



Galbraith Road Bridge

2021

BRIDGE CONDITION REPORT

City, County, Railroad and Private 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, 238 are inspected by DOTE Bridge Program personnel, which includes 2 pedestrian/trail bridges within City limits that are not on, above or below a highway as well as 4 bridges outside City limits that the City purchased as part of the Wasson Way acquisition. These inspections are performed in accordance with the National Bridge Inspection Standards (NBIS) and the guidelines in the Ohio Department of Transportation (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.



Bridges at Brighton Place ca. 1920 (top) and 2020 (bottom)

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 10](#) 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. 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 12](#) 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. (See [page 13](#) for details).
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 • 14 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 • 15 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 • 49 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 2021 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. Within each group, the individual bridge inspection reports are arranged alphabetically by bridge name.

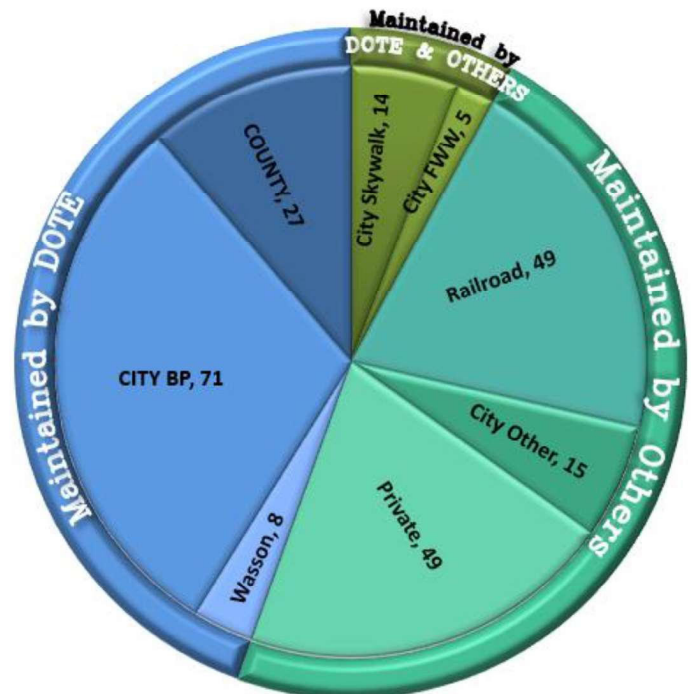


Chart indicating the number of bridges on the City inventory by maintenance responsibility.

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 2021 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,

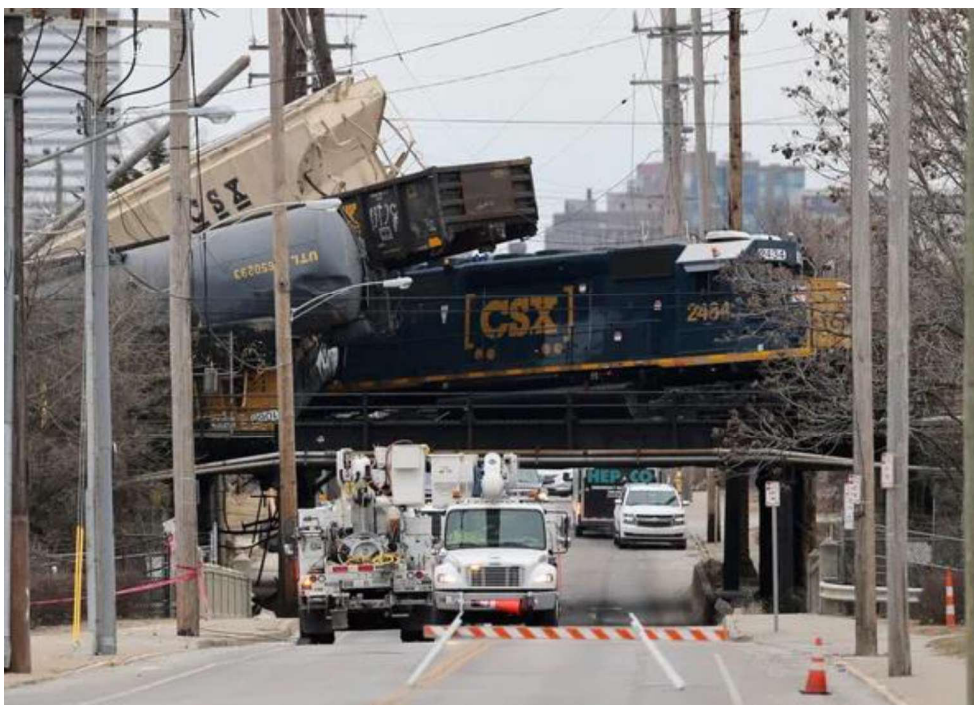
repair, and replacement work, so as to maintain a Weighted Average Bridge Rating of 6 or better for bridges maintained by the DOTE Bridge Program (BP). A rating of 6 represents a "Satisfactory" condition, which indicates that all primary structural elements are sound but may show some minor deterioration.

Progress: As identified in this report, the present Weighted Average Bridge Rating for City (BP) bridges is 6.85.

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.



Cincinnati Enquirer
Picture: Derailment of
CSX train at Gest
Street overpass,
January 2021

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 traditional 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 (here Martin Drive)

Above bottom: Posting for Emergency vehicles (here Springlawn Ave)

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 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. Prior to that, 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 \$4.8M in federal and state grants to help fund the project, which is currently slated for construction to begin in 2024.

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.

As a result, 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, for which funding has been secured. Also, during 2021, funding was secured for a

partial rehabilitation of the Park Ave Bridge over Kemper Lane, which will be available in 2025. The project includes specific repairs which will strengthen the bridge and eliminate the need for the load restrictions.

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 to 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 replacement of the Western Hills Viaduct scheduled for later this decade (see [page 24](#) of this report for details) will eliminate this load restriction.

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.



Above: Park Avenue Bridge over Kemper Lane with Load Posting sign for Emergency Vehicles.

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 ratings for all 71 City (BP) bridges, all 27 County bridges, and all 8 Wasson Way bridges are shown

on [pages 10, 12 and 13](#) respectively. A summary of the ratings for all 238 inspected bridges is shown in tabular form on [page 16](#).

EXPLANATION OF RATING SYSTEM

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

BRIDGE CONDITIONS

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 10 and 12](#).

| 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 2021 is shown in graphical form at the bottom of [page 16](#).

The current Weighted Average Bridge Rating for City (BP) bridges is **6.85**. The current Weighted Average Bridge Rating for County bridges within the City limits is **6.50**.

The average bridge rating for the Wasson Way bridges is shown on [page 13](#) 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: Van Hart Bridge - Deck Area: 1,710 SF, SMF = 1



Left: Park Avenue Bridge over Kemper Lane - Deck Area: 30,680 SF, SMF = 4

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 6.90 in 2020 to 6.85 in 2021) was the cumulative result of the following 4 changes:

1. The condition rating of the **Madison Road Pedestrian Bridge West of IORY SFN 3161889** was increased from 5 (fair condition) to 7 (good condition), as a result of the 2020/2021 bridge rehabilitation.
2. The condition rating of the **Second Street Connector from Clay Wade Bailey (ramp D), SFN 3160661** was reduced from 8 (very good condition) to 7 (good condition), due to the condition of the substructure.
3. The condition rating of the **Second Street over Transit Center – Elm to Main Street, SFN 3160696** was reduced from 8 (very good condition) to 7 (good condition) due to the condition of the substructure.
4. *The condition rating of the **Van Hart Street Bridge over Lick Run, SFN 3160005** was reduced from 8 (very good condition) to 7 (good condition) due to the condition of the superstructure beams.

* See discussion about changes in rating guidelines on [page 14](#).



Madison Road Pedestrian overpass west of IORY, during construction (above 2020) and after completion (below 2021)



2021 COUNTY INDIVIDUAL BRIDGE RATINGS

| Bridge | Structural File Number | Deck Area (sq. ft.) | SMF | Year Built / Reconst. | Last Rehabbed | Inspection Ratings | | |
|---|------------------------|---------------------|-----|-----------------------|---------------|--------------------------------|---|------|
| | | | | | | 2020 | → | 2021 |
| 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 | → | 7 |
| Hopple Street Viaduct over Mill Creek, Railroad & Spring Grove Avenue | 3136337 | 115,560 | 5 | 1916 | 1986 | 6 | → | 6 |
| Kennedy Avenue Bridge over IORY | 3136672 | 9,723 | 2 | 1933 | | 8 | → | 7 |
| 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 | → | 8 |
| 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 | | 7 | → | 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> | | | | | | <i>Average Weighted Rating</i> | | |
| 703,982 | | | | | | 6.60 | → | 6.50 |

CHANGES IN AVERAGE BRIDGE CONDITIONS OVER THE PAST YEAR – COUNTY

The change in weighted average rating of County bridges from 6.60 in 2020 to 6.50 in 2021 is the cumulative result of the following 3 changes:

- 1) *The condition rating of the **Harrison Avenue Bridge over Lick Run, SFN 3136338** was reduced from 8 (very good condition) to a 7 (good condition) due to the condition of the superstructure beams.
- 2) *The condition of the **Kennedy Avenue Bridge over IORY, SFN 3136672** was reduced from 8 (very good condition) to a 7 (good condition) due to the condition of the superstructure beams.
- 3) The condition of the **Marburg Avenue Bridge over Wasson Way SFN 3130003** was reduced from 9 (excellent condition) to 8 (very good condition) due to the condition of the substructure.

* See discussion about changes in rating guidelines on [page 14](#).



Ongoing part-width construction work at the Galbraith Ave Bridge over Anthony Wayne and RR

2021 WASSON WAY INDIVIDUAL BRIDGE RATINGS

| Bridge | Structural File Number | Bridge Length (ft.) | Year Built / Reconst. | Last Rehabbed | Inspection Ratings | | |
|--|------------------------|---------------------|-----------------------|---------------|-----------------------|---|------|
| | | | | | 2020 | → | 2021 |
| Wasson Way Culvert over Little Duck Creek ^{1,2} | 3199930 | 40 | 1940 | | 5 | → | 5 |
| Wasson Way over Ault Park ^{2,3} | 3199931 | 225 | 1924 | 2021 | 3 | → | 5 |
| Wasson Way over Columbia Parkway ¹ | 3103846 | 129 | 1962 | 2013 | 7 | → | 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 | 8 | → | 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 |
| | | | | | <i>Average Rating</i> | | |
| | | | | | 5.50 | → | 5.75 |

¹ Outside of Cincinnati City Limits

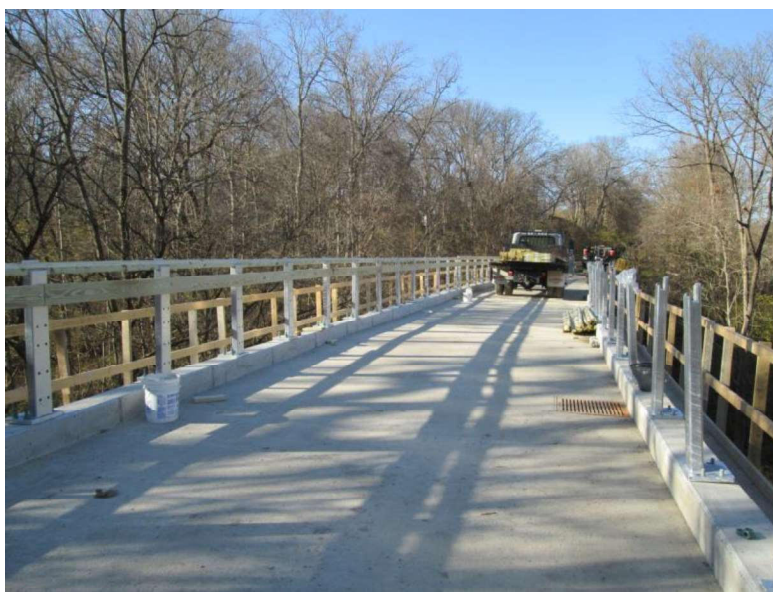
² Not over a highway

³ Ongoing construction, rating reflects condition at time of inspection

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 changed from 5.5 in 2020 to 5.75 in 2021, as a result of the following change:

- 1) The condition of the **Wasson Way Bridge over Ault Park, SFN 3199931** was increased from 3 (serious condition) to 5 (fair condition) as a result of the rehab work that began in the summer of 2020. This bridge rehabilitation project is still ongoing and a further increase in condition is expected as a result of the remaining work. Any change in condition will be reported as part of the 2022 inspection.



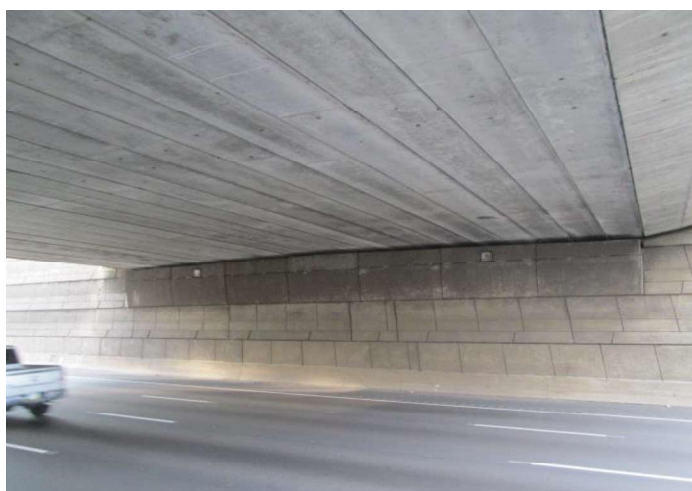
Railing installation at the Wasson Way Bridge over Ault Park

Changes in Rating Guidelines

During 2021 several addenda to the ODOT Manual of Bridge Inspection were issued which include new guidance for condition ratings of two particular items: expansion joints and prestressed concrete box beams.

The condition ratings for expansion joints became stricter, resulting in lower ratings for such joints on a few City bridges. However, the condition of individual expansion joints does not control the overall condition rating of a bridge, so no effect is seen in the overall ratings due to this change.

The rating guidelines for prestressed concrete box beams became stricter as well. The revised rating guidelines require lower condition ratings for prestressed box beams with concrete cracking, regardless of the crack width or associated leakage, which primarily affects bridges in the satisfactory to very good condition range (ratings 6 to 8). This is likely due to ODOT's experience with a large inventory of prestressed box beam bridges showing evidence that early cracking can be indicative of the onset of prestressing strand corrosion. Unlike expansion joints, the condition ratings of prestressed box beams alone will control the summary rating of the deck and superstructure, and likely control the overall rating of a bridge, and therefore these new guidelines have resulted in lower overall ratings for some bridges in the City inventory. These types of beams are typically used for short span structures and there are a total of 22 bridges with these types of beams in the City inventory: 10 City (BP), 7 County, and 5 FWW bridges. The City began implementing the stricter rating guidelines on July 1, 2021. Six bridges with these types of beams were inspected after that date and assigned a lower overall rating due to the new guidelines. These include the Van Hart bridge over Lick Run (City (BP)), Kennedy Avenue Bridge over IORY, Harrison Avenue Bridge over Lick Run (both County), and Race Street, Vine Street and Walnut Street Bridges over FWW. The remaining bridges of this type either were not affected by the new guidelines or had already been inspected prior to July 1, 2021 and will be evaluated using the stricter guidelines during the 2022 inspection cycle.



Above: underside of prestressed box beam bridge at Race Street over FWW



Above: monitoring cracking in prestressed concrete box beams, here van Hart bridge over Lick Run

Changes in Inspection Frequency - Reliability Based Inspection (RBI)

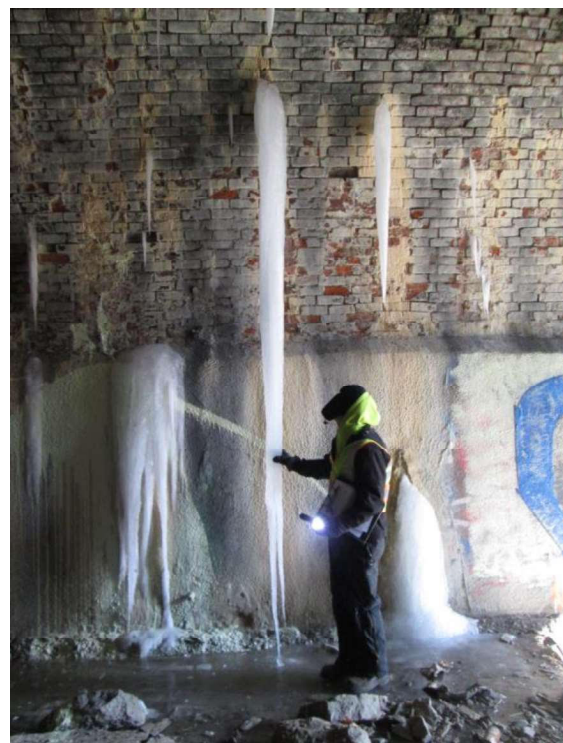
Until July 2021, all bridges in Ohio were required to be inspected at a frequency of at least once within a given calendar year, but not longer than 18 months between consecutive inspections, in accordance with State Law and ODOT requirements. In 2021, Ohio HB 74 of the 134th General Assembly was passed into law which revised various sections of the Ohio Revised Code that pertain to the frequency of bridge inspections, becoming effective on July 1, 2021. The new requirements established by ODOT based on the law change allow for inspection intervals of either 12 or 24 months, depending on certain criteria. This approach is referred to as Reliability Based Inspections (RBI). The more frequent 12-month inspection interval is required for bridges meeting the following criteria: bridges with posted load restrictions, those designated as fracture critical or scour critical, bridges built or rehabilitated within the past 3 years, and bridges that have a condition rating less than 7 (“good” condition). All other bridges are permitted to be inspected at an interval not to exceed 24 months. Note that these intervals are strict maximums, i.e. an inspection for a given bridge must be completed within the same calendar month as the previous inspection and may not exceed these intervals, as opposed to the previous requirements which allowed what essentially amounted to a 6-month “grace period”. As with the previous requirements, bridges may be inspected more frequently than the required intervals if desired.

The potential implications of these changes for the City’s bridge inspection program include: less flexibility in the inspection planning, a steady moving forward of the annual inspection schedule, a potential reduction in the overall number of annual bridge inspections, reduction in consistency of annual bridge condition data, and potential changes to the bridge program performance measures.

DOTe’s typical annual bridge inspection cycle occurs within the calendar year starting in March and lasts through early December. Since the change in intervals occurred mid-cycle during 2021 (July), DOTe continued the inspections for all bridges on essentially the same annual cycle previously required, while making adjustments as needed to

meet the new strict 12-month deadline for all applicable bridges.

Of the 238 bridges currently on the City’s inspection inventory, 98 would require a 12-month inspection interval under the new law, while 140 qualify for the longer 24-month interval. DOTe evaluated options to implement the new interval requirements, taking into consideration the previously mentioned implications, and comparison to the previous annual inspection routine. Based on this evaluation, DOTe has decided to continue to inspect all bridges on essentially the same annual basis as previous requirements, with adjustments made as needed to meet the strict 12-month interval for applicable bridges. DOTe chose this course primarily because it maintains a consistent annual data set and weighted average bridge rating, simplifies planning and scheduling of the annual inspection cycle, and allows for a cohesive annual bridge report. After the first full year of implementation of this adjusted approach, this decision may be revisited, and the parameters used to inform the decision making may be adjusted based on the gained experiences.



Above: wintertime inspection of abandoned railroad tunnel

2021 INDIVIDUAL BRIDGE RATINGS SUMMARY

Number of Bridges: 2020 → 2021

| | City (BP) | County | Wasson | FWW | City Skywalk | City Other | Railroad | Private | TOTAL |
|----------------------|----------------|----------------|--------------|--------------|----------------|----------------|----------------|----------------|------------------|
| 9 • Excellent | 0 → 0 | 1 → 0 | 0 → 0 | 0 → 0 | 0 → 0 | 0 → 1 | 0 → 0 | 1 → 1 | 2 → 2 |
| 8 • Very Good | 25 → 22 | 8 → 7 | 2 → 2 | 4 → 1 | 2 → 2 | 0 → 1 | 1 → 1 | 11 → 9 | 53 → 45 |
| 7 • Good | 21 → 25 | 9 → 11 | 2 → 2 | 1 → 4 | 9 → 8 | 5 → 7 | 8 → 8 | 12 → 15 | 67 → 80 |
| 6 • Satisfactory | 14 → 14 | 5 → 5 | 0 → 0 | 0 → 0 | 1 → 1 | 7 → 5 | 15 → 15 | 11 → 11 | 53 → 51 |
| 5 • Fair | 10 → 9 | 3 → 3 | 1 → 2 | 0 → 0 | 0 → 0 | 1 → 1 | 3 → 4 | 8 → 7 | 26 → 26 |
| 4 • Poor | 1 → 1 | 1 → 1 | 1 → 1 | 0 → 0 | 2 → 3 | 0 → 0 | 8 → 8 | 5 → 4 | 18 → 18 |
| 3 • Serious | 0 → 0 | 0 → 0 | 1 → 0 | 0 → 0 | 0 → 0 | 0 → 0 | 12 → 10 | 2 → 2 | 15 → 12 |
| 2 • Critical | 0 → 0 | 0 → 0 | 1 → 1 | 0 → 0 | 0 → 0 | 0 → 0 | 2 → 3 | 0 → 0 | 3 → 4 |
| 1 • Imminent Failure | 0 → 0 | 0 → 0 | 0 → 0 | 0 → 0 | 1 → 0 | 0 → 0 | 0 → 0 | 0 → 0 | 1 → 0 |
| 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 | 15 → 14 | 13 → 15 | 49 → 49 | 50 → 49 | 238 → 238 |

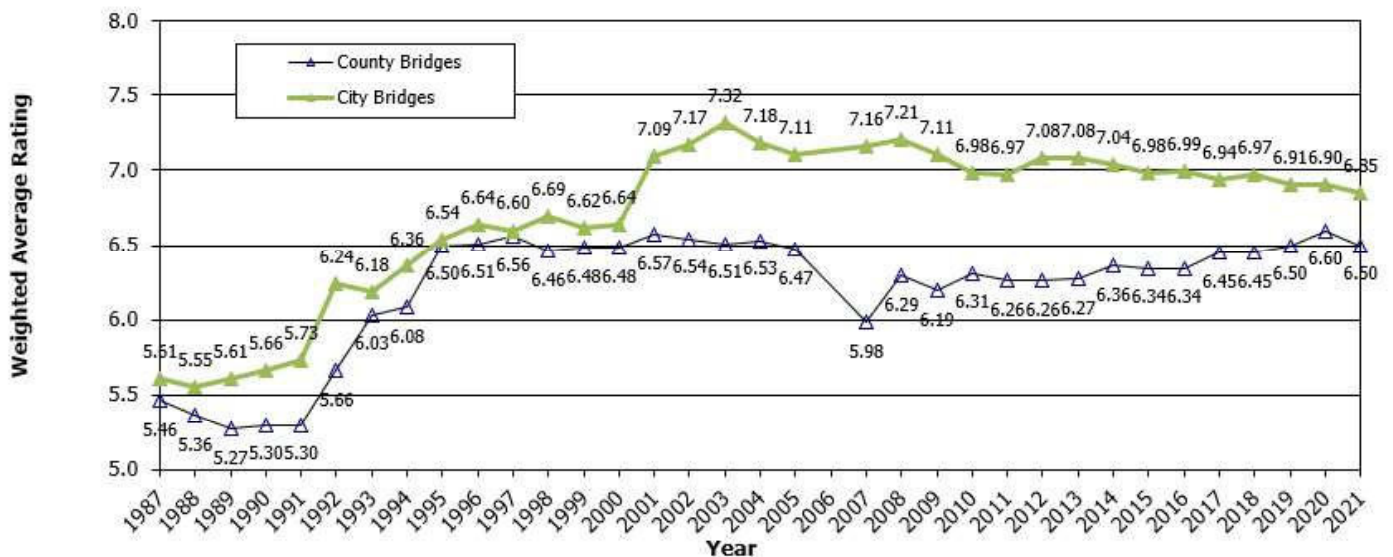
Explanation of changes in bridge inventory numbers:

CITY Skywalk: Removal of the Elm Street Convention Way Pedestrian overpass (SFN 3199993)

City Other Bridges: Addition of the Boardwalk over Lick Run W of Quebec (SFN 3191017)
 Addition of the Pedestrian Truss over Lick Run (SFN 3190104)

Private Bridges: Removal of the Sixth Street Pedestrian Overhead at Rusconi Place (SFN 3199979)

Weighted Average Bridge Ratings



PROJECT STATUS OF BRIDGES RATED IN POOR OR WORSE CONDITION

Condition Rating = 2 (Critical)

There are four bridges with a condition rating of 2 or “critical”. One is owned by the City and three are owned by others.

The first is the *Wasson Way over Wooster Road* bridge for which the stringers have advanced deterioration affecting the load path. While the bridge is unsafe to carry live loads, it poses no danger to traffic below, provided it is not loaded. The bridge is currently 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 since 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 and stringers, which are rusted completely through in many places, is controlling the rating. A special close-up investigation for the most concerning members of this bridge was performed in September 2021 by DOTE and the results have been brought to the attention of CSX.

The fourth bridge rated in critical condition is the CSX overpass over 5th Street west of Linn Street. Multiple sheared off bolts and several fatigue cracks in some of the steel beams caused the City to close one lane of 5th Street below the bridge. In the meantime, CSX has made repairs to the affected members and the roadway has now been reopened to all traffic. The rating for this bridge will be updated following the 2022 inspection.

Condition Rating = 3 (Serious)

Twelve (12) bridges have a condition rating of 3. Ten (10) of these bridges are owned and maintained by railroads and

two (2) by private owners. The condition of these bridges have been called to the attention of their respective owners.



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

Below: perforated stringer on the same bridge



Condition Rating = 4 (Poor)

Eighteen bridges have a condition rating of 4, which are the responsibility of various owners, including the City.

Eight are owned and maintained by railroads and four by private owners. The conditions of these bridges have been called to the attention of their respective owners.

Three of these bridges are part of the skywalk system. The first 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 and is scheduled to be removed in the near future by the Port as part of the redevelopment of the property to the south of the bridge. The other two skywalk bridges are the *Sixth Street Pedestrian Overhead East of Plum Street*, and the adjacent *Plum Street Pedestrian Overhead North of 6th Street*, which are owned and maintained by the Port of Cincinnati. Both bridges are currently being repaired and the most concerning issues are being addressed. It is expected that the condition rating for these bridges will be significantly improved after the completion of the ongoing repairs.

The remaining three bridges rated in poor condition are maintained by DOTE: one Wasson Way bridge, one County bridge and one City (BP) bridge, 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 24](#) 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 has continued this work, most

recently conducting public involvement activities, culminating in the decision to replace the bridge. A combination of State and Federal grants with local matching funds totalling \$6M has been secured, and a City directed consultant has been hired to develop the construction plans. Construction is anticipated to begin in 2024.



Removal of delaminated concrete from the Brighton Street Bridge over Central Parkway.

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 1,350,000 square feet and has an estimated replacement value of \$750,000,000. The current 2022 Operating and Capital funding levels for City (BP) bridges are \$70,000 and \$717,000 respectively. The funding for 2023 is expected to be \$60,000 and \$703,000, 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 29 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 | Bums 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 1 ★ | \$2,974,387 | 80% | | | 20% | \$2,379,510 | \$594,877 |
| 2011 | Waldvogel Real Estate Reimbursement 2 ★ | \$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 3 ★ | \$634,261 | 80% | | | 20% | \$507,409 | \$126,852 |
| 2021 | Brighton Approach Bridge Replacement | \$6,000,000 | 33% | | 47% | 20% | \$4,800,000 | \$1,200,000 |
| 2021 | Park Avenue Bridge Rehabilitation - Phase 1 | \$5,000,000 | | 80% | | 20% | \$4,000,000 | \$1,000,000 |
| Total Costs | | \$75,674,649 | | | | | \$65,139,187 | \$10,535,462 |

★ Bridges moved from the City Inventory to ODOT Inventory \$57,696,988 ★ \$51,969,119 \$5,727,869 ★
 Bridges remaining in the City Inventory \$17,977,661 \$13,170,068 \$4,807,593

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

2021/2022 BRIDGE PROJECT SUMMARY

The following summarizes major activities on City (BP), County, and Wasson Way bridges that occurred in 2021 or will occur in 2022. Except as noted, DOTE staff performed plan development and construction management for these bridge projects.

2021/2022 CITY (BP) BRIDGE PROJECTS

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 Road. to address deterioration and 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 with the new gateway feature was in December 2020, and the finishing touches were applied to both bridges in spring 2021.

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

A city directed consultant performed 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 to the transit center and provided recommendations for further investigations and repairs. Post tensioning systems are critical to structures but cannot be inspected with typical non-destructive methods. ODOT’s nearby bridges of a similar type and built around the same time period as part of the Fort Washington Way reconstruction project were recently investigated and found to be in need of repair. The investigation of the Second Street bridges was funded with City bridge program capital funds at a cost of approximately \$450,000. Field investigations were performed in fall 2021, followed by lab testing and issuance of the report in summer 2022.

2022 Central Incinerator Approach (Mill Creek Road) Bridge - Fracture Critical Bridge Inspection (City (BP) Bridge in South Cumminsville)

This project consists of performing the federally required 24-month-interval “arm’s reach” inspection of all fracture critical

members of the Central Incinerator Approach (Millcreek Road) Bridge over the Mill Creek. The inspection was performed by a City directed consultant in May 2022 and is being funded with City bridge program capital funds.

2022 City (BP) Bridge Underwater Inspections This project consists of performing the federally mandated 60-month-interval underwater inspection of the Gest Street Bridge over the Mill Creek. The dive inspection was performed by a City directed consultant. The field work for this project is scheduled for April 2022 and is being funded with City bridge program capital funds.

Main Street bridge over FWW at 3rd Street – Approach slab jacking. (FWW bridge in CBD).

This project consists of correcting the vertical offset between the approach slab and adjacent pavement via an engineered foam/grout injection process. Plans for this project were developed by a City directed consultant. This project was completed in the spring of 2022 at a cost of approximately \$150,000 and was funded by a combination of City bridge program capital funds and streetcar funds.



Above: PT investigation at 2nd Street.

2021/2022 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 IORY – Bridge Replacement

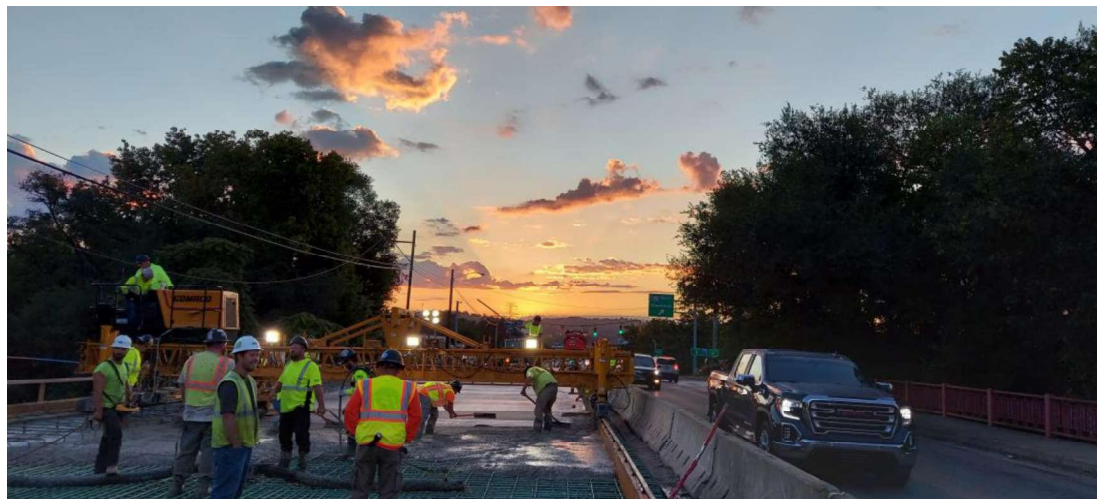
(County Bridge in Kennedy Heights)

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, with construction reaching final completion in May 2021. The project was funded with 100% Federal 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.



Left: Deck pour on the Galbraith Rd bridge over Anthony Wayne and RR

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 cost of \$65,000 was funded with County MRF bridge funds. No critical findings were discovered during the inspection.

2022 County Bridge Underwater Inspections bridge

This project consists of performing the federally mandated 60-months-interval underwater inspection of four County bridges: 8th Street Viaduct over the Mill Creek, Hopple Street Viaduct over the Mill Creek, Center Hill Avenue Bridge over the Mill Creek, and the Red Bank Road Culvert north of Madison Rd. The dive inspection was performed by a City directed consultant. Field work for this project was completed in April 2022 and was funded with County MRF bridge funds.

2021/2022 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-oh.gov/bikes/bike-projects/the-wasson-way-trail-network/> Outlined below are 2021/2022 projects that involve bridges along the Wasson Way corridor.

Wasson Way over Ault Park – Bridge Rehabilitation (Wasson Way Bridge in Mt Lookout). As part of phase 5 of the Wasson Way project, the 97-year-old former railroad bridge will be transformed into a trail bridge. The bridge was opened to trail traffic in December 2021, with painting and minor steel repair work 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.



Above: 2021 Pier cap reconstruction at the Wasson Way Bridge over Ault Park.

Wasson Way over Victory Park Way (RR bridge in Evanston). As part of phase 6 of the Wasson Way project, one of the two parallel abandoned 48-year-old railroad bridges will be transformed into a trail bridge. This bridge is not part of the original Wasson Way corridor that was purchased from Norfolk Southern in 2016, but is instead owned by SORTA and will be utilized by the Wasson Way trail by agreement. Plans for the bridge rehabilitation are currently being developed by DOTE staff. Construction is estimated to begin in late 2023.



Above: abandoned RR bridge over Victory Parkway

WESTERN HILLS VIADUCT REPLACEMENT

(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 \$398 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
2022 through 2027

| 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 | | | |
| \$1,316,000 | \$717,000 | 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 | \$50,000 | \$50,000 | 100% | \$0 | 0% | N/A | | |
| | | | Bridge Inspection - Contract (Fracture Critical) | \$19,500 | \$19,500 | 100% | \$0 | 0% | N/A | | |
| | | | Bridge Inspection - Contract (Underwater) | \$3,250 | \$3,250 | 100% | \$0 | 0% | N/A | | |
| | | | Second Street East Approach Design | \$80,000 | \$80,000 | 100% | \$0 | 0% | N/A | | |
| | | | Second Street East Approach Deck Sealing | \$170,000 | \$170,000 | 100% | \$0 | 0% | N/A | | |
| | | | Park Avenue Bridge Rehabilitation Ph. 1 - Design | \$75,000 | \$75,000 | 100% | \$0 | 0% | N/A | | |
| | | | Brighton Approach Bridge Detailed Design | \$532,000 | \$532,000 | 100% | \$0 | 0% | N/A | | |
| | | | Totals | | \$1,379,750 | | | | | \$723,250 | |
| \$723,250 | \$703,000 | 2023 | | | | | | | | | |
| | \$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 | \$50,000 | \$50,000 | 100% | \$0 | 0% | N/A | | |
| | | | Brighton Approach Bridge Replacement (Construction) | \$5,000,000 | \$0 | 0% | \$5,000,000 | 100% | Yes ⁷ | | |
| | | | Brighton Approach Bridge Replacement (Constr. Mgmt.) | \$350,000 | \$350,000 | 100% | \$0 | 0% | N/A | | |
| | | | Park Avenue Bridge Rehabilitation Ph. 1 - Design | \$200,000 | \$200,000 | 100% | \$0 | 0% | N/A | | |
| | | | Totals | | \$1,050,000 | | | | | \$446,250 | |
| \$446,250 | \$765,000 | 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 | | |
| | | | Park Avenue Bridge Rehabilitation Ph. 1 - Design | \$75,000 | \$75,000 | 100% | \$0 | 0% | N/A | | |
| | | | Bridge Inspection - Contract (Fracture Critical) | \$25,000 | \$25,000 | 100% | \$0 | 0% | N/A | | |
| | | | Totals | | \$600,000 | | | | | \$671,250 | |
| \$671,250 | \$770,000 | 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 | \$50,000 | \$50,000 | 100% | \$0 | 0% | N/A | | |
| | | | Park Avenue Bridge Rehabilitation - Ph. 1 - Construction | \$5,000,000 | \$630,000 | 34% | \$3,300,000 | 66% | Partial ⁶ | \$ 870,000.00 | |
| | | | Park Avenue Bridge Rehabilitation - Ph. 1 - Constr. Mgmt | \$350,000 | \$350,000 | 100% | \$0 | 0% | N/A | | |
| | | | Totals | | \$1,480,000 | | | | | \$21,250 | |
| \$21,250 | \$753,000 | 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 | | |
| | | | Central Incinerator Approach Bridge Repairs & Painting | \$250,000 | \$250,000 | 100% | \$0 | 0% | No | | |
| | | | Elmhurst Pedestrian Bridge ⁵ | \$1,700,000 | \$0 | 0% | \$1,700,000 | 100% | No | \$1,700,000 | |
| | | | Totals | | \$775,000 | | | | | \$59,250 | |
| \$59,250 | \$757,000 | 2027 | | | | | | | | | |
| | \$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 | | |
| | | | Bridge Inspection - Contract (Underwater) | \$20,000 | \$20,000 | 100% | \$0 | 0% | N/A | | |
| | | | Monastery Street Bridge Rehabilitation ⁵ | \$1,000,000 | \$200,000 | 20% | \$800,000 | 80% | No | \$800,000 | |
| | | | 2nd Street Bridge PT Tendon Repairs ⁵ | \$880,000 | \$176,000 | 20% | \$704,000 | 80% | No | | |
| | | | Totals | | \$871,000 | | | | | \$5,250 | |
| | | | | | | Total | | | | \$ 3,370,000.00 | |

- 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, require isolated or specific repairs on a bridge that is otherwise not in poor condition, or are 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 funds can be allocated to the City Bridge Program.
- 6 STP funding secured through OKI.
- 7 Outside funding is a combination of Federal Municipal Bridge Program funds, OPWC SCIP funds, and City Capital Budget line item funds.

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
2022 through 2027

| 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 | | |
| \$240,000 | \$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 | |
| | | Western Hills Viaduct - R/W Acquisition East Approach | \$3,125,000 | \$ 125,000 | 4% | \$ 3,000,000 | 96% | Yes ⁵ | |
| | | Western Hills Viaduct - R/W Acquisition West Approach | \$1,650,000 | \$ 330,000 | 20% | \$ 1,320,000 | 80% | Yes ⁵ | |
| | | Total Expenses | | \$ 1,080,000 | | | | | \$160,000 |
| \$160,000 | \$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 - R/W Acquisition East Approach | \$3,125,000 | \$ 125,000 | 4% | \$ 3,000,000 | 96% | Yes ⁵ | |
| | | Western Hills Viaduct - South Trough Removal Pilot Project | \$100,000 | \$ 100,000 | 100% | \$ - | 0% | N/A | |
| | | Total Expenses | | \$ 950,000 | | | | | \$210,000 |
| \$210,000 | \$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 - Fracture Critical Inspection | \$75,000 | \$ 75,000 | 100% | \$ - | 0% | N/A | |
| | | Western Hills Viaduct Maintenance | \$100,000 | \$ 50,000 | 50% | \$ 50,000 | 50% | N/A | |
| | | Total Expenses | | \$ 875,000 | | | | | \$335,000 |
| \$335,000 | \$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 | \$ 250,000 | 100% | \$ - | 0% | No | |
| | | Anthony Wayne over Mill Creek - Painting | \$200,000 | \$ 200,000 | 100% | \$ - | 0% | N/A | |
| | | Western Hills Viaduct Maintenance | \$100,000 | \$ 50,000 | 50% | \$ 50,000 | 50% | N/A | |
| | | Total Expenses | | \$ 975,000 | | | | | \$360,000 |
| \$360,000 | \$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 | |
| | | Western Hills Viaduct - Fracture Critical Inspection | \$75,000 | \$ 75,000 | 100% | \$ - | 0% | N/A | |
| | | North Bend Road over Kirby - Deck Replacement | \$1,500,000 | \$ 750,000 | 50% | \$ 750,000 | 50% | No | \$ 750,000.00 |
| | | Western Hills Viaduct Maintenance | \$100,000 | \$ 50,000 | 50% | \$ 50,000 | 50% | N/A | |
| | | Total Expenses | | \$ 1,275,000 | | | | | \$85,000 |
| \$85,000 | \$1,000,000 | 2027 | | | | | | | |
| | | 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 | |
| | | Western Hills Viaduct Maintenance | \$100,000 | \$ 50,000 | 50% | \$ 50,000 | 50% | N/A | |
| | | Total Expenses | | \$ 525,000 | | | | | \$560,000 |
| Total | | | | | | | | | \$ 750,000.00 |

- 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 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 \$398 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 8 - Very Good | No problems noted: no section loss, general deterioration. | Make brief comments as necessary. Communicate the predominant deficiency. |
| | 7 - Good | Some minor problems (ex. extent of concrete deterioration is up to 1% spalling or up to 5% saturation) | |
| 2-FAIR | 6 - Satisfactory | Structural elements show some minor deterioration (ex. extent of concrete deterioration is up to 5% spalling or up to 10% saturation) | |
| | 5 -Fair | Structural elements show deterioration but are sound (ex. extent of concrete deterioration is up to 10% spalling or up to 20% saturation) | |
| 3-POOR | 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. | 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 |
| | 3 - Serious | 4-Poor. . . <u>And</u> local failures possible. | Above. . . <u>And</u> discuss the deficiency immediately with Control Authority. |
| 4-CRITICAL | 2 - Critical | 3-Serious. . . <u>And</u> Unless closely monitored it may be necessary to close the bridge until corrective action is taken. | Above. . . <u>And</u> the bridge is a candidate to dispatch road closure and/or immediate repairs and/or increased monitoring (Interim Inspections). Confirm in writing, <u>critical finding</u> . |
| | 1 -Imminent Failure | 2-Critical. . . <u>And</u> 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. . . <u>And</u> 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. . . <u>And</u> 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 | flr. | 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 | pvmt. | 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

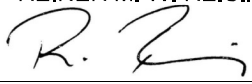
SFN: 3160270

Aaron Raines Ln (former Burns Street Ramp)

Date Inspected: 06/24/2021

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 (both sides). | 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; vegetation growing in longitudinal jnt. | 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 esp. @ bottom of flanges. | 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: Abutment walls incorporate flood gate receptacles.

Summary Rating: 7

Bridge Inspection Report | Routine Inspection

SFN: 3160270


Aaron Raines Ln (former Burns Street Ramp)

Date Inspected: 06/24/2021

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

C57. Utilities: Conduits for street lights. 1 9

Utilities On Structure: N N N N N N N

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 7 A

Inspection Notes: Sidewalk separating from Curb @ approaches allowing plants to grow.
2020 element level data on file.

Recommended Maintenance:

Assigned to:

1. Remove vegetation from joints between curbs & sidewalk on approach ramp.

TROD

Bridge Inspection Report | Routine Inspection

SFN: 3160068

Beekman Street Pedestrian Overhead at Elmore

Date Inspected: 03/17/2021

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

Signature: 

Bridge No.: CITY (BP) #02

QA/QC Inspector: BRANDON M. LECRONE, P.E.

Signature: 

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 4 Rating 9 to 0

C7.1. Floor: Includes bot. of main bridge and approach ramps: 1 7
Main span: 2 minor trans. cracks w little efflor. Pattern of double diagonal lines w rusting/staining throughout the main span; spalls @ E & W end skirt plates.
Ramps: Steel standoffs visible throughout as small corrosion spots; transverse cracks w efflor.typical; delam. And spall with exp. corroding rebar under ramp @ E (lower portion of E ramp).

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: Includes top of main bridge and approach ramps:
Main bridge: Small (+/- 4 sqin) spall and small delaminated area @ E end of main span.
Ramps: trans. cracks (full height) in ramps; some popouts; cracking w heavy built-up of efflor. @ E ramp (lower portion); widespread large delams @ E lower ramp (65 SF+ 35 SF + 10 SF + 20 SF).

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 @ fascia webs and surface corrosion at vert. face of BF (fascia side); minor scrapes @ E(impact); no significant LOS. 1 8

C16. Diaphragms/X-Frames: Surface corrosion; 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: 6
Spot rust @ fascias, 20% of vertical face of BF estimated to be corroding; widespread fading of top coat: Estimated that 20% of intermediate coat (blueish) and 10% of base coat (red) are visible.
Paint appears to have been scraped off over NB lane - possibly by impact. Steel end plates (skirt plates) painted (2001).

Bridge Inspection Report | Routine Inspection

SFN: 3160068

Beekman Street Pedestrian Overhead at Elmore

Date Inspected: 03/17/2021

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

Signature:  _____

Bridge No.: CITY (BP) #02

QA/QC Inspector: BRANDON M. LECRONE, P.E.

Signature:  _____

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

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

N60. Substructure Summary: Summary Rating: 7

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: General Appraisal / Operational Status: 7 A

Inspection Notes: Forwarded issues about sidewalk sign on Beekman to Traffic Engineering following 2021 inspection.

General Notes: Vandal protective fencing added in 1973 (plan sheets 22-27-22).

Recommended Maintenance:

Assigned to:

- | | |
|---|------|
| 1. Consider sealing deck and ramps, or apply membrane. | TROD |
| 2. Determine repair strtegy for E ramp lower portion (wearing surface). | TROD |

Bridge Inspection Report | Routine Inspection

SFN: 3160556

Bramble Avenue Bridge over Little Duck Creek

Date Inspected: 03/17/2021

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

Signature: 

Bridge No.: CITY (BP) #03

QA/QC Inspector: BRANDON M. LECRONE, P.E.

Signature: 

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 in S lane, 1 spall w exp rebar @ S; larger delaminated area in S lane around patches (near center of bridge). | 2 | 6 |
| C9. Curbs/Sidewalks: | Small (random) hole in curb @ N; no cracking in walk; several small popouts in walk; spalling @ joint header @ SW. | 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. | 2 | 6 |

N58. Deck Summary: Summary Rating: 8

| | | | |
|----------------------------|---|---|---|
| C14. Alignment of Members: | | 1 | 8 |
| C15.1. Beams/Girders: | Minor staining (lichen at bot of fascia beams) and graffiti; wider gap between some beams but no evidence of leakage between beams. | 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 (W abutment seat has positive drainage away from backwall). | 1 | 7 |
| C39. Backwalls: | Widespread staining {green growth}; moisture. | 1 | 8 |
| C40. Wingwalls: | Existing (original 1931 bridge) bump-out wingwalls: moisture; isol cracking w efflor.; rust staining @ SW; unsound corner patch at NW. | 1 | 7 |
| C42. Scour: | Concrete channel lined under bridge, silt accumulation @ E. | 1 | 8 |

Bridge Inspection Report | Routine Inspection

SFN: 3160556

Bramble Avenue Bridge over Little Duck Creek

Date Inspected: 03/17/2021

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

Signature: 

Bridge No.: CITY (BP) #03

QA/QC Inspector: BRANDON M. LECRONE, P.E.

Signature: 

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 at E abutment (w/o) considerable flow restriction. | 1 | 8 |

N62. Channel Summary: **Summary Rating: 7**

- | | | | |
|---|---|---|---|
| C1. Pavement: | New {2019}; very minor cracking and minor pavement irregularities (honeycomb) at W. | 1 | 8 |
| C2. Approach Slabs: | Cracks perpendicular to backwall. | 1 | 7 |
| C4. Embankment: | | 1 | 8 |
| C5. Guardrail: | Wood blocks and posts are aging but intact. | 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**

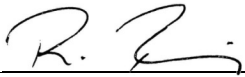
Bridge Inspection Report | *Routine Inspection*

SFN: 3160556

Bramble Avenue Bridge over Little Duck Creek

Date Inspected: 03/17/2021

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

Signature:  _____

Bridge No.: CITY (BP) #03

QA/QC Inspector: BRANDON M. LECRONE, P.E.

Signature:  _____

Recommended Maintenance:

1. Plan for expansion joint replacement.
2. Square off and patch S curb lane delaminated areas and previous patches; then seal deck.
3. Cut back vegetation from railings & 10' from each corner, completely remove tree at SE.

Assigned to:

Contract
TROD/ Contract
TROD

Bridge Inspection Report | Routine Inspection

SFN: 3101533

Brighton Approach Bridge over Central Parkway

Date Inspected: 10/27/2021

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 mostly trans. 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; several fence post caps missing. 1 7

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

C12. Drainage: Some inlets partially filled w leaves, sev. corr. of some downspout parts. 2 6

C13. Expansion Joints: Sig. corr. at joint header (laminating corr. w LOS to headers); widespread minor spalling of concrete around headers; joints apparently not leaking. 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: 10/27/2021

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 & slight sunken area. 2 6
Concrete @ S, ramp: few wider cracks, three small areas of crushing & adjacent delams in gutter at construction joints.

C2. Approach Slabs: 1 7

C5. Guardrail: NW only. 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 removed in October 2021 prior to public involvement meeting.
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. Chip loose concrete over sidewalks and traffic lanes. | TROD |
| 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 |

Bridge Inspection Report | Routine Inspection

SFN: 3103455

Celestial Street Pedestrian Bridge over Columbia Parkway

Date Inspected: 10/01/2021

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; construction joints visible; 2019 2 spalls in 2nd span from N over W bound lanes (2sqft x 4" deep) | 2 | 6 |
| C9. Curbs/Sidewalks: | Former cracks & spalls patched prior to membrane application; foot prints, but no cracks in membrane. | 1 | 8 |
| C11. Railing: | VPF (2005); welds attaching handrail to brackets corr; cheeseplates rusting heavily, non stainless bolts @ cheese plates very corroded; railing post over centre span @ W corroding @ base; several zip ties on various rail members esp over center span; scrapes @ gates (from banners?) damaging paint; vert. railing curb cracks mostly near baseplates, see edge of floor. | 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: | Former slab cracks (negative moment region) covered w membrane (see items 7.1 floor & 7.2 Edge of Floor) Rating still considers the cracking. | 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); flex. (ladder) cracks @ S side of S pier; spall @ SE edge of S pier cap; HL cracking elsewhere; spall @ E side of N most pier. (N support on Wall without backfill, hence considered pier, not abutment); 2 isol. delam areas detected by sounding. | 1 | 7 |
|------------------|---|---|---|

N60. Substructure Summary: Summary Rating: 7

Bridge Inspection Report | Routine Inspection

SFN: 3103455

Celestial Street Pedestrian Bridge over Columbia Parkway

Date Inspected: 10/01/2021

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, posted in span 2 from N. 1 8

65. Vertical Clearance: Vert. Clearance Rating: 1

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

Inspection Notes: 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.
Deck membrane applied 2020.

General Notes: HAM-50-2217

Recommended Maintenance:

1. Reseal fence post @ bottom sleeve.
2. Plan for close up inspection of underside of slab (cracking).
3. Consider replacing bolts in cheeseplates where corroding.

Assigned to:

TROD
Owner
Contract

Bridge Inspection Report | Routine Inspection

SFN: 3160610

Central Incinerator Approach Bridge over Mill Creek

Date Inspected: 08/19/2021

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

Signature: 

Bridge No.: CITY (BP) #06

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

Signature: 

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: | Main Span: Trans. Cracks, few with efflor.; rust staining mainly in outer bays; several delams and some w exp rebar. Approach spans in better condition. | 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, moss growing in wider crack at S, 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): | 1 | | |
| C12. Drainage: | All inlets open; 1 scupper @ S missing extension pipe. | 1 | 8 |
| C13. Expansion Joints: | Compression seals with deformed glands: Debris in the joints, apparently leaks at all joints; sev. Corrosion to the joint armor and cover plates; some spalling around headers. | 2 | 6 |

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 span, BF). | 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, & delams; spalling w exp rebar @ E most FB, all 3 other ones much better. | 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 |

Bridge Inspection Report | Routine Inspection

SFN: 3160610

Central Incinerator Approach Bridge over Mill Creek

Date Inspected: 08/19/2021

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

Signature: 

Bridge No.: CITY (BP) #06

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

Signature: 

| | | |
|--|---------------|---|
| 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 weather mode with many anchor bolts leaning; anchor bolts cut under end diaphragms. | 2 | 5 |
| C30. Protective Coating System (PCS): System: OZEU Year: 2003 6-15% surface area failed; candidate for zone painting; non matching paint @ S railing(modified for trail). | PCS Rating: 6 | |
| 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; staining. | 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 rust staining and larger unsound patch @ W(really a brace between two pier columns hence not considered for rating). | 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 @ E. | 1 | 7 |
| C40. Wingwalls: | 1 | 8 |
| C42. Scour: Rip-rap is around the pier | 1 | 8 |

Scour Inspection Type 1

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 |


Bridge Inspection Report | Routine Inspection

SFN: 3160610

Central Incinerator Approach Bridge over Mill Creek


Date Inspected: 08/19/2021

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

Signature: 

Bridge No.: CITY (BP) #06

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

Signature: 

C53. Hydraulic Opening: 1 9

N62. Channel Summary: Banks overgrown 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

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

C57. Utilities: Supported fiber conduit cracked through at W coupler and severely corroding under joints.

Utilities On Structure: N N N N N N Y

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.
Unable to access piers d/t high water in 2021.
New homeless encampment at E abutment in 2021.

Recommended Maintenance:

1. Consider bearing replacement @ W approach.
2. Consider curb patching.
3. Repalce exp. joints at W end of truss.
4. Cut veg. from railings, sidewalks and 10 ft from around WWs.
5. Clean painted surfaces (pressure wash with low pressure and pure water).

Assigned to:

Contract
TROD
Owner
TROD
TROD

Bridge Inspection Report | Routine Inspection

SFN: 3199937

Central Parkway over Rapid Transit Tubes - Walnut to Draper

Date Inspected: 12/10/2021

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

Signature: 

Bridge No.: CITY (BP) #07

QA/QC Inspector: BRANDON M. LECRONE, P.E.

Signature: 

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:** Typical slightly vaulted ceiling in the main tunnel, and ceiling slabs in the stations. Deterioration mostly limited to construction joints (typically spaced @ 30ft); Widespread seepage, efflor., stalactites, spalls & some exp. reinf. are typical at joints; large portions of the tunnels have been repaired with gunnite; currently the worst conditions can be found at Mohawk and Brighton Stations with several large spalls exposing up to 12 adjacent bars, some with LOS. One bay at the E end of the Race St Station has cracking and build-up of efflor. (E most bay with beams). Single long. Bar exposed (low cover) over +/- 20 ft East of Brighton Station. 2 5
- C8. Wearing Surface:** Wearing surface on fill; portion S of WHV replaced 2010; cracking at several locations; 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.); sig built-up of efflor around slab portion of vent shafts in Race Street station with stalagmites forming below. During 2021 inspection two floordrains were not functioning causing water to accumulate in the E tube (E of Brighton STA 116 & STA 104 (water at 104 almost overtops median wall); build-up of debris and mudd at floor drains. 2 5
- C13. Expansion Joints:** Only at ends of Race Street Station platform. Covered by fill and not visible from top. 2 5

N58. Deck Summary: Summary Rating: 5

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Only present at ends of Race Street station: Isol. Spalling mostly due to low cover of stirrups; worst condition E of Race station with a few beams w damaged exposed bars, worst beam with 4 exp. Bars. 2 6

C15.2. Slab: Non vaulted ceiling portion in stations only (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 6

N59. Superstructure Summary: Redundant, not fatigue prone. Summary Rating: 6

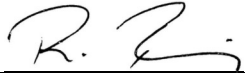
Bridge Inspection Report | Routine Inspection

SFN: 3199937

Central Parkway over Rapid Transit Tubes - Walnut to Draper

Date Inspected: 12/10/2021

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

Signature: 

Bridge No.: CITY (BP) #07

QA/QC Inspector: BRANDON M. LECRONE, P.E.

Signature: 

| | | | |
|----------------------|---|---|---|
| C33. Abutment Walls: | (Full length of tunnel other than stations): Areas of isol conc. deter. and exposed rebar - especially @ constr. Jts. And refuge niches; seepage (often with mineral build-up) @ construction joints. | 2 | 6 |
| C36. Pier Walls: | (In center of typical tunnel sections, not stations): Seepage @ constr. jts.; cracking, relatively widespread delaminations and spalls with exposed rebar at corners, (low rebar cover); worst condition between Brighton Station and N portal where several walls have large size delaminations. | 2 | 6 |
| C37. Pier Caps: | (In stations connecting pier column tops): Several locations with seepage, spalls and exposed bars at construction joints. (2 locations at Mohawk with 5 exposed bars, 3 exposed bars at N end of Liberty station on E side; multiple locations with exposed bars at Brighton). | 2 | 5 |
| C38. Pier Columns: | (Columns in the stations only): Typically in good condition; but LOS to 2 columns 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. | 1 | 7 |

N60. Substructure 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: Watermain leaking (2021) at WW STA 106.
Generally moist from condensation S of Liberty where vent area is smaller, much dryer N of there.
2021: Brighton station door plated due to vandalism. Race Street door not lockable due to vandalism (WW to repair).
Openings in W wall N of WHV being closed by TROD.
2021 City surveyors joint inspection to map Brighton Station for bridge rehab.

Recommended Maintenance:

Assigned to:

- | | |
|---|----------|
| 1. Repair leaking pipe at STA 106 | GCWW |
| 2. Remove trash and construction material out of the tunnels. | GCWW |
| 3. Possible repair list near Brighton in concert with Bridge rehab. | Contract |
| 4. Secure tunnel entrance doors. | GCWW |

Bridge Inspection Report | Routine Inspection

SFN: 3199924

Central Parkway over Rapid Transit Tubes South of Hopple Street

Date Inspected: 10/19/2021

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

Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: CITY (BP) #08

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 gunnite; some exp. reinf.; rust stains; few minor stalactites forming; minor leakage @ some locations. 1 wider {+/- 0.10"} and deeper crack all around the tunnel (through floor, deck, pier and abutments at +/- 75' from the S end of the W tunnel, other cracks developing into similar global cracks. 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; no stading water in 2021. Rating based on 2019 observations. 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; del. areas @ corners; typically w 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; trans. cracks, most likely not tunnel related. 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: ODOT fence along interstate starting to overgrow; fence hit in 1 location Summary Rating: 8

Bridge Inspection Report | Routine Inspection

SFN: 3199924

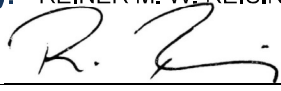
Central Parkway over Rapid Transit Tubes South of Hopple Street

Date Inspected: 10/19/2021

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

Summary Rating / Operational Status 5 A

Signature: _____



Bridge No.: CITY (BP) #08

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; active campsites w lots of garbage in 2021.
Fire department called in 11-2021 when campers constructed fireplace inside the tunnel causing
excessive smoke (possible carbon monoxide issue) inside the tunnels.

Recommended Maintenance:

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

Assigned to:

Owner
Owner

Bridge Inspection Report | Routine Inspection

SFN: 3199928

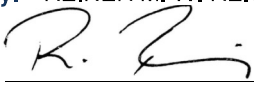
Coliseum Pedestrian Bridge from Taylor Southgate Bridge

Date Inspected: 06/08/2021

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; build-up efflor under crack at NW. | 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: | Reg spaced horizontal 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. And rust staining @ E (3 SF); (4) shallow spalls with exposed rebar from low cover near bot of W pier). | 2 | 6 |

N60. Substructure Summary: Summary Rating: 6

Bridge Inspection Report | Routine Inspection

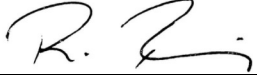
SFN: 3199928

Coliseum Pedestrian Bridge from Taylor Southgate Bridge

Date Inspected: 06/08/2021

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; separated conduit with exposed wires. 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: 6 A

Inspection Notes: Some canopy welds rusting with possible corrosion hole at NW.

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

Recommended Maintenance:

Assigned to:

- | | |
|--|---------|
| 1. Repair membrane and underlying stairs as necessary. | Owner |
| 2. Clean base of handrail + canopy columns + extend membrane to bottom of columns (after cleaning column bases). | Owner |
| 3. Clean debris, salt, etc. on steps, pressure wash. | TROD |
| 4. Repair broken conduits, replace pull-box covers. | Traffic |
| 5. Consider painting steel members (canopy & handrails) | Owner |

Bridge Inspection Report | Routine Inspection


SFN: 3101355

Coliseum Ped Bridge over Taylor Southgate Bridge

Date Inspected: 10/14/2021

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 HL 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); hand size area of missing membrane over E main pier. 1 8
- C11. Railing:** Precast railing (1993); sealed (2005); rust on new weld conn. plates @ SE; mostly 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; minor ponding @ SW. 1 8
- 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 isol. leakage over piers w corr. of diaphragms & bearings (sig leakage @ NE), mostly @ fascia; new 2021 rating guidelines. 2 5

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; diaphragm in N most bay, 5 from E not bolted @ N fascia beam. 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

Bridge Inspection Report | Routine Inspection

SFN: 3101355

Coliseum Ped Bridge over Taylor Southgate Bridge

Date Inspected: 10/14/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #10

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 assumed condition of concrete-encased steel pier @ W); anchor bolt w cut off copper wire @ N end of W pier cap. Summary Rating: 7

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. Light fixtures on top (Plaza) to be replaced in near future.

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.

Assigned to:

Contract
TROD

Bridge Inspection Report | Routine Inspection

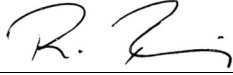
SFN: 3101940

Coliseum/Stadium Plaza Overhead over Broadway (Platform A)

Date Inspected: 10/22/2021

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 4Rating
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. @ S end; 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); inlets w little clogging, 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); 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
Spot painting (2005); isol. peeling of top coat; failure under jnts.

PCS Rating: 7

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

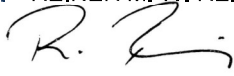
Coliseum/Stadium Plaza Overhead over Broadway (Platform A)

Date Inspected: 10/22/2021

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 @ S most column}

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

C57. Utilities: Several lights on plaza deteriorating; some lights @ W pier caps not working.

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: 6 A

Inspection Notes: Piers of Coliseum (Heritage 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:

Assigned to:

- | | |
|--|--------|
| 1. Repair bird netting as necessary between w pier & GABP. | Owner |
| 2. Repair leaking jnts throughout. | County |
| 3. Reset jt. plates where shifted or loose. (Shift @ N plate 3.5" toward GABP) | County |
| 4. Repair holes drilled in the Plaza @ Bleacher Entrance gates. | County |
| 5. Remove fallen concrete from bird netting @ SW. | TROD |
| 6. Repair 90 deg bend in compression seal @ ticket office Heritage Bank. | Owner |

Bridge Inspection Report | Routine Inspection

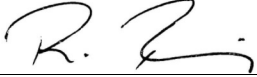
SFN: 3160017

Dalton Avenue Under C.U.T. Approach Drive

Date Inspected: 05/03/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #12

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. Delamination in 3rd span from N at E. | 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; 202 inspection with 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. Pigeon feces. | 1 | 8 |
| C17. Stringers: | Former corr repainted 2018; very isol minor pitting arrested by new paint 2018. Pigeon feces. | 1 | 7 |
| C18. Floor Beams: | Repainted 2018 | 1 | 8 |
| C30. Protective Coating System (PCS): | System: Year: 2018 Large areas spot painted 2018; isol. area's staining @ stringer ends from floor patching. | | PCS Rating: 8 |

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

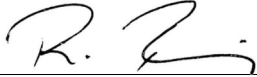
SFN: 3160017

Dalton Avenue Under C.U.T. Approach Drive

Date Inspected: 05/03/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #12

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. 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 2021 inspection.
Ex amounts of pigeons below the structure.
Walked the tunnel with Rodney Maggard from the Museum center following the 2021 inspection to talk about maintenance items.
Dalton Ave closed to traffic during the 2021 inspection due to street rehab work at W.

Recommended Maintenance:

- | Recommended Maintenance: | Assigned to: |
|--|--------------|
| 1. Replace missing or ineffectife pipe hangers | Owner |
| 2. Remove all loose conc. from floor {bay 3 from N @ E}. | Owner |
| 3. Remove all unused utility conduits, 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: 07/22/2021

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

Bridge No.: CITY (BP) #13

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

Signature:  _____

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: Many trans. HL cracks w minor efflor esp. over piers & mid span of main span (N ramp); rust stains from rebar standoffs; small delam (hand size) @ 3rd drain from E. | 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; single rust stain @ N fascia in main span. | 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; DS @ pier 2 from E not plum. | 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). | 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; bearings @ W pier of main span apparently shifted S by +/- 1". | 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; few areas not painted (E end of S main beam & 3rd DS support from E). | | |

Bridge Inspection Report | Routine Inspection

SFN: 3161455

Dana Avenue Pedestrian Bridge North of Madison Road

Date Inspected: 07/22/2021

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

Signature: 

Bridge No.: CITY (BP) #13

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

Signature: 

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

C39. Backwalls: Minor popouts @ E. 1 8

C40. Wingwalls: Minor popouts; minor vert. HL cracking. 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: Jnt. 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; approach slabs @ bridge ends undermined, some settled.

Recommended Maintenance:

1. Consider sealing deck or deck cracks or applying membrane.
2. Remove tree near playground (E of Dana).
3. Address undermining of E approach walk to prevent offset @ bridge ends.
4. Remove vegetation @ bottom of W ramp.
5. Remove tree @ W end against ramp.

Assigned to:

Contract
CRC
TROD
TROD
TROD

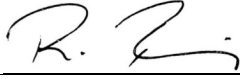
Bridge Inspection Report | *Routine Inspection*

SFN: 3161455

Dana Avenue Pedestrian Bridge North of Madison Road

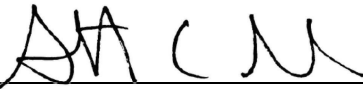
Date Inspected: 07/22/2021

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

Signature: 

Bridge No.: CITY (BP) #13

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

Signature: 

6. Caulk telescoping joint in VPF ramp @ NW & drill hole in base of fence post.

TROD

Bridge Inspection Report | Routine Inspection

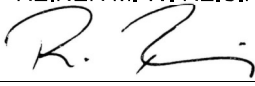
SFN: 3160432

Dreman Avenue Bridge over West Fork Channel

Date Inspected: 08/03/2021

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

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #14

Route: DREM 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 w minor efflor. @ some trans cracks. | 1 | 8 |
| C7.2. Edge of Floor: | HL cracks w efflor. @ S. | 1 | 8 |
| C8. Wearing Surface: | Isolated HL transverse & long. cracks; few popouts; no delams detected. | 1 | 8 |
| C9. Curbs/Sidewalks: | HL transverse and vertical curb cracks w minor efflor.; vegetation growing through joints of curbs & railings; popouts in walk. | 1 | 7 |
| C11. Railing: | HL 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. | 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 esp. @ NW. | | |

N59. Superstructure Summary: Summary Rating: 8

| | | | |
|----------------------|---|---|---|
| C33. Abutment Walls: | Isolated HL vertical cracks w minor 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

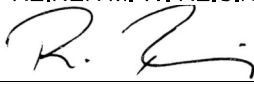
Dreman Avenue Bridge over West Fork Channel

Date Inspected: 08/03/2021

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 @ S. 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: Drone pictures taken 2021.

General Notes: Key 3206 opens channel chain at Powers.

Recommended Maintenance:

Assigned to:

- | | |
|---|------|
| 1. Clean vegetation joint between sidewalk & railing, & sidewalk & curb; seal joints w caulk. | TROD |
| 2. Cut vegetation from WW's 10' wide. | TROD |

Bridge Inspection Report | Routine Inspection

SFN: 3161945

Duck Creek Rd Extension over Deerfield Creek

Date Inspected: 12/03/2021

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): 1

C44. Culvert - General: Constructed from precast concrete arch segments: Multiple parallel long. HL cracks in center 1/3 of span of most units; few spalls (construction) most 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). 1 8

C53. Hydraulic Opening: Sediment/debris buildup on top of concrete slab invert in most of the culvert; conc. Bottom exposed in culvert just DS from pipe w water being knee deep @ low flow. 1 8

N62. Channel Summary: Stormwater outlet US of bridge does not seem to be adequately protected against erosion. Summary Rating: 8

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: 3161945

Duck Creek Rd Extension over Deerfield Creek

Date Inspected: 12/03/2021

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

Summary Rating / Operational Status 8 A

Signature:  _____

Bridge No.: CITY (BP) #15

65. Vertical Clearance:

Vert. Clearance Rating: N

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 8 A

Bridge Inspection Report | Routine Inspection

SFN: 3106179

Elm Street Cable Stayed Pedestrian Bridge over FWW - East Side

Date Inspected: 10/11/2021

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: Widespread trans. cracks w little efflor. & moisture; spalling @ NW corner (< 2 SF) crushing against vehicular bridge; ext. 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; full width 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; 3' x 8' conc. patch in walk @ S. | 1 | 7 |
| C11. Railing: Cracking conc. 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; 3rd FB from N w sev. corr. bolt @ mid point (utility related, not for overall structure). | 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: Only under tower: cracks w. built up efflor. @ 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: 10/11/2021

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

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #16

| | | | |
|-----------------------|---|---|---|
| C91. Deck Anchors: | Initial corr. at some FB connections (surface corrosion). | 1 | 8 |
| C92. Tower Anchors: | No issues detected. | 1 | 9 |
| C96. Cable Alignment: | As designed. | 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).

Recommended Maintenance:

1. Consider painting floor beams.
2. Repair lights as necessary.
3. Recualk around light fixtures in railing parapet.

Assigned to:

Contract
Traffic
Traffic

Bridge Inspection Report | Routine Inspection

SFN: 3106063

Elm Street Cable Stayed Pedestrian Bridge over FWW - West Side

Date Inspected: 10/11/2021

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 HL 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 {cold joint N of pier}; E fascia full length patch over const. joint & some vertical cracking w efflor.; material {caulk?} squeezing out between deck & beam; E edge of floor, N of pier is crushing against pier +/- 1'. | 1 | 8 |
| C9. Curbs/Sidewalks: | Sealed 2015; full width 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 minor pitting @ T-bracing attachment over pier; widespread staining on FB's; isol. rust cells @ webs. | 1 | 8 |
| C16. Diaphragms/X-Frames: | | 1 | 9 |
| C18. Floor Beams: | Widespread corr. - @ 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 Peeling @ cable term; missing topcoat on portions of cables; isol. rusting @ cant., esp. @ welds & @ T connections. | PCS Rating: | 7 |

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

- | | | | |
|----------------------|---|---|---|
| C33. Abutment Walls: | Concealed, assumed rating. | 1 | 8 |
| C37. Pier Caps: | Only under tower: cracking w built up 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: 10/11/2021

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

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #17

| | | | |
|-----------------------|--|---|---|
| C91. Deck Anchors: | Init. surface corrosion at floorbeam connection. | 1 | 8 |
| C92. Tower Anchors: | No issues detected. | 1 | 9 |
| C96. Cable Alignment: | As designed. | 1 | 9 |
| C97. Cable Condition: | Paint fading from main stays. | 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).
3. Replace light bulbs as necessary.

Assigned to:

Contract
Traffic
Traffic

Bridge Inspection Report | Routine Inspection

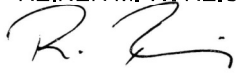
SFN: 3161978

Elm Street Over Pete Rose Way and Parking Lots

Date Inspected: 10/06/2021

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 minor 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 vert. cracking, widespread staining, efflor. and isol, spalling, moisture accum. between deck and topping slab. | 1 | 7 |
| C8. Wearing Surface: Ext HL 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) at least 3 perforations in gland daylighting through center jnt; curb cracked at joints; 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

C37. Pier Caps: Cracking, isol. efflor. similar to slab condition; crack & spall @ N end 2nd column from W; cap encapsulating trough @ Freedom Way disintegrating & map cracking. 1 7

C38. Pier Columns: Minor scrapes, stains, random cracks and isol. minor spalls; some exp. rebar; 1 column w 5 main bars exposed & corr. @ notch; 8" tall corner delam @ top of column between Pete Rose Way lanes. 1 8

Bridge Inspection Report | Routine Inspection

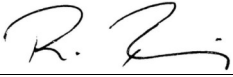
SFN: 3161978

Elm Street Over Pete Rose Way and Parking Lots

Date Inspected: 10/06/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #18

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

N60. Substructure Summary: Summary Rating: 8

C1. Pavement: S only: partially resurfaced in 2011; several wider map crackings S of approach slab; delams (unsound). 2 6

C2. Approach Slabs: S only: ext cracking/spalling in curb & unsound portions of sidewalk 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: 6

C57. Utilities: Pipes & boxes corroding; leaking conduit junction box under Freedom Way intersection; underside base plate of light post over Pete Rose Way(E side) sev. corroded; conc. street light posts disintegrating/cracking/spalling; conduit over both E & W side of sidewalk @ exp. joint S of Pete Rose Way crushed & corroding. 2 6

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: 2020 Element level inspection report on file.
1 tree @ W missing.

Recommended Maintenance:

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

Assigned to:

Contract
Contract

Bridge Inspection Report | Routine Inspection

SFN: 3162494

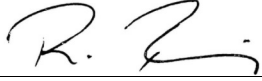
Elmhurst Street Pedestrian Bridge over Torrence Parkway

Date Inspected: 05/24/2021

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: Gunitite 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: Gunitite coated (1985) and patches(some irregular, many unsound); widespread ext. spalling with exp. rebar up to railing posts; widespread mapcracking in gunitite & build up of efflor. & stalactites, staining. | 3 | 3 |
| C9. Curbs/Sidewalks: Between railings cracking, & spalling (see edge of floor); many patches, several hollow sounding areas; 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; build up of lichen under trees. | 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 & unsound conc. in neg. moment region; ext. efflor; coating is chipping off or bulging @ various locs.; extensive seepage & stalactites; gunitite concealing most of superstructure; wide spread unsound areas (see edge of floor). | 2 | 5 |
| C26. Bearing Devices: Integral @ piers; elastomeric @ abuts., covered by gunitite. | 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 gunitite coating & efflor @ E; spalling of gunitite; rust stains & build up of excessive efflor @ W; completely ivy covered. | 2 | 6 |
| C36. Pier Walls: Gunitite coating conceals pier walls (1985); delam. @ gunitite coating; cracking w seepage @ corners; ext. efflor. build up, esp. @ corners; ivy growing on E pier. | 2 | 6 |
| C40. Wingwalls: Moss; gunitite-coated. | 1 | 7 |

N60. Substructure Summary: Substructure flashcoated w gunitite; 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

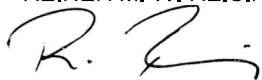
SFN: 3162494

Elmhurst Street Pedestrian Bridge over Torrence Parkway

Date Inspected: 05/24/2021

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.
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. | TROD |
| 2. Perform edge of floor test patch. | TROD |
| 3. Remove vegetation that touches bridge (cut back 3'). | TROD |
| 4. Discuss repair strategy in house. | Owner |
| 5. Clean/pressure wash lichen off handrail @ bridge ends. | TROD |

Bridge Inspection Report | Routine Inspection

SFN: 3160882

Erie Avenue Bridge over Duck Creek

Date Inspected: 06/14/2021

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: See item beams | 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 large spall @ NE +/- 3' x 1' | 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): 1 | | |
| 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} @ N & S; 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; moss/lichen on underside @ SW (2 beams). | 1 | 7 |
| C26. Bearing Devices: Not visible. | 1 | 8 |

N59. Superstructure Summary:

Summary Rating: 7

| | | |
|---|---|---|
| C33. Abutment Walls: Staining; graffiti; apparently sound patches; built-up of gunk in wheepholes; 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; mapcracking @ W; some patched areas; several spalls @ SE 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 |

Scour Inspection Type 1

N60. Substructure Summary:

Summary Rating: 7

Bridge Inspection Report | Routine Inspection

SFN: 3160882

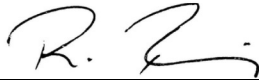
Erie Avenue Bridge over Duck Creek

Date Inspected: 06/14/2021

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

Summary Rating / Operational Status 7 A

Signature: _____



Bridge No.: CITY (BP) #20

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 & spacer blocks are disintegrating; 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

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 & top of backwalls.
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.
6. Patch top of backwall @ SE w fast setting conc.

Assigned to:

Private Utility
Contract
TROD
TROD
Owner
TROD

Bridge Inspection Report | Routine Inspection

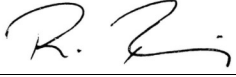
SFN: 3160602

Erie Avenue Bridge over Wasson Way

Date Inspected: 06/15/2021

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: | Remnants of 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 |
| C13. Expansion Joints: | Integral so no real joints, but leaking from joint to pavement at NW. | | |

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: 3 span structure under sidewalks, single span under roadway. 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; staining from joint leak @ NW noticable under 3 beams. | 1 | 8 |
| C40. Wingwalls: | Diagonal crack w efflor @ SW; graffiti; widespread hollow sounding masonry blocks. | 1 | 7 |

N60. Substructure Summary: Ivy overgrowing NE substructure Summary Rating: 6

| | | | |
|-----------------|---|---|---|
| C1. Pavement: | Wider transverse and longitudinal cracks esp @ W; widespread minor potholes forming @ interface of bridge deck, causing leakage @ NW. | 2 | 6 |
| C4. Embankment: | Overgrown; poison ivy. | 1 | 8 |
| C5. Guardrail: | Only at the NE. | 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: 06/15/2021

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

Inspection Notes: Wasson Way 4 work starting below (2021).

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 |
| 4. Remove vegetation (some poison ivy) from railing @ N & from between curb & sidewalk. | TROD |

Bridge Inspection Report | Routine Inspection

SFN: 3160998

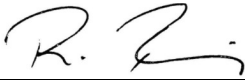
Erie Avenue Bridge over Red Bank Road

Date Inspected: 06/17/2021

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, often correlating to conc parapet jnts.; popouts exist; silane applied (1995); curb patches 2017; disintegrating @ NW. 1 7
- C11. Railing:** Minor vert. cracking; some efflor @ bot; initial 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:** Integral abutments without expansion joints; compression seal w some area's torn & sections pulled out @ E.

N58. Deck Summary:

Summary Rating: 6

- C14. Alignment of Members:** Minor sagging of beams in center span, esp 2 outside beams. 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; unfortunate choice of paint color matches corrosion.

N59. Superstructure Summary: Redundant; not fatigue prone.

Summary Rating: 7

Bridge Inspection Report | Routine Inspection

SFN: 3160998

Erie Avenue Bridge over Red Bank Road

Date Inspected: 06/17/2021

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

Summary Rating / Operational Status 7 A

Signature: _____



Bridge No.: CITY (BP) #22

| | | | |
|------------------------|---|---|---|
| C33. Abutment Walls: | Stubs; 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 |
| 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; new 2019 @ E. | 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, esp rectangular posts near bridge. | 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 |
|-----------------|--|---|---|

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.

Bridge Inspection Report | *Routine Inspection*


SFN: 3160998

Erie Avenue Bridge over Red Bank Road

Date Inspected: 06/17/2021

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

Summary Rating / Operational Status 7 A

Signature:  _____

Bridge No.: CITY (BP) #22

Recommended Maintenance:

1. Replace GR posts & blockouts.
2. Chip loose concrete over roadway.
3. Grind and repave relief joint @ W.
4. Resecure utility.
5. Consider sealing decks w HMMW.
6. Seal exp. jnts. w hot applied asphalt.
7. Repair curb @ NW.

Assigned to:

CSR
TROD
TROD
Owner
Contract
TROD
TROD

Bridge Inspection Report | Routine Inspection

SFN: 3160939

Erie Avenue Bridge over SORTA

Date Inspected: 06/17/2021

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. HL cracks; numerous delams, efflor & rust staining; widespread spalling of haunches. | 2 | 6 |
| C7.2. Edge of Floor: | Rust staining; rebar corrosion (shallow cover) at the S fascia; exp. 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; curb undermined @ N over track(10' long) w deep spall & rust staining. | 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 buckholes @ 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, esp under deck cracks; widespread minor pitting; beams integral with the abutments; active laminating corr. with initial LOS in the top flange causing haunch spalls; beams seperating from deck {non composite}; slight misalignment of some BF cover plates @ piers. | 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; A-typical staggering of some diaphragms. | 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, chalking, & loss of top coat; dark staining over tracks; laminating corr @ TF's; unfortunately, paint color matches rust. | | PCS Rating: 3 |
| C32. Fatigue Prone Details: | | 1 | 7 |

N59. Superstructure Summary:

Summary Rating: 7

Bridge Inspection Report | Routine Inspection

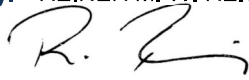
SFN: 3160939

Erie Avenue Bridge over SORTA

Date Inspected: 06/17/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #23

| | | | |
|------------------------|---|---|---|
| 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 |
| 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 aligator} with potholes forming, some patched; E worst, W in better condition. | 2 | 6 |
| C2. Approach Slabs: | LMC (2002);HL long. cracks. | 1 | 8 |
| C3. Relief Joints: | | 1 | 8 |
| 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. 2020 element level inspection on file.

Recommended Maintenance:

1. Consider sealing deck.
2. Repair curb @ N.(4 locations).
3. Remove vegetation from substructures & vines from slope protection.
4. Apply hot applied sealer @ exp. joints.
5. Seal trans deck cracks in wearing surface over tracks w hot applied sealer.

Assigned to:

Contract
TROD
TROD
TROD
TROD

Bridge Inspection Report | Routine Inspection

SFN: 3161412

Este Avenue Extension Culvert at Ridgewood Arsenal

Date Inspected: 04/20/2021

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 4Rating
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 (18 ribs long); 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 DS end and rust stains below these leaks; 2020 leaking @ bolts near DS headwall after rain; no leaking in 2021. | 1 | 8 |
| C48. Culvert - Head/End Walls: | | 1 | 8 |
| C49. Culvert - Scour: | Former scour @ US headwall repaired w hydraulic cement. | 1 | 8 |

Culvert Scour Inspection Type: 1

N60. Culvert Summary: Summary Rating: 7

| | | | |
|--------------------------|--|---|---|
| C51. Channel Alignment: | | 1 | 9 |
| C52. Channel Protection: | Dump rock US. | 1 | 8 |
| C53. Hydraulic Opening: | Concrete slab in channel DS; vegetation growing US & DS. | 1 | 8 |

N62. Channel Summary: Summary Rating: 8

| | | | |
|-----------------|---|---|---|
| C1. Pavement: | Single crack in center (chevron) lane, otherwise new overlay. | 1 | 8 |
| C4. Embankment: | Overgrown. | 1 | 8 |
| C5. Guardrail: | Slight dent @ N from impact. | 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*

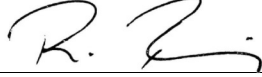
SFN: 3161412

Este Avenue Extension Culvert at Ridgewood Arsenal

Date Inspected: 04/20/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #24

65. Vertical Clearance:

Vert. Clearance Rating: N

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:

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

Assigned to:

Stormwater
Contract
TROD

Bridge Inspection Report | Routine Inspection

SFN: 3165337

Freedom Way Center Between Race & Rosa Parks

Date Inspected: 11/05/2021

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; isol. areas of HL map cracking. | 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, some new popouts developing; 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 & 1 @ N; 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; {drain pipes sound clogged} | 1 | 8 |
| C13. Expansion Joints: Debris filled (typical); corr. in the headers; W joint down spout connection apparently broken; N most long. joint just W of Race w joint material sagging over 25' w joint leaking, similar sag further to E but without leaking; gland no longer adhering to conc edge @ sidewalk level; vertical offset of N long. joint @ E end. Rating reflects condition for only for E and W joints. | 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); isol areas of HL mapcracking. | 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 | | |

Bridge Inspection Report | Routine Inspection


SFN: 3165337

Freedom Way Center Between Race & Rosa Parks

Date Inspected: 11/05/2021

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

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #25

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

C6. Approaches Summary:

Summary Rating: 8

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:

1. Discuss wearing surface repair.
2. Repair N joint leakage.

Assigned to:

Contract
Owner

Bridge Inspection Report | Routine Inspection

SFN: 3165396

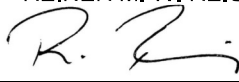
Freedom Way East over Parking Garage Between Walnut & Main

Date Inspected: 11/09/2021

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) large delams spalls & cracks 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 3/4" wide; settlement of pavers @ W 7/8" vertically; large areas of wearing surface covered w turf as part of DORA (2021). | 2 | 6 |
| C9. Curbs/Sidewalks: Cracking at the SW curb ramp; isol. minor cracking and curb edge spalls; areas of extensive soiling/grease on sidewalks & curbs from restaurant. | 1 | 8 |
| N36. National Safety Feature - Bridge Railing (0, 1 or N): N | | |
| C12. Drainage: 10 inlets, many partially clogged; mostly clogged some completely; curb inlets hold grease from restaurant runoff causing clogs. | 3 | 4 |
| 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; new joint gland @ W (2018); S long. private joint has leaking seam @ SW (Jefferson). | 2 | 5 |

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

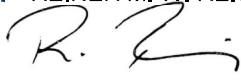
Freedom Way East over Parking Garage Between Walnut & Main

Date Inspected: 11/09/2021

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; utilities @ W end supported by some hangers that are drilled through trough, resulting in leakage and corr. 2 6

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; 2021 all vehicular traffic removed from bridge & DORA replaced.

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).
4. Clean inlet grates regularly & prevent grease runoff into street.
5. Seal long. joints in front of bldgs & repair joint armor.
6. Clean grease from sidewalks & curbs to prevent grease from entering bridge drains.
7. Repair utility connection @ W end where hangers compromise fixed trough.

Assigned to:

Contract
Contract
Owner
DORA
DORA
DORA
Owner

Bridge Inspection Report | Routine Inspection

SFN: 3165280

Freedom Way West over Parking Garage Between Elm & Race

Date Inspected: 10/06/2021

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 4 | Rating 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 @ bottom of wall where the structural slab meets the sidewalk; 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; handsized 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 esp. in N bay; small patched area in S bay. | 1 | 8 |
| C38. Pier Columns: Isolated minor issues; slight impact damage (small spalls) @ 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: 10/06/2021

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. 3 4

C57. Utilities: New 2017? open wires added to existing metal conduit; PVC conduits @ E exp jnts & @ center box seperated (they appear to be empty w no wires); parking conduit & boom added to NE fascia (2021?) 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.
Conc. barrier blocks on both sidewalks @ E side of bridge (2021).

Recommended Maintenance:

1. Discuss sealing of wearing surface.

Assigned to:

Contract

Bridge Inspection Report | Routine Inspection

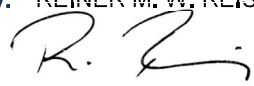
SFN: 3161277

Gest Street Bridge over CIND Railroad

Date Inspected: 08/02/2021

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 @ SE, SW, & NW 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: Off bridge. | 1 | 8 |
| C13. Expansion Joints: Integral, small compression seals; bulged @ NE; 3 areas ripped or missing @ N; survey nail @ NW in gland. | | |

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.(not observed in 2021) | 1 | 7 |
| C26. Bearing Devices: Elasto.; not visible. | 1 | 8 |

N59. Superstructure Summary: Summary Rating: 7

| | | |
|---|---|---|
| C33. Abutment Walls: Full height crack @ S w unsound conc. detected by sounding; graffiti; map cracking w efflor & flashcoat peeling @ SW corner. | 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

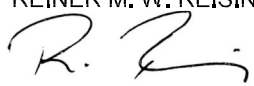
SFN: 3161277

Gest Street Bridge over CIND Railroad

Date Inspected: 08/02/2021

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: Area below bridge tends to flood with water & mud. Significant truck traffic observed on bridge in 2021.
2020 element level inspection available.

Recommended Maintenance:

1. Plan overlay repairs/replacement (@ min) near joints.
2. Seal curb bottom w hot applied asphalt.
3. Fill exp joints w hot applied asphalt.
4. Seal deck {long. cracks @ minimum}.
5. Grind & fill pressure relief joint @ N.

Assigned to:

TROD
TROD
TROD
TROD
TROD

Bridge Inspection Report | Routine Inspection

SFN: 3161749

Gest Street Bridge over Mill Creek

Date Inspected: 04/07/2021

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: Membrane: Hairline map cracking (trans & diagonal) near the bridge limits; scraping near centerline; isol. small bare spots where mambrane is deteriorated. | 1 | 7 |
| C9. Curbs/Sidewalks: Curbs and walk integral: Many transverse HL cracks, often continuing into curb and bottom of railings (esp. @ N railing); closely spaced cracking @ bridge ends, no efflor. | 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: Lots of debris in bike lanes in 2021 (should be swept during next routine sweeping). | 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. | 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 around 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 | 9 |
| N62. Channel Summary: | Summary Rating: 6 | |

Bridge Inspection Report | Routine Inspection

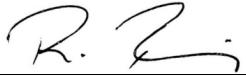
SFN: 3161749

Gest Street Bridge over Mill Creek

Date Inspected: 04/07/2021

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), no thrie beam 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): | 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: 8 A

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

Recommended Maintenance:

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

Assigned to:

TROD
TROD

Bridge Inspection Report | Routine Inspection


SFN: 3161358

Gest Street Ramp East of Linn Street

Date Inspected: 05/28/2021

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; no leakage through deck. | 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, though no leaking through deck. | 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); inlets completely clogged. | 4 | 2 |
| C13. Expansion Joints: | Strip seal replaced (1992); joint has corr. throughout; 1 area w slight leaking @ SE. | 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 (ODOT joint replacement); no leakage detected in 2021. | 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; painted over graffiti. | 1 | 8 |
| C38. Pier Columns: | Minor spalls @ column tops; sound patch @ W column top N. | 1 | 8 |
| C39. Backwalls: | Few vert cracks; staining @ SE. | 1 | 7 |
| C40. Wingwalls: | Minor cracks some w efflor (possible ASR), mostly at joints; popouts; horiz. HL cracks @ abutment (both sides). | 1 | 8 |

Bridge Inspection Report | Routine Inspection

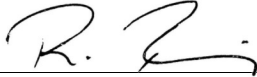
SFN: 3161358

Gest Street Ramp East of Linn Street

Date Inspected: 05/28/2021

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
Camp in front of abutment in 2021.

Bridge Inspection Report | Routine Inspection

SFN: 3161366

Gest Street Ramp West of Linn Street

Date Inspected: 05/28/2021

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 other spalls with exp rebar. | 1 | 7 |
| C7.2. Edge of Floor: | Isol HL cracks some with efflor and adjacent dampness, 1 area w rust staining @ S; 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. Leaking from ODOT trough @ E causing corr. to FB. | 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. | Year: PCS Rating: 0 | |
| C32. Fatigue Prone Details: | Cover plates & splices over the piers. | 1 | 8 |

N59. Superstructure Summary:

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

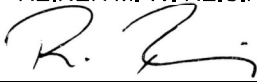
SFN: 3161366

Gest Street Ramp West of Linn Street

Date Inspected: 05/28/2021

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 spall @ N w exp rebar. 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: S support bracket bent (sign removed 2021). 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. S sign support bent, (sign was moved).

Recommended Maintenance:

1. Repair leaking trough @ E.

Assigned to:

ODOT

Bridge Inspection Report | Routine Inspection

SFN: 3100774

Gilbert Ave Ped Overpass S. of Court Street

Date Inspected: 10/14/2021

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: | Mostly concealed; staining on conc. portion. | 1 | 7 |
| C9. Curbs/Sidewalks: | Membrane added 2020; minor ponding @ 3 locations; former cracks covered. | 1 | 8 |
| 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; W inlet may not properly drain? | 1 | 8 |
| C13. Expansion Joints: | Open joint by design; coverplate @ E removed, corroding & slight vert offset @ W. | 2 | 6 |

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; paint breaking, cracking, & corr. @ weld. | | |

N59. Superstructure Summary:

Summary Rating: 7

- | | | | |
|--------------------|---|---|---|
| C37. Pier Caps: | Minor staining; minor HL flex. Cracking & small spalling under one pier cap & 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: 10/14/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #32

C57. Utilities: Corroding elec. conduit, clamps & hanger; continuation of conduit under ODOT steps completely corroded through, apparently bypassed with wires from traffic pole; many hangers either not working or substituted by wires. 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. New interior doors installed inside east portion of tunnel (2018); one floor drain appears open.

Recommended Maintenance:

Assigned to:

1. Chip loose concrete from below steps.
2. Add evozote to joints.

TROD
TROD

Bridge Inspection Report | Routine Inspection

SFN: 3160003

Grand Ave over Lick Run

Date Inspected: 09/07/2021

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: | Coated w gray sealer/paint. | 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 (patched 2021); vert. HL cracks in curb; cracking through walk @ backwall. | 1 | 8 |
| C11. Railing: | Raised areas of metal railing (fins/tears?); concrete portion on bridge sealed/painted, unsealed w cracking in approaches. Decorative railing balls touched up with different sheen color. | 1 | 9 |
| 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; wall portion w anti graffiti coating, abut. seat not coated. | 1 | 8 |
| C39. Backwalls: | Only visibel from top: 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

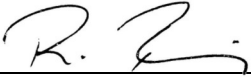
SFN: 3160003

Grand Ave over Lick Run

Date Inspected: 09/07/2021

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: **Buildup of algae, mudd, etc under bridges starting to cover grates (not observed on any other Lick Run bridges). Channel protection DS not completed in 2021** Summary Rating: 9

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

C2. Approach Slabs: Actual approach slabs w very minor long. cracking. 1 7

C3. Relief Joints: Pressure relief jnt. slightly cracked. 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; light fixture below bridge. 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: Bridge bounces under light const. equipment; slight ponding @ SW.

Recommended Maintenance:

Assigned to:

1. Coat railing fineal balls @ SW w same paint as all other railing posts.

Owner

Bridge Inspection Report | Routine Inspection

SFN: 3169920


Hutton Avenue Pedestrian Bridge over SORTA

Date Inspected: 05/20/2021

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 (LOS); cracks w minor efflor; delams.; rust stains in 4 bays; apparent water seeping through deck; stalactites on beams between floor 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}; conc. delaminations of pylon 2 tops. 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; 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 #6 from S w spalled conc exposing portions of steel beam w pack rust & LOS. 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; (N 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: 05/20/2021

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 concrete encased steel, steps not part of rating though.

Recommended Maintenance:

1. Sweep deck & stairs.
2. Remove vegetation from N stairs.
3. Trim tree branches away from bridge.

Assigned to:

TROD
TROD
TROD

Bridge Inspection Report | Routine Inspection

SFN: 3160076

Ida Street Viaduct over Wareham

Date Inspected: 10/05/2021

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 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 HL trans crack in walk & vertical HL racks in curb w minor efflor | 1 | 7 |
| C11. Railing: New 2016; flowerboxes added near pylons; 1 crack @ top under planter box w efflor. | 1 | 8 |
| N36. National Safety Feature - Bridge Railing (0, 1 or N): 1 | | |
| 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 | 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; W arch over roadway has 3 parrallel long. cracks @ high point (+/-10' long) on bottom, also 1 long. crack on top. | 1 | 8 |
| 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 @ SW (construction). | 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: 10/05/2021

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

65. Vertical Clearance: Vert. Clearance Rating: N

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).
4. Sound roadway arch web arch where cracked.

Assigned to:

Contract
Owner
Contract
TROD

Bridge Inspection Report | Routine Inspection

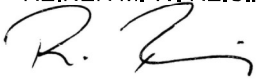
SFN: 3161900

Joe Nuxhall (Main Street) over Parking Garage

Date Inspected: 11/30/2021

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 {2021 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; isol. delaminated sounding area's; spalls along the poured joint; 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, 8 inlets mostly filled w debris; trough drain @ SE has reverse flow from main drain pipe; trough leak @ SW. 3 4
- 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; leakage @ W {private joint} under driveway {7th span from N}, widespread leakage of W private joint S of Freedom Way. 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); cracking more pronounced in span between C & D {7 from N}. 1 8

N59. Superstructure Summary: Vehicle detection loop in W sidewalk may cause water to enter into and casue damage to the slab; W edge beam{not under ROW}, w regularly spaced flex. vert. cracks. **Summary Rating: 8**

C33. Abutment Walls: MSE walls that do not support structure.

C37. Pier Caps: HL cracking under several conduit openings @ NW end of bridge, w isolated efflor @ N. 1 8

C38. Pier Columns: Some columns twisted, random HL cracking; all but 7 N most rows are sealed by anti graffiti coating?; private small columns S of bay D with saw cut around perimeter @ top. 1 8

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

Bridge Inspection Report | Routine Inspection

SFN: 3161900

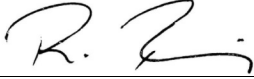
Joe Nuxhall (Main Street) over Parking Garage

Date Inspected: 11/30/2021

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

Summary Rating / Operational Status 8 A

Signature: _____



Bridge No.: CITY (BP) #36

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

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; SW most planter grate broken {delivery trucks}.

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.
4. Change flow direction of trough drain @ SE.
5. Remove loose conc. from edge of floor over parking spot 130.

Assigned to:

Hotel/Banks
TROD
Contract
Contract
Hotel

Bridge Inspection Report | Routine Inspection

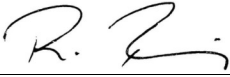
SFN: 3160004

Kebler Ave over Lick Run

Date Inspected: 09/08/2021

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; sealed w paint. | 1 | 8 |
| C8. Wearing Surface: 2 long. Cracks. | 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); widespread paint repaired w different sheen levels. | 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; crack w buildup of efflor @ SE pilaster footer; sealed w anti graffiti coating (but not abutment seat). | 1 | 8 |
| C39. Backwalls: Trans. HL cracks @ top. | 1 | 8 |
| C40. Wingwalls: Anti-graffiti coat. | 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 |

Bridge Inspection Report | Routine Inspection

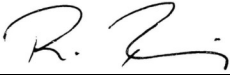
SFN: 3160004

Kebler Ave over Lick Run

Date Inspected: 09/08/2021

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

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #37

C53. Hydraulic Opening: 1 9

N62. Channel Summary: Summary Rating: 9

C1. Pavement: New 2020; cracking @ N edge of backwall; 1 trans crack (75% width) @ N. 1 8

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: 8

65. Vertical Clearance: Vert. Clearance Rating: N

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

Recommended Maintenance:

1. Replace cracked curb @ NE.
2. Investigate/replace hollow sounding curb @ SW just off bridge.
3. Touch up paint w uniform sheen.
4. Seal interface between backwall & approach pavement @ N w hot applied asphalt.

Assigned to:

Contract
Contract
Contract
Contract

Bridge Inspection Report | Routine Inspection

SFN: 3162958

Kennedy Connector Bridge over Duck Creek

Date Inspected: 04/16/2021

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 |
|--|------------------|------------------|
| C8. Wearing Surface: Concrete; minor popouts. | 1 | 8 |
| C9. Curbs/Sidewalks: Isol. cracks & small spalls from aggregate cracks in colored concrete portion; few popouts in walks; 2 spalls in walk @ SE (crushing at pavement joint?). | 1 | 8 |
| C11. Railing: Regularly spaced vert. HL cracks w slight efflor., esp @ W (shrinkage cracks due to missing panel joints); several full height cracks @ SW; 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 & 1 patch in 1st from W of the S span; HL trans. Flexure cracks in the floor appear widespread and closely spaced (less than 1') but very narrow (<.004"), 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 |
| C53. Hydraulic Opening: Very minor build up of soil @ pier in S span. | 1 | 8 |

N62. Channel Summary: Summary Rating: 8

Bridge Inspection Report | Routine Inspection

SFN: 3162958

Kennedy Connector Bridge over Duck Creek

Date Inspected: 04/16/2021

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

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #38

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

Inspection Notes: Missing light pole @ SW (only baseplate remaining) reported to traffic after 2021 inspection.

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. | TROD |
| 2. Caulk preformed joints between colored conc. & regular s/w conc. | TROD |
| 3. Fill lift hole outside of railing fascia @ SE. | TROD |

Bridge Inspection Report | Routine Inspection

SFN: 3163008

Kennedy Connector Bridge over SORTA/IORY

Date Inspected: 09/24/2021

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 4 Rating 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); segment 11 from E has larger step/offset. | 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: Micro canyon (+/- 2" wide) opening in 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. 2020 Element Level data on file.

Bridge Inspection Report | *Routine Inspection*

SFN: 3163008

Kennedy Connector Bridge over SORTA/IORY

Date Inspected: 09/24/2021

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

Summary Rating / Operational Status 8 A

Signature:  _____

Bridge No.: CITY (BP) #39

Recommended Maintenance:

1. Monitor micro canyon & segment 11 for possible change.
2. Consider survey of footers.

Assigned to:

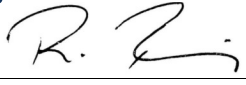
Owner
Owner

Bridge Inspection Report | Routine Inspection

SFN: 3160130

Kenton Street Bridge over Florence

Date Inspected: 04/05/2021

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

Bridge No.: CITY (BP) #40

QA/QC Inspector: BRANDON M. LECRONE, P.E.

Signature: 

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. In the positive moment regions of each span. | 1 | 7 |
| C7.2. Edge of Floor: Widespread transverse cracking w efflor. at fascia. | 1 | 7 |
| C8. Wearing Surface: Trans. cracks; wider over piers; map cracking in E half of the bridge esp. in spans 2 & 3; 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 concrete header w small shallow 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 with 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 (beams 2 & 3 from North) are not in total bearing with the pier seat, attributed to uneven pier seat (beam 3: SW corner not in contact, beam 2: southmost +/-40% not in contact); bearings @ W in slight hot weather mode. | 2 | 6 |
| C30. Protective Coating System (PCS): System: IZEU Year: 1999 PCS Rating: 8 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. | | |

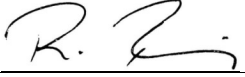
Bridge Inspection Report | Routine Inspection

SFN: 3160130

Kenton Street Bridge over Florence

Date Inspected: 04/05/2021

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

Signature: 

Bridge No.: CITY (BP) #40

QA/QC Inspector: BRANDON M. LECRONE, P.E.

Signature: 

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; 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; single small spot of efflor on S face of each column of the center pier. 1 7

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 7

C43. Slope Protection: Dump rock with some stone deterioration (weathering); 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. Slight vibration noticeable under traffic.

Bridge Inspection Report | Routine Inspection

SFN: 3161838

Lincoln Avenue Bridge over Open Land

Date Inspected: 06/25/2021

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 4Rating
9 to 0

C7.1. Floor: Few small spalls along the haunches; rust staining along the centerline const jnt; widespread HL mapcracking (some w minor efflor) & patched areas; spalls at the utility connections with exposed rebar; several trans. cracks w exp. bars around patched & isol rust staining areas under N walk; delaminations around cracks elsewhere. 2 6

C7.2. Edge of Floor: Isol. cracking, some fascia spalls, some w exp. rebar; isol. rust staining, esp @ N. 1 7

C8. Wearing Surface: Short piece of rusted rebar visible @ center of bridge; mapcracking developing around center joint w few small delmas, few short isol. HL cracks elsewhere. 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; NE sidewalk coverplate corroding w adjacent conc spalls. 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 @ E abutment from previous joint leak; 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: Year: 2007 PCS Rating: 8
Painted 2007; very isol minor rusting @ fascia's.

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

Bridge Inspection Report | Routine Inspection

SFN: 3161838

Lincoln Avenue Bridge over Open Land

Date Inspected: 06/25/2021

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

Summary Rating / Operational Status 7 A

Signature: _____



Bridge No.: CITY (BP) #41

| | | | |
|----------------------|--|---|---|
| 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 |
| 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 properly daisy-chained during the 2021 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 @ S fascia. | TROD |
| 2. Discuss sealing center wearing surface joint with BL. | Owner |

Bridge Inspection Report | Routine Inspection

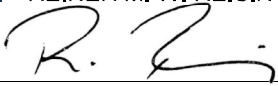
SFN: 3161936

Madison Road Pedestrian Bridge East of IORY

Date Inspected: 11/01/2021

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: Several trans HL cracks w efflor in negative moment region.

1 7

C7.2. Edge of Floor: Drip edges installed.

1 9

C9. Curbs/Sidewalks: Few trans. HL cracks detected near pier; 1 shorter long. crack 2' from W edge.

C11. Railing: Handrail on both sides and decorative arch at E.

Handrail anchor bolts cut on walk side & either zinc coated or painted; slight waviness; arch posts shimmed; 1 bolt not fully tight.

1 8

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

C12. Drainage: Over the side with drip edges.

1 9

C13. Expansion Joints: Evazote with WABO cover plates.

1 9

N58. Deck Summary:

Summary Rating: 7

C14. Alignment of Members:

1 8

C15.1. Beams/Girders: Rolled beams with splice in N span.

1 9

C16. Diaphragms/X-Frames: C section; Pigeons starting to roost.

1 9

C26. Bearing Devices: Elastomeric bearings.

1 9

C30. Protective Coating System (PCS): System: IZEU Year: 2021

PCS Rating: 8

5-20-2021; very isolated issues mostly @ arch.

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*

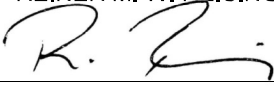
SFN: 3161936

Madison Road Pedestrian Bridge East of IORY

Date Inspected: 11/01/2021

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

General Notes: Access to S structural steps is provided through MH @ S end of bridge.

Recommended Maintenance:

1. Coat/paint corroding arch bolts.
2. Remove nails from formwork @ NE end of bridge.

Assigned to:

Punchlist
Punchlist

Bridge Inspection Report | Routine Inspection

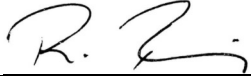
SFN: 3161889

Madison Road Pedestrian Bridge West of IORY

Date Inspected: 07/13/2021

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

Summary Rating / Operational Status 7 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: 1 transverse crack w efflor in 2nd span from S; HL trans crack S of N pier; bearing material between beams and precast slab irregularly squeezing out. 1 8

C9. Curbs/Sidewalks: Sealed with membrane (2020); appears all cracks are sealed.

C11. Railing: Newly painted (2020); waviness in handrails; some railing exp jnts appear tight; isol bolts not completely fastened. 1 8

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

C12. Drainage: Over the side. 1 9

C13. Expansion Joints: New comp. seals (2020); isolated very minor vertical offset. 1 8

N58. Deck Summary: New 2020 membrane appears to have sealed all but one deck cracks Summary Rating: 8

C14. Alignment of Members: E beam, S span not plumb @ N pier (top flange moved westward by +/- web thickness); slight sagging in 2nd span from S; former impact locations in 2nd span from S (W beam) were heat straightend in 2020. 1 7

C15.1. Beams/Girders: See alignmet; newly painted 2020; areas w previous LOS were strengthened w welded plates. 1 7

C16. Diaphragms/X-Frames: Repainted 2020. 1 8

C24. Lateral Bracing: Repainted 2020. 1 8

C26. Bearing Devices: New elastomeric bearings (2020); several anchor bolts bent. 1 8

C30. Protective Coating System (PCS): System: OZEU Year: 2020 PCS Rating: 9
2020; areas of different sheen (from touch-up?).

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

C33. Abutment Walls: Patched & coated 2020; sometimes rough surface @ patches. 1 8

C36. Pier Walls: Patched & coated 2020 including new pier caps; some rougher patches; all sound. 1 8

C39. Backwalls: Newly coated 2020; some rougher looking joints. 1 8

N60. Substructure Summary: Summary Rating: 8

Bridge Inspection Report | Routine Inspection


SFN: 3161889

Madison Road Pedestrian Bridge West of IORY

Date Inspected: 07/13/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #43

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 7 A

General Notes: Adjacent RR bridge controls vertical clearance restriction.

Recommended Maintenance:

1. Remove blast materail from flanges & approaches(rust staining).
2. Remove tap con screws from NW wingwall.
3. Seal deck panel joint in 2nd span from S @ E.
4. Remove old bearing plate from sidewalk.
5. Tighten railing bolts near N pier.

Assigned to:

Contract
Contract
Contract
Contract
Contract

Bridge Inspection Report | Routine Inspection

SFN: 3106462

Main Street Cable Stayed Pedestrian Bridge over FWW - East Side

Date Inspected: 10/11/2021

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: | Minor HL trans. cracks w very 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: | HL 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 full width 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 w added corroding plate; 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: | Only under tower: 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: 10/11/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #44

| | | | |
|-----------------------|---|---|---|
| C91. Deck Anchors: | Surface corrosion near floorbeam connection pins. | 1 | 8 |
| C92. Tower Anchors: | No issues detected. | 1 | 9 |
| C96. Cable Alignment: | As designed. | 1 | 9 |
| C97. Cable Condition: | General fading on cables. | 1 | 8 |

Summary Rating: 8

C57. Utilities: Wires coming from W edge of floor dangling below S of pier. 1 7
everal spot lights may not work, but there are potential plans to replace lights with LED

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: Streetcar drilled bolts for the OCS into the tower. Two wires across main street were added (2015-16)
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. Replace all light fixtures as necessary.

TROD

Bridge Inspection Report | Routine Inspection

SFN: 3106403

Main Street Cable Stayed Pedestrian Bridge over FWW - West Side

Date Inspected: 10/12/2021

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: | Isol 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; full width 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); some beam connection bolts don't appear to be fully tightened. | 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: Summary Rating: 8
Some areas (esp fasteners) touched up w cold galvanized spray (silver); widespread dirt and staining on bottom horiz. Surfaces.

- | | | | |
|----------------------|--|---|---|
| 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 vert. @ bottom; horiz @ midheight). | 1 | 8 |

N60. Substructure Summary: Summary Rating: 8

Bridge Inspection Report | Routine Inspection

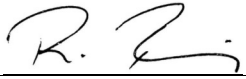
SFN: 3106403

Main Street Cable Stayed Pedestrian Bridge over FWW - West Side

Date Inspected: 10/12/2021

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

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: CITY (BP) #45

| | | | |
|-----------------------|---|---|---|
| C91. Deck Anchors: | Surface corrosion around the pins at floorbeam anchorage. | 1 | 8 |
| C92. Tower Anchors: | No issues detected. | 1 | 9 |
| C96. Cable Alignment: | | 1 | 9 |
| C97. Cable Condition: | Widespread paint fading. | 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. Surface corr. on conduits. | 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.
Loose grating at NW secured by TROD during the 2021 inspection!

General Notes: HAM-71-0100

Recommended Maintenance:

1. Repair/replace all lights as necessary.
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: 12/01/2021

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; sev. paver settlement & deter. @ S. | 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; trough @ S joint not drained but leaking. | 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"); widespread leaking through E private joint, esp. @ NE & under midblock driveway. | 1 | 7 |

N58. Deck Summary: Summary Rating: 8

| | | | |
|----------------------------|--|---|---|
| C14. Alignment of Members: | | 1 | 8 |
| C15.1. Beams/Girders: | Loading docks only; very isol. honeycombing. | 1 | 8 |
| C15.2. Slab: | Isol HL cracking (typical), HL mapcracking in spans 3, 4, & 5 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) tree pit? 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: 12/01/2021

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; loading dock doors replaced by SORTA in 2021; garage drain pipes painted 2021; W door inside roll cover loose @ 1 joint; widespread leaking from open corner lot @ NE.
See 2020 Element Level report for this structure

Recommended Maintenance:

1. Chip & patch wearing surface around inlets.
2. Refasten overhead door roll cover @ W.
3. Consider S trough drain modification.

Assigned to:

TROD
SORTA
Contract

Bridge Inspection Report | Routine Inspection

SFN: 3101371

Mehring Way Pedestrian Overhead Bridge to Coliseum

Date Inspected: 12/07/2021

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: Mostly good, except few cracks w efflor. - esp. over center pier; widespread cracks, delams, patches & rust staining @ monumental steps; cracking & delam. next to railing panels; delam. conc. & exp rebar @ 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 & W end of plaza; membrane not adhearing 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 @ some joints. | 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: 12/07/2021

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 esp. @ SW column; 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 and rusting bolts 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, including bottom of railing panels & area @ E joint. | TROD |
| 7. Consider repainting connections/fatigue prone details. | Parks |

Bridge Inspection Report | Routine Inspection

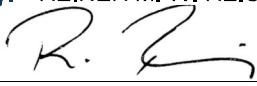
SFN: 3160440

Mitchell Avenue Bridge over Mill Creek

Date Inspected: 08/04/2021

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 w efflor 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 & NE. | 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: OZEU Year: 2004 | 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

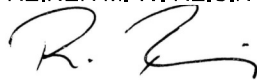
SFN: 3160440

Mitchell Avenue Bridge over Mill Creek

Date Inspected: 08/04/2021

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 crack w spalling at the center construction joint at the E pier; cracking under the bearing at the E pier, S of 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 3/4 of the prefabricated compression seal is missing at the E approach deep and wide cracking where seal is missing. | 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; open electrical junction box @ NE (campsite). | 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: 08/04/2021

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

Summary Rating / Operational Status 6 A

Signature: _____



Bridge No.: CITY (BP) #48

Inspection Notes: Noticable vibration under live load.

General Notes: New fence installed @ SE in 2016; camps under bridge @ both abutments 2020.

Recommended Maintenance:

1. Remove wire hanging from deck.
2. Sweep debris from S walk.
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
TROD
TROD
Owner

Bridge Inspection Report | Routine Inspection

SFN: 3161404

Monastery Street Bridge over Open Land

Date Inspected: 06/16/2021

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

Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: CITY (BP) #49

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 & rust staining in spans 1 & 2; very isol. cracks w efflor & rust staining elsewhere; isol. cracks with efflor & rust stains are reflective of cracks in wearing surface; HL trans cracks throughout. | 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.; multiple spilled conc cells @ 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 & intermediate supports); 2 spalls (+/- 4sqft), exp rebar & moist rust staining; 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 element level results; piers 3,4, & 5 show widespread det., cracking w efflor.(stalactites), spalling, delams, & rust staining, other pier caps are in better condition w isol. HL cracking. 2 5

C38. Pier Columns: See element level results; minor fire damage @ pier 1 center column); extensive close spaced cracking, spalling w exp rebar, large delams, & build up of efflor. @ columns of pier 3 & 4. 2 5

C40. Wingwalls: HL diag. crack @ SW w efflor.; joint @ SW opening w backfill coming out. 1 7

Bridge Inspection Report | Routine Inspection

SFN: 3161404

Monastery Street Bridge over Open Land

Date Inspected: 06/16/2021

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

Summary Rating / Operational Status 5 A

Signature: _____



Bridge No.: CITY (BP) #49

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; new asphalt including curbs in 2021. 1 7

C4. Embankment: Landscaped. 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: 6

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.
Pier 4 sounded & painted by Terracon in 2021, detailed results forthcoming.

Recommended Maintenance:

| Recommended Maintenance: | Assigned to: |
|---|--------------|
| 1. Plan for rehab work @ piers 3 & 4. | Contract |
| 2. Consider jnt replacement of transverse jnts. | Contract |
| 3. Wedge S jnt in sidewalk w hot applied asphalt. | TROD |
| 4. Develop plan to seal sidewalk jnt @ intersection of Baum St. | TROD |
| 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 | Safety Inspection

SFN: 3160777

Park Avenue Bridge over Kemper

Date Inspected: 07/16/2021

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)

Safety Inspection ?

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. & 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); 2 larger failed patches @ NE. | 1 | 7 |
| C9. Curbs/Sidewalks: | Minor cracks; spalls at the exp. jts; surface scaling; wide long. curb crack w spalling conc. @ NW; sidewalk cracks several ft. long @ NW; more damage at the NW approach walk (spall & failing section of the sidewalk is patched with asphalt); several delams detected by sounding; 8' long crack @ NE next to wearing surface patch; 19' long. crack @ SW; isol rust stains in curb. | 2 | 6 |
| C11. Railing: | Cracking w efflor.; widespread localized crumbling of the railing & the fascia; isolated spalls w exp. rebar & LOS esp. railing pylons @ S; shallow spalling; recent accident showed internal railing rebar had LOS @ sidewalk interface reducing railing capacity, possibly similar @ other locations; some newer panels constructed @ different times. | 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; isolated leakage from the gland; joint mostly 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 (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 & few spalls; see previous element level rating for stringers (2019) | 2 | 6 |
| C18. Floor Beams: | Gunitite coated (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: | Gunitite coated (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 gunitite coating). | 1 | 7 |
| C28. Arch Columns/Hangers: | Gunitite coated (1990); some cracking w efflor; cracks @ décor. Bases; isol. Spalling w exp. Rebar on few columns. | 1 | 7 |

N59. Superstructure Summary:

Summary Rating: 6

Bridge Inspection Report | Safety Inspection

SFN: 3160777

Park Avenue Bridge over Kemper

Date Inspected: 07/16/2021

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 coated (1990); minor efflor. @ bases; some spalling; shallow gunite flaking; ext. ivy growth @ SW; SE column @ end of arch has crushed stone coming out of weephole (interiour column issue?). | 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 E and W ends; random cracking at the E 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; light pole missing @ NE; only anchor bolts remain. 2 5

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: Multiple new graffiti's; sleeping bag/camp on top of center arch.

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:

| Recommended Maintenance: | Assigned to: |
|--|--------------|
| 1. Chip loose conc from edge of floor/railing. | TROD |
| 2. Plan for extensive rehab of walks, exp jnts, railings, & edge of floor. | Contract |
| 3. Trim branches overhanging sidewalk. | Traffic |
| 4. Cover open light pole hand hole on S side. | Traffic |
| 5. Patch curb @ NW. | TROD |
| 6. Replace light pole @ NE. | Traffic |
| 7. Repair wearing surface patches @ NE. | TROD |

Bridge Inspection Report | Routine Inspection

SFN: 3160904

Powers Street Bridge over West Fork Channel

Date Inspected: 07/19/2021

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 HL 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 turning long. over pier; slight separation of curb from wearing surface possibly allowing water to enter. | 1 | 7 |
| C11. Railing: HL vert. 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 in the concrete in 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. | 1 | 8 |
| C36. Pier Walls: Hairline vertical cracks over the center of the pier arch. | 1 | 8 |
| C39. Backwalls: Widespread spalling at top edge to approach slab (up to 1.5" wide from edge) esp. @ W where compression seal is partially torn. | 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 |
| N60. Substructure Summary: | Summary Rating: 8 | |

Bridge Inspection Report | Routine Inspection

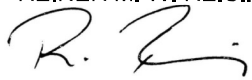
SFN: 3160904

Powers Street Bridge over West Fork Channel

Date Inspected: 07/19/2021

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

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.
3. Remove vegetation @ NW 15' parallel to bridge.

TROD
TROD
TROD

Bridge Inspection Report | Routine Inspection

SFN: 3160006

Quebec Rd over Lick Run

Date Inspected: 09/08/2021

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. | 1 | 8 |
| C7.2. Edge of Floor: Slight wave in formwork; sealed w paint/sealer. | 1 | 8 |
| C8. Wearing Surface: | 1 | 9 |
| C9. Curbs/Sidewalks: Small spalls patched. | 1 | 9 |
| C11. Railing: Conc. portion sealed w paint/sealer, see edge of floor; anchor bolts touched up w spray paint. | 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: 8 | |
| C14. Alignment of Members: Slight vert. offset between 2 adj. beams in center. | 1 | 8 |
| C15.1. Beams/Girders: Isol. long. HL cracking. | 1 | 8 |
| C26. Bearing Devices: Mostly concealed elastomeric. | 1 | 9 |
| N59. Superstructure Summary: | Summary Rating: 8 | |
| C33. Abutment Walls: Stub abutments: vert. full height HL cracks. | 1 | 8 |
| C39. Backwalls: Only visible from top; few trans. cracks @ top; spalling of curb @ jnt cover plates. | 1 | 8 |
| N60. Substructure Summary: Abutment walls sealed with anti-graffiti coating, abutment cap not sealed. | 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: 09/08/2021

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

Recommended Maintenance:

1. E most conduit support not finalized (wire ties).

Assigned to:

Contract

Bridge Inspection Report | Routine Inspection

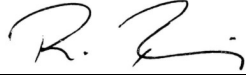
SFN: 3162036

Race Street Bridge over Pete Rose Way and Parking Lots

Date Inspected: 09/07/2021

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

- | | |
|---|---|
| <p>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; paint peeling & concrete saturation @ NE corner of Freedom Way (see drainage); 2' long longitudinal crack with minor stalactite under W sidewalk S of 3rd pier column from S; area of unsightly patch at SE where planter box was removed in 2020.</p> <p>C7.2. Edge of Floor: Embedded objects (aparently corroding) in one distinct area N of Freedom Way; rest much better; stalactites forming @ fascia just N of Freedom Way.</p> <p>C8. Wearing Surface: Fiber nests and full length longitudinal cracks, measuring hairline to moderate (max) north of Freedom Way. Freedom Way pavers replaced w colored conc (2016), cracking in E leg of colored conc, but smooth riding; mapcracking in center of Freedom Way intersection. Widespread popouts S of Freedom Way, with HL cracking developping.</p> <p>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; blue paint on E walk S of 2nd Street (2021).</p> <p>C11. Railing: W side only: Steel railing, gap below bottom rail > 6", will be modified shortly.</p> <p>N36. National Safety Feature - Bridge Railing (0, 1 or N): 1</p> <p>C12. Drainage: Planters S of Freedom Way not draining. Trough drain @ SW corner of Freedom intersection leaking @ pipe joint. S of Freedom Way, pipes pushed appart and leaking @ on elocation at W. Minor ponding near roundabout at S. New stainless trough installed at S joint to music venue (2021).</p> <p>C13. Expansion Joints: Dripping through bladder of W Freedom Way and NE of Freedom Way (low points of trough do not appear to drain); debris filled (typical).</p> | <p>1 8</p> <p>1 8</p> <p>1 7</p> <p>1 8</p> <p>1 8</p> <p>1 8</p> <p>2 6</p> <p>1 8</p> |
|---|---|

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, some crafes from traffic. The 7th column from the North - center column is slightly twisted. 1 8

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

Bridge Inspection Report | Routine Inspection

SFN: 3162036

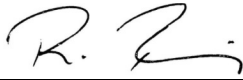
Race Street Bridge over Pete Rose Way and Parking Lots

Date Inspected: 09/07/2021

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. Pull boxes N of Freedom Way are dripping even during dry period. 2 5

Utilities On Structure: NNNNNNN

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; no trees in planters S of Freedom Way;

General Notes: Portion S of Freedom Way added in 2016. New S end roundabout etc. added 2021.

Recommended Maintenance:

1. Investigate leaking in utilities (3 conduit junction boxes).
2. Repair pipe joints @ W.
3. Remove unused sign hangers from are S of Freedom Way inside the garage.
4. Repair planters S of Freedom Way to allow proper drainage.
5. Repair clogged floor drain in garage top level S of Freedom Way

Assigned to:

Owner
TROD
Garage
Contract
Garage

Bridge Inspection Report | Routine Inspection

SFN: 3106748

Railroad (Abandoned) over I-71 North of Elsinore

Date Inspected: 11/29/2021

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 cladded 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, worst over N bound 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); anchor bolt lifted @ W pier, center bearing of approach span. 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; covered w ivy @ N pier. 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*

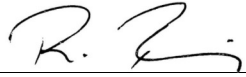
SFN: 3106748

Railroad (Abandoned) over I-71 North of Elsinore

Date Inspected: 11/29/2021

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; 2021 lots of trash on structure; vegetation becoming impassable on deck @ E, vegetation removed from both approaches of bridge in 2021.

Recommended Maintenance:

1. Clear vegetation from deck where overhanging the beams.
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.

Assigned to:

TROD
Owner
Contract

Bridge Inspection Report | Routine Inspection

SFN: 3161005

Roe Street Bridge over Little Duck Creek

Date Inspected: 04/09/2021

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: Very isol/ short HL cracks. 1 8

C9. Curbs/Sidewalks: 1 9

C11. Railing: Minor HL cracks below and originating from window openings; moss, lichen. 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, but staining has not changed over the past years. 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 lost backfill due to channel alignment. 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. 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

C53. Hydraulic Opening: Minor dep. of rock & soil mat'l @ E abut; flow debris US (tree in channel at channel bent). 1 8

Bridge Inspection Report | Routine Inspection

SFN: 3161005

Roe Street Bridge over Little Duck Creek

Date Inspected: 04/09/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #55

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}; small pothole (< 1SF) forming at W end of bridge in W bound lane. 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. TROD
2. Consider channel wall stabilization US @ curve where trail is being undermined by flow.
3. Patch small pothole just W of bridge in WB lane. TROD

Bridge Inspection Report | Routine Inspection

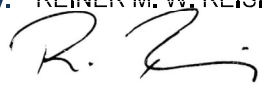
SFN: 3161781

Rosa Parks Bridge (former Vine) over Parking Garage

Date Inspected: 11/08/2021

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; delam under GE revolving door. 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, isol. cracking elsewhere. 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); spalling around inlets prevent proper drainage & cause isol. slab leaking. 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 observed 2021); widespread corr. of joint armor & cover plates. 1 8

N58. Deck Summary: Pointed out delam (see edge of floor) to garage personnel during the 2021 inspection. 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; ext. 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 (7) w rust staining & build up of efflor. (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 (not observed 2021); MSE wall settled causing joint offset 2 6

N60. Substructure Summary: Vertical cracks w minor efflor @ N conc. wall @ S end of vent shafts. Summary Rating: 7

Bridge Inspection Report | Routine Inspection

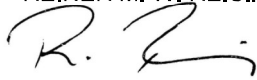
SFN: 3161781

Rosa Parks Bridge (former Vine) over Parking Garage

Date Inspected: 11/08/2021

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: Some hangers bent; rust staining & ext. efflor. @ N conduits (7 capped off); leaking @ S abutment from utility ducts; 3 ducts going from top of MSE wall into slab; 2 W most conduits suspended from edge of floor w several anchors, have widespread cracking @ W most anchor due to low edge distance. 1 7

Utilities On Structure: 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

Inspection Notes: See 2020 Element level inspection data for this structure.
Drain pipes painted 2021.
Sign leaking through Duke lift panels under taste of belgium planters after planters are watered.

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 & gratings, seal borders. | TROD |
| 3. Recaulk sidewalk curb joints @ E sidewalk w sika flex. | TROD |
| 4. Fill sidewalk core @ NE (or replace sign). | Traffic |

Bridge Inspection Report | Routine Inspection

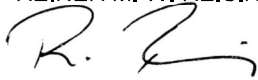
SFN: 3162338

Rosslyn Drive Bridge over Duck Creek

Date Inspected: 06/14/2021

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; 2 large delaminated areas @ N abutment; spalls w exp rebar; stalactites forming @ NW; spalling of haunches, esp near abutments; 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, +/- 10 spalls and some exposed rebar; rusting of metal tubes. | 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; patches & delams near joint headers. | 1 | 7 |

N58. Deck Summary: Vehicles crossing joints cause noticeable vibration to structure Summary Rating: 6

- | | | | |
|---------------------------------------|--|---|---|
| C14. Alignment of Members: | | 1 | 8 |
| C15.1. Beams/Girders: | Corr at last 10' from abutments w pack rust & laminating corr. @ fascia beams near abutments; 3 scrapes, rusting @ N fascia BF; | 1 | 7 |
| C16. Diaphragms/X-Frames: | Laminating corrosion at the end cross frames esp @ NE; new (2021) water main supported on clamped horizontal I-beams. | 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, no stains @ W; spalling, exp. rebar & delams @ top of abutments under beams, esp @ W (patched @ 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; HL vertical cracks. | 1 | 8 |
| C42. Scour: | | 1 | 9 |

Bridge Inspection Report | Routine Inspection

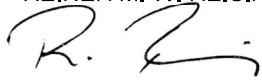
SFN: 3162338

Rosslyn Drive Bridge over Duck Creek

Date Inspected: 06/14/2021

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

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #57

Scour Inspection Type 1

N60. Substructure Summary:

Summary Rating: 6

| | | | |
|--------------------------|--|---|---|
| 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 @ E. | 2 | 5 |
| C53. Hydraulic Opening: | | 1 | 9 |

N62. Channel Summary:

Summary Rating: 5

| | | | |
|---|---|---|---|
| C1. Pavement: | Few, mostly longitudinal cracks, N most lane repaved (2021) as part of Water Works replacement project. | 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

Inspection Notes: Waterworks replaced/upgraded (2021) watermain in same bay where the existing main was located; noticable vibration under traffic.

Recommended Maintenance:

1. Consider sealing deck.
2. Plan for railing replacement or extensive repair.
3. Consider exp. Joint replacement.

Assigned to:

Owner
Owner
TROD

Bridge Inspection Report | Routine Inspection

SFN: 3160661

Second Street Connector from Clay Wade Bailey (Ramp D)

Date Inspected: 11/01/2021

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

Summary Rating / Operational Status 7 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 esp. around island & const. jnt.; diag. cracks w efflor @ N end of pier 2 from 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 turning into HL map cracking in slab area; 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); holes over slab section from former sign. | 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): | 1 | | |
| C12. Drainage: | | 1 | 8 |
| C13. Expansion Joints: | Jnts filled w sand/light debris. | 1 | 8 |

N58. Deck Summary:

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) see attached table. | 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: | Widespread HL flexure cracks w minor efflor in cantilever of beam portions; debris @ W end of beam section; SW pier cap has HL vert cracks @ bottom of cantilevers & horiz crack in cap over column | 1 | 7 |
| 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 |

Bridge Inspection Report | Routine Inspection

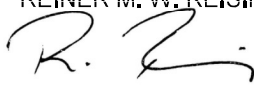
SFN: 3160661

Second Street Connector from Clay Wade Bailey (Ramp D)

Date Inspected: 11/01/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #58

N60. Substructure Summary:

Summary Rating: 7

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: 7 A

Inspection Notes: Element level 2020 report on file; 2021 ext. debris from accidents {due to increased traffic because of Brent Spence closure}.

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.
5. Repair aluminum railing @ Clay Wade Bailey N of 7th st.
6. Refresh pavement markings @ Clay Wade Bailey.

Assigned to:

Contract
Traffic
Traffic
TROD
TROD
Traffic

2nd Street Connector from Clay Wade Bailey, Ramp D

SFN 3160661

Diaphragm monitoring (beam section only)

Piers numbered from W to E, bays from S to N

| Pier # | Bay # | W side | E side |
|--------|-------|-------------------|--|
| 1 | 5 | bot crack | |
| 2 | 2 | S del | |
| 2 | 3 | S & N del | |
| 2 | 4 | S & N del | |
| 3 | 2 | N bot | |
| 3 | 3 | S bot | N bot possible HL cracking developping from honeycombing |
| 3 | 4 | N bot | |
| 4 | 2 | N delam | |
| 4 | 3 | Spall w exp rebar | |

Bridge Inspection Report | Routine Inspection

SFN: 3160866

Second Street over Transit Center - East End

Date Inspected: 08/24/2021

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

Signature: 

Bridge No.: CITY (BP) #59

QA/QC Inspector: BRIAN E. RHODES

Signature: 

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

- | | |
|---|------------|
| <p>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 2 locations. (typical crack width equal to or less than 0.01" exceeding HL definition for post tensioned conc.); patched areas under diaphragm @ 2nd & 3rd pier from W.</p> | <p>2 6</p> |
| <p>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 esp at piers; trans cracks @ over hang; some diag. shear cracking with efflor. @ the fascias.</p> | <p>2 6</p> |
| <p>C8. Wearing Surface: Trans. HL 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.</p> | <p>1 8</p> |
| <p>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.</p> | <p>1 7</p> |
| <p>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.</p> | <p>1 7</p> |
| <p>N36. National Safety Feature - Bridge Railing (0, 1 or N): 0</p> | |
| <p>C12. Drainage: Partially clogged grates along the N shoulder scupper.</p> | <p>1 7</p> |
| <p>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 w slight clanking under traffic. 3 distinct places of leakage w efflor @ SW (under sidewalk). No spalling at joint armor.</p> | <p>1 7</p> |

N58. Deck Summary:

Summary Rating: 6

- | | |
|--|------------|
| <p>C15.1. Beams/Girders: See Item 7.1 Notes. Ext. cracks at the inside connection between the web and diaphragm; most beam cells were entered in early 2021 as preparation for PT inspection & no crack widening was detected; only diaphragm cracks are wider (>.02"), all other cracks are much smaller.</p> | <p>2 6</p> |
| <p>C26. Bearing Devices: (Mostly concealed); elast. bearings @ end piers & E abut; crack in seismic pedestal @ E abut. @ ramp LL.</p> | <p>1 7</p> |

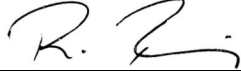
Bridge Inspection Report | Routine Inspection

SFN: 3160866

Second Street over Transit Center - East End

Date Inspected: 08/24/2021

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

Signature: 

Bridge No.: CITY (BP) #59

QA/QC Inspector: BRIAN E. RHODES

Signature: 

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 polystetyrene does not allow enough movement at the abutment. | 2 | 5 |
| 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: | SE only, mostly concealed: 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: | At SE bottom of ramp LL only: RC concrete, vert. HL cracks. | 1 | 7 |
| C43. Slope Protection: | | 1 | 9 |

N60. Substructure Summary:

Summary Rating: 5

| | | | |
|---|---|---|---|
| C1. Pavement: | SE (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 and streetlights on top bot with conduits inside of beams.

Utilities On Structure: N N N N N N N


Bridge Inspection Report | *Routine Inspection*

SFN: 3160866

Second Street over Transit Center - East End

Date Inspected: 08/24/2021

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

Signature: 

Bridge No.: CITY (BP) #59

QA/QC Inspector: BRIAN E. RHODES

Signature: 

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 5 A

Inspection Notes: Most boxes entered in early 2021 as part of the PT inspection preparation.
B&N PT investigation to begin in late summer 2021.

Recommended Maintenance:

1. Clean out inlets
2. Remove corroded fasteners from sidewalk where Reds barrier used to be attached.
3. Monitor abutment cracking to develop repair strategy.

Assigned to:

Stormwater
Owner
Owner

Bridge Inspection Report | Routine Inspection

SFN: 3160696

Second Street over Transit Center - Elm to Main Streets

Date Inspected: 06/30/2021

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

Summary Rating / Operational Status 7 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 |
|---|------------------|------------------|
| <p>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 between the flanges of adjacent T beams. SIP forms below plena: Corr. Is sev. In some areas under the plena w LOS to the SIP forms. (NW hatch has collapsed, all hatches are permanently open). Plena concrete floor: widespread trans cracking w efflor and stalctites, especially in S plenum.</p> | 2 | 6 |
| <p>C7.2. Edge of Floor: Only visible at South between Elm and Race: Some spalling in grout over PT anchors, some efflor..</p> | 1 | 7 |
| <p>C8. Wearing Surface: Pavers shifting & crumbling esp in turn lanes at all intersections; Elm street: concrete- ext map cracking w irregularly spaced edge spalls (1'Lx3"x2"D) to pavers @ 3 sides (not N (concrete approach slab)); Throughout trans cracks throughout often extending into walk some 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 across S side of Race Street; streetcar build slab @ W of E Walnut joint crushes at interfaces to adjacent concrete and was patched in 2021. Area with pronounced long cracking between Walnut and Vine station 740.</p> | 1 | 7 |
| <p>C9. Curbs/Sidewalks: Ext. widespread map cracking with efflor. at the S sidewalk esp between Elm and Race where spalling is widespread; some wider sidewalk cracks turning into shallow popouts/spalls (sidewalk is worse between Elm and Race). 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.; 3 circle cracks through several blocks of walk between Race & Vine in S walk at stations (538, 550, & 617); S walk E of main, long cracking around sidewalk block joints; new N walks cracks sealed, crushing of N walk at East Walnut joint (Streetcar?); S side governs rating.</p> | 2 | 5 |
| <p>C11. Railing: S only between Elm and Race: Isolated corrosion. N railing is off the structure.</p> | 1 | 8 |
| <p>N36. National Safety Feature - Bridge Railing (0, 1 or N): 1</p> | | |
| <p>C12. Drainage: Inlets @ N only; 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, typically at pipe joints (see detailed plenum observations), mostly at intersections in N plenum.</p> | 3 | 4 |
| <p>C13. Expansion Joints: Replaced (2005); minor leakage and debris 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.</p> | 2 | 5 |

N58. Deck Summary:

Summary Rating: 6

Bridge Inspection Report | Routine Inspection

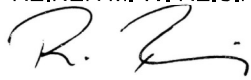
SFN: 3160696

Second Street over Transit Center - Elm to Main Streets

Date Inspected: 06/30/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #60

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: T beams only, for long beams, see pier caps: Most flanges concealed by black cover; rust stains on the sides of the T's originating from metal fasteners or embedded objects (esp on some beams between Walnut and Main); efflor. at the ends of several T's especially at the S, ext. at some T beams (for example @ 440, S pier); 45 deg cracks w efflor in flanges over S pier at 3 locations where cover is removed; web w moisture & efflor at the elevation of the duct line @ 560. 1 8

C16. Diaphragms/X-Frames: Over piers between beam webs: Cracking with efflor. (sometimes heavy) @ S. 1 7

N59. Superstructure Summary: Summary Rating: 8

C37. Pier Caps: (Also referred to as long beams): eepage stains from above; saturated at some locations near joints; HL flexure crack at S at 450 w initial efflor.; 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 7

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: 7

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: 7 A

Inspection Notes: See detailed inspection notes; parking and storage in tunnel in 2021; during 2021 inspection fans appeared to switch into "Hurricane" wind mode. North stairs are opened to traffic in 2021. New (2021) loading dock doors at Freedom Center under Marian Spencer. Upcoming in depth investigation of PT system at this bridge and the East Approach later in 2021.

Bridge Inspection Report | *Routine Inspection*

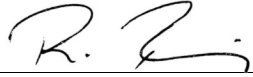
SFN: 3160696

Second Street over Transit Center - Elm to Main Streets

Date Inspected: 06/30/2021

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

Summary Rating / Operational Status 7 A

Signature:  _____

Bridge No.: CITY (BP) #60

Recommended Maintenance:

1. Seal gap between N approach slabs & wearing surface w hot applied joint filler.
2. Consider replacing surface slab @ Walnut intersection {streetcar built wearing surface}, patched in 2021.
3. In south plenum, attach PVC drain @ station 855 to drain pipes
4. Plan for comprehensive transit repairs particularly plenums.
5. Repair broken utility conduits in plena (many locations).
6. Discuss possibilities to mitigate leaking at S curb.
7. Plan for expansion joint replacement at Elm Street.
8. Clean out N curb inlets.

Assigned to:

TROD
Owner
SORTA
Owner
SORTA
Owner
Owner
Stormwater

| | 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 | S building drains onto sidewalk |
| | | 854 | Streetcar sidewalk drains filled with debris |
| | Pole 526 | 827 | |
| | | | |
| Expansion Jt #8 | East Walnut | 799 | wearing surface spalled and patched |
| | | 798 | N sidewalk crushing |
| | Pole 525 | 794 | |
| | Pole 524 | 773 | |
| Expansion Jt #7 | West Walnut | 769 | joint compressed and bulging in S walk |
| | | 759 | Spall in wearing surface |
| | Pole 521 | 742 | |
| | | | Pump station contractor pavement markings |
| | Pole 520 | 713 | |
| | | | |
| | Pole 519 | 658 | |
| Expansion Jt #6 | East Vine | 657 | |
| | Pole 518 | 652 | Crushing of S crosswalk pavers across Rosa Parks |
| | Pole 517 | 631 | |
| Expansion Jt #5 | West Vine | 627 | |
| | | 617 | Double Circle cracking in S sidewalk |
| | Pole 514 | 598 | Double Circle cracking in S sidewalk |
| | Pole 513 | 571 | cracking in WS with water and efflor. |
| | | | Severe staining at S private expansion joint widespread |
| | Pole 512 | 543 | |
| | | 538 | Double Circle cracking in S sidewalk |
| Expansion Jt #4 | East Race | 515 | |
| | Pole 511 | 510 | |
| | Pole 510 | 489 | |
| Expansion Jt #3 | West Race | 485 | |
| | | | |
| | Pole 507 | 456.5 | Cracking w efflor in S sidewalk |
| | Pole 506 | 428 | Effl on S edge of floor |
| | | 428 | CSR about leaning pole in N walk |
| | Pole 505 | 401 | |
| Expansion Jt #2 | East Elm | 373 | |
| | Pole 504 | 368 | |
| | | | |
| | | | |
| Expansion Jt #1 | West Elm | 329 | |

| 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 |
| | | 920 | broken air duct |
| 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 | PVC pipe with leaking plice |
| 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 | stalactites, corr / broken elec cond sev corr elec. Box |
| 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 | efflor from S curb and stalactites |
| 2 | 9+2 | 935 | ex rust staining on N walk between piers 2,3,4 |
| 3 | 9+1 | 915 | |
| Expansion Jt #9 | West Main | 911 | |
| 4 | 8+6 | 908 | slight steep in N walk at pier 4 |
| 5 | 8+5 | 887 | heavy efflor @ S beam |
| 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 | Beginning of tiled floor and ceiling |
| Expansion Jt #7 | West Walnut | 769 | ex dripping from S plenum |
| 12 | 6+6 | 766 | |
| 13 | 6+5 | 745 | Dripping @ S drain pipe from slab (Freedom drain) stalagmites |
| | | 730 | wider crack in N beam |
| 14 | 6+4 | 724 | near 730 initial leak in center of span |
| 15 | 6+3 | 702 | N walk under water from open valve in fire room |
| 16 | 6+2 | 681 | initial S curb leak |
| 17 | 6+1 | 670 | |
| Expansion Jt #6 | East Vine | 657 | |
| 18 | 5+2 | 653 | Loose/missing tile on walks |
| 19 | 5+1 | 631 | |
| Expansion Jt #5 | West Vine | 627 | Leakage @ funnel @ jt, membrane not in funnel |
| 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 acc. |
| 28 | 2+6 | 482 | leakage from traffic conduits |
| 29 | 2+5 | 461 | |
| | | 450 | crack in S beam w initial efflor |
| 30 | 2+4 | 440 | shear crack in S beam w efflor |
| 31 | 2+3 | 418 | |
| 33 | 2+1 | 376 | |
| Expansion Jt #2 | East Elm | 373 | Leakage through exp jt & trough; joint appears tighter at top |
| 34 | 1+3 | 369 | leakage from traffic conduits |
| 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. Cond. broken hanging by wires |
| 11 | 7+1 | 773 | 3 wall panels shifted @ 770, widesp. Moist. on floodwall |
| 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 | 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 animal) |
| 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), open between 460 and 820 |

Bridge Inspection Report | Routine Inspection

SFN: 3160688


Second Street over Transit Center - West Approach

Date Inspected: 06/04/2021

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 adjacent to barrier pull box w large loose piece of concrete; S curb w isol spalling & vegetation growing; 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 of 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 1 side of beam only, other areas have stiffeners only @ diaphragm 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: Year: PCS Rating: 8 (2000) Foreign material embedded in the paint; paint accumulaton at the bottom of the stiffeners; workmanship issues. | | |
| C32. Fatigue Prone Details: | 1 | 8 |

N59. Superstructure Summary:

Summary Rating: 8

Bridge Inspection Report | Routine Inspection

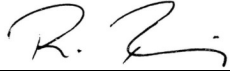
SFN: 3160688

Second Street over Transit Center - West Approach

Date Inspected: 06/04/2021

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 & light pole 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 noticeable under traffic; latest FC inspection of E FB Sept 2019.

General Notes: 2020 element level data available.

Recommended Maintenance:

1. Consider repair/replacement of G.M. barriers.
2. Consider repair of E joint gland @ center.

Assigned to:

Contract
Contract

Bridge Inspection Report | Routine Inspection

SFN: 3161188

Settle Street Bridge over Little Duck Creek

Date Inspected: 04/06/2021

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

Signature: 

Bridge No.: CITY (BP) #62

QA/QC Inspector: BRANDON M. LECRONE, P.E.

Signature: 

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; +/- 1Sqft delam in center 15 ft north of South abutment. | 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; light coating apparently at 3 NW most panels only, flaking. | 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." Single long. hairline cracks in the centers of most beams (max measured width 0.004"), most noticeable in beams 2- 5 from W; no leakage between beams. | 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 @ NW. Isolated vertical cracks w efflor: 3 full height cracks w moisture originating from weepholes at S abutment; 4 full height cracks also at weepholes at N with few shorter (< 1ft) HL cracks originating from abutment seat. Staining from joint leakage at N abutment intermittened over entire length. 1 weephole below water level. | 1 | 7 |
| C39. Backwalls: Mostly concealed. | 1 | 8 |
| C40. Wingwalls: | 1 | 8 |

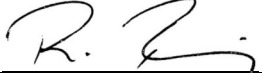
Bridge Inspection Report | Routine Inspection

SFN: 3161188

Settle Street Bridge over Little Duck Creek


Date Inspected: 04/06/2021

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

Signature: 

Bridge No.: CITY (BP) #62

QA/QC Inspector: BRANDON M. LECRONE, P.E.

Signature: 

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

C53. Hydraulic Opening: 1 9

N62. Channel Summary: Summary Rating: 8

C1. Pavement: Map cracking and scaling of the asphalt; initial pothole forming at S. 2 6

C2. Approach Slabs: Cracks perpendicular to backwall, 3@ North with 1 minor spall at backwall, 2 cracks at S. 1 7

C4. Embankment: 1 8

C5. Guardrail: Wood with initial signs of aging. Slightly loose block at the NE. 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

C57. Utilities: Spare conduits (2" diam PVC) installed in the curbs, one on each side of the bridge.

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

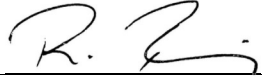
Bridge Inspection Report | *Routine Inspection*

SFN: 3161188

Settle Street Bridge over Little Duck Creek

Date Inspected: 04/06/2021

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

Signature:  _____

Bridge No.: CITY (BP) #62

QA/QC Inspector: BRANDON M. LECRONE, P.E.

Signature:  _____

Recommended Maintenance:

Assigned to:

1. Pressure wash railings and seal with silane.
2. Seal wearing surface with HMWM.
3. Clean and replace joint seals with hot applied asphalt.
4. Add backer rod and joint material in W curbs.

TROD
TROD
TROD
TROD

Bridge Inspection Report | Routine Inspection

SFN: 3102831

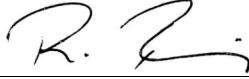
Sixth Street Expressway Pedestrian Bridge West of Harriet

Date Inspected: 06/18/2021

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: Few trans. cracks w minor efflor; spalling & efflor. @ TF's. | 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; 1 post @ W lifted 2"; 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); numerous corr cells w minor pitting; BF cover plate @ center pier E side, corroding w pack rust between plate & beam. | 2 | 6 |
| C26. Bearing Devices: Very minor corr. @ N; light visible under NW bearing. | 1 | 7 |
| 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); E beam over N pier & bearing has wide paint cracks. | | 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 | |

Bridge Inspection Report | Routine Inspection

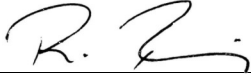
SFN: 3102831

Sixth Street Expressway Pedestrian Bridge West of Harriet

Date Inspected: 06/18/2021

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 pier area severely undermined by groundhogs.
Bottom of N & S stair handrails replaced w/ steel; individual tubes rusting, deforming.

General Notes: HAM-50-1936

Recommended Maintenance:

1. Cut vegetation from railing and landing @ S and below S approach.
2. Consider applying membrane on the deck and curbs.
3. Notch joint cover plate @ NW to allow proper expansion around railing base.
4. Repair broken welds @ handrail post bases.
5. Reset/lower 6th post from N @ W VPF & clear drainage of posts.
6. Then replace/repair kick plate fasteners.
7. Seal/caulk around all railing post sleeves(vandal fence).
8. Repair perforated portion of handrail @ S steps (center of steps).

Assigned to:

TROD
TROD
TROD
Contract
TROD
TROD
TROD
TROD

Bridge Inspection Report | Routine Inspection

SFN: 3162753

Sonoma Court Culvert

Date Inspected: 04/14/2021

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 4 Rating 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; very few short HL cracks @ top of culvert. 1 8

C45. Culvert - Alignment: 1 8

C47. Culvert - Seams: 1 8

C48. Culvert - Head/End Walls: Minor staining & moss on headwalls & WW's; isol. HL crack w 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: 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: Few cracks (transverse to roadway), 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

65. Vertical Clearance: Vert. Clearance Rating: N

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

Bridge Inspection Report | *Routine Inspection*

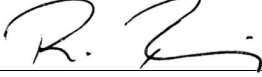
SFN: 3162753

Sonoma Court Culvert

Date Inspected: 04/14/2021

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

Summary Rating / Operational Status 8 A

Signature:  _____

Bridge No.: CITY (BP) #64

Inspection Notes: Stormwater outfall pipes @ DS WW's. W & E pipe @ S headwall below ground level.

Bridge Inspection Report | Routine Inspection

SFN: 3161528

Southside Avenue over Conrail/CSX

Date Inspected: 07/20/2021

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; no delams detected. | 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 continously hit, w cracked conc; NW approach railing not considered for rating; N most fence post bent from impact. | 1 | 7 |
| N36. National Safety Feature - Bridge Railing (0, 1 or N): | | | |
| C12. Drainage: | Both inlets are completely clogged; water apparently still able to run off due to the slope of the bridge; horiz. drain pipe lower than abutment pipe stub causing standing water in pipe. | 3 | 3 |
| C13. Expansion Joints: | Widespread shallow spalling along joint header, no apparent leakage; squeaking sound @ SW exp. jnt. under truck loads; sidewalk cover plates corroding; joint filled w debris. | 1 | 7 |

N58. Deck Summary: Widespread staining over tracks.

Summary Rating: 7

| | | | |
|---------------------------------------|---|---------------|---|
| C14. Alignment of Members: | | 1 | 8 |
| C15.1. Beams/Girders: | Initial corr. at TF where deck is cracked; minor surface corrosion elsewhere; sev. staining over tracks & some corr. over tracks; no measurable section loss. | 1 | 8 |
| C16. Diaphragms/X-Frames: | Widespread chalking; isol corr cells w no considerable LOS. | 1 | 7 |
| C26. Bearing Devices: | Partially assumed rating; some anchor bolts bent or lifted. | 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: | Few vert. HL cracks @ top of abutments w very little efflor. | 1 | 8 |
| C36. Pier Walls: | Steel corner angles included in bottom of wall; minor crack w small delam @ NW. | 1 | 8 |
| C37. Pier Caps: | | 1 | 8 |
| C39. Backwalls: | Staining; spalling around header esp @ N 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" | 1 | 7 |

Bridge Inspection Report | Routine Inspection

SFN: 3161528

Southside Avenue over Conrail/CSX

Date Inspected: 07/20/2021

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

Summary Rating / Operational Status 8 A

Signature:



Bridge No.: CITY (BP) #65

@ 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 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. 1 7

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: Railing on MSE wall settled 3.25" @ SE and 3.5" @ SW compared to railing over tieback wall.

Summary Rating: 6

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 8 A

Inspection Notes: 2020 element level report available.

Recommended Maintenance:

1. Remove veg. from WW's, substructure, & sidewalks (clear 10' wide strip to allow for wall inspection).
2. Seal control joints in GM barriers and railing parapets with watertight expansion material (Sikaflex).
3. Clean inlets.
4. Seal railings and GM barriers with silane.
5. Seal deck with HMWM.

Assigned to:

TROD
TROD
Stormwater
Contract
Contract

Bridge Inspection Report | Routine Inspection

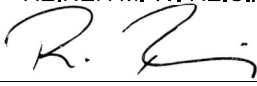
SFN: 3161285

Spring Lawn Avenue Bridge over Branch of Ludlow Run

Date Inspected: 06/01/2021

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 4Rating
9 to 0

C7.1. Floor: Widespread, mostly long. HL 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 ?); worst condition within 5' of headwall on both sides. 2 5

C7.2. Edge of Floor: Heavy efflor, stalactites, cracking, 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; 3 long. cracks w adjacent map cracking. 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 1/3 of bridge); cracking w efflor. and stalactites, rust staining elsewhere; delam @ S. see item Floor 7.1 & 7.2. 2 5

N59. Superstructure Summary: Summary Rating: 5

C33. Abutment Walls: Gunnite coated, widespread built-up of efflor. At vert. cracks; some areas of delam gunite. 2 6

C40. Wingwalls: Cracking and spalling, efflor & vertical cracks; delam & spall w exposed rebar @ NW. 2 5

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 1

N60. Substructure Summary: Mostly covered by gunite 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 & US. 2 5

N62. Channel Summary: Summary Rating: 5

Bridge Inspection Report | Routine Inspection

SFN: 3161285

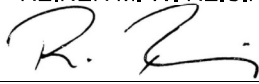
Spring Lawn Avenue Bridge over Branch of Ludlow Run

Date Inspected: 06/01/2021

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: Severly 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; no blockouts to GR on bridge. 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

C56. Sign Supports: EV posting 1 9

N59. General Appraisal and Oper. Status:

General Appraisal / Operational Status: 5 P

Inspection Notes: Element level inspection 2020 on file.

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 | Routine Inspection

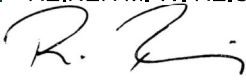
SFN: 3161331

Stillwell Road Bridge over Amberly Creek (North of Summit)

Date Inspected: 06/16/2021

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 in 2 long. Sections; spalling around the drains; 5 distinct full length long. Disturbances (crack, delam, rust staining, & stalactites); several qualify as wide cracks; widespread mottling. | 2 | 5 |
| C7.2. Edge of Floor: | Delamination & spalling; map cracking ASR w efflor and stalactites esp. @ W. | 2 | 5 |
| C8. Wearing Surface: | Few HL cracks (mostly long.); asphalt stains. | 1 | 7 |
| C9. Curbs/Sidewalks: | Crushing w large spalled areas at ends w deep spalls & asphalt patches; several areas of sidewalk patches (cracking); bottom of curb spalling. | 2 | 5 |
| C11. Railing: | Rusting throughout; dent in handrail @ SW.(3ft) | 1 | 7 |
| N36. National Safety Feature - Bridge Railing (0, 1 or N): | 0 | | |
| C12. Drainage: | 6 inlets, tend to cover w debris. | 1 | 8 |

N58. Deck Summary: Summary Rating: 5

| | | | |
|----------------------------|-------------|---|---|
| C14. Alignment of Members: | | 1 | 8 |
| C15.2. Slab: | See item 1. | 2 | 5 |

N59. Superstructure Summary: Summary Rating: 5

| | | | |
|----------------------|---|---|---|
| C33. Abutment Walls: | +/- 5 vert. cracks per abutment with efflor.(built up); isol. 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: | Bridge has concrete channel bottom (covered with sediments). | 1 | 9 |

Scour Inspection Type 1

N60. Substructure Summary: Summary Rating: 6

| | | | |
|--------------------------|--|---|---|
| C51. Channel Alignment: | Straight alignment confined in concrete walls. | 1 | 8 |
| C52. Channel Protection: | Conc. walls & rip rap; concrete channel bottom under bridge. | 1 | 8 |
| C53. Hydraulic Opening: | | 1 | 9 |

N62. Channel Summary: Summary Rating: 8

Bridge Inspection Report | Routine Inspection

SFN: 3161331

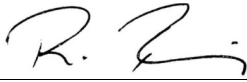
Stillwell Road Bridge over Amberly Creek (North of Summit)

Date Inspected: 06/16/2021

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: Undermined sidewalk @ SW bridge end. 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; W most drain pipe @ S abutment sunk below outlet elevation. 3 4

Utilities On Structure: NYNNNYN

N59. General Appraisal and Oper. Status: Posted (new signs installed 6-2019). General Appraisal / Operational Status: 5 P

Inspection Notes: 2020 Element Level Data available.

Recommended Maintenance:

1. Plan for curb replacement.
2. Repair gas main attachment.
3. Seal deck.
4. Replace fence post caps (4 @ W).
5. Discuss void filling @ SW.

Assigned to:

TROD
Private Utility
TROD
TROD
TROD

Bridge Inspection Report | Routine Inspection

SFN: 3160005

Van Hart Street over Lick Run

Date Inspected: 09/09/2021

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

Summary Rating / Operational Status 7 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. | | |
| C7.2. Edge of Floor: | Sealed/painted. | 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). (Touchup paint has different sheen than the original paint). | 1 | 9 |
| 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: Splashed conc. throughout needs cleaned up. Summary Rating: 9

| | | | |
|----------------------------|---|---|---|
| C14. Alignment of Members: | | 1 | 9 |
| C15.1. Beams/Girders: | Composite box beams; long. cracking observed in many beams 1,2,3,4,11,& 12 from E (under walks), some w multiple parallel cracks smaller than 0.01 (possibly related to const. activity and staging). | 1 | 7 |
| C26. Bearing Devices: | Mostly concealed elastomeric. | 1 | 9 |

N59. Superstructure Summary: Summary Rating: 7

| | | | |
|----------------------|---|---|---|
| C33. Abutment Walls: | Several full height HL cracks; sealed w colored sealer (not like Grand or Kebler) | 1 | 8 |
| C39. Backwalls: | Only visible from top; trans cracks @ top; small spalls @ approach side. | 1 | 8 |
| C40. Wingwalls: | Former paint/sealer removed. | | |

N60. Substructure Summary: Summary Rating: 8

| | | | |
|-------------------------|--|---|---|
| C51. Channel Alignment: | As designed, manmade. | 1 | 9 |
| C52. Channel Protection | Combination of racks, filter fabric, and plants being installed. | 1 | 9 |
| C53. Hydraulic Opening: | As designed. | 1 | 9 |

N62. Channel Summary: Summary Rating: 9

Bridge Inspection Report | Routine Inspection

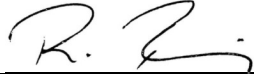
SFN: 3160005

Van Hart Street over Lick Run

Date Inspected: 09/09/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #68

C1. Pavement: Asphalt; 2 cracks @ N, 1 full width, 1 half width. 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: Broken curb @ SE & NW approach needs to be replaced. Summary Rating: 8

C57. Utilities: No duct banks but PVC pipe protruding through N abut wall feeding light below bridge.

Utilities On Structure:

65. Vertical Clearance: Vert. Clearance Rating: N

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

Recommended Maintenance:

1. Replace broken curbs @ SE & NW.
2. Seal interface of pavement w backwall, w hot applied material @ N.
3. Consider sealing wider wearing surface cracks.

Assigned to:

Contract
Contract
Contract

Bridge Inspection Report | Routine Inspection

SFN: 3161374

Victory Parkway Pedestrian Overhead South of I-71

Date Inspected: 06/16/2021

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

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #69

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; few 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, 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 minor rust cells- esp. @ BF's; pitting of webs & BF's @ stiffeners (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 Widespread peeling of top coat; freckled rust & fading throughout esp. on BF's; heavy pack rust @ vert. stiffeners, esp @ W beam and over pier. | | PCS Rating: 3 |

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 |
| 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

Bridge Inspection Report | Routine Inspection

SFN: 3161374

Victory Parkway Pedestrian Overhead South of I-71

Date Inspected: 06/16/2021

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

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #69

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.
New 2021 light fixture @ N side of pier cap (2021?, battery operated?)

Recommended Maintenance:

1. Consider repainting bridge.
2. Consider sealing wearing surface or applying membrane.
3. Cut vegetation from rails & wingwalls.

Assigned to:

Contract
TROD
TROD

Bridge Inspection Report | Routine Inspection

SFN: 3162702

West Eighth Street Bridge over Fairbanks Avenue

Date Inspected: 07/13/2021

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 4 Rating 9 to 0

- | | | |
|--|---|---|
| C7.1. Floor: Many spalls, several 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 areas (not over traffic); 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; ponding on approach slabs @ NE. | 1 | 7 |
| C13. Expansion Joints: Compression seals; spalled conc under the jnts; jnts tight; W seal (exp. End) is bulging out & shredded in sev places; minor spalling around headers @ W, E seal fixed, very tight but torn; railing almost touching over jnt @ SW; some leaking thru joint @ NW. | 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: Issues under utilities, cross frames, & bearings. | PCS Rating: | 7 |
| C32. Fatigue Prone Details: Minor corr @ cover plate welds. | 1 | 8 |

N59. Superstructure Summary:

Summary Rating: 7

Bridge Inspection Report | Routine Inspection

SFN: 3162702

West Eighth Street Bridge over Fairbanks Avenue

Date Inspected: 07/13/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (BP) #70

| | | | |
|------------------------|---|---|---|
| C33. Abutment Walls: | Stubs; coated, areas of coating delamination; 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 |
| 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), apparently not @ SW; crack sealer breaking up; delam between cracks @ SW (approach slab) | 2 | 6 |
| 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. Vibration noticable under vehicle traffic.

Recommended Maintenance:

1. Fill/cap utility conduits stubs @ abutments. (hydraulic cement)
2. Consider sealing wearing surface.
3. Consider patching E abutment where conc damaged.

Assigned to:

TROD
TROD
Contract

Bridge Inspection Report | Routine Inspection

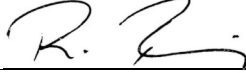
SFN: 3162656

West Eighth Street Bridge over Woodlawn Avenue

Date Inspected: 07/13/2021

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, ext. 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; 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; spalling @ jnt. armor. | 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; pack rust @ mason plates over pier. | 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. | 1 | 7 |
| C34. Abutment Caps: | E only; minor staining. | 1 | 8 |
| C37. Pier Caps: | Wider horiz cracks w rust staining at cantilevers on W side of pier; patches, some unsound; 1 spall w exp rebar @ NE; 1 SF delam; various minor delams; rust staining from runoff. | 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.; diag. cracks w efflor @ N & S end of backwall (vertical face). | 1 | 7 |

Bridge Inspection Report | Routine Inspection

SFN: 3162656

West Eighth Street Bridge over Woodlawn Avenue

Date Inspected: 07/13/2021

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

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY (BP) #71

C40. Wingwalls: Cracking & efflor; cracking of the shotcrete at the NE; coated @ W; conc det. & deep spall @ corner @ SE. 2 6

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 @ E (1"). 2 6

C2. Approach Slabs: E approach slab breaking up @ E end where pavement settled, 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. Vibration noticable under traffic. 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. Add asphalt wedges @ E end of E approach slab.
4. Seal curb, walk and gutter @ N w hot applied asphalt.
5. Trim squeezed out exp. jnt. in walk @ SW.
6. Remove tree @ SE growing against abutment.

Assigned to:

Contract
TROD
TROD
TROD
TROD
TROD

County Bridges

Bridge Inspection Report | Routine Inspection

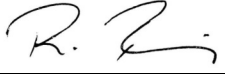
SFN: 3136388

Anthony Wayne Avenue Bridge over Mill Creek

Date Inspected: 10/28/2021

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., esp near pier. | 1 | 7 |
| C8. Wearing Surface: | MSC overlay (original const); several full length long. cracks & isol trans cracks; no delams detected (2021). | 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: | Isol areas of initial corr. esp @ top and bottom flanges & splices. | 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: | 1 |
| | Ext. flaking and widespread top coat failure exposing green & white coats below; estimated 40% to 50% top coat failur, 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: 10/28/2021

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: Inspection from channel, some substructure units not visible. **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: Channel very wide under bridge. 1 9

N62. Channel Summary: **Summary Rating: 8**

C1. Pavement: Trans. & long. cracks - most sealed; widespread potholes and rutting. 2 5

C2. Approach Slabs: Long. cracks, spalls @ backwall interface w compression seal partially torn & potholes forming @ former seal location. 1 7

C4. Embankment: Steep, but well vegetated. 1 8

C5. Guardrail: Slight impact damage but functional; block out missing @ NE; 1' long tear @ 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: 5**

65. Vertical Clearance: **Vert. Clearance Rating: N**

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

Inspection Notes: Camp in front of E abutment 2021.

General Notes: Direction definition: Mill Creek goes S to N.

Recommended Maintenance:

1. Clean & paint steel.
2. Consider sealing wearing surface & walks.
3. Trim trees touching bridge.
4. Replace missing GR block out @ NE.
5. Repair GR @ SW.

Assigned to:

Contract
Contract
TROD
TROD
TROD

Bridge Inspection Report | Routine Inspection

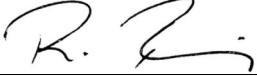
SFN: 3136426

Beekman Street Bridge over West Fork Channel

Date Inspected: 08/03/2021

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, some w minor efflor esp. under W walk; some delam area's @ beam ends. | 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 @ beam 3 from E under deck cracks. | 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 |

Scour Inspection Type 1

N60. Substructure Summary:

Summary Rating: 7

Bridge Inspection Report | Routine Inspection

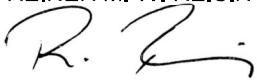
SFN: 3136426

Beekman Street Bridge over West Fork Channel

Date Inspected: 08/03/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: COUNTY #02

C51. Channel Alignment: 1 9

C52. Channel Protection: Wall: minor offset @ jts, cracks (several wider thru cracks) w seepage; channel bottom: cracks in floor w isol. deeper spalling @ jts. 2 6

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 better condition. 1 7

C2. Approach Slabs: Long. & trans. cracks esp. @ N, some wide (up to 0.08"); comp. seal bet. approach slab & deck torn @ some locs. 1 7

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 not appear to be widening; approach walks settling. Summary Rating: 7

C57. Utilities: New gas main 2021(?). 1 9

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

Inspection Notes: 2016 & 2020 inspection was done using Element Level Inspection; drone pictures taken 2021.

Recommended Maintenance:

1. Seal deck, curbs & sidewalks w HMWM.
2. Remove vines & vegetation (poison ivy) from railing & bridge ends.
3. Seal interface between curb & gutter @ W {inbound lanes} w hot applied asphalt.

Assigned to:

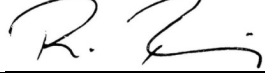
Contract
TROD
TROD

Bridge Inspection Report | Routine Inspection

SFN: 3136450

Berkshire Lane Culvert 400' North of Beechmont

Date Inspected: 04/19/2021

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

Bridge No.: COUNTY #03

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

Signature: 

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 4 Rating 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; delam @ 6th segment from US (bottom 1 ft @ E) almostly full length of that panel. 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: 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

Bridge Inspection Report | Routine Inspection

SFN: 3136450

Berkshire Lane Culvert 400' North of Beechmont

Date Inspected: 04/19/2021

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

Signature: 

Bridge No.: COUNTY #03

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

Signature: 

| | | | |
|---|---|---|---|
| C1. Pavement: | Asphalt (last known overlay 2013); 2 minor cracks. | 1 | 8 |
| C4. Embankment: | Overgrown. | 1 | 8 |
| C5. Guardrail: | Steel beam guardrail; widespread partial det. on wooden posts; pile of conc. on guardrail end terminal @ Paradise Lane. | 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): | 1 | | |
| 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: 7 A

Inspection Notes: Huge tree fallen into channel DS @ end of WW.
PVC pipe (4" - 6") exposed crossing channel US from bridge.
Placed CSR about fallen tree too close to guardrail; and CSR about concrete dumped onto guardrail following 2021 inspection.

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.

Recommended Maintenance: Assigned to:
1. Remove trees growing against US headwall. TROD

Bridge Inspection Report | Routine Inspection

SFN: 3136469

Center Hill Bridge over Mill Creek

Date Inspected: 04/20/2021

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 (only noticable from very close distance); no efflor. | 1 | 8 |
| C7.2. Edge of Floor: Ext. birds nest @ S fascia. | 1 | 9 |
| C8. Wearing Surface: HL trans. cracks over pier; few popouts; shallow spall & dark staining @ 10' from @ abutment. | 1 | 8 |
| C9. Curbs/Sidewalks: HL trans. cracks & popouts in walks, esp. over pier; more cracking @ approach walks. | 1 | 8 |
| C11. Railing: Evenly spaced HL shrinkage cracks w minor efflor. in conc. parapet; isol areas of paint flaking (back sides); conc. portion controls this rating. | 1 | 7 |
| N36. National Safety Feature - Bridge Railing (0, 1 or N): 1 | | |
| C12. Drainage: | 1 | 9 |
| 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; honey combing of top most 1' of abutment @ E. | 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 build-up @ 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: 04/20/2021

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. 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; very minor flow debris @ pier. 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): 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

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; camp gear stored on W abutment seat.

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: 08/04/2021

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: Few 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 originating from curbs; 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; excessive 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: Under center closure pour; missing bolts (constructions?), all connections appear to be welded. | 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; staining @ NW without obvious hole in joint gland. | 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 horiz. cracks w efflor. @ const joint. | 1 | 7 |

Bridge Inspection Report | Routine Inspection


SFN: 3136353

Clifton Avenue Bridge over Mill Creek

Date Inspected: 08/04/2021

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

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: COUNTY #05

C40. Wingwalls: Small transition pieces between abutments and crib walls; minor staining. 1 8

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: Sediment built-up @ S abutment. 1 8

N62. Channel Summary: Summary Rating: 7

C1. Pavement: Installed (2010); minor trans. cracks @ N intersection; breaking up @ S next to approach slab w 1 pothole forming; asphalt patches & area of map cracking @ S in 1 lane. 1 7

C2. Approach Slabs: Many long. 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 A

Inspection Notes: Traffic lines fading (chevron).
Flow monitor(?) (added @ SE 2016).

Bridge Inspection Report | *Routine Inspection*


SFN: 3136353

Clifton Avenue Bridge over Mill Creek

Date Inspected: 08/04/2021

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

Summary Rating / Operational Status 8 A

Signature:  _____

Bridge No.: COUNTY #05

Recommended Maintenance:

1. Re attach SE grass feature to pylon using urethane adhesive.
2. Sweep curbs.
3. Fix fiber popouts in deck.

Assigned to:

TROD
Other
Contract

Bridge Inspection Report | Routine Inspection

SFN: 3136574

East Fork Avenue Bridge over Little Duck Creek

Date Inspected: 03/30/2021

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

Signature: 

Bridge No.: COUNTY #06

QA/QC Inspector: BRANDON M. LECRONE, P.E.

Signature: 

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, efflor. Spalling and rust staining, mainly in W 2/3's; (10) spalls with exposed rebar w LOS (+/-20SF); many stalactites. | 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 of original concrete and patches(+/- 75%); 25 sqft of spalls deeper than 1" (2.5% of total area). | 3 | 3 |
| C9. Curbs/Sidewalks: | Curbs: widespread cracking w some efflor, some cracks with minor spalling or rust stains, esp @ S); Walks: (Walk on S side only); very minor spalls or cracks; +/-12 sqft delam @ walk over curb; spall @ SE. | 2 | 5 |
| C11. Railing: | Decor. conc. bridge railing; weathered; moss/lichen growing on N faces, few minor spalls less than 3" diameter. | 1 | 8 |
| N36. National Safety Feature - Bridge Railing (0, 1 or N): | 0 | | |
| C12. Drainage: | Street inlets off structure. | 1 | 7 |
| C13. Expansion Joints: | Clogged w dirt; advanced corrosion to joint armor with no spalls though; little to no room for mvmt; leaking after rain events (no gland below sidewalk cover plates); cover plate @ W raised. | 2 | 6 |

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: cracks over most bearings as a result of frozen bearings {4 beams @ E & 7 beams @ W} with spalls, rust staining and/or exposed bars; three beams with cracking (delamination) closer to midspan, over 8' in length (indicating corroding long. bars in main tension region; 2 areas of significant moisture from deck onto beams causing efflor. | 2 | 5 |
| C16. Diaphragms/X-Frames: | Some rust staining mostly @ end diaphragms; some 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; 2 bearings over spalls of abutment seat up to bearing plate, 1 plate undermined (NW bearing) but plate on studs into sound concrete. | 3 | 3 |

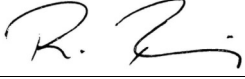
Bridge Inspection Report | Routine Inspection

SFN: 3136574

East Fork Avenue Bridge over Little Duck Creek

Date Inspected: 03/30/2021

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

Signature: 

Bridge No.: COUNTY #06

QA/QC Inspector: BRANDON M. LECRONE, P.E.

Signature: 

N59. Superstructure Summary: Redundant, not fatigue prone. Summary Rating: 5

C33. Abutment Walls: Stub abutment on spread footers: 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 at E; spalling of abutmentseat at 2 bearings up to bearing plate; 1 bearing undermined @ NW (but bearing plate on sound studs); flow debris on W abutmentseat. 2 5

C39. Backwalls: Mostly concealed; cracks @ W; deep spall w exposed rebar @ SW. 2 6

C40. Wingwalls: Cracking; efflor. @ W; partially gunnite coated; spalling near bearing @ NW. 2 6

C42. Scour: No footer exp; slight hole {2'deep} @ outlet of W abutment. 1 8

Scour Inspection Type 1

N60. Substructure Summary: Summary Rating: 5

C51. Channel Alignment: 1 8

C52. Channel Protection: Some rock & conc. US (natural channel banks slumped); private rock retaining wall @ SE mostly failed; minor undermining of toe of slope @ NW. 1 7

C53. Hydraulic Opening: DS trees falling into channel. Evidence of possible overtopping with driftwood on W abutment seat. No restriction during normal flow; apparent build up of sediment/rocks below bridge as visible from stormwater outfall invert below sediment buildup. 1 7

N62. Channel Summary: Summary Rating: 7

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; 2 steel sleeves per approach slab {for bollards?}. 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

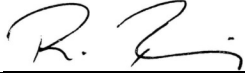
Bridge Inspection Report | Routine Inspection

SFN: 3136574

East Fork Avenue Bridge over Little Duck Creek

Date Inspected: 03/30/2021

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

Signature:  _____

Bridge No.: COUNTY #06

QA/QC Inspector: BRANDON M. LECRONE, P.E.

Signature:  _____

C55. Warning Signs: 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 (notified Cincinnati Bell following the 2021 inspection); noticeable vibration under traffic load.

Recommended Maintenance:

Assigned to:

- | | |
|--|----------|
| 1. Plan for extensive repair/replacement work. | Contract |
| 2. Square off and patch all cracks and potholes wider than 2", seal cracks and patch perimeters with hot applied asphalt | TROD |

Bridge Inspection Report | Routine Inspection


SFN: 3136639

Eighth Street Over Railroads West of Eighth Street Viaduct

Date Inspected: 06/24/2021

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 esp. @ bottom of flanges; painted ends show numerous spots of different color shade (possible touch ups?) | | 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

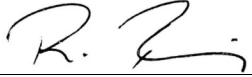
SFN: 3136639

Eighth Street Over Railroads West of Eighth Street Viaduct

Date Inspected: 06/24/2021

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 area of crack/spall E of approach slab but smooth riding; 1 7
asphalt @ W.

C2. Approach Slabs: Many long. cracks perp. to BW @ E & W, some splitting into multiple paralell HL 1 7
cracks.

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: Electric street light conduit @ NE.

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

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:

Assigned to:

1. Consider sealing the railing.

TROD

Bridge Inspection Report | Routine Inspection


SFN: 3136582

Eighth Street Viaduct over Evans Street, Mill Creek, Etc.

Date Inspected: 06/24/2021

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

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: COUNTY #08

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: Trans. cracks w efflor. under new walks; poor condition with spalls and delams. Just W of Mill Creek at locations of former ramps.; 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 HL cracking esp. in N-half; (trans. Cracks more pronounced in 2 center lanes); very distinct differences in appearance and cracking between different sections of the viaduct; no delams detected. | 1 | 8 |
| 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 & isol. Areas of concentrated corr. Cells; rusting @ perf. Fence plates is typical; scaling @ conc. Light post bases in splash zone; isol corr of kick plate fasteners {retrofit} causing fasteners to shear off; some patches completely loose; 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; some partially clogged, 1 completely clogged. | 1 | 7 |
| 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 indicating corroding rebar; 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 |
| 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 |

Bridge Inspection Report | Routine Inspection


SFN: 3136582

Eighth Street Viaduct over Evans Street, Mill Creek, Etc.

Date Inspected: 06/24/2021

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

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: COUNTY #08

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

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; grass growing in bike paths, otherwise smooth. 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: 3136582

Eighth Street Viaduct over Evans Street, Mill Creek, Etc.

Date Inspected: 06/24/2021

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

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: COUNTY #08

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 & 18 and 29 & 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:

Assigned to:

- | | |
|---|----------|
| 1. Clean inlets. | TROD |
| 2. Plan for beam rehab @ W abutment where beam ends are cracking over bearings. | Contract |
| 3. Plan for widespread chipping action (list submitted to TROD in 2021) | TROD |
| 4. Trim back tree branches & ivy over N sidewalk E of Mill Creek | TROD |
| 5. Define limits & responsibilities of use & maintenance under bridge. | Owner |

Bridge Inspection Report | Routine Inspection

SFN: 3136612

Galbraith Road Bridge over Anthony Wayne and Norfolk Southern


Date Inspected: 8/26/2021

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

Signature: 

Bridge No.: COUNTY #09

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

Signature: 

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; some patched areas. | 4 | 2 |
| C8. Wearing Surface: 2 south-most lanes remaining; widespread trans. cracking; 2 spalled areas at SW, one patched. | 2 | 5 |
| C9. Curbs/Sidewalks: Many trans. cracks, widespread large delamination in walks; widespread popouts; spalling @ exp. jt.; hollow sounding areas esp @ SW; many areas with curb patches. | 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. | 3 | 4 |
| N36. National Safety Feature - Bridge Railing (0, 1 or N): 0 | | |
| C12. Drainage: Scuppers - some inlets clogged; all D/S removed, w water dripping onto super- and substructure. | 4 | 0 |
| C13. Expansion Joints: Compression seals: 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 @ SW. | 2 | 5 |
| N58. Deck Summary: N deck removed prior to 2020 inspection - ratings previously controlled by the north portion were not changed. N deck formed and reinforcing steel being installed at time of 2021 inspection. | Summary Rating: 3 | |
| C14. Alignment of Members: | 1 | 8 |
| C15.1. Beams/Girders: Pitting esp along fascia beam; 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; new 2020 cross frames connecting N fascia beam. | 2 | 6 |
| C26. Bearing Devices: Mvmt. of several abutment bearing plates, 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 masonry plates; new bearings being installed with deck replacement contract. | 3 | 3 |

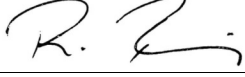
Bridge Inspection Report | Routine Inspection

SFN: 3136612

Galbraith Road Bridge over Anthony Wayne and Norfolk Southern

Date Inspected: 8/26/2021

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

Signature: 

Bridge No.: COUNTY #09

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

Signature: 

C30. Protective Coating System (PCS): System: ZV Year: 1987 PCS Rating: 2
Freckled rust throughout; rusting w LOS - esp. on fascia beams; rusting along TF; ext. peeling; rusting on diaphragms & bearings.

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 2021. Summary Rating: 5

C33. Abutment Walls: Stub abutments: minor HL cracking; graffiti. 1 7

C37. Pier Caps: Patched areas in 2021 and other areas being prepared for patching. 1 7

C38. Pier Columns: Minor HL flex cracks @ W side of center (fixed) pier; graffiti; minor patching in 2021. 1 8

C39. Backwalls: Seepage @ C/L jt. & walks (cracks w efflor. esp under curbs); 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; spalls along edges, some patched; 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. Guardrail at SE attached to steel railing (over exp. Joint); cracking where attached to railing @ SE; to be replaced with current contract in late 2022 or early 2023. 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): 1

C6. Approaches Summary: Ongoing construction 2021 (N half of the bridge including approaches is closed to all traffic) Summary Rating: 4

Bridge Inspection Report | Routine Inspection

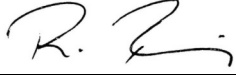
SFN: 3136338

Harrison Ave over Lick Run

Date Inspected: 09/09/2021

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

Summary Rating / Operational Status 7 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: Sealed/painted, flaking of sealer. 1 8
- C8. Wearing Surface: 1 9
- C9. Curbs/Sidewalks: Some areas patched. 1 8
- C11. Railing: Concrete portion painted/sealed but flaking; steel portion touched up with different level of sheen. 1 8
- N36. National Safety Feature - Bridge Railing (0, 1 or N): 1
- C12. Drainage: Off bridge.
- C13. Expansion Joints: Strip seals filled w debris. 1 8

N58. Deck Summary: Summary Rating: 8

- 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 typically @ drain holes; 2 larger HL cracks @ E fascia main span; 2 beams w impact damage (scrape & spall) beams 6 & 7 from W @ N of main span. 1 7

N59. Superstructure Summary: Rating based on new guidance. Summary Rating: 7

- C33. Abutment Walls: Vert. HL cracks {const. issue}; many patched spalls (noticeable as dark areas). 1 8
- C37. Pier Caps: Vert. HL cracks (some w efflor) @ each column, spall (impact) @ S pier. 1 8
- C38. Pier Columns: 1 8
- C39. Backwalls: Only top visible; 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

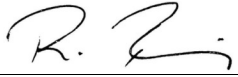
SFN: 3136338

Harrison Ave over Lick Run

Date Inspected: 09/09/2021

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

Summary Rating / Operational Status 7 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; 2 holes forming at interface with N approach slab. 1 8

C2. Approach Slabs: Widespread cracking perpendicular to backwall. 1 7

C3. Relief Joints: Relief jnt. @ S has 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: 7 A

Inspection Notes: Cones on sidewalk in 2021. Trail below blocked off with tape (for graffiti removal?)

Recommended Maintenance:

Assigned to:

- | | |
|--|-----------|
| 1. Attach & secure conduit at NW light fixture. | Punchlist |
| 2. Remove Graffiti from piers and apply anti-graffiti coating. | Punchlist |
| 3. Seal joint between approach slabs and backwalls with hot applied asphalt. | Punchlist |
| 4. Reapply paint @ concrete portion of railing where failed. | Punchlist |
| 5. Apply anti-graffiti coating to concrete railing pilasters. | Punchlist |

Bridge Inspection Report | Routine Inspection

SFN: 3136337

Hopple Street Viaduct over Mill Creek, Railroad & Spring Grove

Date Inspected: 04/30/2021

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 mainly in bays 2 and 3 from N; 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: Few 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; widespread often severe spalling and potholing @ 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); some spalling @ tiehole plugs. | 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; widespread severe spalls @ joint headers some w exposed rebar, 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. Several joints are beyond clanking since the armor is pushed below it's original position. | 4 | 2 |
| N58. Deck Summary: | Summary Rating: 7 | |
| C14. Alignment of Members: | 1 | 8 |
| C15.1. Beams/Girders: Prestressed conc. beams (1987); isol small rust stains in bot of BF throughout (embeded objects); 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. (partially concealed at other piers). 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. Beam 2 from S in span 8 with area of apparent efflor. At S side of BF. | 1 | 7 |
| 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 |

Bridge Inspection Report | Routine Inspection

SFN: 3136337

Hopple Street Viaduct over Mill Creek, Railroad & Spring Grove

Date Inspected: 04/30/2021

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

Summary Rating / Operational Status 6 A

Signature: _____



Bridge No.: COUNTY #11

C26. Bearing Devices: Elast. pad bearings; mostly concealed hence assumed rating. 1 7

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

C33. Abutment Walls: Vert. cracks mainly @ W; ext. seepage (w efflor & rust staining @ W); most seismic(?) pedestals @ W abutment severely cracked & rust stained. 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. Moisture at pier caps under expansion joints. Flex. HL cracks at bottom of new (1986) RC pier caps (piers 2-5); honeycombing in newer (1986) concrete. Several vertical cracks @ N cantilever of Millcreek pier (W side) with efflor and rust staining. 2 6

C38. Pier Columns: Widespread minor cracks, delam., & spalls (and areas of poor concrete consolidation) on old conc. Piers (esp. corners) w isol. Exposed rebar; widespread gunite repairs; see also pier walls. 2 6

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: 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):

Bridge Inspection Report | Routine Inspection

SFN: 3136337

Hopple Street Viaduct over Mill Creek, Railroad & Spring Grove

Date Inspected: 04/30/2021

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

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: COUNTY #11

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

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 compromised in 20021 and area beyond soiled and trashed.
2020 Element Level Inspection Data available.

Recommended Maintenance:

1. Replace compression seals at both abutments including sidewalk area.
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.
6. Clean E abutment wall and area below span 1 (encampment issue).
7. Repair fence at span 1.

Assigned to:

TROD
Contract
Contract
TROD
TROD
TROD
TROD

Bridge Inspection Report | Routine Inspection

SFN: 3136672

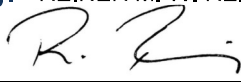
Kennedy Avenue over IORY

Date Inspected: 10/26/2021

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

Summary Rating / Operational Status 7 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: See item 15.1 Beams. | 1 | 9 |
| C7.2. Edge of Floor: Coated w anti graffiti paint. | 1 | 9 |
| C8. Wearing Surface: Few lng. HL cracks developing @ bridge ends in main span @ W curb; trans HL cracks in negative moment region. | 1 | 8 |
| C9. Curbs/Sidewalks: HL trans cracks in negative moment region of both walks. | 1 | 8 |
| C11. Railing: Conc. railing w stainless steel anti skate board balls; new steel vandal fence installed 2021; concrete portion coated. | 1 | 9 |
| N36. National Safety Feature - Bridge Railing (0, 1 or N): 1 | | |
| C12. Drainage: Off the bridge; area of minor ponding @ curbs. | 1 | 8 |
| C13. Expansion Joints: Semi integral bridge. | | |

N58. Deck Summary: Deck rating base on edge of floor condition. Summary Rating: 9

| | | |
|---|---|---|
| C14. Alignment of Members: | 1 | 9 |
| C15.1. Beams/Girders: Prestressed box beams (CB 21x48). Multiple Long HL cracks (up to 0.004 inches wide) observed in several beams, see attached list of cracks in beams; rated according to new 2021 guidelines. | 1 | 7 |

N59. Superstructure Summary: Summary Rating: 7

| | | |
|--|---|---|
| C33. Abutment Walls: stubs, vert. full height cracks near center. crack at S 0.033" wide, crack at N 0.04" wide. | 1 | 8 |
| C36. Pier Walls: No deficiencies noted; N pier has graffiti; minor honeycombing. | 1 | 9 |
| C37. Pier Caps: No deficiencies noted. | 1 | 9 |

N60. Substructure Summary: Summary Rating: 8

| | | |
|--|---|---|
| C1. Pavement: New 2020. | 1 | 9 |
| C2. Approach Slabs: 20 and 25 ft long.; HL cracking perpendicular to joint; edge to pavement +/- 1' sealed w asphalt | 1 | 8 |
| C4. Embankment: Per design, seeded. | 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*

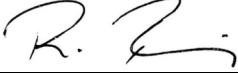
SFN: 3136672

Kennedy Avenue over IORY

Date Inspected: 10/26/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: COUNTY #12

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: Rating based on new guidance for prestressed box beams, as discussed with ODOT personnel.

General Appraisal / Operational Status: 7 A

Kennedy Ave Bridge

10/26/2021

CB 21-48 Beam cracking

Number of cracks detected

| Span/ Beam | 1 (S) | 2* | 3 (N) |
|------------|-------|-----|-------|
| 1 (W) | 1 | | 1 |
| 2 | 1** | 1 | 2 |
| 3 | 1 | | 1* |
| 4 | 1** | 2 | |
| 5 | 1 | 2 | 1 |
| 6 | | | 1 |
| 7 | 1 | 1** | 1** |
| 8 | | 2 | 1 |
| 9 | | | 1** |
| 10 | | | 1** |
| 11 | | | 1** |
| 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: 04/16/2021

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: See item 15.1 Beams. | 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 @ curbs. | 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: Precast composite 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; small spall @ beam end (6th beam from S); efflor near E abutment between 1st & 2nd beam from S (initial stalactite); small patch @ E abutment 8th beam from S. Leakage (slightly wet) in center b/w beams 2 & 3 from S. | 1 | 7 |
| C26. Bearing Devices: Elast. bearings (1992), not visible (assumed rating). | 1 | 8 |

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

| | | |
|---|---|---|
| C33. Abutment Walls: Patched & coated (1992); many vert. cracks some with initial efflor; spall @ NW; graffiti; minor mapcracking 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: Cracks w little 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

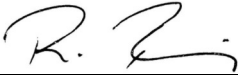
SFN: 3136728

Madison Road Bridge over Duck Creek East of Ridge Road

Date Inspected: 04/16/2021

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); wearing/rutting @ NW near 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: Secured by vegetation & grout(SE). 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 with hydraulic cement.
4. Consider sealing deck and curbs with HMWM
5. Fill (exp) joints w hot applied asphalt.

Assigned to:

Contract
Stormwater
TROD
TROD
TROD

Bridge Inspection Report | Routine Inspection

SFN: 3130003

Marburg Avenue Bridge over Wasson Way

Date Inspected: 09/30/2021

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

Summary Rating / Operational Status 8 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.
- C7.2. Edge of Floor: Cracks w build up of efflor over piers; 2 spalls (impact?) @ W over trail. 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 (2 full length)) 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; impact damage to railing @ NE; scrapes/chips @ decorative stone liner @ SW. 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: Stub abutment @ S; few vert cracks @ S; 1 full height vert. HL crack @ N; staining @ NE near fascia. 1 8
- C36. Pier Walls: Vert HL crack @ S pier; S side of pier w staining @ bottom (brown & black). 1 8
- 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: 8

Bridge Inspection Report | Routine Inspection

SFN: 3130003

Marburg Avenue Bridge over Wasson Way

Date Inspected: 09/30/2021

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

Summary Rating / Operational Status 8 A

Signature: _____



Bridge No.: COUNTY #14

C1. Pavement: New 2017; slight step @ SE between pavement & bridge (slight bounce to vehicles) 1 7

C4. Embankment: Well vegetated; steep 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: 7

65. Vertical Clearance: Vert. Clearance Rating: N

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

Inspection Notes: Trail below bridge opened in August 2021.

General Notes: Bridge opened to public 9-15-17.

Recommended Maintenance:

Assigned to:

1. Paint spall at fascia (impact from trail construction below).

Punchlist

Bridge Inspection Report | Routine Inspection

SFN: 3136795

North Bend Road Bridge over Kirby Road

Date Inspected: 06/21/2021

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

Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: COUNTY #15

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, 1 unsound asphalt patch. 2 6

C9. Curbs/Sidewalks: Rehabbed/sealed (1991); CP removed from walks; S walk reoverlaid w MMC (2000); minor HL cracking in S walk, few areas in S walk where overlay is spalled; 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); pack rust between BF & coverplates in main span @ 2nd beam from N in 2 locations, bending down cover plates; some pack rust initiating @ other beams as well, worst condition in main span. 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

C26. Bearing Devices: Elast. @ W abut., tilted N-ward; all bearings corr. & debris; some lifted anchor bots, widespread surface rusting. 2 6

C30. Protective Coating System (PCS): System: ZV Year: 1986 PCS Rating: 4

Bridge Inspection Report | Routine Inspection

SFN: 3136795

North Bend Road Bridge over Kirby Road

Date Inspected: 06/21/2021

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

Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: COUNTY #15

Rust & peeling w initial LOS @ beam ends; flanges & diaphragms; minor pitting; freckling throughout.

C32. Fatigue Prone Details: Cover Plates: pack rust forming; stitch welds starting to crack. 2 5

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; deep 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

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.

Utilities On Structure: UUUUUUU

Bridge Inspection Report | Routine Inspection

SFN: 3136795

North Bend Road Bridge over Kirby Road

Date Inspected: 06/21/2021

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

Summary Rating / Operational Status 5 A

Signature: 

Bridge No.: COUNTY #15

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.
Element level data on file.
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. Inspect cracked stitch welds in center span for cracking into base metal (drone).
10. Tighten or remove nuts on a brackets @ E.

Assigned to:

Contract
Contract
Contract
TROD
Contract
TROD
Traffic
Duke - Gas
Owner
TROD

Bridge Inspection Report | Routine Inspection

SFN: 3137139

North Bend Road Bridge over Mill Creek

Date Inspected: 04/22/2021

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, many 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 | 8 |
| 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; many scupper end tips rusting. | 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: Several vert. H/L cracks (4@W); 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 |

Bridge Inspection Report | Routine Inspection

SFN: 3137139

North Bend Road Bridge over Mill Creek

Date Inspected: 04/22/2021

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

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: COUNTY #16

C42. Scour: Deep water in E span slightly DS from pier does not seem to affect the pier. 1 8

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, bending portions of guardrail; 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: Noticable vibration under traffic; 2021 smaller camp on lumber between bottom flanges; 2021 fence @ trail completely washed out.

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

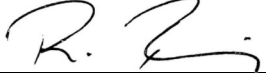
SFN: 3136817

Plainville Road Arch over Little Duck Creek

Date Inspected: 04/21/2021

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

- | | | | |
|--|---|---|---|
| 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; top of rail spall @ NW. | 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"
Wearing surface see pavement.

Summary Rating:

- | | | | |
|----------------------------|--|---|---|
| C14. Alignment of Members: | | 1 | 8 |
| C27. Arch: | Gunitite coated; many small spalls, +/-21 w exp. reinf.(low cover); efflor. @ bottom of arch; multiple delam. areas +/-20 (mostly only gunitite delamination); rust stains @ S @ bottom in few locations; seepage @ several locs (bottom both sides); larger spalls @ NW & SW corner near bottom; apparent crack (moist staining) @ center cold joint (covered with gunitite). | 2 | 6 |
| C29. Arch Spandrel Walls: | Coated; few cracks w efflor; gunitite 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 accumalation of gravel under bridge. | 1 | 7 |

N62. Channel Summary:

Summary Rating: 5

Bridge Inspection Report | Routine Inspection

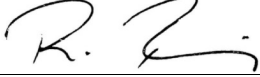
SFN: 3136817

Plainville Road Arch over Little Duck Creek

Date Inspected: 04/21/2021

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

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: COUNTY #17

C1. Pavement: Asphalt resurfaced (1997); widespread deep (>1") cracks in top course; potholes forming, esp around sewer MH. 3 4

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): 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: 4

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 walks along railing.
4. Resurface with approaches.

Assigned to:

Other
TROD
TROD
Street Rehab

Bridge Inspection Report | Routine Inspection

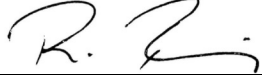
SFN: 3136841

Red Bank Expwy Culvert at Deerfield Channel North of Duck Creek

Date Inspected: 05/20/2021

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 control 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 Unable to access culvert due to depth of water inside. Chain link fence & poison ivy. | Summary Rating: 6 |
|------------------------------|--|--------------------------|

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; 2021 low flow condition {18" of water} @ US. 2 6

| | |
|------------------------------|--------------------------|
| N62. Channel Summary: | Summary Rating: 6 |
|------------------------------|--------------------------|

C1. Pavement: Asphalt overlaid (2018); isol cracking, not culvert related. 1 8

C4. Embankment: Red Bank embankment on pile wall 2017 mitigating previous erosion issues. 1 8

C5. Guardrail: Street widening (2017/2018); guardrail ends beyond culvert.

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

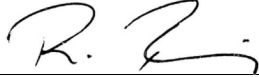
Red Bank Expwy Culvert at Deerfield Channel North of Duck Creek

Date Inspected: 05/20/2021

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.

Bridge Inspection Report | Routine Inspection

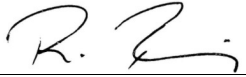
SFN: 3136868

Red Bank Expwy Culvert at Deerfield Channel South of Madison

Date Inspected: 12/03/2021

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): 0

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; cracks in center 1/3 of tunnel {dry}, others w moisture/dripping in 2021. 1 7

C45. Culvert - Alignment: Slight (orig. const.) offsets @ jts. 1 8

C48. Culvert - Head/End Walls: S: area of efflor. (alkali 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; railing @ S perforated. 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; DS rock protection 1 7

C53. Hydraulic Opening: 1 9

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: No apparent correlation between pavement issues and culvert. Summary Rating: 6

Bridge Inspection Report | *Routine Inspection*

SFN: 3136868

Red Bank Expwy Culvert at Deerfield Channel South of Madison

Date Inspected: 12/03/2021

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

Summary Rating / Operational Status 7 A

Signature: _____



Bridge No.: COUNTY #19

65. Vertical Clearance:

Vert. Clearance Rating: N

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 7 A

Inspection Notes: 2020 Element Level data on file.

Recommended Maintenance:

1. Consider concrete repairs to S headwall now that the area is more visible.

Assigned to:

Owner

Bridge Inspection Report | Routine Inspection


SFN: 3136922

Seymour Avenue Bridge over Mill Creek

Date Inspected: 04/22/2021

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. | 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 w concrete 2018; several smaller spalls patched w asphalt; 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 small popouts; 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. | 1 | 8 |

Bridge Inspection Report | Routine Inspection

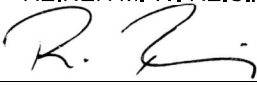
SFN: 3136922

Seymour Avenue Bridge over Mill Creek

Date Inspected: 04/22/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: COUNTY #20

locations.

C40. Wingwalls: 1 8

C42. Scour: Slight depression in channel bottom @ NW end 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 forming DS of pier. 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. New 2021? wrapping of gas main (N utility). 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

Bridge Inspection Report | *Routine Inspection*

SFN: 3136922

Seymour Avenue Bridge over Mill Creek

Date Inspected: 04/22/2021

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

Summary Rating / Operational Status 7 A

Signature: _____



Bridge No.: COUNTY #20

General Notes: Noticable vibration under truck traffic; dumping of brush & mattresses @ NW & SE.

Recommended Maintenance:

1. Consider replacing exp. jt. seals.
2. Consider overlay replacement.
3. Square off & patch w fast set concrete at two small spalls in wearing surface.

Assigned to:

Contract
Contract
TROD

Bridge Inspection Report | Routine Inspection

SFN: 3137074

Spring Grove Avenue Bridge over Mill Creek East of Kings Run

Date Inspected: 11/09/2021

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.; areas w efflor between slab & sidewalk. | 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 minor popouts; 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.(not observed 2021) | 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 severely 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 | | PCS Rating: 4 |
| | Widespread flaking of top coat - esp. on x-frames & beams esp. in E span; chalking @ fascia beams; inter. coat mostly intact; isol. rust forming @ bearings bottom of flanges. | | |

N59. Superstructure Summary: Noticable 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: 11/09/2021

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 @ cantilevers, w very little efflor @ N. 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; misaligned vertical channel walls @ NE (assumed to be construction). 1 8

C53. Hydraulic Opening: 1 9

N62. Channel Summary: Ongoing channel work DS (2016) 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. New pavement markings being installed 2021.

Bridge Inspection Report | *Routine Inspection*

SFN: 3137074

Spring Grove Avenue Bridge over Mill Creek East of Kings Run

Date Inspected: 11/09/2021

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).
5. Cut vegetation from wing wall 10' wide.

Assigned to:

Contract
TROD
Contract
Contract

Bridge Inspection Report | Routine Inspection

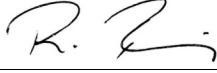
SFN: 3137031

Spring Grove Avenue Bridge over Mill Creek South of Colerain

Date Inspected: 11/01/2021

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 N span w isol. map cracking w efflor. (stalactites) esp one area @ N center; formwork left in place in a few area's; 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, large cracked patch @ 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 patch. | 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 Top coat appears thin in several locs; foreign objects embedded in paint; minor corr. starting @ abut. bearings & BF. | | PCS Rating: 7 |
| 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

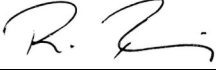
SFN: 3137031

Spring Grove Avenue Bridge over Mill Creek South of Colerain

Date Inspected: 11/01/2021

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: | Very minor flow debris & trash @ both piers. | 1 | 8 |

N62. Channel Summary: Summary Rating: 8

| | | | |
|---------------------|---|---|---|
| C1. Pavement: | Few cracks; some potholes forming @ S, esp near approach slab. | 1 | 7 |
| 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 & crumbling @ SE. 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 |
|-----------------|---|---|---|

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. Camps @ both abutments 2021. 2021 ongoing ODOT construction causing debris in inlets & gutters & splattering portions of walks & railing.

General Notes: Beam ends cut (1991).

Bridge Inspection Report | *Routine Inspection*


SFN: 3137031

Spring Grove Avenue Bridge over Mill Creek South of Colerain

Date Inspected: 11/01/2021

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

Summary Rating / Operational Status 7 A

Signature:  _____

Bridge No.: COUNTY #22

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.

Assigned to:

ODOT
Contract
Contract
TROD

Bridge Inspection Report | Routine Inspection

SFN: 3137155

West Fork Road Bridge over Tributary of West Fork Channel

Date Inspected: 04/20/2021

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: HL long. & some HL map cracking; smooth riding, no delam detected. | 1 | 8 |
| C9. Curbs/Sidewalks: Curb replaced 2012; minor scattered popouts in walk. | 1 | 7 |
| C11. Railing: Stone mortar deter; minor vert. cracks @ railing windows & top of railing (without efflor); 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; staining on several beams, assumed to be from casting. | 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: Goose roosting on S abutment during 2021 inspection.

Summary Rating: 8

Bridge Inspection Report | Routine Inspection

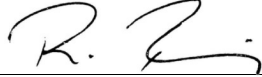
SFN: 3137155

West Fork Road Bridge over Tributary of West Fork Channel

Date Inspected: 04/20/2021

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; goose roosting in front of S abutment in 2021.

Recommended Maintenance:

Assigned to:

- | | |
|---|----------|
| 1. Consider sealing 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 |
| 5. Clear vegetation from railing @ SW. | TROD |

Bridge Inspection Report | Routine Inspection

SFN: 3137147

West Fork Road Bridge over West Fork Channel - 2nd W of Montana

Date Inspected: 04/20/2021

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: See item 15.1 Beams. | 1 | 8 |
| C7.2. Edge of Floor: Isol. HL cracks w efflor.; formties exposed. | 1 | 8 |
| C8. Wearing Surface: Long. HL cracks; 3 small spalls +/- 0.5sqft (2 w exp rebar @W) & delams @ W (+/- 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 impact 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; excessive debris in gutters. | 2 | 6 |
| C13. Expansion Joints: Covered w hot applied asphalt; deteriorated & deformed esp. @ 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 (3rd through 5th from S) have staining & white substance @ abutment & 5 joints @ E have slight staining. | 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. @ weepholes; scaling under weephole @ E; graffiti; 2x4 stuffed in weephole; 3 spots of staining, 2 of the 3 stains are more severe(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 |
|------------------------|---|---|

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

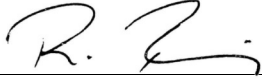
West Fork Road Bridge over West Fork Channel - 2nd W of Montana

Date Inspected: 04/20/2021

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 @ E; 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; dump rock. 1 7

C5. Guardrail: Ext. wood deter; severe impact damage @ NE & SE; 3 posts broken @ SE; severe post deter. @ NW. 4 1

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: 1

65. Vertical Clearance: Vert. Clearance Rating: N

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

Inspection Notes: Gravel & gutters on walks.

General Notes: This route goes through the park, maintaining agency not quite clear (Parks?, County?)

Recommended Maintenance:

Assigned to:

- | | |
|--|----------|
| 1. Replace guardrails. | Contract |
| 2. Replace S curb where spalled. | TROD |
| 3. Patch deck overlay spalls before sealing deck. | TROD |
| 4. Place hot applied seal over exp joints where cracked. | TROD |
| 5. Consider sealing deck with HMWM. | TROD |

Bridge Inspection Report | Routine Inspection

SFN: 3137090

West Fork Road Bridge over West Fork Channel at Montana

Date Inspected: 06/11/2021

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: More than typical joint leakage in 2021, see inspection note. | 1 | 7 |
| C8. Wearing Surface: Full-length partially wider long. cracks (reflective of beams); some trans. cracks over pier; few patches @ back wall & center joint(2021). Wearing surface to receive high-friction course later in 2021. | 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: Moderate impact damage in metal portion at sev. Locations; some tubular members bent; Few vert. cracks w efflor. In conc. Portion; minor additional impact damage to metal railing adjacent to bridge(bending). | 1 | 7 |
| 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; temporarily removed in 2021 for work on wearing surface. | | |

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 x 1' wide}. In 2021 more leakage than usual was observed between the beams and at the abutments since the expansion joints had been temporarily removed to patch the wearing surface and prepare for high friction course. | 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. extremely wet & stained from jt. leakage in 2021; crack @ E side of N abutment; 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; both abutment caps completely wet in 2021 (temporary prep work for high friction course). | 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: Several patches 2021. | 2 | 6 |

Bridge Inspection Report | Routine Inspection


SFN: 3137090

West Fork Road Bridge over West Fork Channel at Montana

Date Inspected: 06/11/2021

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

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: COUNTY #25

C40. Wingwalls: Cracking w efflor; gunite coating w efflor. on older portion; large cracked area @ NE. 1 7

C42. Scour: Conc. channel. Some water apparently traveling around pier despite channel protection. 1 9

Scour Inspection Type 1

C43. Slope Protection: Conc.; minor settlement @ both abutments; some cracking. 1 7

N60. Substructure Summary: Substructure exceptionally wet in 2021; see inspection note, joints removed. 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. (2021 @ N); trans. cracks; N approach to be treated w friction course in later 2021; area of light alligator cracking @ S. 1 7

C2. Approach Slabs: Full length crack @ NW; diag. crack @ NE; impact damage @ curbs; cracks perp. to BW; curb settled @ SW; patches @ backwall 2021. 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: Element level report for 2020 inspection available; prep work for friction course overlay going on in 2021 w joints opened & wearing surface patches causing more than usual leakage.

Bridge Inspection Report | *Routine Inspection*

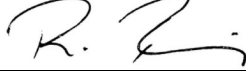
SFN: 3137090

West Fork Road Bridge over West Fork Channel at Montana

Date Inspected: 06/11/2021

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

Summary Rating / Operational Status 6 A

Signature:  _____

Bridge No.: COUNTY #25

Recommended Maintenance:

Assigned to:

1. Fill gap between pier wall and channel protection with hydraulic cement (submitted to TROD later 2021).
2. Sweep sidewalks.

TROD

TROD

Bridge Inspection Report | Routine Inspection

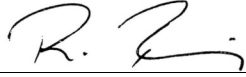
SFN: 3137082

Western Hills Viaduct

Date Inspected: 05/28/2021

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 | 5 |
| 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: 05/28/2021

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 |
|-----------------|---|---|

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.); rail yard portion inspected 4-22-2021 due to flagger availability.
FC inspection by AECOM performed in May 2021.

General Notes: For details see 2021 reports for SFN 3199909 and SFN 3199910.
Detailed design for replacement bridge ongoing (TY Lin).

Bridge Inspection Report | *Routine Inspection*

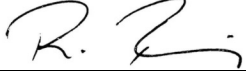
SFN: 3137082

Western Hills Viaduct

Date Inspected: 05/28/2021

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 2021 reports for 3199909 and 3199910.

Bridge Inspection Report | Routine Inspection

SFN: 3199910

Western Hills Viaduct - Bottom Deck (2 of 2)

Date Inspected: 05/28/2021

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. becoming 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 & up to 6 bars exp. in some areas) 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; 1 water main pipe saddle over Intermodal yard failed, hangers may be carrying load; spans 48 & 49 have 5 holes, varies between 25 to 100 sqft each, span 40 w +/-30 sqft hole. | 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. | | |
| 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 | 5 |

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 under 2 beams (2007), others showing wider cracks, 2nd span from E shows det. w rebar w LOS, build up of efflor. & ext. delams; flex. cracking on S | 3 | 4 |

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

Summary Rating / Operational Status 4 P

Signature: 

Bridge No.: COUNTY #26A

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; pack rust on webs of S ramp on fascia beams on State St.

b) Steel beams (W ramps): pack rust w pinholes @ bearings; corr. w LOS on N-Fascia beam of NW ramp (see 2019 FC report for North ramp beams); also packrust @ webs of S ramp fascia beams over State.

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; occasional 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); spalling w multiple exposed bars on 4 FB's of Millcreek arch. 3 4
 b) Reinforced concrete floor beams: delam. & rust stains @ FBs @ center of W arch.
- 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.(several bars per area). 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); large amounts of spalled conc. trapped between exp. pier columns. 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**

Bridge Inspection Report | Routine Inspection

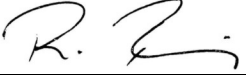
SFN: 3199910

Western Hills Viaduct - Bottom Deck (2 of 2)

Date Inspected: 05/28/2021

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

Summary Rating / Operational Status 4 P

Signature: 

Bridge No.: COUNTY #26A

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: Conc. channel lining (DS end of lining damaged @ W). Summary Rating: 8

C1. Pavement: Asphalt overlayed (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, telephone manholes are reinforced w steel skeleton. Many existing conduits/ducts appear abandoned. 4 1
 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. Multiple recent water main breaks in N trough.

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 |
| 5. Move VC sign @ W end to ramp split. | Traffic |

Bridge Inspection Report | Routine Inspection

SFN: 3199909

Western Hills Viaduct - Top Deck (1 of 2) & Plaza

Date Inspected: 05/28/2021

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 cells of 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 with some areas of advance cracking, some spalling; some spalls w exp rebar & efflor; isol possible delams esp. @ N fascia. | 2 | 5 |
| C8. Wearing Surface: | Asphalt overlay (2010); wearing surface breaking up around plaza expansion joints, and potholes forming at E.(some patched); potholes in span 42 S lane; apparently more potholes over steel structure than conc. Encased portions. | 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 & excessive depression; strip seal joints in very good condition, wabo joints in serious(3) condition. | 2 | 5 |

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; sev. crumbling/crushing & rust stains in some S fascia spans (example span 44-45-46). | 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 | 2 | 5 |

Bridge Inspection Report | Routine Inspection

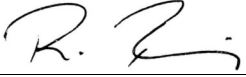
SFN: 3199909

Western Hills Viaduct - Top Deck (1 of 2) & Plaza

Date Inspected: 05/28/2021

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

Summary Rating / Operational Status 4 P

Signature: 

Bridge No.: COUNTY #26B

report 3 FBs rated 4).

- C27. Arch: Both arches tied; cracks w efflor. & seepage, spalls w exp. rebar; E arch spalls w exp. rebar & LOS (10 adjacent bars). 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; 2021 FC report on file. 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; wide shear crack & spalling @ abutment seat level on wingwall side @ Harrison ramp. 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: 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; at least 1 pipe saddle over intermodal failed, so hangers may be carrying loads. 3 3

Utilities On Structure: Y Y N Y N Y Y

Bridge Inspection Report | Routine Inspection

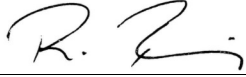
SFN: 3199909

Western Hills Viaduct - Top Deck (1 of 2) & Plaza

Date Inspected: 05/28/2021

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

Summary Rating / Operational Status 4 P

Signature: 

Bridge No.: COUNTY #26B

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

Inspection Notes: This report is only for that portion of the structure west of I-75.
Fracture Critical Inspection last performed by AECOM in May 2021.
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.
Last chipping of loose overhead conc. 4-10-2021; Debris netting installed @ pier 16 in June 2021.

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. Repair railing @ Plaza. | TROD |

Bridge Inspection Report | Routine Inspection

SFN: 3137112

Wooster Road Bridge over Duck Creek

Date Inspected: 04/23/2021

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 near exp joints; some older full depth patches; spall over pier @ NE; few delaminated areas. | 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 small spall +/- 6" sqjn W bound lane. | 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 (tend to clog @ roadway level); d/s corr. @ ends; minor ponding @ W curb w debris in gutter; water from S-most scupper is eroding slope prot. | 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; glands ending in W walk shy of parapet, causing water to seep to fascia beam. | 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 high water events; 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 Rusting @ beam ends & along TF's; isol. top coat flakes @ S {without corrosion}. | | PCS Rating: 6 |
| 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 @ N. | 1 | 7 |
| C36. Pier Walls: Large spall @ bottom of S pier; minor HL cracks @ cants.; covered w lichen. | 1 | 8 |
| C37. Pier Caps: Crack on N pier apparently repaired; bird feces accumulating on top. | 1 | 8 |

Bridge Inspection Report | Routine Inspection

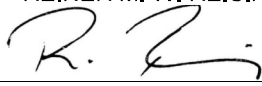
SFN: 3137112

Wooster Road Bridge over Duck Creek

Date Inspected: 04/23/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: COUNTY #27

C39. Backwalls: Some vert. cracks w efflor; cracks @ road surface; diag. crack efflor. @ SW corner; widespread staining from former leakage. 1 7

C40. Wingwalls: Including cheek walls: 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; no thrie beam transition. 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: 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

General Notes: Direction definition: Bridge going from S to N, not E to W

Bridge Inspection Report | *Routine Inspection*

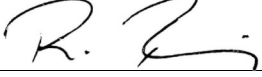
SFN: 3137112

Wooster Road Bridge over Duck Creek

Date Inspected: 04/23/2021

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

Summary Rating / Operational Status 7 A

Signature:  _____

Bridge No.: COUNTY #27

Recommended Maintenance:

1. Consider painting beam ends.
2. Sweep curbs and walks.
3. Replace Guardrail block out @ NW.
4. Consider extending joint glands into parapet.

Assigned to:

Contract
TROD
TROD
Contract

Wasson Way Bridges

Bridge Inspection Report | Routine Inspection

SFN: 3199930

Wasson Way Culvert over Little Duck Creek

Date Inspected: 04/23/2021

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

Summary Rating / Operational Status 5 K

Signature: 

Bridge No.: WASSON #01

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

- | | | | |
|--------------------------------|---|---|---|
| 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; some cracks w built up efflor. 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., & spalls @ segment joints. | 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: Build 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; unsound areas of wingwalls @ 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; erosion behind US wingwall @ W. | 2 | 6 |

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 |
|-----------------------|--|-----------------|---|

Bridge Inspection Report | Routine Inspection

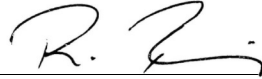
SFN: 3199930

Wasson Way Culvert over Little Duck Creek

Date Inspected: 04/23/2021

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

Summary Rating / Operational Status 5 K

Signature: 

Bridge No.: WASSON #01

C51. Channel Alignment: Slight curvature US of culvert; apparently causing slight flow against the W wing and erosion behind it. 1 7

C52. Channel Protection: Slumping, trees undermining, deep scour holes in the channel US (50' away) and DS (10' away from culvert); slight erosion 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. Per ODOT's definition of a multi cell culvert, only the center cell is actually a bridge (>10' diameter). Since the distance from the outer cells to the center cell is more than half of the smaller cell diameter, these would not be part of the culvert. However, since DOTE owns this structure the rating is based on all 3 cells.

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Monitor cracking in E culvert. | Owner |
| 2. Evaluate hydraulic need for E tunnel & possibilities of filling it. | Owner |

Bridge Inspection Report | Routine Inspection

SFN: 3199931

Wasson Way over Ault Park

Date Inspected: 12/06/2021

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

Summary Rating / Operational Status 5 K

Signature: 

Bridge No.: WASSON #02

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: New composite concrete deck slab poured 12-2021, formwork still in place on overhangs and in N span, hence partially assumed rating; slight area of honeycombing near S abutment. 1 8

C11. Railing: Trail railing: Wooden rails attached to galvanized steel posts on concrete curb. Railing being installed at time of 2021 inspection.

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

C12. Drainage: 6 inlets on E side of bridge. Downspouts not yet installed. Aparent slight ponding in some areas. 2 6

C13. Expansion Joints: Evazote material to be covered by wabo flex, not installed at time of 2021 inspection.

N58. Deck Summary: New deck on former open tie RR bridge. Still mostly under construction in 2021, assumed rating. Summary Rating: 8

C14. Alignment of Members: New bridge follows design of original RR structure. 1 8

C15.1. Beams/Girders: Widespread LOS to flanges & rivets; many stiffeners perforated at bottom; severe LOS @ some existing gussets. Steel repairs to gussets and secondary members forthcoming as part of rehab contract. 2 5

C16. Diaphragms/X-Frames: LOS to gussets & several bottom horiz members. The most deteriorated members will be replaced during the 2021 ongoing rehab project. 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. Most severely deteriorated lower bracing members will be replaced during the ongoing rehab contract, the top bracing will no longer be needed because of the composite concrete deck. 3 3

C26. Bearing Devices: Surface corrosion. 1 8

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. To be recoated in spring 2022.

N59. Superstructure Summary: Structure undergoing significant rehabilitation. Most superstructure work will be done in 2022, hence the current ratings do not reflect the rehabilitated condition. Summary Rating: 5

C33. Abutment Walls: Stubs only: covered with debris. 1 7

C36. Pier Walls: Original piers are non-reinforced concrete, with areas of efflor at corners. New +/- 5ft of pier reinforced concrete pier wall/cap installed in 2021. Some corner spalls to be patched in 2022. 2 6

C37. Pier Caps: Original pier caps replaced in 2021 with reinforced concrete pier cap. 1 9

Bridge Inspection Report | Routine Inspection

SFN: 3199931

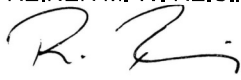
Wasson Way over Ault Park

Date Inspected: 12/06/2021

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

Summary Rating / Operational Status 5 K

Signature: _____



Bridge No.: WASSON #02

C39. Backwalls: Ex. Top of backwalls partially removed during construction. To be rebuild in 2022.

N60. Substructure Summary: Rating reflects new pier cap, but not the forthcoming patching of the pier walls.

Summary Rating: 6

N59. General Appraisal and Oper. Status: Under construction. Rating still based on structural steel condition which has not been addressed during the rehabilitation contract at the time of the 2021 inspection.

General Appraisal / Operational Status: 5 K

Inspection Notes: Open deck RR bridge being transformed into trail bridge in 2021. Work ongoing at the time of construction and many ratings will be changing as work progresses.

General Notes: Bridge became part of the inventory as part of Wasson Way purchase in 2016.

Bridge Inspection Report | Routine Inspection

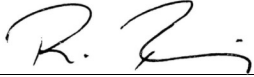
SFN: 3103846

Wasson Way over Columbia Parkway

Date Inspected: 04/23/2021

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

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Steel painted 2013. 1 8

C7.2. Edge of Floor: Some steel angles holding back ballast @ top of deck corroding. 1 7

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

N58. Deck Summary: Ballast filled deck; widespread plant growth on deck. Summary Rating: 8

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Slightly 'roughened' surface under new coat of paint; no evidence of any significant LOS; BFs of both beams scraped over inbound lane, 1 rivet sheared off; scrapes in paint @ this location. 1 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. 1 8

C18. Floor Beams: Slightly 'roughened' surface under new coat of paint; no evidence of any significant LOS. 1 8

C26. Bearing Devices: Apparent LOS on nuts of anchor bolts at NE painted over; lifted bolt over pier. 1 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. 1 8

C36. Pier Walls: Minor staining; sealed 2013; minor cracks sealed; minor buckholes. 1 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. 1 7

C39. Backwalls: Sealed 2013. 1 8

C40. Wingwalls: Sealed 2013; poison ivy growing in joint. 1 8

N60. Substructure Summary: Summary Rating: 7

C4. Embankment: Steep but overgrown. 1 8

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: 3103846

Wasson Way over Columbia Parkway

Date Inspected: 04/23/2021

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; new "No Trespassing" signs 2021.

General Notes: Bridge ownership transferred as part of Wasson Way in 2016.

Recommended Maintenance:

1. Control vegetation on bridge.
2. Control excess ballast on bridge.
3. Consider epoxy injection of cracks in pier cap.

Assigned to:

Owner
Owner
Contract

Bridge Inspection Report | Routine Inspection

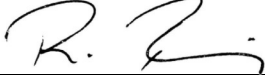
SFN: 3161073

Wasson Way over Grovedale Pl.

Date Inspected: 05/07/2021

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 for main span; small moist spot @ NE on PS beam near fascia due to caulk failure; patches in approach spans (2018). | 1 | 8 |
| C7.2. Edge of Floor: Decorative concrete 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 | 7 |

N58. Deck Summary: Summary Rating: 8

| | | |
|---|---|---|
| C14. Alignment of Members: | 1 | 9 |
| C15.1. Beams/Girders: PS box beams; threaded inserts in fascia beams grouted. | 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

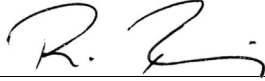
Wasson Way over Grovedale Pl.

Date Inspected: 05/07/2021

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**

Inspection Notes: 2021, areas adjacent to the bridge on both sides fenced off.

Recommended Maintenance:

1. Schedule replacement of caulk bet fascia panels and beams.

Assigned to:

Owner

Bridge Inspection Report | Routine Inspection

SFN: 3114759

WASSON WAY over I-71

Date Inspected: 10/13/2021

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 4

Rating
9 to 0

C7.1. Floor: Very isol. HL cracks. 1 8

C7.2. Edge of Floor: Patch @ NE (former spall); vert. HL cracks w efflor. 1 8

C9. Curbs/Sidewalks: New deck poured over ballast 2019; several HL cracks {some full width} detected; sealed w HMWM 2020. 1 8

C11. Railing: New w vandal fence 2019; vert cracks w efflor in conc portion (sealed 2020) of railing; ongoing punch list. 1 7

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

C12. Drainage: New 2019; 6 inlets @ S/ downspouts @ N & S. 1 9

C13. Expansion Joints: Rebuilt 2019; cover plates abraded @ 3 E most joints {maintenance vehicle?} 1 8

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; isol. cracking @ tops. 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: 10/13/2021

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.
Railing punch list work ongoing at the time of 2021 inspection.

General Notes: Bridge added to inventory 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: 10/13/2021

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: | Vert. cracks w efflor (in new curb area); efflor. @ beam end flanges. | 1 | 7 |
| C9. Curbs/Sidewalks: | New curb/wearing surface installed on top of ballast in 2019; many HL cracks {some full width}, 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; ongoing punch list for fence. | 1 | 7 |
| N36. National Safety Feature - Bridge Railing (0, 1 or N): | | | |
| C12. Drainage: | 2 inlets @ E, but downspouts @ all corners (underdrain of former deck). | 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: | Ivy @ E. | 1 | 8 |
| C40. Wingwalls: | Overgrowing. | 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: 10/13/2021

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; railing punch list work ongoing @ time of 2021 inspection.

General Notes: Bridge aquired as part of Wasson Way in 2016.

Recommended Maintenance:

1. Remove styrofoam in NE exp. joint below bridge (punch list, 1 year warranty).
2. Perform punch list repairs.

Assigned to:

Contract
Contract

Bridge Inspection Report | Routine Inspection

SFN: 3140032

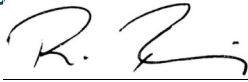
Wasson Way over Red Bank Rd

Date Inspected: 08/05/2021

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.

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

N58. Deck Summary: Fenced off @ E & W.

Summary Rating:

| | | | |
|---------------------------------------|---|---|---|
| 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: | Partially assumed rating. | 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; corr. w LOS @ bearing over 2nd pier from W (W side). | 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) E abutment: widespread concrete cracking and crumbling w efflor (no rebar detected) @ WW edges, rating controlled by W abutment. | 3 | 4 |
| 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 half 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

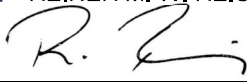
Wasson Way over Red Bank Rd

Date Inspected: 08/05/2021

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; kudzo overgrowing sub structure units. **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 2021). 2 5

C53. Hydraulic Opening: Flow debris on pier wall & channel, but no significant reduction of opening. 1 8

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; 2021 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; tracks were removed in early 2017.

Recommended Maintenance:

1. Remove Kudzu from piers before it reaches deck level & conceals RR ties.
2. Plan for extensive bearing & super structure rehab before adding trail to bridge.
3. Plan for extensive substructure improvements before putting bridge into service, esp. W abutment.
4. Consider extending concrete channel wall @ W side of creek to prevent water from eroding behind the wall.

Assigned to:

Owner
Contract
Owner

Bridge Inspection Report | Routine Inspection

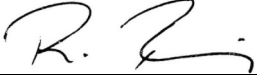
SFN: 3140024

Wasson Way over Wooster Rd.

Date Inspected: 04/23/2021

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

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Open ties, deteriorating; planked walk portions failed (rotting, missing); long. (used) planks added during track removal 2016 concealing stringers (concealing superstructure elements). 4 2

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

N58. Deck Summary: (Vines removed from deck in late 2020). Summary Rating: 2

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Surface corr. throughout; 2 panels with plated (bolted) web sections @ SW (apparent retrofit); broken rivet @ SW. 2 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. 4 2

C18. Floor Beams: Pitting and rivet deterioration on top flanges, esp. @ W; broken TF rivet @ SW. 2 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) 2 5

C26. Bearing Devices: Corroding; bent anchor bolt @ NE. 2 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. 2 5

C34. Abutment Caps: Concrete cap with built-up of efflor esp @ corners; caps overgrown w vines; map cracking (ASR). 2 6

C40. Wingwalls: Masonry walls with stone surface deterioration esp @ NW w cracked block & build up of efflor.; overgrown with vines in some areas. 2 5

N60. Substructure Summary: Summary Rating: 5

C4. Embankment: Steep, mostly overgrown. 1 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

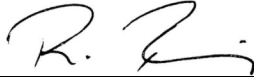
Wasson Way over Wooster Rd.

Date Inspected: 04/23/2021

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 and planking. Rating controlled by condition of stringers.

General Appraisal / Operational Status: 2 X

Inspection Notes: Top fenced off with gates (2017); "No Trespassing" signs added in 2021; vines removed from bridge @ W abutment (late 2020)

General Notes: Bridge became part of Wasson Way property in 2016.

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Consider removal of all ties and timber planking. | Owner |
| 2. Plan for extensive masonry repair work @ abutments & super structure repairs when trail is built. | Owner |
| 3. Clean falling debris (stones from abutments) from walk. | Owner |

Fort Washington Way Bridges

Vertical Offsets at the 3rd Street Approach Slabs of the FWW bridges.

Date: 10/12/2021

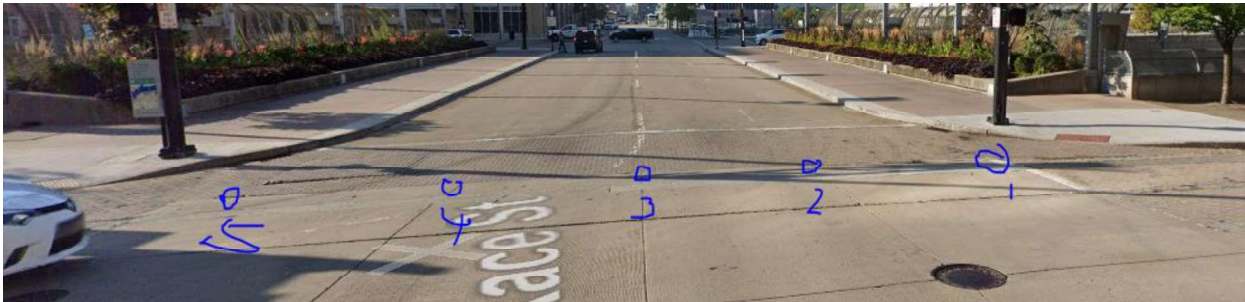
Measurements were taken at the N end of the approach slab, at 5 locations in line with the curbs and lane lines as indicated in the below photo.

Location points were counted from W to E starting with point 1 at the extension of the W curb.

All measurements are taken in inches

Positive measurements indicate the approach is higher than the approach slab.

| Bridge | Point 1 | Ponit 2 | Point 3 | Point 4 | Point 5 |
|--------|---------|---------|---------|---------|---------|
| Main | 0.4 | 0.8 | 0.3 | 0.9 | 1.7 |
| Walnut | 0 | 0 | 0 | 0.5 | -0.5 |
| Vine | 0 | 0.4 | 0.7 | 0.5 | 0.6 |
| Race | 1 | 1.4 | 0.9 | 0.6 | 0.6 |
| Elm | 0 | 0 | 0 | 0 | 1.1 |



Bridge Inspection Report | Routine Inspection

SFN: 3106071

Elm Street Bridge over Fort Washington Way

Date Inspected: 10/11/2021

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; moisture spot @ E fascia just S of pier. 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); full width utility cut @ N w asphalt @ concrete patches. 2 5
- C2. Approach Slabs: New (2014) @ S w long. cracks; curb @ NW replaced w asphalt; widespread paver det. @ N; see 2021 settlement measurements. 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: 10/11/2021

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; 3rd light @ N @ E fascia turned & twisted (impact?). 1 7

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: Moisture from hor. deck joint @ 1 loc. @ E fascia, just S of pier.
2020: new overlay on I-71.
2021-left lane blocked w barrels for Brent Spence painting.

General Notes: HAM 71-0065

Recommended Maintenance:

1. Replace broken/missing light covers below bridge.
2. Replace 3 out of 4 lights over FWW.
3. Repair 3rd light from N @ E fascia including conduits.

Assigned to:

Traffic
ODOT
Traffic

Bridge Inspection Report | Routine Inspection

SFN: 3106500

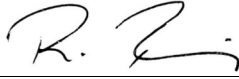
Main Street Bridge over Fort Washington Way

Date Inspected: 10/11/2021

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); cracked corner of NE fascia beam S of pier; corner spall beam 5,6, & 7 from E, N of pier; both corners cracked beam 5 from E north of pier.; multiple long. HL cracks beam 5 from E in S span, w minor efflor & moisture; 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; settlement {see 2021 measurements}, to be lifted by contract 2021/2022 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: 10/11/2021

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: 10/11/2021

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

Summary Rating / Operational Status 7 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) & 3 most beams S of pier. 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; stalactites @ SE over abutment. 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; black tire marks from scooters on colored conc. 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?}; beam 8 from E, N of pier has 1' long HL crack; isol. leakage w stalactites (see item floor). 1 7

N59. Superstructure Summary: Isol. honeycombing on bottom of box beams. 2021 rating based on new guidance for prestressed box beam bridges. Summary Rating: 7

- 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. esp. @ E most column, upper portions. 1 8

N60. Substructure Summary: Summary Rating: 8

- C1. Pavement: N concrete in very good condition; pavers in crosswalk det., some missing; conc. & asphalt patches utility (full width). 2 6
- 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) gap bet. approach slab & 3rd street pavement; see 2021 settlement measurements (Excel file). 2 5

Bridge Inspection Report | Routine Inspection

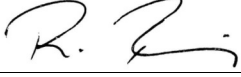
SFN: 3106195

Race Street Bridge over Fort Washington Way

Date Inspected: 10/11/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (FWW) #03

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

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: 2021 prestressed rating based on ODOT guidance.

General Appraisal / Operational Status: 7 A

Inspection Notes: Widespread paint flaking from streetlights; new (2020) wearing surface on I-71; many stalactites are black; new 2021 plant irrigation system w 3 sprinklers per planter.

General Notes: HAM 71 - 0073

Recommended Maintenance:

1. Replace lights along I-71.
2. Replace broken light bulbs @ railing pedestals.
3. Clean drainage.
4. Remove excess soil.
5. Repair water proofing.

Assigned to:

Traffic
Traffic
Parks
Parks
Parks

Bridge Inspection Report | Routine Inspection

SFN: 3106209

Vine Street Bridge over Fort Washington Way

Date Inspected: 10/11/2021

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

Summary Rating / Operational Status 7 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 | 7 |
| C8. Wearing Surface: Polycarb Flexogrid overlay 2003 - (spot repaired 2011), breaking up, bubbling, & peeling @ both curbs 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. @ E; staining from planter over walks @ SW & SE. | 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: SW light reflector panel peeling. 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 {up to 12" long} between beams 2 & 3 from E, S of pier & S of N abutment; deep honey comb N of pier, beam 9 from W (same beam has moisture & little rust staining @ drain hole); small corner delam N of pier beam 7 from W; many small rust stains from embedded objects; beam 6 from E, N of pier has 2' long delam; beam 9 from E has HL long. crack 1.5' S of pier.

N59. Superstructure Summary: Isol. honeycombing on box beam bottoms. Summary Rating: 7

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: 10/11/2021

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

Summary Rating / Operational Status 7 A

Signature: _____



Bridge No.: CITY (FWW) #04

C1. Pavement: Sev pavers det. & settling @ N; severe in pedestrian crosswalks on 3rd st.; asphalt patches for utility. 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; settled, see 2021 measurements (Excel file in FWW folder). 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: Beams rated according to new guidance {2021}.

General Appraisal / Operational Status: 7 A

Inspection Notes: New wearing surface on I-71 in 2020

General Notes: HAM 71-0082.

Recommended Maintenance:

1. Remove excess soil from planter & repair planter membrane.
2. Replace lights on FWW 3/4 not working.
3. Repair membrane of E planter.
4. Consider overlay repairs at E curb.
5. Check planter drainage esp @ SW.

Assigned to:

Parks
Traffic
Contract
Contract
Parks

Bridge Inspection Report | Routine Inspection

SFN: 3106314

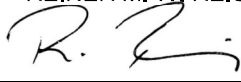
Walnut Street Bridge over Fort Washington Way

Date Inspected: 10/11/2021

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

Summary Rating / Operational Status 7 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 7
- C7.2. Edge of Floor: Trans. cracks w efflor. & minor rust stains in overhangs; spalling @ feet of rebar 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: Floor rating based on edge of floor condition. Summary Rating: 7

- 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 S of pier & N of S abutment; 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; spall @ S abutment beam 3 from W; many small rust stains from embedded objects. 1 7

N59. Superstructure Summary: Areas w pronounced honeycombing. Rating based on new 2021 ODOT guideline for box beams. Summary Rating: 7

- 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: N only; mostly new 2015 due to streetcar; brick crosswalk @ NE disintegrating/patched w asphalt. 1 8
- C2. Approach Slabs: New 2015 (street car); long. cracking @ (around sewer MH's) N & 1 @ S; minor crushing on bridge side @ N. (See vertical offset measurements in FWW file). 1 7

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

Bridge Inspection Report | Routine Inspection

SFN: 3106314

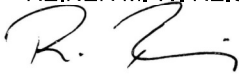
Walnut Street Bridge over Fort Washington Way

Date Inspected: 10/11/2021

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

Summary Rating / Operational Status 7 A

Signature: _____



Bridge No.: CITY (FWW) #05

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: 1

N59. General Appraisal and Oper. Status: 2021 rating based on updated guidance.

General Appraisal / Operational Status: 7 A

Inspection Notes: Planter drains cleaned 10-31-16; New (2020) wearing surface on I-71; evidence of planter overtopping @ S end, E & W; soil level in planters exceeds top of water proofing; 2021 newly added sprinklers in center of planters {3 per planter}.

General Notes: HAM 71- 0091

Recommended Maintenance:

1. Remove excess soil in planters.
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:

Parks
Traffic
Contract
Warranty?
Parks
Parks

City Skywalk Bridges

Bridge Inspection Report | Routine Inspection

SFN: 3199982

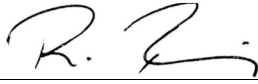
Chiquita Center Paulding Alley Pedestrian Overhead

Date Inspected: 05/19/2021

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) misaligned @ center joint; irregular folding of exp joint gland @ all outside corners. 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.

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

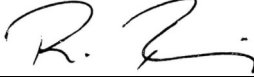
Chiquita Center Paulding Alley Pedestrian Overhead

Date Inspected: 05/19/2021

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}.

Bridge Inspection Report | Routine Inspection

SFN: 3199810

Convention Way Pedestrian Overhead from Race to Vine Street

Date Inspected: 11/02/2021

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 drop ceiling panels; stains; plaster coating bulging @ several loc.'s; some panels missing, cracked, broken, stained or loose; impact damage to floor @ various locations. 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: 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 @ some columns; 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; 2021 ongoing const. below w equipment/containers.

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.

Bridge Inspection Report | *Routine Inspection*


SFN: 3199810

Convention Way Pedestrian Overhead from Race to Vine Street

Date Inspected: 11/02/2021

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. Determine maintenance after construction is completed.

Bridge Inspection Report | Routine Inspection

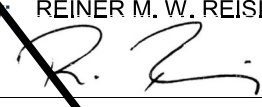
SFN: 3199953

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

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. Rating 1 to 4: 2 Rating 9 to 0: 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). Rating 1 to 4: 1 Rating 9 to 0: 8

N36. National S:

C12. Drainage: Rating 1 to 4: 1 Rating 9 to 0: 8

C13. Expansion Rating 1 to 4: 1 Rating 9 to 0: 7

N58. Deck Sum

REMOVED

Summary Rating: 6

C14. Alignment of Members: Rating 1 to 4: 1 Rating 9 to 0: 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. Rating 1 to 4: 1 Rating 9 to 0: 8

C30. Protective Coating System (PCS): System: Year: 1999 PCS Rating: 8
Vert. and handrails painted.

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 Rating 1 to 4: 1 Rating 9 to 0: 8

C38. Pier Columns: W end supported on bldg, granite enclosed not visible; E end supported on painted conc. Pier; coated (2014). Rating 1 to 4: 1 Rating 9 to 0: 8

N60. Substructure Summary: W substructure not visible; partially assumed rating. Summary Rating: 8

Bridge Inspection Report | Routine Inspection

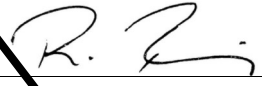
SFN: 3199993

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.

REMOVED

Bridge Inspection Report | Routine Inspection

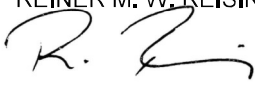
SFN: 3199994

Elm Street Pedestrian Overhead South of 5th Street

Date Inspected: 11/03/2021

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); 2 fogged windows. | 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. | 1 | 8 |
| N58. Deck Summary: Deck floor not visible; part. assumed rating. Inside of bridge closed, not accessed since 2019. | 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*

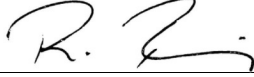
SFN: 3199994

Elm Street Pedestrian Overhead South of 5th Street

Date Inspected: 11/03/2021

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 2021; lights on during daytime;
Port to remove bridge with bldg across Elm st. in near future.

General Notes: Skywalk 016

Bridge Inspection Report | Routine Inspection

SFN: 3161765

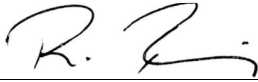
Fifth Street Pedestrian Overhead East of Main Street

Date Inspected: 05/19/2021

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; shifted cladding above window @ E & 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 (SW of bridge) there is evidence of waterdamage at the vertical member also SE over sidewalk; staining @ vertical apparently from leakage.

1 7

C13. Expansion Joints: Visible @ S inside only.

1 9

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

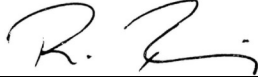
Fifth Street Pedestrian Overhead East of Main Street

Date Inspected: 05/19/2021

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. Dripping on N end from skyscraper window washing during 2021 inspection.

Recommended Maintenance:

1. Trim tree branches @ S to prevent scraping against bridge.
2. Reset & fasten cladding above windows @ W side over street (2 locations over 2 S most lanes).
3. Reset ceiling panels inside @ S.
4. Replace cladding @ bottom of windows @ E & W between 4th & 5th window from N.

Assigned to:

Owner
Owner
Owner
Owner

Bridge Inspection Report | Routine Inspection

SFN: 3199974

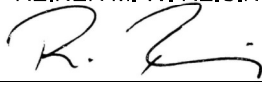
Fifth Street Pedestrian Overhead West of Elm Street

Date Inspected: 11/01/2021

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

Summary Rating / Operational Status 4 K

Signature: _____



Bridge No.: CITY SKYWALK #06

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. | 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. Top of bridge no longer accessible, historic remarks. | 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 Isol. chalking, fading; paint peeling @ top of one vertical. | PCS Rating: 8 | |

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); staining on some enclosures indicating possible leakage issues. 1 7

N60. Substructure Summary: **Substructure not visible; assumed rating.** Summary Rating: 7

Bridge Inspection Report | Routine Inspection

SFN: 3199974

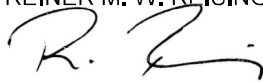
Fifth Street Pedestrian Overhead West of Elm Street

Date Inspected: 11/01/2021

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

Summary Rating / Operational Status 4 K

Signature: _____



Bridge No.: CITY SKYWALK #06

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 & 2021, despite a series of dry days prior to the inspection; top could not be accessed since 2020, all access point locked off.
Bridge to be removed by the Port in 2021.

General Notes: Skywalk 013

Recommended Maintenance:

1. Bridge will be removed in near future (Port project).

Assigned to:

Owner

Bridge Inspection Report | Routine Inspection

SFN: 3161811

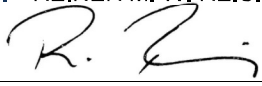
Fourth Street Pedestrian Overhead East of Main Street

Date Inspected: 05/19/2021

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

Summary Rating / Operational Status 8 A

Signature: _____



Bridge No.: CITY SKYWALK #07

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; staining from runoff on outside of windows. | 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; runoff 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: 3161811

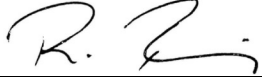
Fourth Street Pedestrian Overhead East of Main Street

Date Inspected: 05/19/2021

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

Summary Rating / Operational Status 8 A

Signature: _____



Bridge No.: CITY SKYWALK #07

Bridge Inspection Report | Routine Inspection

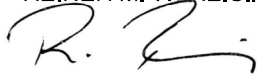
SFN: 3161587

Government Place Pedestrian Overhead East of Walnut Street

Date Inspected: 11/03/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY SKYWALK #08

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: 7 A

General Notes: Skywalk 048; one light turned on during 2021 inspection.

Bridge Inspection Report | *Routine Inspection*

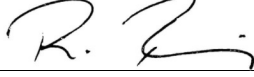
SFN: 3161587

Government Place Pedestrian Overhead East of Walnut Street

Date Inspected: 11/03/2021

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

Summary Rating / Operational Status 7 A

Signature:  _____

Bridge No.: CITY SKYWALK #08

Recommended Maintenance:

Assigned to:

1. Clean grates of walkway inlets.

Owner

Bridge Inspection Report | Routine Inspection

SFN: 3199981

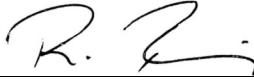
Main Street Pedestrian Overhead South of Sixth Street

Date Inspected: 05/19/2021

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

Summary Rating / Operational Status 7 A

Signature: _____



Bridge No.: CITY SKYWALK #09

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, widespread staining @ bottom; bolts in floor panel near streetcar protective plate; lichen accumulating 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 @ E building connection (bridge "apparently shifted" N compared to gland, most likely construction related); inside of bridge tile joints offset in same manner; 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: Slight apparent hor. offset of E joint, see expansion joints. 1 7
- 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*

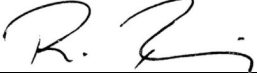
SFN: 3199981

Main Street Pedestrian Overhead South of Sixth Street

Date Inspected: 05/19/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY SKYWALK #09

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.
Slight misalignment of streetcar protective plate segments @ joints.

General Notes: Bridge maintained by 580 building;

Bridge Inspection Report | Routine Inspection

SFN: 3199960

Plum Street Pedestrian Overhead North of Sixth Street

Date Inspected: 11/04/2021

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

Summary Rating / Operational Status 4 A

Signature: 

Bridge No.: CITY SKYWALK #10

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; panels removed under stairs & @ W building connection for repair; cladding removed @ exp.

C9. Curbs/Sidewalks: Tile. 1 7
Stair landing: newly poured & steps caulked {2021}.
Plants growing in older caulk @ lower level center steps.

C11. Railing: Some railing post bases corr.; wide opening @ NW covered w metal panel; excessive opening @ SW due to ongoing cladding repair. 4 1

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

C12. Drainage: Ballasted membrane roof; rust at roof flashing; leakage @ W building con. and W of belltower, and leaking under center stairs & N above bell tower. 4 1

C13. Expansion Joints: Extensive staining below W jt; W exp. to building removed in 2020.

N58. Deck Summary: 2021 partially exposed floor due to ongoing investigation; ongoing repairs 2021, rating reflects pre repair condition. Summary Rating: 1

C14. Alignment of Members: 1 7

C17. Stringers: 2 WF's along fascia support roof & deck; enclosed; partially exposed in 2021 @ W cantilever & near bell tower; ongoing repairs 2021. 3 4

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 completely replaced, adjacent FB strengthened. 1 7

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
Railing & verticals painted (1999).

N59. Superstructure Summary: Portions of SS exposed in 2021 for inspection; ongoing repairs; rating reflects condition @ exposed stringer/beam ends that are under construction, rating expected to change once rahab work is completed. Summary Rating: 4

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; perforation of column cladding skeleton but steel column in good condition. 1 7

N60. Substructure Summary: Substructure mostly concealed - assumed rating based partially removed enclosure observations. Summary Rating: 7

Bridge Inspection Report | Routine Inspection

SFN: 3199960

Plum Street Pedestrian Overhead North of Sixth Street

Date Inspected: 11/04/2021

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

Summary Rating / Operational Status 4 A

Signature: _____



Bridge No.: CITY SKYWALK #10

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 4 A

Inspection Notes: 2021 ongoing repair with partially exposed structure.

General Notes: Skywalk 061. Bridge, stair tower and adjacent bridge over 6th Street owned by Port of Cincinnati.

Recommended Maintenance:

1. Continue leak investigation & struct repairs.
2. Secure wide railing opening @ SW.

Assigned to:

Owner
Owner

Bridge Inspection Report | Routine Inspection

SFN: 3199976

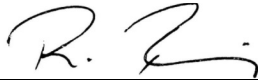
Race Street Pedestrian Overhead - 1st South of Fifth Street

Date Inspected: 05/19/2021

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

Summary Rating / Operational Status 7 A

Signature: _____



Bridge No.: CITY SKYWALK #11

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; water runoff stains @ fascia's. | 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; outside caulk @ NW peeling. | 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

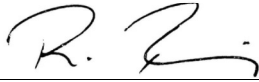
Race Street Pedestrian Overhead - 1st South of Fifth Street

Date Inspected: 05/19/2021

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

Summary Rating / Operational Status 7 A

Signature: _____



Bridge No.: CITY SKYWALK #11

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.
Minor impact to cladding (slight dent below window) at N over left hand lane.
Roof level not inspected 2021 (Corona access to offices above).
Bridge closed off due to covid in 2021.

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: 11/04/2021

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

Summary Rating / Operational Status 4 A

Signature: 

Bridge No.: CITY SKYWALK #12

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; cladding removed under joints for repair in 2021. 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 replaced @ S & N exp. jt.'s.

C11. Railing: 1 8

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

C12. Drainage: Ongoing repairs 2021.

C13. Expansion Joints: Joint @ S replaced {new cover plate & conc. wearing surface}; 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; rating based on pre-repair condition since repairs are ongoing at the time of the 2021 inspection. Summary Rating: 5

C14. Alignment of Members: 1 8

C17. Stringers: WF along fascia support roof floor beams; mostly enclosed; S portion exposed in 2021 for inspection. 2 6

C18. Floor Beams: WF's support roof & deck; tower bridge ends partially exposed in 2021; sev LOS on FB's detected, portions repaired in 2021, more repairs ongoing.

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: Ongoing repairs in 2021, partially exposed Superstructure; rating based on pre repair condition. Summary Rating: 4

C37. Pier Caps: Ongoing repairs to steel members @ S.

C38. Pier Columns: Mostly enclosed, not visible. 2 6

N60. Substructure Summary: Limited access; substructure mostly concealed; ongoing repair work at the time of the 2021 inspection, rating based on pre repair condition. Summary Rating: 4

Bridge Inspection Report | Routine Inspection

SFN: 3199959

Sixth Street Pedestrian Overhead East of Plum Street

Date Inspected: 11/04/2021

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

Summary Rating / Operational Status 4 A

Signature: *R. Reising*

Bridge No.: CITY SKYWALK #12

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 4 A

Inspection Notes: 2021: portions of the decking removed due to concerns about structural integrity; ongoing repair by consultant; area to S of bridge shored w temporary steel column, rating based on the pre-repair condition since repairs are not completed, however bridge is more secure now.

General Notes: Skywalk 060

Recommended Maintenance:

1. Ongoing repairs.

Assigned to:

Owner

Bridge Inspection Report | Routine Inspection

SFN: 3161684

Vine Street Pedestrian Overhead South of Fifth Street

Date Inspected: 05/19/2021

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

Summary Rating / Operational Status 7 A

Signature: _____



Bridge No.: CITY SKYWALK #13

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 @ fascia panels. | 1 | 7 |
| C9. Curbs/Sidewalks: Carpet, stained. | | |
| 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) @ all 4 corners; staining from water @ bottom inside of windows. | 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 originating from (Duke?) vault with granite column cadding 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

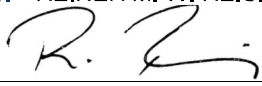
Vine Street Pedestrian Overhead South of Fifth Street

Date Inspected: 05/19/2021

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

Summary Rating / Operational Status 7 A

Signature: _____



Bridge No.: CITY SKYWALK #13

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. (not observed in 2021).

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.
2. Dress up inside of bridge ends (former water damage).

Assigned to:

Owner
Owner

Bridge Inspection Report | Routine Inspection

SFN: 3162982

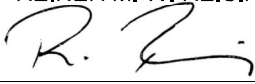
Walnut Street Government Place Pedestrian Overhead

Date Inspected: 11/03/2021

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

Summary Rating / Operational Status 6 A

Signature: _____



Bridge No.: CITY SKYWALK #14

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 |
| 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; several HL vert. cracks in conc. parapet, some w efflor; some metal portions of rail moveable by hand. | 1 | 7 |
| 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 & rust stains @ N fascia; rough patch and crack with rust staining at S beam at pier; widespread efflor. @ fascia's below railing; full height vert. crack w rust staining @ S façade {E pier} w map cracking & delams @ bottom of beam {same location}. | 2 | 6 |
| 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: 6 | |
| 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); multiple vert. cracks @ base of upper level column @ SE; rust stain @ SW column base @ upper level. | 1 | 7 |
| N60. Substructure Summary: Upper level pier columns control rating. | Summary Rating: 7 | |

C6. Approaches Summary: SE APPROACH STAIRS: Coated 2012, new overlay.
NW APPROACH STAIRS: Wide spacing of vert. spandrels @ NW stair appr. is 7" horizontally.

Summary Rating:

Bridge Inspection Report | Routine Inspection

SFN: 3162982

Walnut Street Government Place Pedestrian Overhead

Date Inspected: 11/03/2021

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

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: CITY SKYWALK #14

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: 6 A

Inspection Notes: FRP channels installed in 2016 to protect bridge from street car catenary wires.

General Notes: Skywalk 041. Bridge consists of main span and two cantilevered sections; inform 5/3 Bank about cracking.

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 |
| 3. Investigate beam crack @ S over E pier. | Owner |

Bridge Inspection Report | Routine Inspection

SFN: 3161560

Walnut Street Pedestrian Overhead South of Fifth Street

Date Inspected: 05/19/2021

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

Summary Rating / Operational Status 7 A

Signature: _____



Bridge No.: CITY SKYWALK #15

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, esp @ E. 1 8

C9. Curbs/Sidewalks: Carpet.

C11. Railing: Skywalk completely enclosed; metal handrail; 2 completely fogged windows @ S; small dent/puncture over streetcar track @ N; caulk hanging from outside bottom of some windows @ N. 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?); sign of inside water damage @ drywall @ SE. 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

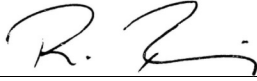
Walnut Street Pedestrian Overhead South of Fifth Street

Date Inspected: 05/19/2021

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

Summary Rating / Operational Status 7 A

Signature: _____



Bridge No.: CITY SKYWALK #15

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

General Notes: Skywalk 046

Recommended Maintenance:

1. Repair fogged up windows.
2. Repair caulk outside of window esp @ N.

Assigned to:

Owner
Owner

City (Other) Bridges

Bridge Inspection Report | Safety Inspection

SFN: 3199936

Approach Arches to Newport-Southgate Bridge - East Side

Date Inspected: 11/04/2021

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

Summary Rating / Operational Status 6 K

Signature: 

Bridge No.: CITY (OTHER) #01

Route: Unit: Bridge Type 055 / Date Built / Date Rehabbed: 1900 / 1988
Load Rating Percent (Main/Approach Spans) Safety Inspection ?

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 (multiple times); 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, esp S wall of center arch & E half of S side of S arch, also areas w soft/moist bricks; evidence of recent repair work on arches 2020; W portion of N arch has large area of delaminated conc. +/- 25 sqft. 2 6

C29. Arch Spandrel Walls: Entire E face was faced w 1 course of new brick (1988); steel soffit plates under brick cladding corr. W LOS due to arch seepage. 1 7

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 K

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.;
2021: Bridge closed to traffic due to condition of the adjacent Purple people bridge pier.

General Notes: This inspection report is for the E side of the arches under the pedestrian overlook only. See Approach to Newport Southgate Bridge over Former Front Street inspection report for W side of arches. This report applies to a bridge that is neither supporting the public ROW nor crossing over the public ROW.

Bridge Inspection Report | *Safety Inspection*

SFN: 3199936

Approach Arches to Newport-Southgate Bridge - East Side

Date Inspected: 11/04/2021

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

Summary Rating / Operational Status 6 K

Signature: _____



Bridge No.: CITY (OTHER) #01

Recommended Maintenance:

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.
4. Remove delaminated conc from W side of N arch.
5. Investigate soundness of arches {hollow sounding brick}.

Assigned to:

Owner
Owner
Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection


SFN: 3191017

Boardwalk over Lick Run W of Quebec

Date Inspected: 07/21/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: City (OTHER) #02

Route: Unit: Bridge Type 121 / Date Built / Date Rehabbed: 2020 /
Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating
1 to 4Rating
9 to 0

C7.1. Floor: Precast concrete panels: several trans full width HL crack @ bottom of many panels. 1 7

C9. Curbs/Sidewalks: 5th panel from N has slight uneven top surface; widespread chipping @ panel ends.

C11. Railing: 1 9

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

C12. Drainage: Over the side & between panels. 1 9

C13. Expansion Joints: 1 9

N58. Deck Summary: Summary Rating: 7

C14. Alignment of Members: 1 9

C15.1. Beams/Girders: Many closely spaced flexure HL cracks (vertical) typical for all beams, but no efflor. 1 7

C30. Protective Coating System (PCS): System: Year: 2021 PCS Rating:
Several areas w wavy texture (railings only).**N59. Superstructure Summary: Summary Rating: 7**

C34. Abutment Caps: Stub; formwork left in place @ S. 1 9

C38. Pier Columns: 1 9

N60. Substructure Summary: Summary Rating: 9

C51. Channel Alignment: 1 9

C52. Channel Protection: Vegetated, filter fabric, & large stones. 1 9

C53. Hydraulic Opening: 1 9

N62. Channel Summary: 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: 3191017

Boardwalk over Lick Run W of Quebec

Date Inspected: 07/21/2021

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

Summary Rating / Operational Status 7 A

Signature: _____



Bridge No.: City (OTHER) #02

65. Vertical Clearance:

Vert. Clearance Rating: N

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 7 A

General Notes: Structure belongs to MSD but is per MOU inspected by DOTE as safety inspection.
Structure inventoried in 2021, but not in ODOT Asset Wise since it does not carry highway traffic or cross highway.

Recommended Maintenance:

Assigned to:

1. Monitor condition of concrete panels and beams (cracking)

Owner

Bridge Inspection Report | Routine Inspection

SFN: 3160726

Cliff Drive over Eden Park Drive South of St. Paul

Date Inspected: 05/25/2021

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: 1894 / 1978

Load Rating Percent 070

(Main/Approach Spans)

Inspection Information

Rating
1 to 4

Rating
9 to 0

C7.1. Floor: Filled arches do not have a floor, see item C.27 arch.

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, 2 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; ivy growing over E railing.

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.

1 8

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; efflorescence at the corners with stalactites forming at the NE; 1 delaminated area @ SE; 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 at corners; 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: 05/25/2021

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. Remove Ivy from bridge rail & fascia.
2. Fasten approach hand rail @ SE.

Assigned to:

Parks
Parks

Bridge Inspection Report | Routine Inspection

SFN: 3161943

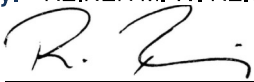
Duck Creek Road Culvert over Yononte Creek

Date Inspected: 04/16/2021

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

Summary Rating / Operational Status 6 A

Signature: _____



Bridge No.: CITY (OTHER) #03

Route: DUCKC Unit: 0

Bridge Type 195 / NNN

Date Built / Date Rehabbed: 2010 /

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: 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 rebar 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; water entering from bottom of vert. seams in S portion of culvert.

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

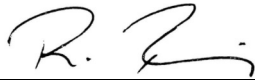
Duck Creek Road Culvert over Yononte Creek

Date Inspected: 04/16/2021

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: N N N N N N N

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: 5/7/2021

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status: 6A

Signature: 

Bridge No.: CITY (OTHER) #04

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

Signature: 

Route: FIFTH Unit: Bridge Type: 321 / Date Built / Date Rehabbed: 1967 / 2015
Load Rating Percent: 150 (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Open steel grate; grating installed (11-15-2015); Individual (adjacent) grating panels were tack welded together, multiple 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); weld breaks @ cross bars over center beam, some bars breaking indicating unintended long. Support. 1 7

C8. Wearing Surface: Open steel grate; see Item C7.1 - Floor. 1 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. 1 8

C17. Stringers: See Item #C15.1 - Beams/Girders. 1 8

C18. Floor Beams: See Item #C15.1 - Beams/Girders. 1 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 E & W walls; cracks - opening @ bottom edge with spalling & rust staining (limited to bot. 6" of E & W walls). 2 6

N60. Substructure Summary: Partially assumed rating. Summary Rating: 6

C1. Pavement: Cracks propagating from conc. corners; separating from conc. abutment - esp. @ E. 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: 3162281

Fifth Street Grates for Fountain Square Garage (East)

Date Inspected: 5/7/2021

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

Signature: 

Bridge No.: CITY (OTHER) #05

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

Signature: 

Route: FIFTH Unit: Bridge Type: 321 / Date Built / Date Rehabbed: 1967 / 2015

Load Rating Percent: 150 (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Open steel grate; grating installed (11-15-2015); many 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 corners. 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 #C15.1 - Beams/Girders. 1 9

C18. Floor Beams: See Item #C15.1 - Beams/Girders. 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) broken into pieces, corroding & moving @ SW w corner pushing away from abutment wall into opening, 3 main bars not supported @ SW corner; large spall w several exp bars @ center of E abutment; full width cracking @ pavement level - partially sealed. 2 5

N60. Substructure Summary: Partially assumed rating. Summary Rating: 5

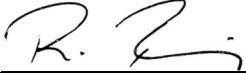
Bridge Inspection Report | Routine Inspection

SFN: 3162281

Fifth Street Grates for Fountain Square Garage (East)

Date Inspected: 5/7/2021

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

Signature: 

Bridge No.: CITY (OTHER) #05

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

Signature: 

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: 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 2021 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 grating panels & repair gratings as necessary. | Owner |
| 5. Repair broken transverse bars and cracked welds after S support modification was completed. | Owner |
| 6. Clean out accumulated water in bottom and prevent future ponding. | Owner |
| 7. Repair support for grating at SW corner. | Owner |

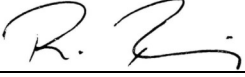
Bridge Inspection Report | Routine Inspection

SFN: 3162354

Fifth Street Grates for Fountain Square Garage (South)


Date Inspected: 5/7/2021

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status: 6 A

Signature: 

Bridge No.: CITY (OTHER) #06

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

Signature: 

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; several welds between main bars & frames @ abutments cracking, so far no cracks in base metal. 1 8

C8. Wearing Surface: Open steel grate; see Item C7.1 - Floor/Slab. 1 8

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

N58. Deck Summary: Center panel over "pier" replaced in 2021. Summary Rating: 8

C33. Abutment Walls: Mostly concealed; cracks w seepage & spalling; minor concrete deter. 2 6

C36. Pier Walls: Pier (not designed for support) modified in 2021 so grate no longer bears on it.

N60. Substructure Summary: Partially assumed rating. Summary Rating: 6

C1. Pavement: Cracks propagating from corners of the concrete abutment; separating from concrete abutment @ 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: 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 2021.

General Notes: (Formerly part of 3199938)
Grating extends into marked crosswalk.
ODOT has determined that element level inspection is no longer necessary since the bridge extends under 1 lane only of the NHS route.

Bridge Inspection Report | *Routine Inspection*

SFN: 3162354

Fifth Street Grates for Fountain Square Garage (South)

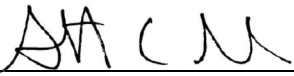
Date Inspected: 5/7/2021

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status: 6 A

Signature: 

Bridge No.: CITY (OTHER) #06

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

Signature: 

Recommended Maintenance:

1. Clean/vacuum out debris collecting in grates over beams on a regular basis.

Assigned to:

Owner

Bridge Inspection Report | Safety Inspection

SFN: 3160521

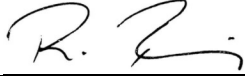
Flood Wall over Carr Street

Date Inspected: 07/14/2021

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

Summary Rating / Operational Status 8 A

Signature: _____



Bridge No.: CITY (OTHER) #08

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 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; scaled; spot rust on steel angles; indicating possible rust behind steel angles; minor cracks @ doorway (less than 10 ft). 1 8

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

C33. Abutment Walls: Minor cracking; scaling; delamination @ SW; former cracking @ wall top, caulked. 1 8

N60. Substructure Summary: Abutment comments refer to entire floodwall beyond actual abutment; rating reflects condition below bridge. Summary Rating: 8

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: 8 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; curb spalled @ both sides w deter. of metal curb cover plate & exp rebar; minor widespread scrapes @ driveway @ E; welds @ plate connections of top retainer have several areas of corr. & possible pack rust.

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: 07/14/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (OTHER) #09

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; former cracks at top of beam caulked; small delam @ bottom. 1 8

N59. Superstructure Summary: Not redundant, not fatigue prone; general surface scaling. Summary Rating: 8

C33. Abutment Walls: Larger diag. cracks w efflor. (possible ASR), 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: Area below/behind floodwall is moist & muddy in 2021. General Appraisal / Operational Status: 7 A

Inspection Notes: Floodgate closed in 2021; spot rust on steel angles; apparent pack rust behind angles.

Bridge Inspection Report | Routine Inspection

SFN: 3160424

Flood Wall over Mehring Way

Date Inspected: 07/14/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (OTHER) #10

Route: MEHRG Unit: 0024

Bridge Type 171 / NNN

Date Built / Date Rehabbed: 1948 /

Load Rating Percent 000

(Main/Approach Spans)

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 (2 deeper ones @ W); spot rust on steel angles; several minor spalls along bottom @ steel angles; some delam. Areas @ bottom; exp. Rebar @ 1 loc.

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; horiz. HL cracking @ N.

1 8

N60. Substructure Summary:

Summary Rating: 8

C55. Warning Signs: VC marked 16'-1" on overhead beam on E side only; very faded, paint flaking, barely legible; stormwater trapped in roadway recess notch @ N; welds @ plate connections of top retainer have several areas of corr. & possible pack rust; curb spalled @ N & S.

4 2

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:General Appraisal /
Operational Status: 7 AInspection Notes: Small delam at top of sidewalk door (less than 10' span).
Stormwater trapped in roadway recess notch @ N.

Recommended Maintenance:

1. Repaint vertical clearance, add clearance to W fascia.

Assigned to:

Owner

Bridge Inspection Report | Routine Inspection


SFN: 3161447

Martin Drive over Old Water Works Coal Room

Date Inspected: 08/05/2021

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

Summary Rating / Operational Status 6 P

Signature: 

Bridge No.: CITY (OTHER) #11

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 4 Rating 9 to 0

C7.1. Floor: Reinforced slab w 3 paved over manholes; cracks w little efflor parallel to beams; floor saw-cut East-West over 4 bays, leaking water, rust staining; small shallow spots w exp. rebar +/- 6" (low conc. cover); more exp. bars in portion under bldg, not part of this report. 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; widespread staining @ W wall esp @ top level of stones. 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 intial rutting; patch w slight settlement E 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*

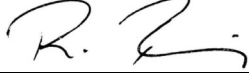
SFN: 3161447

Martin Drive over Old Water Works Coal Room

Date Inspected: 08/05/2021

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

Summary Rating / Operational Status 6 P

Signature:  _____

Bridge No.: CITY (OTHER) #11

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 | Safety Inspection

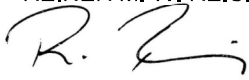
SFN: 3190104

Pedestrian Truss over Lick Run

Date Inspected: 07/20/2021

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

Summary Rating / Operational Status 9 A

Signature: 

Bridge No.: City (OTHER) #12

Route: Unit: Bridge Type 34A / Date Built / Date Rehabbed: 2020 /
 Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

| | Rating 1 to 4 | Rating 9 to 0 |
|--|--------------------------|------------------|
| C7.1. Floor: Stay in place forms; 4 area's cut out and plated over @ 3rd FB from N&S(E&W); signs of initial leakage @ fascia angles. | 1 | 9 |
| C8. Wearing Surface: No cracking; very minor seperation from conc to steel fascia angle. | 1 | 9 |
| C11. Railing: Metal railing (pony truss). | 1 | 9 |
| N36. National Safety Feature - Bridge Railing (0, 1 or N): 1 | | |
| C12. Drainage: Off the bridge; extended steel plates welded to W fascia to protect FB's from runoff. | 1 | 9 |
| C13. Expansion Joints: Covered w galvanized plates. | 1 | 9 |
| N58. Deck Summary: | Summary Rating: 9 | |
| C14. Alignment of Members: As designed. | 1 | 9 |
| C18. Floor Beams: N side of the truss has added vertical plates above the floorbeams to prevent dripping from deck onto the FBs. | 1 | 9 |
| C19. Truss Verticals: | 1 | 9 |
| C20. Truss Diagonals: | 1 | 9 |
| C21. Upper Chord: | 1 | 9 |
| C22. Lower Chord: | 1 | 9 |
| C24. Lateral Bracing: | 1 | 9 |

2020

N59. Superstructure Summary: Summary Rating: 9

| | | |
|--|---|---|
| C33. Abutment Walls: Stub abutment. | 1 | 9 |
| C39. Backwalls: HL crack @ N&S center. | 1 | 9 |

N60. Substructure Summary: Summary Rating: 9

| | | |
|---|---|---|
| C51. Channel Alignment: | 1 | 9 |
| C52. Channel Protection: Rocks; filter fabric; vegetated. | 1 | 9 |
| C53. Hydraulic Opening: | 1 | 9 |

N62. Channel Summary: Summary Rating: 9

Bridge Inspection Report | *Safety Inspection*

SFN: 3190104

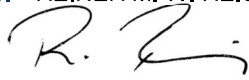
Pedestrian Truss over Lick Run

Date Inspected: 07/20/2021

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

Summary Rating / Operational Status 9 A

Signature: _____



Bridge No.: City (OTHER) #12

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: Bridge belongs to MSD, but DOTE performs annual safety inspections.

General Appraisal / Operational Status: 9 A

General Notes: Bridge not inventoried in ODOT Asset Wise since no highway bridge and not crossing over highway or ROW.

Recommended Maintenance:

Assigned to:

1. Seal joint between conc. wearing surface & fascia steel angles along both fascia's.

Owner

Bridge Inspection Report | Routine Inspection

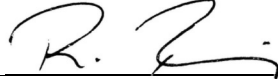
SFN: 3164780

Reinhold Drive Culvert for Amberley Creek

Date Inspected: 09/09/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (OTHER) #13

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); isol. minor corr. @ bottom +/- 6" of metal arch w some minor 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 (not considered for rating), 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 new (2021) grout fill to +/- 5" below top of conc.; new water level inside culvert @ low flow is +/- 4". No scour in the public portion. (much worse in private portion where bottom of culvert is perforated). 1 9

Culvert Scour Inspection Type: 1

C50. Culvert - Abutments: The abutments are located only underneath the roadway portion (mostly not visible, assumed rating). 1 8

N60. Culvert Summary: New 2021 grout fill inside culvert floor. Summary Rating: 7

C51. Channel Alignment: 1 9

C52. Channel Protection Natural stream bed w some areas of dump rock protection. 1 8

C53. Hydraulic Opening: 1 9

N62. Channel Summary: No channel protection at the bottom of the culvert, only sides; smaller flow debris stuck @ intermediate jnts. indicating higher flow volumes during rain events. Summary Rating: 8

Bridge Inspection Report | Routine Inspection


SFN: 3164780

Reinhold Drive Culvert for Amberley Creek

Date Inspected: 09/09/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (OTHER) #13

C1. Pavement: New wearing surface (2016); isol. cracking, unrelated to culvert. 1 8

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: 7 A

General Notes: This report only applies to the public portion under the roadway, not the private corrugated steel culvert upstream.
Grout fill @ floor of culvert in 2021.

Bridge Inspection Report | Routine Inspection

SFN: 3160149

Steamboat Monument over Broadway

Date Inspected: 10/27/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (OTHER) #14

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); areas of deep scaling in conc portions of walk. | 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 noticable below after extended rain. | | |

N58. Deck Summary:

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

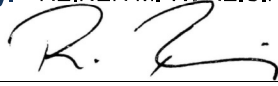
Steamboat Monument over Broadway

Date Inspected: 10/27/2021

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

Summary Rating / Operational Status 7 A

Signature: _____



Bridge No.: CITY (OTHER) #14

C57. Utilities: Minor impact damage from flow debris; several pull boxes open; light fixture w out cover; pipe wrapping damaged. 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: Steamboat monument sound system repaired 2021.

Recommended Maintenance:

1. Patch bottom of NW decorative column (on top).
2. Resecure loose pavers on top of bridge.

Assigned to:

Owner
Owner

Bridge Inspection Report | Routine Inspection

SFN: 3161390

Summit Road Culvert for Amberly Creek

Date Inspected: 12/02/2021

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

Summary Rating / Operational Status 7 A

Signature: _____



Bridge No.: CITY (OTHER) #15

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 4 Rating 9 to 0

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

C44. Culvert - General: Pipe arch culverts: 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 accumulation of white substance.
W culvert {only portions without bottom and concrete abutments considered for this report} no corr. Except above pipe inlets. 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 8

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 8

C47. Culvert - Seams: Very isol. corr. exists at some bolts w buildup of efflor. 1 8

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: 18" 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. 1 7

Culvert Scour Inspection Type: 2

C50. Culvert - Abutments: W span only, only in portion under street. 1 8

N60. Culvert Summary: **Inspection limits: all of E pipe & the W pipe portion under Summit rd {where culvert on conc abutment}, remainder of W culvert is private and not under ROW.** **Summary Rating: 7**

C51. Channel Alignment: Bend at the North DS; vegetation at the entrance of both spans; normal flow through the W span only. 2 6

C52. Channel Protection: Sheet piling US @ SE leaning toward channel slumping of embankments US. (For this rating it is assumed that this sheet piling is acting as part of headwall and critical for culvert) 2 5

C53. Hydraulic Opening: Overgrowth in channel US & DS; US has accum. Of branches/light flow debris in channel. 2 6

N62. Channel Summary: **Summary Rating: 5**

Bridge Inspection Report | Routine Inspection

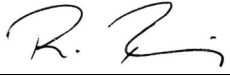
SFN: 3161390

Summit Road Culvert for Amberly Creek

Date Inspected: 12/02/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: CITY (OTHER) #15

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: 7 A

Inspection Notes: 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.
Silt accumulation in E pipe very smooth during 2021 inspection {graded by stormwater?}.

Recommended Maintenance:

Assigned to:

- | | |
|---|-------|
| 1. Grout around US end of W culvert to prevent scour. | Owner |
| 2. Consider replacement of the corroding Steel sheet piping at the US end of culvert between the two pipes. | Owner |

Railroad Bridges

Bridge Inspection Report | Routine Inspection


SFN: 3160084

Baymiller Street Chessie Overhead South of Linn Street

Date Inspected: 05/13/2021

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)

Inspection Information

Rating 1 to 4 Rating 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 and on grates.

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

N58. Deck Summary: No deck summary since this is an open tie bridge.

Summary Rating:

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Very minor 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: Partially concealed. 1 7

C26. Bearing Devices: At W only. 1 7

C30. Protective Coating System (PCS): System: Year: 1982 PCS Rating: 5
Rust on gussets. Isol members apparently repainted more recently.

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 | Routine Inspection

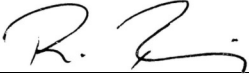
SFN: 3160084

Baymiller Street Chessie Overhead South of Linn Street

Date Inspected: 05/13/2021

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, but apparently used by trucks from either CSX or the property owner to the South.
Did not attempt to access top of bridge.
2020 new track installed on bridge.

General Notes: Span 85 of RR bridge.

Recommended Maintenance:

1. Consider repairs to bracing, and repainting the structural steel.
2. Clean area below bridge from railroad debris.

Assigned to:

Owner
Owner

Bridge Inspection Report | Routine Inspection

SFN: 3160092

Baymiller Street C.U.T. Overhead North of 3rd (C.U.T. SE Connection) Date Inspected: 05/13/2021

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)

Inspection Information

Rating
1 to 4

Rating
9 to 0

C7.1. Floor: Open ties.

1 7

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: No deck summary since this is an open tie bridge.

Summary Rating:

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: Partially assumed rating since top not accessed.

Summary Rating: 6

C37. Pier Caps: Cracked through (pier seat plate) @ pier #71 just W of main span (not part of the inspection limits, hence not counted for condition rating).

2 6

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; graffiti.

3 4

N60. Substructure Summary: Prior ratings are controlled by the pier cap condition to the west, which was changed since the 2021 rating where only the span over Baymiller was considered.

Summary Rating: 3


Bridge Inspection Report | Routine Inspection

SFN: 3160092

Baymiller Street C.U.T. Overhead North of 3rd (C.U.T. SE Connection) Date Inspected: 05/13/2021

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.
2021 it appears the area below the bridge is used by the property owner to the S.

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

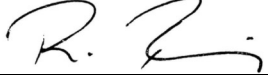
SFN: 3160157

Budd Street C.U.T. Overhead - 1st West of McLean

Date Inspected: 05/05/2021

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: Open deck, wood ties serve as FLOOR; (apparently new ties 2021).

1 9

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

N58. Deck Summary: Former walkway and railing (W side) removed 2021. Floor rating reflects condition of RR ties.

Summary Rating:

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

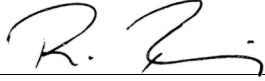
Budd Street C.U.T. Overhead - 1st West of McLean

Date Inspected: 05/05/2021

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: Partially assumed rating since top was not accessed.

General Appraisal / Operational Status: 6 N

Inspection Notes: Did not attempt to access top of bridge (2021).
Very minor, but noticable deflection under train loads (2020).
W grating and railing removed 2021. Lots of RR spikes etc under bridge from recent tie replacement (2021).

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 (spikes, clips etc) from recent track work from areas below bridge.

Assigned to:

Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

SFN: 3160319

Clifton Avenue Chessie Overhead

Date Inspected: 06/29/2021

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; runoff @ outside of pipe; avalanches of mud coming down slope protection from both abutments. 4 1

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 accumulation @ 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, others lifted. 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; entire structure in approach spans and & substructure covered w mud, partially assumed rating.

Summary Rating: 3

Bridge Inspection Report | Safety Inspection

SFN: 3160319

Clifton Avenue Chessie Overhead

Date Inspected: 06/29/2021

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: Substructure units excessively covered w mud. **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 2021.
Center bearing over W pier floating causing pumping under trains.

Recommended Maintenance:

Assigned to:

- | | |
|---|-------|
| 1. Repair floating FB bearing over W pier. | Owner |
| 2. Clean & paint structural steel esp. in approach spans. | Owner |
| 3. Clean rolled beams, & investigate cracks and repair as necessary. | Owner |
| 4. Clean out drainage system. | Owner |
| 5. Remove mud & ballast from all bearings & evaluate support. | Owner |
| 6. Remove mud & ballast regularly from slope protection, sidewalks, & street gutters. | Owner |

Bridge Inspection Report | Safety Inspection


SFN: 3161676

Clifton Avenue Norfolk Southern Overhead South of Spring Grove

Date Inspected: 11/03/2021

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 4 Rating
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 PCS Rating: 7
Rust bet. diaphragm conn. & webs; rust @ BF scrapes.

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 E pier; staining from seepage, esp @ E pier. 1 8

C39. Backwalls: 1 8

C43. Slope Protection: Portion cracked @ SW; minor debris accumulating @ E; vegetation growing @ interface to pier & slope wall. 1 8

N60. Substructure Summary: Summary Rating: 8

Bridge Inspection Report | *Safety Inspection*

SFN: 3161676

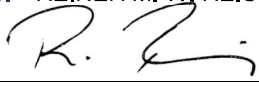
Clifton Avenue Norfolk Southern Overhead South of Spring Grove

Date Inspected: 11/03/2021

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 2021 inspection.

Recommended Maintenance:

1. Shim bearings over piers to provide full contact (see Item #24).
2. Seal leaking jnts. over piers.
3. Consider painting.

Assigned to:

Owner
Owner

Bridge Inspection Report | Safety Inspection

SFN: 3160300

Collins Avenue SORTA Overhead

Date Inspected: 06/25/2021

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.

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

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: Not fatigue prone, not redundant. Excessive debris on BF's traps moisture & promotes LOS. Summary Rating: 4

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, spalling, & large delaminated area's @ 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: 06/25/2021

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/modify this structure.

General Notes: Mile Marker 2.18 - Oasis Line

Recommended Maintenance:

Assigned to:

- | | |
|---|-------|
| 1. Clean & paint bridge.(remove loose debris trapping moisture on 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. Repair conc. abutments where unsound. | Owner |

Bridge Inspection Report | Safety Inspection

SFN: 3199944

Congress Avenue Pedestrian Tunnel Under SORTA

Date Inspected: 11/08/2021

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 & some delam areas; efflor. @ N&S ends; paint peeling mainly around spalls; some evidence of continued spalling. 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 (not ODOT bridge).
Spalling over exp. rebar continues as evident from non coated spalls.
Extensive sidewalk det. @ both ends of tunnel.

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
Sidewalks

Bridge Inspection Report | Safety Inspection


SFN: 3160653

Eastern Avenue SORTA Overhead at Delta and Riverside Drive

Date Inspected: 06/28/2021

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; repainted (2007). 1 7

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: 67

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; efflor. 2 6

C16. Diaphragms/X-Frames: Some mis-aligned. 1 7

C17. Stringers: (Built up members) localized heavy pitting (mostly arrested by painting in 2017), isol. corr, ext. seepage w severe LOS @ bearings w rivet deter. & long stalactites (up to 6"); water seeping through stringers even during extended drought; 2 missing rivets @ pier connections @ N; impact damage w sheared off rivets @ 3 stringers (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); elsewhere 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

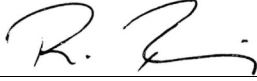
Eastern Avenue SORTA Overhead at Delta and Riverside Drive

Date Inspected: 06/28/2021

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 2021 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.
CSR entered about poison ivy @ sidewalk(2021).

General Notes: Mile Marker 3.92 on Oasis Line

Recommended Maintenance:

1. Remove conc. encasement from S & N pier columns & repair as necessary.
2. Waterproof deck.
3. Remove vegetation growing from abutments & railing (primarily poison ivy).

Assigned to:

Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

SFN: 3160548

Eighth Street C.U.T. Overhead - 1st West of McLean

Date Inspected: 06/10/2021

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

Summary Rating / Operational Status 5 N

Signature: _____



Bridge No.: RAILROAD #09

Route: EIGHT Unit: 342

Bridge Type 322 /

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: 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 Ext. rusting; initial LOS @ TF's. | PCS Rating: | 0 |

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; ext. pigeon colony @ N. | 1 | 7 |
| 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 abutment). | 1 | 7 |

Bridge Inspection Report | Safety Inspection

SFN: 3160548

Eighth Street C.U.T. Overhead - 1st West of McLean

Date Inspected: 06/10/2021

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

Summary Rating / Operational Status 5 N

Signature: 

Bridge No.: RAILROAD #09

C40. Wingwalls: Vert. abut. jt. open 2" @ SW; ext. veg; minor spalls; spalls, delams & moss in NE WW - 1 7
rebar exp. in wall face; crack @ NW WW (N.S. rail entrance).

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:

1. Address exposed rebar w sharp ends sticking out into sidewalk.
2. Remove objects stuck in W long. Jnt and repair joint (seal).
3. Check concrete @ railing attachments; chip loose concrete where necessary.
4. Perform extensive repairs to pier wall (bases), remove loose concrete clean up and patch.
5. Remove fallen conc. from sidewalks.

Assigned to:

Owner
Owner
Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

SFN: 3160572

Eighth Street Norfolk Southern Overhead - 2nd West of McLean

Date Inspected: 06/10/2021

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

Summary Rating / Operational Status 4 N

Signature: _____



Bridge No.: RAILROAD #10

Route: EIGHT Unit: 340

Bridge Type 364 /

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: 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 in approach spans 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; partially assumed rating, top not accessed. 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.; staining & lichen; ext. seepage. 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

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

Bridge Inspection Report | *Safety Inspection*

SFN: 3160572

Eighth Street Norfolk Southern Overhead - 2nd West of McLean

Date Inspected: 06/10/2021

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

Summary Rating / Operational Status 4 N

Signature: _____



Bridge No.: RAILROAD #10

C40. Wingwalls: Spalls & crushing @ sides; form tie hole plugs missing; efflor. & conc. deter. @ NW; 2 2 6
wide cracks @ WW @ NE(1 vert. 1 mostly horiz.) @ N.S. rail entrance.

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.
5. Investigate cause & mitigate N abutment seepage.
6. Clean bridge debris on sidewalks below.

Assigned to:

Owner
Owner
Owner
Owner
Owner
Owner

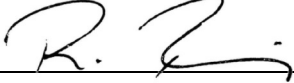
Bridge Inspection Report | Safety Inspection

SFN: 3160769

Fifth Street Chessie Overhead West of Linn Street

Date Inspected: 5/14/2021

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status: 2N

Signature: 

Bridge No.: RAILROAD #11

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

Safety Inspection ?

Signature: 

Route: FIFTH Unit: 3321 Bridge Type: 364 / Date Built / Date Rehabbed: 1900 /
Load Rating Percent: 0 (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 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. Lots of debris from track repair trapped in grates.

C11. Railing: Thru girder serves as railing.

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

N58. Deck Summary: 2020 track work w many spikes, etc hanging from grates over right-o way and dropped on sidewalks below. Summary Rating:

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. LOS of BF on E beam over north pier. 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. flanges, 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 (serrated edges). 4 2
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 originating from top of web where flanges are coped, appear to be growing) all BF's @ this connection have sev. LOS, 1 web has 1" diam perf. hole; W most stringer @ this location has 7" (out of 15" height) of uncracked web remaining - LOS greater than 50%. New (2021) crack at eastmost stringer over N pier extending over 2/3rd of the web height with sheared off bolt at the same location.

C18. Floor Beams: LOS - part. @ topside of TF's; pack rust between TF cover plates; heavy pitting w rivet head deter. (some rivet heads barely noticeable) & flange edge serrating; severe BF deter. @ beam connections esp. @ NE. 2 5

C24. Lateral Bracing: Severe LOS of some members; 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 3 3

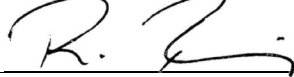
Bridge Inspection Report | Safety Inspection

SFN: 3160769

Fifth Street Chessie Overhead West of Linn Street

Date Inspected: 5/14/2021

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status: 2 N

Signature: 

Bridge No.: RAILROAD #11

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

Safety Inspection ?

Signature: 

vert. movement under trains. Severely bent and undermined bearing plate at westmost bearing of N abutment with lifted anchor bolts, wide gap between E bearing and masonry plate at abutment seat.

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: Partially assumed rating since the top of the structure was not accessed. Summary Rating: 2

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 steel (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 controlled by the condition of the stringers over N pier (cracking in the webs at FB connection and FB connection bolt sheared off web LOS > 50% on multiple stringers and no redundant loadpath without cracking). General Appraisal / Operational Status: 2 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 and 2021 inspection. Safety inspection only, top of the bridge not accessed.

General Notes: Bridge #6.65

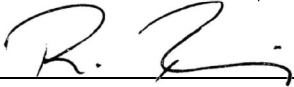
Bridge Inspection Report | *Safety Inspection*

SFN: 3160769

Fifth Street Chessie Overhead West of Linn Street

Date Inspected: 5/14/2021

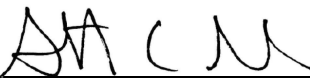
Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status: 2N

Signature: 

Bridge No.: RAILROAD #11

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

Safety Inspection ?

Signature: 

Recommended Maintenance:

1. Perform detailed inspection of all steel members and connections.
2. Repair all abutment bearings to guarantee proper support and prevent movement under loading.
3. Repair/replace cracked stringers.
4. Repair stringers to FB connections where bolts are sheared, test all existing connections.
5. Repair lateral bracing (impact damage over main span) and severe LOS elsewhere.
6. Sweep debris originating from column base & railroad traffic from curbs & sidewalks.
7. Remove debris from gratings and properly secure all gratings.
8. Remove loose hardware (spikes, bolts, etc) from over street & sidewalks.

Assigned to:

Owner
Owner
Owner
Owner
Owner
Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

SFN: 3160963

Front Street Norfolk Southern Overhead South of 6th Street Expwy

Date Inspected: 06/10/2021

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: Open ties, no deck.

Summary Rating:

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 since portions of the beams 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*

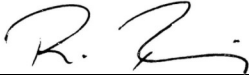
SFN: 3160963

Front Street Norfolk Southern Overhead South of 6th Street Expwy

Date Inspected: 06/10/2021

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.(7 out of 8 fasteners @ E beam have failed)
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) before they fall. | Owner |
| 6. Replace all loose steel members before they fall into roadway {gussets, braces, etc.} | Owner |

Bridge Inspection Report | Routine Inspection

SFN: 3160920

Galbraith Road Chessie Overhead Between Burns & Woodbine

Date Inspected: 05/11/2021

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)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Some cracking 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; one floorbeam dented from impact @ 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; several 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 (not observed in 2021). 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 even during dry periods. Water and mud starting to accumulate on sidewalks.

Summary Rating: 6

Bridge Inspection Report | Routine Inspection

SFN: 3160920

Galbraith Road Chessie Overhead Between Burns & Woodbine

Date Inspected: 05/11/2021

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 (not observed 2021).
Top not accessed during 2021 inspection.
Ballast from bridge on sidewalk. Mud and water from abutments accumulating on walks, esp at N.
Several bird nests on bottom flanges of center beam.

Recommended Maintenance:

Assigned to:

- | | |
|---|-------|
| 1. Remove ballast & debris from abutment seats & from WW plateaus and sidewalks. | Owner |
| 2. Clean pier column base plates in sidewalk area to prevent corrosion and possible section loss. | Owner |
| 3. Investigate water proofing/leakage @ bridge end. | Owner |
| 4. Reset/secure/anchor top of Wingwall @ NE. | Owner |
| 5. Remove accumulated mud (originating from bridge abutments) from sidewalks | Owner |
| 6. Prevent future runoff from abutments onto sidewalks | Owner |

Bridge Inspection Report | Safety Inspection

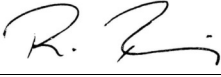
SFN: 3161323

Gest Street Chessie Overhead at 3rd Street

Date Inspected: 06/07/2021

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: No actual deck, rating applies to ties, etc: Wood ties (2020); steel grating (1996), portions bent; many spikes, shims and clamps from tie replacement stuck in grating. 1 7

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

N58. Deck Summary: Open deck, hence no summary rating. Summary Rating:

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: 6
 Widespread chalking and fading on beams; aparent surface corrosion on other "interior members"; top of gussets not visible but expected to be corroding; portions repainted in 2021

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 enitre 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: Summary Rating: 3

Bridge Inspection Report | *Safety Inspection*


SFN: 3161323

Gest Street Chessie Overhead at 3rd Street

Date Inspected: 06/07/2021

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 2021 inspection.
Recent CSX rehab appears to be limited to other spans of this structure, or trackwork.

Recommended Maintenance:

1. Repair steel @ base of pier columns.
2. Clean structural steel, replair as necessary, and paint.
3. Update all VC signs and replace missing signs at S.

Assigned to:

Owner
Owner
Traffic

Bridge Inspection Report | Safety Inspection

SFN: 3161668

Gest Street Chessie Overhead - 1st East of Mill Creek

Date Inspected: 07/29/2021

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 & tie ends visibly deforming under loads; grating bent @ several locations; debris (sand, gravel) falling through deck; railroad tracks lifting from ties under train load.

C11. Railing: Several posts broken, substituted or apparently floating.

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

C14. Alignment of Members: Some stringers appear twisted @ FB connection (assumed to be construction issue). 2 6

C15.1. Beams/Girders: Widespread laminating corr. w LOS - esp. 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: Excessive corr w widespread severe LOS; many bolts apparently removed (3 @ center of each web conn. & all flange conn, (pattern indicates removal on purpose)); most FB's perforated (2 E most tracks esp.) with BF separated from web over 75% of FB length (entire length between stringers). 3 3

C24. Lateral Bracing: Corr. w ext. LOS; impact damage on sev. members; bolts replaced; single member in N approach span with 95% LOS. 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; large rust flakes accum. on flanges, gussets, etc, possibly concealing additional LOS. Summary Rating: 2

C33. Abutment Walls: Gunitite repaired (1988); seepage; rust stained from bearings; isol. cracking w efflor @ tops. 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: 07/29/2021

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: Gunitite repairs (1988); minor cracking & efflor. 2 6

N60. Substructure Summary: Very noticeable sidewalk pounding under train traffic. 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) all tracks are currently being used by trains; 1 roadway.
Did not attempt to access top of bridge 2021.
Met with Reese Benson (CSX) in the field following 2019 inspection to point out our concerns.
Notified CSX after 2020 and 2021 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, train parts, 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 unused/broken utilities on the bridge. | Owner |

Bridge Inspection Report | Safety Inspection

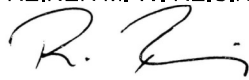
SFN: 3161609

Gest Street Chessie Overhead - 2nd East of Mill Creek

Date Inspected: 07/30/2021

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

Rating 1 to 4 Rating 9 to 0

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.

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

C14. Alignment of Members: 1 8

C15.1. Beams/Girders: Widespread 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: Widespread corr. w LOS; misaligned / bent. 2 6

C17. Stringers: Widespread corr. w surface pitting; debris accum. 2 6

C18. Floor Beams: Ext. corr.; BF laminating, debris accum. on many 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 (not observed in 2021); 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; Summary Rating: 3
 not fatigue prone; wide spread corr. Full extent of deterioration may not be detectible from the ground level.**

C33. Abutment Walls: HL vert. cracks; deter. @ center jt; stains; seepage @ N. 1 7

C34. Abutment Caps: Ext. debris; minor spall @ S; heavy green moss growing; spall w exp rebar @ NW. 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: 07/30/2021

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. Clean RR debris from sidewalks below bridge. | 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 |

Bridge Inspection Report | Safety Inspection

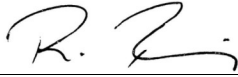
SFN: 3161439

Gest Street C.U.T. Overhead - 1st West of Dalton

Date Inspected: 06/14/2021

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; minor 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: Isol. vert. cracks; delam, spalls and isol. exp. Reinf; large delam. Near W end of bridge. 1 7
 C40. Wingwalls: Minor water saturation (not observed in 2021), 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 overlay: Vert. Clearance Rating: 1

Bridge Inspection Report | *Safety Inspection*

SFN: 3161439

Gest Street C.U.T. Overhead - 1st West of Dalton

Date Inspected: 06/14/2021

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

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: RAILROAD #17

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

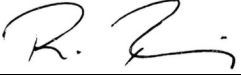
SFN: 3161498

Gest Street Norfolk Southern Overhead (E) - 2nd West of Dalton

Date Inspected: 06/14/2021

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 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 (6 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*

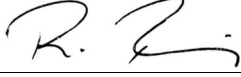
SFN: 3161498

Gest Street Norfolk Southern Overhead (E) - 2nd West of Dalton

Date Inspected: 06/14/2021

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 2021.
New roadway overlay 2020.

General Notes: Kentucky, East Lead Gest Street Yard.

Recommended Maintenance:

Assigned to:

1. Consider chipping; rebar coating, & concrete patching on 2nd pier column from E and N abutment.

Owner

Bridge Inspection Report | Safety Inspection

SFN: 3161552

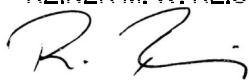
Gest Street Norfolk Southern Overhead (W) - 3rd East of Mill Creek

Date Inspected: 07/30/2021

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 & disintegrating @ 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; ext. 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; several 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:

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.

Summary Rating: 5

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) 3 3

Bridge Inspection Report | Safety Inspection

SFN: 3161552

Gest Street Norfolk Southern Overhead (W) - 3rd East of Mill Creek

Date Inspected: 07/30/2021

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; did not access top of bridge.

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 floorbeams & FB 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: 06/14/2021

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); 2 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: Minor cracking & delams, spalls, some w exp. reinf @ const. jts just below pier caps; 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; VC reduced by exposed lower bars +/- 2". 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: 06/14/2021

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 2021.

General Notes: Oakley Junction - Milepost OB 0.34

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Repair/replace railing. | Owner |
| 2. Perform conc. repairs (chipping & patching) @ bottom edge of fascias, before loose material falls into traffic. | Owner |
| 3. Cut rebar sticking out from slab over roadway. | Owner |

Bridge Inspection Report | Safety Inspection

SFN: 3161137

Highland Avenue SORTA Overhead East of Lester Road

Date Inspected: 10/01/2021

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, no LOS. | 1 | 7 |
| C26. Bearing Devices: Spot rust. | 1 | 7 |
| C30. Protective Coating System (PCS): System: Year: 1970 PCS Rating: 4 Widespread fading/chalking; widespread discoloration (turning brown); very limited areas of active corrosion though. | | |
| C32. Fatigue Prone Details: Lateral Bracing gusset plates, BF thickness transition: mostly assumed rating, | 1 | 8 |
| N59. Superstructure Summary: Fatigue prone; not redundant; birds roosting. | Summary Rating: 7 | |
| C33. Abutment Walls: Minor HL cracks. | 1 | 8 |
| C39. Backwalls: Stains; horiz. cracking w efflor @ top 2' of S backwall; possible seepage from exp joints @ S. | 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: 10/01/2021

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 2021.

Recommended Maintenance:

Assigned to:

1. Consider cleaning & repainting steel.

Owner

Bridge Inspection Report | Safety Inspection

SFN: 3162885

Laidlaw Avenue Norfolk Southern Overhead

Date Inspected: 06/11/2021

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 4Rating
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 minor 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); floor & BF's in worst condition w paint mostly nonexistent, webs in much better condition.

N59. Superstructure Summary: Redundant; not fatigue prone; widespread corrosion, but little LOS (steel weathering).

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

Bridge Inspection Report | *Safety Inspection*

SFN: 3162885

Laidlaw Avenue Norfolk Southern Overhead

Date Inspected: 06/11/2021

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

Summary Rating / Operational Status 6 N

Signature: _____



Bridge No.: RAILROAD #22

65. Vertical Clearance: 14'-10"; (new overlay 2015)

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 6 N

General Notes: Cincinnati Belt Line - Milepost CT 1.08 - Bridge #2096A.
Most tracks removed - only 2 tracks @ W remain.

Recommended Maintenance:

1. Clean & paint structural steel.
2. Remove tree branches from W railing posts before they fall into traffic.
3. Monitor BF rivet deterioration.

Assigned to:

Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

SFN: 3199942

Lancaster Street Pedestrian Tunnel Under SORTA

Date Inspected: 04/28/2021

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

Summary Rating / Operational Status 2 N

Signature: 

Bridge No.: RAILROAD #23

Route: Unit: Bridge Type 1B4 / Date Built / Date Rehabbed: 1914 /
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):

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); graffiti; 2nd crack from N is +/- 1" wide w apparent conc cracked behind (possible point of entrance for cementitious material in 2021 see inspection note); 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 the other one buckled; S spandrel 1.5" wide full depth crack almost full height crack; spandrel concrete deteriorating, apparently held in place by wingwalls. 4 2
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.

N60. Culvert Summary: 2021 cementitious material had been flowing into the tunnel (E half) from a highpoint at the vertical brick crack. Origine of the material not clear. Summary Rating: 2

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. Cementitious material in E side of tunnel orgininatig from area near the wide brick crack (2021).

General Notes: RR marker 2 on top.

Recommended Maintenance:

Assigned to:

1. Remove debris & trash from tunnel & entrances. Owner
2. Fill tunnel & remove from inventory. Owner
3. Until filled, tunnel should be monitored & secured/reinforced spandrel walls (esp S). Owner

Bridge Inspection Report | Safety Inspection

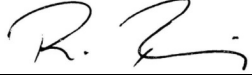
SFN: 3160335

Langdon Farm Road SORTA Overhead

Date Inspected: 07/28/2021

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: Steel plates; ext. corr. 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: Stalagmites forming in roadway below edge of floor from seepage. 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; interior beams in better condition. 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 w 3 spalls & exp rebar in 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

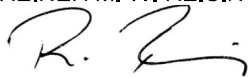
Langdon Farm Road SORTA Overhead

Date Inspected: 07/28/2021

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: Top not accessed 2021.

General Notes: Mile marker 12.04 - Oasis
Bike lanes and one lane vehicle traffic each way below bridge.

Recommended Maintenance:

1. Chip loose conc from fascias before it falls into traffic.
2. Chip loose conc from backwalls before it falls onto s/w.
3. Replace or repair railing & spill guards before it falls into traffic below.
4. Clean & paint struct. steel.

Assigned to:

Owner
Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

SFN: 3161730

Lester Road Norfolk Southern Overhead South of Highland

Date Inspected: 06/14/2021

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 esp. @ N. 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 alkali silica reaction @ WW corners. 2 5

C37. Pier Caps: Seepage; efflor; sev. cracking & delams @ fascia's; exp. rebar (4 main vertical bars) @ top of several columns. 3 4

C38. Pier Columns: Severe spalling @ fascia corners; 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; lower portions of wall much better. 2 5

N60. Substructure Summary: Summary Rating: 4

C55. Warning Signs: Slightly faded; rusted. 1 7

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

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

Bridge Inspection Report | *Safety Inspection*

SFN: 3161730

Lester Road Norfolk Southern Overhead South of Highland

Date Inspected: 06/14/2021

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); top not accessed in 2021.

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 | Routine Inspection

SFN: 3161692

Madison Road IORY Overhead at Kenwood Road

Date Inspected: 06/18/2021

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)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Steel plates: Seepage; corr. w pitting & 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 @ plate connections, esp @ S; numerous scrapes from impact; pack rust; sig. LOS @ end connections; rivet det due to rust esp near beams; leaking thru FB's @ S abutment. 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; NW bearing slide retainer severely bent out of place. 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 (2020). 2 5

C34. Abutment Caps: Partially coated; cracks; conc. delaminating & large areas of 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. esp. @ SW; efflor; delams. & spalls; major spall @ NE; moist & water stained @ SW. 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

Bridge Inspection Report | Routine Inspection

SFN: 3161692

Madison Road IORY Overhead at Kenwood Road

Date Inspected: 06/18/2021

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

Summary Rating / Operational Status 4 N

Signature: 

Bridge No.: RAILROAD #26

N60. Substructure Summary: Coating may conceal some of the substructure deficiencies; seperation of new(1944) and original (1915) wall @ cold jnt not doveled; spalling @ older portion of wall @ NW (cold jnt).

Summary Rating: 4

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; continued scratches from vehicle strikes; top not accessed in 2021.

General Notes: Don Stephans @ 513-476-7929 {owner of next door wood shop} regularly informs DOTE about bridge impacts.

Recommended Maintenance:

1. Reattach vertical clearance sign @ W fascia.
2. Clean & paint structural steel esp below bridge.
3. Repair concrete substructure elements.
4. Remove vegetation from top of bridge.

Assigned to:

Traffic
Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

SFN: 3161854

Madison Road IORY Overhead West of Ridge Road

Date Inspected: 06/01/2021

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 4 | Rating 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; possible horiz thru crack w efflor @ S fascia (steel beam not full height?). | 2 | 6 |
| C9. Curbs/Sidewalks: Ext. conc. deter; widespread cracking & spalling; all exposed conc appears unsound (sounded); spalls in platform show copper band over exp joint; sidewalk not integral w superstructure conc. But separate pour. | | |
| C11. Railing: Vert. through cracks one wide @ E, full height esp. @ posts; isol. deter. (ASR?); steel portion repainted 2011; no exposed rebar. | | |
| 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. | 2 | 6 |
| C16. Diaphragms/X-Frames: Only present in bay under platform: 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 @ S), 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 |

Bridge Inspection Report | *Safety Inspection*

SFN: 3161854

Madison Road IORY Overhead West of Ridge Road

Date Inspected: 06/01/2021

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

Summary Rating / Operational Status 6 N

Signature: _____



Bridge No.: RAILROAD #27

C40. Wingwalls: Few cracks, one w efflor; popouts.

1 7

N60. Substructure Summary: Widespread efflor. on surface from leakage at joints.

Summary Rating: 6

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; new (2021) utility conduit below bridge (light fixtures).

Recommended Maintenance:

1. Repair pier cap @ W.
2. Repair & seal joint over piers & curb to prevent water seepage into superstructure and piers.
3. Check soundness of concrete and chip all loose material before it falls into traffic.
4. Repair concrete where mapcracking, patch and seal. (edges of pier caps, etc.)
5. Plan for extensive conc replacement @ railings, curbs, platform, etc.
6. Chip delaminated conc. from railings, epoxy inject cracks.

Assigned to:

Owner
Owner
Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

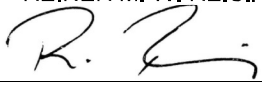
SFN: 3161706

Madison Road SORTA Overhead East of Ridge Road

Date Inspected: 06/01/2021

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 w some exp. Reinf. Steel.; isol. Rust staining; 2 6
 C7.2. Edge of Floor: Widespread closely spaced cracking (ASR?); deter. & spalling (some deep) on bottom & fascia; stalactites & delam. @ both fascias throughout; widespread exp. Rusted rebar w sev. LOS. 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; minor impact damage; 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; triangular WW topper @ NE offset, apparently loose (fastened to backwall by L bracket). 2 5

Bridge Inspection Report | Safety Inspection

SFN: 3161706

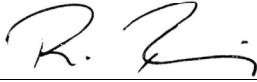
Madison Road SORTA Overhead East of Ridge Road

Date Inspected: 06/01/2021

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

Summary Rating / Operational Status 4 N

Signature: _____



Bridge No.: RAILROAD #28

N60. Substructure Summary: Not fatigue prone; not redundant.

Summary Rating: 4

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

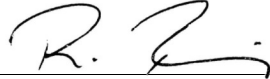
SFN: 3163032

McMillan Street over SORTA Tunnel

Date Inspected: 04/12/2021

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); moisture at blocked off N end @ NE (3' wide). 2 6

C45. Culvert - Alignment: 1 8

C48. Culvert - Head/End Walls: Only located on the S side; cracks in the stones at isol. locations (near bottom of wall); widespread surface spalling mostly @ bottoms of walls; large diameter rebar sticking out from top of headwall (former railing?) 2 6

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: Long. map cracking originating from manhole. 1 7

C4. Embankment: Steep South embankments and previous landslide at the SE 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 stabilized. Moisture entering particularly 15 ft S of North end of tunnel (which is about 15 ft North of the sidewalk above, hence in the slope).

Bridge Inspection Report | *Routine Inspection*

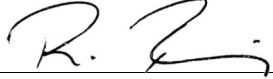
SFN: 3163032

McMillan Street over SORTA Tunnel

Date Inspected: 04/12/2021

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: 11/05/2021

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 & isol @ webs; 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; all non-vertical members have multiple semi circle drain holes cut out. 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. {red} 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. 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: 11/05/2021

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:

Assigned to:

1. Share latest Railroad inspection report of this bridge with the City.
2. Clear vegetation from substructure.

Owner
Owner

Bridge Inspection Report | Safety Inspection

SFN: 3161102

Mehring Way C.U.T. SE Connection Overhead - Harriet to Freeman

Date Inspected: 08/02/2021

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; grating @ S w objects trapped between grates. 1 7

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; perforated gusset @ diaphragm connection mid span 28; possible crack in bot vert gusset over pier 52 (N) in line with rivets; possibly bent gusset @ N over pier # 46 (bot. hor. Gusset). 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 (pier 27 S). 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; possible crack in bottom vert. gusset over pier 15N in line w rivets; possibly bent gusset over pier 46(bottom N gusset).

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: 08/02/2021

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 2021 inspection.
New pier number markings apparently offset by -1 (this report based on new markings).
New overlay on roadway below (2021).

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 35.
4. Remove steel spike sticking out of corr. hole in gusset W of pier 37.
5. Remove loose wood from BF, span 54.
6. Remove 2 severely perforated tabs (former N track conn.) @ E side of pier 41 before they fall into traffic.
7. Remove any objects wedged into grating.
8. Check gusset @ pier 52 N & 46 N for integrity.

Assigned to:

Owner
Owner
Owner
Owner
Owner
Owner
Owner
Owner

Bridge Inspection Report | *Safety Inspection*

SFN: 3161226

Mehring 1Way Chessie Overhead East of Smith Street

Date Inspected: 08/12/2021

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 3 N

Signature: *R. Reising*

Bridge No.: RAILROAD #32

QA/QC Inspector: BRIAN E. RHODES

Safety Inspection ?

Signature: *Brian Rhodes*

Route: MEHR Unit: 101 Bridge Type 321 / Date Built / Date Rehabbed: 1929 /
 Load Rating Percent 0 (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Open ties: Apparently trackwork ongoing 2021; 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.

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

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; TF edges serrating; multiple cracks in beam ends over piers (indicated by RR inspector notes not visible from the ground). 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 vehiclur 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

Bridge Inspection Report | Safety Inspection

SFN: 3161226

Mehring 1Way Chessie Overhead East of Smith Street

Date Inspected: 08/12/2021

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #32

QA/QC Inspector: BRIAN E. RHODES

Safety Inspection ?

Signature: 

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):

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 active in 2021.

General Appraisal / Operational Status: 3 N

Inspection Notes: Top not accessed during the 2021 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. 2021 lots of debris, from ongoing track work on the ground below. Notified CSX (Reese Benson) about dangling ties above roadway and loosely suspended on utilities above roadway following 2021 inspection.

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Investigate and repair LOS on beam BF N of pier 14 to E tracks, where flange has 100% LOS. | Owner |
| 2. Remove 3 unused timber platforms between tracks over Mehring Way including steel support angles. | Owner |
| 3. Replace missing rivets. | Owner |
| 4. Replace all steel members with significant loss of section, esp bottom brace over Pete Rose Way. | Owner |
| 5. Remove all utilities, pipes, etc from bridge if they are abandoned before they fall into traffic below. | Owner |
| 6. Clean, repair, and paint all structural steel. | Owner |
| 7. Remove all loose wood & railroad debris above piers, sidewalks, etc. | Owner |

Bridge Inspection Report | Safety Inspection

SFN: 3160394

Mitchell Avenue Chessie Overhead

Date Inspected: 08/16/2021

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 6 N

Signature: *R. Reising*

Bridge No.: RAILROAD #33

QA/QC Inspector: BRIAN E. RHODES

Safety Inspection ?

Signature: *Brian Rhodes*

Route: MITCH Unit: 3401 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: 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 & water seepage over pier.

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, worst @ SW with small dent in BF. 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 (not observed in 2021); several nuts not tight. 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 and seepage (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: 08/16/2021

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 6 N

Signature: *R. Reising*

Bridge No.: RAILROAD #33

QA/QC Inspector: BRIAN E. RHODES

Safety Inspection ?

Signature: *Brian Rhodes*

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 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 2021 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 and tighten anchor bolt nuts as necessary. | Owner |
| 6. Clean mud from sidewalks and abutment walls including light fixtures. | Owner |

Bridge Inspection Report | Safety Inspection

SFN: 3162672

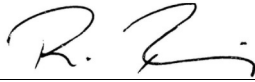
Red Bank Expressway IORY Overhead

Date Inspected: 09/24/2021

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; 2 square foot saturated area of long. Jnt. @ W w stalactites nearby. 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; vegetation growing through rail possibly adding additional loads.

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

C13. Expansion Joints: Leakage @ ends of long. jts, esp. @ W. 2 6

N58. Deck Summary: Apparent vegetation on deck. 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; 1 missing bolt @ lower gusset plate @ W; 4 rivets of top lateral brace gussets replaced w bolts @ fascia beams @ E (N&S). 1 7

C26. Bearing Devices: 2 anchor bolts loose (lifted) @ E; 4 other anchor bolts apparently missing. 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.; minor spall; seepage @ W; staining on both sides, w excessive moisture @ W. 1 7

C39. Backwalls: Seepage staining; spalling & delam & spall @ 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

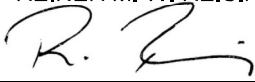
Red Bank Expressway IORY Overhead

Date Inspected: 09/24/2021

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 2021.

General Notes: Bridge #12/96
Mile marker 13 just E of bridge.

Recommended Maintenance:

1. REPAIR RAILING AND SPILLGUARDS.
2. SECURE RAILING POSTS
3. Replace missing bolts of bearings.
4. Trim branches & ivy from WW's & railings.
5. Remove vegetation from bridge deck to prevent root damage to structure.

Assigned to:

Owner
Owner
Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

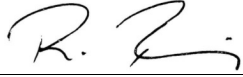
SFN: 3162214

Ridge Avenue IORY Overhead South of Madison

Date Inspected: 06/14/2021

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: Few HL 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 over all lanes @ 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 & sev. Conc. Deter.@ bases; veg. growing on railing.
- 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 esp @ fascias. 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; lichen @ NW. 1 8

N60. Substructure Summary: Summary Rating: 6

Bridge Inspection Report | *Safety Inspection*

SFN: 3162214

Ridge Avenue IORY Overhead South of Madison

Date Inspected: 06/14/2021

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 2021; evidence of ponding below bridge, effecting sidewalk.

Recommended Maintenance:

1. Repair conc portions of railing and piers as necessary.
2. Remove vegetation from top of bridge & from around substructure units.

Assigned to:

Owner
Owner

Bridge Inspection Report | Safety Inspection

SFN: 3162265

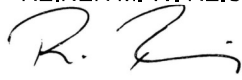
Ridge Avenue SORTA Overhead North of Madison

Date Inspected: 10/01/2021

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; full length horizontal cold joint @ deck level on both sides of bridge. 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; isol. small corr. cells in webs. 1 7
- C16. Diaphragms/X-Frames: LOS under exp. jts.; very minor initial rusting. 1 7
- C24. Lateral Bracing: Very minor initial rusting, no LOS; 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: 4
Chalking/fading; some active corrosion at bottom flanges over S bound lanes; isol. small corr. cells in webs.
- C32. Fatigue Prone Details: Many: lat. bracing gussets; flange transitions, etc; mostly 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: 1 8
- C39. Backwalls: Stains - especially @ W; minor cracking w efflor. @ W. 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*

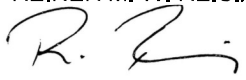
SFN: 3162265

Ridge Avenue SORTA Overhead North of Madison

Date Inspected: 10/01/2021

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 appears to be in constant hot weather mode with little room for expansion at both abutments.
Top not accessed 2021.

General Notes: Mile marker 9.89 on Oasis Line.

Recommended Maintenance:

1. Clean & paint steel beams.
2. Seal railing tubes with end caps.

Assigned to:

Owner
Owner

Bridge Inspection Report | Safety Inspection

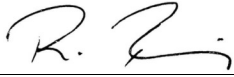
SFN: 3162842

Seventh Street C.U.T. Overhead - 1st West of McLean

Date Inspected: 10/05/2021

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: Widespread minor honeycombing occasionally turning into map cracking; HL 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 in E half of bridge (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, esp under E half. 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: 10/05/2021

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

Summary Rating / Operational Status 7 N

Signature: _____



Bridge No.: RAILROAD #37

C55. Warning Signs: Faded sign. 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 2021 inspection; ext. seepage through center long. joint.

Recommended Maintenance:

1. Clean & paint structural steel.
2. Remove mud from abut. seats & bearings.
3. Seal center long. jt and abutment joints that traps moisture.

Assigned to:

Owner
Owner
Owner

Bridge Inspection Report | *Safety Inspection*

SFN: 3162745

Seventh Street Norfolk Southern Overhead - 2nd West of McLean

Date Inspected: 08/06/2021

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

Signature: *R. Reising*

Bridge No.: RAILROAD #38

QA/QC Inspector: BRIAN E. RHODES

Safety Inspection ?

Signature: *Brian Rhodes*

Route: SEVEN Unit: 2922 Bridge Type 363 / Date Built / Date Rehabbed: 1930 /
 Load Rating Percent 0 (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Newer wood ties on E bridge; (2013) grated walkway on W bridge replaced former RR track. 1 7

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

N58. Deck Summary: Based on rating of grates on W bridge. 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). 2 5

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; 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: 5

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 (20 sq ft @ S pier, widespread delaminated & unsound conc. (estimated @ 50%) under W tracks); cracks; efflor.; honeycombing; efflor. & stalactites; large delam area's mainly under W tracks. 2 5

N60. Substructure Summary: Condition of W bridge S pier governs the rating, E bridge much better; condition of W bridge pier governs the rating Summary Rating: 5

Bridge Inspection Report | *Safety Inspection*

SFN: 3162745

Seventh Street Norfolk Southern Overhead - 2nd West of McLean

Date Inspected: 08/06/2021

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

Signature: *R. Reising*

Bridge No.: RAILROAD #38

QA/QC Inspector: BRIAN E. RHODES

Safety Inspection ?

Signature: *Brian Rhodes*

C55. Warning Signs: Sign bent (CSR posted) 3 4

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: 5 N

Inspection Notes: W line abandoned, ties removed and replaced with grated walkway in 2013; did not attempt to access top of bridge; bearing pedestal in adjacent span (N approach) severely cracked & delaminated and banded w severe LOS of lower pedestal bracing steel bands (not considered for this rating); E bridge over roadway in better condition than adjacent bridge & spans. Bearings in adjacent S span shimmed 2019?; rating is on span over roadway only, adjacent spans appear in worse in condition, esp @ N.

General Notes: Kentucky, 2.3 Conn PASS.

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Clean & paint struct. Steel; repair as necessary. | Owner |
| 2. Clean & paint bearings & replace anchor bolts as necessary. | Owner |
| 3. Clean off debris from bottom flange to prevent corrosion to structural steel. | Owner |
| 4. Plan for conc. repairs to S pier & pier cap. | Owner |

Bridge Inspection Report | Routine Inspection

SFN: 3162796

Seventh Street Norfolk Southern Overhead - 3rd West of McLean

Date Inspected: 08/10/2021

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)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Open floor with newer wood ties on both bridges, active tracks on both sides of the bridge.

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

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, many perforated; 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; 3 upper lateral bracing members completely missing. 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 | Routine Inspection

SFN: 3162796

Seventh Street Norfolk Southern Overhead - 3rd West of McLean

Date Inspected: 08/10/2021

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:

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.

Assigned to:

Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

SFN: 3161870

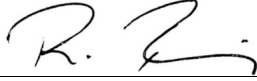
Sixty-Ninth Street Norfolk Southern Overhead East of Vine

Date Inspected: 05/20/2021

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 sqft spall @ NW over pier. | 1 | 7 |
| C7.2. Edge of Floor: Minor delam. @ SE; ext. map cracking w efflor & stalactites on concrete fascia esp. in approach spans; 2' tall x 3" wide spall @ SW over pier; crumbling & ASR @ NE over abutment; apparent delams over walks, esp @ NW; spall & loose conc over SW pier @ top of railroad. | 2 | 5 |
| C11. Railing: Steel railing @ W only, ext. rusting of steel tubes w isol. perforations; conc rail @ E crumbling & delam @ approach spans; spall and loose concrete over SE pier @ top of railing. | 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: Continous 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 Ext. rusting. | PCS Rating: 0 | |

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*

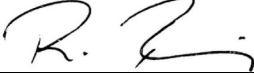
SFN: 3161870

Sixty-Ninth Street Norfolk Southern Overhead East of Vine

Date Inspected: 05/20/2021

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. (VC measured in 2017 to be 13.97') 4 2

C57. Utilities: Utility line on E face of bridge. 1 7

Utilities On Structure: UUUUUUU

65. Vertical Clearance: Posted 13'-9" (@ W), 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.

Recommended Maintenance:

- | 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. | Traffic |
| 5. Clean mud & debris from sidewalks. | Owner |

Bridge Inspection Report | Safety Inspection

SFN: 3162028

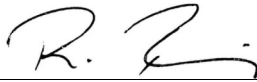
Spring Grove Avenue Chessie Overhead North of Mitchell Avenue

Date Inspected: 06/01/2021

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 compromised with 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); SE approach hand railing has excessive tilt, appears in danger of falling.

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.; 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; both BF's slightly wavy near S abutment.

2 6

C16. Diaphragms/X-Frames: Paint flaking; rust; initial LOS @ exp. jts.; several deformed members in N approach span.

2 5

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; N abutment bearing appears to be floating as indicated by beam movement despite mud cover; several bolts connecting main span beams to bearings are missing.

3 3

C30. Protective Coating System (PCS): System: Year: 1970 PCS Rating: 0

Bridge Inspection Report | Safety Inspection

SFN: 3162028

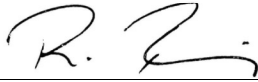
Spring Grove Avenue Chessie Overhead North of Mitchell Avenue

Date Inspected: 06/01/2021

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

Summary Rating / Operational Status 3 N

Signature: _____



Bridge No.: RAILROAD #41

Widespread rust; flaking; initial LOS @ isol. locs; some area's sprayed white in 2018.

C32. Fatigue Prone Details: Cracking in N approach span (plated in 2015), currently no cracks detected but movement of beam over bearings 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; covered with mud. 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 including bearings. **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 multiple times.

General Notes: Bridge # 6.94.

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Repair N approach bearings 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*

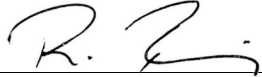
SFN: 3162028

Spring Grove Avenue Chessie Overhead North of Mitchell Avenue

Date Inspected: 06/01/2021

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 |
| 7. | Reset SE approach railing before it falls. | Owner |

Bridge Inspection Report | Safety Inspection

SFN: 3162079

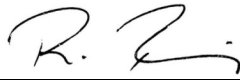
Spring Grove Avenue Chessie Overhead South of Ralston

Date Inspected: 06/29/2021

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. 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; efflor & stalactites. 3 4

C18. Floor Beams: Widespread corr. w severe LOS - especially @ beam connections & @ bearings (isol. Perforations of webs @ connections); efflor; rivet deter; widespread stalactites esp. @ SE 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. masonry fracture, esp. @ W; ivy @ NE. 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 column bracing.

Bridge Inspection Report | Safety Inspection

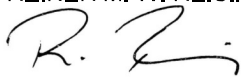
SFN: 3162079

Spring Grove Avenue Chessie Overhead South of Ralston

Date Inspected: 06/29/2021

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 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. Repair & secure bracing of center pier before members fall into traffic. | 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 |
| 7. Replace broken, perforated or missing drainage pipes. | Owner |

Bridge Inspection Report | Safety Inspection

SFN: 3161641

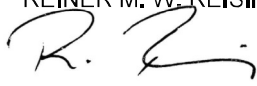
Spring Grove Avenue Norfolk Southern Overhead South of Ralston

Date Inspected: 11/03/2021

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 in 3 S most beams of spans 1 & 2 from E; 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; surface corr. @ 3 S most beams in span 1 & 2 from E.

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; staining.

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

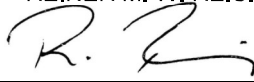
Spring Grove Avenue Norfolk Southern Overhead South of Ralston

Date Inspected: 11/03/2021

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; obvious continuing impact from vehicles.

Recommended Maintenance:

1. Seal joint between wingwall @ steel piles @ SW.
2. Consider painting at minimum BF & fascia webs.
3. Replace conduit of yellow flashing warning light @ E pier.
4. Remove impact event objects from beams.

Assigned to:

Owner
Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

SFN: 3162435

Stanley Avenue SORTA Overhead

Date Inspected: 06/28/2021

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 @ first bay from fascias (2 out 12 bays); re-painted (2007); sev pitting around holes in first bay from N (drain holes?); otherwise no deficiency 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. @ bearing loc. Over piers; deck holding water; seepage @ plate connections as evident from stalactites; 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: Cracking esp @ E (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 (possible ASR?); 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. @ TF's; 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) w little cracking; upper portion steel w isol. corrosion. 1 7
- 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: Summary Rating: 5

Bridge Inspection Report | *Safety Inspection*

SFN: 3162435

Stanley Avenue SORTA Overhead

Date Inspected: 06/28/2021

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 2021

General Notes: Mile Marker 4.11 on Oasis Line.

Recommended Maintenance:

1. Seal deck to keep water out of bridge.
2. Remove vegetation from top of bridge.

Assigned to:

Owner
Owner

Bridge Inspection Report | Safety Inspection


SFN: 3162133

Tennessee Avenue IORY Overhead East of Reading Road

Date Inspected: 07/28/2021

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: Conc. deck; isol. cracking w minor efflor @ beam interface; traces from plastic form liner. 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.

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

C13. Expansion Joints: Seepage; ext. efflor., stalactites & stalagmites & moss @ pier locs. 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 1 location of 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; vertical 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: 07/28/2021

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 2021 inspection.

General Notes: Bridge # 959.

Recommended Maintenance:

1. Clean & paint structural steel, railing & bearings.

Assigned to:

Owner

Bridge Inspection Report | Routine Inspection

SFN: 3162141

Tennessee Avenue Norfolk Southern Overhead West of Reading Road Date Inspected: 07/27/2021

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #46

QA/QC Inspector: BRIAN E. RHODES

Signature: 

Route: TENES Unit: 3791 Bridge Type 364 / Date Built / Date Rehabbed: 1944 /
Load Rating Percent 0 (Main/Approach Spans)

Inspection Information

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Open ties - splitting, rotting, severe lumber deter. & plant growth in timber.

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:

| | | |
|--|---|---|
| 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.; NE stringer not bearing @ abutment. | 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; NE stringer missing bearing block. | 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; partially assumed rating since inspection from ground level only. 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 |

Bridge Inspection Report | Routine Inspection

SFN: 3162141

Tennessee Avenue Norfolk Southern Overhead West of Reading Road Date Inspected: 07/27/2021

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 3 N

Signature: 

Bridge No.: RAILROAD #46

QA/QC Inspector: BRIAN E. RHODES

Signature: 

C40. Wingwalls: Cracks w efflor. & sev. conc. deter (severe alkali-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

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 2021 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 |
| 5. Replace missing bearing block for stinger @ NE. | Owner |

Bridge Inspection Report | Safety Inspection

SFN: 3162826

Victory Parkway SORTA Overhead

Date Inspected: 10/26/2021

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. - @ inlets; 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 are overflowing from bell housing causing corr. of SUPERSTRUCTURE {w constant drip during dry period}; efflor. & stalactites build-up @ bell housings. | 3 | 4 |
| C13. Expansion Joints: Open 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 over E bound traffic); initial rusting @ exp. jts. & beam ends w initial LOS - esp. around inlets; spot rust elsewhere; isol. minor rusting along TF; isol. small corr. cells in webs. | 1 | 8 |
| C16. Diaphragms/X-Frames: Surface corr: esp. @ abut. expansion joint. | 1 | 7 |
| C24. Lateral Bracing: Paint fading; initial corr. & 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; many very small corr. cells in webs. | | |

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

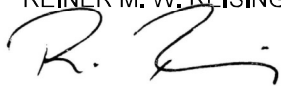
Victory Parkway SORTA Overhead

Date Inspected: 10/26/2021

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; very minor backfill mat'l coming out of jts esp @ NE; 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: Half of bridge to be converted to trail bridge during Wasson Phase 6, hold off maintenance until trail conversion. General Appraisal / Operational Status: 7 X

Inspection Notes: No tracks on bridge; top of bridge not inspected 2021.

Bridge Inspection Report | Safety Inspection

SFN: 3199943

Wenner Street Pedestrian Tunnel Under SORTA

Date Inspected: 08/10/2021

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

Signature: 

Bridge No.: RAILROAD #48

QA/QC Inspector: WILLIAM J. SHEFCIK, P.E.

Safety Inspection ?

Signature: 

Route: Unit: Bridge Type 1B4 / Date Built / Date Rehabbed: 1917 /
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: Coated white inside 2020, and murals added to walls in 2021; minor spalling and delaminations w some exp. rebar; long. cracking in N half of tunnel floor with buildup of efflor; 4 trans cracks w efflor. within 5 ft segment in center of tunnel floor; HL crack around entire perimeter of tunnel in center (shrinkage?); floor breaking up & cracking @ N end {+/- 2ft} and @ S end {+/- 3ft}. Step added at N in 2021 covering 2 ft of original tunnel floor. 1 7

C45. Culvert - Alignment: 1 8

C48. Culvert - Head/End Walls: Coated 2020/2021: Cracking w buildup of efflor.; delaminated areas at corners. 2 6

N60. Culvert Summary: Ext. concrete deterioration and deep concrete spalling S of tunnel at extension of wall at Eastern (not considered for this report) 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.
New (2021) additional step at N end of tunnel concealing broken up floor.
New (2021) landscaping on top of tunnel.

General Notes: Between Eastern & Walworth.
Only S track in use.

Bridge Inspection Report | *Safety Inspection*

SFN: 3199943

Wenner Street Pedestrian Tunnel Under SORTA

Date Inspected: 08/10/2021

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

Signature: 

Bridge No.: RAILROAD #48

QA/QC Inspector: WILLIAM J. SHEFCIK, P.E.

Safety Inspection ?

Signature: _____

Recommended Maintenance:

Assigned to:

1. Repair tunnel floor @ both ends where delaminated.

Owner

Bridge Inspection Report | Safety Inspection

SFN: 3160491

Whetsel Avenue IORY Overhead

Date Inspected: 06/08/2021

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; sig. dripping through deck at beam lines.

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 all beams leaving clear marks and initial stalagmites on pavement below.

3 4

C18. Floor Beams: Built-up of several steel profiles: Widespread efflor. w stalactites; corr. w LOS plate interfaces; rivet deter.; sev seepage at interface with beams.

3 4

C25. Sway Bracing: LOS @ ballast interface @ S mostly limited to the web of sway bracing.

2 6

C26. Bearing Devices: Corr., many frozen bearings ; 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; wider (+/-1") full height crack @ SE facing Erie Ave; overgrown with poison Ivy.

3 3

N60. Substructure Summary: Abutments possibly recoated 2019. Continued stone deterioration.

Summary Rating: 3

Bridge Inspection Report | *Safety Inspection*

SFN: 3160491

Whetsel Avenue IORY Overhead

Date Inspected: 06/08/2021

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 N**

Inspection Notes: Only one track left on bridge.
New wearing surface below bridge 2019 (damaged at S in 2021 with several apparently drilled holes in S bound lane at center).
Top not accessed in 2021

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Remove & repair loose stone faces from abutments & WW's & perform ext masonry repairs. | Owner |
| 2. Remove loose fallen stone debris from sidewalks. | Owner |
| 3. Repair girder webs & sway bracing. | Owner |
| 4. Cut trees behind WW's pushing wall toward sidewalk; remove poison Ivy from wingwalls. | TROD |
| 5. Consider securing embankments (replace timber lagging) where ballast slides onto walks. | Owner |
| 6. Repair waterproofing to prevent further det. of bridge members. | Owner |

Private Bridges

Bridge Inspection Report | Safety Inspection

SFN: 3199803

Approach to Newport Southbank Bridge over Former Front Street

Date Inspected: 11/04/2021

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

Summary Rating / Operational Status 3 K

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, esp inlet @ N end of arches; widespread conc. det. in curb over arches; closely spaced cracks w efflor in curbs & many rust stains; significant planter leakage @ park steps seeps into nearby sidewalk crack & appears to travel to weephole in center arch. | 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 into arch, esp inlet @ N end of arches; 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 |

Bridge Inspection Report | Safety Inspection

SFN: 3199803

Approach to Newport Southbank Bridge over Former Front Street

Date Inspected: 11/04/2021

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

Summary Rating / Operational Status 3 K

Signature: 

Bridge No.: PRIVATE #01

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 (delaminating surface); delaminated areas in arches. 2 6

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; {bolt no longer transferring any load}; packrust & deformations of connection plates at beam connections & bottom of columns. 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 K

Inspection Notes: Masonry piers and abutment (Wingwall) need ongoing monitoring and maintenance; 2021 bridge closed due to condition of adjacent purple people bridge pier; ongoing work @ 1st pier S from arches @ time of 2021 inspection; concerning masonry deterioration S of arches {beyond

Bridge Inspection Report | *Safety Inspection*

SFN: 3199803

Approach to Newport Southbank Bridge over Former Front Street

Date Inspected: 11/04/2021

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

Summary Rating / Operational Status 3 K

Signature:  _____

Bridge No.: PRIVATE #01

inspection limits}.

General Notes: Includes the W portion of the brick arches.
Only a very small portion of this structure, N of the arches (over former Front Street), is actually over the ROW.

Recommended Maintenance:

1. Plan for curb replacement.
2. Seal exp. jnts., walks & curbs 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.
8. Monitor condition of all masonry substructure units & share findings w City of Cincinnati.
9. Remove delaminated material from arches before it falls to the ground.

Assigned to:

Owner
Owner
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: 10/18/2021

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 forms @ edges. 1 7

C9. Curbs/Sidewalks: Panel joints & edges caulked; trans cracks routed out & sealed; widespread sealant failing; several trans cracks. 1 7

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 E @ S {possible water infiltration suspected}. 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: 1
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; widespread lichan @ W. 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: 10/18/2021

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; deteriorating paint may conceal possible cracking, esp. @ welds.

Recommended Maintenance:

Assigned to:

- | | |
|---|-------|
| 1. Clean & repaint all steel. | Owner |
| 2. Remove debris from bearings & truss connections. | Owner |
| 3. Recaulk walking 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. 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: 11/02/2021

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: New overlay 2020; 17'-5" measured in 2021. 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: 11/02/2021

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: 11/02/2021

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 (several parallel long ones spaced at +/- 6"), 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:

1. Monitor cracking in tunnel ceiling.

Assigned to:

Owner

Bridge Inspection Report | Routine Inspection

SFN: 3161536

Center Hill Avenue Pedestrian Tunnel at P & G (North)

Date Inspected: 05/03/2021

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

Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: PRIVATE #05

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). Several smaller areas hollow sounding indicating backfill issues. 1 7

Concrete floor: cracking being routed out and filled in 2017; some hollow sounding areas of the concrete floor.
3 locations with very minor leakage (2 at seams (w corrosion of metal, esp. at SE).

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: Alum. railing @ E HW with several broken bars and broken connections. 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 severely corroding.** **Summary Rating: 7**

C1. Pavement: Trans. (turning into alligator cracks) & long. excessive map cracking @ W curb over uneven pave base, asphalt patches - 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**

C57. Utilities: Corroding steel plates at bottom of conduit at hanger supports caused by mismatched metals. 1 7

Utilities On Structure: NNNNNNN

Bridge Inspection Report | Routine Inspection

SFN: 3161536

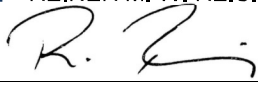
Center Hill Avenue Pedestrian Tunnel at P & G (North)

Date Inspected: 05/03/2021

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

Summary Rating / Operational Status 8 A

Signature: _____



Bridge No.: PRIVATE #05

65. Vertical Clearance:

Vert. Clearance Rating: N

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 8 A

Inspection Notes: W entrance of tunnel and area to the W blocked off for construction at the time of the 2021 inspection.

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: 05/03/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: PRIVATE #06

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 sealed and coated, (all 2017). 3 distinct areas of sealer (ceiling) failing near East end of tunnel. 1 7
 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 (not observed in 2021).
 Trans. Cracks in floor throughout, some with rust staining, but mostly routed out and caulked.
 Several floor delaminations detected in W half of the 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). No vegetation around guardrail posts causing minor erosion. 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

C57. Utilities: 10 Light fixtures inside the tunnel and several electrical outlets. 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

Bridge Inspection Report | *Routine Inspection*

SFN: 3161757

Center Hill Avenue Pedestrian Tunnel at P & G (South)

Date Inspected: 05/03/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: PRIVATE #06

Inspection Notes: Condensation inside the tunnel during the 2021 inspection.
Guardrail CSR initiated following 2021 inspection.

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Monitor the observed leakage; follow up with epoxy injections if necessary. | Owner |
| 2. Investigate condition of tunnel floor (cracks with rust staining and delaminated areas); develop repair strategy. | Owner |

Bridge Inspection Report | Safety Inspection

SFN: 3199990

Charlotte Street Overhead East of John Street

Date Inspected: 09/28/2021

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); 4 small spalls w exp. small diameter 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; concrete fascia beams of upper levels show some spalling and exposed rebar; few HL cracks throughout; 15 partially exp. Rebar stirrups @ E fascia beam, bottom level. 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, typical) full height 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; additional cracking on S bldg @ various locations. 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.
 2021 apparent rehab work @ S end of S bldg.

Bridge Inspection Report | *Safety Inspection*

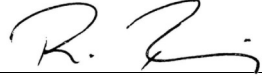
SFN: 3199990

Charlotte Street Overhead East of John Street

Date Inspected: 09/28/2021

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 E & W fascia's of bridge. | Owner |

Bridge Inspection Report | Safety Inspection

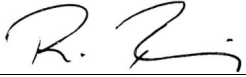
SFN: 3199954

Citycentre Drive Utility Bridge - 1st East of Anthony Wayne

Date Inspected: 04/09/2021

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

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: PRIVATE #08

Route: Unit: Bridge Type 344 / Date Built / Date Rehabbed: /
 Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

C7.1. Floor: Steel grid; one section completely missing from impact; no longer safe to use walkway. Rating 1 to 4: 4 Rating 9 to 0: 0

C11. Railing: Severely impacted since 2016 inspection; bot. portion buckled. Rating 1 to 4: 4 Rating 9 to 0: 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. Rating 1 to 4: 2 Rating 9 to 0: 6

C18. Floor Beams: I-sections: Rusting with initial LOS. Rating 1 to 4: 2 Rating 9 to 0: 6

C19. Truss Verticals: Welded to chords; slight rusting, some bent. Rating 1 to 4: 2 Rating 9 to 0: 6

C20. Truss Diagonals: Welded to chords; rusting. Rating 1 to 4: 2 Rating 9 to 0: 6

C21. Upper Chord: Double angles: Rusting w initial LOS. Rating 1 to 4: 2 Rating 9 to 0: 6

C22. Lower Chord: Double angles: Rusting w initial LOS. Rating 1 to 4: 2 Rating 9 to 0: 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. Partially assumed rating since inspection was performed from ground level only. Summary Rating: 6

C37. Pier Caps: Widespread corrosion w LOS esp @ N. Rating 1 to 4: 2 Rating 9 to 0: 6

C38. Pier Columns: I beams: Rusting, part. @ bases; minor pitting; N footing not visible (below ground). Rating 1 to 4: 2 Rating 9 to 0: 6

N60. Substructure Summary: Summary Rating: 6

Bridge Inspection Report | *Safety Inspection*

SFN: 3199954

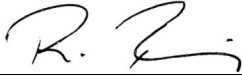
Citycentre Drive Utility Bridge - 1st East of Anthony Wayne

Date Inspected: 04/09/2021

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

Summary Rating / Operational Status 6 N

Signature: _____



Bridge No.: PRIVATE #08

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 2021 inspection.
Most utility pipes partially removed - no utilities in service.
Impact has compromised railing and potentially remaining walk.
During the 2021 inspection Mr. Koreman mentioned his plans to have this bridge removed in the summer of 2021.

General Notes: City Centre Drive was formerly Section Road.

Recommended Maintenance:

Assigned to:

1. REMOVE BRIDGE

Owner

Bridge Inspection Report | Safety Inspection

SFN: 3199955

Citycentre Drive Utility Bridge - 2nd East of Anthony Wayne

Date Inspected: 04/09/2021

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

Summary Rating / Operational Status 6 N

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 (see lateral bracing). 2 6

C19. Truss Verticals: Welded to chords; corr. @ bottom. (slotted at top to fit around web of the upper chord). 1 7

C20. Truss Diagonals: Tension rods: welded to chords; widespread freckeled rusting; few members slightly bent. 2 6

C21. Upper Chord: T- section: Initial corrosion without LOS 1 7

C22. Lower Chord: Built-up from bar sections; widespread rusting; rust esp. @ splices. 2 6

C24. Lateral Bracing: Channel sections: (bracing members are more sway braces/floorbeams); corr. esp @ connections. 2 6

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 (up to 1/16" deep) 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 N

Inspection Notes: During the 2021 inspection Mr. Koreman mentioned his plans to have the structure removed during the summer of 2021.

Bridge Inspection Report | *Safety Inspection*

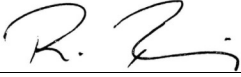
SFN: 3199955

Citycentre Drive Utility Bridge - 2nd East of Anthony Wayne

Date Inspected: 04/09/2021

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

Summary Rating / Operational Status 6 N

Signature:  _____

Bridge No.: PRIVATE #09

General 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.

Recommended Maintenance:

Assigned to:

1. REMOVE BRIDGE.

Owner

Bridge Inspection Report | Safety Inspection

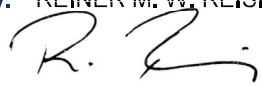
SFN: 3199964

Coliseum Plaza over Pete Rose Way

Date Inspected: 11/09/2021

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); cracks w very little efflor.; possible delams. Under joints @ bumpouts near railings (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 HL 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 6 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; several members not painted or not painted w full system. | | |

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

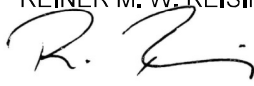
SFN: 3199964

Coliseum Plaza over Pete Rose Way

Date Inspected: 11/09/2021

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.
7. Remove loose conc. from floor esp @ bump outs
8. Remove loose exp. joint material below joint of pier 6 from W.

Assigned to:

Owner
Owner
Owner
Owner
Owner
Owner
Owner
Owner

Bridge Inspection Report | Routine Inspection

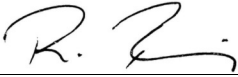
SFN: 3199965

Coliseum Plaza over Taylor Southgate Approach & Mehring Way

Date Inspected: 12/07/2021

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; widespread caulk failing or missing @ joints over FB's; extreme conc. deterioration & scaling @ SE near steps to Taylor Southgate Bridge. | 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; 1 drain pipe leaking w icicles forming. | 2 | 5 |
| C13. Expansion Joints: Caulk failing or missing @ top; corr. & conc. damage below indicate leakage; real exp joints @ bridge ends in better condition. | | |

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 & @ N end of bridge; circular rust pattern @ webs of stringers where cross frames attach, could be pre cursor to cracking. | 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; possible slight twist of webs @ cantilever ends. | 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.
Many 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.

Bridge Inspection Report | Routine Inspection

SFN: 3199965

Coliseum Plaza over Taylor Southgate Approach & Mehring Way

Date Inspected: 12/07/2021

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

Summary Rating / Operational Status 4 A

Signature: _____



Bridge No.: PRIVATE #11

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

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.
Several large pieces of pipe insulation fallen into bird netting.

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: 4 A

Inspection Notes: Rust from structural steel has fallen onto bird netting.
Bird netting is broken @ several locations, sagging under load, & 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 s/w of Taylor Southgate Approach walk) that was removed for cooling | Owner |
| 9. Replace walking surface @ SE & wherever warranted. | Owner |
| 10. Remove loose conc. from bottom of deck before it falls on s/w & roadway. | Owner |

Bridge Inspection Report | Safety Inspection

SFN: 3199961

Durham Street Pedestrian Overhead - 1st South of Spring Grove

Date Inspected: 07/14/2021

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

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Minor staining of conc. floor; minor scrapes. 1 8

C11. Railing: Bridge enclosed; corrugated metal siding rusted; several siding panels lose & bent, esp. @ N; some cracked/broken 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; flashing @ S bent; drainage over the side; gutter of smaller roof @ NW perforated with DS ending in front of façade causing water damage to brick @ NW. 3 4

N58. Deck Summary: Only bottom level considered for floor rating. Summary Rating: 8

C14. Alignment of Members: 1 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). 2 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). 2 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 conduit attachments at north are compromised; new 2021 security camera @ N. 3 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: 07/14/2021

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 & repair flashing. | Owner |
| 3. Repair utility hangers for pipe at N (two out of three broken). | 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 |

Bridge Inspection Report | Safety Inspection

SFN: 3199962

Durham Street Utility Overhead - 2nd South of Spring Grove Avenue

Date Inspected: 07/14/2021

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 4Rating
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; several small corrosion holes in metal cladding @ S.

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

C12. Drainage: At low end (W building); new (2021) gutters @ W bldg connection. 1 9

N58. Deck Summary: Actual deck not visible, partially assumed rating. Summary Rating: 6
(Inside has not been accessed in years).

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. 2 5
Actual support not visible, but damage on façade at W (spalled concrete, exposed rebar and rust staining), likely due to water from bridge running down the building face.

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: 07/14/2021

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:

1. Remove Bridge
2. Provide access to the interior to qualified registered engineer for inspection. Share report with City DOTE.

Assigned to:

Owner
Owner

Bridge Inspection Report | Safety Inspection

SFN: 3199963

Durham Street Utility Overhead - 3rd South of Spring Grove Avenue

Date Inspected: 07/14/2021

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: Partially assumed rating. 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; bricks @ W below beams appear to have slightly shifted; conc. beam @ W cracking; assumed cond. @ W. 2 6

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.

General Notes: Bridge is enclosed by corrugated metal siding; siding has ext. rust.

Bridge Inspection Report | *Safety Inspection*


SFN: 3199963

Durham Street Utility Overhead - 3rd South of Spring Grove Avenue

Date Inspected: 07/14/2021

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

Summary Rating / Operational Status 6 A

Signature:  _____

Bridge No.: PRIVATE #14

Recommended Maintenance:

1. Remove bridge if no further use is intended.
2. Check int. of bridge to investigate source of floor plate deformation (remove any utilities that are no longer needed).

Assigned to:

Owner

Owner

Bridge Inspection Report | Safety Inspection

SFN: 3199966

Eden Avenue Pedestrian & Utility Overhead North of Goodman

Date Inspected: 10/08/2021

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 {not observed 2021}. 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; areas of corr. & very minor LOS @ BF {bottom side}. 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); large portions concealed. 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

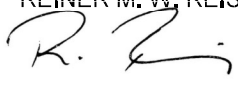
Eden Avenue Pedestrian & Utility Overhead North of Goodman

Date Inspected: 10/08/2021

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

Summary Rating / Operational Status 7 A

Signature: _____



Bridge No.: PRIVATE #15

C57. Utilities: Many, 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. Clean algae from windows.

Owner
Owner

Bridge Inspection Report | Safety Inspection

SFN: 3199899

Great American Ballpark over Broadway @ Mehring Way

Date Inspected: 10/18/2021

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: isol. area's of rusting & efflor., sev. @ 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 patched; 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

C12. Drainage: 2 inlets; pipe @ S inlet severely corroding(perforated); ponding could not be detected 2021. 2 6

C13. Expansion Joints: N only; widespread leakage @ N joint; cover plates shifted & loosened. 3 4

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: Sev. LOS to N joint support beam w apparent perforations, esp. near welds. 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

Bridge Inspection Report | *Safety Inspection*

SFN: 3199899

Great American Ballpark over Broadway @ Mehring Way

Date Inspected: 10/18/2021

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

Inspection Notes: Bird netting
40% of railing lights turned on during daylight hours.

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Hire consultant to perform close-up inspection of fascia stringer and railing attachment at SE (share reports with City). | Owner |
| 2. Repair bird/netting, loose in several areas. | Owner |
| 3. Plan for steel cleaning, repair & repainting. | Owner |
| 4. Recaulk railing joints @ top to prevent water from entering. | Owner |
| 5. Caulk/seal routed-out cracks in the wearing surface. | Owner |
| 6. Consider sealing wearing surface w membrane. | Owner |
| 7. Remove wooden shims from bottom of railing @ S end. | Owner |

Bridge Inspection Report | Safety Inspection

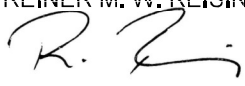
SFN: 3199945

Great American Ballpark over Broadway @ Pete Rose Way

Date Inspected: 11/30/2021

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; very isolated but sev. corr., w cracks, efflor. @ d/s & along edges. 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 spalls @ bottom; many E panels have vert. cracks, 1 spall, & corr.; 1 area spalled @ bottom of panel w exp rebar, more delam areas suspected; 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 {not observed in 2021} with loose cover plates, corroding, & wavy flashing. 2 5

N58. Deck Summary: Bird netting under deck +/- 15' from ballpark. 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; 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 and possible LOS in the future if not addressed; widespread staining. Summary Rating: 8

Bridge Inspection Report | Safety Inspection

SFN: 3199945

Great American Ballpark over Broadway @ Pete Rose Way

Date Inspected: 11/30/2021

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

Summary Rating / Operational Status 7 N

Signature: _____



Bridge No.: PRIVATE #17

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 of bridge. 1 7

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: Cables attached with vices to outside of top & bottom chords.

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. Remove objects (vices, cables, etc.) attached to truss chords. | 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 |

Bridge Inspection Report | Routine Inspection

SFN: 3161846

Library Over Ninth Street

Date Inspected: 05/04/2021

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)

Inspection Information

| | Rating 1 to 4 | Rating 9 to 0 |
|---|------------------|------------------|
| C7.1. Floor: Enclosed, not visible; doves roosting at N&S 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 2019/2020. At 3rd floor level - significant ponding @ all corners (drain inlets are higher than the low points); very top roof new (2019), no ponding. No evidence of leaking on any level inside. | 1 | 8 |
| 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 | *Routine Inspection*


SFN: 3161846

Library Over Ninth Street

Date Inspected: 05/04/2021

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. Consider modifying 3rd floor roof slopes to allow for better drainage.

Owner

Bridge Inspection Report | Safety Inspection


SFN: 3199905

Mohawk Street Pipe Overhead E of Hamburg St

Date Inspected: 04/19/2021

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

Summary Rating / Operational Status 4 A

Signature: 

Bridge No.: PRIVATE #19

Route: Unit: Bridge Type / 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: Lower chord @ W is slightly bent. 2 6

C16. Diaphragms/X-Frames: Bolted to vertical members; some bent, esp center diaphragm. (additional bracing through floorbeams); rust. 2 5

C19. Truss Verticals: Widespread surface corr. 2 6

C20. Truss Diagonals: Widespread surface corr.; 1 bracing bent. 2 6

C21. Upper Chord: Widespread surface corr with minimal LOS; widespread rust staining @ top of W fascia. 1 7

C22. Lower Chord: Widespread surface corr. with minimal LOS; misalignment on truss @ W. 2 6

C24. Lateral Bracing: Rusted; N most 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: Bldg's not accessed, hence partially assumed condition of substructure units. Summary Rating: 4

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: 1 small utility conduit remaining on bridge (apparently not connected to anything). Sidewalk at S blocked due to partial building collapse.

Bridge Inspection Report | *Safety Inspection*

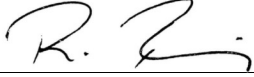
SFN: 3199905

Mohawk Street Pipe Overhead E of Hamburg St

Date Inspected: 04/19/2021

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

Summary Rating / Operational Status 4 A

Signature: 

Bridge No.: PRIVATE #19

Apparent construction on S building complex (2021), not near bridge.

General Notes: Ownership of the bridge not positively identified but apparently belonging to N building.
Name change of Stonewall street to Hamburg Street reflected in bridge inspection reports from 2021 forward.

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: 10/08/2021

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; caulk @ S end covered w green{lycan}. 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; apparent peeling of 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

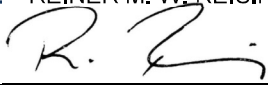
Oak Street Pedestrian Overhead East of Reading

Date Inspected: 10/08/2021

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 2021.**

**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.

Assigned to:

Owner

Bridge Inspection Report | Safety Inspection

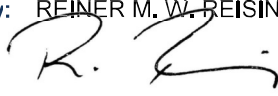
SFN: 3199968

Oak Street Pedestrian Overhead West of Winslow Avenue

Date Inspected: 10/08/2021

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; missing rivet fasteners for flashing below windows. 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

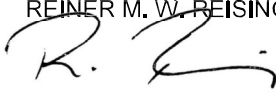
Oak Street Pedestrian Overhead West of Winslow Avenue

Date Inspected: 10/08/2021

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

Summary Rating / Operational Status 7 A

Signature: _____



Bridge No.: PRIVATE #21

N60. Substructure Summary: Surface microcracking on conc. structures.

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 @ N end of bridge, not over roadway; repair attempted @ NE {since 2020}
2 small (+/-1/2 inch diameter) round holes and one similar size indentation in side cladding @ E over
N Oak Street walk; inside not inspected 2021.

Recommended Maintenance:

1. Repair failing caulk @ several exp. jts. (railing, cladding, etc.)
2. Repair separated handrail over exp. jt. @ E.
3. Unclog outside drains/downspouts @ N most pier column.
4. Seal/repair fogged windows.
5. Repair impact damage @ N over steps where outside bottom is deformed.

Assigned to:

Owner
Owner
Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

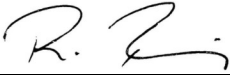
SFN: 3199977

Ogden Place Pedestrian Overhead West of Vine Street (Low)

Date Inspected: 10/05/2021

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); stone tuck-pointing @ top of fascias. 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; enclosed not visible; assumed rating. Summary Rating: 7

C55. Warning Signs: Posted 13'-4" on struct. & 13'-6" in advance of struct(temp. covered by scaffolding); 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: 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 2021. Thin metal conduit from S building to roof of bridge misaligned & corroding; Scaffolding on N side of Ogden pl. covering advanced vert. clearance warning sign (2021).

General Notes: S building and bridges were sold in 2015.

Bridge Inspection Report | Safety Inspection

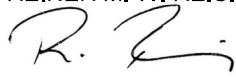
SFN: 3199978

Ogden Place Pedestrian Overhead West of Vine Street (High)

Date Inspected: 10/05/2021

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; widespread tuckpointing of stone fascia. 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 & area of edge of floor was secured (2010) by former Owner. Inside accessed during the 2019 inspection. Access through smaller access door above knee level. Inside not inspected 2021.

General Notes: Bridge was transformed into a private apartment.

Bridge Inspection Report | Safety Inspection

SFN: 3160785

Old Mitchell Avenue Over Mill Creek

Date Inspected: 08/04/2021

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

Summary Rating / Operational Status 6 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 (1 long crack in S bay w efflor buildup), efflor, stalactites, rust staining from standoffs (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.; trans cracks @ each railing post, often w spalling or build up of efflor.; widespread spalling of top edge of fascia. | 3 | 4 |
| C8. Wearing Surface: Resurfaced (2016?); hinges asphalted over wide cracks; long. cracking & areas of map cracking. | 2 | 6 |
| C9. Curbs/Sidewalks: Top of walkway spalled with some exp. rebar @ joints and widespread concrete delaminations/unsound areas; widespread spalling at top of S fascia (walk edge). | 2 | 5 |
| C11. Railing: Minor scrapes; significant loss of section on the post fasteners & top rail & connections to deck(typ); anchor bolts bent; LOS to railing posts; 1 bolt per post is located very close to bottom of deck (low cover); 1 nut missing; paint touchup(2020). | 3 | 4 |
| N36. National Safety Feature - Bridge Railing (0, 1 or N): 0 | | |
| C12. Drainage: 3 scuppers with downspouts - 2 open 1 clogged; drainage off the S side @ walk. | 2 | 6 |
| C13. Expansion Joints: Widespread leakage & corr w severe LOS to armor; deck armor touching w apparent no room for expansion; possible beam touching @ SE. | 3 | 4 |

N58. Deck Summary:

Summary Rating: 4

| | | |
|---|---|---|
| C14. Alignment of Members: | 1 | 8 |
| C15.1. Beams/Girders: Painted in 2020; LOS (area's of pitting); worst condition under hinges. | 2 | 6 |
| C16. Diaphragms/X-Frames: Painted 2020; LOS at the abutment & under the exp jnts; crack in the weld (1st E of the W pier - S side); perforated @ W pier under joint. | 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: 2020 PCS Rating: 8 Active corr. under exp. joints. | | |
| C31. Pins/Hangers/Hinges: Center span supported by 6 hinges; LOS at hinges; hinges repaired (2004). | 2 | 6 |
| C32. Fatigue Prone Details: | 1 | 8 |

N59. Superstructure Summary: Bridge was painted in October 2020.

Summary Rating: 6

Bridge Inspection Report | Safety Inspection

SFN: 3160785

Old Mitchell Avenue Over Mill Creek

Date Inspected: 08/04/2021

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

Summary Rating / Operational Status 6 R

Signature: _____



Bridge No.: PRIVATE #24

C33. Abutment Walls: (Stubs): Minor vertical cracking and horizontal cracking in the seats; efflor.; minor abrasion @ US (at low flow elevation). 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

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

Inspection Notes: The bridge was painted following the 2020 inspection; extensive camp @ E abutment 2021; vibration noticable under live load.

Bridge Inspection Report | *Safety Inspection*

SFN: 3160785


Old Mitchell Avenue Over Mill Creek

Date Inspected: 08/04/2021

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

Summary Rating / Operational Status 6 R

Signature: _____



Bridge No.: PRIVATE #24

Recommended Maintenance:

1. Plan for extensive rehab/replacement of deck.
2. Perform close up inspection of pin joints & share report w city.
3. Consider railing upgrades.
4. Seal deck joints to prevent leakage & corrosion of superstructure.

Assigned to:

Owner
Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

SFN: 3101967

Pete Rose Way Pedestrian Overhead West of Broadway

Date Inspected: 10/01/2021

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 (former? not observed 2021); 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; 2 railing light fixture condensated @ E; rating for railing on bridge only; cracking & isol. spalls @ concrete steps where railings attach; paint compromised in some locations. 1 8
- N36. National Safety Feature - Bridge Railing (0, 1 or N): N
- C12. Drainage: 2 inlets @ N 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 esp @ NW. 1 8
- C30. Protective Coating System (PCS): System: OZEU Year: 2013 PCS Rating: 8
 Touch-up on beam visible, interior touch-up completed but paint color does not match; several small (up to quarter size) corr cells on inside bottom of tub.

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 (ladder cracking) @ S side 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: 10/01/2021

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 9-13-2021; 2020 scissors lift parked on bridge @ midspan.

Recommended Maintenance:

1. Clean debris from inlet covers & cantilevered drain grates.

Assigned to:

Owner

Bridge Inspection Report | Safety Inspection

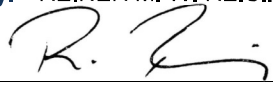
SFN: 3161862

Pete Rose Way Pedestrian Overpass at Paul Brown Stadium

Date Inspected: 05/05/2021

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

Summary Rating / Operational Status 6 A

Signature: 

Bridge No.: PRIVATE #26

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: Diag. cracks w some efflor. @ all 4 corners & additional dig. & trans cracks w efflor @ S; 5 holes @ S end added to hold bollards. | 1 | 7 |
| 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. Ext. cracking @ S reflective of deck cracks w efflor. | 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, esp @ S. | 2 | 6 |

N58. Deck Summary: Summary Rating: 7

| | | |
|---|---|---|
| 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; discoloration and moisture from joint leakage @ S side. | 1 | 7 |
| C38. Pier Columns: Minor random HL cracking; minor discoloration; moist at bottom from exp. joint leak. | 1 | 8 |
| C39. Backwalls: Mostly concealed by diaphragm: ext. efflor& efflor @ N | 2 | 6 |
| 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

Bridge Inspection Report | *Safety Inspection*

SFN: 3161862

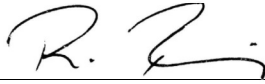
Pete Rose Way Pedestrian Overpass at Paul Brown Stadium

Date Inspected: 05/05/2021

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

Summary Rating / Operational Status 6 A

Signature: _____



Bridge No.: PRIVATE #26

C57. Utilities: Minor discoloration of galvanized conduits; galvanized conduits rusting esp under expansion joints and @ conduit connections (splices). 2 6
Widespread galvanic reaction at fasteners vs galvanized conduit at abutment.
Several conduits attached to beam flanges esp @ N abutment (where strands should be 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**

Inspection Notes: New bollards added in 2021 @ S.
Construction at N stairs ongoing at the time of the 2021 inspection.

General Notes: DO NOT FASTEN ANY ADDITIONAL UTILITIES TO POST TENSIONED BEAMS

Recommended Maintenance:

1. Seal deck cracks @ S
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.
5. Replace expansion joints to prevent leakage and deterioration of members below.

Assigned to:

Owner
Owner
Owner
Owner
Owner

Bridge Inspection Report | Safety Inspection

SFN: 3161897

Pete Rose Way Under PB Stadium Plaza

Date Inspected: 06/28/2021

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 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?); conc. patches covered w rotting plywood @ NW. | 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 & spalling in span 1 & 5 @ 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 2,4, & 7 from W @ N most beam; N most beam has almost full length long. HL crack; sev. 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 w several exp. strand ends; crack w rust staining in span 3 @ N beam near pier. | 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 (largest cantilever) w some efflor. | 1 | 7 |
|--|---|---|

Bridge Inspection Report | Safety Inspection

SFN: 3161897

Pete Rose Way Under PB Stadium Plaza

Date Inspected: 06/28/2021

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

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: PRIVATE #27

C38. Pier Columns: 1 9

N60. Substructure Summary: Summary Rating: 7

C57. Utilities: Electric only; 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: Conc barriers stored @ E adjacent to railing in 2021(cantilever weight).

General Notes: This structure was 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.(see test section) | 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 (off bridge). | Owner |
| 6. Monitor cracking of double T beams, esp N most beams. | Owner |
| 7. Replace rusted conduits & hangers as necessary. | Owner |
| 8. Reattach bottom support of banner @ pier 6 from W. | Owner |
| 9. Remove plywood from overlay patches @ NW (tripping hazard). | Owner |

Bridge Inspection Report | Safety Inspection

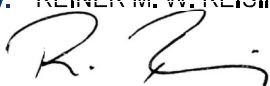
SFN: 3190100

Piedmont Ave. Pedestrian Overhead E of Eden

Date Inspected: 05/05/2021

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 from water runoff. | 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*

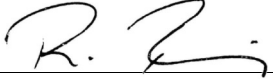
SFN: 3190100

Piedmont Ave. Pedestrian Overhead E of Eden

Date Inspected: 05/05/2021

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 2021.

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: 07/28/2021

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 covered w paint; 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 (roof level); 6 floor drains; floor drains have low point away from downspouts @ center of bridge; gutter rusting; 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; widespread rusting beneath paint; corr. Hole @ NW most vertical. | 2 | 5 |
| C21. Upper Chord: Initial LOS @ some locations; localized active corrosion. | 1 | 7 |
| C22. Lower Chord: LOS @ conn. & along flanges & web; widespread corr, pitting, supplemental steel plts. and angles added via bolting w widespread LOS; pack rust forming, laminating corrosion w peeling of rust; suspected 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; many areas of active corrosion; 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*

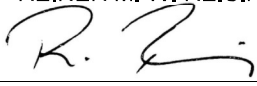
SFN: 3199991

Plum Street Pedestrian Overhead South of Fourth Street

Date Inspected: 07/28/2021

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.
Owner had engineer perform close-up inspection and repainting and repairs are planned for 2021 per latest communication with the owner (not apparently performed in time of the 2021 inspection).

Recommended Maintenance:

Assigned to:

- | | |
|---|-------|
| 1. Clean (sandblast) and paint all structural steel. | Owner |
| 2. Remove rust & paint chips from floor flanges before they fall into traffic. | Owner |
| 3. Regularly clean steel members (esp. from de-icing chemicals) to prevent corrosion. | Owner |
| 4. Re attach soffit @ roof level @ W bldg connection. | Owner |

Bridge Inspection Report | Safety Inspection


SFN: 3165000

Ringgold Street Pedestrian Overhead East of Young Street

Date Inspected: 05/05/2021

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

- | | |
|--|---|
| <p>C7.1. Floor: Steel checkered plts; corr. arrested by painting (2019/2020), isol pitting; corrosion and pitting under S steps. Plates are tack welded which will causes them to be under pressure; some plates tend to bow up and are pushed down under foot traffic. Many tack welds securing plates apparnely cracked.</p> <p>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.</p> <p>C11. Railing: Tubular steel hand rail; glass enclosed @ W; part. enclosed @ E; modified railing post bases (post extension welded immediately to floor).</p> <p>N36. National Safety Feature - Bridge Railing (0, 1 or N): N</p> <p>C12. Drainage: Ponding inside bridge @ W, esp in S half of bridge.</p> | <p>2 6</p> <p></p> <p>1 7</p> <p></p> <p>2 6</p> |
|--|---|

N58. Deck Summary: **Summary Rating: 6**

- | | |
|---|---|
| <p>C14. Alignment of Members:</p> <p>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.</p> <p>C19. Truss Verticals: Tubular steel welded to UC & LC; rusting at bot. connections.</p> <p>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 with corrosion at bottom and deformed (appears to be due to freezing water inside the tube).</p> <p>C21. Upper Chord: Tubular steel; widespread rust staining @ top of W fascia.</p> <p>C22. Lower Chord: Tubular steel, widespread staining & minor rusting @ deck connections & fascia stitch welds.</p> <p>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.</p> <p>C25. Sway Bracing: Trans. struts @ top panel pts.</p> <p>C26. Bearing Devices: UC & LC welded directly to piers.</p> <p>C30. Protective Coating System (PCS): System: Year: 1987 PCS Rating: 7 Recoated (2019/2020), several areas where old paint is visible (multiple colors); widespread paint peeling @ inside roof. Corrosion in cravices @ connections bet members.</p> | <p>1 8</p> <p>1 7</p> <p>1 7</p> <p>2 6</p> <p>1 7</p> <p>1 7</p> <p>2 6</p> <p>1 8</p> <p></p> <p></p> |
|---|---|

N59. Superstructure Summary: Not redundant; highly fatigue prone; welded truss. **Summary Rating: 6**

Bridge Inspection Report | Safety Inspection

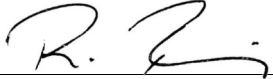
SFN: 3165000

Ringgold Street Pedestrian Overhead East of Young Street

Date Inspected: 05/05/2021

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

Summary Rating / Operational Status 6 N

Signature: 

Bridge No.: PRIVATE #30

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

C57. Utilities: Elect. & water (?); 8 utility lines beneath bridge; loose connections (splice) @ N end. Exposed electrical wires at 3 locations inside the bridge 2 5

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. Water ponding inside bridge along W railing.

General Notes: Formerly SFN 3199970

Recommended Maintenance:

Assigned to:

- | | |
|---|-------|
| 1. Trim tree branches @ NW to prevent scraping against bridge. | Owner |
| 2. Fix joint in electrical conduit @ N abutment. | Owner |
| 3. Repair truss diagonal that is split (2nd from N on W side) | Owner |
| 4. Repair electrical conduits inside bridge (3 locations with exposed wires). | Owner |
| 5. Address ponding inside of the bridge (near W railing in S half of the bridge). | 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: | 1 | 8 |
| C13. Expansion | 1 | 7 |

REMOVED

N58. Deck Summary

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 recreated (2018)). | 1 | 8 |

N60. Substructure Summary: Part. assumed rating. Summary Rating: 6

Bridge Inspection Report | *Routine Inspection*

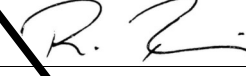
SFN: 3199979

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

REMOVED

Bridge Inspection Report | Routine Inspection

SFN: 3199995

Sixth Street Pedestrian Tunnel West of Broadway

Date Inspected: 11/02/2021

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): several parallel long. HL cracks in tunnel ceiling, cracks w buildup of efflor @ middle{N & S} of E tunnel @ const. jnt., no current leakage; tunnel floor has long. & trans. cracks; cracks in floor have been filled (1993). 1 7

C45. Culvert - Alignment: 1 8

C47. Culvert - Seams: Traces of sealant mat'l. and cracking @ S ceiling. 1 8

N60. Culvert Summary: Excessive utilities cover most tunnel walls & ceiling. W portion of the tunnel completely covered, hence partially assumed rating. Summary Rating: 7

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.

Recommended Maintenance:

Assigned to:

1. Monitor cracking in tunnel ceiling.

Owner

Bridge Inspection Report | Safety Inspection

SFN: 3199957

Southside Avenue Conveyor Overhead - 1st West of River Road (Tall) Date Inspected: 12/10/2021

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

Rating 1 to 4 Rating 9 to 0

C7.1. Floor: Steel grid catwalk, considerably deformed in several 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. 2 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. 1 7

C16. Diaphragms/X-Frames: Some members slightly bent. 1 7

C18. Floor Beams: One area of impact (construction) damaged @ N. 2 6

C19. Truss Verticals: LOS @ S-most bolted truss connect; slight impact damage (bent) @ some members; (2016) added horizontal angles attached to verticals & diagonals on both truss lines, weld connections may have caused slight deformations/damage in some of the verticals; slight pack rust between verticals @ spliced locations. 2 6

C20. Truss Diagonals: Initial corr., one bent @ W. 1 7

C21. Upper Chord: Minor pitting, arrested by paint. 2 6

C22. Lower Chord: 3 bolted truss connections; slight impact damage over S pier; slight localized bending (as built) @ truss splice. 2 6

C24. Lateral Bracing: 2 6

C30. Protective Coating System (PCS): System: Year: 2014 **PCS Rating: 7**
 Newly added horiz. members not painted & welds compromising existing paint; cracks in areas of excessive paint 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: Slight bend @ top where flanges were added in 2015. 1 7

N60. Substructure Summary: **Summary Rating: 7**

Bridge Inspection Report | *Safety Inspection*

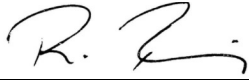
SFN: 3199957

Southside Avenue Conveyor Overhead - 1st West of River Road (Tall) Date Inspected: 12/10/2021

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: Random chain looped to truss over roadway; pigeon population caused excessive droppings in 2021.

General 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); 2020 in depth inspection by consultant (on file with City)

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Repair steel grating where bent or loose & check cracks @ connections to railing support. | Owner |
| 2. Paint any unpainted structural steel members and connections. | Owner |
| 3. Remove chain that is looped to truss over roadway. | Owner |

Bridge Inspection Report | Safety Inspection

SFN: 3199958

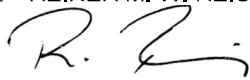
Southside Avenue Conveyor Overhead - 2nd West of River Road

Date Inspected: 12/10/2021

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 on 2 levels. (only older bottom walk accessed during 2021 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). 1 7

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 (outside of inspection limits). 2 6

C20. Truss Diagonals: Slight pitting. 2 6

C21. Upper Chord: Pack rust along UC; widespread heavy pitting; many square cut outs; considerable LOS & isol. severe corr. on these angles w perforations; Channel on top of UC supports conveyor (not actual top chord, continuous over pier where upper cord is not connected); 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. (Many members, such as the conveyor itself may provide bracing in the lateral direction). 3 4

C30. Protective Coating System (PCS): System: Year: 2014 PCS Rating: 8
 Areas of cracked paint, where applied accessively.

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. 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: 12/10/2021

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**

General Notes: Top conveyor added in August 1999.
Top conveyor replaced & bottom conveyor removed in 2019.
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 truss and hence no longer effective.

Owner

Bridge Inspection Report | Safety Inspection


SFN: 3199947

Southside Avenue Utility (Pipe) Overhead - 1st East of Idaho

Date Inspected: 07/15/2021

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

Summary Rating / Operational Status 7 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?); added 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); 5 new channel FBs added 2021 (not painted). | 1 | 7 |
| C19. Truss Verticals: | | 1 | 8 |
| C20. Truss Diagonals: | 4 new diagonal unpainted angles added (2021), not following panel points. | 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: | Typically welded on 1 side of cross section only, allowing crevice corrosion on non welded side. | 1 | 7 |
| C30. Protective Coating System (PCS): | System: Year: 2007 Rust bet. angles; drips/runs/sags; foreign objects embedded in paint. | PCS Rating: | 7 |

N59. Superstructure Summary: Portions concealed by utilities; many questionable welds. Summary Rating: 7

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: 07/15/2021

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

Summary Rating / Operational Status 7 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: 7 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.
Top chord strengthened in center of span with added angle section 2015.
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).
(2021) 4 diagonals added & 5 FB's w new pipe; designs provided by James Troxell.

Recommended Maintenance:

1. Reattach S pipe hanger where wire is substituted for utility hanger.
2. Remove any unusued utilities.

Assigned to:

Owner
Owner

Bridge Inspection Report | Safety Inspection

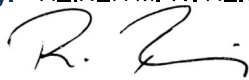
SFN: 3199953

Southside Avenue Utility (Pipe) Overhead - 2nd East of Idaho

Date Inspected: 07/15/2021

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

Summary Rating / Operational Status 6 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: Some conduit floor beams no longer supported on W side (acting as cantilever and may no longer be attached to pipe); new (2021) I-beam supports for silver top level pipe. 1 7

C19. Truss Verticals: Welded rods between chord angles; minor bent vertical @ N pier; new (2021) added supports over piers. 2 6

C20. Truss Diagonals: Welded between chord angles; bent @ S end; new (2021) added 4 angles @ midspan & +/- 6 @ pier. 2 6

C21. Upper Chord: Double back-to-back angles; minor pitting b/w angles. 2 6

C22. Lower Chord: Double back-to-back angles; minor pitting b/w angles. 2 6

C24. Lateral Bracing: Welded to LC & UC; hole in top lateral bracing @ S. Top level lateral bracing: Irregular geometry. 2 5

C30. Protective Coating System (PCS): System: Year: 2021 PCS Rating: 9
 Top pipe saddles not painted @ bottom.

N59. Superstructure Summary: Not redundant; highly fatigue prone; welded truss structure; partially assumed rating since top not accessed. Summary Rating: 6

C37. Pier Caps: Steel angles; pitting. 2 6

C38. Pier Columns: Minor pitting @ bases of columns; burried @ N; metal pitting; steel brace plate between columns @ S support in upper portion (ineffective, bent); slight dent @ NW column 10' up from ground. 2 6

N60. Substructure Summary: Summary Rating: 6

Bridge Inspection Report | *Safety Inspection*

SFN: 3199953

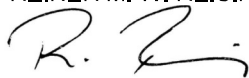
Southside Avenue Utility (Pipe) Overhead - 2nd East of Idaho

Date Inspected: 07/15/2021

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

Summary Rating / Operational Status 6 N

Signature: _____



Bridge No.: PRIVATE #36

C55. Warning Signs: Vert. clearance sign; posted 16'

1 8

65. Vertical Clearance:

Vert. Clearance Rating: 1

N59. General Appraisal
and Oper. Status:

General Appraisal /
Operational Status: 6 N

Inspection Notes: Many members added appear to be from random stock, random connections.
2021 apparently pipes added & members to strengthen bridge; new paint (2021); James Troxell
provided plans of change of structural details(see file); 2021 bridge completely repainted; piece of
metal wire extending from W bottom flange over roadway.

Recommended Maintenance:

Assigned to:

1. C

Bridge Inspection Report | Safety Inspection

SFN: 3199952

Southside Avenue Utility (Pipe) Overhead - 3rd East of Idaho

Date Inspected: 07/15/2021

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; some members weakened by drilled holes. | 1 | 7 |
| C20. Truss Diagonals: | Welded to chords; 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. | 2 | 6 |
| C22. Lower Chord: | Single angles welded from several short members; 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; active corr cells - 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; partially assumed rating due to inspection from ground level only. **Summary Rating: 5**

| | | | |
|--------------------|--|---|---|
| C37. Pier Caps: | Pitting, esp. @ N; areas of packrust. | 2 | 6 |
| C38. Pier Columns: | Bases encased in conc; rusting, pitting w LOS, & pack rust @ column braces 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: 07/15/2021

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:

1. Reset and secure yellow pipe onto pipe saddles.
2. Clean & paint structural steel.

Assigned to:

Owner
Owner

Bridge Inspection Report | Safety Inspection

SFN: 3199949

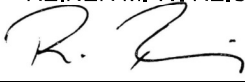
Southside Avenue Utility (Pipe) Overhead - 3rd West of River Road

Date Inspected: 07/15/2021

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 4 Rating 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: 2016 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 2021 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: 07/15/2021

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; partially assumed rating since top not accessed. **Summary Rating: 6**

| | | | |
|--------------------|---|---|---|
| C37. Pier Caps: | Knee braces @ piers supporting truss @ 1st vert. from pier; laminating corr @ bottom of NE knee brace, rusting between knee brace angles elsewhere. | 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: 07/15/2021

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:**

**General Appraisal /
Operational Status: 5 N**

Inspection Notes: No true panel points.
Digital billboard (not operational in 2021) 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: 07/15/2021

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

Summary Rating / Operational Status 7 N

Signature: 

Bridge No.: PRIVATE #40

Route: Unit: Bridge Type 321 / Date Built / Date Rehabbed: 1980 /
Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating
1 to 4Rating
9 to 0

C7.1. Floor: Bar grating has minor sagging under weight of pipes; isolated bars bent. 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: Beam sections spliced together @ 2 locations by welds; 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: Partially assumed rating since top not accessed. Summary Rating: 7**

C37. Pier Caps: Knee braces bolted to BF: slight separation between braces and beams. 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 NInspection Notes: 2 new conduits added to E beam in 2021.
Welding rods sticking out from SW piercap.

Bridge Inspection Report | *Safety Inspection*

SFN: 3199951

Southside Avenue Utility (Pipe) Overhead - 5th East of Idaho

Date Inspected: 07/15/2021

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: 05/04/2021

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, also inside under some windows (aparently older); isol. staining, rusting from roof and apparently slightly uneven roof membrane. Dripping observed after rain in 2021 from 1st segment joint from E on the S side, but no water inside of the structure. | 1 | 7 |
| 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; one stem slightly bent. | 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 PCS Rating: 8 Some minor chips; minor unpainted areas. | | |
| 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*

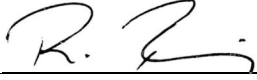
SFN: 3199996

Sycamore Street Pedestrian Overhead South of Central Parkway

Date Inspected: 05/04/2021

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 S half inspected 2021.
Banners removed from outside of the bridge in 2021 (apparently will be replaced with other ones soon).

Recommended Maintenance:

Assigned to:

- | | |
|---|-------|
| 1. Secure trim angle at bottom of bridge (N side) over roadway. | Owner |
| 2. Recoat bridge floor (outside bottom) to prevent continued corrosion. | Owner |
| 3. Determine cause of dripping rain water on S side near east building and address the issue. | Owner |

Bridge Inspection Report | Safety Inspection

SFN: 3199821

Sycamore Street Pedestrian Overhead South of Sixth Street

Date Inspected: 11/01/2021

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 4Rating
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 & 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 not accessed during the 2021 inspection; façade appears to be recently caulked {fresh white caulk}.

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: 08/03/2021

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

Summary Rating / Operational Status 7 A

Signature: 

Bridge No.: PRIVATE #43

Route: Unit: Bridge Type 111 / Date Built / Date Rehabbed: /
Load Rating Percent (Main/Approach Spans) Safety Inspection ?

Inspection Information

Rating
1 to 4Rating
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 but not @ bridge where needed; 2021 many cars parked in alleyway below bridge (obstacle for pedestrians).

Bridge Inspection Report | *Safety Inspection*

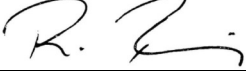
SFN: 3199983

Thorp Alley Pedestrian Overhead East of Race Street

Date Inspected: 08/03/2021

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

Summary Rating / Operational Status 7 A

Signature:  _____

Bridge No.: PRIVATE #43

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

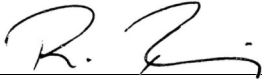
SFN: 3199971

Tremont Street Pedestrian & Conveyor Overhead West of Beekman

Date Inspected: 05/05/2021

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 in many 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 but new roof and flashing 2021. 1 7

N58. Deck Summary: Deck floor not visible; part. assumed rating. Summary Rating: 4

- C14. Alignment of Members: Some minor 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 on both sides 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

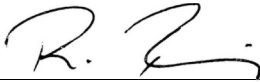
Tremont Street Pedestrian & Conveyor Overhead West of Beekman

Date Inspected: 05/05/2021

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

Summary Rating / Operational Status 4 N

Signature: _____



Bridge No.: PRIVATE #44

C57. Utilities: Many utilities inside of the structure.

Utilities On Structure: N N N N N N N

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 2021.
Apparently new roof and flashing 2021.

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: 05/27/2021

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: PRIVATE #45

QA/QC Inspector: BRANDON M. LECRONE, P.E.

Safety Inspection ?

Signature: 

Route: VINE Unit: 0003 Bridge Type 344 / 111 Date Built / Date Rehabbed: 2008 / 2019

Load Rating Percent 000 (Main/Approach Spans)

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; membrane not fully extended over caulk @ NW, 2' from bridge end. | 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; standing water in W drain. | 1 | 8 |
| C13. Expansion Joints: | Compression seals; 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 | 8 |
| 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 | 8 |
| 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 PCS Rating: 8 | | |
| | Repainted 2019; some areas where former orange paint shows through; isol. paint chipping. | | |

N59. Superstructure Summary: **Not redundant; fatigue-prone welded trusses; vibrating noticeably under pedestrian traffic.** **Summary Rating: 8**

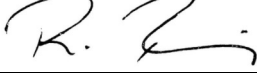
Bridge Inspection Report | *Safety Inspection*

SFN: 3161803

Vine Street Pedestrian Overhead North of Erkenbrecher

Date Inspected: 05/27/2021

Inspected by: REINER M. W. REISING, P.E. QA/QC Inspection? Summary Rating / Operational Status 8 A

Signature: 

Bridge No.: PRIVATE #45

QA/QC Inspector: BRANDON M. LECRONE, P.E.

Safety Inspection ?

Signature: 

C33. Abutment Walls: E only (outside of inspection limits), supported by building @ W. 1 8

C37. Pier Caps: Slight staining on stone veneer @ W. 1 8

C38. Pier Columns: Completely enclosed in decorative masonry; assumed rating; few stones missing @ SW in moist area. 1 8

N60. Substructure Summary: Mostly concealed behind decorative masonry. Summary Rating: 8

C57. Utilities: Repainted utilities 2019; conduit separated @ NW abutment. 1 7

Utilities On Structure: Y N N U U N N

65. Vertical Clearance: Vert. Clearance Rating: 1

N59. General Appraisal and Oper. Status: General Appraisal / Operational Status: 8 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: 05/04/2021

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 4 Rating 9 to 0

C7.1. Floor: Covered by metal panels; enclosed; not visible; minor staining below bridge, lichen under some windows. 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 around low spots on roof); staining on E façade. 1 8

C13. Expansion Joints: Replaced (1995); concealed. 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: N N N N N N N

Bridge Inspection Report | *Safety Inspection*

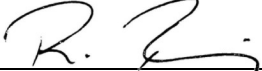
SFN: 3199987

Vine Street Pedestrian Overhead South of Central Parkway

Date Inspected: 05/04/2021

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 last accessed during the 2021 inspection; roof observed from East side upper floor (2021).

Bridge Inspection Report | Safety Inspection

SFN: 3199984

Weaver Alley Pedestrian Overhead - 1st East of Race Street (4 Levels) Date Inspected: 05/18/2021

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 (4 longitudinal bars & 17 stirrups) 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. | | |
| 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: Partially assumed rating. Summary Rating: 7

C55. Warning Signs: Non-standard signage{painted}; fading, widespread peeling of paint. 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 not accessed during 2021 inspection.
Alley blocked by container.
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.

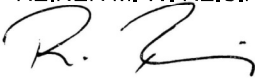
Bridge Inspection Report | *Safety Inspection*

SFN: 3199984

Weaver Alley Pedestrian Overhead - 1st East of Race Street (4 Levels) Date Inspected: 05/18/2021

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. 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: 05/18/2021

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, minor ponding @ S. | 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 not accessed during the 2021 Inspection (doors from parking garage side are locked).

Bridge Inspection Report | Safety Inspection

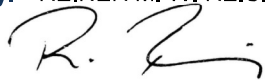
SFN: 3160289

William Howard Taft, Etc., over Private Tunnel

Date Inspected: 04/12/2021

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)

Safety Inspection ?

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 det. throughout; most sev. issues are located in the S half of the tunnel with areas where 2 courses of brick fell and surface damage to the third course; shifting of second and third layer bricks in some locations; widespread leaking through mortar jnts, 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 E side of tunnel with backfill eroding into the tunnel; several areas of spalled brick were detected where roots entered the tunnel. Several areas within reach were sounded, and 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. 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; missing 1 hor. Top rail. 2 5

N60. Culvert Summary: Total number of brick layers is unknown, but there are drilled holes that are +/- 28" deep holes in lower half of tunnel. The nearby McMillan Tunnel is made up of 5 courses, it can be assumed that there are at least 5 courses here as well. **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.

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

Bridge Inspection Report | *Safety Inspection*

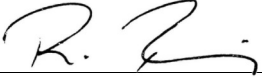
SFN: 3160289

William Howard Taft, Etc., over Private Tunnel

Date Inspected: 04/12/2021

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: During 2021 inspection all bldg's on Crown St. are in the process of being torn down.

Recommended Maintenance:

Assigned to:

1. Perform extensive structural repairs in areas where sections of brick have fallen or are ready to fall.

Owner

Bridge Inspection Report | Safety Inspection

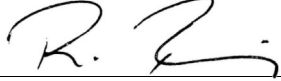
SFN: 3199969

Winslow Avenue Pedestrian Overhead North of Oak Street

Date Inspected: 10/08/2021

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; some fasteners missing @ flashing below window. 1 7
 A more brittle sealant (with visible cracks) is exposed @ some locations above & below windows @ fascia's. 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

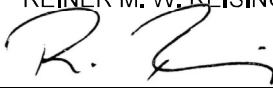
Winslow Avenue Pedestrian Overhead North of Oak Street

Date Inspected: 10/08/2021

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; very fine HL map cracking {assumed to be surface only}. 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 2021.

Recommended Maintenance:

Assigned to:

- | | |
|--|-------|
| 1. Repair Seals above and below windows (outside). | Owner |
| 2. Seal/repair fogged windows. | Owner |