Reset ceiling panels inside @ S. | Owner |
| 4. Replace cladding @ bottom of windows @ W between 4th & 5th window from N. | Owner |

Bridge Inspection Report | Routine Inspection

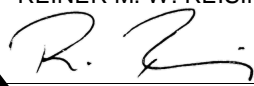
SFN: 3161773

Fifth Street Pedestrian Overhead East of Race Street

Date Inspected: 07/24/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 / A

Signature: 

Bridge No.: CITY SKYWALK #06

Route: FIFTH Unit: 0005 Bridge Type 344 / 344 Date Built / Date Rehabbed: /
Load Rating Percent 1000 (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Enclosed; seepage stains, especially @ N.	1	8
C9. Curbs/Sidewalks: Tile.		
C11. Railing: Completely glass enclosed, no handrail.	1	9
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: Minor water staining on bottom of piers below weepholes.	1	9
C13. Expansion Joints: No evidence of leakage.	1	7
N58. Deck Summary:	Rating: 8	
C14. Alignment of Members:	1	7
C26. Bearing Devices:	1	8
N59. Superstructure	Rating: 8	
C38. Pier Columns: Structure supported on 2 piers; actual piers concealed, not visible; many minor gouges/scrapes esp. @ S column.	1	8
N60. Substructure Summary: Enclosed piers; mostly assumed rating.	Summary Rating: 8	

REMOVED

65. Vertical Clearance: Measured 15'-5" Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 A

Inspection Notes: Inside not accessible 2020; wearing surface being repaved 2020 base course installed, top course not yet installed.

General Notes: Skywalk 027.

Bridge Inspection Report | Routine Inspection

SFN: 3199974

Fifth Street Pedestrian Overhead West of Elm Street

Date Inspected: 07/28/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 K

Signature: 

Bridge No.: CITY SKYWALK #07

Route: Unit: Bridge Type 364 / Date Built / Date Rehabbed: 1986 /
Load Rating Percent (Main/Approach Spans)

Inspection Information

		Rating 1 to 4	Rating 9 to 0
C7.1. Floor:	Enclosed - not visible; galv. form deck filled w conc; ext. rust w LOS @ SE joint with one ceiling panel shifted at roof access (2 locations). Previous leakage through deck noted days after rain.	2	5
C9. Curbs/Sidewalks:	Tile pavers; general discoloration, minor settlement @ S @ railing; widespread salt staining & grout damage and debris (including leaves, feces, etc).		
C11. Railing:	Half height plexiglas side plates w metal handrail.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N):	N		
C12. Drainage:	Ballasted membrane roof with 2 drains @ S; some leakage @ ceiling access hatch even during dry spell; significant dripping @ SE indicates water in deck despite ongoing dry spell.	3	2
C13. Expansion Joints:	Caulk failing @ N; corr. @ S jt. w LOS (due to adj. walkway); new threshold installed @ SE in 2012.	2	6

N58. Deck Summary: Deck floor not visible; part. assumed rating; rust staining below structure @ dripping through deck @ SE. **Summary Rating: 5**

C14. Alignment of Members:		1	8
C15.1. Beams/Girders:	2 long. girders support superstructure from above; mostly enclosed - not visible; portions of the cladding @ SE were removed and indicate corrosion of the superstructure (assumed to be localized only).	3	4
C17. Stringers:	WF's along fascia hung from girders; enclosed - not visible.		
C18. Floor Beams:	WF floor beams; enclosed - not visible.		
C19. Truss Verticals:	Steel pipe hangers support floor from above; conn. not visible.	1	7
C24. Lateral Bracing:	Enclosed - not visible.		
C26. Bearing Devices:	Enclosed - not visible.		
C30. Protective Coating System (PCS):	System: Year: 1986 PCS Rating: 8 Isol. chalking, fading; paint peeling @ top of one vertical.		

N59. Superstructure Summary: Superstructure not visible; assumed rating based on partial inspection @ SE, and water oozing through the structure. **Summary Rating: 4**

C38. Pier Columns:	Supported on building @ N, pier @ S, both enclosed, not visible; minor impact damage to enclosures (bases).	1	7
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N60. Substructure Summary: Substructure not visible; assumed rating. **Summary Rating: 7**

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 K

Signature:  _____

Bridge No.: CITY SKYWALK #07

65. Vertical Clearance: Measured 15'8".

Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: Partially assumed rating based on observed leakage and corrosion at connection to adjacent elevated walkway, (sturctural elements completely enclosed).

General Appraisal / Operational Status: 4 K

Inspection Notes: Inside lights burning during the day. Bridge closed to all traffic due to condition of the adjacent elevated walk.
Dripping from bridge in 2019 & 2020, despite a series of dry days prior to the inspection; top could not be accessed in 2020, all access point locked off.

General Notes: Skywalk 013

Recommended Maintenance:

Assigned to:

- | | |
|---|-------|
| 1. Consider removal is no further use is intended. | Owner |
| 2. Reset ceiling access panels inside of bridge. | Owner |
| 3. Turn off lights during the daytime. | Owner |
| 4. Reset drain cover inside of bridge (S end) to allow proper drainage. | Owner |
| 5. Investigate leaking at various locations. | Owner |
| 6. Remove cladding panels @ S end of bridge to determine extend and severety of damage to beams due to corrosion. | Owner |
| 7. CONT. and repair as necessary. | Owner |

Bridge Inspection Report | Routine Inspection

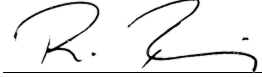
SFN: 3161811

Fourth Street Pedestrian Overhead East of Main Street

Date Inspected: 07/28/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY SKYWALK #08

Route: FOURT Unit: 0005

Bridge Type 344 / 321

Date Built / Date Rehabbed: /

Load Rating Percent 000

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Concealed, not visible.	1	8
C11. Railing: Glass enclosed; metal handrail.	1	9
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: Membrane roof w 4 inlets; minor ponding between drains.	1	7
C13. Expansion Joints: Sliding plate @ N end.	1	8
N58. Deck Summary: Mostly assumed rating based on overall condition.	Summary Rating: 8	
C14. Alignment of Members:	1	8
C18. Floor Beams: Not visible.		
C26. Bearing Devices: Enclosed, not visible.	1	8
N59. Superstructure Summary: Partially assumed rating.	Summary Rating: 8	
C37. Pier Caps: N only, concealed, not visible; supported on building @ S.	1	8
C38. Pier Columns: Concealed, not visible; staining (mossy) @ top, E of NE column.	1	8
N60. Substructure Summary: Partially assumed rating (Substructure visible at N only, supported on buiding at S).	Summary Rating: 8	
N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):		
N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):		
N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):		

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 8 A

General Notes: Skywalk 055

Bridge Inspection Report | Routine Inspection

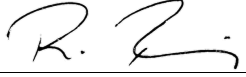
SFN: 3161587

Government Place Pedestrian Overhead East of Walnut Street

Date Inspected: 07/22/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY SKYWALK #09

Route: GOVRN Unit: 0000

Bridge Type 122 / NNN

Date Built / Date Rehabbed: 1972 /

Load Rating Percent 000

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Coated (2012); several rust stains near W exp. joint.	1	8
C7.2. Edge of Floor:	1	8
C9. Curbs/Sidewalks: Epoxy overlayed walking surface (2012).		
C11. Railing: Metal railing on conc. parapet (new 2012).	1	9
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: 5 inlets in walkway; grates appear to be slightly filling up w gunk.	1	7
C13. Expansion Joints: Comp. seal (2012).	1	9
N58. Deck Summary:	Summary Rating: 8	
C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Post-tensioned RC beams; patched & coated in 2012; uneven patches & minor rust stains @ W connection to Walnut bridge.	1	8
N59. Superstructure Summary: Not redundant; not fatigue prone; HL cracking @ bottom of vertical columns.	Summary Rating: 8	
C37. Pier Caps: Integral; coated & patched in 2012.	1	8
C38. Pier Columns: Coated & patched in 2012; 2 minor delams detected (ground level) @ bottoms of columns, 1 crack & delam @ bottom of column @ upper level.	1	7
N60. Substructure Summary:	Summary Rating: 7	

65. Vertical Clearance:

Vert. Clearance Rating: 1

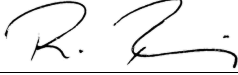
N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 8 A

General Notes: Skywalk 048.

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 8 A

Signature:  _____

Bridge No.: CITY SKYWALK #09

Recommended Maintenance:

Assigned to:

1. Clean grates of walkway inlets.

Owner

Bridge Inspection Report | Routine Inspection

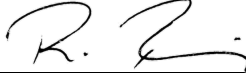
SFN: 3199981

Main Street Pedestrian Overhead South of Sixth Street

Date Inspected: 07/28/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY SKYWALK #10

Route: Unit: Bridge Type 363 / Date Built / Date Rehabbed: 1986 /
Load Rating Percent (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

- | | | | |
|--|---|---|---|
| C7.1. Floor: | Enclosed, not visible; CMD w conc; moderate impact damage on S side @ W with one tear; some bottom soffit panels have different colors indicating replacement at some point; 2 bolts in floor panel near streetcar protective plate; lichen accumulalating outside under windows @ N. | 1 | 7 |
| C11. Railing: | Completely glass enclosed; steel pipe handrail. | 1 | 9 |
| N36. National Safety Feature - Bridge Railing (0, 1 or N): | N | | |
| C12. Drainage: | Mechanically fastened membrane roof; slight traces of water damage @ interior @ bridge ends; roof membrane appears to be sticking out slightly above tp of bridge at some locations. | 1 | 8 |
| C13. Expansion Joints: | Slight bulging @ building connection; some white staining on seals (outside). | 1 | 8 |

N58. Deck Summary: Deck floor not visible; part. assumed rating. **Summary Rating: 7**
New (2016) plate bolted to bridge protecting bridge against Streetcar catenary wire.

- | | | | |
|----------------------------|--|---|---|
| C14. Alignment of Members: | | 1 | 8 |
| C15.1. Beams/Girders: | Long. rolled girders support structure from below; enclosed; not visible. | | |
| C17. Stringers: | Joists along fascia support roof; enclosed; not visible. | | |
| C18. Floor Beams: | Floor beams support deck & roof, enclosed not visible. | | |
| C19. Truss Verticals: | Steel pipe col. support roof joists; bear on beams; conn. not visible; 5mm diameter hole in 2nd vert from NE (apparently drilled). | 1 | 7 |

C30. Protective Coating System (PCS): System: Year: 1986 **PCS Rating: 8**

N59. Superstructure Summary: Not redundant; not fatigue prone; superstructure not visible; assumed rating; one panel was removed in Fall 1998 & access was available to part. inspect superstructure. **Summary Rating: 7**

N60. Substructure Summary: Substructure not visible, supported on adjacent buildings; assumed rating. **Summary Rating: 8**

Bridge Inspection Report | *Routine Inspection*

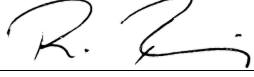
SFN: 3199981

Main Street Pedestrian Overhead South of Sixth Street

Date Inspected: 07/28/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY SKYWALK #10

65. Vertical Clearance: Measured 15'3"; clearance over streetcar track is 15'-5".

Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: **Bridge inventoried into SMS in 2018.**

General Appraisal / Operational Status: 7 A

Inspection Notes: Skywalk 050.
Streetcar OCS protective plates added to bridge in 2016.

General Notes: Bridge maintained by 580 building.

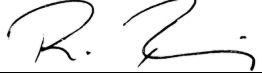
Bridge Inspection Report | Routine Inspection

SFN: 3199960

Plum Street Pedestrian Overhead North of Sixth Street

Date Inspected: 9/25/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 1 K

Signature: 

Bridge No.: CITY SKYWALK #11

QA/QC Inspector: STEPHEN C. GRESSEL, P.E.

Signature: 

Route: Unit: Bridge Type 364 / Date Built / Date Rehabbed: 1986 /
Load Rating Percent (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Conc. filled CMD; mostly enclosed, not visible; excessive staining & corr. under stairs & @ W building connection; cladding removed @ exp. jt; sev. corr & complete LOS in FB & SIP form in W cantilever span; W-most FB has 100% LOS - therefore floor no longer supported in this area; suspect that leaking joints have compromised floor @ all joints.	4	1
C9. Curbs/Sidewalks: Tile. Stair landing: severe concrete deterioration, wide cracks and completely broken out pieces. Portions removed in 2020 for joint investigation / repair at W.	2	6
C11. Railing: Some railing post bases corr.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: Ballasted membrane roof; rust at roof flashing; leakage @ W building conn.; deck drain pipe @ W end is perforated, exits through NW column, pipe @ column top fixed w tape; rust staining and efflor. on plaster all around the bottom of the column; leaking observed through the roof just east of the bell tower; further evidence of drain pipe issues at bell tower where there is staining at the columns, esp @ SW; deck drain @ W perforated.	4	1
C13. Expansion Joints: Extensive staining below W jt; W exp. to building removed in 2020.		

N58. Deck Summary: 2020 partially exposed floor due to ongoing investigation; bridge closed. **Summary Rating: 1**

C14. Alignment of Members: Vert. offset at W end; (accomodated by new wedge in walkway).	1	7
C17. Stringers: 2 WF's along fascia support roof & deck; enclosed; partially exposed in 2020 @ W cantilever & near bell tower; exp. cantilever section has sev. LOS.	3	3
C18. Floor Beams: WF's support roof & deck; enclosed - typically not visible; FBs extend out from bridge at piers, flashing over FB extension/connection is not water tight; W most FB exposed (2020) due to investigation into cladding deter./shifting; W most FB has 100% LOS.	4	1
C19. Truss Verticals: Pipe columns support roof joists - bear on girders (conn's. concealed); Caulk at the bottom of the exposed vert. failing causing initial corrosion (mostly @ N side of bridge).	1	7

C30. Protective Coating System (PCS): System: Railing & verticals painted (1999). Year: 1999 **PCS Rating: 7**

N59. Superstructure Summary: Portions of SS exposed in 2020 for inspection. **Summary Rating: 1**

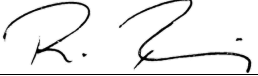
Bridge Inspection Report | Routine Inspection

SFN: 3199960

Plum Street Pedestrian Overhead North of Sixth Street

Date Inspected: 9/25/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 1 K

Signature: 

Bridge No.: CITY SKYWALK #11

QA/QC Inspector: STEPHEN C. GRESSEL, P.E.

Signature: 

C37. Pier Caps: Mostly enclosed, partially exposed.

C38. Pier Columns: Steel WF columns (tower); mostly enclosed, not visible; 2020 investigation w partial exposure of NW column started. 2 5

N60. Substructure Summary: **Substructure not visible - assumed rating based on observed leaking & partially removed enclosure.** Summary Rating: 5

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 1 K

Inspection Notes: 2020 ongoing investigation by building owner; partially exposed structure; repair strategy forth coming. Until then, the bridge was closed due to condition of floorbeams, etc.

General Notes: Skywalk 061. Bridge, stair tower and adjacent bridge over 6th Street owned by Port of Cincinnati.

Recommended Maintenance:

Assigned to:

1. Plan for extensive repairs & share plan w city.

Owner

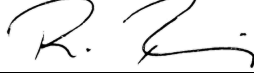
Bridge Inspection Report | Routine Inspection

SFN: 3199960

Plum Street Pedestrian Overhead North of Sixth Street

Date Inspected: 3/10/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: CITY SKYWALK #11

QA/QC Inspector:

Signature: _____

Route: Unit: Bridge Type 364 / Date Built / Date Rehabbed: 1986 /
Load Rating Percent (Main/Approach Spans)

Inspection Information

		Rating 1 to 4	Rating 9 to 0
C7.1. Floor:	Conc. filled CMD; enclosed, not visible; leakage @ W building connection, excessive staining & corr. under stairs & @ W building connection; W most cladding was reinforced using steel bars, these are now severely corroded including including fasteners and need to be replaced; rating based on assumed water damage. Horizontal cladding joints outside of railing are deteriorating allowing water to enter.	2	5
C9. Curbs/Sidewalks:	Tile. Stair landing: severe concrete deterioration, wide cracks and completely broken out pieces.	2	6
C11. Railing:	Some railing post bases corr.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N):	N		
C12. Drainage:	Ballasted membrane roof; rust at roof flashing; apparent leakage @ W building conn. Deck drain pipe exits through NW column, pipe at column top fixed with tape, possible pipe damage inside of column indicated by moisture, rust staining and efflor. on plaster all around the bottom of the column. Leaking observed through the roof just east of the bell tower. Further evidence of drain pipe issues at bell tower where there is staining at the columns, esp @ SW.	4	1
C13. Expansion Joints:	Extensive staining below W jt; W exp. to building no longer intact w apparent sev. leakage (see item drainage).	2	5
N58. Deck Summary: Floor not visible - part. assumed rating.		Summary Rating: 5	
C14. Alignment of Members:	Vert. offset at W end; (accomodated by new wedge in walkway).	1	7
C17. Stringers:	2 WF's along fascia support roof & deck; enclosed - not visible; evidence of leakage on floor suggests poss. water issues @ W.	2	5
C18. Floor Beams:	WF's support roof & deck; enclosed - not visible; FBs extend out from bridge at piers, flashing over FB extension/connection is not water tight (rating based on condition of flashing over FB connection). FB connection cladding at NE (parking garage) is shifted, and sticking out from below the bridge deck.	2	5
C19. Truss Verticals:	Pipe columns support roof joists - bear on girders (conn's. concealed); Caulk at the bottom of the exposed vert. failing causing initial corrosion (mostly @ N side of bridge).	1	7
C30. Protective Coating System (PCS):	System: Year: 1999	PCS Rating: 7	

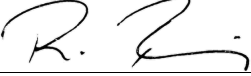
Bridge Inspection Report | Routine Inspection

SFN: 3199960

Plum Street Pedestrian Overhead North of Sixth Street

Date Inspected: 3/10/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: CITY SKYWALK #11

QA/QC Inspector:

Signature: _____

Railing & verticals painted (1999).

N59. Superstructure Summary: Superstructure not visible - assumed rating. Summary Rating: 5

C37. Pier Caps: Enclosed, not visible.
Loose cladding of the pier connection at NW.

C38. Pier Columns: Steel WF columns (tower); enclosed, not visible; minor scrapes and dents in plaster; water leaking and rust and efflor. staining all around the bot of NW column indicating drain pipe damage inside of column; repair drain and allow for close-up inspection of column to detect and repair possibly damage to the column. 2 5

N60. Substructure Summary: Substructure not visible - assumed rating based on observed leaking in concealed pier column. Summary Rating: 5

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 5 A

Inspection Notes: Continued water leaking through NW pier column, in addition to other leakage issues (observed even during dry times 2019).

General Notes: Skywalk 061. Bridge, stair tower and adjacent bridge over 6th Street owned by LAZ parking.

Recommended Maintenance:

- | | Assigned to: |
|--|---------------------|
| 1. Investigate drain pipe leak in NW column and determine extend of damage to steel column. | Owner |
| 2. Remove enclosure of FB to pier connections to allow for inspection, then reset the enclosures water tight. | Owner |
| 3. Repair concrete wearing surface of landings of steps from bell tower to prevent water from entering. | Owner |
| 4. Paint plaster under steps to help identify future leakage issues (and improve appearance of the area). | Owner |
| 5. Repair stair light fixtures (in wall) and caulk around light fixtures at center steps to prevent water from entering. | Owner |
| 6. Investigate leakage through roof E of bell tower. | Owner |
| 7. Investigate drain pipes in bell tower where there appears to be new staining at the SW column. | Owner |

Bridge Inspection Report | Routine Inspection

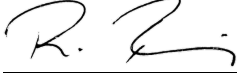
SFN: 3199976

Race Street Pedestrian Overhead - 1st South of Fifth Street

Date Inspected: 07/24/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY SKYWALK #12

Route: Unit: Bridge Type 364 / Date Built / Date Rehabbed: /
 Load Rating Percent (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Enclosed; not visible; CFD filled w conc; cladding inside over SW window appears to be temporary w bolts protruding; new tile @ top of steps not continuous to curb (NE).	1	7
C9. Curbs/Sidewalks: Tile (old) cracked @ E near top of steps.		
C11. Railing: Glass enclosed; evidence of minor leakage @ some windows.	2	6
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: Ballasted membrane roof; water stains & damage @ W end. Missing Roof drain cover at W(2019), E roofdrain cover shifted and actual drain filled with balast (2019). Several leakage issues W of bridge (sagging ceiling covers).	2	6
C13. Expansion Joints: Floor seal broken & depressed @ W @ several locations inside of bridge.	2	6
N58. Deck Summary: Dent in N cladding over roadway. Deck floor not visible; part. Assumed rating.	Summary Rating: 7	
C14. Alignment of Members:	1	8
C15.1. Beams/Girders: 2 lower long. girders support superstructure; enclosed - not visible.		
C17. Stringers: WF's along fascia support roof; enclosed - not visible.		
C18. Floor Beams: Small WF's support roof & deck; enclosed - not visible.		
C19. Truss Verticals: Rectangular steel tube columns support roof joists. - bear on girders; enclosed - not visible.		
N59. Superstructure Summary: Superstructure not visible; assumed rating.	Summary Rating: 7	
C38. Pier Columns: Supported on building @ W and encased WF columns @ E curb; NW column has full height crack through exposed bricks.	1	7
N60. Substructure Summary: Substructure not visible; assumed rating.	Summary Rating: 7	

Bridge Inspection Report | Routine Inspection

SFN: 3199976

Race Street Pedestrian Overhead - 1st South of Fifth Street

Date Inspected: 07/24/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY SKYWALK #12

65. Vertical Clearance: Measured 15'-11".

Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: Partially assumed rating (most members concealed), based on observed leakage issues @ W end.

General Appraisal / Operational Status: 7 A

Inspection Notes: Skywalk 020. Escalator @ East replaced with steps in 2017. W end modified in 2017 as part of the Pogues garage removal.
Apparent minor impact to cladding at N over Roadway.
Roof level not inspected 2020 (Corona access to offices above).

General Notes: Plans filed in A&FM B-4-3.

Recommended Maintenance:

1. Replace cladding panel inside over SW windows (extra hole, bolts sticking out).
2. Seal bottom of curbs @ new stair tiles on top.
3. Replace missing roof drain (W).
4. Clean out E most roof drain & reset cover.
5. Replace comp seal in joint inside bridge @ W.
6. Investigate possible leaking @ W end.

Assigned to:

Owner
Owner
Owner
Owner
Owner
Owner

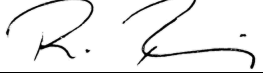
Bridge Inspection Report | Routine Inspection

SFN: 3199959

Sixth Street Pedestrian Overhead East of Plum Street

Date Inspected: 9/25/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 4 K

Signature: 

Bridge No.: CITY SKYWALK #13

QA/QC Inspector: STEPHEN C. GRESSEL, P.E.

Signature: 

Route: Unit: Bridge Type 364 / Date Built / Date Rehabbed: 1986 /
Load Rating Percent (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Conc. filled CMD; mostly enclosed; not visible. Suspect that leaking joints have compromised floor @ all joints; sev. LOS to SIP form observed @ construction opening @ bell tower.	2	5
C9. Curbs/Sidewalks: Tile; some mortar deter. (caulked over); some tiles cracked or shifted, esp near railings, mortar deterioration and salt staining allowing salt & water to enter deck; tiles removed @ S exp. jt. for inspection.		
C11. Railing:	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: Water ponds on floor @ NW; ballasted membrane roof, rust on flashing w isol. stains of outside cladding; N roof drain appears to be connecting to stair tower of Plum Street overhead. Rust Staining at north end (stair tower); leak through roof @ W (2020).	2	5
C13. Expansion Joints: Joint @ S failed & removed for investigation; ongoing joint leaks have caused sev. det. to structure below (repair plan being developed by owner).	3	4
N58. Deck Summary: Deck floor only partially visible; part. assumed rating.	Summary Rating: 5	
C14. Alignment of Members:	1	8
C17. Stringers: WF along fascia support roof floor beams; mostly enclosed; S portion exposed in 2020 for inspection.	2	6
C18. Floor Beams: WF's support roof & deck; tower bridge ends partially exposed in 2020; sev LOS on FB's detected; NW sev thinning & perforations on BF's.	3	4
C19. Truss Verticals: Pipe columns support roof joists; bear on girders; minor rusting @ top & bottom of several verticals.	1	7
C30. Protective Coating System (PCS): System: Year: 1999 Minor flaking @ columns; scratched handrail.	PCS Rating: 7	
N59. Superstructure Summary: Ongoing investigation in 2020, partially exposed Superstructure.	Summary Rating: 4	


Bridge Inspection Report | Routine Inspection

SFN: 3199959

Sixth Street Pedestrian Overhead East of Plum Street

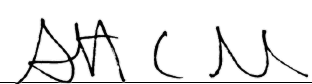
Date Inspected: 9/25/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 4 K

Signature: 

Bridge No.: CITY SKYWALK #13

QA/QC Inspector: STEPHEN C. GRESSEL, P.E.

Signature: 

C37. Pier Caps: Rust staining on W column of N end; granite removed @ S revealing LOS to steel floor beam/pier cap where not concealed. (See Floor Beam rating). 3 4

C38. Pier Columns: Enclosed, not visible; minor issues @ column encasement where gunite removed; corroded @ SW; portions of pier removed (2020) by owner due to investigation into corr. related damage. 2 6

N60. Substructure Summary: Limited access; substructure mostly concealed, based on corrosion at S pier cap (partially exposed in 2020); det. bricks @ bell tower esp @ SE. Summary Rating: 4

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 4 K

Inspection Notes: 2020: portions of the decking removed due to concerns about structural integrity, revealing deterioration of previously concealed members. Ongoing investigation by consultant while bridge is closed to all traffic.

General Notes: Skywalk 060

Recommended Maintenance:

1. Repair det. bricks @ bell tower.
2. Develop extensive repair strategy after inspection & share report w city.

Assigned to:

Owner
Owner


Bridge Inspection Report | *Routine Inspection*

SFN: 3199959

Sixth Street Pedestrian Overhead East of Plum Street

Date Inspected: 3/10/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: CITY SKYWALK #13

QA/QC Inspector:

Signature: _____

Route: Unit: Bridge Type 364 / Date Built / Date Rehabbed: 1986 /
Load Rating Percent (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Conc. filled CMD; enclosed; not visible. Cladding joints (outside of railing in hor. surface) are breaking up allowing water to enter the struture.	2	6
C9. Curbs/Sidewalks: Tile; some mortar deter. (caulked over); some tiles cracked or shifted, esp near railings, mortar deterioration and salt staining allowing salt & water to enter deck.		
C11. Railing:	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: Water ponds on floor @ NW; ballasted membrane roof, rust on flashing w isol. stains of outside cladding; N roof drain appears to be connecting to stair tower of Plum Street overhead. Rust Staining at north end (stair tower); leak through roof @ W (2020).	2	5
C13. Expansion Joints: Joint @ S not watertight, as indicated by rust staining on sidewalk below. Joint leak allowing water to enter and get into contact with steel @ SW. Coverplate fasteners are corroded. S expansion joint is open at the top and exposes structural steel below.	2	5

N58. Deck Summary: Deck floor not visible; part. assumed rating. Summary Rating: 6

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Girders support superstructure from below; enclosed; not visible.

C17. Stringers: WF along fascia support roof floor beams; enclosed; not visible.

C18. Floor Beams: WF's support roof & deck; enclosed; not visible.

C19. Truss Verticals: Pipe columns support roof joists; bear on girders; minor rusting @ top & bottom of several verticals. 1 7

C30. Protective Coating System (PCS): System: Year: 1999 PCS Rating: 7
Minor flaking @ columns; scratched handrail.

N59. Superstructure Summary: Superstructure not visible - rating based on assumed presence of water and deicing chemicals inside the superstructure, exposed steel, and the visible rust staining below joints. Summary Rating: 6

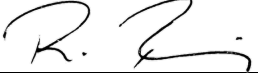
Bridge Inspection Report | Routine Inspection

SFN: 3199959

Sixth Street Pedestrian Overhead East of Plum Street

Date Inspected: 3/10/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: CITY SKYWALK #13

QA/QC Inspector:

Signature: _____

C37. Pier Caps: Loose granite slab at S side of S pier cap removed 2019. 2 5
Rust staining on W column of N end.

C38. Pier Columns: Enclosed, not visible; minor issues @ column encasement where gunite removed; 2 6
corroded @ SW.

N60. Substructure Summary: Limited access; substructure not visible - assumed, based on corrosion at SE pier cap. Summary Rating: 5

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 5 A

Inspection Notes: Informed convention center about the possible loose granite slab immediately after the 2019 inspection.

General Notes: Skywalk 060

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Reset, resecure and recaulk lose granite slab at SE pier cap (S side). | Owner |
| 2. Investigate connection between granite slabs and the structure (rust staining indicates possible issues). | Owner |
| 3. Seal joint @ S to prevent water from entering into bridge superstructure and cause waterdamage. | Owner |
| 4. Investigate & repair pier cap @ S as soon as possible | Owner |
| 5. Reseal the broken joints in the cladding outside of railing where water can enter into structure. | Owner |
| 6. Investigate leakage at the bell tower (N end), with rust staining at W column. | Owner |
| 7. Replace cover plate & fasteners @ S joint. | Owner |

Bridge Inspection Report | Routine Inspection

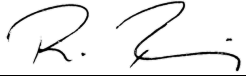
SFN: 3161684

Vine Street Pedestrian Overhead South of Fifth Street

Date Inspected: 07/22/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 7 A

Signature: 

Bridge No.: CITY SKYWALK #14

Route: VINE Unit: 0015 Bridge Type 364 / NNN Date Built / Date Rehabbed: 1981 /
 Load Rating Percent 000 (Main/Approach Spans)

Inspection Information		Rating 1 to 4	Rating 9 to 0
C7.1. Floor:	Conc. filled corr. metal; enclosed, not visible; widespread extensive staining to bottom cladding.	1	8
C7.2. Edge of Floor:	Minor denting on fascia panel @ NE.	1	7
C9. Curbs/Sidewalks:	Carpet.		
C11. Railing:	Skywalk completely glass plate enclosed w metal handrail; some window panes appear slightly loose (not fully secured in frame over full height?)	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N):	N		
C12. Drainage:	Membrane roof without ballast. Slight bubbling of membrane and very minor ponding noticeable from above. Signs of former leakage (drywall staining and damage) @ both ends.	1	7
C13. Expansion Joints:	Uneven compression seal @ inside walls @ W with foam visible in top portion of joint.	1	8
N58. Deck Summary: 1 light inside of bridge broken, one light fixture cover dented and shifted.		Summary Rating: 8	
C14. Alignment of Members:		1	8
C15.1. Beams/Girders:	Supported below by 2 W36x210 girders; enclosed - not visible.	1	7
C17. Stringers:	Roof supported by 2 W 27x94 girders & 13 roof beams; enclosed - not visible.		
C18. Floor Beams:	Enclosed - not visible.		
C26. Bearing Devices:	Enclosed.		
N59. Superstructure Summary: Not redundant; not fatigue prone; superstructure not visible, assumed rating.		Summary Rating: 7	
C35. Abutment Columns:	Supported on adjacent building @ E and granite covered pier @ W; W columns are founded "in" (Duke?) vault with granite column cladding overhanging Duke Vault lids; very minor damage to granite enclosures; mostly assumed rating.	1	8
N60. Substructure Summary: Substructure not visible.		Summary Rating: 8	

Bridge Inspection Report | *Routine Inspection*

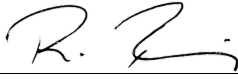
SFN: 3161684

Vine Street Pedestrian Overhead South of Fifth Street

Date Inspected: 07/22/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY SKYWALK #14

65. Vertical Clearance: Measured: 16'-9"

Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: **Partially assumed rating.**

General Appraisal / Operational Status: 7 A

Inspection Notes: Standing water @ 5th window from W @ S.

General Notes: Plans filed at TPUD as "Fountain Square South Skywalks" UA-9-3

Recommended Maintenance:

1. Seal around windows, esp 5th from W @ S.

Assigned to:

Owner

Bridge Inspection Report | Routine Inspection

SFN: 3162982

Walnut Street Government Place Pedestrian Overhead

Date Inspected: 07/22/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY SKYWALK #15

Route: WALN Unit: 0022

Bridge Type 121 / NNN

Date Built / Date Rehabbed: 1972 /

Load Rating Percent 000

(Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Coated (2012); very few isolated small rust stains, and some sound patches (2012); several areas patched & painted 2020.	1	8
C7.2. Edge of Floor: Several rust stains in concrete fascia esp under SE steps @ location of utility hanger & 8 other locations @ railing beam interface; several new patches 2020.	2	6
C9. Curbs/Sidewalks: Epoxy overlaid walking surface (2012), with minor cracking developing at bottom @ interface of railings.	1	8
C11. Railing: Metal railing on conc. parapet (new 2012). Railing opening between vertical members @ W approach exceeds limit.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: 8 inlets in walkway (1 on W approach), all appear to be functioning. Two roof drains.	1	9
C13. Expansion Joints: Comp. seals; joints tight without leakage; ext. corrosion developing under jt. to SE stairs (not considered for rating).	1	8

N58. Deck Summary: **Summary Rating: 8**

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Post-tensioned RC beams; patched & coated in 2012; 8 rust stains over S fascia @ interface w railing; rough patch and crack with rust staining at S beam at pier.	1	7
C16. Diaphragms/X-Frames: W & E end diaphragms slightly cracked @ bottom, E end with delam over guard house.	1	7

N59. Superstructure Summary: **Not redundant, not fatigue prone; some HL cracking @ bottom of 2 vertical columns.** **Summary Rating: 7**

C37. Pier Caps: Pier seats patched 2012; small rust stains @ E pier.	1	7
C38. Pier Columns: Patched @ bases & painted in 2012; cracking, patched & painted 2020 at bases of main pier columns at upper walk level (at all downspouts).	1	7

N60. Substructure Summary: **Summary Rating: 7**

C6. Approaches Summary: **SE APPROACH STAIRS: Coated 2012, new overlay.** **Summary Rating:**
NW APPROACH STAIRS: Wide spacing of vert. spandrels @ NW stair appr. is 7" horizontally.

Bridge Inspection Report | Routine Inspection

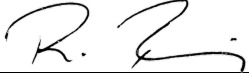
SFN: 3162982

Walnut Street Government Place Pedestrian Overhead

Date Inspected: 07/22/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY SKYWALK #15

C57. Utilities: Widespread freckled rust on drain pipes on underside of deck.

1 7

Utilities On Structure: UUUUUUU

65. Vertical Clearance: 17'-9"; 3 cameras hanging below bridge (lower clearance @ cameras).

Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 7 A

Inspection Notes: FRP channels installed in 2016 to protect bridge from street car catenary wires; ongoing const. 2020 W of bridge impacting ped. traffic.

General Notes: Skywalk 041. Bridge consists of main span and two cantilevered sections.

Recommended Maintenance:

Assigned to:

1. Add baluster to railing @ NW to reduce opening (intersection with railing from stairs), exist. opening is > 7". Owner
2. Investigate source of corrosion staining at facias and mitigate. Owner

Bridge Inspection Report | Routine Inspection

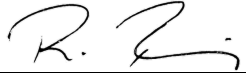
SFN: 3161560

Walnut Street Pedestrian Overhead South of Fifth Street

Date Inspected: 07/22/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 7 A

Signature: 

Bridge No.: CITY SKYWALK #16

Route: WALNT Unit: 0014

Bridge Type 364 / NNN

Date Built / Date Rehabbed: 1981 /

Load Rating Percent 000

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Enclosed, not visible, grating; FRP protective plate attached over street car catenary in 2016. Staining below grating @ E indicates possible leak from deck. 1 8

C9. Curbs/Sidewalks: Carpet.

C11. Railing: Skywalk completely enclosed; metal handrail; 2 completely fogged windows @ S. 1 7

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C12. Drainage: Roof drains; both appear to function properly; roof membrane visible in areas (possible wearing?); no signs of leakage inside. 1 8

C13. Expansion Joints: 1 8

N58. Deck Summary: Small dent in N fascia cladding @ streetcar; dirt splatter inside over 1 window @ S (4th from W). Summary Rating: 8

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Enclosed, not visible. 1 7

C18. Floor Beams: Enclosed, not visible. 1 7

C19. Truss Verticals: 2 rows of 15 interior columns; enclosed, not visible.

C26. Bearing Devices: Enclosed; not visible.

N59. Superstructure Summary: Superstructure not visible, hence rating mostly assumed. Summary Rating: 7

C37. Pier Caps: Enclosed, not visible, supported on buildings. 1 7

C38. Pier Columns: Enclosed, not visible, assumed rating; minor impact damage on encasement @ NE. 1 7

N60. Substructure Summary: Substructure not visible. Summary Rating: 7

Bridge Inspection Report | *Routine Inspection*

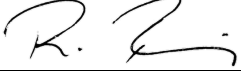
SFN: 3161560

Walnut Street Pedestrian Overhead South of Fifth Street

Date Inspected: 07/22/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY SKYWALK #16

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: **Structure mostly concealed, part. assumed rating.**

General Appraisal / Operational Status: 7 A

Inspection Notes: Bridge closed off to all traffic in 2020. Inside inspected visually from W end only.

General Notes: Skywalk 046

Recommended Maintenance:

Assigned to:

1. Repair fogged up windows.

Owner

City (Other) Bridges

Bridge Inspection Report | Routine Inspection

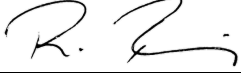
SFN: 3199936

Approach Arches to Newport-Southgate Bridge - East Side

Date Inspected: 09/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (OTHER) #01

Route: Unit: Bridge Type 055 / Date Built / Date Rehabbed: 1900 / 1988
Load Rating Percent (Main/Approach Spans)

Inspection Information

Rating
1 to 4Rating
9 to 0

C9. Curbs/Sidewalks: Conc. overlook const. (1988) for pedestrian use only; some vegetation growing in joints; isol. cracks and spalls where water can enter into arch (1 spall @ N near top of steps, 1 spall @ SW near handrail at top of steps from purple people bridge); isol areas of the concrete walk sound hollow. 1 7

C11. Railing: Conc. railing for ped. overlook (1988); many vert. HL cracks, some full height crack @ NE full height (.06") & w slight horiz. offset; minor efflor; steel handrail apparently painted (2017?) 1 7

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C12. Drainage: No inlets on structure; drain pipe from N planter installed @ N steps and repaired often. 1 8

N58. Deck Summary: Planters empty 2020 S planter leaking @ const. joint. Summary Rating: 7

C27. Arch: Partially repaired (1988, 2010?); some loc. have been conc. lined or faced with new brick (surface spalling & efflor on older bricks - esp. in middle arch); new conc. lining in N arch has some minor cracks w efflor; several patched (2017?); widespread areas of hollow sounding brick detected, also areas w soft/moist bricks; evidence of recent repair work on arches 2020. 2 6

C29. Arch Spandrel Walls: Entire E face was faced w 1 course of new brick (1988); crack bet. brick course @ concrete arch of N & S-most archs (repaired in 2020); steel soffit plates under brick cladding corr. W LOS due to arch seepage. 2 6

N59. Superstructure Summary: Redundant, not fatigue prone; recent 2020 extensive masonry repair but large areas of hollow sounding brick. Summary Rating: 6

65. Vertical Clearance: Vert. Clearance Rating: N

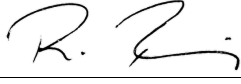
N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 6 A

Inspection Notes: S conc. counterfort cracked with build up of efflor. & deter. w rust staining; N conc. cap has full length horiz. cracks w ext. efflor.;

General Notes: This inspection report is for the east side of the arches under the pedestrian overlook only. See Approach to Newport Southgate Bridge over Former Front Street inspection report for west side of arches. This report applies to a bridge that is neither supporting the public ROW nor crossing over the public ROW.

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature:  _____

Bridge No.: CITY (OTHER) #01

Recommended Maintenance:

Assigned to:

1. Repair broken conduit inside N arch bottom (exp wires).
2. Repair cracks in wearing surface and seal the entire wearing surface.
3. Consider water proofing planters on top of arches.

Owner
Owner
Owner

Bridge Inspection Report | Routine Inspection

SFN: 3160726

Cliff Drive over Eden Park Drive South of St. Paul

Date Inspected: 03/18/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (OTHER) #02

Route: CLIFF Unit: 3711

Bridge Type 155 / NNN

Date Built / Date Rehabbed: 1900 / 1978

Load Rating Percent 070

(Main/Approach Spans)

Inspection Information

Rating
1 to 4Rating
9 to 0

C7.1. Floor:	Uneven build-up of gunite; few HL long. cracks in the gunite; efflor at the corners with minor stalactites forming at the Northeast.	1	7
C7.2. Edge of Floor:	Minor transverse cracks at the fascias.	1	7
C8. Wearing Surface:	Trans & diag cracks; sealed (2019); several repair patches 2019, some breaking up.	1	7
C9. Curbs/Sidewalks:	Patched & sealed (2006); trans cracking; coating flaking; widespread staining.	1	7
C11. Railing:	Steel painted & concrete sealed (2006); isol HL map efflor. at the bottom of some conc pylons; lichen accumulating.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N):	0		
C12. Drainage:	No inlets on the bridge; inlets on all 4 corners of the approach; SE grate covered with leaves.	2	6

N58. Deck Summary: Per ODOT filled arches should have "N" in deck summary.**Summary Rating:**

C14. Alignment of Members:		1	8
C27. Arch:	Uneven build-up of gunite; few longitudinal HL cracks in the gunite with minor dampness; efflorescence at the corners with stalactites forming at the NE; actual arch not visible (covered by gunite).	1	7
C29. Arch Spandrel Walls:	Gunite coated; horiz & vert cracks with efflor; long. cracks at the interface with the arch and the railing; sealed (2006).	1	7

N59. Superstructure Summary: Mostly concealed by gunite.**Summary Rating: 7**

C33. Abutment Walls:	Stubs: Minor efflor at the E & W; concealed by gunite.	1	7
C40. Wingwalls:	Gunite coated: cracks with efflor, some delams; stains under the NW weephole.	1	7

N60. Substructure Summary: Mostly concealed by gunite coating.**Summary Rating: 7**

C1. Pavement:	Resurfaced (2006); minor alligator cracking at the W; few trans cracks @ E.	1	7
C4. Embankment:	Steep; overgrown; possible movement of the wall below the bridge (not considered for this report).	2	6

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: New handrail @ SE is very loose.**Summary Rating: 6**

Bridge Inspection Report | *Routine Inspection*

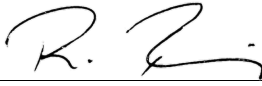
SFN: 3160726

Cliff Drive over Eden Park Drive South of St. Paul

Date Inspected: 03/18/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature:  _____

Bridge No.: CITY (OTHER) #02

C55. Warning Signs: "No Trucks" sign posted where the one-way begins (not bridge related).

1 8

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 7 A

Recommended Maintenance:

1. Clean out curb inlets esp @ SE.
2. Remove Ivy from bridge rail & fascia.
3. Fasten approach hand rail @ SE.

Assigned to:

Parks
Parks
Parks

Bridge Inspection Report | Routine Inspection

SFN: 3161943

Duck Creek Road Culvert over Yononte Creek

Date Inspected: 03/19/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 6 A

Signature: 

Bridge No.: CITY (OTHER) #03

Route: DUCKC Unit: 0
Load Rating Percent 150Bridge Type 195 / NNN
(Main/Approach Spans)

Date Built / Date Rehabbed: 2010 /

Inspection Information

Rating 1 to 4 Rating 9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N): 0

C44. Culvert - General: Graffiti on the interior of the culvert; several sections with HL cracking on the inside, either originating from the lift holes with almost horiz. cracks between liftholes, or a vertical crack in the center of the segments, or widespread long. HL cracks at rebars standoffs (not as pronounced on the inside); several patched spalls at the bottom & center top (from flood damage when segments were shifted);
Large patch under roadway from earlier repair (Prus).
Top of culvert has widespread moss/lichen, honeycombing and long cracking developing at rebar standoffs with pronounced conc. det. at some standoffs; excessive efflor. in tie holes.

1 7

C45. Culvert - Alignment: Segments that were shifted during the 2016 flood have been reset and anchored to the channel bottom using 4 angles per segment; the alignment of the panels after the repair is very good with only minimal offsets between adjacent panels.

1 8

C47. Culvert - Seams: Exposed top seams are only caulked and may become a maintenance item, or an issue during a flood when the culvert is under pressure; water leaking through 3rd seam from S; one seam is open (3rd from N) with light shining through and hence potential for exfiltration; backer rod hanging down from one seam inside of culvert; moisture around all seams indicates widespread minor infiltration.

2 6

C48. Culvert - Head/End Walls: Rust staining @ S headwall, at both sides up to 2 ft up from corner; widespread graffiti.

1 8

C49. Culvert - Scour:

1 9

Culvert Scour Inspection Type:

C50. Culvert - Abutments:

1 8

N60. Culvert Summary: Summary Rating: 6

C51. Channel Alignment: 1 9

C52. Channel Protection 1 9

C53. Hydraulic Opening: Slightly restricted by vegetation US. 1 8

N62. Channel Summary: Summary Rating: 8

Bridge Inspection Report | Routine Inspection

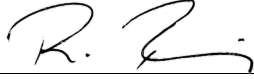
SFN: 3161943

Duck Creek Road Culvert over Yononte Creek

Date Inspected: 03/19/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 6 A

Signature: 

Bridge No.: CITY (OTHER) #03

C1. Pavement: Crack in 1 lane of conc., and few cracks in E asphalt. 1 7

C5. Guardrail: Widespread sev. guardrail post (Wood) det. > 50% LOS). 3 3

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 0

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Summary Rating: 3

C57. Utilities: Storm pipes through the Conspan @ 2 locations. 1 8

Utilities On Structure: NNNNNNN

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 6 A

General Notes: Most culvert segments without fill above were moved by a 2016 storm. This caused spalling mainly to the edges of segments, with significant shifting of segments and infiltration. This was repaired by the Army Corps of Engineers (and Messer) and was completed in March 2018.

Recommended Maintenance:	Assigned to:
1. Consider sealing the exposed top, especially the cracks and honeycombing.	Owner
2. Seal joints in a more efficient way than caulk, so the exfiltration will not be possible.	Owner

Bridge Inspection Report | Routine Inspection

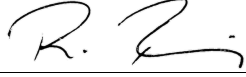
SFN: 3162230

Fifth Street Grates for Fountain Square Garage (West)

Date Inspected: 03/25/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (OTHER) #04

Route: FIFTH Unit: Bridge Type 321 / Date Built / Date Rehabbed: 1967 / 2015
 Load Rating Percent 150 (Main/Approach Spans)

Inspection Information

C7.1. Floor: Open steel grate; grating installed (11-15-2015); Individual (adjacent) grating panels were tack welded together, 5 of these welds (N half) are breaking with the potential of extending into the basemetal of the main bars; material broken out of these welds; welds repaired early 2018 but broken again; clanking of N most panel (lifting up @ N); cross bars over center beam breaking indicating unintended long. support. Rating 1 to 4: 1 Rating 9 to 0: 7

C8. Wearing Surface: Open steel grate; see Item 1 - FLOOR. Rating 1 to 4: 1 Rating 9 to 0: 7

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Summary Rating: 7

C15.1. Beams/Girders: All new beams and floorbeams (11-15-2015) made from galvanized steel; debris accumulating over beams, may cause moisture retention, untimely corrosion and is also concealing TF's. Rating 1 to 4: 1 Rating 9 to 0: 8

C17. Stringers: See item #10: BEAMS Rating 1 to 4: 1 Rating 9 to 0: 8

C18. Floor Beams: See item #10: BEAMS Rating 1 to 4: 1 Rating 9 to 0: 8

C30. Protective Coating System (PCS): System: Year: 2015 PCS Rating: 9
 Rating is for only condition of galvanizing of new support beams.

N59. Superstructure Summary: Not redundant, not fatigue prone; mostly concealed by grating and accumulated debris. Summary Rating: 8

C33. Abutment Walls: Mostly concealed; cracks w seepage & spalling; minor concrete deter.; some formwork left in place; covered by dirt & debris; cracks w rust staining @ bottom of walls. Rating 1 to 4: 2 Rating 9 to 0: 6

N60. Substructure Summary: Partially assumed rating. Summary Rating: 6

C1. Pavement: Rating 1 to 4: 1 Rating 9 to 0: 8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Summary Rating: 8

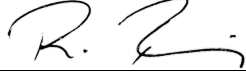
N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 6 A

Fifth Street Grates for Fountain Square Garage (West)

Date Inspected: 03/25/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (OTHER) #04

General Notes: New gratings and support beams installed on 11-16-2015.

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Monitor welds between adjacent panels, and repair main bars (at weld locations) as necessary. | Owner |
| 2. Regularly clean/vac out debris accumulating in bar gratings over beams & stringers. | Owner |
| 3. Address grate support that causes clanking @ N & long. support @ center. | Owner |
| 4. Repair transverse bars over center beam. | Owner |

Bridge Inspection Report | Routine Inspection


SFN: 3162281

Fifth Street Grates for Fountain Square Garage (East)

Date Inspected: 03/25/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: CITY (OTHER) #05

Route: FIFTH Unit:
Load Rating Percent 150Bridge Type 321 /
(Main/Approach Spans)

Date Built / Date Rehabbed: 1967 / 2015

Inspection Information

Rating
1 to 4 Rating
9 to 0

C7.1. Floor: Open steel grate; grating installed (11-15-2015); some transverse bar segments broken & missing in SW most panel (S most panel unintentionally supported over S wall); several other welds in this panel cracked (precursor to bars breaking); individual gratings tack-welded together (at least 1 weld broken w potential to extend into base metal); trans bars added in 2 S most panels over FB's, not welded to all long. bars in panel; cracking of trans bars reoccurring after previous 2018 repairs; clanking due to panel lifting up @ SE & NW corner.

2 6

C8. Wearing Surface: Open steel grate; see Item 1 - FLOOR; some extra galvanizing on a single E grate panel.

1 7

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary:

Summary Rating: 6

C15.1. Beams/Girders: All new beams and floorbeams (11-15-2015) made from galvanized steel; top concealed by accumulated debris.

1 8

C17. Stringers: See item #10: BEAMS

1 9

C18. Floor Beams: See item #10: BEAMS

1 9

C30. Protective Coating System (PCS): System: Year: 2015 PCS Rating: 9
Rating is for only condition of galvanizing of new support beams (assumed rating, concealed by debris).

N59. Superstructure Summary: Not redundant, not fatigue prone.

Summary Rating: 8

C33. Abutment Walls: Mostly concealed; cracks w seepage & spalling; minor concrete deter.; some formwork left in place; covered by dirt & debris; S angle (not intended for support) corroding & moving @ SW w corner pushing away from abutment wall into opening; large spall w several exp bars @ center of E abutment.

2 5

N60. Substructure Summary: Partially assumed rating.

Summary Rating: 5

C1. Pavement:

1 8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary:

Summary Rating: 8

Fifth Street Grates for Fountain Square Garage (East)

Date Inspected: 03/25/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: CITY (OTHER) #05

65. Vertical Clearance:

Vert. Clearance Rating: N

N59. General Appraisal
and Oper. Status:General Appraisal /
Operational Status: 5 A

Inspection Notes: Grating repairs performed in 2018, however, the underlying cause of the issue (unintended support of the panels at S) was not addressed and cracks in the transverse bars are reoccurring; vent shaft floor filled w water during 2020 inspection.

General Notes: New gratings and support beams installed 11-16-2015.

Recommended Maintenance:**Assigned to:**

- | | |
|--|-------|
| 1. Repair S panel support to eliminate stress on transverse bars. | Owner |
| 2. Monitor condition of gratings (esp. at S edge). | Owner |
| 3. Clean/vacuum out debris collecting in grates over beams. | Owner |
| 4. Monitor tack welds between adjacent railing panels & repair railing as necessary. | Owner |
| 5. Repair broken transverse bars and cracked welds after S support modification was completed. | Owner |

Bridge Inspection Report | Routine Inspection

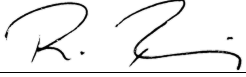
SFN: 3162354

Fifth Street Grates for Fountain Square Garage (South)

Date Inspected: 03/25/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (OTHER) #06

Route: Unit: Bridge Type 303 / Date Built / Date Rehabbed: 1978 /
Load Rating Percent 150 (Main/Approach Spans)

Inspection Information

Rating
1 to 4 Rating
9 to 0

C7.1. Floor: Open steel grate; uneven support over pier caused cracking & breaking of many transverse several members; rusting over pier; settlement of bars over pier observed in 2020; several crossbars missing @ N near "pier"; several welds between main bars & frames @ abutments cracking, so far no cracks in base metal. 2 6

C8. Wearing Surface: Open steel grate; see Item 1 - FLOOR 1 8

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Partially assumed rating; supported on steele angles @ N & S; angle not continous over "pier", causing slight settlement of panel over "pier"; steele angles mostly concealed by accumalated debris. Summary Rating: 6

C33. Abutment Walls: Mostly concealed; cracks w seepage & spalling; minor concrete deter. 2 6

C36. Pier Walls: Pier (not designed for support) compromises the abutment bearing (bearing angle cut short). This caused previous issues with unintended loadpath.

N60. Substructure Summary: Summary Rating: 6

C1. Pavement: 1 8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Summary Rating: 8

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 6 A

Inspection Notes: Inside of vent room not inspected in 2020.
See also Element Level report (7/27/2020)

General Notes: (Formerly part of 3199938)
Grating extends into marked crosswalk.

Recommended Maintenance:

Assigned to:

- | | |
|---|-------|
| 1. Clean/vacuum out debris collecting in grates over beams. | Owner |
| 2. Extend abutment support angles over "pier" to eliminate settlement of grates in this area. | Owner |
| 3.Then repair grate over pier. | Owner |
| 4. Address cracking of main bars to outside frame @ abutments. | Owner |

Bridge Inspection Report

Element Level Inspection

Bridge:	Fifth Street Grates for Fountain Square C	Inspector:	Reiner Reising
Number:	City (Other) #6	Inspector:	Phil McCoy
SFN:	3162354	Date:	7/27/2020

Item	Description	Unit	Quantity	Condition States				TR
				CS 1	CS 2	CS 3	CS 4	
28	Steel Deck with open Grid	SF	336	328	2	6	1.29	
1	Deck Summary	0						
215	Reinforced Concrete Abutment	LF	96	82	11	3	1.56	
3	Substructure Summary	0						
1.5	General Appraisal	0						

Bridge Inspection Report | Safety Inspection

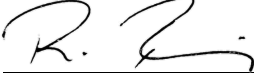
SFN: 3160521

Flood Wall over Carr Street

Date Inspected: 03/16/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (OTHER) #07

Route: CARRS Unit: 2911

Bridge Type 171 / NNN

Date Built / Date Rehabbed: 1948 /

Load Rating Percent 000

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating
1 to 4Rating
9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Minor pop-outs; scaled; spot rust on steel angles; indicating possible rust behind steel angles; minor cracks @ doorway (less than 10 ft). 1 7

N59. Superstructure Summary: Not redundant; not fatigue prone. Summary Rating: 7

C33. Abutment Walls: Minor cracking; scaling; curb spalled @ both abutments w deter. of metal curb cover plate & exp rebar; minor widespread scrapes @ driveway @ E; delamination @ SW; former cracking @ wall top, caulked. 1 7

N60. Substructure Summary: Summary Rating: 7

C55. Warning Signs: VC marked 16'-6" on overhead beam (fading of background); measured 16"-6". 2 6

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Inspection Notes: Rust stains from barb wire barrier @ center of bridge. Roadway Plate #5 is bent. Concrete wearing surface breaking up around recess boxes.

Recommended Maintenance:

Assigned to:

1. Repair concrete wearing surface around steel inserts (recess boxes).

Stormwater

Bridge Inspection Report | Safety Inspection

SFN: 3160475

Flood Wall over Harriet Street

Date Inspected: 03/16/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (OTHER) #08

Route: HARRI Unit: 2912

Bridge Type 171 / NNN

Date Built / Date Rehabbed: 1948 /

Load Rating Percent 000

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Minor pop-outs; spot rust on steel angles; apparent pack rust behind angles; former cracks at top of beam caulked. 1 7

N59. Superstructure Summary: Not redundant, not fatigue prone; general surface scaling. Summary Rating: 7

C33. Abutment Walls: Larger diag. cracks w efflor. (seepage), roughly patched; no delams detected by sounding, epoxy injected; cracks @ both piers sealed. 1 7

N60. Substructure Summary: Summary Rating: 7

C55. Warning Signs: VC marked 15'-11" on overhead beam. 1 9

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Inspection Notes: Floodgate closed in 2020.

Bridge Inspection Report | Safety Inspection

SFN: 3160424

Flood Wall over Mehring Way

Date Inspected: 03/16/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (OTHER) #09

Route: MEHRG Unit: 0024

Bridge Type 171 / NNN

Date Built / Date Rehabbed: 1948 /

Load Rating Percent 000

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating
1 to 4Rating
9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Pop-outs; spot rust on steel angles; minor spalls along bottom @ steel angles; some delam. areas; exp. rebar @ 1 loc; rust stains on conc. - probably from RR bridge above; small delamination at top of sidewalk door (less than 10' span). 1 7

N59. Superstructure Summary: Not redundant, not fatigue prone. Summary Rating: 7

C33. Abutment Walls: Minor cracks in both piers; minor spall on N pier w exp. rebar; curb spalled @ N & S pier; minor honeycombing; former cracking @ top, caulked; minor hairline cracking, spalling, & small delaminations. 1 7

N60. Substructure Summary: Summary Rating: 7

C55. Warning Signs: VC marked 16'-1" on overhead beam on E side only; very faded, paint flaking, barely legible. 4 2

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Inspection Notes: Street portion covered with road plates for repair of recess boxes during the 2020 inspection.

Recommended Maintenance:

Assigned to:

1. Repaint vertical clearance, add clearance to W fascia.
2. Repair roadway recess so street cover plates can be removed.

Owner
Owner

Bridge Inspection Report | Routine Inspection

SFN: 3161447

Martin Drive over Old Water Works Coal Room

Date Inspected: 08/20/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 P

Signature: 

Bridge No.: CITY (OTHER) #10

Route: MARTN Unit: 3714 1

Bridge Type 112 / NNN

Date Built / Date Rehabbed: 1875 / 1940

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating
1 to 4Rating
9 to 0

C7.1. Floor: Reinforced slab w 3 paved over manholes; cracks w efflor parallel to beams; floor saw-cut East-West over 4 bays, leaking water, rust staining; shallow spots w exp. rebar +/- 6" (low conc. cover).

2

6

C8. Wearing Surface: Wide long. cracks and map cracking; some moderate trans. cracks; some cracks previously sealed; potholes forming from the wide long. crack.

2

6

C9. Curbs/Sidewalks:

1

8

N36. National Safety Feature - Bridge Railing (0, 1 or N):

C12. Drainage: Off street; no issues other than leakage/condensation (see slab/abutment walls)

1

7

N58. Deck Summary:

Summary Rating: 6

C14. Alignment of Members:

1

8

C15.1. Beams/Girders: Few delaminations, cracks, and spalls at the beam ends (some exposed reinforcing); previous beam end patches (bottom near bearing) deteriorating.

2

6

N59. Superstructure Summary:

Summary Rating: 6

C33. Abutment Walls: Cut stone; leakage in E wall @ few locations w mineral build up @ midheight (continued leaking through wall), @ N half of bridge; foam @ abutment seat of 1 beam.

1

7

C37. Pier Caps:

1

8

C38. Pier Columns: Corner spalls at the base with 1 exposed rebar; honeycombing (typ).

1

7

N60. Substructure Summary:

Summary Rating: 7

C1. Pavement: Wide long. and trans. unsealed cracks w initial rutting; patch w slight settlement S of structure.

2

6

C4. Embankment:

1

8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary:

Summary Rating: 6

Bridge Inspection Report | *Routine Inspection*

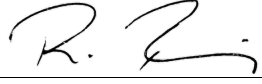
SFN: 3161447

Martin Drive over Old Water Works Coal Room

Date Inspected: 08/20/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 P

Signature: 

Bridge No.: CITY (OTHER) #10

C56. Sign Supports: Load posting signs installed 2019.

1 9

65. Vertical Clearance:

Vert. Clearance Rating: N

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 6 P

Recommended Maintenance:

1. Consider filling coal room.

Assigned to:

Owner

Bridge Inspection Report | Routine Inspection

SFN: 3164780

Reinhold Drive Culvert for Amberley Creek

Date Inspected: 09/21/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (OTHER) #11

Route: REINH Unit: 0001

Bridge Type 395 / NNN

Date Built / Date Rehabbed: 1952 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N):

C44. Culvert - General: Corrugated arch on a concrete pedestal (abutment 5' wide and 6' deep); some areas of deep honeycombing on pedestal; corr. @ bottom +/- 6" of metal arch w some LOS; this rating is only for the portion underneath the roadway; sev. corr. holes and areas of reverse bottom curvature floor in the US portion of the privately owned culvert, (not part of this rating). 1 7

C45. Culvert - Alignment: The portion under the roadway is in very good condition; for the remainder of the culvert, the alignment is worse; there is a continual drop between segments of the corrugated metal sections. 1 8

C46. Culvert - Shape: Very minor flattening for the portion under the roadway. The remainder of the culvert should be rated much lower. There are several locations of reverse curvature throughout the culvert bottom (+/- 2' tall) & 1 area of slight reverse curvature(1.5" to 2") @ top (jnt cusping). 1 7

C47. Culvert - Seams: The seams for the portion under the roadway are in good condition w white staining @ top seams. For the remainder of the culvert, the seams are rated worse (where reverse curvature). There are cusped seams and possible backfill infiltration through corrosion holes (around normal water elevation). 1 8

C49. Culvert - Scour: The area below the roadway has no bottom and is scoured deeper than the DS end - 4'+); S abutment exposed below construction joint (formed portion in 2' from top only). Past inspections have shown that the water level inside the culvert rises; inspections with waders are only possible when culvert is pumped out; inspections revealed very slippery & sloped culvert bottom indicating continued deepening. 2 6

Culvert Scour Inspection Type:

C50. Culvert - Abutments: The abutments are located only underneath the roadway portion. 1 7

N60. Culvert Summary: **At the S abutment, more than the top 2 feet of concrete are exposed. Only the top 2 feet were formed, the concrete below was cast into a trench so that it now appears the bottom of the abutment is visible, however the actual bottom is 4 feet deeper (per plans).** **Summary Rating: 6**

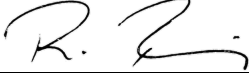
C51. Channel Alignment: 1 9

C52. Channel Protection: Only private culvert portion; channel protection only exist at the inlet portion, on private property and on the sides of the public culvert; the concr. portion (sides) are in good condition; the bottom of the steel elliptical pipe also acts as channel protection in the private property section. This portion would be rated a 4; there are many {some large} corr. holes in the floor leading to undermining and the floor is also in reverse curvature at many location.

C53. Hydraulic Opening: Sediment downstream blocks flow in culvert. The water level is high directly underneath the roadway portion; trees fell over channel DS of culvert in 2020; 2 6

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (OTHER) #11

2020 DS property owner added grouted dump rock to channel possibly restricting opening?.

N62. Channel Summary: **Summary Rating: 6**

C1. Pavement: New wearing surface (2016). 1 9

C4. Embankment: Very steep; overgrown; lots of illegal dumping. 1 8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: **Summary Rating: 8**

N59. General Appraisal and Oper. Status: **General Appraisal / Operational Status: 6 A**

Inspection Notes: Continued build-up of silt DS of the culvert raises the water level inside and lowers the invert. As a result a wader inspection is only possible when the culvert is being pumped out for several hours. Despite hours of pumping in 2019, it is recommended to walk on the side of the culvert because areas much deeper invert and depth were detected in the middle of the culvert. 2020 only public portion & US end inspected.

General Notes: This report only applies to the public portion under the roadway, not the private corrugated steel culvert upstream.
Apparently plans underway from stormwater to add dumprock to culvert bottom to mitigate erosion.

Recommended Maintenance: **Assigned to:**

- | | |
|---|------------|
| 1. Consider digging out channel down stream to reduce level in culvert. | Stormwater |
| 2. Consider lining channel floor w conc. to prevent erosion. | Stormwater |

Bridge Inspection Report | Routine Inspection

SFN: 3160149

Steamboat Monument over Broadway

Date Inspected: 06/10/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (OTHER) #12

Route: BRODW Unit: 3342

Bridge Type 321 / NNN

Date Built / Date Rehabbed: 1969 /

Load Rating Percent 000

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Minor cracking w very little efflor. in former RR bridge spans.	1	8
C7.2. Edge of Floor: Widespread deeper spalling @ N joint/fascia w effl. & some rust staining; S cold joint bet. deck and concrete beam (inside) shows efflor; apparent (former?) leakage & stalactites @ NE.	2	6
C9. Curbs/Sidewalks: Reflective settlement in pavers @ joints; sev ALS @ joint to state bridge in conc walk (not considered for rating).	1	7
C11. Railing: Painted and repaired 2019; some areas of old paint overpainted	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: Some debris in floor drain.	1	8
C13. Expansion Joints: All covered by pavers; slight paver settlement/shifting @ some joints; moisture noticeable below after extended rain.	1	7

N58. Deck Summary: Swallows nest present 2019 **Summary Rating: 8**

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Steel beams: minor rust @ beam end (TF only); slight rolling (irregular surface on 2 beams). Concrete beams: spalling w minor efflor. @ conc. beam/wall junct. @ E & SE fascia (expansion end); minor honeycombing.	1	8
C16. Diaphragms/X-Frames: (steel span only)	1	8
C26. Bearing Devices: (Steel span only): Some nuts not tight @ both abut; NE bearing rusting.	1	8
C30. Protective Coating System (PCS): System: OZEU Year: 2005 PCS Rating: 8		

N59. Superstructure Summary: Not fatigue prone; redundant. **Summary Rating: 8**

C33. Abutment Walls: Cracking w efflor & corner spall @ NW; 3 spalls w exposed rebar @ SE end of former RR abutment; slight rust staining from exp. rebar.; widespread staining from flood.	1	7
C37. Pier Caps:	1	9
C38. Pier Columns: Very minor scrapes.	1	8
C39. Backwalls: Only at former RR bridge portion: mostly concealed staining.	1	8
C40. Wingwalls: (E center of bridge only and SE under cantilevered portion only): cracks with slight efflor.	1	8

N60. Substructure Summary: **Summary Rating: 7**

Bridge Inspection Report | Routine Inspection

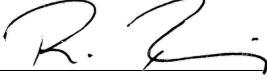
SFN: 3160149

Steamboat Monument over Broadway

Date Inspected: 06/10/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (OTHER) #12

C57. Utilities: Minor impact damage from flow debris.

2 6

Utilities On Structure: Y N N N N N N

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 7 A

Inspection Notes: Many swallows nest below conc deck (abandoned?), and healthy pigeon population; ramp below bridge covered w mud from recent flood(2020).

Recommended Maintenance:

1. Patch bottom of NW decorative column (on top).
2. Resecure loose pavers on top of joints.

Assigned to:

Owner
Owner

Bridge Inspection Report | Routine Inspection

SFN: 3161390

Summit Road Culvert for Amberly Creek

Date Inspected: 12/03/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 6 A

Signature: 

Bridge No.: CITY (OTHER) #13

Route: SUMIT Unit: 4012

Bridge Type 395 / NNN

Date Built / Date Rehabbed: 1958 / 1977

Load Rating Percent 100

(Main/Approach Spans)

Inspection Information

Rating
1 to 4Rating
9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N):

- C44. Culvert - General:** Pipe arch culverts: Substantial accum. of sediment in the E culvert; galvanized coating appears to be slightly compromised @ area in vicinity of 1 interior bend; rust is visible and concentrated at the top 60 degrees. W culvert bot of corrugated without LOS appears to be above normal water level. 1 7
- C45. Culvert - Alignment:** The W pipe is discontinuous at the joints (apparently original const.); masonry and steel plates used at the joints; culverts bend to accommodate the channel. 1 7
- C46. Culvert - Shape:** Smooth shape in inspection range; W culvert private portion worse.(not considered for rating); with reverse curvature @ bottom @ 2 locations & bulging @ few wall locations of W culvert (not part of this inspection); bottom of E culvert mostly concealed by accumulated sand/silt, hence partially assumed rating. 1 7
- C47. Culvert - Seams:** Traces of seepage; corr. exists at some bolts w buildup of efflor; the E culvert has 1 loose bolt at the invert, close to the downstream end, with water infiltration. 1 7
- C48. Culvert - Head/End Walls:** The headwall is not completely enclosing the pipe; there is minor conc. det.; no headwall @ DS end of E culvert; steele sheet piling leaning/bowing at the headwall between E & W spans; corr. holes in the sheet piling. 1 7
- C49. Culvert - Scour:** 2 ft of scour at the S entrance of the E span (between the E & W spans); undermining at the inlet of the W span with water running between the bottom of the culvert and conc. headwall (this portion of the W span is outside inspection limits, actual inspected portion has no metal bottom). W culvert has one deeper area within the inspection limits at the NW where a pipe enters the culvert. 2 6

Culvert Scour Inspection Type: 2

- C50. Culvert - Abutments:** W span only, only in portion under street. 1 8

N60. Culvert Summary: Summary Rating: 6

- C51. Channel Alignment:** Bend at the North DS; excessive vegetation at the entrance of both spans; low flow through the West span only. 2 6
- C52. Channel Protection:** Sheet piling US @ SE leaning toward channel slumping of embankments US. 2 5
- C53. Hydraulic Opening:** Build up of debris in E pipe +/- 3'; severe overgrowth in channel US & DS; trash & cuttings being pushed from parking lot over entrance of W pipe, restricting from from the top. 2 6

N62. Channel Summary: Summary Rating: 5

Bridge Inspection Report | Routine Inspection

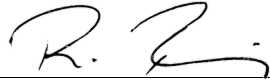
SFN: 3161390

Summit Road Culvert for Amberly Creek

Date Inspected: 12/03/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (OTHER) #13

C1. Pavement: Few transverse HL cracks (only pavement at Summit Rd is inspected); very smooth riding surface. 1 8

C5. Guardrail: Only located at the inlet; it is covered by trash & vegetation; located way off the road along the parking lot of James Hunt Construction.

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 0

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 0

C6. Approaches Summary:

Summary Rating: 8

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 6 A

Inspection Notes: Cut tree branches dropped off over inlet, hanging into culvert.
Company near DS end of culvert apparently piling up tree trunks & high mulch piles possibly over culvert.
Debris built-up in E culvert does not allow monitoring of the shape at bottom of culvert.
2020 inspection with Employee safety.

Recommended Maintenance:

Assigned to:

1. Remove cut vegetation piled on top of headwall from top of culvert entrance (parking lot). Owner
2. Grout around US end of W culvert to prevent scour. Owner

Railroad Bridges

Bridge Inspection Report | Safety Inspection

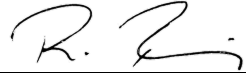
SFN: 3160084

Baymiller Street Chessie Overhead South of Linn Street

Date Inspected: 04/07/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: RAILROAD #01

Route: BAYML Unit: 3322

Bridge Type 364 /

Date Built / Date Rehabbed: 1900 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating
1 to 4Rating
9 to 0

C7.1. Floor: Open ties (1992); metal grate walkway bet. 2 tracks (1993); some sections slightly deformed; new tracks installed 2020; debris from track modification under bridge.

1

7

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary:

Summary Rating: 7

C14. Alignment of Members:

1

8

C15.1. Beams/Girders: Initial LOS @ BF's; minor impact damage on BF(scrapes); very minor pack rust bet. CP.

1

7

C17. Stringers: LOS on BF's @ some connection; seat angles bent (supplemental support); new top cover plates added w rehab(?).

2

6

C18. Floor Beams: Very minor initial LOS @ TF & BF's; some bent stiffeners.

1

7

C24. Lateral Bracing: LOS - severe @ center gusset plates (knife edging); pack rust between angles & some bolts missing; center bottom brace vibrating under traffic.

2

6

C25. Sway Bracing: Mostly concealed.

1

7

C26. Bearing Devices: At W only.

1

7

C30. Protective Coating System (PCS): System: Year: 1982
Rust on gussets.

PCS Rating: 5

N59. Superstructure Summary: Not fatigue prone, not redundant; apparent LOS on top of BF's, not quantifiable from below; isol corr cells on steel members.

Summary Rating: 6

C38. Pier Columns: Minor impact damage @ bracing; lacing members have severe LOS @ NE; LOS @ anchor bolts; anchor bolts not tight @ W & SE; graffiti; LOS @ beam/pier column connection; pier column #86 attached to foundation by means of 4 anchor bolts, 2 bolts are lifted & all have considerable LOS.

2

6

N60. Substructure Summary: Anchor bolt deterioration worse on adjacent piers.

Summary Rating: 6

Bridge Inspection Report | *Safety Inspection*

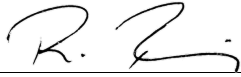
SFN: 3160084

Baymiller Street Chessie Overhead South of Linn Street

Date Inspected: 04/07/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: RAILROAD #01

65. Vertical Clearance: Needs signage if street below is re-opened; measured 13'6" on 8-29-19 Vert. Clearance Rating: 1

**N59. General Appraisal
and Oper. Status:**

**General Appraisal /
Operational Status: 6 N**

Inspection Notes: Road below is closed.
Did not attempt to access top of bridge.
2020 new track installed on bridge.

General Notes: Span 85 of RR bridge.

Recommended Maintenance:

Assigned to:

1. Consider repairs to bracing, and repainting the structural steel.
2. Clean area below bridge from railroad debris.

Owner
Owner

Bridge Inspection Report | Safety Inspection

SFN: 3160092

Baymiller Street C.U.T. Overhead North of 3rd (C.U.T. SE Connection) Date Inspected: 04/07/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #02

Route: BAYML Unit: 3321

Bridge Type 363 /

Date Built / Date Rehabbed: 1900 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating
1 to 4Rating
9 to 0

C7.1. Floor: Open ties.

1 8

C9. Curbs/Sidewalks: Grating on S side (repaired 2010?)

C11. Railing: 2 steel ropes @ S.

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary:

Summary Rating: 8

C14. Alignment of Members:

1 8

C15.1. Beams/Girders: Dirt collected on flanges; rust; minor initial LOS; minor pack rust forming bet. C/P; BF rivet heads det.

2 6

C16. Diaphragms/X-Frames: LOS @ gussets.

2 6

C24. Lateral Bracing: (only @ top) Initial LOS - especially @ gussets.

2 6

C26. Bearing Devices: (@ E only); pitting.

1 7

C30. Protective Coating System (PCS): System: Year: 1982
Former LOS arrested by painting.

PCS Rating: 4

N59. Superstructure Summary: Not fatigue prone, not redundant.

Summary Rating: 6

C37. Pier Caps: Cracked through (pier seat plate) @ pier #71 just W of main span.

3 3

C38. Pier Columns: E pier pinned @ base; lat. bracing @ W severely impacted; anchor bolts loose & deter. w sev. LOS @ SW; 4 bolts lifted; stitch welds cracked @ S pier column bases; pitting @ bases; SW pier column, including base plate pumping under load; condition of SW pier governs the rating.

3 4

N60. Substructure Summary:

Summary Rating: 3

Bridge Inspection Report | *Safety Inspection*

SFN: 3160092

Baymiller Street C.U.T. Overhead North of 3rd (C.U.T. SE Connection) Date Inspected: 04/07/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #02

65. Vertical Clearance: Measured 17'-6" in 2019

Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: **Worse pier conditions (columns not touching base plate under train load) observed at adjacent spans that are not part of this inspection and they are not reflected in this rating.**

General Appraisal / Operational Status: **3 N**

Inspection Notes: Did not attempt to access top of bridge.
2020 pier numbering & direction apparently changed.
2020 lots of gravel base below bridge, apparently from company @ S side of tracks.

Recommended Maintenance:

1. Replace pier seat gusset plate @ SW pier (pier #71), (completely cracked through @ pier seat).
2. Repair anchor bolts & cracked weld @ pier bases @ SW.
3. Fasten pier to base @ SW column to prevent movement.
4. Investigate adjacent piers & pier caps.

Assigned to:

Owner
Owner
Owner
Owner

Bridge Inspection Report | *Safety Inspection*

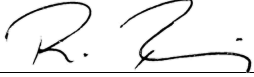
SFN: 3160157

Budd Street C.U.T. Overhead - 1st West of McLean

Date Inspected: 04/10/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: RAILROAD #03

Route: BUDD Unit: 2924

Bridge Type 363 /

Date Built / Date Rehabbed: 1930 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Wood ties serve as FLOOR; metal grating @ W walk. 1 7

C11. Railing: Railing is metal cable strung bet. galv. angles (W side only).

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Summary Rating: 7

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Minor initial LOS; some stiffeners perf. @ bottom fascia, E side; rust along BF, TF & rivets; BF pitted @ web interface of E beam, & E face of W beam; minor isol. pack rust between cover plates of BF. 2 6

C16. Diaphragms/X-Frames: Initial LOS @ gusset plates, bottom horiz member thinning @ gussets. 2 6

C24. Lateral Bracing: Initial LOS @ gusset plates (noticeable @ edges). 2 6

C26. Bearing Devices: Severe LOS on anchor bolts; corr. w initial LOS elsewhere; some anchor bolts lifted; SW bearing plate partially cracked originating from 1 rivet head. 2 5

C30. Protective Coating System (PCS): System: Year: 1997 PCS Rating: 4
Rusting; BF's & TF's rusting; rusting @ lower lat. bracing.

N59. Superstructure Summary: Not fatigue prone, not redundant. Summary Rating: 6

C33. Abutment Walls: Staining under bridge; minor vert. cracks; tie holes not plugged @ N, leaking through center jnt 3/4 up abutment wall. 1 7

C34. Abutment Caps: Minor debris; minor honeycombing; isol. minor efflor. below. 1 7

C36. Pier Walls: Moss; staining under bridge; ivy growing; minor vert. hairline cracking, some w efflor. @ top of wall. 1 7

C37. Pier Caps: Debris; minor vert. cracks; minor debris; minor honeycombing. 1 7

C39. Backwalls: @ N only; scaling; minor cracking; efflor @ pipe protrusion @ NE. 1 7

C40. Wingwalls: Spalls @ bottom E; some form tieholes not plugged; seepage & minor efflor. @ W. 1 7

N60. Substructure Summary: Summary Rating: 7

Bridge Inspection Report | *Safety Inspection*

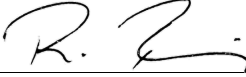
SFN: 3160157

Budd Street C.U.T. Overhead - 1st West of McLean

Date Inspected: 04/10/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: RAILROAD #03

65. Vertical Clearance: Measured - 19'6".

Vert. Clearance Rating: 1

**N59. General Appraisal
and Oper. Status:**

**General Appraisal /
Operational Status: 6 N**

Inspection Notes: Did not attempt to access top of bridge (2020).
Very minor, but noticable deflection under train loads.

General Notes: BE 09 Span 1

Recommended Maintenance:

1. Clean & paint bearings & replace bearing anchor bolts & cracked base plate @ SW.
2. Clean & paint struct. steel.
3. Remove debris from grating/walk to protect roadway below.

Assigned to:

Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

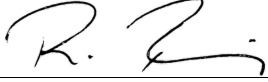
SFN: 3160319

Clifton Avenue Chessie Overhead

Date Inspected: 07/07/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #04

Route: CLIFT Unit: 3262 Bridge Type 364 / 321 Date Built / Date Rehabbed: 1968 /
 Load Rating Percent 0 (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Widespread corr. of steel; wood tie floor on end spans replaced (1988); leaks water & mud. 2 5
 C9. Curbs/Sidewalks: Rusting checker plates.
 N36. National Safety Feature - Bridge Railing (0, 1 or N): N
 C12. Drainage: Drainpipe @ W pier leaking - apparently clogged; bolts @ pipe sleeves missing.
 C13. Expansion Joints: Excessive buildup of mud & ballast @ both abutment seats. 3 3

N58. Deck Summary: Summary Rating: 5

C14. Alignment of Members: 1 8
 C15.1. Beams/Girders: a) approach spans: rusting w initial LOS (esp. TF); fatigue cracks in W rolled beam webs of S track @ welded diaphragm connection; approach span beams deflect, noticeably under LL; beams extensively covered w mud. 3 4
 b) main spans: widespread surface rusting.
 C16. Diaphragms/X-Frames: Riveted to beams; rust; potential cracks in both approach spans @ gussets. 3 4
 C17. Stringers: (Walk only): rust w minor LOS. 2 6
 C18. Floor Beams: Rust w minor LOS; noticeable deflection under LL. 2 6
 C24. Lateral Bracing: (In approach spans only); rusting; initial LOS; potential cracks in gusset plates in both approach spans, partially concealed by mud. 2 5
 C25. Sway Bracing: Corr. 1 7
 C26. Bearing Devices: Ext. corr. w LOS; some anchor bolt nuts missing or broken (NW approach) ; ext. debris on bearings - bearings @ E & W abuts. covered w mud; bearings of approach beams pumping slightly under LL; gravel accumulaton @ SE may impact bearing movement; bearings of FB's of W pier noticeably floating and moving significantly under train loads; some anchor bolts sheared off. 3 4
 C30. Protective Coating System (PCS): System: Year: 1969 PCS Rating: 0
 Widespread surface rust & severe peeling @ approach beams & floor beams.
 C32. Fatigue Prone Details: Fatigue cracks present (see #10). 3 3

N59. Superstructure Summary: Rating governed by approach spans. Summary Rating: 3

Bridge Inspection Report | Safety Inspection

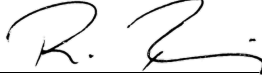
SFN: 3160319

Clifton Avenue Chessie Overhead

Date Inspected: 07/07/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #04

C33. Abutment Walls:	Stub abuts; covered w mud.	1	7
C37. Pier Caps:	Ext. debris accum; ext. seepage; efflor; staining.	1	8
C38. Pier Columns:	HL cracks; spalling @ SW w exposed rebar; 2 stirrups exposed.	1	7
C39. Backwalls:	Covered w mud; delam & crack @ E.	1	7
C43. Slope Protection:	Conc. slope protection directly under bridge only.	1	8

N60. Substructure Summary: Summary Rating: 7

C57. Utilities: Some hangers loose/rattling. 1 7

Utilities On Structure: Y N N N N N N

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status:	Large portions of the structure are concealed by excessive accumulation of mud, partially assumed rating.	General Appraisal / Operational Status:	3 N
---	---	--	-----

Inspection Notes: Light fixtures missing from light fixture boxes in E & W piers.
Top not accessed 2020.
Center bearing over W pier floating causing pumping under trains.

Recommended Maintenance:

1. Repair floating FB bearing over W pier.
2. Clean & paint structural steel esp. in approach spans.
3. Clean rolled beams, & investigate cracks and repair as necessary.
4. Clean out drainage system.
5. Remove mud & ballast from all bearings & evaluate support.
6. Remove mud & ballast from sidewalks.

Assigned to:

Owner
Owner
Owner
Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

SFN: 3161676

Clifton Avenue Norfolk Southern Overhead South of Spring Grove

Date Inspected: 07/07/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 N

Signature: 

Bridge No.: RAILROAD #05

Route: CLIFT Unit: 3263

Bridge Type 321 /

Date Built / Date Rehabbed: 1995 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating
1 to 4Rating
9 to 0

C7.1. Floor: Conc. over metal deck; minor efflor.

1 8

C7.2. Edge of Floor: Vertical railing cracks w efflor.

1 7

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C13. Expansion Joints: Initial corr. & minor dripping @ exp. joints over piers.

1 8

N58. Deck Summary:

Summary Rating: 8

C14. Alignment of Members:

1 8

C15.1. Beams/Girders: Steel girders; slight rust; impact damage (minor scrapes) @ several locs; apparent vertical wave of BF's in main span near E pier.

1 8

C16. Diaphragms/X-Frames: Steel beams bolted to girders; isolated corr. @ some bolts.

1 8

C26. Bearing Devices: Bronze sliding type; 3 bearings on piers are not fully bearing on pier seats (slightly floating); slight surface rust; some anchor bolts lifted.

1 7

C30. Protective Coating System (PCS): System: Year: 1995
Rust bet. diaphragm conn. & webs; rust @ BF scrapes.

PCS Rating: 7

N59. Superstructure Summary: Redundant; not fatigue prone; 6 beams in main span, 5 beams in approach spans.

Summary Rating: 8

C33. Abutment Walls: Stub abutments.

1 9

C36. Pier Walls: Minor HL cracking & staining; widespread bugholes.

1 8

C37. Pier Caps: Minor delam. forming @ E side of pier; staining from seepage.

1 8

C39. Backwalls:

1 8

C43. Slope Protection: Portion cracked @ SW; minor debris accumulating @ E.

1 8

N60. Substructure Summary:

Summary Rating: 8

Bridge Inspection Report | *Safety Inspection*

SFN: 3161676

Clifton Avenue Norfolk Southern Overhead South of Spring Grove

Date Inspected: 07/07/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 N

Signature: 

Bridge No.: RAILROAD #05

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 8 N

Inspection Notes: Top not accessed during the 2020 inspection.

Recommended Maintenance:

1. Shim bearings over piers to provide full contact (see Item #24).
2. Seal leaking jnts. over piers.

Assigned to:

Owner
Owner

Bridge Inspection Report | Safety Inspection

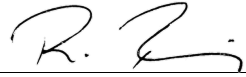
SFN: 3160300

Collins Avenue SORTA Overhead

Date Inspected: 07/09/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 N

Signature: 

Bridge No.: RAILROAD #06

Route: COLIN Unit: 3752

Bridge Type 364 / NNN

Date Built / Date Rehabbed: 1917 /

Load Rating Percent 000

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Open wood ties; widespread railroad tie deter. @ N; new (2018) ties @ S under active track; old rotting ties stacked next to bridge on N track. 2 6

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Summary Rating: 6

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Corr; sig. LOS; severe LOS on angles of BF/web; LOS on rivet heads & bolts on BF isol. sev. LOS to web flange connection; some rivets replaced w bolts; many scrapes; impact damage SE TF; multiple impact damages to N girder, BF bent @ 3 locs; debris & rust accum. on BF of girders; LOS on stiffeners (several not connected or perforated @ bottom). 3 4

C17. Stringers: Corr. w LOS - part. @ TF esp @ W under RR ties (knife edging); outer joists of S track have different geometry (retrofit), but still show LOS; severe LOS to web @ NW {not under track}; stringer bracings @ stringer midspans w advance LOS esp @ NW. 3 4

C18. Floor Beams: Corr; sev. LOS @ bearings; LOS to TF of end floor beams; rivets replaced w bolts on top; bolts rusted; scrapes & 1 dent from impact. 3 4

C24. Lateral Bracing: Many tension rods bent by impact; gusset plates corr. & bent.; 1 tension rod removed. Steel angles that brace track half way between floorbeams have severe LOS and thinning. 4 2

C25. Sway Bracing: Widespread surface corrosion; pitting; LOS. 2 6

C26. Bearing Devices: Severe corr; LOS; nuts missing from E abut. anchor bolts (exp. side); corr. (pitting) @ E bearing. 3 4

C30. Protective Coating System (PCS): System: Year: 1950 PCS Rating: 0
Ext. rusting w LOS.

N59. Superstructure Summary: Summary Rating: 4
Not fatigue prone, not redundant.
Steel angles that brace track in between FB are thinning w sev LOS.
Excessive debris on BF's traps moisture & promotes LOS.

C33. Abutment Walls: a) Masonry wall @ E: apparent settlement w jt. opening up to 2.5" over 4 courses, other wider gaps have been mortar filled in past; isol. cracking through stones. 2 5

b) Concrete: cracks w efflor. & some with rust; wider crack in conc. @ SW; moss/lichen; seepage; build up of efflor. & map cracking @ corners.

C34. Abutment Caps: Cracking; efflor.; rust staining; map cracking & stalactites @ corners. 2 6

C39. Backwalls: Sev. conc. deter. @ corners. 2 5

Bridge Inspection Report | Safety Inspection

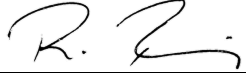
SFN: 3160300

Collins Avenue SORTA Overhead

Date Inspected: 07/09/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 N

Signature: 

Bridge No.: RAILROAD #06

C40. Wingwalls: Leaning +/- 2" @ top @ NE; efflor; SW wall cap separating & potentially sliding. 3 3

N60. Substructure Summary: Summary Rating: 5

C55. Warning Signs: 1 7

65. Vertical Clearance: Posted 10'-6". Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 4 N

Inspection Notes: Evidence of continuing impact; old ties from S track stacked near bridge abutment on N track. SORTA is planning to rehab this structure.

General Notes: Mile Marker 2.18 - Oasis Line

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Clean & paint bridge. | Owner |
| 2. Investigate & repair cracking & apparent shifting of top of Wingwall @ SW. | Owner |
| 3. Mortar repair jt. openings in masonry abutment. | Owner |
| 4. Repair/Replace deter. structural steel members as necessary. | Owner |
| 5. Investigate, monitor, and repair WW leaning @ NE. | Owner |
| 6. Remove debris & loose rust from abut. seats & structural steel (debris traps moisture, accelerating deterioration). | Owner |

Bridge Inspection Report | Safety Inspection

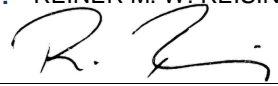
SFN: 3199944

Congress Avenue Pedestrian Tunnel Under SORTA

Date Inspected: 07/06/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: RAILROAD #07

Route: Unit: Bridge Type 1B4 / Date Built / Date Rehabbed: 1917 /
Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C44. Culvert - General: Coated reinforced conc. tunnel; many individual spalls w exp. reinf {+/-45} due to lower cover; cracking & very few delam areas; efflor. @ N&S ends; paint peeling mainly around spalls. 2 6

C45. Culvert - Alignment: 1 8

C48. Culvert - Head/End Walls: Cracking w built-up of efflor.; @ S, 75% of tunnel opening perimeter spalled, & dampness; N w 1 wide diagonal crack; HL map cracking & minor efflor; lichen. 2 5

N60. Culvert Summary: Cracking w buildup of efflor. with spalling @ dampness @ S. Summary Rating: 6

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 6 N

Inspection Notes: Span is only 8 ft wide.
Spalling over exp. rebar continues as evident from non coated spalls.
To pnot accessed 2020.

General Notes: Ext. cracking w efflor of the WWs that are leaning away from the culvert (1" @ top @ NE)

Recommended Maintenance:

1. Repair conc. @ Headwalls @ N & S ends.
2. Chip out, patch, and seal delam. & spalls from inside tunnel.
3. Consider installing light in tunnel.
4. Replace approach walk @ S & N.

Assigned to:

Owner
Owner
Owner
Street Rehab

Bridge Inspection Report | *Safety Inspection*

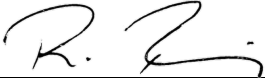
SFN: 3160653

Eastern Avenue SORTA Overhead at Delta and Riverside Drive

Date Inspected: 07/06/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 N

Signature: 

Bridge No.: RAILROAD #08

Route: EASTR Unit: 4092

Bridge Type 364 /

Date Built / Date Rehabbed: 1916 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: (Steel floor between beams); isol. pitting esp. over pier; isol stalactites; repainted (2007). 2 6

C7.2. Edge of Floor: Mural @ N; spalls @ N @ beam flange; const crack @ upper cold jnt below fence @ N. 2 6

C11. Railing: Fence installed (2007).

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Summary Rating: 6

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: (Thru girders) encasement mostly removed @ S; flanges corr; rivet head deter., severe pitting @ bearings, minor pitting elsewhere; repainted (2007); ext. dents in girder web @ S where conc. facing removed; bent stiffeners @ S. 2 6

C16. Diaphragms/X-Frames: Some mis-aligned. 1 7

C17. Stringers: (Built up members) localized heavy pitting w isol. corr, ext. seepage w severe LOS @ bearings w rivet deter. & long stalactites; water seeping through stringers; 2 missing rivets @ pier connections @ N; impact damage w sheared off rivets {7} (2017?) @ SW. 2 5

C30. Protective Coating System (PCS): System: Year: 2007 PCS Rating: 7
LOS arrested by repainting; inter. coat showing thru top coat; loc. corr.

N59. Superstructure Summary: Not fatigue prone, not redundant; bridge has 2 simple spans; several rivets replaced w bolts. Summary Rating: 5

C33. Abutment Walls: Ext. cracking w heavy efflor. & spalls; few delam areas; patched & sealed (2007); tree growing @ top of wall @ NW. 2 5

C34. Abutment Caps: Widespread mapcracking w heavy efflor; minor spalls and rust stains. 2 5

C36. Pier Walls: Conc. wall @ bottom; widespread spalling over studs. 2 6

C37. Pier Caps: Ext. LOS (knife edging of flanges); rivet deter; some plates perf.; efflor. build-up on new paint; widespread stalactites up to 1 ft long and stalacmites; some stiff. ext. corr even perforations; active corrosion; heavy pitting; severe seepage. 3 4

C38. Pier Columns: Sev conc. spalling of encasement @ S & N most columns (laminating corr. of underlying steel column visible under spalls); rivet deter @ floor beam connection. 2 5

C40. Wingwalls: Cracking; deter. @ jts; efflor; sealed (2007); long horiz. crack @ NE, sealed. 2 5

N60. Substructure Summary: Widespread seepage from abutments & piers. Summary Rating: 4

Bridge Inspection Report | *Safety Inspection*

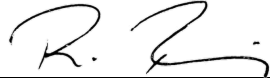
SFN: 3160653

Eastern Avenue SORTA Overhead at Delta and Riverside Drive

Date Inspected: 07/06/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 N

Signature: 

Bridge No.: RAILROAD #08

C55. Warning Signs: "No Pedestrian" @ NW corner; "No Trespassing" signs on deck; vertical clearance 13' 6" sign. 1 8

65. Vertical Clearance: Posted 13'-6". Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 4 N

Inspection Notes: Top not accessed during 2020 inspection.
Severe seepage along fascias & piers w stalactites.
Dripping through deck even during extended drought period.
Stairs @ S hit by traffic; outside handrailing missing & concrete spalling.

General Notes: Mile Marker 3.92 on Oasis Line

Recommended Maintenance:	Assigned to:
1. Remove conc. encasement from S & N pier column & repair as necessary.	Owner
2. Waterproof deck.	Owner
3. Remove vegetation growing from abutments & railing (primarily poison ivy).	Owner

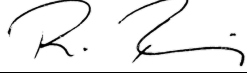
Bridge Inspection Report | *Safety Inspection*

SFN: 3160548

Eighth Street C.U.T. Overhead - 1st West of McLean

Date Inspected: 04/21/2020

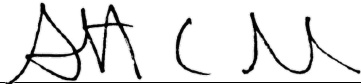
Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 5 N

Signature: 

Bridge No.: RAILROAD #09

QA/QC Inspector: STEPHEN C. GRESSEL, P.E.

Safety Inspection ?

Signature: 

Route: EIGHT Unit: 342 Bridge Type 322 / Date Built / Date Rehabbed: 1931 /
Load Rating Percent 0 (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Seepage, & cracking w sig. efflor & some exp. rebar mostly around W long. joint.	2	6
C7.2. Edge of Floor: Widespread corr.; spalling around railing anchors with isol. spalls in between; stalactites forming @ SW; 1 sqft spall w exp. rebar @ SW; loose conc. over unnamed roadway @ SE; ivy growing @ S.	2	6
N36. National Safety Feature - Bridge Railing (0, 1 or N):	N	
C13. Expansion Joints: W long. jt. open almost over full length & leaking with ext. conc. & steel deter; ballast and debris lodged in jt; E long. jt. minor leakage; S jnt. leaking causing mud stains on abutment.	2	5

N58. Deck Summary: **Summary Rating: 6**

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Widespread surface rusting & minor pitting; minor LOS @ TF's; efflor. build-up on BF - S end along W joint; scrapes @ BF center span; N beams almost touching back wall @ 65 degrees.	1	7
C16. Diaphragms/X-Frames: Rusting.	1	7
C18. Floor Beams: Brackets @ W long. jt only,; ext. corr. @ T/F w LOS (not under tracks); debris & bricks @ floorbeam to beam connection over roadway; W portion of concrete FB over S pier severely cracked.	2	6
C24. Lateral Bracing: Rusting.	1	7
C26. Bearing Devices: S bearings are fixed, all others exp.,; corr.	2	6
C30. Protective Coating System (PCS): System: Year: 1931 PCS Rating: 0 Ext. rusting; initial LOS @ TF's.		

N59. Superstructure Summary: Redundant; not fatigue prone. **Summary Rating: 7**

C33. Abutment Walls: Staining; HL vert. cracks; local seepage; many tieholes not closed; material squeezing out of vertical joint @ N.	1	7
C34. Abutment Caps: Minor debris accum; seepage; vert. cracks.	1	7

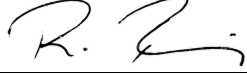
Bridge Inspection Report | *Safety Inspection*

SFN: 3160548

Eighth Street C.U.T. Overhead - 1st West of McLean

Date Inspected: 04/21/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 5 N

Signature: 

Bridge No.: RAILROAD #09

QA/QC Inspector: STEPHEN C. GRESSEL, P.E.

Safety Inspection ?

Signature: 

C36. Pier Walls:	Extremely large delams (almost full length of substructure) & widespread extensive spalling w exp. rebar. & rebar LOS.	2	5
C37. Pier Caps:	Minor debris accum; exposed rebar @ bottom of many pier windows; cracks @ delam @ E end of N pier	1	7
C38. Pier Columns:	Few delam, minor spalling; large delaminated area @ 2nd column from W, N pier.	1	7
C39. Backwalls:	Seepage; isol crushing @ N abut. (expansion abuttment).	1	7
C40. Wingwalls:	Vert. abut. jt. open 2" @ SW; ext. veg; minor spalls; spalls, delams & moss in NE WW - rebar exp. in wall face.	1	7

N60. Substructure Summary:

Summary Rating: 5

C57. Utilities: 2 conduits corr. 1 7

Utilities On Structure: N N N N N N N

65. Vertical Clearance: Adjacent lower bridge is posted 13'-9". Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 5 N

Inspection Notes: Top of bridge not accessed during City inspections.

Recommended Maintenance:

Assigned to:

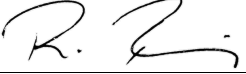
- | | |
|--|-------|
| 1. Address exposed rebar w sharp ends sticking out into sidewalk. | Owner |
| 2. Romove objects stuck in W long. jnt and repair joint (seal). | Owner |
| 3. Check concrete @ railing attachments; chip loose concrete where necessary. | Owner |
| 4. Perform extensive repairs to pier wall (bases), remove loose concrete clean up and patch. | Owner |

Bridge Inspection Report | Safety Inspection

SFN: 3160572

Eighth Street Norfolk Southern Overhead - 2nd West of McLean

Date Inspected: 04/22/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 4 NSignature: 

Bridge No.: RAILROAD #10

QA/QC Inspector: STEPHEN C. GRESSEL, P.E.

Safety Inspection ? Signature: 

Route: EIGHT Unit: 340

Bridge Type 364 /

Date Built / Date Rehabbed: 1930 /

Load Rating Percent 0

(Main/Approach Spans)

Inspection Information

Rating
1 to 4Rating
9 to 0

C7.1. Floor: Steel plates: corr; seepage; LOS esp. @ interface of top floor & wall; perf. visible. 2 5

C11. Railing: Thru girder serves as railing.

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C13. Expansion Joints: Seepage @ N w extensive mud/debris. 2 6

N58. Deck Summary:

Summary Rating: 5

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Ext. corr. w initial LOS @ BF, pack rust esp @ floor beam connections (worst condition is S approach span with LOS & deformation to BF's; pack rust under FB causing waviness in BF cover plates in N span; minor impact damage @ W beam over Main span. 2 5

C16. Diaphragms/X-Frames: Rust. 1 7

C18. Floor Beams: Corr. w sig. LOS and pack rust, esp. @ connections to beams (laminating) and over piers. 2 5

C25. Sway Bracing: Not visible from below.

C26. Bearing Devices: N abutment fixed, rest are exp. bearings; ext. corr.; bolt connecting to W beam over N pier missing; S pier bearings have some bent retainer hooks. 2 5

C30. Protective Coating System (PCS): System: Year: 1930 PCS Rating: 0
Ext. flaking or missing throughout; ext. rusting w sig. LOS.

N59. Superstructure Summary: Not fatigue prone, not redundant.

Summary Rating: 5

C33. Abutment Walls: At N only: minor spalls @ E & W sides; some form tie hole plugs missing; vert. HL cracks; severe staining & seepage from above. 1 7

C34. Abutment Caps: Widespread deep spalls & large delams and exp. rebar w severe LOS; ext. debris accum. from seepage; staining & lichen. 2 5

C36. Pier Walls: Vert. cracking, slight efflor & widespread staining; horizontal cracks apparently from unintended const. jts.; spalls w exposed rebar @ wall tops. 2 6

Bridge Inspection Report | Safety Inspection

SFN: 3160572

Eighth Street Norfolk Southern Overhead - 2nd West of McLean

Date Inspected: 04/22/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 4 N

Signature: 

Bridge No.: RAILROAD #10

QA/QC Inspector: STEPHEN C. GRESSEL, P.E.

Safety Inspection ?

Signature: 

C37. Pier Caps:	Widespread spalls w exp. reinf. steel & delam areas (damage under bearings) esp @ 2nd pier from S.	2	5
C38. Pier Columns:	Severe conc. deter; spalls w exp. reinf w LOS, esp. @ N pier; LOS @ reinf. steel - stirrup rusted through; (greater than 10% LOS on column under bearings; 4 adjacent main bars exposed w LOS).	3	4
C39. Backwalls:	Ext. seepage.; partially concealed by debris; mud staining.	1	8
C40. Wingwalls:	Spalls & crushing @ sides; form tie hole plugs missing; efflor. & conc. deter. @ NW.	2	6

N60. Substructure Summary: Sig. spalls @ N pier column w main rebar exp. & LOS. Summary Rating: 4

C55. Warning Signs: Posted 13'-9" @ E, no sign @ W; measured 14'-0" (W bound) turned. 1 7

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 4 N

Inspection Notes: Top of bridge not accessed .

Recommended Maintenance:

1. Repair concrete pier columns & walls where spalled.
2. Clean & paint struct. steel & bearings.
3. Repair steel as necessary after cleaning.
4. Repair (patch) abutment cap.

Assigned to:

- Owner
Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

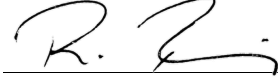
SFN: 3160769

Fifth Street Chessie Overhead West of Linn Street

Date Inspected: 06/08/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #11

Route: FIFTH Unit: 3321

Bridge Type 364 /

Date Built / Date Rehabbed: 1900 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating
1 to 4Rating
9 to 0

C7.1. Floor: Open wood ties.

C9. Curbs/Sidewalks: Metal grating; several new sections in place; several wooden grating support members appear unstable & out of alignment/plumb w fasteners missing; 1 vertical wood support missing @ SE.

C11. Railing: Thru girder serves as railing.

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Recent track work @ E track w many nails, etc.. on sidewalk below. Summary Rating: 5

C14. Alignment of Members: Widespread impact damage to beams (minor) & lateral bracing(severe). 2 6

C15.1. Beams/Girders: Widespread minor impact damage @ BF E & W; initial LOS; scrapes from trucks; TF rivet deter.; pack rust separating top cover plate @ E beam. 2 6

C16. Diaphragms/X-Frames: (In approach span only): LOS between angles & gussets in SE span; pack rust bet. plates; perf. on angles and gussets. 2 6

C17. Stringers: LOS - esp. TF - significant @ some connections; welded cover plates @ TF of E track with widespread welds breaking & cracked continued into cover plates; W track stringers do not have TF cover plates but show LOS; 2 stringers over N pier have sheared off bolts. All 4 stringers in W track over main span have cracked webs @ FB connection over N pier (45 degrees cracks, appear to be growing) all BF's @ this connection have sev LOS, 1 web has 1" diam perf hole; and at one of them the top bolt to the FB is sheared off. (governing rating); W most stringer @ this location has 7" (out of 15" height) of uncracked web remaining > LOS greater than 50%. 3 3

C18. Floor Beams: LOS - part. @ topside of TF's; pack rust between TF cover plates; heavy pitting w rivethead deter (some rivet heads barely noticeable) & flange edge serrating; severe BF deter. @ beam connections esp. @ NE. 2 5

C24. Lateral Bracing: Some severe LOS; pack rust bet. angles; 1 angle severely damaged from impact; perf.; LOS on gussets; occasional vibration under traffic. 3 4

C25. Sway Bracing: Rusting. 1 7

C26. Bearing Devices: Corroding, LOS, & bending on S anchor plates; N abutment (W track) has extensive vert. movement under trains (probable causing the observed stringer issues). 3 3

C30. Protective Coating System (PCS): System: Year: 1982 PCS Rating: 1
Widespread fading; widespread surface corr.; active corr. w LOS @ top horiz surfaces, stringers, & bracings.**N59. Superstructure Summary: Not fatigue prone; not redundant.****Summary Rating: 3**

Bridge Inspection Report | Safety Inspection

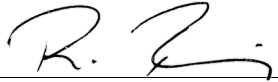
SFN: 3160769

Fifth Street Chessie Overhead West of Linn Street

Date Inspected: 06/08/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #11

C33. Abutment Walls:	Horiz. & vert. cracks @ const. joints; severe map cracking & buildup @ corners w severe efflor; spalling @ NE up to bearing; exposing embedded member below anchor plate.	2	5
C37. Pier Caps:	Significant LOS on top cover plate @ S.	2	5
C38. Pier Columns:	LOS - particularly @ bases - approx. 10% conc. deter. @ bases with spalling over corroded steele (top); lacing deter. @ N lat. brace; cracked & settled walk adjacent to column.	2	5
C40. Wingwalls:	Crib wall leaning @ SE corner; severe conc. deter. @ W; cracks, efflor. & spalls; wall top @ W shearing off wingwall; graffiti.	2	5

N60. Substructure Summary:

Summary Rating: 5

65. Vertical Clearance: Measured 14'-10". (Many tall trucks passing below bridge) **Vert. Clearance Rating:** 1

N59. General Appraisal and Oper. Status: Rating governed by condition of W stringers & abutment bearings of these stringers (cracked at FB connection and FB connection bolt sheared off web LOS > 50%). **General Appraisal / Operational Status:** 3 N

Inspection Notes: Sidewalks between pier columns have settled & are cracked. Lots of debris from concrete pier encasements and apparently from trains on walks and in gutters. Notified CSX about condition of W stringers immediately after the 2017, 2018, and 2020 inspection. Safety inspection only, top not accessed.

General Notes: Bridge #6.65

Recommended Maintenance:	Assigned to:
1. Repair/replace cracked stringers at W.	Owner
2. Inspect stringer TF's of E track & repair cracked welds and cover plates.	Owner
3. Repair stringers to FB connection in main span of W track, and elsewhere.	Owner
4. Sweep debris originating from column base & railroad traffic from curbs & sidewalks.	Owner
5. Repair lateral bracing (impact damage over main span).	Owner
6. Remove loose hardware (spikes, bolts, etc) from over street & walk.	Owner
7. Secure grating support beams, esp @ E beam @ center.(vertical block missing @ SE).	Owner
8. Investigate (NE bearing) & patch abutment seat where bearing is undermined.	Owner
9. Repair NW bearings to prevent vert. movement and corresponding stress on stringers.	Owner

Bridge Inspection Report | Safety Inspection

SFN: 3160963

Front Street Norfolk Southern Overhead South of 6th Street Expwy

Date Inspected: 06/29/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #12

Route: FRONT Unit: 2925

Bridge Type 363 /

Date Built / Date Rehabbed: 1930 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Open ties, with 2x4's added between ties @ E tracks apparent timber deterioration.

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary:

Summary Rating: 4

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Corr. w LOS on TF & BF & on webs; partially assumed rating based on condition of gussets; lower portion of the inside of web cannot be inspected without accessing bridge. 3 4

C16. Diaphragms/X-Frames: Corr. w severe LOS & deter. @ gusset plates - some members no longer attached or cracked through or missing; bottom horiz. members of most diaphragms no longer connected to gussets or gussets broken; bottom connections no longer effective; 2 end crossframes between the adjacent bridges completely cracked through, indicating movement of the bridges. 4 1

C24. Lateral Bracing: Corr. w severe LOS - part. @ gusset plates; many bracing members not connected on one side; most gussets w extreme LOS or completely cracked through; three lower lateral bracing members removed; entire lower lateral bracing no longer effective. 4 1

C26. Bearing Devices: Corr; cracking of conc. base under bearing plate @ N pier {not immediately under bearings). 2 6

C30. Protective Coating System (PCS): System: Year: 1930 PCS Rating: 0
Extensive corr. throughout w sig. LOS (up to 100%) on all secondary members.

N59. Superstructure Summary: Not fatigue prone; not redundant.

Summary Rating: 4

C36. Pier Walls: Minor spalls in N pier. 1 7

C37. Pier Caps: Cracks @ TF of S pier seat (all legs of angles cracked through (see diaphragms) - 100% LOS of TF). 3 3

C38. Pier Columns: Severe rivet deter. @ base of S pier; 100% LOS @ anchor bolts @ S pier; corr. w initial LOS - part. @ base; base of pier not in full bearing @ SW. 3 3

N60. Substructure Summary: Cond. of S pier governs rating.

Summary Rating: 3

Bridge Inspection Report | *Safety Inspection*

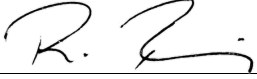
SFN: 3160963

Front Street Norfolk Southern Overhead South of 6th Street Expwy

Date Inspected: 06/29/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #12

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 3 N

Inspection Notes: Did not attempt to access top of bridge.
Connection of blast plates on the S side of the flood wall is severely compromised and they should be removed before they fall.
Inspection limited to span over Front Street. Both tracks active in 2019.

General Notes: Kentucky 3.0 CNO

Recommended Maintenance:

Assigned to:

- | | |
|---|-------|
| 1. Provide full connection of S pier bent to foundation. | Owner |
| 2. Repair pier seat @ S pier where angles are cracked(top of pier). | Owner |
| 3. Replace crossframes, bracing & gusset plates as required - esp. where lower lateral bracing is no longer attached. | Owner |
| 4. Repair cracked diaphragms between adjacent bridges. | Owner |
| 5. Remove blast plates from bridge (S of flood wall). | Owner |
| 6. Replace all loose steel members before they fall into roadway {gussets, braces, etc.} | Owner |

Bridge Inspection Report | *Safety Inspection*

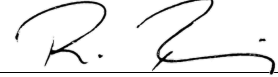
SFN: 3160920

Galbraith Road Chessie Overhead Between Burns & Woodbine

Date Inspected: 06/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: RAILROAD #13

Route: GALBR Unit: 3832

Bridge Type 364 /

Date Built / Date Rehabbed: 1947 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Some random cracks w efflor. esp over S pier; minor honeycombing; efflor. @ interface w/ beams; some efflor accumulated on web of center beam; isol. minor spalling at FB flanges. 1 7

C11. Railing: No railing; new spill guards (steel angles welded to to pflange of beam) added in 2015; some spill guards tack welded to existing rivets.

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary:

Summary Rating: 7

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Seepage w corr. @ conc. interface; pack rust @ stiff. @ piers; ext. efflor. & corr. @ center girder top of web; isol minor spalling @ FB flanges. 1 7

C16. Diaphragms/X-Frames: Surface corr. 1 7

C18. Floor Beams: Surface rusting; pack rust @ conc. interface and @ abutments, others in good condition; impacted @ one FB @ SW (2017?). 2 6

C26. Bearing Devices: Covered w ballast @ corners; neoprene type material squeezing out under FB's. 1 7

C30. Protective Coating System (PCS): System: Year: 1979 PCS Rating: 0
Corr. @ conc. interfaces, @ pier bases, & @ abut. bearings; surface rust elsewhere.

N59. Superstructure Summary: Not fatigue prone, not redundant; widespread surface corr. typically without LOS.

Summary Rating: 6

C33. Abutment Walls: Several full height vert. cracks; staining; seepage from exp. joints @ N & S; dripping @ bearings; 3 distinct leak sites @ abutments. 1 7

C34. Abutment Caps: Ballast & debris accum; seepage & moss @ N & S; vert. cracks; efflor; staining. 1 7

C38. Pier Columns: Corr. w initial LOS @ bases - esp. in splash zones (pitting); corr. @ top; moisture dripping @ top of both center beam columns. 2 6

C39. Backwalls: Conc. deter. @ NW (crumbling); seepage; water seeping down both backwalls. 1 7

C40. Wingwalls: Ballast falling over top & onto walks; diag. cracks w efflor @ corners; map cracking (w stalactites) @ SE & SW @ top @ abut. Jt; top sections of WW @ NE being displaced outward over s/w - apparently by former trees growing behind WW, 3/4" out @ W end & 3" out @ E end of section. 2 6

N60. Substructure Summary: Water seeping down S backwall during 2019 (dry period).

Summary Rating: 6

Bridge Inspection Report | *Safety Inspection*

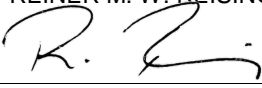
SFN: 3160920

Galbraith Road Chessie Overhead Between Burns & Woodbine

Date Inspected: 06/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: RAILROAD #13

C55. Warning Signs: 13'-9" installed in 2012

1 9

65. Vertical Clearance:

Vert. Clearance Rating: 1

**N59. General Appraisal
and Oper. Status:**

**General Appraisal /
Operational Status: 6 N**

Inspection Notes: Abnormally little noise under moving trains.

Recommended Maintenance:

1. Remove ballast & debris from abutment seats & from WW plateaus.
2. Clean pier column base plates in sidewalk area to prevent corrosion and possible section loss.
3. Investigate water proofing/leakage @ bridge end.
4. Reset/secure/anchor top of Wingwall @ NE.

Assigned to:

Owner
Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

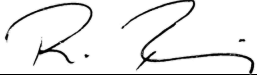
SFN: 3161323

Gest Street Chessie Overhead at 3rd Street

Date Inspected: 05/26/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #14

Route: GEST Unit: 192 Bridge Type 364 / Date Built / Date Rehabbed: 1931 /
 Load Rating Percent 0 (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Wood ties; steel grating (1996), some bent. 1 7

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Summary Rating: 7

C14. Alignment of Members: Several areas of slight impact damage, esp. @ pier bracings & approach spans (not considered here). 1 7

C15.1. Beams/Girders: Former derail. damage @ E end; corr. arrested by painting; minor isol. pack rust bet. some C/P. 1 7

C17. Stringers: Surface rusting @ flanges. 1 7

C18. Floor Beams: Minor LOS to webs; some stiffeners damaged & repaired. 1 7

C24. Lateral Bracing: Pack rust bet. angles; LOS - especially @ gussets (perforated gusset edges); holes in LLB gussets; TLB - some members replaced. 2 6

C25. Sway Bracing: Mostly concealed. 1 7

C26. Bearing Devices: @ E only; LOS; corr. arrested by painting. 1 7

C30. Protective Coating System (PCS): System: Year: 1996 PCS Rating: 5
 Widespread chalking and fading on beams; aparent surface corrosion on other "interior members"; top of gussets not visible but expected to be corroding.

N59. Superstructure Summary: Not fatigue prone, not redundant; partially assumed rating since inspection from ground level only. Summary Rating: 7

C37. Pier Caps: Impact damage over Gest Street; rivets missing and LOS in lacings; possible cracks in pier bracing over Gest (N side). 2 5

C38. Pier Columns: Corr holes @ pier bases 51-52 d/t LOS, estimated LOS of pier 51 columns is around 50% (reducing bearing capacity of entire pier by 50%); base plate @ B53 extensive LOS; anchor bolts severe LOS & lifted; column pumping considerably under LL; cond. @ piers 51 & 53 governs rating; LOS to bearing plate esp. N bearing over pier 53. 3 3

N60. Substructure Summary: Pier numbers are being changed by the RR, this report reflects the latest numbers stenciled onto the columns. Summary Rating: 3

Bridge Inspection Report | *Safety Inspection*

SFN: 3161323

Gest Street Chessie Overhead at 3rd Street

Date Inspected: 05/26/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #14

C55. Warning Signs: S sign missing; N sign new. 3 3

65. Vertical Clearance: Posted 13'-6" @ S (very small sign) & 13' 9" @ N (new sign); pier 48 & higher blocked off & concealed by scaffolding; VC measured @ 13.88 on 9-18-2017; ongoing overlay project in 2020 (check VC when completed). Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 3 N

Inspection Notes: Top not accessed during 2020 inspection.
Current CSX rehab appears to be limited to the E approach spans of this structure.
Ongoing paving below bridge, confirm VC when finished.

Recommended Maintenance:

1. Repair steel @ base of pier columns.
2. Clean structural steel, replair as necessary, and paint.
3. Update all VC signs after traffic street rehab is completed.

Assigned to:

Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

SFN: 3161668

Gest Street Chessie Overhead - 1st East of Mill Creek

Date Inspected: 07/31/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 2 N

Signature: 

Bridge No.: RAILROAD #15

Route: GEST Unit: 52

Bridge Type 364 /

Date Built / Date Rehabbed: 1923 / 1975

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Wood ties & steel grating; many wood ties split; grating bent @ several locations; debris (sand, gravel) falling through deck. 2 5

C11. Railing: Several posts broken, substituted or apparently floating.

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary:

Summary Rating: 5

C14. Alignment of Members: Some stringers appear twisted @ FB connection. 2 6

C15.1. Beams/Girders: Widespread laminating corr. w LOS - part. on BF; missing bolts throughout structure; pack rust forming; scrapes on BF's; beam in approach span governs rating (33% LOS on flanges). 3 4

C16. Diaphragms/X-Frames: Corr. w LOS; bolt missing @ N pier diaphragm 3rd bridge from W. 2 5

C17. Stringers: Corr; ext. LOS - especially @ 2nd bay from W (sev. laminating corr., at least 1 stringer perforated over almost full length, BF distorted and separating from web); loose bolts @ S pier @ beam conn (bay 4 from W); some stringers apparently twisted @ FB connection; 2nd bridge from W controls rating. 4 2

C18. Floor Beams: Corr; LOS (esp. under 2nd bay from W); sev. rivets/bolts missing @ BF's of girders @ floor beam conn; many bolts apparently removed (3 @ center of each web conn. & all flange conn, pattern indicates removal on purpose); sev. perforated FB in 1st bay from E; BF seperated from web over 75% of FB length of 4 out of 5 FB's in bay 1 from E & one FB in bay 2 from E. 3 3

C24. Lateral Bracing: Corr. w ext. LOS; impact damage on sev. members; bolts replaced. 3 4

C26. Bearing Devices: Corr; some LOS; pounding @ bearings under loading; pack rust; debris accum. over piers; anchor bolts (joist to beam) loose @ S; severe LOS and anchor bolt deter. @ bottom of piers; bearing plates of S pier to joist conn. @ the first bridge E to Mill Creek has apparently turned/shifted; bolt sheared off at SE most bearing. 2 5

C30. Protective Coating System (PCS): System: Year: 1975 PCS Rating: 0
Ext. corr; initial LOS.

N59. Superstructure Summary:

**Not fatigue prone, not redundant; sev. LOS; many fasteners missing; large rust flakes accum. on flanges, gussets, etc.
No moving loads should be traveling over 2nd bridge from W due to stringer condition.**

Summary Rating: 2

C33. Abutment Walls: Gunitite repaired (1988); seepage; rust stained from bearings; cracking w efflor; gunitite spalling. 2 6

C37. Pier Caps: Debris; ext. LOS & broken bolt @ SE. 2 5

C38. Pier Columns: Advanced deter. - especially @ bottom of piers (1/2" deep pitting); pack rust bet. pier column & plate; sev. LOS @ bases (worse @ center piers); holes @ stiffeners (some

Bridge Inspection Report | Safety Inspection

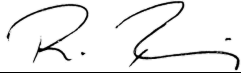
SFN: 3161668

Gest Street Chessie Overhead - 1st East of Mill Creek

Date Inspected: 07/31/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 2 N

Signature: 

Bridge No.: RAILROAD #15

100% LOS); nuts on anchor bolts rusted away; sev. LOS @ bottom of lat. member bet. piers; conc. deter. around bases (all bases @ S appear to be possibly moving); localized heavy pitting; sev. rivet deter.

C39. Backwalls: Partially obstructed; horiz. & vert. cracks. 2 6

C40. Wingwalls: Gunite repairs (1988); cracking & efflor. 2 6

N60. Substructure Summary:

Summary Rating: 4

65. Vertical Clearance: VC sign - 14'-0" is for 2 concrete bridges at east.

Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 2 N

Inspection Notes: 3 tracks on bridge (2 on E side and 1 on the far W) it appears all tracks are currently being used by trains; 1 roadway.
Did not attempt to access top of bridge 2020.
Met with Reese Benson (CSX) in the field following 2019 inspection to point out our concerns.
Notified CSX after 2020 inspection about condition of the bridge.
Entire bridge rattling under traffic.

Recommended Maintenance:

Assigned to:

- | | |
|---|-------|
| 1. Replace or repair deteriorated structural steel (see perforated floorbeams and stringers). | Owner |
| 2. Clean & paint structural steel. | Owner |
| 3. Clean fallen wood, dirt, etc.. from sidewalks below bridge. | Owner |
| 4. Repair/strengthen piers @ bases. | Owner |
| 5. Perform close-up inspection of all floorbeams & stringers & share reports with the CITY. | Owner |
| 6. Remove loose timber over traffic lanes & walks. | Owner |
| 7. Remove all loose steel flakes/rust from gussets & flanges. | Owner |
| 8. Remove insulation of pipe hanging over traffic @ E. | Owner |

Bridge Inspection Report | Safety Inspection

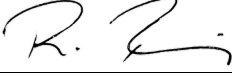
SFN: 3161609

Gest Street Chessie Overhead - 2nd East of Mill Creek

Date Inspected: 07/31/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #16

Route: GEST Unit: 53 Bridge Type 364 / Date Built / Date Rehabbed: 1930 /
 Load Rating Percent 0 (Main/Approach Spans) Safety Inspection ?

Inspection Information

C7.1. Floor: Walkway grating; deter. of timber flooring; grating severely bent @ N; 1 grate section pushed through flanges, only attached @ 1 end; hose dangling through deck below beam flange. Rating 1 to 4: 3 Rating 9 to 0: 3

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Summary Rating: 3

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Corr. w sig. pitting - esp. on top of BF's; corr. W LOS on TF of W span; rivet deter; ext. debris accum; impact damage @ E girder; noticeably deflecting under live load. 2 6

C16. Diaphragms/X-Frames: Corr. w LOS; misaligned / bent. 2 6

C17. Stringers: Corr. w surface pitting; debris accum. 2 6

C18. Floor Beams: Ext. corr.; BF laminating, debris accum. at least five adjacent FBs with web seperating from BF full width between stringers; some FB's have perforations between stringers & beam connections. 3 3

C24. Lateral Bracing: Ext. corr. W LOS - severe @ gusset plates; some members perforated; pack rust; debris accum; impact damage @ E & W; W most bridge governs rating. 2 5

C26. Bearing Devices: Bearings @ S abut. not seated - floating approx. 2" above abut. seats; corr. w LOS; anchor bolts lifted; N most abutment bearings under E most tracks pumping under traffic. 4 2

C30. Protective Coating System (PCS): System: Year: 1950 PCS Rating: 0
 Ext. corr. w LOS.

N59. Superstructure Summary: 4 independent side-by-side bridges; each not redundant; not fatigue prone; wide spread corr. Full extent of deterioration may not be detectible from the ground level. Summary Rating: 3

C33. Abutment Walls: HL vert. cracks; deter. @ center jt; stains. 1 7

C34. Abutment Caps: Ext. debris; minor spall @ S; heavy green moss growing. 1 7

C38. Pier Columns: Corr. w LOS @ bases; nuts on anchor bolts rusted away (some completely); S piers pinned @ 2 locations; pack rust bet. stiff. plts; bolts @ attach to bearings @ base sev. deter. - esp. @ N; 4th column from W (N side) is moving (shaking) very noticeably vertically & horiz. under load and does not appear to be bearing on footing (can be moved with foot), adjacent (3rd) column supporting the same track makes cracking noise under load and is pumping as well; columns have advanced LOS @ bottom (LOS in column web up to 0.25") 3 4

C39. Backwalls: Mostly obscured by diaphragms; minor vert. cracks; spalling; widespread scaling. 1 7

N60. Substructure Summary: Non redundant piers; widespread corr. & fastener det. Summary Rating: 4

Bridge Inspection Report | Safety Inspection

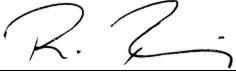
SFN: 3161609

Gest Street Chessie Overhead - 2nd East of Mill Creek

Date Inspected: 07/31/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #16

65. Vertical Clearance: VC sign -14' - 0" is for E concrete bridges only.

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 3 N

Inspection Notes: Only 1st & 3rd tracs from E appear to currently carry traffic. (This is where condions of floorbeams and pier columns are worst).
Did not attempt to access top of bridge.
Notified CSX about FB condition following 2019 & 2020 inspection (on site meeting 2019 to illustrate our concerns).
Requested and received FRA inspection report for the structure (1-2020).

Recommended Maintenance:

Assigned to:

- | | |
|---|-------|
| 1. Provide full bearing under all abut. bearings to prevent vertical movement under trains. | Owner |
| 2. Replace deter. anchor bolts @ piers & pier bases and reattach 4th pier column @ N - reattach nuts to anchor bolts. | Owner |
| 3. Replace or repair steel members that have significant LOS or have been hit by traffic. | Owner |
| 4. Clean & paint struct. steel. | Owner |
| 5. Investigate all structural steel members and repair as necessary esp perforated FB;s under active track& share report w city | Owner |
| 6. Remove loose grate dangling, hose hanging, & all loose material from flanges & gussets. | Owner |

Bridge Inspection Report | Safety Inspection

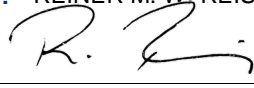
SFN: 3161439

Gest Street C.U.T. Overhead - 1st West of Dalton

Date Inspected: 07/14/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: RAILROAD #17

Route: GEST Unit: 74

Bridge Type 112 /

Date Built / Date Rehabbed: 1931 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

- | | | | |
|--|--|---|---|
| C7.1. Floor: | Widespread scrapes from impact; delam. & spalls w some exp. rebar - esp. in N spans & @ E; widespread stains & mottling. | 2 | 6 |
| C7.2. Edge of Floor: | Tunnel entrances: fascia spalls & cracks w efflor., stalactites @ 1 location @ N; exp rebar.; delam. conc. | 2 | 6 |
| N36. National Safety Feature - Bridge Railing (0, 1 or N): | N | | |
| C13. Expansion Joints: | Jt. mat'l squeezing out @ many jts; leakage under E most bridge; efflor around several jts. | 2 | 5 |

N58. Deck Summary:

Summary Rating: 6

- | | | | |
|----------------------------|-----------------------------------|---|---|
| C14. Alignment of Members: | Slight misalignment @ jts. | 1 | 7 |
| C15.2. Slab: | Slab type structure; see "FLOOR". | 2 | 6 |

N59. Superstructure Summary: Redundant, not fatigue prone.

Summary Rating: 6

- | | | | |
|----------------------|--|---|---|
| C33. Abutment Walls: | Minor vert. cracks w some efflor.; cap cracked on top @ SE; minor spalls; covered w dust/dirt. | 1 | 7 |
| C37. Pier Caps: | Some delam., exp. rebar. | 1 | 7 |
| C38. Pier Columns: | Minor vert. cracks; delam, spalls and exp. reinf @ exp. joints; large delam. near W end of bridge. | 1 | 7 |
| C40. Wingwalls: | Minor water saturation, cracking & efflor; ballast spilling over; lrg. spall @ NW (delam. bolted back in place). | 1 | 7 |

N60. Substructure Summary: N side {W bound lanes appear to have more delams, and det.}

Summary Rating: 7

- | | | | |
|---------------------|--|---|---|
| C55. Warning Signs: | W fascia sign peeling and covered by conduit & tree branches. Signs should be updated to reflect actual clearance. | 2 | 5 |
|---------------------|--|---|---|

- C57. Utilities: Open elect. box w exp. wires @ 2nd pier column from E; many open elect. boxes in floor.

Utilities On Structure: Y N N N N N N

- | | | |
|-------------------------|---|---------------------------|
| 65. Vertical Clearance: | New overlay 2020: vertical clearances measured with new | Vert. Clearance Rating: 1 |
|-------------------------|---|---------------------------|

Bridge Inspection Report | *Safety Inspection*

SFN: 3161439

Gest Street C.U.T. Overhead - 1st West of Dalton

Date Inspected: 07/14/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: RAILROAD #17

overlay:
W: (S span) measured 13.4' at N haunch; and 14'-0" in center
E: (N span) measured 14'-0" at haunch; and 14'-10" in center
Existing VC signs are conservative but can remain.

**N59. General Appraisal
and Oper. Status:**

**General Appraisal /
Operational Status: 6 N**

Inspection Notes: Did not attempt to access top of bridge during 2020 inspection; new roadway overlay in 2020.

General Notes: Impact attenuator @ E end of center pier.
Bridge is in 5 sections - 2 western-most spans have no RR tracks & are paved for vehicular traffic use.

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Chip delam. conc. on floor & fascia before it falls onto traffic. | Owner |
| 2. Close up open electrical boxes. | Owner |
| 3. Remove excess jt. mat'l. from exp. jt @ NW. | Owner |

Bridge Inspection Report | *Safety Inspection*

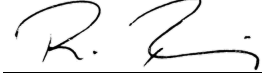
SFN: 3161498

Gest Street Norfolk Southern Overhead (E) - 2nd West of Dalton

Date Inspected: 07/31/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 N

Signature: 

Bridge No.: RAILROAD #18

Route: GEST Unit: 71 Bridge Type 112 / Date Built / Date Rehabbed: 1930 /
 Load Rating Percent 0 (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

- C7.1. Floor: Many scrapes from tall vehicles (impact); some delams; cracks forming under rebar (possible delams & spalls); some w exp. reinf. (rusting); low rebar cover is the source of these issues. 2 6
- C7.2. Edge of Floor: Deep scrapes, spalls, exp. rebar esp. @ SW (impact damage), several small delam; cracks and spalls @ fascias. 2 6
- C11. Railing: Metal railing, apparently corr.
- N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Summary Rating: 6

- C14. Alignment of Members: 1 8
- C15.2. Slab: Slab type structure; see "FLOOR". 2 6

N59. Superstructure Summary: Redundant, not fatigue prone. Summary Rating: 6

- C33. Abutment Walls: Minor vert. cracks w exp. rebar @ N; 1 large spall/delam @ N (20 sq. ft.w several exp. bars); crushing @ corners @ WW interfaces. 2 6
- C37. Pier Caps: Isol. spalling w exp. rebar; some delam areas. 2 6
- C38. Pier Columns: Delams & spalls w exp. (rusting) reinf. steel - esp. 2nd column from E (5 main bars exp); delam. areas. 2 5
- C40. Wingwalls: Ballast spilling over; minor popouts over rebar ties w low concrete cover; few minor cracks. 1 7

N60. Substructure Summary: Summary Rating: 5

- C55. Warning Signs: Advanced warning signs apply to adjacent bridge w lower clearance.
- C57. Utilities: Various lights: conduits corroding; 1 fixture missing @ N; loose pull box on pier column, all assumed to be no longer functioning. 4 2

Utilities On Structure: Y N N N N N N

65. Vertical Clearance: Posted 13-9" WB, EB not posted; measured (7-31-2020) 14' 11" W bound & 14'3" E bound. Vert. Clearance Rating: 1

Bridge Inspection Report | *Safety Inspection*

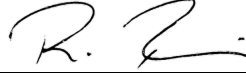
SFN: 3161498

Gest Street Norfolk Southern Overhead (E) - 2nd West of Dalton

Date Inspected: 07/31/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 N

Signature: 

Bridge No.: RAILROAD #18

**N59. General Appraisal
and Oper. Status:**

**Widespread but isol. spalls & delams as a result of low
concrete cover over rebar.**

**General Appraisal /
Operational Status:**

5 N

Inspection Notes: Impact attenuators are installed @ both the E & W ends of the center pier.
Did not attempt to access top of bridge 2020.
New roadway overlay 2020.

General Notes: Kentucky, East Lead Gest Street Yard.

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Remove loose concrete over walks & roadway before it falls into traffic. | Owner |
| 2. Consider chipping; rebar coating, & concrete patching on 2nd pier column from E and N abutment. | Owner |

Bridge Inspection Report | Safety Inspection

SFN: 3161552

Gest Street Norfolk Southern Overhead (W) - 3rd East of Mill Creek

Date Inspected: 07/31/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #19

Route: GEST Unit: 54 Bridge Type 364 / Date Built / Date Rehabbed: 1912 /
 Load Rating Percent 0 (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Wood ties & planks, splitting @ some locations; floor removed from E most span in 2014. 2 5

C11. Railing: Timber railing in approach spans loose; thru girder serves as railing for center span.

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Summary Rating: 5

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Corr. w widespread pitting & rivet det.; impact damage @ BF - E girder. 2 6

C16. Diaphragms/X-Frames: Corr. (newer members); debris accum; N end crossframe loose & moved toward pier @ W & E (apparently shimmed w timber) & not connected to beams; S end diaphragm also not connected. 3 4

C17. Stringers: Corr. w ext. LOS @ E - up to 75% LOS on TFs & widespread perforations on webs; newer rolled beams & in better condition @ W; corr. holes in web @ E; rating based on W bridge. (E bridge rated much worse but has no tracks). 2 6

C18. Floor Beams: Corr.; debris accum; flaking & LOS to web bottoms. 2 5

C24. Lateral Bracing: Corr. (newer members); debris accumulating; LOS @ gussets & angles (original members); loose @ W fascia; many members misaligned. 3 3

C25. Sway Bracing: Not visible (from below), assumed rating. 1 7

C26. Bearing Devices: Abut bearings corroding; anchor bolts lifted; covered w debris; some anchor bolts 100% LOS; 100% LOS on angle stiffeners. 3 4

C30. Protective Coating System (PCS): System: Year: 1950 PCS Rating: 0

N59. Superstructure Summary: Summary Rating: 5

Not fatigue prone, not redundant; big difference in condition of steel members between E & W bridge. Many E members have sev. LOS & perforations and would be rated as imminent failure(1). W bridge in better condition but several connections appear changed from original design & are likely compromised. All but 1 bottom gusset connect FB to beams have no bolts. End diaphragms are not connected to beams and apparently shifted @ N, it is possible that other compromised connections allow for similar movement of members.

C33. Abutment Walls: HL full height crack w efflor.; minor spall; staining & lichen. 1 7

C34. Abutment Caps: Debris accum.; horiz cracks w efflor @ S; staining & lichen. 1 7

C38. Pier Columns: Corr. w LOS @ bases & stiffeners; several stiffeners completely rusted thru; sig. LOS on anchor bolts (some 100%); pack rust forming bet. angles on diag bracing; through hole in horizontals @ S; full depth holes in NW pier column on both legs (>50% LOS

Bridge Inspection Report | Safety Inspection

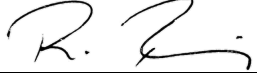
SFN: 3161552

Gest Street Norfolk Southern Overhead (W) - 3rd East of Mill Creek

Date Inspected: 07/31/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #19

total); plates added over similar damage @ SW column.

C39. Backwalls: Minor cracks & efflor. worst to the W of bridge. 1 7

C40. Wingwalls: Seepage; efflor; stalactites; severe spalling @ SW. 2 5

N60. Substructure Summary: Cond. of NW pier (under active track) governs rating. Summary Rating: 3

65. Vertical Clearance: VC sign - 14'-0" for E concrete bridges only. Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 3 N

Inspection Notes: The E half of the bridge is all original structure steel and is not in use. W portion used by trains and vehicles alike.

General Notes: Kentucky, West Lead Gest Street Yard; superstructure of E bridge would be rated much lower but was not controlling this rating.

Recommended Maintenance:	Assigned to:
1. Repair/replace deter. structural steel members @ pier bases.	Owner
2. Clean & repaint superstructure.	Owner
3. Check and repair floorbeam conn. where fasteners are no longer present.	Owner
4. Remove deteriorated members of upper lateral bracing over street & sidewalks before they fall on the ground.	Owner
5. Reset & secure end diaphragms over abutments.	Owner

Bridge Inspection Report | Safety Inspection

SFN: 3161307

Highland Avenue Norfolk Southern Overhead West of Lester Road

Date Inspected: 06/12/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: RAILROAD #20

Route: HIGHL Unit: 4262

Bridge Type 112 /

Date Built / Date Rehabbed: 1950 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Scrapes; cracks & spalls d/t insuff. reinf. cover; exp. rebar (esp. in approach spans); bars in main span affecting V.C.; several long HL cracks in line w black pier seat material. 2 6

C7.2. Edge of Floor: Many spalls from impact w exp rebar; intial map cracking w efflor. & stalactites (alkali-silica reaction) esp. @ W; wide crack @ NW & SE indicating larger delam. 2 5

C11. Railing: 2 broken posts @ NE; impact damage; bent @ NW; rusted.

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Ballast falling over deck. Summary Rating: 6

C14. Alignment of Members: 1 8

C15.2. Slab: Conc. slab structure - see "FLOOR". 2 6

C26. Bearing Devices: Black (exp jnt filler?) between conc pedestals.

N59. Superstructure Summary: Summary Rating: 6

Redundant; not fatigue prone; generally low concrete cover over rebar.

C33. Abutment Walls: Minor spalls; hairline mapcracking w efflor @ corners; 1 exp. rebar @ S. 2 6

C37. Pier Caps: Staining; minor spalls & delam w exp. reinf. 1 7

C38. Pier Columns: Cracking, spalls; delam; exp. reinf @ const. jts; widespread honeycombing; stained columns in splash zone; scrapes from impact @ N. 2 6

C40. Wingwalls: Erosion of embank. behind NW WW - part. filled w ballast; staining; minor delams 1 8

N60. Substructure Summary: General low concrete cover over rebar. Summary Rating: 6

C55. Warning Signs: Chevrons only attached by one bolt each @ top. 1 7

65. Vertical Clearance: Measured 14'-0" (new pavement 2016). All previous VC signs were removed. Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 6 N

Bridge Inspection Report | *Safety Inspection*

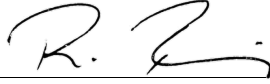
SFN: 3161307

Highland Avenue Norfolk Southern Overhead West of Lester Road

Date Inspected: 06/12/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 6 N

Signature: 

Bridge No.: RAILROAD #20

Inspection Notes: Many tall trucks crossing under bridge that almost touch the slab.
Top not accessed 2020.

General Notes: Oakley Junction - Milepost OB 0.34

Recommended Maintenance:

1. Repair/replace railing.
2. Perform conc. repairs (chipping & patching) @ bottom edge of fascias, before loose material falls into traffic.
3. Cut rebar sticking out from slab over roadway.

Assigned to:

Owner

Owner

Owner

Bridge Inspection Report | Safety Inspection

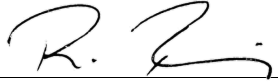
SFN: 3161137

Highland Avenue SORTA Overhead East of Lester Road

Date Inspected: 06/12/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 N

Signature: 

Bridge No.: RAILROAD #21

Route: HIGHL Unit: 4271

Bridge Type 364 / NNN

Date Built / Date Rehabbed: 1970 /

Load Rating Percent 000

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Minor trans. cracking.	1	8
C7.2. Edge of Floor: Rusting @ standoff locations; trans. HL cracks.	1	8
C11. Railing: Metal railing removed; conc. parapets widely scraped on insides from apparent derailment; graffiti.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N):		N
C13. Expansion Joints: Seepage; rust.	1	7

N58. Deck Summary:

Summary Rating: 8

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Minor scrapes over E bound lane; minor rusting @ beam ends.	1	7
C16. Diaphragms/X-Frames: Widespread initial rusting.	1	7
C24. Lateral Bracing: Widespread initial rusting.	1	7
C26. Bearing Devices: Spot rust.	1	7
C30. Protective Coating System (PCS): System: Year: 1970 PCS Rating: 4 Widespread fading/chalking; top coat only partially remaining @ webs; no top coat remaining @ BF; very limited areas of active corrosion though.		
C32. Fatigue Prone Details: Lateral Bracing gusset plates: partially assumed rating,	1	8

N59. Superstructure Summary: Fatigue prone; not redundant; birds roosting.

Summary Rating: 7

C33. Abutment Walls: Minor HL cracks, minor efflor. @ corners.	1	8
C39. Backwalls: Seepage from exp. jts; ext. rust stains - esp. @ N; horiz. cracking w efflor @ top 2' of S backwall.	1	7
C40. Wingwalls: Isol. map cracking w efflor. @ SE; minor staining; horiz offset of WW's vs abutment @ SE.	1	7

N60. Substructure Summary:

Summary Rating: 8

Bridge Inspection Report | *Safety Inspection*

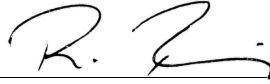
SFN: 3161137

Highland Avenue SORTA Overhead East of Lester Road

Date Inspected: 06/12/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 N

Signature: 

Bridge No.: RAILROAD #21

C55. Warning Signs: 1 7

65. Vertical Clearance: Posted 13'-9" in advance of bridge for WB traffic. Actual clearance approx. 14'. Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 N

Inspection Notes: Single metal clank sound noticed during 2019 inspection w out traffic (bridge in direct sunlight). Top of bridge not accessed 2020.

Recommended Maintenance:

1. Consider cleaning & repainting steel.

Assigned to:

Owner

Bridge Inspection Report | *Safety Inspection*


SFN: 3162885

Laidlaw Avenue Norfolk Southern Overhead

Date Inspected: 06/08/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature:  _____

Bridge No.: RAILROAD #22

Route: LAIDL Unit: 3651 Bridge Type 321 / Date Built / Date Rehabbed: 1959 /
 Load Rating Percent 0 (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Steel plates w widespread surface corr. & initially pitting. 2 6

C11. Railing: Tree branches shoved into railing post where horiz members are missing.

N36. National Safety Feature - Bridge Railing (0, 1 or N):

N58. Deck Summary: Summary Rating: 6

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Areas of pack rust between beam cover plts. & BF's developing throughout w plates separating, no loss of rivets yet; ext. surface rusting of BF w minimal LOS; minor dents to several BF's (many over S walk). 2 6

C16. Diaphragms/X-Frames: Surface corr. 1 7

C26. Bearing Devices: Concealed, apparent rusting. 1 7

C30. Protective Coating System (PCS): System: Year: 1959 PCS Rating: 0
 Widespread corrosion, but little LOS (steel weathering).

N59. Superstructure Summary: Redundant; not fatigue prone. Summary Rating: 6

C33. Abutment Walls: HL cracking (some full height); minor rust staining under fascia bearings; small spall @ S. 1 7

C39. Backwalls: (Mostly concealed) minor cracks. 1 7

C40. Wingwalls: Hairline cracking; vert. crack w efflor. @ NW; spalls @ SE w exp. rebar (low cover) & conc. det. w efflor; vines growing on S wingwalls. 1 7

N60. Substructure Summary: Summary Rating: 7

65. Vertical Clearance: 14'-10"; (new overlay 2015) Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 6 N

Bridge Inspection Report | *Safety Inspection*

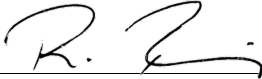
SFN: 3162885

Laidlaw Avenue Norfolk Southern Overhead

Date Inspected: 06/08/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 6 N

Signature:  _____

Bridge No.: RAILROAD #22

Inspection Notes: Entered CSR about accumulation of sand under bridge from NE property that erodes over sidewalk and into the parking lane. (2020)

General Notes: Cincinnati Belt Line - Milepost CT 1.08 - Bridge #2096A.
Most tracks removed - only 2 tracks @ W remain.

Recommended Maintenance:

Assigned to:

1. Clean & paint structural steel.
2. Remove tree branches from W railing posts before they fall into traffic.
3. Monitor BF rivet deterioration.


Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

SFN: 3199942


Lancaster Street Pedestrian Tunnel Under SORTA

Date Inspected: 04/22/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 2 NSignature: 

Bridge No.: RAILROAD #23

QA/QC Inspector: STEPHEN C. GRESSEL, P.E.

Safety Inspection ? Signature: 

Route: Unit: Bridge Type 1B4 / Date Built / Date Rehabbed: 1914 /
Load Rating Percent (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Not applicable.

Summary Rating:

C44. Culvert - General: Excessive floor heaving; ext. cracking of interior façade bricks, esp. @ NE; conc. arch mostly not visible except for holes in bricks; (mostly assumed rating); water infiltration esp @ S; graffiti; 2nd crack from N is +/- 1" wide w apparent conc cracked behind; apparent continuation of shifting/cracking in bricks w potential for bricks falling. 3 4

C48. Culvert - Head/End Walls: Full height cracks @ both tunnel ends; N wall offset @ crack ± 1.5" w/ main rebar exp. & 100% LOS; S spandrel 1.5" wide full depth crack almost full height crack; spandrel apparently held in place by wingwalls. Wingwalls: Ext. cracking w efflor. built-up; lrg. cracks & horizontal offset @ N end; ext. conc. deter; spalling at edges @ S; moss, discoloration & water saturation; ballast spilling over wall @ S; N arch apparently completely delaminated. 4 2

N60. Culvert Summary: 2020 pt#1=7'11.125" pt#2=7'8 5/8" pt#4=1.750" Summary Rating: 2
Vertical jnt in step wall @ N measured 4" wide, other wall jnts appear to be opening as well.

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 2 N

Inspection Notes: Tunnel no longer useful; ext. trash piles @ N end of arc. Vicinity of tunnel is experiencing significant subterranean shifting. Pier wall E of tunnel completed 2018; tunnel fenced off @ S 2019. Notified RR about concerns following 2019 inspection and requested FRA inspection report for the structure. Homeless encampment N of bridge (2020).

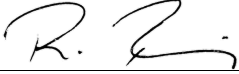
Bridge Inspection Report | *Safety Inspection*

SFN: 3199942

Lancaster Street Pedestrian Tunnel Under SORTA

Date Inspected: 04/22/2020

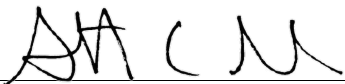
Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 2 N

Signature: 

Bridge No.: RAILROAD #23

QA/QC Inspector: STEPHEN C. GRESSEL, P.E.

Safety Inspection ?

Signature: 

General Notes: RR marker 2 on top.

Recommended Maintenance:

1. Remove debris & trash from tunnel & entrances.
2. Fill tunnel & remove from inventory.
3. Until filled, tunnel should be monitored & secured/reinforced spandrel walls (esp S).

Assigned to:

Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

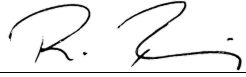
SFN: 3160335

Langdon Farm Road SORTA Overhead

Date Inspected: 07/29/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: RAILROAD #24

Route: LANGD Unit: 4031

Bridge Type 322 / NNN

Date Built / Date Rehabbed: 1948 /

Load Rating Percent 000

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Ext. corr. on steel plts. w initial LOS. 2 6

C7.2. Edge of Floor: Ext. deter. of conc. fascia, widespread deep spalls w exp. rebar, widespread map cracking w efflor; stalactites; delam. areas. 3 4

C11. Railing: Most posts completely broken (thru-cracked); gravel guard panels bent or loose allowing ballast to fall on roadway; center horiz. railing discontinuous @ SE. 4 2

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Summary Rating: 6

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: 9 rolled beams closely spaced; widespread rust; LOS @ fascia beams w ext. built-up of efflor.; birds droppings on BF; scrapes @ BF. 2 6

C16. Diaphragms/X-Frames: Rolled W sections; rusting, severe @ continuous BF. 2 6

C26. Bearing Devices: Corr; conc. encased @ abut. 2 6

C30. Protective Coating System (PCS): System: Year: 1948 PCS Rating: 0
Widespread rusting; initial LOS; chalking/fading.

N59. Superstructure Summary: Redundant; not fatigue prone. Summary Rating: 6

C33. Abutment Walls: Vert. HL cracks; seepage stains; horiz. cracks w built-up efflor. @ NW & SW, much better elsewhere. 1 7

C36. Pier Walls: Minor HL cracking; seepage stains; large patched areas (unsound) @ S & splash zone; several delams detected by sounding. 2 6

C39. Backwalls: Cast around beam ends; concrete crushing from expansion esp @ fascia beams. 3 4

C40. Wingwalls: Minor vert. cracking; moss/lichen. 1 8

N60. Substructure Summary: Summary Rating: 6

C4. Embankment: Mostly overgrowing. 1 8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Summary Rating: 8

Bridge Inspection Report | *Safety Inspection*

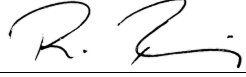
SFN: 3160335

Langdon Farm Road SORTA Overhead

Date Inspected: 07/29/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: RAILROAD #24

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 6 N

Inspection Notes: Bike lanes and one lane vehicle traffic each way below bridge.
Top not accessed 2020.

General Notes: Mile marker 12.04 - Oasis

Recommended Maintenance:

Assigned to:

- | | |
|---|-------|
| 1. Chip loose conc from fascias before it falls into traffic. | Owner |
| 2. Chip loose conc from backwalls before it falls onto s/w. | Owner |
| 3. Replace or repair railing & spill guards before it falls into traffic below. | Owner |
| 4. Clean & paint struct. steel. | Owner |

Bridge Inspection Report | Safety Inspection

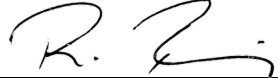
SFN: 3161730

Lester Road Norfolk Southern Overhead South of Highland

Date Inspected: 06/12/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 N

Signature: 

Bridge No.: RAILROAD #25

Route: LESTR Unit: 4261

Bridge Type 112 /

Date Built / Date Rehabbed: 1950 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Ext. map cracking w efflor concentrated toward edge of floor; scraped @ underside. 2 5

C7.2. Edge of Floor: Ext. widespread concrete det. (sev. widespread ASR?), crumbling, map cracking; exp. reinf. steel @ top; exp. stirrups & bases of railings; widespread loose conc.; stalactites. 3 3

C11. Railing: Rusted; 2 posts on N side no longer embedded (substituted by steel angles); conc. crumbling around other posts; bent horiz. railing @ SE.

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Extensive shedding of crumbled conc. Summary Rating: 5

C14. Alignment of Members: 1 8

C15.2. Slab: Conc. slab structure - see "FLOOR & EDGE OF FLOOR" 2 5

N59. Superstructure Summary: Redundant; not fatigue prone; overall conc. condition is poor. Summary Rating: 5

C33. Abutment Walls: Cracks w ext. efflor, delam; general conc. deter @ corners; spalls; severe alkaly silica reaction @ WW corners. 2 5

C37. Pier Caps: Seepage; efflor; cracking & delams @ corners; exp. Rebar (4 main vertical bars) @ top of several columns. 3 4

C38. Pier Columns: Severe spalling @ edges; w ext. efflor. & exp. bars esp. @ NW; unsound under map cracking (outside columns). 2 5

C40. Wingwalls: Ext. conc. deter. @ top near abut. (all 4 sev. Alkali silica reaction); map cracks w efflor; 1/2" offset to abutment @ SW; crushing @ 2 locations against abutment w 2 large delams. 2 5

N60. Substructure Summary: Summary Rating: 4

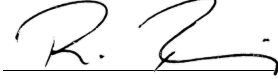
C55. Warning Signs: Slightly faded; rusted. 2 6

65. Vertical Clearance: Posted 13'-6". Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 4 N

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 N

Signature:  _____

Bridge No.: RAILROAD #25

Inspection Notes: Track repair work completed (2015).

General Notes: Oakley Junction, Milepost OB 0.33

Recommended Maintenance:

Assigned to:

- | | |
|---|-------|
| 1. Chip/repair loose deter. concrete particularly over roadway before portions fall onto traffic. | Owner |
| 2. Secure railing where post are no longer embedded into some concrete. | Owner |
| 3. Plan for extensive concrete repairs/replacement. | Owner |
| 4. Repair pier columns caps where main rebar is exposed. | Owner |

Bridge Inspection Report | Safety Inspection

SFN: 3161692

Madison Road IORY Overhead at Kenwood Road

Date Inspected: 05/06/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 N

Signature: 

Bridge No.: RAILROAD #26

Route: MADSN Unit: 480

Bridge Type 364 /

Date Built / Date Rehabbed: 1915 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Steel plates: Seepage; corr. w LOS @ connections, severe @ bridge ends (only floor plates between FB considered). 2 5

C11. Railing: Thru girders act as railing; web (many) perforations plated 2017

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Ballast spilling onto s/w @ SE & NW; veg. growing @ E; water dripping through deck (although not at time of 2017 inspection). Summary Rating: 5

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Corr; efflor; sev. widespread LOS to webs @ ballast interface causing many perforations (plated in 2017 using plates and stitch welds); widespread impact damage to stiffeners & BF's; pack rust on BF's; corr. w sig. LOS (heavy pitting inside of BF); several rivets missing from BF of W beam due to impact; rivet det esp near beams due to rust; several areas of BF deformation(peeling) @ center due to impact. 3 4

C18. Floor Beams: Corr. w widespread efflor; stalactites; numerous scrapes from impact; pack rust; sig. LOS @ end connections; rivet det due to rust esp near beams. 3 4

C25. Sway Bracing: Webs & 1 beam connection angle w severe LOS @ ballast interface 2" tall perforation typical(esp. W beam, where all webs are rusted through); LOS to sway bracing flanges (some severe); pack rust forming @ tops. 3 3

C26. Bearing Devices: Corr. most likely inhibiting exp; debris; pack rust @ masonry plates; 2 broken bolts @ SW bearing plate (bearings located on grilleage in abutments per original plans); sev LOS moment plate @ S center bearing. 2 5

C30. Protective Coating System (PCS): System: Year: 1970 PCS Rating: 2
Corr. w severe LOS @ ballast interface; corr. @ floor below; fascias painted 2010; widespread scrape marks @ BF's.

N59. Superstructure Summary: Not fatigue prone, not redundant. Summary Rating: 4

C33. Abutment Walls: Efflor & rust staining; wide vert. crack @ S below center & SW bearing; widespread conc. deter, spalling and delams; ext. deter. of conc. @ SW under bearing & @ NW corner; new mural (2018) @ S and new paint @ N (2017). 2 5

C34. Abutment Caps: Partially coated; cracks; conc. delaminating & unsound cap under SW & NE bearings; deter; efflor; spalls; debris accum; seepage; stalactites; severe concrete deterioration (crumbling in S center). 3 4

C39. Backwalls: Cracks; conc. deter; efflor; delams. & spalls; major spall @ NE. 3 4

C40. Wingwalls: Cracks; spalls; gunite flash coat delam; coated (2017); stone det. @ SW; spalling @ older portion of wingwall @ cold joint (newer (1944) wingwall extension was apparently not doweled into original wing @ NW causing slight offset). 2 6

N60. Substructure Summary: Coating may conceal some of the substructure deficiencies; seperation of new(1944) and original (1915) Summary Rating: 4

Bridge Inspection Report | *Safety Inspection*

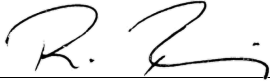
SFN: 3161692

Madison Road IORY Overhead at Kenwood Road

Date Inspected: 05/06/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 N

Signature: 

Bridge No.: RAILROAD #26

wall @ cold jnt not doweled; spalling @ older portion of wall @ NW (cold jnt).

C55. Warning Signs: 1 7

65. Vertical Clearance: Posted 12'-0". (measured 12'-3" +) Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 4 N

Inspection Notes: Active track on W side; tracks removed @ E. Bridge regularly hit by tall trucks despite many advance waring signs.

General Notes: Don Stephans @ 513-476-7929 {owner of next door wood shop} informs DOTE about bridge impacts.

Recommended Maintenance:	Assigned to:
1. Reattach vertical clearance sign @ W fascia.	Traffic
2. Clean & paint structural steel esp below bridge.	Owner
3. Concrete repair substructure elements.	Owner
4. Remove vegetation from top of bridge.	Owner

Bridge Inspection Report | Safety Inspection

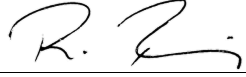
SFN: 3161854

Madison Road IORY Overhead West of Ridge Road

Date Inspected: 04/27/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: RAILROAD #27

Route: MADSN Unit: 356

Bridge Type 321 /

Date Built / Date Rehabbed: 1959 /

Load Rating Percent 000

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating
1 to 4Rating
9 to 0

C7.1. Floor: Isol. distinct areas of seepage along beams w stalactites forming up to 10" long; under platform numerous cracks w efflor & mottling, map cracking in N span; condition of floor under platform governs rating.

2

5

C7.2. Edge of Floor: Damp areas & mapcracking with efflor, esp over pier; widespread mottling; scrapes, spalls, & several very small delams in fascia's; widespread suspected ASR(?) @ fascias esp over pier.

2

6

C9. Curbs/Sidewalks: Ext. conc. deter; conc. widespread cracking & spalling; all exposed conc appears unsound (sounded); spalls in platform show copper band over exp joint.

C11. Railing: Vert. through cracks one wide @ E, full height esp. @ posts; isol. deter. (ASR?); steel portion repainted 2011; no exposed rebar; graffiti.

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C13. Expansion Joints: Crushing @ walk; seepage w efflor; distinct areas of leakage (efflor. build-up) on substructure esp. @ S and adjacent to platform; loose copper strip exposed in curb deck spalls over joints.

2

5

N58. Deck Summary:

Summary Rating: 5

C14. Alignment of Members:

1

8

C15.1. Beams/Girders: Steel beams mostly concealed by conc.; rusting & pitting on BF's - esp. under jts.; seepage along beams; possible horiz thru crack w efflor @ S fascia (steel beam not full height?)

2

6

C16. Diaphragms/X-Frames: Under platform only; birds roosting.

1

8

C26. Bearing Devices: (Mostly concealed) squeezing out @ several locations.

2

6

C30. Protective Coating System (PCS): System: Year: 1959
Ext. rusting w LOS on BF.

PCS Rating: 0

N59. Superstructure Summary: Redundant, not fatigue prone. Only bottom of BF visible, hence partially assumed rating; diag crack/delam in pier diaphragm under platform.

Summary Rating: 6

C33. Abutment Walls: Num. vert. cracks (up to .055" width), some w efflor. - esp. @ S; staining from leakage through jt. above.

1

7

C37. Pier Caps: Extensive staining from leakage above @ ends; ext. cracks w efflor. (ASR?), possibly under mining fascia bearing.

2

6

C38. Pier Columns: Some HL cracks; minor spalls; popouts.

1

8

C40. Wingwalls: Few cracks, one w efflor; popouts.

1

7

N60. Substructure Summary: Widespread efflor. on surface from leakage at joints.

Summary Rating: 6

Bridge Inspection Report | *Safety Inspection*

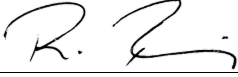
SFN: 3161854

Madison Road IORY Overhead West of Ridge Road

Date Inspected: 04/27/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: RAILROAD #27

C55. Warning Signs: Posted 13'6" for EB traffic. 1 9

65. Vertical Clearance: EB: 13'-10"; WB: 13'-9". Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 6 N

Inspection Notes: Newer balast; and since 2017 two tracks on the bridge rather than one; ongoing 2020 construction @ nearby ped bridges.

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Repair pier cap @ W. | Owner |
| 2. Repair & seal joint over piers & curb to prevent water seepage into superstructure and piers. | Owner |
| 3. Check soundness of concrete and chip all loose material before it falls into traffic. | Owner |
| 4. Repair concrete where mapcracking, patch and seal. (edges of pier caps, etc.) | Owner |
| 5. Plan for extensive conc replacement @ railings, curbs, platform, etc. | Owner |
| 6. Chip delaminated conc. from railings, epoxy inject cracks. | |

Bridge Inspection Report | Safety Inspection

SFN: 3161706

Madison Road SORTA Overhead East of Ridge Road

Date Inspected: 03/30/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 N

Signature: 

Bridge No.: RAILROAD #28

Route: MADSN Unit: 414

Bridge Type 363 /

Date Built / Date Rehabbed: 1945 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

- C7.1. Floor:** Concrete: widespread cracking; widespread delams & spalling.; rust staining; some exp. reinf. steel. 2 6
- C7.2. Edge of Floor:** Deter. & spalling (some deep) on bottom & fascia; sig. efflor, stalactites & delam. @ both fascias throughout; widespread exp. rusted rebar w sev. LOS; ext dripping through NE fascia (not observed in 2020 during extended dry time.) 3 4
- C11. Railing:** No railing on E side; rusting on W side; railing support brackets rusted w severe LOS; some posts apparently floating; timber edge beams sev. deter.

N36. National Safety Feature - Bridge Railing (0, 1 or N):

N58. Deck Summary: Rail dips on bridge d/t poor ballast. Summary Rating: 6

- C14. Alignment of Members:** 1 8
- C15.1. Beams/Girders:** Ext. rusting; impact damage 12-30-87; 2 stiffeners bent, 1 broken; scrape marks @ bottom of BF's; connection of approach span beams to main span beam has 3 missing bolt @ NE, 2 @ SW. 2 6
- C16. Diaphragms/X-Frames:** Rusting; 1 gusset @ lower bracing @ E bent up (impact?). 2 6
- C24. Lateral Bracing:** Rusting; one gusset plate of lower lateral bracing bent up slightly (impact?). 2 6
- C26. Bearing Devices:** Corr. w initial LOS. 2 6
- C30. Protective Coating System (PCS):** System: Year: 1946 PCS Rating: 0
Original paint almost completely gone, steel weathering mostly without LOS, except in splash zone.

N59. Superstructure Summary: Not fatigue prone; not redundant. Summary Rating: 6

- C33. Abutment Walls:** Several vert. cracks and horiz. cracks @ const. jts. (painted over by mural (new 2019). 1 7
- C34. Abutment Caps:** Isol. cracking and moisture; little efflor.;debris & gravel accum. 1 7
- C37. Pier Caps:** Debris accum; rusting. 2 6
- C38. Pier Columns:** Ext. rusting; ext. LOS @ bases; severe rivet & anchor bolt deter; few isol. areas of deeper steel deter. apparently originating from embedded objects, typical 10 sq in by 3/8" deep; flange thickness @ SW reduced from 1.25" to .4" {1 flange only} 3 4
- C39. Backwalls:** Seepage; spalls; efflor buildup; vert. cracks; conc deterioration @ SW; upper triangular wall section on top of NE backwall slightly shifted (1-1/2") 2 5
- C40. Wingwalls:** Cracking w extensive efflor. & spalling (ASR) @ tops NE & SE; ext. conc. deter. @ far NE & NW cap ends; main WWs in much better condition. 2 5

N60. Substructure Summary: Not fatigue prone; not redundant. Summary Rating: 4

Bridge Inspection Report | *Safety Inspection*

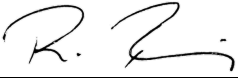
SFN: 3161706

Madison Road SORTA Overhead East of Ridge Road

Date Inspected: 03/30/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 N

Signature: 

Bridge No.: RAILROAD #28

C55. Warning Signs: 1 7

65. Vertical Clearance: Posted 13'-6" (measured 13'-10") Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 4 N

Inspection Notes: Abutments repainted (2019).
Contacted SORTA regarding concrete delaminations over traffic following the 2018 inspection;
supposedly plans for rehab by SORTA in which case maintenance items do not apply.

General Notes: Mile Marker 9.40 on Oasis Line
Element level data on file.

Recommended Maintenance:	Assigned to:
1. Repair/replace corroded brackets supporting railing.	Owner
2. Remove loose concrete from floor and fascias before it falls into traffic.	Owner
3. Reset & secure upper triangular wall on top of backwall @ NE.	Owner
4. Remove ballast from abutment seats.	Owner
5. Remove unsound concrete from top of wingwalls, & repair as necessary.	Owner

Bridge Inspection Report | Routine Inspection

SFN: 3163032

McMillan Street over SORTA Tunnel

Date Inspected: 02/28/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: RAILROAD #29

Route: MCMIL Unit: 3372

Bridge Type 095 / NNN

Date Built / Date Rehabbed: 1881 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C44. Culvert - General: Widespread cracking @ ends, including precursor to global cracks at N end with cracks through many courses of bricks (appears to be remains from former headwall collapse). General minor brick and mortar deterioration elsewhere, esp at bottom of brick courses; minor leakage at N esp +/-15 ft from N end, where there are two cracks in the center toward the W (this area was determined to be located about 15 ft N of the end of the sidewalk in the slope). 2 6

C45. Culvert - Alignment: 1 8

C48. Culvert - Head/End Walls: Only located on the South side. Isolated minor cracks in the stones and surface deterioration at isol. locations (near bottom of wall). 1 7

C50. Culvert - Abutments: Stone pedestal abutments underneath the brick arch. 1 7

N60. Culvert Summary: N portion of the culvert has been filled in (closed off). Summary Rating: 6

C1. Pavement: 2017 pavement markings and deliniators from ODOT project. 1 7

C4. Embankment: Steep South embankments and previous landslide at the Southeast embankment, not affecting guardrail or street above. 2 5

C5. Guardrail: Concrete parapet with steel twin tubes on the top on the South side. No guardrail on the North side, only pedestrian railing. 1 7

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): 0

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): 0

C6. Approaches Summary: Summary Rating: 5

C57. Utilities: There is a stormwater manhole inside the culvert over the storm drain, lid missing.

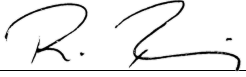
Utilities On Structure: N N N N N N N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 6 A

Inspection Notes: Several long. cracks in fill inside the tunnel at the N end where fill is tallest (maybe fill could not be compacted due to vertical clearance), appears to have stabalized. Moisture entering paritcularly 15 ft S of North end of tunnel (which is about 15 ft North of the sidewalk abobe, hence in the slope).

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature:  _____

Bridge No.: RAILROAD #29

Recommended Maintenance:

1. Tuckpoint and repair mortar & brick as necessary.
2. Reset manhole lid.

Assigned to:

Owner
Stormwater

Bridge Inspection Report | Safety Inspection

SFN: 3161153

Mehring Way C.U.T. SE Connection Overhead East of Freeman

Date Inspected: 08/18/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 N

Signature: 

Bridge No.: RAILROAD #30

Route: MEHRG Unit: 37

Bridge Type 344 /

Date Built / Date Rehabbed: 1931 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Open wood ties (circa 2010).

1 7

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary:

Summary Rating: 7

C14. Alignment of Members:

1 8

C17. Stringers: Minor corr. w minor LOS @ TF @ rails; corr. @ lower lateral stringer bracing connections; pack rust forming @ connections to FB's.

1 7

C18. Floor Beams: Very isol. corr. (former blast plate locations); isol. initial LOS on TF's; rivets (2) @ NE connection (knee brace) to vert. sheared off.

1 7

C19. Truss Verticals:

1 8

C20. Truss Diagonals: Lacing bent above W-center pier; bent gusset @ 1st vert. from W - S side.

1 8

C21. Upper Chord:

1 8

C22. Lower Chord: Possible minor corr. @ some lacing connections.

1 7

C23. Truss Gusset Plates: Minor corr. w @ gusset plates; minor @ FB - more @ joists.

1 8

C24. Lateral Bracing: Pack rust between angles; apparent corr. of gussets of top chord lateral bracing.

1 7

C25. Sway Bracing: Initial LOS.

1 7

C26. Bearing Devices: Minor LOS on bases.

1 7

C30. Protective Coating System (PCS): System: Year: 1997

PCS Rating: 6

Little corr. or LOS except @ rails; drips/runs/sags; inter. coat showing through top coat in many locs.

N59. Superstructure Summary: Not fatigue prone; not redundant; (partially assumed rating since top of bridge was not accessed); rust colored surface staining.

Summary Rating: 7

C36. Pier Walls: @ E; efflor. @ cracks @ NE; joint material squeezing out of vertical jnt @ E pier; isol. cracking w efflor.(ASR) apparent thru crack near wall opening not under bearing.

1 7

C37. Pier Caps: Minor HL cracks; minor debris accum.

1 7

C38. Pier Columns: Minor cracking; form-tie hole plugs missing; honeycombing esp. @ unintended cold joints; minor spalling; minor exp. reinf. @ 1 location; staining; widespread scaling.

1 7

N60. Substructure Summary: Ivy & lichen growing @ W.

Summary Rating: 7

Bridge Inspection Report | *Safety Inspection*

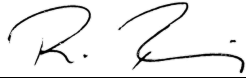
SFN: 3161153

Mehring Way C.U.T. SE Connection Overhead East of Freeman

Date Inspected: 08/18/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 N

Signature: 

Bridge No.: RAILROAD #30

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 7 N

Inspection Notes: Line on N side removed. Top not accessed during City routine inspections, hence partially assumed rating.
Rehab work done by CSX in 2010-2012

General Notes: FB rivets @ stringer connections do not appear to be riveted on both sides by design. Plates on one side have rivet heads on the other appear to be prepunched (?). This pattern switches somewhere closer to the W end of the bridge.

Recommended Maintenance:

1. Share latest Railroad inspection report of this bridge with the City.
2. Clear vegetation from substructure.

Assigned to:

Owner
Owner

Bridge Inspection Report | *Safety Inspection*

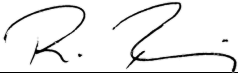
SFN: 3161102

Mehring Way C.U.T. SE Connection Overhead - Harriet to Freeman

Date Inspected: 08/13/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: RAILROAD #31

Route: MEHRG Unit: 23

Bridge Type 363 /

Date Built / Date Rehabbed: 1931 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Open wood ties in good condition. 1 7

C9. Curbs/Sidewalks: Metal grating (S side only).

C11. Railing: Cable @ S only.

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Summary Rating: 7

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Surface corr. esp. on flanges ; isol. rivet deter. @ ends of cover plates; minor pack rust; BF dented both beams span 45 (span W of Carr St.); poss. LOS @ BF @ gussets; apparent LOS in TF cover plates; minor imperfections in BF E of floodwall (impact?). 1 7

C16. Diaphragms/X-Frames: Corr. w initial LOS (laminating) & pack rust @ some gusset plate locations. 1 7

C24. Lateral Bracing: Bottom lateral bracing only in some spans (apparently by design); LOS & pack rust @ gusset plates & between angles w perforations over piers esp to the W. 1 7

C26. Bearing Devices: Corr; anchor bolt loose @ pier 51S; bearing plate @ bottom of beam @ some locations is corr. w LOS & heavy pitting (33, 47, 49); oversize holes @ bearing plate 45 & 47. 2 6

C30. Protective Coating System (PCS): System: Year: 1984 PCS Rating: 5
Part. repainted (1997); rusting @ BF & @ bottom of web; rust under-cutting @ piers; some flaking of newer paint esp on pier columns.

N59. Superstructure Summary: Initial packrust developing between plates. Summary Rating: 7

C37. Pier Caps: Corr; initial LOS; pack rust between cover plates @ several bents, pack rust between cover plates; minor impact scrapes @ bottom of several bents; top horiz. bracing between pier columns not always present (apparently by design); many scrapes (impact) @ bottom of 44 w 2 rivets sheared off. 1 7

C38. Pier Columns: Impact damage to bracing @ 54, 38, & 27 N; minor LOS @ bases; conc. pedestal deter; holes in bracing @ 28 S top & bottom (LOS @ top > 50%); pack rust between angles of horiz. bracing; possible heaving @ pier 27 S w broken welds @ column base; generally more corrosion to columns W of pier 47. 2 6

N60. Substructure Summary: Rusting columns @ pier 47 & W of 47. Summary Rating: 6

Bridge Inspection Report | *Safety Inspection*

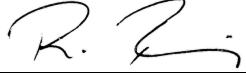
SFN: 3161102

Mehring Way C.U.T. SE Connection Overhead - Harriet to Freeman

Date Inspected: 08/13/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: RAILROAD #31

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 6 N

Inspection Notes: Top not accessed during the 2020 inspection.
New pier number markings apparently offset by -1.
New overlay on roadway below (2020).

Recommended Maintenance:

1. Replace all bracing where perf. esp @ pier 28.
2. Tighten bolt @ pier 51 S (bearing).
3. Remove loose timber from BF & E of pier 36.
4. Remove steel spike sticking out of corr. hole in gusset W of pier 37.
5. Remove loose wood from BF, span 54.

Assigned to:

Owner
Owner
Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

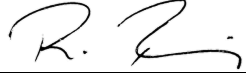
SFN: 3161226

Mehring Way Chessie Overhead East of Smith Street

Date Inspected: 08/13/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #32

Route: MEHRG Unit: 101

Bridge Type 321 /

Date Built / Date Rehabbed: 1929 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Open ties: Most ties replaced 2010; steel grating between the two spans;. few walk cantilevers with sev.e LOS; 3 suspended timber platforms between tracks below metal grates over Mehring Way (with questionable beam connections) should be removed if no longer used. 2 6

N36. National Safety Feature - Bridge Railing (0, 1 or N):

N58. Deck Summary: **Summary Rating: 6**

C14. Alignment of Members: Minor impact damage to pier N of mehring Way. 1 7

C15.1. Beams/Girders: Widespread LOS, esp @ connection of BF to webs, with perforations (mostly these areas are not visible); several rivets missing; some riveted moment plates replaced with bolted plates; severe LOS (100%) of BF on beams 1 and 2 from E at pier 14. 3 3

C16. Diaphragms/X-Frames: Corrosion w LOS - significant at gussets; many members not connected, or severely perforated, some missing, few replaced in isolated spans. 4 2

C24. Lateral Bracing: Corrosion w LOS esp. at gusset plates; many perforated or missing members; one member over PRW only attached on one end with other end sagging free. 4 2

C26. Bearing Devices: Mostly concealed; severe det. of some anchor bolts visible; apparent loose anchor bolt N of pier 15 at beam 2 from W; sev LOS & packrust to bearing plates esp. pier 8. 3 4

C30. Protective Coating System (PCS): System: 1997 Year: **PCS Rating: 0**
Widespread corrosion, but partially repainted (bot of pier N of PRW and all S of pier 10).

N59. Superstructure Summary: **Several critical portions of the superstructure cannot be inspected from the ground level. Inspection from the adjacent vehicluar bridge provides only limited views. Generally the condition appears to be getting worse to the N end of the bridge.** **Summary Rating: 3**

C37. Pier Caps: Corr. & LOS, some severe, particularly on hor. surfaces; various rivets missing (pier 10); pack rust under beams; braces bet. pier columns @ pier 15 w severe LOS; LOS to flanges and aparent cracks of some plates S of Mehring Way. 2 5

C38. Pier Columns: Corr. & LOS; cracking of conc. bases; impact N of Mehring Way; LOS, pack rust & rivet deter. at column bracings pack rust on pier 9 causing plates ob both sides of the pier to split & disintegrate; pier bases have ext. corr. and LOS @ anchor bolts. 2 5

N60. Substructure Summary: **Summary Rating: 5**

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):

Bridge Inspection Report | *Safety Inspection*

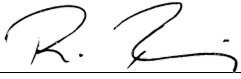
SFN: 3161226

Mehring Way Chessie Overhead East of Smith Street

Date Inspected: 08/13/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #32

65. Vertical Clearance: 14'-3" minimum V.C for Smith St.; signed 12'-6"

Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: No information available for load restriction of trains. Both tracks appear to be active.

General Appraisal / Operational Status: 3 N

Inspection Notes: Top not accessed during the 2020 inspection. Most of the scaffolding that was in span 14 since 2013 had been removed, but vertical hangers remain in place. Partially assumed rating due to limited access. 2020 lots of debris, spikes, full railroad ties on & near walls from recent (CSX work).

Recommended Maintenance:

1. Investigate and repair LOS on beam BF N of pier 14 to E tracks, where flange has 100% LOS.
2. Remove 3 unused timber platforms between tracks over Mehring Way including steel support angles.
3. Replace missing rivets.
4. Replace all steel members with significant loss of section, esp bottom brace over Pete Rose Way.
5. Remove all utilities, pipes, etc from bridge if they are abandoned before they fall into traffic below.
6. Clean, repair, and paint all structural steel.
7. Remove all loose wood & railroad debris above piers, sidewalks, etc.

Assigned to:

Owner
Owner
Owner
Owner
Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

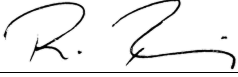
SFN: 3160394

Mitchell Avenue Chessie Overhead

Date Inspected: 08/17/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: RAILROAD #33

Route: MITCH Unit: 3401

Bridge Type 321 / NNN

Date Built / Date Rehabbed: 1970 /

Load Rating Percent 000

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating
1 to 4Rating
9 to 0

C7.1. Floor: Rusting & pitting; initial LOS & seepage @ pier jts. 2 6

C11. Railing: Steel spill guard; corr; slight horiz. misalignment @ S fascia, S span.

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C12. Drainage: Extensive seepage of mud from both abutments & pier onto sidewalks.

C13. Expansion Joints: Excessive leaking; open jts. @ pier; mud washing thru @ center & S. 3 4

N58. Deck Summary: Ballast pulled back to expose waterproofing membrane. Summary Rating: 6

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Closely spaced rolled beams w full length cover plates @ top & bottom flanges; widespread rust & dark surface corr; minor scrapes on BF's; minor impact damage @ sev. locations. 2 6

C16. Diaphragms/X-Frames: Rust; some rivets replaced with welds. 2 6

C26. Bearing Devices: Mostly buried w gravel & mud; ext. rusting; stiffener over bearing @ W bent; several anchor bolts lifted; some bearing plates apparently bent (smiling); pier bearing plate @ 3rd beam from E vibrating & clanking under load. 2 6

C30. Protective Coating System (PCS): System: Year: 1970 PCS Rating: 0
Widespread rusting; orange base coat visible, many fins, tears, & scrapes.**N59. Superstructure Summary: Fatigue prone; redundant; slight apparent bending under train loads. Summary Rating: 6**

C33. Abutment Walls: Ext. stains; few vert. full height cracks w isol efflor.; ext. mud seepage esp. @ NW; minor impact scrapes @ N; delams & spall w exp. rebar @ N. 1 7

C36. Pier Walls: Excessive stains (esp. E bridge); HL cracks; minor scrapes from impact @ S. 1 7

C40. Wingwalls: Ballast falling over sides; diag. crack @ NW & SW w efflor; minor spalls and minor concrete crushing between WW & abut @ S. 1 7

N60. Substructure Summary: Substructure covered w mud including installed light fixtures. Summary Rating: 7

Bridge Inspection Report | Safety Inspection

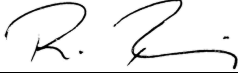
SFN: 3160394

Mitchell Avenue Chessie Overhead

Date Inspected: 08/17/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 6 N

Signature: 

Bridge No.: RAILROAD #33

C56. Sign Supports: Signs clamped on BF (S fascia). 1 8

C57. Utilities: Comm?; non-continuous conduit @ N (2 locations w exposed wires). 1 7

Utilities On Structure: Y N N N N N

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 6 N

Inspection Notes: Top not accessed during 2020 inspection.

General Notes: Bridge #6.81

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Clean & paint struct. steel & bearings. | Owner |
| 2. Seal joints to prevent further seepage & spilling of ballast. | Owner |
| 3. Remove excess ballast from abut. seats & wingwall. | Owner |
| 4. Repair electric conduits where separated. | Owner |
| 5. Secure pier bearing plates. | Owner |
| 6. Clean abutment walls including light fixtures. | Owner |

Bridge Inspection Report | Safety Inspection

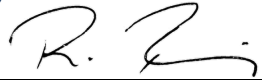
SFN: 3162672

Red Bank Expressway IORY Overhead

Date Inspected: 05/20/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 N

Signature: 

Bridge No.: RAILROAD #34

Route: REDBK Unit: 4531

Bridge Type 363 / NNN

Date Built / Date Rehabbed: 1970 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Spall & delam near beam @ E; efflorescence @ construction joints @ both abutments. 1 8

C7.2. Edge of Floor: Trans. cracks w efflor; isol. small spalls over rebar esp @ S(typically 4" in diameter) 1 7

C11. Railing: Dented; spill guards bent & ineffective (bottom gap too large to prevent ballast from falling through; some horiz. tubes corr, some replaced w smaller dia. tubes; spill guard missing @ NW; SEVERAL RAILING POSTS LOOSE & therefore entire railing is shaking.

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C13. Expansion Joints: Leakage @ ends of long. jts, esp. @ W; exp. jt @ E (expansion end) appears to apply horiz. force onto backwall (conc. spalling). 2 6

N58. Deck Summary: Summary Rating: 8

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Widespread surface rust. 1 7

C16. Diaphragms/X-Frames: Widespread surface rust. 1 7

C24. Lateral Bracing: Widespread surface rust; few missing bolts @ gussets @ W. 1 7

C26. Bearing Devices: 2 anchor bolts loose (lifted) @ E; few anchor bolts apparently missing @ NW; exp. bearings @ E may no longer be moving, applying load to superstructure (see abut walls & jnts. comments) 2 6

C30. Protective Coating System (PCS): System: Year: 1970 PCS Rating: 0
Widespread spot rust esp on flanges; more than 50% failed.

N59. Superstructure Summary: Not fatigue prone, not redundant. Summary Rating: 7

C33. Abutment Walls: HL cracks @ E, vertical & horiz. (frozen bearings?); minor spall; seepage @ W; staining on both sides. 1 7

C39. Backwalls: Seepage staining; spalling @ E top; delam @ E top, probably as a result of deck crushing on BW @ exp. end; HL vertical cracks in center @ E w moist spot 1 7

C40. Wingwalls: Very minor HL cracking; spall @ SE. 1 8

N60. Substructure Summary: Summary Rating: 7

Bridge Inspection Report | *Safety Inspection*

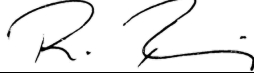
SFN: 3162672

Red Bank Expressway IORY Overhead

Date Inspected: 05/20/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 N

Signature: 

Bridge No.: RAILROAD #34

65. Vertical Clearance: Measured 19'-6"

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 7 N

Inspection Notes: South track removed.
Notified Bridge owners (RailAmerica, IORY, G&WO) about condition of railings in the past.
Top not inspected 2020.

General Notes: Bridge #12/96
Mile marker 13 just E of bridge.

Recommended Maintenance:

1. REPAIR RAILING AND SPILLGUARDS.
2. SECURE RAILING POSTS
3. Check E expansion and repair as necessary (including resetting lifted anchor bolts).
4. Trim branches & ivy from WW's & railings.

Assigned to:

Owner
Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

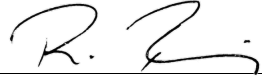
SFN: 3162214

Ridge Avenue IORY Overhead South of Madison

Date Inspected: 04/10/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: RAILROAD #35

Route: RIDGE Unit: 4251 Bridge Type 321 / 111 Date Built / Date Rehabbed: 1958 /
 Load Rating Percent 0 (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

- C7.1. Floor:** Trans. cracks w efflor; isol. seepage w efflor. along few beams; stalactites forming @ some beam flanges; main span governs rating for floor; (approach spans in very good cond.); widespread scrapes from impact. 1 7
- C7.2. Edge of Floor:** Many spalls @ S fascia from impact; sev. cracking w efflor. & conc. deter. @ fascia over piers. 2 6
- C11. Railing:** Vert. cracks (full height) @ many posts some w efflor; top metal railing rusting (severely); spalls & loc. severve conc. deter.@ bases; veg. growing @ SE; graffiti.
- N36. National Safety Feature - Bridge Railing (0, 1 or N):** N
- C13. Expansion Joints:** At piers only; seepage; efflor.; jt. filler loose @ several locs; squeezing out @ fascias; very little room for expansion; evidence of leak @ E. 2 6

N58. Deck Summary: Summary Rating: 7

- C14. Alignment of Members:** 1 8
- C15.1. Beams/Girders:** Scraped by traffic @ S; rusting @ BF's w widespread minor pitting; minor seepage along beams; initial LOS @ few beam ends due to packrust. 2 6
- C26. Bearing Devices:** Mostly concealed (partially assumed rating); rubber material squeezed out in some places. 1 7
- C30. Protective Coating System (PCS):** System: Year: 1958 PCS Rating: 0
 Ext. rusting w initial LOS.

N59. Superstructure Summary: Redundant; not fatigue prone. Summary Rating: 6

- C33. Abutment Walls:** Few vert. HL cracks. 1 8
- C37. Pier Caps:** Minor exp. rebar w LOS @ underside of cap @ E pier (low rebar cover); 2 small spalls w exp. rebar; seepage mostly @ E w staining & build up of efflor.; excessive conc. deter. & cracking w efflor. @ all corners. (crushing ASR?) 2 6
- C38. Pier Columns:** Minor popouts; staining. 1 8
- C40. Wingwalls:** Minor vertical HL cracks; minor popouts & spalling; jt. filler mat'l. disintegrating. 1 8

N60. Substructure Summary: Summary Rating: 6

Bridge Inspection Report | *Safety Inspection*

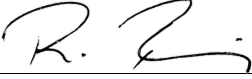
SFN: 3162214

Ridge Avenue IORY Overhead South of Madison

Date Inspected: 04/10/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: RAILROAD #35

C55. Warning Signs: VC signs.

1 7

65. Vertical Clearance: 13'-10".

Vert. Clearance Rating: 1

**N59. General Appraisal
and Oper. Status:**

**General Appraisal /
Operational Status: 6 N**

Inspection Notes: Only one track remaining on bridge; E curbs are broken & walks @ E settled; water ponding on walk @ NE;
Top not inspected in 2020; evidence of ponding below bridge, effecting sidewalk.

Recommended Maintenance:

Assigned to:

1. Repair conc portions of railing and piers as necessary.

Owner

Bridge Inspection Report | Safety Inspection

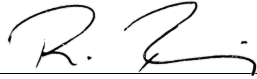
SFN: 3162265

Ridge Avenue SORTA Overhead North of Madison

Date Inspected: 06/29/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 N

Signature: 

Bridge No.: RAILROAD #36

Route: RIDGE Unit: 4263 Bridge Type 363 / Date Built / Date Rehabbed: 1970 /
 Load Rating Percent 0 (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

- C7.1. Floor: Some HL trans. cracks; minor spalling @ TF's of beams @ abutments; efflor @ NE & NW. 1 8
- C7.2. Edge of Floor: Many trans. HL cracks w some efflor. mostly under railing panel joints @ new pier. 1 7
- C11. Railing: Tarnished; end caps missing; several anchor nuts missing (W); minor impact w exp. rebar @ SW; height of conc. parapet above ballast +/- 31".
- N36. National Safety Feature - Bridge Railing (0, 1 or N): 1
- C13. Expansion Joints: Seepage; rust @ jt. armor below.

N58. Deck Summary: Summary Rating: 8

- C14. Alignment of Members: 1 8
- C15.1. Beams/Girders: Several minor scrapes from traffic; minor widespread rusting - esp. @ bottom flanges(2 areas w light pitting); minor pack rust @ beam splices; beams close to backwall (see "BEARING DEVICES"); dark staining & rusting over Ridge Rd. 1 7
- C16. Diaphragms/X-Frames: Rusting; LOS under exp. jts. 1 7
- C24. Lateral Bracing: Initial rusting; pigeons droppings. 1 7
- C26. Bearing Devices: Rockers @ abuts. in hot weather mode @ 45 F (slight @ W); bridge leaning towards abutment, (2.625" @ 70 deg, 2.375 @ 45 deg, 2.7" @ 80 deg) @ E. 2 5
- C30. Protective Coating System (PCS): System: Year: 1970 PCS Rating: 0
Chalking/fading; some active corrosion at bottom flanges.
- C32. Fatigue Prone Details: Lat. bracing gussets (part. assumed rating). 1 8

N59. Superstructure Summary: Fatigue prone; not redundant. Summary Rating: 7

- C33. Abutment Walls: Staining, very minor HL cracking. 1 8
- C36. Pier Walls: Minor scrapes. 1 8
- C39. Backwalls: Seepage from above w rust stains - especially @ W; minor cracking w efflor. 1 7
- C40. Wingwalls: Slight mvmt. (jts. opening); jt. mat'l seeping out; minor cracks; minor efflor @ select isol. locations; minor scrapes @ SE. 1 7

N60. Substructure Summary: Summary Rating: 8

Bridge Inspection Report | *Safety Inspection*

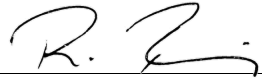
SFN: 3162265

Ridge Avenue SORTA Overhead North of Madison

Date Inspected: 06/29/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 N

Signature:  _____

Bridge No.: RAILROAD #36

65. Vertical Clearance: 14'-9" measured.

Vert. Clearance Rating: 1

**N59. General Appraisal
and Oper. Status:**

**General Appraisal /
Operational Status: 7 N**

Inspection Notes: Bridge in severe hot weather mode with little room for expansion at both abutments.
Top not inspected 2020.

General Notes: Mile marker 9.89 on Oasis Line.

Recommended Maintenance:

Assigned to:

1. Clean & paint steel beams.
2. Seal railing tubes with end caps.

Owner
Owner

Bridge Inspection Report | *Safety Inspection*

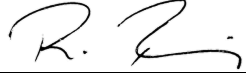
SFN: 3162842

Seventh Street C.U.T. Overhead - 1st West of McLean

Date Inspected: 08/10/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 N

Signature: 

Bridge No.: RAILROAD #37

Route: SEVEN Unit: 2921

Bridge Type 321 /

Date Built / Date Rehabbed: 1930 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Honeycombing turning into map cracking; trans. & long. cracks few w minor efflor.; moist around cracks. 1 7

C7.2. Edge of Floor: Seepage; cracking w efflor. & dripping @ center jnt. 1 7

C11. Railing: Ext. surface rust; anchor bolts missing; base plts. deter.; several cast members cracked; E railing utility supports not used & rusting.

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Deck extends over backwall @ both ends; deck appears to be well vegetated. Summary Rating: 7

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Widespread surface rusting without noticable LOS esp. @ TF; minor scrapes (impact) @ BF. 1 7

C16. Diaphragms/X-Frames: Ext. surface rusting. esp. @ top. 1 7

C26. Bearing Devices: Not accessible; ext. corr; debris; anchor bolt & beam conn. bolt deter.; initial LOS; covered by mud @ S. 2 6

C30. Protective Coating System (PCS): System: Year: 1931 PCS Rating: 0
Widespread failure.

N59. Superstructure Summary: Redundant; not fatigue prone. Summary Rating: 7

C33. Abutment Walls: Minor vert. cracks esp @ N; seepage & ext stains esp @ N (from BW); moisture from joint seepage; lichen/moss esp. @ N; leaking through vertical abutment joint esp. @ bottom. 1 7

C34. Abutment Caps: Excessive dirt & debris accum. @ SE; moist; lichen/moss esp. @ N. 1 7

C39. Backwalls: Minor horiz. & vert. cracks; seepage w efflor.; excess. leaking from top. 1 7

C40. Wingwalls: Both E WW's tilted slightly away from abut; excess veg., moss & vines; form tieholes not all plugged @ N. 1 7

N60. Substructure Summary: Summary Rating: 7

Bridge Inspection Report | *Safety Inspection*

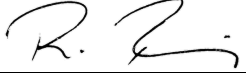
SFN: 3162842

Seventh Street C.U.T. Overhead - 1st West of McLean

Date Inspected: 08/10/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 N

Signature: 

Bridge No.: RAILROAD #37

C55. Warning Signs: Faded & bent. 2 5

C57. Utilities: Comm? (rusting utility hangers) in E bay. 2 6

Utilities On Structure: N N N N N N N

65. Vertical Clearance: Posted 13'-6". Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 N

Inspection Notes: Top not accessed during 2020 inspection; ext. seepage through center long. joint.

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Clean & paint structural steel. | Owner |
| 2. Remove mud from abut. seats & bearings. | Owner |
| 3. Seal center long. jt and abutment joints that traps moisture. | Owner |
| 4. Uncover weepholes @ bottom of abutment walls. | Owner |

Bridge Inspection Report | Safety Inspection

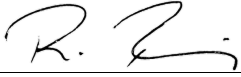
SFN: 3162745

Seventh Street Norfolk Southern Overhead - 2nd West of McLean

Date Inspected: 08/10/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 N

Signature: 

Bridge No.: RAILROAD #38

Route: SEVEN Unit: 2922

Bridge Type 363 /

Date Built / Date Rehabbed: 1930 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Wood ties on E bridge; recent (2013) grated walkway on W bridge. 1 7

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Summary Rating: 7

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Corr. w initial LOS @ TF & BF's & stiffeners; sig. pack rust on BF @ gussets; TF pitted w rivet deter; scrapes; pack rust causing gap bet. cover plates @ W bridge; few scrapes from impact; (E bridge w tracks in much better condition). 3 4

C16. Diaphragms/X-Frames: Corr. w LOS @ gusset plts; perf. @ angles (W bridge governs rating). 3 4

C24. Lateral Bracing: Corr. sometimes w sig. LOS & rivet deter. @ gusset plates; gusset plates perf; rating driven by W bridge. 3 4

C26. Bearing Devices: Corr; anchor bolts have sev. LOS, some corroded completely away & some are uplifted; bearings in adjacent span shimmed 2019? 2 5

C30. Protective Coating System (PCS): System: Year: 1930 PCS Rating: 0
No apparent coating left.

N59. Superstructure Summary: Not fatigue prone, not redundant; W bridge governs the rating. Summary Rating: 4

C36. Pier Walls: Cracks; deep corner spalls; extensive conc. deter. @ N & W side of S pier; large delam. areas of concrete under W track. 2 5

C37. Pier Caps: Spalls (10 sq ft @ S, W of tracks); cracks; efflor.; honeycombing; efflor. & stalactites; large delam area's mainly under W tracks. 2 5

N60. Substructure Summary: Condition of W bridge pier governs the rating, E bridge much better. Summary Rating: 5

65. Vertical Clearance: Posted 13'-6" in front of adj. bridge. Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: W bridge governs rating, E bridge in better condition. General Appraisal / Operational Status: 4 N

Bridge Inspection Report | *Safety Inspection*

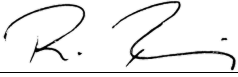
SFN: 3162745

Seventh Street Norfolk Southern Overhead - 2nd West of McLean

Date Inspected: 08/10/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 N

Signature:  _____

Bridge No.: RAILROAD #38

Inspection Notes: W line abandoned, ties removed and replaced with grated walkway in 2013; did not attempt to access top of bridge; bearing shim in S approach span apparently moving out from under bearings; bearing pedestal in adjacent span (N approach) severely cracked & delaminated; severe LOS of lower pedestal bracing steele bands (not considered for this rating); E bridge over roadway in much better condition than adjacent bridge & spans.

General Notes: Kentucky, 2.3 Conn PASS.

Recommended Maintenance:

1. Clean & paint struct. Steel; repair as necessary.
2. Clean & paint bearings & replace anchor bolts as necessary.
3. Clean off debris from bottom flange to prevent corrosion to structural steel.
4. Investigate and repair as necessary shim under SE approach bearing.

Assigned to:

Owner
Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

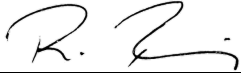
SFN: 3162796

Seventh Street Norfolk Southern Overhead - 3rd West of McLean

Date Inspected: 08/10/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 N

Signature: 

Bridge No.: RAILROAD #39

Route: SEVEN Unit: 2923

Bridge Type 363 /

Date Built / Date Rehabbed: 1930 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating
1 to 4

Rating
9 to 0

C7.1. Floor: Newer wood ties on both bridges suggesting active tracks on both sides of the bridge; several fallen tie nails (from recent tie replacement) on superstructure. 1 8

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Summary Rating: 8

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Sig. LOS - especially @ TF and top of BF(rivet det); localized severe LOS @ bottom of TF of W beam @ former gussets (18 ft from N pier); stiffeners corr. thru & cracked @ bottom; vertical waves in BF adjacent to some bearings; in this span & adjacent spans. 3 4

C16. Diaphragms/X-Frames: Corr. w sev. LOS @ gusset plates; several gusset plates appear loose; some top horiz. members removed or perf; several bot. horiz. members have been splice repaired or completely replaced (one). 3 3

C24. Lateral Bracing: Mostly ineffective; corr. w severe LOS and perforations @ gusset plates; rivet deter; several angles thru cracked (both bridges); several lower lat. bracing members repaired in 2013; many upper lat. bracing members removed 2013; 1 upper lateral bracing cracked through completely on W bridge; several others w severe LOS; 1 upper lat bracing @ S approach cracked on 2 sides. 3 3

C26. Bearing Devices: Ext. corr. w LOS; anchor bolts have sev. LOS - some completely corroded away; lat. angle braces added to all bearings (for lateral support only); floating bearing @ NE. 3 4

C30. Protective Coating System (PCS): System: Year: 1930 PCS Rating: 0
Ext. corr. w ext. LOS.

N59. Superstructure Summary: Not fatigue prone; not redundant; TF's essentially no longer braced due to loss of members & LOS to remaining bracing; worst on W bridge (carries traffic). Summary Rating: 4

C36. Pier Walls: Form tie hole plugs missing; minor cracks, spalls, & delams; pop outs @ S pier. 1 7

C37. Pier Caps: Staining. 1 8

N60. Substructure Summary: Moss growing on piers. Summary Rating: 7

Bridge Inspection Report | *Safety Inspection*

SFN: 3162796

Seventh Street Norfolk Southern Overhead - 3rd West of McLean

Date Inspected: 08/10/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 N

Signature: 

Bridge No.: RAILROAD #39

65. Vertical Clearance: Bridge adj. has sign for 13'-6" only @ E (Clearance 14'-8").

Vert. Clearance Rating: 1

**N59. General Appraisal
and Oper. Status:**

**General Appraisal /
Operational Status: 4 N**

Inspection Notes: Did not attempt to access top of bridge. Both bridge tracks apparently under active train traffic; abnormal track noise under passing trains, (observed during previous inspection); W bridge condition worse.

General Notes: Kentucky, 2.3 Conn MN.

Recommended Maintenance:

Assigned to:

1. Replace all missing or damaged bracing members also in approach spans.
2. Clean & paint struct. steel, adding new steel & rivets where needed.
3. Clean & paint (or regrease) bearings & replace anchor bolts as necessary.

Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

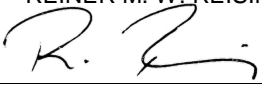
SFN: 3161870

Sixty-Ninth Street Norfolk Southern Overhead East of Vine

Date Inspected: 05/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: RAILROAD #40

Route: SIXTY Unit: 3642

Bridge Type 321 /

Date Built / Date Rehabbed: 1938 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Isol. exp. rebar @ E (minor low cover spalls); staining w few popouts.	1	7
C7.2. Edge of Floor: Minor delam. @ SE; ext. map cracking w efflor & stalactites on concrete fascia esp. in approach spans; tall spall @ SW over pier; crumbling & ASR @ SW over abutment; apparent delams over walks, esp @ NW.	2	5
C11. Railing: Steel railing @ W only, ext. rusting of steel tubes w isol. perforations; conc rail @ E crumbling & delam @ approach spans.	2	6
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		

N58. Deck Summary: **Summary Rating: 7**

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Widespread rusting, initial corrosion (esp in approach spans); minor scrapes from impact.	2	6
C16. Diaphragms/X-Frames: Rusting; initial corr.	2	6
C26. Bearing Devices: Continuous steel beam w two anchor bolts per pier; ext. rusting; initial LOS @ fascias; minor deformation @ anchor bolts; debris accum. from seepage.	2	6
C30. Protective Coating System (PCS): System: Year: 1951 PCS Rating: 0 Ext. rusting.		

N59. Superstructure Summary: Redundant; not fatigue prone. **Summary Rating: 6**

C33. Abutment Walls: Full height vert. cracks; map cracking w little efflor. - @ corners @ S; widespread HL cracks; minor popouts.	2	6
C34. Abutment Caps: Isol vert. cracks; map cracking w buildup of efflor @ corners; debris(mud) @ N.	2	6
C37. Pier Caps: Minor cracks; water stains; RR spikes, ballast, & ext seepage(mud) on pier cap; minor spalling; isol exp. reinf. under piercap @ SE (low cover).	1	7
C38. Pier Columns: Minor cracks; impact damage & scrapes @ E; minor popouts.	1	7
C39. Backwalls: Mostly concealed, (assumed rating).	1	7
C40. Wingwalls: Isol. areas of map cracking w build up of efflor; lichen/staining.	2	6

N60. Substructure Summary: Seepage @ abut. & piers. **Summary Rating: 6**

Bridge Inspection Report | Safety Inspection

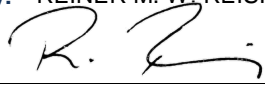
SFN: 3161870

Sixty-Ninth Street Norfolk Southern Overhead East of Vine

Date Inspected: 05/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: RAILROAD #40

C55. Warning Signs: No signs @ SE, SW from Lebanon street. Private (?) sign at E has different height than sign at W. (VC measured in 2017 to be 13.97') 4 2

C57. Utilities: Utility line on E face of bridge. 1 7

Utilities On Structure: NNNNNN

65. Vertical Clearance: Posted 13'-9" (@ W), 13'-6" @ E; measured 14'-0"; E sign (13'-6") down in 2020 Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 6 N

Inspection Notes: Leakage over piers (mud & water) esp @ N with mud puddle on sidewalk. Sidewalk sunken between pier columns in relation to curb. New (2020) curb @ SW.

General Notes: Worst condition typically in approach spans.

Recommended Maintenance:	Assigned to:
1. Clean & paint structural steel & bearings.	Owner
2. Remove loose concrete @ fascias railings esp @ E & bottom @ NW, before it falls onto roadway and/or sidewalk below.	Owner
3. Remove bricks & debris from pier caps.	Owner
4. Add vertical clearance signs on all approach roads; make all signs coherent.	Traffic
5. Clean mud & debris from sidewalks.	Owner

Bridge Inspection Report | Safety Inspection

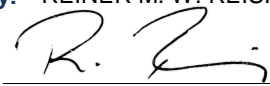
SFN: 3162028

Spring Grove Avenue Chessie Overhead North of Mitchell Avenue

Date Inspected: 04/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #41

Route: SPRNG Unit: 447

Bridge Type 364 / 321

Date Built / Date Rehabbed: 1970 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

- | | | | |
|---|---|---|---|
| C7.1. Floor: | Steel deck in main span: rusted drain holes/heavy pitting in steel plates & TF of FB over road & s/w @ S; most angles connecting the walkway plates to the beams have dropped on floor beams esp in N most span, s/w capacity may be compromised; sidewalk vibrating under train traffic.
Wood ties on end spans: wood plank floor @ far ends of bridge, some planks mis-aligned, some have moist stains in N span; spill guards in approach spans leaning outward from excess ballast & wood det.; some wood ties @ SW not resting on BF. | 3 | 4 |
| C11. Railing: | Thru girder serves as railings over road; cable railing for end spans attached to spill guard beam (all leaning outwards from excess ballast). | | |
| N36. National Safety Feature - Bridge Railing (0, 1 or N): | N | | |
| C12. Drainage: | Water dripping; clogged pipes @ NE, SE, & SW - draining onto pier seats; drain holes @ S pier located over floor beam. | 3 | 3 |
| C13. Expansion Joints: | Ext. debris behind beams @ abut. may be inhibiting expansion; sev. leakage with mud running down backwalls. | 3 | 4 |

N58. Deck Summary:

Summary Rating: 4

- | | | | |
|--|--|---------------|---|
| C14. Alignment of Members: | Bottom lateral bracings & corresponding gussets in N approach span deformed. | 2 | 6 |
| C15.1. Beams/Girders: | Widespread surface rust; initial LOS @ exp. jt. & TF's in approach spans; scrapes on BF in main spans; corr. on fascia web @ elevation of floor plates.
Crack in web NW approach beam over N pier repaired (2015) w plates; top gussets "indented" into web @ approach spans esp @ NW (can be seen from other side of beam); W beam BF on N approach span slightly wavy near N abutment; top lateral gusset plates "impressed" into beam webs of N approach span. | 2 | 6 |
| C16. Diaphragms/X-Frames: | Paint flaking; rust; initial LOS @ exp. jts. | 2 | 6 |
| C18. Floor Beams: | Widespread rust; some scrapes from impact; initial LOS; corr. @ S under drain hole & over N pier. | 2 | 6 |
| C24. Lateral Bracing: | Paint flaking; rust; debris buildup on gusset plates; bolts missing on some gusset plates. 3 bracing members in N approach span deformed. | 2 | 6 |
| C25. Sway Bracing: | Not visible from below. | | |
| C26. Bearing Devices: | Ext. corr; debris accum; many anchor bolts bent & lifted, some are missing; completely covered w mud @ abuts; SW anchor bolt severely tilted; floating bearing @ NW approach, apparently no contact even undertrain loads (indicating a highly unengineered loadpath); beam moving considerably under loads; no trains observed during 2020 inspection. | 3 | 3 |
| C30. Protective Coating System (PCS): | System: Year: 1970 | | |
| | Widespread rust; flaking; initial LOS @ isol. locs; some area's sprayed white in 2018. | PCS Rating: 0 | |

Bridge Inspection Report | Safety Inspection

SFN: 3162028

Spring Grove Avenue Chessie Overhead North of Mitchell Avenue

Date Inspected: 04/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #41

C32. Fatigue Prone Details: Cracking in N approach span (plated in 2015), currently no cracks detected but movement of beam over bearing indicate potential for future cracking; top gussets "indented" into web @ approach spans esp @ NW; many bracing members in this area are bent. 1 7

N59. Superstructure Summary: Fatigue prone; not redundant; bearings controlling the rating due to concern about beam movement causing unintended load path & potential cracking. There appears to be movement at abutment bearings as well, but they are concealed by thick layers of mud. **Summary Rating: 3**

C33. Abutment Walls: Stub abuts; major staining from mud spills. 1 7

C37. Pier Caps: Debris accum; seepage; staining; drain pipe @ S pier empties over pier seat; exp. rebar d/t low cover @ bottom of center pier; vert. HL shrinkage cracks; spalling @ top of N pier. 1 7

C38. Pier Columns: Random cracking. 1 8

C39. Backwalls: Covered w mud. 1 7

C40. Wingwalls: Erosion d/t steep banks; undermining @ SE, NE. 1 8

C43. Slope Protection: Conc. only under bridge; excessive mud & debris. 1 8

N60. Substructure Summary: Excessive mud spilling over backwalls concealing abutments. **Summary Rating: 7**

C4. Embankment: Erosion & ballast spill over; undermining of WW @ SE & NE. 2 5

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):

C6. Approaches Summary: **Summary Rating: 5**

65. Vertical Clearance: **Vert. Clearance Rating: 1**

N59. General Appraisal and Oper. Status: **General Appraisal / Operational Status: 3 N**

Inspection Notes: Crack in approach span web repaired (plated) 2015. Top of bridge not accessed for this inspection. Condition of bearing and walk support angels was brought to CSX attention after the 2019 inspection. New camp @ S 2020.

General Notes: Bridge # 6.94; no trains observed during 2020 inspection.

Recommended Maintenance:	Assigned to:
1. Repair N approach bearing before new cracks develop in beams.	Owner
2. Clean up mud spill from both abutments & pier seats so proper bearing seating can be confirmed.	Owner
3. Remove/reattach/replace support angles for the walkway plates connecting walkway to the beams.	Owner
4. Remove excess ballast from approach spans & repair railings.	Owner

Bridge Inspection Report | *Safety Inspection*

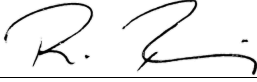
SFN: 3162028

Spring Grove Avenue Chessie Overhead North of Mitchell Avenue

Date Inspected: 04/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #41

- | | | |
|----|--|-------|
| 5. | Clean & paint structural steel. | Owner |
| 6. | Replace missing bolts attaching W beam to bearings over center pier. | Owner |

Bridge Inspection Report | Safety Inspection

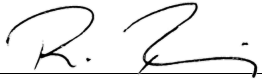
SFN: 3162079

Spring Grove Avenue Chessie Overhead South of Ralston

Date Inspected: 07/07/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #42

Route: SPRNG Unit: 230

Bridge Type 364 /

Date Built / Date Rehabbed: 1920 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: (Only the area between floor beams): Widespread corr. w LOS; severe @ girders; efflor; seepage; stalactites. 2 5

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C12. Drainage: Pipes cracked/broken w most sections missing - leaking onto piers & structural steel members. 4 0

N58. Deck Summary: Summary Rating: 5

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Widespread corr. w severe LOS of BF's - esp. @ piers; widespread scrapes/impact damage to BF; pack rust separating cover plates, esp under FB's; pack rust @ BF's worst @ center beam. 3 4

C18. Floor Beams: Widespread corr. w severe LOS - especially @ beam connection; efflor; rivet deter; widespread stalactites indicating seepage through deck and FB's. 3 3

C25. Sway Bracing: (Not accessible).

C26. Bearing Devices: Ext. corr. w LOS; corr. & ballast inhibit exp; roller assemblies rusted together; most retainers cracked - some all the way through - &/or rusted w LOS. 3 3

C30. Protective Coating System (PCS): System: Year: PCS Rating: 0

N59. Superstructure Summary: Not fatigue prone, not redundant. Summary Rating: 3

C33. Abutment Walls: Gen. deter.; areas where leaking water washed out mortar jnts & isol. masonty fracture; ivy@ N. 2 6

C34. Abutment Caps: Vert. cracks; spalls; conc. deter; ext. accum. of ballast @ corners. 2 6

C36. Pier Walls: Widespread conc. deter.; spalling, cracking, exp. rebar w LOS, delam; worst areas @ noses & under columns. 3 4

C38. Pier Columns: Ext. LOS; center pier bracing - 100% LOS; pack rust separating gussets w rivets failed @ E pier; apparent missing fasteners @ pier to beam connection; bracing @ center pier no longer effective (100% LOS @ each end); sev. rivet & bolt det. esp @ gussets where most rivets are failed (top of columns). 3 3

C39. Backwalls: Vert. cracks w efflor; conc. deter; staining. 2 6

C40. Wingwalls: Gen. stone & mortar deter; ext. deter. of conc. caps & stalactites - part. @ NE & SW; ballast & debris spilling over top & corners; bush growing from WW @ NE. 2 5

N60. Substructure Summary: Pier column bracings no longer effective esp @ center pier Summary Rating: 3 rating based on condition of bracing columns.

Bridge Inspection Report | *Safety Inspection*

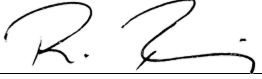
SFN: 3162079

Spring Grove Avenue Chessie Overhead South of Ralston

Date Inspected: 07/07/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #42

C55. Warning Signs: 1 8

C57. Utilities: Comm?; some utility hangers loose; exposed wires dangling @ center pier. 2 5

Utilities On Structure: Y N N N N N

65. Vertical Clearance: Posted 13'-6" (neighboring overpass is actually lower). Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 3 N

Inspection Notes: Top not accessed during this inspection.

General Notes: Bridge 4.98.

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Replace broken, perforated or missing drainage pipes. | Owner |
| 2. Clean, repair, and repaint structural steel. | Owner |
| 3. Repair bearings where pin casings are cracked or bearings are frozen. | Owner |
| 4. Repair delam/spalled conc. @ piers. | Owner |
| 5. Repair structural steel esp. pier bracings & pier columns including connection. | Owner |
| 6. Remove all shedded conc., steel, & rust from walls, gutters, & curbs. | Owner |

Bridge Inspection Report | *Safety Inspection*

SFN: 3161641

Spring Grove Avenue Norfolk Southern Overhead South of Ralston

Date Inspected: 07/07/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 7 N

Signature: 

Bridge No.: RAILROAD #43

Route: SPRNG Unit: 229

Bridge Type 321 /

Date Built / Date Rehabbed: 1995 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Metal decking covered w conc; slight isol. efflor. on metal decking. 1 8

C7.2. Edge of Floor: Vert. cracks w efflor. @ vert. portion of fascia. 1 7

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C13. Expansion Joints: Apparent leaking @ abutments esp @ W. 1 7

N58. Deck Summary: Summary Rating: 8

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: 6 closely spaced W27 X 194 beams; many scrapes @ BF's d/t truck traffic impact - (mostly small notches) in BFs & accumulating scrapes in webs; widespread surface corrosion; active corr. w minor pitting starting from scrapes @ BF's; object (bolt?) embedded into beam over outbound lane (impact). 1 7

C16. Diaphragms/X-Frames: 1 8

C26. Bearing Devices: Bronze sliding type; some initial corr. - part. @ NW; slight staining; not all bearings have seismic angles; rust initiating @ seismic angles; seismic angle @ S fascia over main span on W pier appears to have thinned & bent. 1 8

C30. Protective Coating System (PCS): System: Year: 1996 PCS Rating: 4
Ext. damage to paint film d/t impact/scrapes on BF & fascia webs.

N59. Superstructure Summary: Redundant; not fatigue prone. Summary Rating: 7

C33. Abutment Walls: Sev. stained (mud from top); HL cracks @ W. 1 8

C36. Pier Walls: Minor HL cracking; some scrape marks; anti-graffiti coating peeling @ several locations. 1 8

C37. Pier Caps: Staining 1 8

C39. Backwalls: Seepage onto abutment @ W; vert HL crack w seepage @ SE. 1 8

C40. Wingwalls: SW WW bulging where sheet piles meet conc; 3" offset 4' above ground; backfill falling out; vert. cracks @ SW. 1 8

C43. Slope Protection: Concrete; holes @ some jnts. 1 7

N60. Substructure Summary: Bugholes in concrete members. Summary Rating: 8

Bridge Inspection Report | *Safety Inspection*

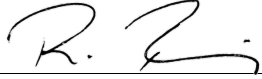
SFN: 3161641

Spring Grove Avenue Norfolk Southern Overhead South of Ralston

Date Inspected: 07/07/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 7 N

Signature: 

Bridge No.: RAILROAD #43

C55. Warning Signs: 1 8

65. Vertical Clearance: 13'-6" Warning signs & flashing lights; measured 13'-8". Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 N

Inspection Notes: Top not accessed during this inspection; apparently continuing impact from vehicles.

Recommended Maintenance:

1. Seal joint between wingwall @ steel piles @ SW.
2. Consider painting at minimum BF & fascia webs.

Assigned to:

Owner
Owner

Bridge Inspection Report | Safety Inspection

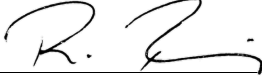
SFN: 3162435

Stanley Avenue SORTA Overhead

Date Inspected: 07/06/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 N

Signature: 

Bridge No.: RAILROAD #44

Route: STANL Unit: 4093

Bridge Type 321 /

Date Built / Date Rehabbed: 1917 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

- C7.1. Floor:** LOS @ bearing loc. & first bay from fascias; re-painted (2007); sev pitting around holes in first bay from N (drain holes?). 2 6
- C7.2. Edge of Floor:** Honeycombing @ N; spall @ railing post @ N; steel fascias w sev pitting & LOS; rivet deter; widespread staining from water runoff; (timber @ S fascia det. w/plants growing out of lagging; space between top of beam and bottom of lagging keeps moisture and promotes section loss; minor impact to steel fascia at N (bent flange corroding at impact location). 3 4
- C11. Railing:** New CLF @ N & S; 1 fence post base partially exp @ N (conc spall).
- N36. National Safety Feature - Bridge Railing (0, 1 or N):** N

N58. Deck Summary:

Summary Rating: 6

- C14. Alignment of Members:** Both fascia beams warping slightly (impact @ N) 1 7
- C15.1. Beams/Girders:** Repainted (2007); severe LOS w heavy pitt. - mostly @ bearing loc. over pier & bottom flange plates; deck holding water; seepage; new efflor. & rust @ bottom angles; stalactites forming; impact over S bound lanes @ 2 beams; governed by fascia beams. 2 5
- C16. Diaphragms/X-Frames:** Some bent. 1 7
- C30. Protective Coating System (PCS):** System: Year: 2007 PCS Rating: 7
Corr. arrested by painting; minor chalking on fascias; some active corr. esp. over pier.

N59. Superstructure Summary: Redundant; not fatigue prone.

Summary Rating: 5

- C33. Abutment Walls:** Widespread cracking (many horiz.) w seepage & ext. efflor, esp. W; few delams (patched & coated). 2 5
- C34. Abutment Caps:** Ext. wider horiz. mapcracking w seepage & , leakage esp @ W with heavy efflor; patched & coated (2007); stalactites. 2 5
- C36. Pier Walls:** Conc. @ bottom of piers w spalls @ former stud locations. 2 6
- C37. Pier Caps:** Ext. pitting; rivet deter; repainted (2007); stalactites forming; active corr. @ some locations; heavy leaking from cantilever plates (top of pier seat for outer beams) several days after rain, with plates showing heavy pitting. 2 5
- C38. Pier Columns:** Bottom conc. encased (2007); upper portion steel. 2 6
- C40. Wingwalls:** Ext. cracking w seepage & efflor; wall cap @ E has ext. cracking; coated (2007); SE wall @ Stacon St. leans (not considered for rating); vertical crack & spall @ NE adjacent to abutment. {opening @ top 3.75" & 1.5" @ bottom} 2 6

N60. Substructure Summary: Pier seat condition at cantilevers (two outside beams) is worse than overall rating.

Summary Rating: 5

Bridge Inspection Report | *Safety Inspection*

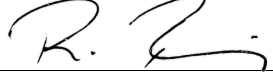
SFN: 3162435

Stanley Avenue SORTA Overhead

Date Inspected: 07/06/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 N

Signature: 

Bridge No.: RAILROAD #44

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 5 N

Inspection Notes: Top not accessed 2020

General Notes: Mile Marker 4.11 on Oasis Line.

Recommended Maintenance:

1. Seal deck to keep water out of bridge.
2. Replace timber siding on S fascia as necessary.
3. Remove vegetation from S fascia.
4. Remove vegetation from Sidewalks.

Assigned to:

Owner
Owner
Owner
TROD

Bridge Inspection Report | Safety Inspection

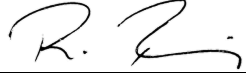
SFN: 3162133

Tennessee Avenue IORY Overhead East of Reading Road

Date Inspected: 07/29/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: RAILROAD #45

Route: TENES Unit: 3793

Bridge Type 364 /

Date Built / Date Rehabbed: 1959 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Isol. cracking w efflor @ beam interface. 1 7

C7.2. Edge of Floor: Widespread long. cracking w efflor. & stalactities (outer 6" of overhang & @ face of fascia beam). 2 6

C11. Railing: Ext. rusting; spillguard @ S loose; spalls @ corner rail posts; some fasteners (connection to post) missing.

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C13. Expansion Joints: Seepage; ext. efflor., stalactites & stalagmites @ pier locs; steel cover on long. joints loose & partially torn open (light visible through center jnt. @ isol. locations) 2 5

N58. Deck Summary: Minor deck crushing @ abut corners (top of deck). Summary Rating: 7

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Widespread surface rusting/minor pitting; girders attached to BW; slight LOS on rivet heads; minor scrapes/impact damage; LOS of web under long. jt. (minor pitting); one bolt sheared off at S beam connection over pier. 2 6

C18. Floor Beams: Minor rusting throughout; minor pitting. 2 6

C26. Bearing Devices: Rusting. 1 7

C30. Protective Coating System (PCS): System: Year: 1959 PCS Rating: 0
Widespread failing of paint.

N59. Superstructure Summary: Not fatigue prone, not redundant; possible slight movement of beams @ midspan when under load. Summary Rating: 6

C33. Abutment Walls: Vert. cracks w isol buildup of efflor @ W; seepage & ext. staining; lichen. 1 7

C37. Pier Caps: Minor flex. HL cracks @ bottom of pier caps w minor efflor. @ S most arch; stains; verical const. jnts. @ both ends of pier cap 4.5' tall w slight efflor & HL cracking below. 1 8

C38. Pier Columns: Vert. HL cracks. 1 8

C39. Backwalls: BWs attached to beams (semi-integral); widespread seepage/stains & dampness & build-up of efflor. esp. @ W; spall @ SW beam connection. 2 6

C40. Wingwalls: Map cracking; efflor. W seepage & stalactites @ NE; lichen. 1 7

N60. Substructure Summary: Summary Rating: 7

Bridge Inspection Report | *Safety Inspection*

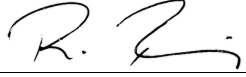
SFN: 3162133

Tennessee Avenue IORY Overhead East of Reading Road

Date Inspected: 07/29/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: RAILROAD #45

65. Vertical Clearance: Measured 14'-8".

Vert. Clearance Rating: 1

**N59. General Appraisal
and Oper. Status:**

**General Appraisal /
Operational Status: 6 N**

Inspection Notes: Slight vert. movement of beams near midspan under train loading (historical observation).
Top not accessed during 2020 inspection.

General Notes: Bridge # 959.

Recommended Maintenance:

1. Clean & paint structural steel, railing & bearings.
2. Repair seal on long. joint to prevent ballast from falling through to street below.
3. Fix spill guards as necessary.
4. Seal gap between fascia steel angle & concrete deck to prevent water intrusion.

Assigned to:

Owner
Owner
Owner
Owner

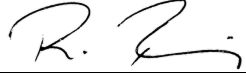
Bridge Inspection Report | Safety Inspection

SFN: 3162141

Tennessee Avenue Norfolk Southern Overhead West of Reading Road Date Inspected: 07/29/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #46

Route: TENES Unit: 3791

Bridge Type 364 /

Date Built / Date Rehabbed: 1944 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Open ties - splitting, rotting, severe lumber deter. & plant growth in timber.

4 2

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Advanced timber deter.; veg. growing in ties on deck.

Summary Rating: 2

C14. Alignment of Members:

1 8

C15.1. Beams/Girders: Widespread rusting w initial LOS & isol. rivet deter (3 missing @ FB gussets); scrapes @ BF of thru girder; paint flakes/debris accum. on BF - esp. @ gusset plates; graffiti; minor scrape marks @ BF.

2 6

C17. Stringers: Widespread rusting w initial LOS - part. @ floor beam conn.

2 5

C18. Floor Beams: Widespread rusting w initial LOS & rivet deter; TF pitting (top side); end FB have perf. flanges over abut. & missing rivets @ obtuse connections.

2 5

C24. Lateral Bracing: Widespread corr. w initial LOS, pack rust @ connection to stringer; some rivets completely deter.; several stringer connections apparently compromised (not fully connected) or failing.

2 5

C25. Sway Bracing: Widespread rusting; some rivet head deter; isolated pack rust.

2 6

C26. Bearing Devices: Sev. LOS @ anchor bolts, some lifted, some completely rusted thru; exten. corr. inhibiting exp; wood bearing pads rotten/deter; SW roller assembly failed & settled approx. 1"; exp. bearings @ S out of place beyond recall.

4 1

C30. Protective Coating System (PCS): System: Year: 1971

PCS Rating: 0

Widespread rusting w initial LOS; paint is mud cracking & flaking off.

N59. Superstructure Summary: Not fatigue prone, not redundant.

Summary Rating: 5

C33. Abutment Walls: Ext. stone & conc. deter; spalls; widespread map cracks @ S w efflor & conc. det. (ASR); stone deter more than 1/3 of depth. (greater than 1 ft)

3 3

C34. Abutment Caps: Ext. conc. deter. (crumbling); slightly undermined @ SE; vert. cracks; veg. growing.

3 4

C39. Backwalls: Mostly concealed: cracks; spalling; ext. conc. deter; efflor.

3 4

C40. Wingwalls: Cracks w efflor. & sev. conc. deter (severe alcali-silica reaction @ S); newer WW w vert. crack @ NW, leaning outwards 2" at top; severe diag. crack @ SE WW.

2 5

N60. Substructure Summary:

Summary Rating: 3

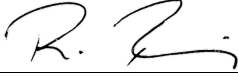
Bridge Inspection Report | *Safety Inspection*

SFN: 3162141

Tennessee Avenue Norfolk Southern Overhead West of Reading Road Date Inspected: 07/29/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #46

C4. Embankment: Former lagging @ SW failed. 2 5

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 3 N

Inspection Notes: Bridge no longer in use. Wires (telephone) touching BF beams.
Top not accessed during 2020 inspection.

General Notes: Cincinnati Belt Line - Milepost 2.18

Recommended Maintenance:	Assigned to:
1. Remove bridge if no longer needed.	Owner
2. Repair concrete & masonry @ abutments & wingwalls.	Owner
3. Remove deter. wooden ties before they fall onto traffic.	Owner
4. Secure lateral bracing members where connections failed.	Owner

Bridge Inspection Report | Safety Inspection

SFN: 3162826

Victory Parkway SORTA Overhead

Date Inspected: 07/09/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 X

Signature: 

Bridge No.: RAILROAD #47

Route: VCTRY Unit: 3692

Bridge Type 363 / NNN

Date Built / Date Rehabbed: 1974 /

Load Rating Percent 000

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Few minor trans. cracks; water sat. - especially @ ends; cracking w severe build-up of efflor. @ scupper penetrations.	1	8
C7.2. Edge of Floor: Trans cracks some w efflor & seepage @ jts (fascia edge of floor governs ratings), stalactities @ beam ends; staining under railing joints; small spall w exp rebar over pier @ W; 2 diag cracks @ NW w efflor buildup, reflective of curb cracks.	1	7
C9. Curbs/Sidewalks: Exp. mat'l falling out; seepage @ jts. & fascia; crack & delam. over pier (W).	1	7
C10. Median: Minor spalling; isol (1 location) mapcracking w efflor (ASR?); exp. rebar; waterproofing no longer securely adhering to median.	1	7
C11. Railing: Metal portion removed; full height crack over pier @ W.		
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: 8 inlets w d/s; some d/s clogged; rusting; drains @ pier& N end seem to be overflowing bell housing causing corr. of SUPERSTRUCTURE; efflor. & stalactites build-up @ bell housings.	3	4
C13. Expansion Joints: Seepage; ballast falling thru open long. jt.	1	7

N58. Deck Summary:

Summary Rating: 8

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Minor scrapes (impact); rusting @ exp. jts. & beam ends w initial LOS - esp. around inlets; spot rust elsewhere; minor rusting along TF.	1	8
C16. Diaphragms/X-Frames: Surface corr: initial LOS esp. @ abut. expansion joint.	1	7
C24. Lateral Bracing: Surface corr.; initial LOS & build up of efflor. @ exp. jts. - esp. gussets below inlets.	1	7
C26. Bearing Devices: S abut. rockers in hot weather exp. mode; loose nuts @ center pier; pad shifted from under masonry plate @ pier (E end); debris.	1	7
C30. Protective Coating System (PCS): System: Year: 1974 PCS Rating: 4 Widespread chalking, fading,; isolated peeling/flaking,(based on overall quantity not LF), scrapes from impact in S span; most defects limited to bracing diaphragms & BF's of beam.		

N59. Superstructure Summary: Fatigue prone, not redundant.

Summary Rating: 8

C33. Abutment Walls: Seepage from above; staining, esp. @ N; few minor HL cracks; accum. of random debris @ bearings.	1	8
C37. Pier Caps: HL cracks w efflor; staining; slight debris accum; some exp. rebar & embedded nails @ bottom of form work d/t low cover.	1	7
C38. Pier Columns: Minor cracks; stains; many small bug holes; scrape marks from impact.	1	8

Bridge Inspection Report | Safety Inspection

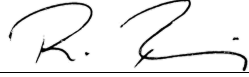
SFN: 3162826

Victory Parkway SORTA Overhead

Date Inspected: 07/09/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 X

Signature: 

Bridge No.: RAILROAD #47

C39. Backwalls: Seepage from above. 1 8

C40. Wingwalls: Slight opening of jts; cracks w efflor; backfill mat'l coming out of jts; minor popouts; exp. rebar (low cover @ NW); minor cracking w efflor. @ NE. 1 7

N60. Substructure Summary: Summary Rating: 7

65. Vertical Clearance: 15'-0". Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 X

Inspection Notes: No tracks on bridge.

Recommended Maintenance:

Assigned to:

- | | |
|---|-------|
| 1. Clean & inspect & repair inlets & downspouts before damage to struct. steel becomes serious. | Owner |
| 2. Caulk control jts. @ s/w & railing @ top to prevent water seepage. | Owner |
| 3. Replace caulk @ top of waterproofing membrane @ sides of median. | Owner |

Bridge Inspection Report | Safety Inspection

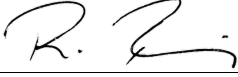
SFN: 3199943

Wenner Street Pedestrian Tunnel Under SORTA

Date Inspected: 03/25/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 N

Signature: 

Bridge No.: RAILROAD #48

Route: Unit: Bridge Type 1B4 / Date Built / Date Rehabbed: 1917 /
Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C44. Culvert - General: Coated inside 2020; minor spalling and delaminations w some exp. rebar; long. cracking in N half of tunnel floor; floor breaking up & cracking @ N end {+/- 4ft}; floor hollow but not cracking @ S end {+/- 3ft}. 1 7

C45. Culvert - Alignment: 1 8

C48. Culvert - Head/End Walls: Cracking w buildup of efflor.; stalactites forming; severe built-up of efflor. & spalling @ edges @ S. 2 6

N60. Culvert Summary: Ext. concrete spalling S w sound material below spall; conc det w map cracking, efflor & spalls. Summary Rating: 7

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 N

Inspection Notes: Span is only 6 ft wide; light installed in tunnel 2020.

General Notes: Between Eastern & Walworth.
Only S track in use.

Recommended Maintenance: Assigned to:
1. Repair tunnel floor @ N end. +- 4' Owner

Bridge Inspection Report | Safety Inspection


SFN: 3160491

Whetsel Avenue IORY Overhead

Date Inspected: 05/06/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #49

Route: WHETS Unit: 4763

Bridge Type 364 /

Date Built / Date Rehabbed: 1915 /

Load Rating Percent 0

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Corr. w LOS, esp. @ beam interface. 2 5

C11. Railing: Thru girders serve as railings.

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary:

Summary Rating: 5

C14. Alignment of Members: N beam @ E end slightly out of plumb - 3/8" in 4'; impact damage to 2nd beam @ top, stiff. bent @ N. 1 7

C15.1. Beams/Girders: Scrape marks & LOS on BF; rivet deter; corr; sev. LOS on some webs @ interface w ballast & conc, with several through holes @ S; build up of stalactites on BF's under FB's; building up of stalactites on sidewalk below; dripping from 2 S most beams 24 hours after rain. 3 4

C18. Floor Beams: Built-up of several steel profiles: Widespread efflor. w stalactites; corr. w LOS @ connections; rivet deter.; sev seepage. 3 4

C25. Sway Bracing: LOS @ ballast interface @ S mostly limited to the web of sway bracing. 2 6

C26. Bearing Devices: Corr. apparently inhibiting exp; initial LOS; anchor bolt deter. 3 4

C30. Protective Coating System (PCS): System: Year: 1960 PCS Rating: 2
Fascias repainted 2010; widespread active corr. below deck.

N59. Superstructure Summary: Not fatigue prone, not redundant.

Summary Rating: 4

C33. Abutment Walls: Considerable stone delam. & spalling - esp. @ W abut., some +/- 1/3 of stone depth; mortar deter; newly coated (2011); several stone faces that are not crumbling are delaminated (+/- 50% @ W); continuing stone deter., esp. @ bottom of walls; leakage through abutment stones. 3 3

C34. Abutment Caps: Top masonry course different stone types, granite under bearings in good condition elsewhere; several areas of sev. stone deterioration; several blocks undermined, worst @ W; 1 missing block. 3 3

C39. Backwalls: Cracking full height; some map cracking w ext. seepage & efflor. - esp. @ W; deter; spalls; staining. 3 4

C40. Wingwalls: See ABUTMENT WALLS 3 3

N60. Substructure Summary: Abutments possibly recoated 2019?

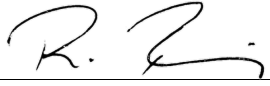
Summary Rating: 3

Whetsel Avenue IORY Overhead

Date Inspected: 05/06/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #49

C55. Warning Signs: Bent @ S. 1 7

65. Vertical Clearance: Posted 13'-0"; measured 13' 2" (8-15-19). Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 3 NInspection Notes: Only one track left on bridge.
New wearing surface below bridge 2019.**Recommended Maintenance:**

1. Remove & repair loose stone faces from abutments & WW's & perform ext masonry repairs.
2. Remove loose fallen stone debris from sidewalks.
3. Repair girder webs & sway bracing.
4. Cut trees behind WW's pushing wall toward sidewalk.
5. Consider securing embankments (replace timber lagging) where ballast slides onto walks.
6. Repair waterproofing to prevent further det. of bridge members.

Assigned to:Owner
Owner
Owner
TROD
Owner
Owner

Private Bridges

Bridge Inspection Report | Safety Inspection

SFN: 3199803

Approach to Newport Southbank Bridge over Former Front Street

Date Inspected: 08/18/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 3 R

Signature: 

Bridge No.: PRIVATE #01

Route: Unit: Bridge Type 321 / 055 Date Built / Date Rehabbed: /
 Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Isol. spalling w some exp. rebar, severe under jts. w mapcracking & efflor. otherwise very isol. issues.	1	7
C7.2. Edge of Floor: Conc. edge beams @ E cracked & broken where they bear on steel FBs; seepage w efflor; severe conc. det. @ NE w exp. rebar & formerly embedded conduit.	2	5
C8. Wearing Surface: Full width trans cracks over steel piers (superstructure exp. jnt. under continous deck); many cracks sealed w asphalt.	1	7
C9. Curbs/Sidewalks: Trans. cracks in conc curbs; popouts; scaling; isol rust staining; widespread bottom of curb spalling, plants growing, & map cracking w efflor which allows water infiltration under curbs into arches/deck; widespread conc. det. in curb over arches; closely spaced cracks w efflor in curbs & many rust stains.	3	4
C11. Railing: Vert. cracks; spalls; rust stains; efflor; impact scrapes @ NW; some aluminum castings (sleeves for handrail) cracked @ NW; metal rail over arches has 1 bolt sheared @ S.	2	5
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: Some scuppers completely clogged w plants growing in inlets causing water to run onto arch; down spout extension of 1st N pier seperated.	2	6
C13. Expansion Joints: Leakage caused sev. damage to superstructure & deck below; deck exp. jt. over former front street doesn't line up with superstructure exp. jt (W fascia) also at several other locations where superstructure exp. jnts. were made continous with deck (knee braces on opposite side of these jts are all broken. (knee brace's prevent expansion @ jnt.)); many jts. were covered w bituminous material for water proofing on the wearing surface.	2	5

N58. Deck Summary: Summary Rating: 7

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Pitting partially heavy & severe LOS w holes thru BF & TF of fascia beams; corr. - part. @ jts. & on TF's (TF laminating >33% LOS with some perforations); bearing stiffeners 100% LOS (several beams), severe LOS on 2nd beam from E at N abutment; TF's w LOS @ bottom face where former pitting was over painted; E fascia beam @ N abutment has sev LOS w BF reduced over 50%.	3	4
C16. Diaphragms/X-Frames: (End diaphragms): Corr; pack rust, sev. LOS @ exp. jts.(several perforations); diaphragms over former Front St. & intermediate diaphragms in better condition.	3	3
C18. Floor Beams: Rust w corr. on TF & BF ext. @ N abut. and piers (under exp. jts); rusted connections w broken welds @ fascia (welded to both sides of exp. jnt.); NE most FB 95% LOS (only BF intact - since new load path could develop, this FB was not considered for the overall SUPERSTRUCTURE rating.; floorbeams carry sidewalk only.	3	4
C26. Bearing Devices: Pack rust @ steel piers & abut; most steel bearings appear frozen & are in postion different from the outside temp, knee braces on opposite side of jts are broken indicating a different temp movement than designed.	3	3
C27. Arch: Widespread seepage causing mortar & brick deter.; build-up of efflor., evidence of recent tuckpointing (2020); conc. portion w HL cracking, ext. efflor.; 1 area in center arch w det. Brick	2	6

Bridge Inspection Report | Safety Inspection

SFN: 3199803

Approach to Newport Southbank Bridge over Former Front Street

Date Inspected: 08/18/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 3 R

Signature: 

Bridge No.: PRIVATE #01

(delaminating surface); S arch has loose delam. gunite @ E face.

C29. Arch Spandrel Walls: Several bricks replaced; evidence of recent (2020) tuck pointing. 2 6

C30. Protective Coating System (PCS): System: Year: 1980 PCS Rating: 3
Completely failed under jts.; widespread chalking & fading elsewhere.

N59. Superstructure Summary: Redundant; fatigue prone. Summary Rating: 4

C33. Abutment Walls: Masonry: (N only); stone deter (esp. @ E) 2 blocks disintegrating into sand behind backwall (see wingwall); apparent unintended loadpath at NE where masonry piece appears to be supporting deck on both sides of the expansion joint. 2 5

C34. Abutment Caps: Conc: vert. cracks, staining, some efflor. 1 7

C36. Pier Walls: Widespread general stone/mortar deter. @ piers - severe @ downspouts (up to 24" deep deterioration N of arches) effecting ± 10 stones; many mortar jnts. open & apparently washed out deep; birds roosting & widespread plants growing in open mortar jnts; delam. conc. @ pier N of arches, N side. 3 3

C37. Pier Caps: Moist from downspout dripping @ far S; corr. w advanced LOS; LOS under exp. jts; (steel caps control rating) 3 4

C38. Pier Columns: Rivet sheared & knee brace cracked through & unattached @ bents 2 & 4 (center beam); pack rust @ pier bases @ bent 4 & @ beam connections; anchor bolt @ pier 4 (N side, center column) has 100% LOS; packrust & deformations of connection plates at beam connections & bottom of columns; anchor bolt det. @ column base in stone. 2 5

C39. Backwalls: Cracks in corner @ SE w efflor; NE walk of bridge is bearing on rock that is part of abutment w sev LOS to rock & mortar. 3 4

C40. Wingwalls: Deter. of stone & mortar jts; sev. masonry deter. & undermining under exp. jts; condition @ N of E abutment is worst with severe det. of 3 adjacent stones (1 completely turned to sand); condition @ NE abutment controls rating. 3 4

N60. Substructure Summary: Summary Rating: 3

65. Vertical Clearance: Vert. Clearance Rating: N

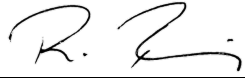
N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 3 R

Inspection Notes: Masonry piers and abutment (Wingwall) need ongoing monitoring and maintenance.

General Notes: Includes the W portion of the brick arches.

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 3 R

Signature:  _____

Bridge No.: PRIVATE #01

Recommended Maintenance:

1. Plan for curb replacement.
2. Seal exp. jnts. to prevent leaking.
3. Repair sandstone piers & wingwalls - clean & tuck point where appropriate.
4. Clean, repair & repaint structural steel.
5. Repair bearings to allow proper expansion and thermal movement.
6. Repair NE abutment/WW.
7. Clean out inlets.

Assigned to:

- Owner
- Owner
- Owner
- Owner
- Owner
- Owner
- Owner

Bridge Inspection Report | Safety Inspection

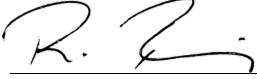
SFN: 3161463

Bedford Avenue Golf Cart Bridge East of Madison Road

Date Inspected: 05/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 N

Signature: 

Bridge No.: PRIVATE #02

Route: BEDFD Unit: 4081

Bridge Type 344 / NNN

Date Built / Date Rehabbed: 1994 /

Load Rating Percent 000

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

- | | | | |
|---|---|---|---|
| C7.1. Floor: | Corrugated metal flooring filled w conc; isolated areas of corr. on SIP plans. | 1 | 7 |
| C9. Curbs/Sidewalks: | Cracks routed out & sealed; portions of sealant failing; trans cracks, panel joints & edges caulked; metal floor showing initial corr.; caulk in a few places no longer effective, resulting in water seepage between deck and steel form | 1 | 8 |
| C11. Railing: | Pony truss serves as railing (w pipe handrail attached -new handrail 2014?); minor impact damage (many scrapes); cap missing @ NE & SE. | 1 | 8 |
| N36. National Safety Feature - Bridge Railing (0, 1 or N): | N | | |
| C12. Drainage: | Drains over the side. | | |
| C13. Expansion Joints: | Sliding metal plate; NW coverplate Extends 9.0 cm to abutment (@ 70 degrees). | 1 | 9 |

N58. Deck Summary: **Summary Rating: 7**

- | | | | |
|--|--|---|---|
| C14. Alignment of Members: | Slight mis-alignment along TC - noticeable @ center splice. | 1 | 7 |
| C18. Floor Beams: | Corr. W minor LOS under center jt. | 1 | 8 |
| C19. Truss Verticals: | End post scratched from impact; isol. corr. esp. @ 6th vertical from N @ E. | 1 | 8 |
| C20. Truss Diagonals: | | 1 | 9 |
| C21. Upper Chord: | | 1 | 9 |
| C22. Lower Chord: | | 1 | 9 |
| C24. Lateral Bracing: | Ends bent @ far N & S, and 1 @ center & 1 @ center. | 1 | 7 |
| C26. Bearing Devices: | Teflon on abuts. (covered w debris) esp @ W. | 1 | 8 |
| C30. Protective Coating System (PCS): | System: SAE Year: 2006 PCS Rating: 2
Silicone Alkyd Enamel; widespread peeling w some corrosion cells typical; scrapes/gouges; widespread paint flaking & dirt accum. & build up of foreign material in paint, esp. @ W; cracks in paint throughout. | | |

N59. Superstructure Summary: Not redundant; highly fatigue prone. **Summary Rating: 8**

- | | | | |
|----------------------------|--|---|---|
| C34. Abutment Caps: | Stubs: Debris covered bearings. | 1 | 8 |
| C39. Backwalls: | Honeycombing @ both N & S; moss & slight dampness @ S. | 1 | 8 |

N60. Substructure Summary: Entire substructure covered by vines, ivy, poison ivy **Summary Rating: 8**

Bridge Inspection Report | *Safety Inspection*

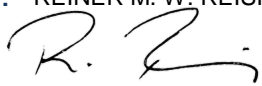
SFN: 3161463

Bedford Avenue Golf Cart Bridge East of Madison Road

Date Inspected: 05/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 8 N

Signature: 

Bridge No.: PRIVATE #02

C55. Warning Signs: Posted 3 Ton loading (label on bridge - not actual sign).

C57. Utilities: Conduit rusting throughout; exposed wires @ end of rusting conduit @ NW. 2 5

Utilities On Structure: N N N N N N N

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 N

Inspection Notes: Bouncing noticeably under pedestrian load.

Recommended Maintenance:

- | Recommended Maintenance: | Assigned to: |
|---|--------------|
| 1. Clean & repaint all struct. steel. | Owner |
| 2. Remove debris from bearings & truss connections. | Owner |
| 3. Recaulk walk line surface cracks. | Owner |
| 4. Cut vegetation (poison ivy) from around the bridge abutments and slope under bridge. | Owner |
| 5. Seal gap in top chord splice @ N to prevent water from entering tube. | Owner |
| 6. Repair water leak @ S abutment & upgrade conduits. | Owner |
| 7. Consider protecting walk surface w applied membrane to keep water out of deck. | Owner |

Bridge Inspection Report | Safety Inspection

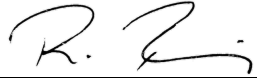
SFN: 3199988

Broadway Street Pedestrian Overhead South of Sixth Street

Date Inspected: 07/24/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: PRIVATE #03

Route: Unit: Bridge Type 321 / Date Built / Date Rehabbed: 1984 /
Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Metal deck; enclosed, not visible; some minor staining on metal cladding.	1	8
C8. Wearing Surface: Carpet & marble; some trans. cracking in marble outside of beam line and long between columns.		
C11. Railing: Enclosed skywalk w full height windows.	1	9
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: Minor staining/rust on metal roof; minor drywall damage (traces of leakage) @ interior columns (being repaired 2020); occasional leaking supposedly d/t undersized drains; 2 small overflow drains from S gutter, no apparent overflow drains @ N.	2	6
C13. Expansion Joints: Sealant cracking @ E ceiling, and caulk failing @ E end outside below windows and at bottom of bridge.	1	8

N58. Deck Summary: Deck floor not visible; partially assumed rating. Summary Rating: 8

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Steel beams; enclosed; not visible.

C18. Floor Beams: Small steel floor beams; enclosed; not visible.

C28. Arch Columns/Hangers: Steel columns support roof (enclosed).

N59. Superstructure Summary: Superstructure not visible - assumed rating; not redundant; not fatigue prone. Summary Rating: 8

C38. Pier Columns: Conc. & steel columns; enclosed, not visible.

N60. Substructure Summary: Substructure not visible; assumed rating. Summary Rating: 8

65. Vertical Clearance: 17'-4"; overlaid (2013); new overlay coming 2020, check VC when completed. Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 A

Bridge Inspection Report | *Safety Inspection*

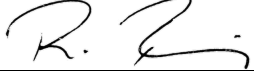
SFN: 3199988

Broadway Street Pedestrian Overhead South of Sixth Street

Date Inspected: 07/24/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature:  _____

Bridge No.: PRIVATE #03

Recommended Maintenance:

1. Consider modifying/adding overflow drains @ N to prevent leakage inside bridge.
2. Repair caulking @ E exp. joint around outside.

Assigned to:

Owner
Owner

Bridge Inspection Report | Routine Inspection

SFN: 3199989

Broadway Street Pedestrian Tunnel South of Sixth Street

Date Inspected: 07/24/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: PRIVATE #04

Route: Unit: Bridge Type 172 / Date Built / Date Rehabbed: 1983 /
Load Rating Percent (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C44. Culvert - General: Widespread HL map cracks in center of tunnel ceiling (long. (several long ones spaced at +/- 6" & trans.), often originating from utility hangers esp @ E portion of tunnel (low point of tunnel); widespread trans. crack in ceiling (2 w efflor) @ E; trans. cracks in tunnel floor, have been sealed (1993); crack w efflor in N wall @ vertical angle point. 1 7

C45. Culvert - Alignment: 1 8

C47. Culvert - Seams: Wide trans. ceiling crack @ E ceiling. 1 7

N60. Culvert Summary: 2018 pavers above tunnel were replaced with colored concrete to reduce leakage. Summary Rating: 7

C1. Pavement: New (2020) overlay base course installed @ time of inspection, top course not yet installed. 1 9

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Summary Rating: 9

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Inspection Notes: E end of tunnel dirt spots are from utility drilling into S wall (accident in the early 2000's).
2018: Pavers in sidewalk and Plaza replaced by colored concrete.
New pavement course installed 2020.

Recommended Maintenance:

Assigned to:

1. Monitor cracking in tunnel ceiling.

Owner

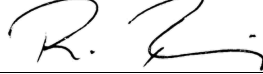
Bridge Inspection Report | Routine Inspection

SFN: 3161536

Center Hill Avenue Pedestrian Tunnel at P & G (North)

Date Inspected: 03/10/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: PRIVATE #05

QA/QC Inspector: BRIAN E. RHODES

Signature: 

Route: CENTR Unit: 3431 Bridge Type 395 / NNN Date Built / Date Rehabbed: 1976 /
Load Rating Percent 150 (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N):

C44. Culvert - General:	Painted corrugated. metal culvert; newly painted (2017). Concrete floor: cracking being routed out and filled in 2017. 3 locations with very minor leakage (2 at seams (w corrosion of metal).	1	8
C45. Culvert - Alignment:		1	8
C46. Culvert - Shape:	Very minor change in curvature (appears to be original construction related).	1	8
C47. Culvert - Seams:	Two location with active corrosion at seams where water is leaking, everything repainted (2017).	1	8
C48. Culvert - Head/End Walls:	Railing @ E HW with several broken bars. Cracking and possibly loose concrete at top of E wall over tunnel entry. Cracking w efflor. @ both HW & EW; jts. @ all 4 corners covered w stainless steel plates (fasteners do not match plate metal causing severe corrosion to fasteners); algae/mold(?)growing; delam @ bottom of W HW; dampness.	1	7
C50. Culvert - Abutments:	Few HL cracks w efflor. @ entrances (some injected); small patches @ NW (2017 patch cracking) & SE (bottom).	1	8

N60. Culvert Summary: Floor drain grates at E tunnel entrance corroding. Summary Rating: 8

C1. Pavement:	Trans. (turning into alligator cracks) & long. excessive map cracking @ W curb over uneven pave base - does not appear to be culvert related.	2	6
C4. Embankment:	Steep; grass & mulch, newly waterproofed and seeded 2017.	1	8

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):

C6. Approaches Summary: Summary Rating: 6

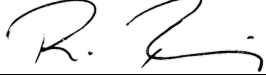
Bridge Inspection Report | Routine Inspection

SFN: 3161536

Center Hill Avenue Pedestrian Tunnel at P & G (North)

Date Inspected: 03/10/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: PRIVATE #05

QA/QC Inspector: BRIAN E. RHODES

Signature: 

C57. Utilities: 1 8

Utilities On Structure: N N N N N N N

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 A

Inspection Notes: 2 areas of small amounts of standing water at the bottom of the steel portion (2019).

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Replace corroding and deformed floor drain grates @ E. | Owner |
| 2. Replace fasteners holding stainless steel plates at tunnel entrances with matching material to avoid corrosion. | Owner |
| 3. Repair, replace broken sections of railing over the east tunnel entrance. | Owner |
| 4. Chip loose concrete from the top of the E entrance wall before it falls onto the ground, patch back. | Owner |

Bridge Inspection Report | Routine Inspection

SFN: 3161757

Center Hill Avenue Pedestrian Tunnel at P & G (South)

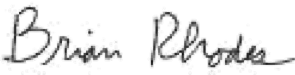
Date Inspected: 03/10/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: PRIVATE #06

QA/QC Inspector: BRIAN E. RHODES

Signature: 

Route: CENTR Unit: 3432

Bridge Type 195 / NNN

Date Built / Date Rehabbed: 1967 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N):

C44. Culvert - General: Inside spalls patched, horizontal cracks epoxy injected and the walls and sealing coated, (all 2017). 3 distinct areas of sealer (ceiling) failing near East end of tunnel. Some vert. HL cracks in wall recess remain, few hor. & diagonal cracks either not coated completely or reappearing (widest ones measured 0.02"); little water entering inside @ 2 distinct locations in E half of the tunnel. Trans. Cracks in floor throughout, but mostly routed out and caulked. Floor delaminations detected (10' long) at +/-30 ft from W end of tunnel.

C45. Culvert - Alignment: 1 8

C48. Culvert - Head/End Walls: E Headwall: 2 minor HL cracks w. little efflor.; W wingwalls, one exposed rebar (low cover SW), and one HL crack w efflor. @ NW 1 7

N60. Culvert Summary: Extensive work structural repairs done in 2017. Summary Rating: 7

C1. Pavement: Trans. (truning into alligator cracks), long., & map cracking esp. around W curb. E curb concrete gutter breaking up at all segment joints creating deeper potholes. (Pavement issues are not tunnel related, but match the condition of the road nearby). 2 5

C4. Embankment: Mulch @ E, very little vegetation at W with slight rutting. 1 7

C5. Guardrail: New (2011). Guardrail at W imapcted (2 posts bent). 2 6

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):

C6. Approaches Summary: Summary Rating: 5

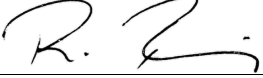
Bridge Inspection Report | *Routine Inspection*

SFN: 3161757

Center Hill Avenue Pedestrian Tunnel at P & G (South)

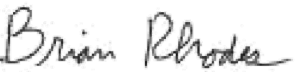
Date Inspected: 03/10/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: PRIVATE #06

QA/QC Inspector: BRIAN E. RHODES

Signature: 

C57. Utilities: Light fixtures inside the tunnel. 1 9

Utilities On Structure: N N N N N N N

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Recommended Maintenance:

1. Monitor the observed leakage; follow up with epoxy injections if necessary.
2. Protect W embankment from erosion.
3. Reset Guardrail @ W and repair as necessary.

Assigned to:

Owner
Owner
TROD

Bridge Inspection Report | Safety Inspection

SFN: 3199990

Charlotte Street Overhead East of John Street

Date Inspected: 07/29/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 N

Signature: 

Bridge No.: PRIVATE #07

Route: Unit: Bridge Type 121 / Date Built / Date Rehabbed: /
 Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Minor cracks @ S @ lowest level; crack @ S cont. into brick wall below (bay 4 from W); 2 small spalls w exp. rebar (very low cover); cracking w efflor. on top floor - other floors in very good condition. 1 7

C9. Curbs/Sidewalks: Concrete floors. (inside)

C11. Railing: 4 level, completely enclosed struct; broken windows above street; potential for glass or conc. spalls to fall; crack in sill on 1st floor; large sections of window sills missing @ 2nd level (E).

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Summary Rating: 7

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Knee bracings impact damaged @ W w exp. rebar (N) and scrapes @ (S) everything else in much better condition; minor fascia delam. @ E & W; formwork left in place @ chamfer; concrete fascia beams of upper levels show some spalling and exposed rebar; few HL cracks throughout. 1 7

N59. Superstructure Summary: Partially assumed rating since not all structural members are visible. Summary Rating: 7

C33. Abutment Walls: Supported on adj. buildings; S brick support bldg. has widespread cracking; sev large vert. (approx. 1/4" wide) full length crack in brick @ SE w spalling & brick crushing along crack (SE bldg. seems to be separating over 5 story height); NW impact @ corner w exp. rebar. 2 5

N60. Substructure Summary: Rating based on south building condition. Summary Rating: 5

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 5 N

Inspection Notes: Interior of structure last accessed in 2016.
 Trash in Charlotte Street.
 Several security cameras added to S building in 2016.
 2020 apparent rehab work @ S end of S bldg.

Bridge Inspection Report | *Safety Inspection*

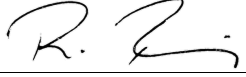
SFN: 3199990

Charlotte Street Overhead East of John Street

Date Inspected: 07/29/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 5 N

Signature: 

Bridge No.: PRIVATE #07

General Notes: Aaron Etzler (S building owner) is owner of the bridge since spring of 2014.

Recommended Maintenance:

Assigned to:

- | | |
|---|-------|
| 1. Remove or repair broken glass, plywood, broken window sills, etc., to prevent debris from falling into the street below. | Owner |
| 2. Patch NW fascia beam (knee bracing). | Owner |
| 3. Investigate & repair cracks in façade of south building. (esp. E side of bridge) chip loose & delam. (continued) | Owner |
| 4. (continued) material @ E on all bldg levels before it falls into the ROW. | Owner |
| 5. Chip loose concrete from floor over W fascia of bridge. | Owner |

Bridge Inspection Report | Safety Inspection

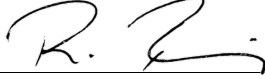
SFN: 3199954

Citycentre Drive Utility Bridge - 1st East of Anthony Wayne

Date Inspected: 03/09/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: PRIVATE #08

Route: Unit: Bridge Type 344 / Date Built / Date Rehabbed: /
 Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Steel grid; one section completely missing from impact; no longer safe to use walkway.	4	0
C11. Railing: Severely impacted since 2016 inspection; bot. portion buckled.	4	1
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		

N58. Deck Summary: Summary Rating: 0

C14. Alignment of Members: Structure moving under ambient load due to lack of any lateral bracing. Impact affected walk and railing, apparently not the superstructure members.	2	6
C18. Floor Beams: I-sections: Rusting with initial LOS.	2	6
C19. Truss Verticals: Welded to chords; slight rusting, some bent.	2	6
C20. Truss Diagonals: Welded to chords; rusting.	2	6
C21. Upper Chord: Double angles: Rusting w initial LOS.	2	6
C22. Lower Chord: Double angles: Rusting w initial LOS.	2	6
C30. Protective Coating System (PCS): System: Year: 1983 PCS Rating: 0 Rust; part. @ connections.		

N59. Superstructure Summary: Welded truss @ bolted floor beams; not redundant; fatigue prone. Summary Rating: 6

C37. Pier Caps: Widespread corrosion w LOS esp @ N.	2	6
C38. Pier Columns: I beams: Rusting, part. @ bases; pitting; impact damage to bracing @ S pier; N footing not visible (below ground).	2	6

N60. Substructure Summary: Summary Rating: 6

Bridge Inspection Report | *Safety Inspection*

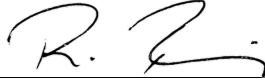
SFN: 3199954

Citycentre Drive Utility Bridge - 1st East of Anthony Wayne

Date Inspected: 03/09/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: PRIVATE #08

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 6 A

Inspection Notes: Top not accessed during 2020 inspection.
Most utility pipes partially removed - no utilities in service.
Structure should be removed because it can be easily accessed by vandals (reliability issue).
Many loose utilities dangling from and around bridge.
Impact has compromised railing and potentially remaining walk.

General Notes: City Centre Drive was formerly Section Road.

Recommended Maintenance:

1. REMOVE BRIDGE
2. Remove all lose utilities and hangers, railings, grates, etc. and secure access to bridge.

Assigned to:

Owner
Owner

Bridge Inspection Report | Safety Inspection

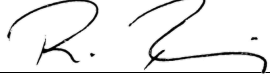
SFN: 3199955

Citycentre Drive Utility Bridge - 2nd East of Anthony Wayne

Date Inspected: 03/09/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: PRIVATE #09

Route: Unit: Bridge Type 344 / Date Built / Date Rehabbed: /
Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C14. Alignment of Members: Very slight aparent bending of diagonals (tension members welded at ends). 1 7

C18. Floor Beams: (Bracing members); corr., not located at panel points. 1 7

C19. Truss Verticals: Welded to chords; corr. @ bottom. (slotted at top to fit around web of the upper chord). 2 6

C20. Truss Diagonals: Tension rods: welded to chords; freckeled rusting esp. at lower ends; many apparently slightly bent. 2 6

C21. Upper Chord: T- section: Rusting @ edges. 1 7

C22. Lower Chord: Built-up from bar sections: widespread rusing; rust @ splices. 2 6

C24. Lateral Bracing: (bracing members are more sway braces/floorbeams); corr. 1 7

C30. Protective Coating System (PCS): System: Year: 1983 PCS Rating: 0

N59. Superstructure Summary: Welded truss; fatigue prone; not redundant. Summary Rating: 6

C37. Pier Caps: Channels welded to piers function as pier caps; rusting. 1 7

C38. Pier Columns: Rust w some pitting, esp. @ bottom of columns; foundation of the columns not visible (below ground level). 2 6

N60. Substructure Summary: Summary Rating: 6

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 6 A

Inspection Notes: City Centre Drive was formerly Section Road. Street was vacated in 1969 except for an 8.0 feet wide sidewalk on North side.
All pipes removed from bridge, few cables/pipe connectors loolsy attached to bridge.

Bridge Inspection Report | *Safety Inspection*

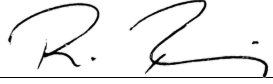
SFN: 3199955

Citycentre Drive Utility Bridge - 2nd East of Anthony Wayne

Date Inspected: 03/09/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: PRIVATE #09

Recommended Maintenance:

1. REMOVE BRIDGE.
2. At minimum, remove loose utility hangers, cables etc. dangling from bridge.

Assigned to:

Owner
Owner

Bridge Inspection Report | Safety Inspection

SFN: 3199964

Coliseum Plaza over Pete Rose Way

Date Inspected: 07/21/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 N

Signature: 

Bridge No.: PRIVATE #10

Route: Unit: Bridge Type 320 / Date Built / Date Rehabbed: 1975 / 1987
 Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Conc. replaced (1987); mostly cracks w some efflor.; possible delam. under joints (concealed by utilities) etc., some stalactites.	1	7
C7.2. Edge of Floor: Spalling w exp. rebar @ exp joints & deck joints; patches, some cracked w efflor @ railing connections.	2	6
C9. Curbs/Sidewalks: Conc. replaced (1987); regularly spaced trans & long cracks; diag. cracks toward railing @ expansion. jts; widespread popouts.	1	7
C11. Railing: Precast railings installed (1993); HL cracking @ most panels; sealed (2005); cant. angles from fascia FB corr. @ welds (not painted and corroding).	2	6
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: 11 inlets w near horiz. runs; staining around inlets indicates former ponding; some inlet covers partially filled w debris.	2	6
C13. Expansion Joints: Daylight visible through joint on pier 7 from W w gland hanging from joint; some sidewalk deck jts. not caulked or caulk no longer effective; isol. conc. spalling around these jnts.	2	5

N58. Deck Summary: Summary Rating: 7

C14. Alignment of Members:	1	8
C16. Diaphragms/X-Frames: At railing conn. only; new (1987); corr. w LOS esp. @ connections; rust bet. angles & @ some connections.	2	6
C17. Stringers: Span bet. cantilever floor beams; new (1987); backer bars left @ TF; corr. esp. @ TF; widespread corr. w initial LOS @ diagonal joists @ deck bump-outs; joist @ NE has bottom flange cut out to fit rounded railing @ bump out; corr. rings @ all stringer webs opposite diaphragm connection (potential for cracking).	2	5
C18. Floor Beams: Cantilever from USBA; rust & active corrosion - esp. @ exp. jts; initial LOS; stringer connections @ bump outs have over drilled holes without bolts @ top row (apparently by design since matching stringers do not have these holes).	2	6
C30. Protective Coating System (PCS): System: Year: 1987 PCS Rating: 0 Rust - part. @ exp. jts & deck joints.		

N59. Superstructure Summary: Non-redundant, not fatigue prone. Summary Rating: 5

C37. Pier Caps: Enclosed, not visible; cladding broken @ pier 5 & 9 from W showing LOS to concealed steel members (bracing){W of column 5} flange splice apparently compromised by pack rust {riveted plates appear seperated}, birds roosting behind cladding.		
C38. Pier Columns: Conc. encased steel; ext. cracking w efflor. & rust staining; some wide full height vert. cracks; spalling; impact damage from loading dock operations; ext. efflor. @ piers 3, 5 {w moss} & 9 from W indicates water entering from the top; possible delams @ some column corners.	2	6

Bridge Inspection Report | *Safety Inspection*

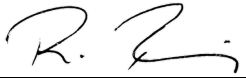
SFN: 3199964

Coliseum Plaza over Pete Rose Way

Date Inspected: 07/21/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 N

Signature: 

Bridge No.: PRIVATE #10

N60. Substructure Summary: Partially assumed rating since steel columns are concealed **Summary Rating: 6**

65. Vertical Clearance:

Vert. Clearance Rating: 1

**N59. General Appraisal
and Oper. Status:**

**General Appraisal /
Operational Status: 5 N**

Inspection Notes: Pier seat cladding destroyed @ 5th pier; LOS on encased steel members where visible.
Loose & stained cladding @ other locations indicates other areas w/ potential issues.

Recommended Maintenance:

1. Perform close up inspection of stringer/diaphragm connections & repaint (share findings with city)
2. Reseal deck joints in wearing surface to prevent water infiltration.
3. Clean and paint structural steel.
4. Repair cladding at pier columns to prevent water & birds from entering @ column 5 from W.
5. Investigate condition of structural steel behind pier seat cladding. (share findings w city)
6. Consider resealing wearing surface w membrane to prevent water from seeping through deck.

Assigned to:

Owner
Owner
Owner
Owner
Owner
Owner

Bridge Inspection Report | Routine Inspection

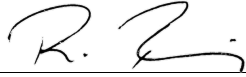
SFN: 3199965

Coliseum Plaza over Taylor Southgate Approach & Mehring Way

Date Inspected: 09/16/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 A

Signature: 

Bridge No.: PRIVATE #11

Route: Unit: Bridge Type 320 / Date Built / Date Rehabbed: 1975 / 1987
 Load Rating Percent (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Minor cracks w efflor esp. @ floor drains; seepage & efflor. @ deck joints; conc. replaced (1988); few spalls & delams.; isol. cracking around FB's along TF; spalling & possible delam. @ modified railing connections {patches}; moisture above fans.	2	6
C9. Curbs/Sidewalks: Trans. & long. HL cracks, some with minor rust staining; widespread scaling; popouts (many patched 2015/some patches cracking); delam/crack over SW most railing connection; larger spalls & widespread delams near pedestrian steps to TSB; caulk failing or missing @ joints over FB's.	2	6
C11. Railing: Precast railings installed (1993); sealed (2005); some vert. cracking (originating from railing connections); widespread staining; some railing connections to FB's may be compromised by laminating corr flanges.	2	6
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: 14 inlets w near horiz. runs; some debris in isol. grates; 1 grate completely clogged, 1 covered w plate.	2	5
C13. Expansion Joints: Caulk failing or missing @ top; corr. & conc. damage below indicate leakage.	2	6

N58. Deck Summary: Summary Rating: 6

C14. Alignment of Members: Joists spliced @ midspan - midspan height is smaller than end heights (resulting in slight V shape of joists).	1	7
C16. Diaphragms/X-Frames: At railing conn. only (1987); rust w LOS esp. @ conn.'s & welds (not painted).	2	6
C17. Stringers: Spanning between cant. FBs (1987); ext. rust @ TF's; surface corr. & pitting throughout, widespread heavy pitting w extensive steel sheets shedding over cooling system.	3	4
C18. Floor Beams: Cantilever from US Bank Area; ext. LOS over cooling system & under jnts. w severe laminating corrosion & ext. LOS; surface rusting & pitting throughout.	3	4
C24. Lateral Bracing: Mostly removed except over cooling system; sig. LOS & pack rust throughout.	3	4
C30. Protective Coating System (PCS): System: Year: 1988 PCS Rating: 0 Rust - part. @ N, E, & W exp. jts; ext corr. over cooling system; many connections not painted.		


N59. Superstructure Summary: Summary Rating: 4

Non-redundant, fatigue prone, partially concealed by utilities & bird netting.
Large laminated corrosion sheet pieces from superstructure collecting in bird netting.
Worst condition over cooling aggregates; exact level of det. cannot be determined from ground level.

C37. Pier Caps: Enclosed, not visible; section of cladding missing next to cooling system (birds can enter); leaking drain pipe visible.		
C38. Pier Columns: Conc incased steel columns; enclosed; cracking w efflor; some vert. cracks run full length; minor spalls/impact damage; isol. corr. staining.	2	6

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 4 A

Signature: 

Bridge No.: PRIVATE #11

N60. Substructure Summary:

Summary Rating: 6

C57. Utilities: Pipe insulation missing @ elbow near SW; exposed tangled wiring @ SW; rusting pipe hangers & breaking pipe support saddles over cooling system. 2 5
Apparently rusted/cracked through pipe support @ SW between FB's.

Utilities On Structure: NNNNNN

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 4 A

Inspection Notes: Rust from structural steel has fallen onto bird netting.
Bird netting is no longer keeping pigeons out.

Recommended Maintenance:**Assigned to:**

- | | |
|---|-------|
| 1. Perform close up inspection by licensed engineer to quantify section loss of structural steel share report w city. | Owner |
| 2. Empty debris caught in bird netting before netting fails. | Owner |
| 3. Check integrity of pipe supports and repair as necessary {see utilities}. | Owner |
| 4. Clean & repaint structural steel & repair connections where necessary. | Owner |
| 5. Caulk/seal deck jts. | Owner |
| 6. Consider modification of cooling system to prevent further deterioration of structural elements. | Owner |
| 7. Replace missing cladding of the US Bank arena near cooling system so that no birds etc. can enter. | Owner |
| 8. Reset sidewalk railing panel (W walk of Taylor Southgate Approach walk) that was removed for cooling | Owner |
| 9. Replace walking surface @ SE. | Owner |

Bridge Inspection Report | Safety Inspection

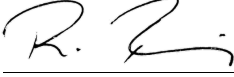
SFN: 3199961

Durham Street Pedestrian Overhead - 1st South of Spring Grove

Date Inspected: 03/16/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 N

Signature: 

Bridge No.: PRIVATE #12

Route: Unit: Bridge Type 364 / Date Built / Date Rehabbed: /
 Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

C7.1. Floor: Minor staining of conc. floor; minor scrapes. Rating 1 to 4: 1 Rating 9 to 0: 8

C11. Railing: Bridge enclosed; corrugated metal siding rusted; several siding panels loose, esp. @ N; some cracked windows on both sides; hole in metal cladding @ SW.

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C12. Drainage: Large portion of gutter missing @ S, drainage over the side; gutter of smaller roof @ NW perforated with DS ending in front of façade causing water damage to brick. Apparent widespread leakage of the roof of the E building. Rating 1 to 4: 3 Rating 9 to 0: 4

N58. Deck Summary: Summary Rating: 8

C14. Alignment of Members: Rating 1 to 4: 1 Rating 9 to 0: 8

C15.1. Beams/Girders: Mostly concealed; rust; minor pitting; center conn. @ W lowest beam is shear connection at best (no bottom flange, visible bolts not fully tightened (appears to be from original construction); steel beams inside on every floor (redundancy). Rating 1 to 4: 2 Rating 9 to 0: 5

C18. Floor Beams: Signs of water damage on roof and underlying floorbeams, where protective coating is flaked and no longer effective (observed during last interior inspection). Rating 1 to 4: 2 Rating 9 to 0: 5

C30. Protective Coating System (PCS): System: Year: PCS Rating: 0
 Ext. rusting on BF.

N59. Superstructure Summary: Not redundant; not fatigue prone; much of SUPERSTRUCTURE is not visible and therefore most of rating is assumed. Summary Rating: 5

C33. Abutment Walls: Supported on adjacent buildings.

N60. Substructure Summary: Actual support not visible d/t bldg. facades; mostly assumed rating. Summary Rating: 6

C57. Utilities: Two out of three pipe attachments at north are compromised. Rating 1 to 4: 3 Rating 9 to 0: 4

Utilities On Structure: N N N N N N N

Bridge Inspection Report | *Safety Inspection*

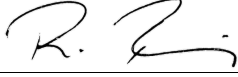
SFN: 3199961

Durham Street Pedestrian Overhead - 1st South of Spring Grove

Date Inspected: 03/16/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 N

Signature: 

Bridge No.: PRIVATE #12

65. Vertical Clearance: 14'-7" +/-

Vert. Clearance Rating: 1

**N59. General Appraisal
and Oper. Status:**

**General Appraisal /
Operational Status: 5 N**

Inspection Notes: Permanently blocked off @ W. Widespread roof leakage in E building and at connection to bridge. Interior last inspected in March, 2017.

Recommended Maintenance:

Assigned to:

- | | |
|---|-------|
| 1. Re-secure loose corrugated metal siding (esp. @ N) and replace sections where broken. | Owner |
| 2. Extend gutter @ SE and attach to downspout. | Owner |
| 3. Repair roof of E building and main bridge roof, esp at building bridge interface. | Owner |
| 4. Repair N gutter and extend downspout to lead water away from the building and prevent damage to brick. | Owner |
| 5. Repair broken windows before they fall into traffic. | Owner |
| 6. Repair utility hangers for pipe at N (two out of three broken). | Owner |

Bridge Inspection Report | *Safety Inspection*

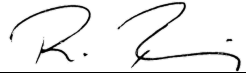
SFN: 3199962

Durham Street Utility Overhead - 2nd South of Spring Grove Avenue

Date Inspected: 03/16/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 K

Signature: 

Bridge No.: PRIVATE #13

Route: Unit: Bridge Type 321 / Date Built / Date Rehabbed: /
 Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Corrugated metal cladding w widespread paint flaking; widespread, partially severe corrosion on cladding of sides, esp @ S side). 2 6

C9. Curbs/Sidewalks: Very old inspection reports for this structure indicate timber structure inside w possible wood deterioration.

C11. Railing: Bridge enclosed; corrugated metal siding rusted; some siding panels lose, esp. @ N; some windows cracked; several small corrosion holes in metal cladding @ S.

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C12. Drainage: Over the side at low end (W building). Apparent flashing issues (esp. at S end) that may seem to cause deterioration of the building façade (concrete spalling, etc.) 3 4

N58. Deck Summary: Actual deck not visible, partially assumed rating. (Inside has not been accessed in years). Summary Rating: 6

C14. Alignment of Members: No alignment issues detectable from the outside. 1 8

C15.1. Beams/Girders: All superstructure members have been concealed for years. No access from either building - assumed rating. 2 5

C18. Floor Beams: Earlier inspection reports mention timber floorbeams with water damage. Actual superstructure could not be accessed in years - assumed rating. 2 5

C30. Protective Coating System (PCS): System: Year: PCS Rating: 0

N59. Superstructure Summary: Assumed rating. Inside of the structure including all superstructure members has not been accessible in many years. Summary Rating: 5

C33. Abutment Walls: Supported off buildings at E and W. Actual support not visible, but damage on façade at S (spalled concrete, exposed rebar and rust staining), likely due to water from bridge running down the building face. 2 5

N60. Substructure Summary: Partially assumed rating, actual support not visible. Summary Rating: 5

Bridge Inspection Report | *Safety Inspection*

SFN: 3199962

Durham Street Utility Overhead - 2nd South of Spring Grove Avenue

Date Inspected: 03/16/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 K

Signature: 

Bridge No.: PRIVATE #13

65. Vertical Clearance: Varies significantly from W to E

Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: Interior blocked off on both ends.

General Appraisal / Operational Status: 5 K

Inspection Notes: Few small corrosion holes detected in S fascia.

General Notes: Permanently blocked off @ both ends. Bridge serves no purpose and should be removed since it cannot be inspected and is not maintained.

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Remove Bridge | Owner |
| 2. Repair flashing at W side and provide drainage away from building façade. | Owner |
| 3. Provide access to the interior to qualified engineer for inspection. Share report with City DOTE. | Owner |

Bridge Inspection Report | Safety Inspection

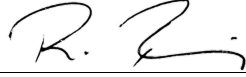
SFN: 3199963

Durham Street Utility Overhead - 3rd South of Spring Grove Avenue

Date Inspected: 03/16/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: PRIVATE #14

Route: Unit: Bridge Type 321 / Date Built / Date Rehabbed: /
 Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Metal locally corr. w initial LOS; paint mostly flaked off; locally deformed. 3 4

C9. Curbs/Sidewalks: Timber deter. (not visible from outside).

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Summary Rating: 4

C14. Alignment of Members: Several noticeable (moderate) sags in floor (excessive DL ?); pier columns @ E leaning outward (construction issue?). 1 7

C15.1. Beams/Girders: Rust w minor pitting; only bottom of BF's are visible. 2 6

C16. Diaphragms/X-Frames: Steel cage that is supported by beams has rust w initial LOS @ some locs. (not visible from outside); assumed rating. 2 6

C30. Protective Coating System (PCS): System: Year: PCS Rating: 0
 Rusting; ext. flaking.

N59. Superstructure Summary: Not redundant; not fatigue prone; most of the SUPERSTRUCTURE is not visible. Summary Rating: 6

C36. Pier Walls: Supported on adj. bldg. @ W which has minor brick façade deter; conc. beam @ W cracking; assumed cond. @ W. 2 6

C37. Pier Caps: Visible @ E only. 1 8

C38. Pier Columns: Pier @ E has initial LOS @ bottom (repainted 2007); pack rust on bearing plates @ top; E columns appear to be leaning outward (hot weather mode?, possible construction issue?). 1 6

N60. Substructure Summary: Actual support not visible @ W d/t bldg. façade. Summary Rating: 6

65. Vertical Clearance: 16'-0" +/- Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 6 A

Inspection Notes: Permanently blocked off @ W, building on the East side appears abandoned/blocked off. Inside accessed from roof in summer 2010.

Bridge Inspection Report | *Safety Inspection*

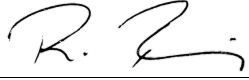
SFN: 3199963

Durham Street Utility Overhead - 3rd South of Spring Grove Avenue

Date Inspected: 03/16/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: PRIVATE #14

General Notes: Bridge is enclosed by corrugated metal siding; siding has ext. rust.

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Remove bridge if no further use is intended. | Owner |
| 2. Check int. of bridge to investigate source of floor plate deformation (remove any utilities that are no longer needed). | Owner |
| 3. Waterproof the outside of the bridge to prevent deterioration of the structure. | Owner |

Bridge Inspection Report | Safety Inspection

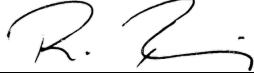
SFN: 3199966

Eden Avenue Pedestrian & Utility Overhead North of Goodman

Date Inspected: 07/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: PRIVATE #15

Route: Unit: Bridge Type 363 / Date Built / Date Rehabbed: 1999 /
 Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Conc. filled CMD (1989); obscured by metal grating & utilities; initial corrosion on some of the grates; grates show rust staining from water dripping from beam flange (inside face) at S side, esp E portion; rusted metal objects caught in grating.	1	7
C9. Curbs/Sidewalks: Membrane waterproofing; cladding around deck edges replaced 2018; new cladding bolts not tight (may allow water to enter); water ponding in some areas of cladding.	1	8
C11. Railing: Metal & glass handrail.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N):		
C12. Drainage: Bottom of d/s dented @ SW & SE.	1	7
C13. Expansion Joints: Concealed; possible leakage indicated by rust @ bottom of door jamb.	1	8

N58. Deck Summary: Summary Rating: 7

C14. Alignment of Members: Slight vert. step @ W; beams sagging in main span - E not visible (construction related, beams were apparently not fabricated with the required camber).	1	7
C15.1. Beams/Girders: Mostly obstructed; N beam sagging in main span.	1	7
C18. Floor Beams: Mostly not visible; lower level (floor-level) FB's visible only in S-appr. span with light surface corr; roof level FB ends painted in 2018.	1	7
C19. Truss Verticals: Corr. @ drain holes @ bottom of member; repainted in 2018	1	8
C24. Lateral Bracing: Mostly concealed; light surface corr. in S-appr. span (floor-level).	1	7
C30. Protective Coating System (PCS): System: Year: 2018 PCS Rating: 7 Bridge repainted 2018; isolated areas beginning to corrode, some areas (splices at tubes) not painted; isol. areas of corr.		

N59. Superstructure Summary: Not redundant; not fatigue prone (partially assumed rating). Summary Rating: 7

C37. Pier Caps: Enclosed.	1	8
C38. Pier Columns: Repainted 2018.	1	7

N60. Substructure Summary: Summary Rating: 7

Bridge Inspection Report | *Safety Inspection*

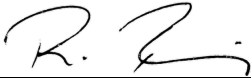
SFN: 3199966

Eden Avenue Pedestrian & Utility Overhead North of Goodman

Date Inspected: 07/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: PRIVATE #15

C57. Utilities: Many, mostly concealed.

Utilities On Structure: N N N N N N N

65. Vertical Clearance: 23' (from plans); 23'-2" measured.

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 7 A

General Notes: THP (who designed the 1998 modified bridge) performed a close-up inspection of the bridge in October of 2012 to investigate the source of the sagging of the W beam. It was determined to be a fabrication issue since the beams had not been fabricated with the required camber of 1.5 inches. Renovation (painting, curb repair) completed in 2018.

Recommended Maintenance:

Assigned to:

1. Caulk open joints in railing supports (tubes) to prevent future rusting.
2. Caulk all joints & bolts in railing supports & elsewhere.
3. Clean algae from windows.

Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

SFN: 3199899

Great American Ballpark over Broadway @ Mehring Way

Date Inspected: 08/19/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: PRIVATE #16

Route: Unit: Bridge Type 321 / Date Built / Date Rehabbed: 2002 /
 Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Stay in place panels: minor rusting & efflor. @ isol. panel joints and around inlets; many new plates over electric outlets, new lights 2020 installed in main span (below bridge).	1	7
C7.2. Edge of Floor: Stay in place panels: corroding w sig. LOS @ railing and over fascia stringer (partially concealed by stringer); debris from edge of floor and stringer (rust, delam.) caught in brid netting.	2	5
C9. Curbs/Sidewalks: Unsealed routed cracks (esp. near railing), some with initial rust staining, plants growing in cracks @ NE.	1	7
C11. Railing: Concrete panels: S most panel bottom spalled with exp. rebar; apparent rust staining on lower inside face of some panels. sig. rusting, LOS on flaps that connect lower railing edge to fascia stringer; railing connections mostly concealed by bird netting and superstructure; top railing joint caulk failing, allowing water to enter.	2	6
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C13. Expansion Joints: Widespread leakage @ N joint; cover plates shifted & loosened.	2	6

N58. Deck Summary: Former leakage between wearing surface and railing panels caused numerous problems to edge of deck, stay in place forms and superstructure components. **Summary Rating: 7**

C14. Alignment of Members:	1	8
C15.1. Beams/Girders:	1	8
C17. Stringers: Fascia stringer is corroding, flaked rust (some larger pieces) in bird netting indicates potential LOS to fascia side of this member.	2	6
C30. Protective Coating System (PCS): System: Year: PCS Rating: 7 Rusting @ beam ends and fascia stringer; LOS to SIP forms close to railing.		

N59. Superstructure Summary: **Summary Rating: 6**

C37. Pier Caps: Supported off Ballpark.	1	8
C38. Pier Columns: One column @ E, slight honeycombing.	1	8

N60. Substructure Summary: **Summary Rating: 8**

- N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):
- N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):
- N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):

Bridge Inspection Report | *Safety Inspection*

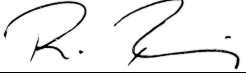
SFN: 3199899

Great American Ballpark over Broadway @ Mehring Way

Date Inspected: 08/19/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: PRIVATE #16

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 6 N

Recommended Maintenance:

1. Hire consultant to perform close-up inspection of fascia stringer and railing attachment at SE (share reports with City).
2. Repair bird/netting, loose in several areas.
3. Plan for steel cleaning & repainting.
4. Recaulk railing joints @ top to prevent water from entering.
5. Caulk/seal routed-out cracks in the wearing surface.
6. Consider sealing wearing surface.

Assigned to:

Owner
Owner
Owner
Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

SFN: 3199945

Great American Ballpark over Broadway @ Pete Rose Way

Date Inspected: 08/19/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 N

Signature: 

Bridge No.: PRIVATE #17

Route: Unit: Bridge Type 343 / Date Built / Date Rehabbed: /
 Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Galv. SIP formwork; isolated corr. some severe, w cracks, efflor. @ d/s & along edges; minor efflor. @ some panel jts.	1	7
C9. Curbs/Sidewalks: Spalls @ locs. of former anchors; many cracks perpendicular to railing and some map cracking; many cracks routed but no longer caulked.		
C11. Railing: Metal portion of railing rusting; scaling & minor popouts on top of concrete panels; patched areas (4 per panel); N 2 concrete panels have severe cracking & rusting and apparent dampness on bottom w possible delamination (N side 2 out 4 bottom ledges rusting w possible cracking in weld); many E panels have vert. cracks & corr. 1 area spalled @ bottom of panel w exp rebar; S most metal railing post only attached in upper 1/3rd (rail post attachment plate to beam connection) on bottom.	2	6
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: 4 floor drains; partially filled grates; sev. corr. of SIP form under inlets.	1	7
C13. Expansion Joints: Isolated spall @ E corner of S jt. W Platform A; leaking under S joint to platform A with loose cover plates, corroding, & wavy flashing.	2	5

N58. Deck Summary: Summary Rating: 7

C14. Alignment of Members:	1	8
C18. Floor Beams: Corr. over S pier; floorbeams are supposed to slide over truss, but second beam from S (smaller beam) is apparently welded to truss possibly introducing horizontal forces onto truss/pier column; W beam connection/support not visible.	1	8
C19. Truss Verticals: Welded truss; scrapes w corr. on some verts, minor corrosion @ S; notch in E face of 6th vertical from S @ splice w diagonal; corrosion in miter weld with diag. @ bot of 4th vertical from S.	1	8
C20. Truss Diagonals: Some initial corr. @ isol. bottom chord connections; corr in miter weld w diagonal @ bottom of 4th vertical from S.	1	8
C21. Upper Chord: Isol. freckled surface corrosion; 2nd splice from S, (E cover plate) has possible HL crack (in paint? of vertical cover plate); filled w trash & pigeon droppings.	1	8
C22. Lower Chord: Welded truss; minor rusting; filled w pigeon droppings.	1	8
C24. Lateral Bracing: 4 members.	1	8
C30. Protective Coating System (PCS): System: Year: 2002 PCS Rating: 6 Initial corr. @ fascia beams & bearings; accumulation of bird feces on the webs (horizontal surfaces) of the chords; frequent dirt/paint failure esp @ welds.		
C32. Fatigue Prone Details: Coverplates @ joints: minor surface rusting & staining; scratch w surface rust @ TC, SE.	1	8

N59. Superstructure Summary: Not redundant; fatigue prone; water & debris (birds nesting) in chord members will likely cause corrosion Summary Rating: 8

Bridge Inspection Report | Safety Inspection

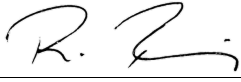
SFN: 3199945

Great American Ballpark over Broadway @ Pete Rose Way

Date Inspected: 08/19/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 N

Signature: 

Bridge No.: PRIVATE #17

and possible LOS in the future if not addressed;
widespread staining.

C37. Pier Caps: Poss. delam. @ NE; debris & rust stains N. 1 8

C38. Pier Columns: S column: horiz. cracks on W side up to 0.016" wide (indicating possible expansion issue); widespread minor rusting from embedded objects; vertical cracking and small spalls w exp. rebar on E side; corner spall @ bottom of S column (hand sized); NW column corroding @ bottom, apparent web det. @ base plate; sev corr. @ anchor bolts over pier columns @ S; minor conc corner spall @ N pier column near parking sign. 1 7

N60. Substructure Summary:

Summary Rating: 7

C57. Utilities: Corr. conduit between railing & fascia stringer @ S half of bridge.

Utilities On Structure: N N N N N N N

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 7 N

Inspection Notes: 2020: Cables attached with vices to outside of top & bottom chords.
Many "no parking" signs installed in island below, trucks parked in front of signs and on island regardless.
New plastic chain and bollards erected by Cincinnati Reds in the middle of Broadway between N and S bound lanes.

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Clean all surfaces of pigeon droppings (beams, truss members, etc) to prevent moisture buildup & corrosion. | Owner |
| 2. Seal cracks in wearing surface. | Owner |
| 3. Repair joint @ S. | Owner |
| 4. Clean & paint all structural steel & repair if necessary. | Owner |
| 5. Check welds @ bottom of N railing panels. | Owner |
| 6. Remove loose/rusted steel from floor around drain before it falls into traffic. | Owner |
| 7. Recaulk vertical joints between conc railing panels. | Owner |
| 8. Chip loose concrete from bottom of N railing panels (2) & inspect panels for their integrity. | Owner |
| 9. Remove vices (+/-) attached to truss chords. | Owner |

Bridge Inspection Report | Safety Inspection

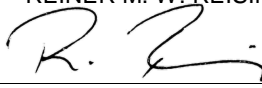
SFN: 3161846

Library Over Ninth Street

Date Inspected: 03/09/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: PRIVATE #18

Route: NINTH Unit: 0010

Bridge Type 321 / NNN

Date Built / Date Rehabbed: 1996 /

Load Rating Percent 000

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Enclosed, not visible; doves roosting at N center below bridge, sparrows under cladding @ S center.	1	8
C7.2. Edge of Floor:	1	8
C11. Railing: Glass & stainless steel.	1	9
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: New roof 2019. At 3rd floor level - significant ponding @ SW less at NE and SE (drain inlets are higher than the low points); very top roof new (2019), no ponding. No evidence of leaking.	1	7
C13. Expansion Joints: Minor misalignment of some portions of seals @ S; (N side is fixed end with no apparent expansion joint).	1	8

N58. Deck Summary: Summary Rating: 8

C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Not visible; assumed rating.	1	8
C16. Diaphragms/X-Frames: Not visible; assumed rating.	1	9
C18. Floor Beams: Not visible; assumed rating.	1	9

N59. Superstructure Summary: Not redundant, not fatigue prone; assumed rating. Summary Rating: 8

C35. Abutment Columns: Supported on columns off buildings; all structural members concealed. 1 8

N60. Substructure Summary: Mostly assumed rating based on condition of visible non-structural members. Summary Rating: 8

65. Vertical Clearance: Measured @ 15'-10". Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 A

Inspection Notes: Roof was replaced 2019 (more work to continue on 3rd floor roof); roof (4th floor) inspected 2020. Inside level C last inspected in 2019.

Bridge Inspection Report | *Safety Inspection*

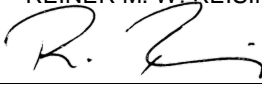
SFN: 3161846

Library Over Ninth Street

Date Inspected: 03/09/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: PRIVATE #18

General Notes: Structure is a 4-story building. Center walkway in reading room supported from ceiling (only Level C inside, not D).

Recommended Maintenance:

Assigned to:

1. Replace light fixtures below bridge @ S as necessary.
2. Consider modifying 3rd floor roof slopes to allow for better drainage.

Owner

Owner

Bridge Inspection Report | *Safety Inspection*

SFN: 3199905

Mohawk Street Pipe Overhead E of Stonewall

Date Inspected: 04/22/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 4 ASignature: R. Reising

Bridge No.: PRIVATE #19

QA/QC Inspector: STEPHEN C. GRESSEL, P.E.

Safety Inspection ? Signature: SA C N

Route: Unit: Bridge Type / Date Built / Date Rehabbed: /
Load Rating Percent (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C14. Alignment of Members: Lower chord @ W is bent. 2 6

C16. Diaphragms/X-Frames: Some bent, non-effective members. (additional bracing though through floorbeams); rust. 2 5

C19. Truss Verticals: Rusted. 2 6

C20. Truss Diagonals: Rusted; 1 bracing bent. 2 6

C21. Upper Chord: Widespread rust with minimal LOS; widespread rust staining @ top of W fascia. 1 7

C22. Lower Chord: Widespread rust with minimal LOS; misalignment on truss @ W. 2 6

C24. Lateral Bracing: Rusted; 1 bracing bent. 2 6

C26. Bearing Devices: (S only) apparently concrete sliding on masonry. 1 7

C30. Protective Coating System (PCS): System: Year: PCS Rating: 0

N59. Superstructure Summary: Summary Rating: 6

C33. Abutment Walls: Supported on adjacent buildings: Widespread cracking not only in the vicinity of the bridge; walls @ S are covered with a false façade, partial collapse @ S bldg E of bridge 2019; tree growing in façade @ SW caused bldg wall to lean; widespread cracking elsewhere. 3 4

N60. Substructure Summary: Apparent construction at S building, not at bridge (2020). Summary Rating: 4

Bridge Inspection Report | *Safety Inspection*

SFN: 3199905

Mohawk Street Pipe Overhead E of Stonewall

Date Inspected: 04/22/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 4 A

Signature: 

Bridge No.: PRIVATE #19

QA/QC Inspector: STEPHEN C. GRESSEL, P.E.

Safety Inspection ?

Signature: 

65. Vertical Clearance: No V.C. sign posted; +/- 16.75' measured.

Vert. Clearance Rating: 1

**N59. General Appraisal
and Oper. Status:**

**General Appraisal /
Operational Status:** 4 A

Inspection Notes: Overhead cable resting on bridge @ S; 1 small utility conduit remaining on bridge (apparently not connected to anything).
 Sidewalk at S blocked in 2019 due to partial building collapse.
 Apparent construction on S building complex (2020), not near bridge.

General Notes: Ownership of the bridge not positively identified but apparently belonging to N building.

Recommended Maintenance:

Assigned to:

1. Consider removal of the bridge, since it serves no purpose.

Owner

Bridge Inspection Report | *Safety Inspection*

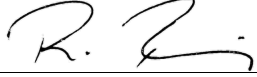
SFN: 3199997

Oak Street Pedestrian Overhead East of Reading

Date Inspected: 07/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: PRIVATE #20

Route: Unit: Bridge Type 344 / Date Built / Date Rehabbed: 1993 /
 Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

- C7.1. Floor: Enclosed; not visible; widespread minor stains on panels suspended from floor (corrugation pattern visible); minor impact damage to cladding @ E; some bottom cladding edges misaligned/shifted esp @ S bldg connection.
- C11. Railing: Wooden handrail; completely glass enclosed; staining inside at top of windows is typical. 1 8
- N36. National Safety Feature - Bridge Railing (0, 1 or N): N
- C12. Drainage: Membrane roof without ballast, drains @ N & S, and overflow notches at SE and NW. Aparent peeling pof some membrane patches @ N, but no evidence of leakage. 1 8
- C13. Expansion Joints: 1 8

N58. Deck Summary: Summary Rating: 7

- C14. Alignment of Members: 1 8
- C18. Floor Beams: Enclosed; not visible.
- C19. Truss Verticals: Circular steel tubing welded to UC & LC. 1 8
- C20. Truss Diagonals: Circular steel tubing welded to UC & LC; initial corr. @ bottom welds. 1 8
- C21. Upper Chord: Mostly enclosed; not visible; rolled 18x6x35 WF sections (2 welded next to each other). 1 7
- C22. Lower Chord: Mostly enclosed; not visible; rolled 18x6x35 WF section; widespread pitting from former corrosion; initial LOS. 1 7
- C30. Protective Coating System (PCS): System: Year: 2013 PCS Rating: 9
 Paint repaired 2013.

N59. Superstructure Summary: Most structural members are concealed, hence assumed rating. Summary Rating: 7

- C37. Pier Caps: Minor vert. cracks w seepage @ N-most pier & pier 3 from N; N pier cap water stained & map cracked @ top (pier cantilevers out from bridge while other pier caps sit below); S pier cap cracked w efflor on W side. 1 7
- C38. Pier Columns: Structure supported on conc. piers @ N & S (not buildings); widespread HL map cracking & honeycombing. 1 8

N60. Substructure Summary: Summary Rating: 7

Bridge Inspection Report | *Safety Inspection*

SFN: 3199997

Oak Street Pedestrian Overhead East of Reading

Date Inspected: 07/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: PRIVATE #20

65. Vertical Clearance:

Vert. Clearance Rating: 1

**N59. General Appraisal
and Oper. Status:**

**Most structural members are concealed and can not
be inspected routinely, hence partially assumed rating;
inside not inspected 2020.**

**General Appraisal /
Operational Status: 7 A**

Inspection Notes: Minor impact damage over Oak Street.
Over head cable resting on bridge roof.

Recommended Maintenance:

1. Monitor roof membrane patches @ N.
2. Trim trees @ N to prevent scratching against bridge.

Assigned to:

Owner

Owner

Bridge Inspection Report | *Safety Inspection*

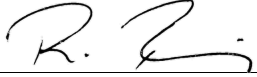
SFN: 3199968

Oak Street Pedestrian Overhead West of Winslow Avenue

Date Inspected: 07/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: PRIVATE #21

Route: Unit: Bridge Type 344 / Date Built / Date Rehabbed: 1987 /
 Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

- C7.1. Floor: Enclosed, not visible; minor deformations of cladding (impact?).
- C9. Curbs/Sidewalks: Slope slightly uneven (by design?) (high points at FBs/ diagonals).
- C11. Railing: Steel handrail larger offsets @ exp. joints separated joint N of Oak St.; glass enclosed skywalk; condensation at 14 windows; 2 (new?) cladding patches unpainted in 2020 @ W 2nd span from N. 1 7
- N36. National Safety Feature - Bridge Railing (0, 1 or N): N
- C12. Drainage: Ballasted membrane roof. Minor leakage outside bridge at piers 1 & 3 from N at downspouts; N most downspout appears clogged causing water to drip against façade. 2 6
- C13. Expansion Joints: Caulk (outside window seals) failing @ several exp. jts; handrail separated at one joint; minor brick staining at inside at N end of bridge under joint. 1 8
- N58. Deck Summary: Deck floor not visible, hence part. assumed rating; some damage to outside flashing (impact not over street esp @ N with several locations of dented and slightly shifted cladding panels); isol. minor staining on cladding & interior diagonals indicates former water damage. Some floor tiles have trans. Cracks (over several adjacent tiles) (FB locations?).** **Summary Rating: 7**
- C14. Alignment of Members: 1 7
- C18. Floor Beams: Enclosed; not visible.
- C19. Truss Verticals: Circular steel tubing (visible @ S end only) welded to UC & LC. 1 9
- C20. Truss Diagonals: Circular steel tubing welded to UC & LC; small dent over N curbline of Oak St. 1 9
- C21. Upper Chord: Mostly enclosed; not visible; rolled WF section; isolated minor pitting on BF. 1 8
- C22. Lower Chord: Mostly enclosed; not visible; rolled WF section; minor widespread pitting @ several locs. along TF, arrested by painting. 1 7
- C26. Bearing Devices: Enclosed; not visible.
- C30. Protective Coating System (PCS): System: Year: 2013 PCS Rating: 9
- N59. Superstructure Summary: Not redundant; highly fatigue prone welded truss; most portions not visible; part. assumed rating.** **Summary Rating: 7**
- C37. Pier Caps: Small delam. @ E side of pier 2 from N; very minor rust staining (standoffs). 1 8
- C38. Pier Columns: Supported on conc. piers @ N & S - not on building; minor HL cracking @ pier columns. 1 8

Bridge Inspection Report | *Safety Inspection*

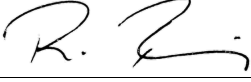
SFN: 3199968

Oak Street Pedestrian Overhead West of Winslow Avenue

Date Inspected: 07/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: PRIVATE #21

N60. Substructure Summary:

Summary Rating: 8

65. Vertical Clearance:

Vert. Clearance Rating: 1

**N59. General Appraisal
and Oper. Status:**

**General Appraisal /
Operational Status: 7 A**

Inspection Notes: (Impact) damage @ E & W, not over roadway.
2 small (+/-1/2 inch diameter) round holes and one similar size indenttion in side cladding @ E over
N Oak Street walk; inside not inspected 2020.

Recommended Maintenance:

Assigned to:

- | | |
|---|-------|
| 1. Repair failing caulk @ several exp. jts. (railing, cladding, etc.) | Owner |
| 2. Repair separated handrail over exp. jt. @ E. | Owner |
| 3. Unclog outside drains/downspouts @ N most pier column. | Owner |
| 4. Seal/repair fogged windows. | Owner |

Bridge Inspection Report | Safety Inspection

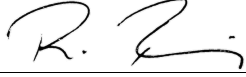
SFN: 3199977

Ogden Place Pedestrian Overhead West of Vine Street (Low)

Date Inspected: 07/28/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: PRIVATE #22

Route: Unit: Bridge Type 551 / Date Built / Date Rehabbed: 1926 /
Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Structural floor enclosed; not visible; apparently Styrofoam w plaster facing; some scrapes @ S; minor cracking @ E face.

C11. Railing: Marble walls; fully enclosed.

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C12. Drainage: 2 drainholes @ W. Only S most one actually designed to drain. 1 8

C13. Expansion Joints: None apparent.

N58. Deck Summary: Deck floor is not visible; partially assumed rating (See FLOOR above) Summary Rating: 7

C14. Alignment of Members: Wearing surface arched by design. 1 8

C15.1. Beams/Girders: Enclosed; not visible; beams are assumed to exist.

C27. Arch: Arch facade has minor spalls & scrapes from impact; patched.

N59. Superstructure Summary: Superstructure is not visible; assumed rating. Summary Rating: 7

N60. Substructure Summary: Supported on adj. buildings over window arches; enclosec not visible; assumed rating. Summary Rating: 7

C55. Warning Signs: Posted 13'-4" on struct. & 13'-6" in advance of struct; warning sign repainted 2012. 1 7

65. Vertical Clearance: Posted 13'-4", actual clearance 13'-7". Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Inspection Notes: S building and bridges were sold in 2015.
North of bridge temporarily closed off to N building (bridge not currently in use); S entrance through smaller access door above knee height in 2019.
Inside not inspected in 2020. Thin metal conduit from S building to roof of bridge misaligned & corroding.

Bridge Inspection Report | Safety Inspection

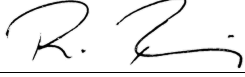
SFN: 3199978

Ogden Place Pedestrian Overhead West of Vine Street (High)

Date Inspected: 07/28/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: PRIVATE #23

Route: Unit: Bridge Type 261 / Date Built / Date Rehabbed: 1926 /
Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Struct. floor enclosed by metal cladding w some stains; not visible.

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C12. Drainage: 2 d/s @ E appear to be functioning; slight ponding on roof (observed previously). 1 7

C13. Expansion Joints: None apparent.

N58. Deck Summary: Deck floor not visible; part. assumed rating. Summary Rating: 7

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Enclosed; not visible.

N59. Superstructure Summary: Superstructure not visible; assumed rating. Summary Rating: 7**N60. Substructure Summary: Bridge supported on adjacent buildings. Actual substructure is not visible; assumed rating. Summary Rating: 7**

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Inspection Notes: Floor molding was secured (2010) by former Owner.
Bridge was transformed into a private apartment.
Inside accessed during the 2019 inspection. Access through smaller access door above knee level.
Inside not inspected 2020.

Bridge Inspection Report | Safety Inspection

SFN: 3160785

Old Mitchell Avenue Over Mill Creek

Date Inspected: 08/14/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 R

Signature: 

Bridge No.: PRIVATE #24

Route: OLDMT Unit: 3403

Bridge Type 320 / NNN

Date Built / Date Rehabbed: 1965 /

Load Rating Percent 100

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Ext. cracks, efflor, stalactites, rust staining (greater than 50% mottled), & delams; minor fire damage at the E; spall w exp rebar under jnts.	3	4
C7.2. Edge of Floor: Long. cracks with excessive efflor/stalactites throughout; areas of det. conc/delams (typ); spalling w exp rebar close to exp jnt.	3	4
C8. Wearing Surface: Resurfaced (2016?); hinges asphalted over wide cracks.	1	7
C9. Curbs/Sidewalks: Top of walkway spalled with some exp. rebar and widespread concrete delaminations.	2	5
C11. Railing: Minor scrapes; significant loss of section on the post fasteners & top rail & connections to deck(typ); widespread areas of corrosion; paint peeling; pack rust; anchor bolts corroded & bent; LOS to railing posts, 1 post slightly loose, 1 w 100% LOS to nuts; 1 bolt per post is located very close to bottom of deck (low cover).	3	4
N36. National Safety Feature - Bridge Railing (0, 1 or N): 0		
C12. Drainage: 4 scuppers with downspouts - all open; drainage off the N side.	1	8
C13. Expansion Joints: Widespread leakage & corr w severe LOS to armor; deck armor touching w apparent no room for expansion (88 degrees); possible beam touching @ SE.	3	4
N58. Deck Summary:	Summary Rating: 4	
C14. Alignment of Members:	1	8
C15.1. Beams/Girders: LOS(heavy pitting) throughout; extensive efflor on the fascia beams esp. @ N fascia beam; widespread peeling paint & under cut paint w corr & trapped moisture below; laminar corr with efflor from the deck; worst condition under hinges.	2	5
C16. Diaphragms/X-Frames: Corr with LOS at the abutment & severe under the exp jnt; up to 50% LOS at some locations; some corr holes; crack in the weld (1st E of the W pier - S side); angle under hinges disintegrating.	2	5
C26. Bearing Devices: Roller replaced (2004); corr; deep pitting at the bearing plates; laminar corr; several bearing appear to be frozen.	3	4
C30. Protective Coating System (PCS): System: Year: PCS Rating: 0 Failed throughout; moisture trapped under remaining paint accelerates corr.; lots of paint flakes under bridge on slope protection in 2020 (apparently from recent touch up work @ railing).		
C31. Pins/Hangers/Hinges: Center span supported by 6 hinges; LOS at hinges; hinges repaired (2004); paint peeling/rusting; armor at both hinges/joints touching (no expansion possible); see Item c13; advance det @ horiz stiffeners.	3	4
C32. Fatigue Prone Details:	1	8
N59. Superstructure Summary: Bridge was apparently painted in October 2020, which will be reflected in the 2021 inspection report.	Summary Rating: 4	

Bridge Inspection Report | Safety Inspection

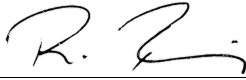
SFN: 3160785

Old Mitchell Avenue Over Mill Creek

Date Inspected: 08/14/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 R

Signature: 

Bridge No.: PRIVATE #24

C33. Abutment Walls: (Stubs): Minor vertical cracking and horizontal cracking in the seats; efflor.	1	7
C36. Pier Walls: Conc scaling/abrasion at the US ends.	1	7
C37. Pier Caps: Exp reinforcing at the E pier (N fascia).	1	8
C39. Backwalls: Seepage staining; ext cracks with efflor at the NE.	2	6
C42. Scour: Channel is concrete lined; abrasion.	1	8
Scour Inspection Type 1		
C43. Slope Protection: Slope protection exists between the abutment and the pier on each side; the portion of the channel between the piers is channel protection.	1	9

N60. Substructure Summary: Summary Rating: 7

C51. Channel Alignment:	1	9
C52. Channel Protection: Concrete lined; abrasion.	1	8
C53. Hydraulic Opening:	1	9

N62. Channel Summary: Summary Rating: 8

C1. Pavement: Newer @ E, cracking @ W.	1	7
C4. Embankment:	1	8
C5. Guardrail: Not typical guardrail due to geometry and driveways, acting more as railing; some impact damage at the Northwest.	1	7
N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):	N	
N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):	N	
N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):	N	

C6. Approaches Summary: Summary Rating: 7

C55. Warning Signs: Stop signs at each end of the bridge; speed limit sign with maximum gross weight at the W approach only (80,000 lbs at 5 mph); signs not current standard.	1	7
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N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 4 R

Inspection Notes: Portions of railings & guardrail, touched up w white paint (2020). The bridge was painted following the 2020 inspection. The new paint system will be refelcted in the 2021 bridge inspection report.

Bridge Inspection Report | *Safety Inspection*

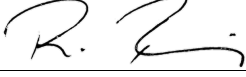
SFN: 3160785

Old Mitchell Avenue Over Mill Creek

Date Inspected: 08/14/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 R

Signature:  _____

Bridge No.: PRIVATE #24

Recommended Maintenance:

1. Plan for extensive rehab/replacement of superstructure & deck.
2. Perform close up inspection of pin joints & share report w city.
3. Consider railing upgrades.
4. Clean, repair & repaint all steel.

Assigned to:

Owner
Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

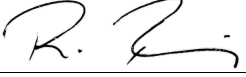
SFN: 3101967

Pete Rose Way Pedestrian Overhead West of Broadway

Date Inspected: 09/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: PRIVATE #25

Route: 0027D Unit: 0191 Bridge Type 321 / NNN Date Built / Date Rehabbed: 2013 /
 Load Rating Percent 0 (Main/Approach Spans) Safety Inspection ?

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Conc portion; HL cracking honeycombing @ stairs & platforms; few HL cracks, one diagonal @ NE corner.	1	8
C7.2. Edge of Floor: 2 HL trans. crack w efflor. @ W; formwork indentations in overhang(2 per side).	1	8
C9. Curbs/Sidewalks: Sono-guard overlay on bridge (2013), bubbling in 1 location @ E curb to deck interface; plain conc. @ steps w widespread HL cracking.	1	8
C11. Railing: Slight sag in E bridge railing attributed to installation of individual panels rather than bridge sag., individual panels @ W appear to be misaligned; 1 railing light fixture condensated @ E; rating for railing on bridge only; cracking & isol. spalls @ concrete steps where railings attach; paint compromised in some locations; chains & locks attached @ various locations.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: 2 inlets collecting debris; slight ponding along railing @ several locations; debris collecting on cantilevered drain grates of steps.	2	6
C13. Expansion Joints:	1	9

N58. Deck Summary: Condition of stair tower does not influence the bridge rating. Summary Rating: 8

C14. Alignment of Members:	1	9
C15.1. Beams/Girders: Built-up tub girder: pitting up to 1/16" deep from plate rolling; over painted; 6 locations w corr cells inside @ tub bottom; vertical stiffeners detectable from outside on bothsides; BF warped just S of splice (W side).	1	8
C16. Diaphragms/X-Frames: Minor paint damage to top flange from formwork removal repaired.	1	9
C24. Lateral Bracing: Slight "dings" on lateral bracing webs esp. over field splice (transportation issue?); paint damage to top flange from formwork removal repaired.	1	9
C26. Bearing Devices: Anchor bolts corroding.	1	8
C30. Protective Coating System (PCS): System: OZEU Year: 2013 Touch-up on beam visible, interior touch-up completed but paint color does not match.		PCS Rating: 8

N59. Superstructure Summary: Corr cells #1,2, & 3 are 10' S of splice; #4 1' N of splice; #5 & 6 20' N of splice. Summary Rating: 8

C37. Pier Caps: Minor HL cracking w efflor @ both fascia sides @ N pier.	1	8
C38. Pier Columns: Horiz HL cracks @ SW corner of N pier (indicating possible pushing of bridge during summer).	1	8

N60. Substructure Summary: Summary Rating: 8

Bridge Inspection Report | *Safety Inspection*

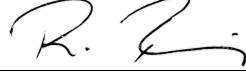
SFN: 3101967

Pete Rose Way Pedestrian Overhead West of Broadway

Date Inspected: 09/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature:  _____

Bridge No.: PRIVATE #25

65. Vertical Clearance: 27'-10" measured.

Vert. Clearance Rating: N

**N59. General Appraisal
and Oper. Status:**

**General Appraisal /
Operational Status: 8 A**

Inspection Notes: Interior accessed during 2019 inspection; 2020 scissors lift parked on bridge @ midspan.

General Notes: This bridge replaced SFN 3101959.

Recommended Maintenance:

Assigned to:

1. Clean debris from inlet covers & cantilevered drain grates.

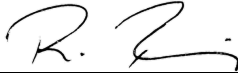
Owner

Bridge Inspection Report | Safety Inspection

SFN: 3161862

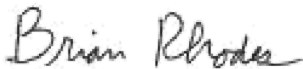
Pete Rose Way Pedestrian Overpass at Paul Brown Stadium

Date Inspected: 03/13/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 6 ASignature: 

Bridge No.: PRIVATE #26

QA/QC Inspector: BRIAN E. RHODES

Safety Inspection ? Signature: 

Route: PROSE Unit: Bridge Type 221 / NNN Date Built / Date Rehabbed: 2000 /
Load Rating Percent 000 (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Diag. cracks w some efflor. @ all 4 corners & minor long. & trans. Cracks @ S; 5 holes @ S end added to hold bollards.	1	8
C7.2. Edge of Floor: Mostly concealed between beams, railings and utilities: patches from railing attachment.	1	7
C9. Curbs/Sidewalks: Wider cracks @ both ends, often around inlets; popouts; crushing @ N railing connections (deck touches fixed approach railing); patches @ railing attachment locations; rust staining on walking surface (esp. @ S) from many embedded nails, threads, etc.	1	7
C11. Railing: Precast conc. (some older patches); most bottom brackets modified (all @ E and some @ W) where attachments have been moved up from beam flange to beam web (many bolts corroding); isol. H/L cracking.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: 2 drains @ N; all open; possible ponding @ SE.	2	6
C13. Expansion Joints: Compression seals, splice repaired @ several locations.	1	8

N58. Deck Summary: Summary Rating: 8

C14. Alignment of Members: Slight horiz. Mis-alignment (1") @ abut. NW (railing).	1	7
C15.1. Beams/Girders: Widespread minor staining; (see item railing) many railing attachments have been moved from the fascia flanges to the fascia webs leaving threaded rods in flanges.	1	8
C16. Diaphragms/X-Frames: Minor efflor. @ N.	1	8
C26. Bearing Devices: Mostly concealed.	1	8

N59. Superstructure Summary: Redundant - not fatigue prone. Summary Rating: 8

C33. Abutment Walls: Widespread staining/slurry coat peeling; widespread HL cracks (mapcracking @ edges), two w rust staining.	2	6
C37. Pier Caps: Very minor HL cracking @ cantilevers; minor discoloration from joint leakage @ S side.	1	8
C38. Pier Columns: Minor random HL cracking; minor discoloration; moist at bottom from exp. joint leak.	1	8

Bridge Inspection Report | *Safety Inspection*

SFN: 3161862

Pete Rose Way Pedestrian Overpass at Paul Brown Stadium

Date Inspected: 03/13/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: PRIVATE #26

QA/QC Inspector: BRIAN E. RHODES

Safety Inspection ?

Signature: _____

C39. Backwalls: Mostly covered by diaphragm: ext. efflor. 1 7

C40. Wingwalls: (Railing); vert. cracks turning diag. @ top w efflor (isol build-up); horiz. cracks; spalling & seepage @ cracks; popouts w rust staining. 2 6

N60. Substructure Summary: Summary Rating: 6

C57. Utilities: Minor discoloration of glavanized conduits; galvanized conduits rusting under expansion joints. 1 7
Widespread galvanic reaction at fasteners vs galvanized conduit at abutment.
Several conduits attached to beam flanges (where strands are located?)

Utilities On Structure: Y N N N Y N Y

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 6 A

Recommended Maintenance:

1. Replace bollards at S to prevent vehicles on bridge.
2. Consider epoxy-injecting cracks @ WWs
3. Consider adding drain at SE to prevent ponding.
4. Seal WWs w epoxy sealer (match bridge railing) to halt ongoing deterioration.

Assigned to:

- Owner
Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

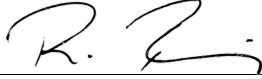
SFN: 3161897

Pete Rose Way Under PB Stadium Plaza

Date Inspected: 07/02/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: PRIVATE #27

Route: PROSE Unit: Bridge Type 221 / NNN Date Built / Date Rehabbed: 2000 /
 Load Rating Percent 000 (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

- C7.1. Floor: Seepage w efflor. @ several long. jts. between precast "double T's"; ext. efflor. & isol. rust staining @ piers; 2 square cut-outs full height of flange in span 4 from W. 1 7
- C7.2. Edge of Floor: N & S cast in place over hang @ slab portions have widespread trans cracks & efflor. 1 7
- C8. Wearing Surface: Wide long. reflective cracks along all T-beam joints; double transverse reflective cracks over non-expansion piers; spalls/potholes forming around cracks, esp over piers; ; widespread popouts @ W; spalls w exposed rebar (low cover) @ few locations; test section over 1 pier where cracks have been filled (urethane?). 2 5
- C11. Railing: Precast concrete panel; several new patches (2017) @ bottom of panels mostly @ E; several delams/spalls under light fixtures in railing; isol cracking @ bottom of railing panels w rust staining esp. @ W. 1 7
- N36. National Safety Feature - Bridge Railing (0, 1 or N): N
- C12. Drainage: 3 drains, all open, but several large areas of ponding near railing; apparent leakage w efflor. & isol. rust staining through cracks in wearing surface; no apparent allowance for movement in drain pipe connecting bridge deck to underground sewer. 2 5
- C13. Expansion Joints: Leaking & rust staining observed @ most piers caps (isol stalactites forming) S most jnt gland repaired but not in kind causing deflection under load (ankle twist); beam to pier cap connection not working as designed, bolt movement exceeds exp slot length causing beam damage. 2 5

N58. Deck Summary: The stiff deck apparently cannot accommodate the movement of the superstructure resulting in severe cracking over the piers without deck expansion joints. These are widening and turning into potholes. **Summary Rating: 7**

- C14. Alignment of Members: Vert. offset between adjacent "double T's", up to beyond thickness of the flange apparently by design, due to different sized web cutouts over bearings. 1 7
- C15.1. Beams/Girders: Double T beams w widespread cracking @ beam ends thru web & flange(HL); isol spalling @ bearing locations, some w exp strands; map cracking w efflor build up in span 4 from W; severe damage to webs @ E end of span 6 from W where original beam to pier cap connections were broken & replaced w connections closer to bearings (strand location @ bottom of webs), these start to det and cause breakouts in bearing zone of the beams. 2 6
- C26. Bearing Devices: Elastomeric pads. 1 8

N59. Superstructure Summary: Redundant, not fatigue prone. **Summary Rating: 6**

- C37. Pier Caps: Cracking w efflor; vert. tending to diag. cracks @ cantilever piers; several flex. cracks w seepage in center spans, esp. 2, 5, 6 from W; full height diag. HL cracks on both sides of column @ pier #7. 1 7
- C38. Pier Columns: 1 9

N60. Substructure Summary: **Summary Rating: 7**

Bridge Inspection Report | *Safety Inspection*

SFN: 3161897

Pete Rose Way Under PB Stadium Plaza

Date Inspected: 07/02/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature:  _____

Bridge No.: PRIVATE #27

C57. Utilities: Widespread corr. on elec. conduits @ underside of railing; apparently mismatched hanger material w sev. corr.

Utilities On Structure: UUUUUUU

65. Vertical Clearance:

Vert. Clearance Rating: 1

**N59. General Appraisal
and Oper. Status:**

**General Appraisal /
Operational Status:** 6 N

Inspection Notes: Stadium crews modified beam angle brackets 2018.
Many containers, dumpsters, & heavy const eqpt stored on bridge near w end in 2019.

General Notes: This structure was formerly (prior to 2011) inventoried with the pedestrian bridge just W (SFN 3161862); new LED lights installed under bridge 2017.

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Repair deck, grout & fill cracks. | Owner |
| 2. Hire consultant to investigate exp issue over pier 6 design permanent repair for beam ends & beam connections | Owner |
| 3. Repair spalls under light fixtures in railing. | Owner |
| 4. Seal entire wearing surface after repairs are made. | Owner |
| 5. Modify S most joint gland to eliminate tripping hazard. | Owner |
| 6. Consider adding expansion joints @ piers to reduce cracking in deck. | Owner |
| 7. Replace rusted conduits & hangars as necessary. | Owner |

Bridge Inspection Report | Safety Inspection

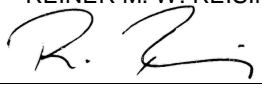
SFN: 3190100

Piedmont Ave. Pedestrian Overhead E of Eden

Date Inspected: 07/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 9 A

Signature: 

Bridge No.: PRIVATE #28

Route: PIEDM Unit: Bridge Type / Date Built / Date Rehabbed: 2018 /
 Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Enclosed, not visible.	1	9
C11. Railing: Full height windows; widespread minor staining.	1	9
N36. National Safety Feature - Bridge Railing (0, 1 or N):		
C12. Drainage: Membrane roof without drains, apparently drainage over the sides.		
C13. Expansion Joints: N end is expansion end. Joint seal at NW has several splices (potential failure points).	1	9

N58. Deck Summary: Most deck members are enclosed, hence rating based on general observed condition. Summary Rating: 9

C14. Alignment of Members: Slight horizontal offset (1") of pier cladding compared to concrete footing (construction issue).	1	7
C18. Floor Beams: Enclosed, not visible.		
C19. Truss Verticals: At piers (H beams), and two tubes at N end.	1	9
C20. Truss Diagonals: Exposed tubes. 2 S most diagonals, and the 2 diagonals S of the pier have a higher "ping" sound when tapped (The are 0.5" wall thickness ,all others are 0.25" wall thickness), while all other tubes sounde hollow.	1	9
C21. Upper Chord: I beam, not visible.		
C22. Lower Chord: I beam, not visible.		
C24. Lateral Bracing: Enclosed, not visible.		

N59. Superstructure Summary: Assumed rating since most superstructure members are concealed. Summary Rating: 9

C33. Abutment Walls: Building (S), enclosed, not visible.	1	9
C37. Pier Caps: Steel beam, enclosed.	1	9
C38. Pier Columns: H pile, enclosed, not visible. Cladding over pier footing missaligned (construction issue).	1	9

N60. Substructure Summary: Enclosed, not visible, assumed rating. Summary Rating: 9

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):

Bridge Inspection Report | *Safety Inspection*

SFN: 3190100

Piedmont Ave. Pedestrian Overhead E of Eden

Date Inspected: 07/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 9 A

Signature: 

Bridge No.: PRIVATE #28

65. Vertical Clearance: 18' signed.

Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: Mostly assumed rating, many members enclosed.

General Appraisal / Operational Status: 9 A

Inspection Notes: Inside not inspected 2020.

General Notes: Bridge opened to traffic in April 2019.

Bridge Inspection Report | Safety Inspection

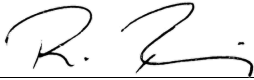
SFN: 3199991

Plum Street Pedestrian Overhead South of Fourth Street

Date Inspected: 07/30/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 N

Signature: 

Bridge No.: PRIVATE #29

Route: Unit: Bridge Type 344 / Date Built / Date Rehabbed: 1988 / 2001
 Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Stay in place metal decking; pitting/LOS; isolated perforations; apparent cracking @ several locations.	3	4
C9. Curbs/Sidewalks: Membrane on conc; metal cladding added over fascias to prevent drainage from reaching LC.		
C11. Railing: Tubular metal hand rail inside of vertical bar railing corroding esp. @ bottom & connections to verticals; banner added to N railing 2019.	1	7
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: Gutter @ S; 6 floor drains; floor drains have low point away from downspouts @ center of bridge; gutter rusting, standing water in portions of gutter; roof membrane repainted/repared 2016; roof membrane not wrapped around edges to fascia's; isol membrane peeling.	2	6

N58. Deck Summary: **Summary Rating: 4**

C14. Alignment of Members: Slight sag along chords (assumed to be original construction).	1	7
C18. Floor Beams: Corr; some FB spliced out of 2 pieces.	2	6
C19. Truss Verticals: Vierendeel truss; corrosion and LOS @ conn. - esp. @ bottoms and W-most verticals (drain pipe in vertical); pack rust; rusting beneath paint.	2	5
C21. Upper Chord: Initial LOS @ some locations; active corrosion @ S & some vertical connections.	1	7
C22. Lower Chord: LOS @ conn. & along flanges & web; widespread corr, pitting, supplemental steel plts. And angles added via bolting w sidespread LOS; pack rust forming, laminating corrosion w peeling of rust; corrosion holes in webs of both LC's (inside interface of flange to web is not visible).	3	4
C24. Lateral Bracing: Tubular steel.	1	7
C30. Protective Coating System (PCS): System: Year: 2012 PCS Rating: 4 Dark brown paint conceals corrosion; rust undercutting paint and painted over corroded areas (active corrosion under paint); few hard to reach places were not painted; several areas of active corrosion; apparently corrosion painted over, ongoing rust beneath paint; several areas of flaking paint w corr steel.		

N59. Superstructure Summary: Welded truss; not redundant; highly fatigue prone. **Summary Rating: 4**

C37. Pier Caps: Patched (2016) @ W pier; small spall @ SE; large spall w exp rebar (many bars) @ NW.	2	6
C38. Pier Columns: Shrinkage cracks; popouts w exp. rebar.	1	7

N60. Substructure Summary: **Summary Rating: 6**

Bridge Inspection Report | *Safety Inspection*

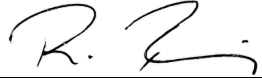
SFN: 3199991

Plum Street Pedestrian Overhead South of Fourth Street

Date Inspected: 07/30/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 N

Signature: 

Bridge No.: PRIVATE #29

C57. Utilities:

1 8

Utilities On Structure: N N N N N N N

65. Vertical Clearance: 17'-2"

Vert. Clearance Rating: 1

**N59. General Appraisal
and Oper. Status:**

**General Appraisal /
Operational Status: 4 N**

Inspection Notes: Beams appear to be resting on piers without being actually anchored.
Roof covered with debris in 2020 from adjacent building construction. (notified owner after the inspection)
Owner had engineer perform close-up inspection and repainting and repairs are planned for early 2021 per latest communication with the owner.

Recommended Maintenance:

Assigned to:

- | | |
|---|-------|
| 1. Remove rust & paint chips from floor flanges before they fall into traffic. | Owner |
| 2. Remove loose debris and trash from bridge. | Owner |
| 3. Regularly clean steel members (esp. from de-icing chemicals) to prevent corrosion. | Owner |
| 4. Sound, chip & repair pier caps as needed. | Owner |
| 5. Clean (sandblast) and paint all structural steel. | Owner |

Bridge Inspection Report | Safety Inspection

SFN: 3165000

Ringgold Street Pedestrian Overhead East of Young Street

Date Inspected: 03/17/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: PRIVATE #30

Route: RINGG Unit: 0001

Bridge Type 344 / 321

Date Built / Date Rehabbed: 1986 /

Load Rating Percent 000

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Steel checkered plts; corr. Arrested by painting (2019/2020). 1 7

C9. Curbs/Sidewalks: Steel checker plate, top side repainted (2011); many areas of rusting; sev areas of slight "bubbling" (blistered up walk plate) of the walk; slight surface rusting between adjacent plates.

C11. Railing: Tubular steel hand rail; glass enclosed @ W; part. enclosed @ E; modified railing post bases (post extension welded immediately to floor). 1 7

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C12. Drainage: Former ponding inside bridge @ both ends. 1 7

N58. Deck Summary: Summary Rating: 7

C14. Alignment of Members: 1 8

C18. Floor Beams: Steel channels; initial LOS halted by painting (2020); small bars added adj. to some floor beams under deck splice; LOS of bottom FB to W chord. 1 7

C19. Truss Verticals: Tubular steel welded to UC & LC; rusting at bot. connections. 1 7

C20. Truss Diagonals: Tubular steel welded to UC & LC; not painted on sides facing window panels, therefore are not rust resistant; 2nd diag from N at W side split at bottom and deformed (appears to be due to freezing water inside the tube). 2 6

C21. Upper Chord: Tubular steel; widespread rust staining @ top of W fascia. 1 7

C22. Lower Chord: Tubular steel, widespread staining & minor rusting @ deck connections & fascia stitch welds. 1 7

C24. Lateral Bracing: Tubular steel X-bracing bolted to plates welded to chords; lower bracing rusting w LOS in some locations esp. @ SW X-bracing; pack rust; SW cross bracing reinforced w welded plate. 2 6

C25. Sway Bracing: Trans. struts @ top panel pts. 1 8

C26. Bearing Devices: UC & LC welded directly to piers.

C30. Protective Coating System (PCS): System: Year: 1987 PCS Rating: 8
Recoated (2019/2020), some areas where old paint is visible.

N59. Superstructure Summary: Not redundant; highly fatigue prone; welded truss. Summary Rating: 6

C38. Pier Columns: Tubular steel columns & X-bracing on conc. bases; minor pitting @ weep holes & corr. on insides of weep holes; UC & LC welded directly to piers. 1 7

N60. Substructure Summary: Connection of stairs to NW wall cracked (possible exp. issue) Summary Rating: 7

Bridge Inspection Report | *Safety Inspection*


SFN: 3165000

Ringgold Street Pedestrian Overhead East of Young Street

Date Inspected: 03/17/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: PRIVATE #30

C57. Utilities: Elect. & water (?); 8 utility lines beneath bridge; loose connections (splice) @ N end. 1 7

Utilities On Structure: N N N N N N N

65. Vertical Clearance: 16'-3" +/-

Vert. Clearance Rating: 1

**N59. General Appraisal
and Oper. Status:**

**General Appraisal /
Operational Status: 6 N**

Inspection Notes: New (2019/2020) paint and windows on W façade. Birds roosint over stairs at both ends of bridge.
Sent follow-up letter about split truss diagonal after 2020 inspection.

General Notes: Formerly SFN 3199970

Recommended Maintenance:

Assigned to:

1. Trim tree branches @ NW to prevent scraping of paint.
2. Fix joint in electrical conduit @ N abutment.
3. Repair truss diagonal that is split (2nd from N on W side)

Owner
Owner
Owner

Bridge Inspection Report | Routine Inspection

SFN: 3199979

Sixth Street Pedestrian Overhead at Rusconi Place

Date Inspected: 07/28/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: PRIVATE #31

Route: Unit: Bridge Type 112 / Date Built / Date Rehabbed: /
 Load Rating Percent (Main/Approach Spans)

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Enclosed; not visible; damage (punch through) on underside of plaster floor covering @ 2 locations at SE; coating flaking @ outside edge; minor scrapes in plaster over roadway; map cracks in plaster of fascias isol. brick deterioration @ SE.	1	7
C9. Curbs/Sidewalks: Ceramic tile.		
C11. Railing: Loose handrails (rotating); attachment of rail element to walls do not appear very strong. Fogging and breaking down of seal at some windows; peeling of walltreatment around window corners indicates leakage possible issues.	2	5
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: Peeling wall paper @ NE - possibly moisture related.	1	8
C13. Expansion Joints: N only, actaul joint and apparent diagonal jointi in the floortile. Observed issues with brick cracking below bridge at north could be exp. joint issue.	1	7
N58. Deck Summary: Deck floor not visible; glass enclosed @ E face; offices @ W; outside fascia plaster cracking @ E & W; rust stains @ W façade @ bottom o bricks indicate lintel corrosion; part. assumed rating.	Summary Rating: 7	
C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Enclosed; not visible.		
N59. Superstructure Summary: Superstructure not visible; assumed rating.	Summary Rating: 6	
C36. Pier Walls: N supports are not visible, only the brick façade below. Bricks cracks increasing in size and number @ NE to full height with largest crack width at top (+/- 1/2").	1	6
C38. Pier Columns: Supported by concrete piers @ immed. S (former impact damage repaired, columns recoated (2018)).	1	8
N60. Substructure Summary: Part. assumed rating.	Summary Rating: 6	

Bridge Inspection Report | *Routine Inspection*

SFN: 3199979

Sixth Street Pedestrian Overhead at Rusconi Place

Date Inspected: 07/28/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: PRIVATE #31

65. Vertical Clearance: 14'-8"

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 6 A

Inspection Notes: Skywalk 008. Bridge & hotel closed 2020, inside not accessible.

Recommended Maintenance:

1. Repair damaged areas @ floor (bottom of bridge) over 6th Street (2 punch holes @ SE).
2. Investigate and repair cracks in the brick of N building below bridge.

Assigned to:

Owner
Owner

Bridge Inspection Report | Routine Inspection

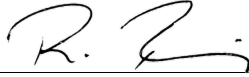
SFN: 3199995

Sixth Street Pedestrian Tunnel West of Broadway

Date Inspected: 07/24/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: PRIVATE #32

Route: Unit: Bridge Type 172 / Date Built / Date Rehabbed: 1971 /
Load Rating Percent (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C44. Culvert - General: Tunnel partitioned into two sections: W side completely concealed, E side largely concealed by utilities on ceiling and E wall (rating based on E side); isol. HL cracks in tunnel ceiling & walls; tunnel floor has long. & trans. Cracks; cracks have been filled (1993). 1 8

C45. Culvert - Alignment: 1 8

C47. Culvert - Seams: Traces of sealant mat'l. and cracking @ S ceiling. 1 8

N60. Culvert Summary: Summary Rating: 8

C1. Pavement: Deep, long. cracks & mapcracking; many utility patches, potholes etc.; location of tunnel not identifiable from the top. 2 6

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary: Summary Rating: 6

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 A

Inspection Notes: Concrete tunnel divided in two by concrete block wall. W half has finished interior (structural components not visible for inspection).
Several security doors inside the tunnel (2018).

General Notes: Water main break on September 2, 2010 supposedly destroyed portions of the tunnel (as reported by P&G staff).
W of W tunnel is a thin space with pipes accessible through doors in hallway.

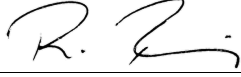
Bridge Inspection Report | Safety Inspection

SFN: 3199957

Southside Avenue Conveyor Overhead - 1st West of River Road (Tall) Date Inspected: 09/22/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: PRIVATE #33

Route: Unit: Bridge Type 344 / Date Built / Date Rehabbed: /
 Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

C7.1. Floor: Steel grid catwalk, considerably deformed in some locations; corr. & LOS where grating bears on support angles esp. @ N; cracks (in paint?) @ some grating to angle welds; conveyor bottom has LOS & perforations but new inside bottom (2015) attached with bolts and washers. Rating 1 to 4: 2, Rating 9 to 0: 5

C11. Railing: Side angles (spill guard) in catwalk are impacted (dented) in many areas. Safety tie-off cable installed near catwalk.

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Tie off safety cable installed 2016. Summary Rating: 5

C14. Alignment of Members: Several members slightly bent. Rating 1 to 4: 1, Rating 9 to 0: 7

C16. Diaphragms/X-Frames: Some members bent; top weld of newly added diaphragm @ S side is severed from top chord. Rating 1 to 4: 1, Rating 9 to 0: 7

C18. Floor Beams: One area of impact (construction) damaged @ N. Rating 1 to 4: 2, Rating 9 to 0: 6

C19. Truss Verticals: LOS @ S-most bolted truss connect; slight impact damage (bent) @ bottom @ second splice from N & @ E fascia N of first splice from S; newly added (2016) horizontal angles attached to verticals & diagonals on both truss lines; weld connections may have caused slight deformations/damage in some of the verticals; pack rust between verticals @ spliced locations; potential crack @ S most vert. on W side @ angle connection. Rating 1 to 4: 2, Rating 9 to 0: 6

C20. Truss Diagonals: Initial corr., one bent @ W. Rating 1 to 4: 1, Rating 9 to 0: 7

C21. Upper Chord: Minor pitting. Rating 1 to 4: 2, Rating 9 to 0: 6

C22. Lower Chord: 3 bolted truss connect; slight impact damage over S pier; slight localized bending (as built) @ truss splice. Rating 1 to 4: 2, Rating 9 to 0: 6

C24. Lateral Bracing: Rating 1 to 4: 2, Rating 9 to 0: 6

C30. Protective Coating System (PCS): System: Year: 2014 PCS Rating: 7
 Newly added horiz. members not painted & welds compromising existing paint; cracks in paint build up typical.

N59. Superstructure Summary: Not redundant; highly fatigue prone welded truss structure. Summary Rating: 6

**Added horiz angles @ mid height on both trusses in 2016 (railing bracing); weld connections to verticals & diagonals unpainted.
 Minor green discoloration (algae?) accumulating in portions of SS (esp near S)**

C38. Pier Columns: Pier design allows water to accum. in bases @ S; slight bend @ top where flanges were added in 2015. Rating 1 to 4: 1, Rating 9 to 0: 7

N60. Substructure Summary: Summary Rating: 7

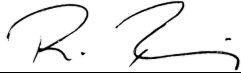
Bridge Inspection Report | *Safety Inspection*

SFN: 3199957

Southside Avenue Conveyor Overhead - 1st West of River Road (Tall) Date Inspected: 09/22/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: PRIVATE #33

65. Vertical Clearance:

Vert. Clearance Rating: N

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 6 N

Inspection Notes: Consultant performed in-depth inspections & repairs made 2012, report forwarded to City; structure was painted in 2014; several repairs made to bridge in 2016 including replacing conveyor bottom rivets with bolts leaving behind old rivet holes (exposed steel); random chain looped to truss over roadway; 2020 in depth inspection by consultant (on file with City); minor green discoloration (algae?) accumulalating in portions of SS

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Repair steel grating where bent or loose & check cracks @ connections to railing support. | Owner |
| 2. Paint horiz. angles & their connections @ mid level of truss, then check if welds caused damage to verticals. | Owner |
| 3. Remove chain that is looped to truss over roadway. | Owner |
| 4. Repair paint where scraped/peeling so no corr. cells develop. | Owner |

Bridge Inspection Report | Safety Inspection

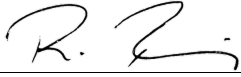
SFN: 3199958

Southside Avenue Conveyor Overhead - 2nd West of River Road

Date Inspected: 09/22/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 N

Signature: 

Bridge No.: PRIVATE #34

Route: Unit: Bridge Type 344 / Date Built / Date Rehabbed: 1969 /
 Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Steel grid catwalks. (only older bottom walk accessed during 2020 inspection). 1 7

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Catwalk in generally good cond; some LOS @ knee braces. Summary Rating: 7

C14. Alignment of Members: Moderate misalignment (esp. bot. chord) from repeated impact (condition worse @ N - not rated). 2 6

C16. Diaphragms/X-Frames: true diaphragms only over piers, otherwise mostly only 1 diagonal. 2 6

C18. Floor Beams: (Supporting upper conveyors); rust; LOS. 2 6

C19. Truss Verticals: 1 deformed (impact) (W side, 3rd N of S pier); 2nd vert. N of center pier W side cut in half, supplemental vert. installed & supplemental vert. impact damaged. 2 5

C20. Truss Diagonals: Slight pitting. 2 6

C21. Upper Chord: Pack rust along UC; widespread heavy pitting; many square cut outs (former tube connections? not actual upper chord); channel on top of UC support conveyor; considerable LOS & isol. severe corr. on these angles w perforations; upper level verticals are only attached to these angles rather than TC. 2 5

C22. Lower Chord: Apparent impact damage W side 2 locations (angle section added as reinforcement); rusting w LOS @ isol. locations; N of C pier, significant impact; rusting; angle sections added for reinforcement. 2 6

C24. Lateral Bracing: Top lateral bracing with significant LOS @ individual members; some members missing (cut out) & others modified; bottom lateral bracing: bent @ 1 loc. from impact. 3 4

C30. Protective Coating System (PCS): System: Year: 2014 PCS Rating: 8
 Cracks in paint build up typical.

N59. Superstructure Summary: Not redundant; highly fatigue prone welded truss structure; many members were modified, added, cut or removed, a second level was added, hence some descriptions such as top lateral bracing become ambiguous. Despite many members having been removed, others were added, this is reflected in the summary rating that is different than the individual ratings would suggest. Summary Rating: 5

C37. Pier Caps: Deformed plates @ S (filled w concrete); heavy pitting; center pier plate bent resulting in reduced bearing area. 2 6

C38. Pier Columns: Conc. spalled @ base plates; LOS resulting in significant pitting of tubes @ base plate @ both piers; perf. @ N @ interface to anchor plate; dented @ S; center pier 2 anchor nuts missing; new "anchor fins" installed @ both piers in 2013 to overcome missing anchor bolts; small dents in all pier columns (impact); S column previous perforated @

Bridge Inspection Report | *Safety Inspection*

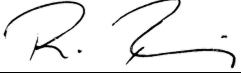
SFN: 3199958

Southside Avenue Conveyor Overhead - 2nd West of River Road

Date Inspected: 09/22/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 5 N

Signature: 

Bridge No.: PRIVATE #34

bottom repaired in 2020.

N60. Substructure Summary:

Summary Rating: 5

65. Vertical Clearance: 23'-4" measured.

Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 5 N

Inspection Notes: Top conveyor added in August 1999. Painted 2014.
Top conveyor replaced & bottom conveyor removed in 2019.

General Notes: Owner hired consultant to determine struct. capacity after modifications and in 2020. Consultant created a list of maint. repair items, most repairs perf. in 2013. Inspection ratings are based on the span over the Public Right-of-Way. Condition tends to be worse N of the ROW. Sign attached to bottom chord (hanging from chains over N walk). Many members have LOS, or were cut/modified, but there is non-engineered redundancy given by added members/conveyors, etc.

Recommended Maintenance:

Assigned to:

1. Repair braces that are only attached to one side & no longer effective.
2. Investigate perforation at S pier cap, prevent water from entering at top of columns.

Owner
Owner

Bridge Inspection Report | Safety Inspection

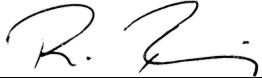
SFN: 3199947

Southside Avenue Utility (Pipe) Overhead - 1st East of Idaho

Date Inspected: 04/15/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: PRIVATE #35

Route: Unit: Bridge Type 344 / Date Built / Date Rehabbed: 2001 /
 Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N): 0

C14. Alignment of Members: Apparent sagging & slight misalignment (added excessive load?); new inter. support appears to act as a pier w bearing loads; kink in upper chord; W side panel 6 (buckled?); slight waviness (horiz) in lower chord. 3 4

C16. Diaphragms/X-Frames: X-diagonals not attached to top chord in between panel points. Some (compression ?) members doubled up, apparently afterthought. 1 7

C18. Floor Beams: I-beams added @ top to support new utilities (not @ panel points). 2 6

C19. Truss Verticals: 1 8

C20. Truss Diagonals: 1 8

C21. Upper Chord: Doble angles back to back: Minor rust bet. angles; minor kink in angle @ PP #10 (Upper - numbering from S) on W truss; angles added in (2015?) to reinforce center portion of the top chord. 1 7

C22. Lower Chord: Double angles back to back: Minor rust bet. angles; slight misalignment @ both chords esp. @ splices. 1 7

C24. Lateral Bracing: 1 7

C30. Protective Coating System (PCS): System: Year: 2007 PCS Rating: 7
 Rust bet. angles; drips/runs/sags; foreign objects embedded in paint.

N59. Superstructure Summary: Portions concealed by utilities; many questionable welds. Summary Rating: 6

C38. Pier Columns: Minor rust between bracing angles; flaking, corroding @ N baseplate anchor bolts. 1 7

N60. Substructure Summary: Portions @ S not accessible, partially assumed rating. Summary Rating: 7

Bridge Inspection Report | Safety Inspection

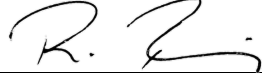
SFN: 3199947

Southside Avenue Utility (Pipe) Overhead - 1st East of Idaho

Date Inspected: 04/15/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: PRIVATE #35

C55. Warning Signs: Vert. clearance posted 16' (W side only); 17'-2" measured. 1 8

C57. Utilities: Hanger @ S pier not connected but substituted by wire; several stainless steel hangers connected to non stainless fasteners severely corroding; open wires @ S pier (@ end of conduit).

Utilities On Structure: N N N N N N N

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 6 N

Inspection Notes: Intermediate support (for conduit riser) added between PP 7 & 8 (ending @ bottom LATERAL BRACING rather than LOWER CHORD).
NO MODIFICATIONS TO THE TRUSS OR ADDITION OF PIPES SHOULD BE MADE WITHOUT CONSULTING A STRUCTURAL ENGINEER.
Apparent pier mod. N of inspection limits where former floor beams/braces were cut & apparent new piers added, not all pipes supported @ new piers.
Top chord strengthened in center of span with added angle section 2015.
Electrical conduits, wires, & camera boxes appear not fully attached with some hangers not connected & box apparently wedged in place; hole in E camera housing.
2020: New copper pipe added to E side of bridge. New truck loading terminal just W of bridge.
Added diagonal members (2) on E side of truss (installed between this inspection and June 2020).

Recommended Maintenance: Assigned to:

1. Hire structural engineer to recent evaluate bridge modifications, share reports with the City. Owner

Bridge Inspection Report | Safety Inspection

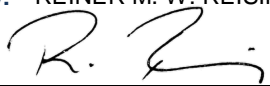
SFN: 3199953

Southside Avenue Utility (Pipe) Overhead - 2nd East of Idaho

Date Inspected: 04/15/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 N

Signature: 

Bridge No.: PRIVATE #36

Route: Unit: Bridge Type 344 / Date Built / Date Rehabbed: /
 Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C14. Alignment of Members: Slight misalignment upper & lower chords are horiz. out of plane, not impact related (see S end post). 2 6

C18. Floor Beams: FB of upper level have random members; some not painted; some upper level conduit floor beams no longer supported on W side (acting as cantilever); rusting; some upper level support bearing on floor beams bet. chords rather than chords themselves w corroding welds. 2 5

C19. Truss Verticals: Welded rods between chord angles; minor bent vertical @ N pier; initial corr. @ conn's. 2 6

C20. Truss Diagonals: Welded between chord angles; bent @ S end; initial corr. @ connections. 2 6

C21. Upper Chord: Double back-to-back angles; corrosion esp. @ connections; minor pitting b/w angles. 2 6

C22. Lower Chord: Double back-to-back angles; minor pitting b/w angles; isol corrosion cells w pitting. 2 5

C24. Lateral Bracing: Welded to LC & UC; spot rust arrested by painting; hole in top lateral bracing @ S. Top level lateral bracing: Irregular geometry; angles corroding. 2 5

C30. Protective Coating System (PCS): System: Year: 2007 PCS Rating: 6
 Foreign objects embedded in paint; paint removed at welded connections; paint bubbling on pier with water accumulating in pockets behind paint; many layers of paint apparently added w/o surface preparation.

N59. Superstructure Summary: Not redundant; highly fatigue prone; welded truss structure. Summary Rating: 5

C37. Pier Caps: Steel angles; pitting. 2 6

C38. Pier Columns: Corr. w initial LOS @ bases; anchor bolts corr; burried @ N; metal pitting; steel brace plate between columns @ S support in upper portion (ineffective, bent); conduit attached to SW column causing corrosion of column. 2 5

N60. Substructure Summary: Summary Rating: 5

Bridge Inspection Report | Safety Inspection

SFN: 3199953

Southside Avenue Utility (Pipe) Overhead - 2nd East of Idaho

Date Inspected: 04/15/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 N

Signature: 

Bridge No.: PRIVATE #36

C55. Warning Signs: Vert. clearance sign; posted 16'. 1 8

C57. Utilities: Corr. cells widespread on pipes despite paint.

Utilities On Structure: N N N N N N N

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 5 N

Inspection Notes: Many members added appear to be from random stock, random connections. Splices of beams supporting top level utilities are not full strength. New piers north of inspected portion indicate apparent planned future addition of utilities. NO ADDITIONAL UTILITIES SHOULD BE ADDED WITHOUT CONSULTING A STRUCTURAL ENGINEER TO DETERMINE CAPACITY OF THE EXISTING BRIDGE. Accumulation of water under paint bubbles @ piers (see ITEM 28). Upper level pipe removed 2016 & support struts cut \pm 1' above T.C.

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Consult structural engineer to evaluate existing structure for existing load (added utilities); share report with City. | Owner |
| 2. Clean and paint structural steel, especially non-painted members that were added. | Owner |
| 3. Consider replacing cut verticals that support top utilities @ W (3). | Owner |

Bridge Inspection Report | Safety Inspection

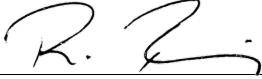
SFN: 3199952

Southside Avenue Utility (Pipe) Overhead - 3rd East of Idaho

Date Inspected: 04/15/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 N

Signature: 

Bridge No.: PRIVATE #37

Route: Unit: Bridge Type 344 / Date Built / Date Rehabbed: /
 Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information Rating 1 to 4 Rating 9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N):

C14. Alignment of Members:	Misalignment; wavy lower & upper chords throughout; bent chords on W truss @ N pier.	2	5
C18. Floor Beams:		1	8
C19. Truss Verticals:	Welded to chords; rust arrested by painting; some members weakened by drilled holes.	1	7
C20. Truss Diagonals:	Welded to chords; rust arrested by painting; some members weakened by drilled holes; apparent former pitting @ lower panel points.	2	6
C21. Upper Chord:	Single angles welded from several short members; UC member bowed @ NW; rusting @ channel connections; areas of pack rust painted over.	2	6
C22. Lower Chord:	Single angles welded from several short members; rust arrested by painting; bent @ NW; areas of pack rust painted over; wavy.	2	6
C24. Lateral Bracing:	Single angle welded to chords or struts; rust arrested by painting; drilled holes in some members; some members spliced to achieve length.	2	6
C25. Sway Bracing:	Angles; weakened by drilled holes.	1	7
C30. Protective Coating System (PCS):	System: Year: 2008 Paint flaking; rusting through - esp. @ piers & @ welds.	PCS Rating: 5	

N59. Superstructure Summary: **Not redundant; highly fatigue prone; welded truss structure; truss no longer true in plane - possibly due to impact damage, esp. W truss @ N support; many truss members have drilled holes or full penetration welds to achieve desired length; paint flaking w corr. cells, mostly @ weld locations, possible cracks, cannot detect from ground level.** **Summary Rating:** 5

C37. Pier Caps:	Apparent pitting, esp. @ N.	2	6
C38. Pier Columns:	Bases encased in conc; rusting, pitting w LOS, & pack rust esp. @ S column in splash zone.	2	6

N60. Substructure Summary: **Summary Rating:** 6

Bridge Inspection Report | *Safety Inspection*

SFN: 3199952

Southside Avenue Utility (Pipe) Overhead - 3rd East of Idaho

Date Inspected: 04/15/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 N

Signature: 

Bridge No.: PRIVATE #37

C55. Warning Signs: Vert. clearance sign posted on both sides - 16'. 1 7

C57. Utilities: Lower yellow pipe appears to be in compression, bowing (buckling) to accommodate excessive length; pipe not sitting on pipe saddles.

Utilities On Structure: N N N N N N N

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 5 N

Inspection Notes: Do not add any additional utilities without consulting a structural engineer to evaluate the load carrying capacity of the bridge.
No distinct panel points where members meet.
One yellow pipe shifted from pipe saddles.
Apparent reconfiguration, removal of pipes & conduits (2016); not all pipes supported on saddles;
pipe @ W wedged w stone.

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Perform close up inspection of all welds by registered Prof.Engineer & share reports with City. | Owner |
| 2. Clean & paint structural steel. | Owner |
| 3. Reset and secure yellow pipe onto pipe saddles. | Owner |

Bridge Inspection Report | Safety Inspection

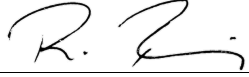
SFN: 3199949

Southside Avenue Utility (Pipe) Overhead - 3rd West of River Road

Date Inspected: 03/18/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 N

Signature: 

Bridge No.: PRIVATE #38

Route: Unit: Bridge Type 371 / Date Built / Date Rehabbed: 1997 /
Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating
1 to 4Rating
9 to 0

C7.1. Floor: Bar grating; 1 minor bent (5th from S) & sagging in 1 panel where bolt is wedged under main pipe. 1 7

C11. Railing: Metal hand rail repainted 2016. (3 vert. of S ladder cantilever (due to utility pipe conflict) and vibrate, this is off the main span bridge).

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Summary Rating: 7

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: WF beam; repainted (2016); very minor pitting arrested by paint. 1 8

C18. Floor Beams: Minor rusting @ top of some FBs (topside was not painted in 2016). 1 8

C30. Protective Coating System (PCS): System: Year: 1997 PCS Rating: 8
Repainted 2016, few areas missing (top of N most floor beams); few minor workmanship issues.

N59. Superstructure Summary: Not redundant; not fatigue prone. Summary Rating: 8

C38. Pier Columns: Steel framed pier, (painted 2016). 1 8

N60. Substructure Summary: Summary Rating: 8

65. Vertical Clearance: Measured 21'-7" Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 N

Inspection Notes: Topside of bridge was not inspected during the 2020 inspection.
Utilities @ S almost touching beams and has low clearance above walk.

Bridge Inspection Report | *Safety Inspection*

SFN: 3199948

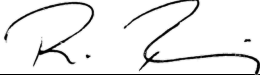
Southside Avenue Utility (Pipe) Overhead - 4th East of Idaho

Date Inspected: 04/15/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 N

Signature: _____



Bridge No.: PRIVATE #39

Route: Unit: Bridge Type 344 / Date Built / Date Rehabbed: 1999 /
 Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C14. Alignment of Members:	Slight misalignment; wavy lower & upper chord.	1	7
C18. Floor Beams:	Rusting @ chords.	1	7
C19. Truss Verticals:	Only @ ends.	1	7
C20. Truss Diagonals:	Rusting @ conn.'s.	1	7
C21. Upper Chord:	Rust. Bet. Chord angles; dented; rusting @ conn.'s.	2	6
C22. Lower Chord:	Rust. Bet. Chord angles; dented; rusting @ conn.'s; wavy; new (2020) handrail @ N tower welded to lower chord @ 2 locations not painted and fatigue prone.	2	6
C24. Lateral Bracing:	Rusting @ conn.'s.	1	7
C25. Sway Bracing:		1	7
C30. Protective Coating System (PCS):	System: Year: 2002 PCS Rating: 5 Widespread rusting; rust forming underneath paint; rust between back to back angles & @ welds.		

N59. Superstructure Summary: Fatigue prone; not redundant; widespread rusting between sections @ connections & on pipes. **Summary Rating: 6**

C37. Pier Caps:	Knee braces @ piers supporting truss @ 1st vert. from pier; minor pitting @ NE.	2	6
C38. Pier Columns:	Pitting; paint flaking; rusting; heavy pitting @ base plate & sev. LOS of anchor bolts; ext. conc. deter. under N pier base plate (chemical attack undermining base plate).	2	5

N60. Substructure Summary: N pier elevated @ E (construction issue?). **Summary Rating: 5**

Bridge Inspection Report | Safety Inspection

SFN: 3199948

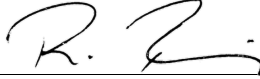
Southside Avenue Utility (Pipe) Overhead - 4th East of Idaho

Date Inspected: 04/15/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 5 N

Signature: _____



Bridge No.: PRIVATE #39

C55. Warning Signs: Posted 16'

1 7

C57. Utilities: Paint flaking from corroded pipes.

Utilities On Structure: N N N N N N N

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: Bridge should be inventoried by the City.

General Appraisal / Operational Status: 5 N

Inspection Notes: No true panel points.
Digital billboard added to E truss since 2010 inspection (covering V.C. sign).

General Notes: Do not add any additional utilities to the structure without consulting a structural engineer.

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Clean & repaint structural steel paying particular attention to spaces between chord angles & connections. | Owner |
| 2. Repair & protect conc. pedestal of N pier to prevent further concrete deterioration and pier undermining. | Owner |
| 3. Fasten & realign pipe saddles where loose or misaligned. | Owner |
| 4. Modify pipe shackle tabs where corrosion is excessive (Stainless bolts attached to carbon steel angle rusting). | Owner |
| 5. Move V.C. sign from behind digital display. | Owner |
| 6. Perform close up inspection of all welds by registered professional engineer, share report with City. | Owner |
| 7. Inspect corroded pipes for soundness, then clean & repaint. | Owner |
| 8. Provide city with stamped engineering report for bridge modifications(welded attachments to lower cho | Owner |

Bridge Inspection Report | *Safety Inspection*

SFN: 3199951

Southside Avenue Utility (Pipe) Overhead - 5th East of Idaho

Date Inspected: 03/18/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 N

Signature: 

Bridge No.: PRIVATE #40

Route: Unit: Bridge Type 321 /
(Main/Approach Spans)

Date Built / Date Rehabbed: 1980 /

Load Rating Percent

Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Bar grating has minor sagging under weight of pipes. 2 6

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Summary Rating: 6

C14. Alignment of Members: Minor misalignment at splice locations. 1 7

C15.1. Beams/Girders: Mismatched beams spliced together; minor isol. pitting; very minor spot rust at flanges. 1 7

C25. Sway Bracing: Minor isol. corrosion at center braces, (resembles tube and was not painted inside). 1 7

C30. Protective Coating System (PCS): System: Year: PCS Rating: 7
Painted 2012: minor isol. flaking and spot rust.

N59. Superstructure Summary: Summary Rating: 7

C37. Pier Caps: Knee braces bolted to BF: slight separation between brace and beam @ NE 1 7

C38. Pier Columns: Very slight pitting; cor. @ S brae plate between columns. 1 7

N60. Substructure Summary: Summary Rating: 7

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N):

N36.3. National Safety Feature - Approach Guardrail (0, 1 or N):

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N):

C55. Warning Signs: Non standard signs, partially obstructed by sway bracing. Sign states clearance as 15'-8", but VC below sway is only 15'-5"

65. Vertical Clearance: Misabled as 15'-8" instead of the actual 15'-5" Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 N

Inspection Notes: During the 2020 inspection there was ongoing excavation on the private property near the N pier.

Bridge Inspection Report | *Safety Inspection*

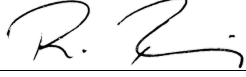
SFN: 3199951

Southside Avenue Utility (Pipe) Overhead - 5th East of Idaho

Date Inspected: 03/18/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 N

Signature:  _____

Bridge No.: PRIVATE #40

Recommended Maintenance:

1. Change vertical clearance signs to reflect actual clearance.
2. Move vertical clearance signs so they are not covered by the sway braces.

Assigned to:

Owner
Owner

Bridge Inspection Report | *Safety Inspection*

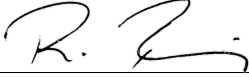
SFN: 3199996

Sycamore Street Pedestrian Overhead South of Central Parkway

Date Inspected: 03/17/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: PRIVATE #41

Route: Unit: Bridge Type 344 / Date Built / Date Rehabbed: 1983 /
 Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Enclosed; not visible from below; widespread flaking of coating of cover panels; widespread freckled rust developing @ floor panels; former puncture plated.	1	7
C7.2. Edge of Floor: Stains @ fascias, esp @ N; apparent weep holes(?) on underside (spacing +/- 2'); loose, sagging trim angle at N over roadway.	1	8
C8. Wearing Surface: Trans. cracks - part. @ LC jt; painted.		
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: Dirt & water stains along bottom façade.	1	8
C13. Expansion Joints: Comp. seals @ bldg. supports; paint flaking on inside.	1	8

N58. Deck Summary: Deck floor not visible; part. assumed rating; enclosed skywalk; windows @ S face only; painted inside. **Summary Rating: 7**

C14. Alignment of Members:	1	8
C18. Floor Beams: Mostly enclosed.		
C19. Truss Verticals: Visible only on S side.	1	8
C20. Truss Diagonals: Visible only on S side; 1 not welded together @ midspan (S side).	1	7
C21. Upper Chord: Tee section; newly painted; visible only on S side.	1	8
C22. Lower Chord: Not visible.		
C24. Lateral Bracing: Top bracing - small tee; minor dent @ N half. Bottom Bracing - Enclosed - not visible.	1	7
C26. Bearing Devices: Enclosed, not visible.		
C30. Protective Coating System (PCS): System: Year: 1998 Some minor chips; minor unpainted areas.		PCS Rating: 8

N59. Superstructure Summary: Mostly assumed rating. **Summary Rating: 7**

C37. Pier Caps: Widespread flex. & random map cracking @ piers.	1	7
C38. Pier Columns: 2 center piers w ext. HL map cracking; irg. Shrinkage cracks & small patched spalls; full height vert. crack (0.023") @ SE (sounded and found to be without delam.).	1	7

N60. Substructure Summary: **Summary Rating: 7**

Bridge Inspection Report | *Safety Inspection*

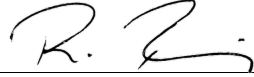
SFN: 3199996

Sycamore Street Pedestrian Overhead South of Central Parkway

Date Inspected: 03/17/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: PRIVATE #41

C57. Utilities: Several conduits @ N side.

Utilities On Structure: N N N N N N N

65. Vertical Clearance: 15'-10" measured.

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 7 A

Inspection Notes: Inside not inspected 2020.

Recommended Maintenance:

1. Secure trim angle at bottom of bridge (N side) over roadway.
2. Recoat bridge floor (outside bottom) to prevent continued corrosion.

Assigned to:

Owner
Owner

Bridge Inspection Report | Safety Inspection

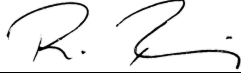
SFN: 3199821

Sycamore Street Pedestrian Overhead South of Sixth Street

Date Inspected: 07/24/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 X

Signature: 

Bridge No.: PRIVATE #42

Route: Unit: Bridge Type 321 / Date Built / Date Rehabbed: 1990 /
Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Bridge closed since W building was sold. Metal deck; enclosed, not visible; HL mostly long. cracking in plaster panels esp. @ E end & light fixture corners; minor staining.	1	8
C11. Railing: Enclosed skywalk w windows, metal handrail; skywalk closed to traffic.	1	9
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: 2 overflow pipes @ E (N&S).	1	8
C13. Expansion Joints: Not visible @ E; rubberized material @ W; W cover slightly loose; caulking loose @ outside @ E.	1	8

N58. Deck Summary: Deck floor not visible; partially assumed rating. Summary Rating: 8

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Steel beams; enclosed, not visible.

C18. Floor Beams: Small steel floor beams; enclosed, not visible.

C28. Arch Columns/Hangers: Steel columns support roof (encased).

N59. Superstructure Summary: Superstructure not visible; assumed rating; not redundant, not fatigue prone. Summary Rating: 8

C38. Pier Columns: Enclosed, not visible; supported on adj. building @ W; columns enclosed.

N60. Substructure Summary: Substructure not visible, assumed rating. Summary Rating: 8

65. Vertical Clearance: 16'-0". Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 X

Inspection Notes: Inside accessed during the 2020 inspection; 1 ceiling tile @ N removed, providing limited view to structure.

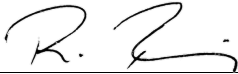
General Notes: Bldg @ W sold, but bridge belongs to P&G; bridge accessible through small hatch @ E bldg; bridge no longer used, but utilities intact (equipped with alarm system).

Bridge Inspection Report | *Safety Inspection*

SFN: 3199983

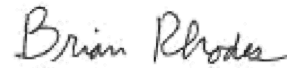
Thorp Alley Pedestrian Overhead East of Race Street

Date Inspected: 03/13/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 7 ASignature: 

Bridge No.: PRIVATE #43

QA/QC Inspector: BRIAN E. RHODES

Safety Inspection ? Signature: 

Route: Unit: Bridge Type 111 / Date Built / Date Rehabbed: /
Load Rating Percent (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Enclosed; not visible; deflection, minor cracks, efflor., & water staining of bottom plaster (separation from bottom row of bricks to top of steel angle over tunnel, esp. @ W). 2 6

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

N58. Deck Summary: Deck floor not visible; partially assumed rating. Summary Rating: 6

C14. Alignment of Members: 1 8

C15.2. Slab: Enclosed; not visible.

N59. Superstructure Summary: Superstructure not visible; assumed rating. Summary Rating: 7

C33. Abutment Walls: Enclosed, not visible; supported on adj. bldgs; brick facades appears to be in good condition.

N60. Substructure Summary: Substructure not visible; assumed rating. Summary Rating: 7

C55. Warning Signs: VC sign is non-standard; missing numbers & letters @ W; no sign @ E. 4 1

65. Vertical Clearance: Posted 14'-6"; sign obstructed - mostly missing; utility is reducing clearance to 13'-5". Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: Rating is mostly assumed. General Appraisal / Operational Status: 7 A

Inspection Notes: Clear opening (width) is 10'-1/2"
Inside inspected during 2013 inspection (2nd and 7th floor).
City (2020) in lawsuit with owners.
Alleyway East of bridge appears to have settled.
Only few lights in the alley are on during daytime.

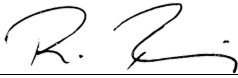
Bridge Inspection Report | *Safety Inspection*

SFN: 3199983

Thorp Alley Pedestrian Overhead East of Race Street

Date Inspected: 03/13/2020

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: PRIVATE #43

QA/QC Inspector: BRIAN E. RHODES

Safety Inspection ?

Signature: _____

Recommended Maintenance:

1. Replace Vertical Clearance Sign to reflect actual condition.
2. Check lights in the alley

Assigned to:

Owner
Traffic

Bridge Inspection Report | *Safety Inspection*


SFN: 3199971

Tremont Street Pedestrian & Conveyor Overhead West of Beekman

Date Inspected: 03/17/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 4 N

Signature: 

Bridge No.: PRIVATE #44

Route: Unit: Bridge Type 321 / Date Built / Date Rehabbed: /
 Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

- C7.1. Floor:** True struct. floor enclosed, not visible; rust & sagging on lower conveyor; timber floor repaired @ several locations, water damaged sections replaced in 2014. 3 4
- C9. Curbs/Sidewalks:** Steel plates over plywood inside of bridge; obvious signs of (former?) water damage on walls and floor.
- C11. Railing:** Rusting of conveyor siding @ SE; 3 window panes broken.
- N36. National Safety Feature - Bridge Railing (0, 1 or N):** N
- C12. Drainage:** Gutter along W fascia, single drainpipe @ NW; apparent water damage on inside @ d/s location (aparently new flashing above); also former water damage @ S with hole in roof repaired; E fascia wood unpainted & deteriorating; roof peeling back from E fascia. 2 5

N58. Deck Summary: Deck floor not visible; part. assumed rating. Summary Rating: 4

- C14. Alignment of Members:** Some misalignment of conveyor hangers. 1 7
- C15.1. Beams/Girders:** Enclosed; no longer visible after floor repairs in 2014. (before: flanges of beam visible @ SW indicating heavy pitting); beam ends visible @ N from inside bldg. 2 5
- C18. Floor Beams:** Enclosed, (not visible); lower conveyor floor beam ends visible; upper bridge timber floor beam encased now, (previously partially visible @ S indicating timber decay & poss. water damage.) 3 4
- C25. Sway Bracing:** 4 threaded rods used for bracing of lower conveyor - loose at both ends at N. 3 4
- C30. Protective Coating System (PCS):** System: Year: PCS Rating: 0
 Paint on hanger rods completely removed.
- C31. Pins/Hangers/Hinges:** 18 hangers from upper ped. bridge support lower conveyor; slight sweep in several hangers; top conn. not visible; part. assumed rating 2 5

N59. Superstructure Summary: Most of superstructure is not visible; part. assumed rating. Summary Rating: 4

N60. Substructure Summary: Supported on adjacent buildings; N façade shows brick deterioration under bridge (bridge supported on steel bear inside N bldg, length of steel beam could not be determined), S façade has widespread conc. spalling w exp rebar under bridge (issues along the entire building façade); actual building connection not visible, hence part. assumed rating. Summary Rating: 4

Bridge Inspection Report | *Safety Inspection*

SFN: 3199971

Tremont Street Pedestrian & Conveyor Overhead West of Beekman

Date Inspected: 03/17/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 4 N

Signature:  _____

Bridge No.: PRIVATE #44

65. Vertical Clearance: 19'-6".

Vert. Clearance Rating: 1

**N59. General Appraisal
and Oper. Status:**

**General Appraisal /
Operational Status: 4 N**

Inspection Notes: Bridge currently not in use and should be removed if no future use is intended, particularly when considering the condition of the building of the S.
S building abandoned since 2016 now superfund clean-up site.
Bridge blocked off at S. Main bridge accessible from N but is empty.
Inside and roof inspected (2017). Inside not inspected 2020.

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Refasten sways at N (2) | Owner |
| 2. Consider removing bridge and conveyor. | Owner |
| 3. Perform in depth inspection of concealed structural members (beams and floorbeams), share report with City. | Owner |

Bridge Inspection Report | Safety Inspection

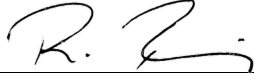
SFN: 3161803

Vine Street Pedestrian Overhead North of Erkenbrecher

Date Inspected: 07/02/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: PRIVATE #45

Route: VINE Unit: 0003

Bridge Type 344 / 111

Date Built / Date Rehabbed: 2008 / 2019

Load Rating Percent 000

(Main/Approach Spans)

Safety Inspection ?

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: SIP CMD forms; painted black (2019), concealing former defects such as: LOS @ long. & trans. panel jts @ N & S edges, and abutments.	2	6
C9. Curbs/Sidewalks: New membrane overlay (2019) over formerly cracked deck.	1	9
C11. Railing: Steel tube railing w VPF; repainted in 2019; isol. chainlink corr. @ bottom of fence. Railing tubes are welded to truss diagonals @ bridge ends, not center were diagonals are smaller.	1	8
N36. National Safety Feature - Bridge Railing (0, 1 or N): 1		
C12. Drainage: Off bridge; West approach drain cover missing 2 bolts.	1	8
C13. Expansion Joints: Actual joints covered w WABO plates.	1	8

N58. Deck Summary:

Summary Rating: 6

C14. Alignment of Members:	1	8
C18. Floor Beams: Repainted (brown) 2019.	1	9
C19. Truss Verticals: Repainted (brown) 2019.	1	8
C20. Truss Diagonals: Repainted (brown) 2019.	1	8
C21. Upper Chord: Repainted (brown) 2019; grey color shining through @ top inside edge of N truss.	1	9
C22. Lower Chord: Repainted (brown) 2019.	1	8
C24. Lateral Bracing: Repainted (brown) 2019.	1	8
C26. Bearing Devices: Repainted (brown) 2019.	1	8
C30. Protective Coating System (PCS): System: Year: 2019 Repainted 2019; some areas where former orange paint shows through.		PCS Rating: 8

N59. Superstructure Summary: Not redundant; fatigue-prone welded trusses; vibrating noticeably under pedestrian traffic.

Summary Rating: 8

C33. Abutment Walls: E only (outside of inspection limits), supported by building @ W.	1	8
C37. Pier Caps: Rust stains from standoffs, efflor.	1	8
C38. Pier Columns: Completely enclosed in decorative masonry; assumed rating; few stones missing @ SW.	1	8

N60. Substructure Summary: Mostly concealed behind decorative masonry.

Summary Rating: 8

Bridge Inspection Report | *Safety Inspection*

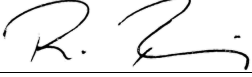
SFN: 3161803

Vine Street Pedestrian Overhead North of Erkenbrecher

Date Inspected: 07/02/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: PRIVATE #45

C57. Utilities: Repainted utilities 2019.

1 7

Utilities On Structure: Y N N U N N

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 7 A

Inspection Notes: Only main span over roadway is inspected. Vibrating under pedestrian loading.
W approach span steel corroding esp BF's @ fascia w LOS.

General Notes: Bridge limit imprinted - 5 ton vehicle limit (Continental Bridge - Alexandria, MN)

Bridge Inspection Report | Safety Inspection

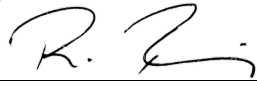
SFN: 3199987

Vine Street Pedestrian Overhead South of Central Parkway

Date Inspected: 03/17/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 8 A

Signature: 

Bridge No.: PRIVATE #46

Route: Unit: Bridge Type 364 / Date Built / Date Rehabbed: 1982 /
Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating
1 to 4Rating
9 to 0

C7.1. Floor: Covered by metal panels; enclosed; not visible; minor staining below bridge. 1 8

C7.2. Edge of Floor: Few indentations at bottom, minor impact dents, 1 @ NE with scrapes & 4 smaller ones @ S. 1 7

C9. Curbs/Sidewalks: Carpet on conc.

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C12. Drainage: 2 inlets (1 @ each end); new roof installed 2009 (white membrane without balast), repairs made in 2014; evidence of minor ponding (slight discoloration on top); staining on E façade. 1 8

C13. Expansion Joints: Replaced (1995). 1 9

N58. Deck Summary: Deck floor not visible; part. assumed rating. Summary Rating: 8

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Enclosed by metal panels; not visible.

C18. Floor Beams: Enclosed - not visible.

C19. Truss Verticals: Enclosed - actual support members not visible.

C26. Bearing Devices: Enclosed - not visible.

N59. Superstructure Summary: Superstructure not visible - assumed rating. Summary Rating: 8

N60. Substructure Summary: Substructure not visible, supported on adjacent buildings; assumed rating. Summary Rating: 8

C57. Utilities: Many, all enclosed.

Utilities On Structure: NNNNNNN

Bridge Inspection Report | *Safety Inspection*

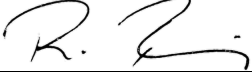
SFN: 3199987

Vine Street Pedestrian Overhead South of Central Parkway

Date Inspected: 03/17/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: PRIVATE #46

65. Vertical Clearance: 15'-7" measured.

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 8 A

Inspection Notes: Inside not accessed during the 2020 inspection.

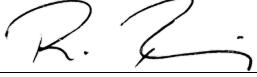
Bridge Inspection Report | Safety Inspection

SFN: 3199984

Weaver Alley Pedestrian Overhead - 1st East of Race Street (4 Levels) Date Inspected: 03/09/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: PRIVATE #47

Route: Unit: Bridge Type 111 / Date Built / Date Rehabbed: /
 Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Many spalls w exp. rebar and delaminated loose concrete @ fascias; scrapes from impact; several delaminations & crumbling concrete (<2" deep).	2	6
C9. Curbs/Sidewalks: Carpet over conc. @ 3 floor levels; evidence of water damage @ top level (several ceiling plaster spalls).		
C11. Railing: None; 4 level enclosed skywalk; windows @ W only - 2nd floor window cracked.		
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: Membrane roof (walkable) w/ one inlet (appears func.); roof membrane cracking at few locations; evidence of water damage and ongoing leaking (3 distinct areas of plaster deterioration in top level ceiling).	2	5

N58. Deck Summary: Summary Rating: 6

C14. Alignment of Members: 1 8

C15.2. Slab: Enclosed; not visible d/t brick facade; also see FLOOR.

N59. Superstructure Summary: Superstructure not visible; assumed rating. Summary Rating: 6

C34. Abutment Caps: Supported on concrete lintels over brick wall. N façade cracks do not appear to be bridge related. 1 7

N60. Substructure Summary: Substructure not visible; assumed rating. Summary Rating: 7

C55. Warning Signs: Non-standard signage, fading. 2 6

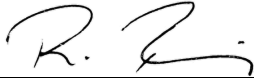
65. Vertical Clearance: Posted 11' @ center. Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 6 A

Inspection Notes: Inside accessed during 2020 inspection. Alley blocked by container and two planters. S building owner apparently got quote for concrete patching over alley in January 2017 and half of the cost was paid by north owner, however the repairs were never made.

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 6 A

Signature: 

Bridge No.: PRIVATE #47

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Chip loose concrete from haunches & patch. | Owner |
| 2. Replace cracked 2nd floor window before it falls into alley. | Owner |
| 3. Seal cracks in the roof membrane, check/repair flashing and repair plaster damage of ceiling in top floor inside. | Owner |

Bridge Inspection Report | Safety Inspection

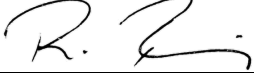
SFN: 3199985

Weaver Alley Pedestrian Overhead - 2nd East of Race Street (High)

Date Inspected: 03/09/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: PRIVATE #48

Route: Unit: Bridge Type 111 / Date Built / Date Rehabbed: /
Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

	Rating 1 to 4	Rating 9 to 0
C7.1. Floor: Enclosed; not visible.	1	8
C11. Railing: None; enclosed skywalk.		
N36. National Safety Feature - Bridge Railing (0, 1 or N): N		
C12. Drainage: Rubber membrane roof w 1 inlet; appears functional, evidence of minor ponding @ S; trash accumulating on roof.	1	8
C13. Expansion Joints: None apparent.		
N58. Deck Summary: Deck floor is not visible; partially assumed rating.		Summary Rating: 8
C14. Alignment of Members:	1	8
C15.1. Beams/Girders: Enclosed; not visible.		
N59. Superstructure Summary: Superstructure not visible; assumed rating.		Summary Rating: 8
C33. Abutment Walls: Supported on adjacent buildings, enclosed not visible.	1	8
N60. Substructure Summary: Substructure not visible; assumed rating.		Summary Rating: 8

65. Vertical Clearance: Vert. Clearance Rating: N

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 A

Inspection Notes: Interior plaster walls @ exterior façades to both bridge & adjacent buildings are in generally good condition.
Interior accessed during the 2020 Inspection (doors from parking garage side are locked).

Bridge Inspection Report | *Safety Inspection*

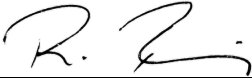
SFN: 3199985

Weaver Alley Pedestrian Overhead - 2nd East of Race Street (High)

Date Inspected: 03/09/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating/ Operational Status 8 A

Signature: 

Bridge No.: PRIVATE #48

Recommended Maintenance:

Assigned to:

1. Remove debris from roof.

Owner

Bridge Inspection Report | Routine Inspection

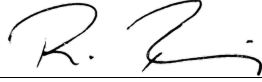
SFN: 3160289

William Howard Taft, Etc., over Private Tunnel

Date Inspected: 02/29/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 3 A

Signature: 

Bridge No.: PRIVATE #49

Route: WTAFT Unit: 3371

Bridge Type 095 / NNN

Date Built / Date Rehabbed: 1900 /

Load Rating Percent 150

(Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

N36. National Safety Feature - Bridge Railing (0, 1 or N):

C44. Culvert - General: General mortar and brick deterioration throughout. Most severe issues are located in the South half of the tunnel with up to 2 courses of brick spalled and surface damage to the third course. Shifting of 2nd and third layer bricks in some locations. Widespread leaking through mortar joints, washing out mortar or turning mortar into sand (which causes bricks to fall esp. between 2 and 10 o'clock). Locations with previous gunnite repair have cracks from hairline up to 1/4 inch wide with build-up of efflor. Significant water infiltration through the brick everywhere, but esp @ SE. Multiple safety niches on East side of tunnel with backfill eroding into the tunnel. Evidence of continued brick failure, with some areas of exposed course appearing ready to fall. At the W side of the tunnel (toward N end), several areas of spalled brick were detected where roots entered the tunnel. 3 3

C45. Culvert - Alignment: 1 8

C48. Culvert - Head/End Walls: Several spalls @ S with exposed rebar. Exposed and bent bar @ S headwall arch. N headwall with many stones around tunnel opening cracked, delaminated or even spalled. Railing over N portal not continuous. 2 5

N60. Culvert Summary: **Total number of brick layers is unknown, but there are drilled holes that are rather deep. The nearby McMillan Tunnel is made up of 5 courses, it can be assumed that there are at least 5 courses here as well. Several areas within reach were sounded during the 2020 inspection, many unsound regions detected. This does not appear to be necessarily related to the loss of mortar between adjacent bricks of the outer course, but due to a separation of the outer course from the next course.** **Summary Rating: 3**

C1. Pavement: The tunnel goes underneath Taft (under bridge though), Oak, May, June, and Crown Streets. Pavement conditions varies between streets. No apparent impact of tunnel to street pavements. 2 6

C4. Embankment: Landslides and deteriorating slate exist at the South embankments, landslides continued in 2020 @ S moving trees in front of tunnel entrance. Failure of the concrete slop protection of the Wm H Taft Bridge over I-71 (E span), which is on top of the tunnel; water leaking into fill at this location). Small sinkhole near parking lot off Oak Street (in grassy area), does not appear to be tunnel related. Guardrail at Crown Street removed (impact?) and replaced with concrete bollards (temporarily?), this is over a lot of fill and should not impact the tunnel. 2 5

N36.2. National Safety Feature - Guardrail Transitions (0, 1 or N): N

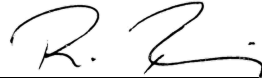
N36.3. National Safety Feature - Approach Guardrail (0, 1 or N): N

William Howard Taft, Etc., over Private Tunnel

Date Inspected: 02/29/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 3 A

Signature: 

Bridge No.: PRIVATE #49

N36.4. National Safety Feature - Approach Rail Ends (0, 1 or N): N

C6. Approaches Summary:

Summary Rating: 5

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 3 A

Inspection Notes: Continued deterioration and failing of bricks inside tunnel in 2020, combined with widespread water infiltration.
Notified ODOT about the failing slope protection and water infiltration under Wm H. Taft Rd following the 2019 inspection.

Recommended Maintenance:

Assigned to:

1. Perform extensive structural repairs in areas where sections of brick have fallen or are ready to fall. Owner
2. Treat roots entering tunnels at W (northern half of tunnel) to prevent them from causing more damage. Owner

Bridge Inspection Report | Safety Inspection

SFN: 3199969

Winslow Avenue Pedestrian Overhead North of Oak Street

Date Inspected: 07/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: PRIVATE #50

Route: Unit: Bridge Type 344 / Date Built / Date Rehabbed: 1987 /
Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Enclosed; not visible; water stains on panels suspended from floor (underside of bridge, esp in Center on S side.

C9. Curbs/Sidewalks: Inside slope uneven by design (?) heigh at FBs/diagonals, sagging in between.

C11. Railing: Steel handrail; glass enclosed skywalk 5 window panels @ S interally fogged with "sediments" at bottom; window flashing not tight esp. @ SE. 1 7
A more brittle sealant (with visible cracks) is exposed @ fascias. This should be investigated and repaired so that no water can enter.
Widespread corrosion with some pitting under windows @ S.

N36. National Safety Feature - Bridge Railing (0, 1 or N): N

C12. Drainage: Ballasted membrane roof; drains @ E appear open. 1 9

C13. Expansion Joints: Floor seal damaged @ W (depressed in walking path); minor staining on bricks & drywall (inside @ E end). 1 7

N58. Deck Summary: Deck floor not visible; partially assumed rating. Summary Rating: 7

C14. Alignment of Members: 1 8

C18. Floor Beams: Enclosed, not visible.

C19. Truss Verticals: Circular steel tubing; visible @ E end only; welded to UC & LC. 1 9

C20. Truss Diagonals: Circular steel tubing welded to UC & LC. 1 9

C21. Upper Chord: Mostly enclosed; rolled WF sections; full penetration welds. 1 8

C22. Lower Chord: Mostly enclosed; rolled WF sections; full penetration welds; localized corr. to TF under windows w minor LOS, esp. @ NE. 1 7

C26. Bearing Devices: Enclosed; not visible.

C30. Protective Coating System (PCS): System: Year: 1987 PCS Rating: 8
Minor flaking & rusting.

C32. Fatigue Prone Details: Full penetration welds @ chord splices, mostly concealed; slight vertical offset at S splice. 1 8

N59. Superstructure Summary: Enclosed; most structural elements not visible; partially assumed rating; not redundant, highly fatigue prone welded truss. Summary Rating: 7

Bridge Inspection Report | *Safety Inspection*

SFN: 3199969

Winslow Avenue Pedestrian Overhead North of Oak Street

Date Inspected: 07/01/2020

Inspected by: REINER M. W. REISING, P.E.

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: PRIVATE #50

C37. Pier Caps: Concealed @ W; small shallow spall @ E cap. 1 8

C38. Pier Columns: Supported on conc. tower @ W (concealed) & on conc. pier @ E. 1 8

N60. Substructure Summary: Summary Rating: 8

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 7 A

Inspection Notes: Several ceiling tiles stained, or shifted as a result of past leaking or repairs; inside not inspected 2020.

Recommended Maintenance:	Assigned to:
1. Repair Seals around windows (outside).	Owner
2. Repair depression in exp. jt. @ W end (inside floor in walking path).	Owner
3. Investigate possible leakage @ S side (corrosion under windows, white staining below bridge), and repair.	Owner
4. Seal/repair fogged windows.	Owner