



# BRIDGE LOAD RATING SUMMARY REPORT

## OFFICE OF STRUCTURAL ENGINEERING

### OHIO DEPARTMENT OF TRANSPORTATION

| SFN (SNBI Bridge Number)                                        | Ohio Bridge Number<br>(Bridge Asset Name)                                                                                                                                                                                                                                                                                                        | District        | GPS Coordinates                         |                                                                                                               |
|-----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------|
|                                                                 |                                                                                                                                                                                                                                                                                                                                                  |                 | LATITUDE:                               | LONGITUDE:                                                                                                    |
| 3103005                                                         | HAM-00050-1980L                                                                                                                                                                                                                                                                                                                                  | 8               | 39.100664                               | -84.532722                                                                                                    |
| Original Year Built                                             | Year Re-built                                                                                                                                                                                                                                                                                                                                    | Total length    | Structure Type<br>XXX                   | Feature Intersected                                                                                           |
| 1966                                                            | N/A                                                                                                                                                                                                                                                                                                                                              | 795 ft          | 402                                     | NSRR, CSRR & LINN STREET                                                                                      |
| SPECIAL ASSUMPTIONS &<br>COMMENTS                               | Modeled from original plans (1962), rehab plans (1992 and 2010), ODOT standard drawings, and inspection records.                                                                                                                                                                                                                                 |                 |                                         |                                                                                                               |
|                                                                 | Nine-Span Continuous (64'-9.625", 81'-0", 64'-9.625", 117'-8.375", 148'-9.75", 72'-2.25", 70'-8.625", 99'-11.6875", 70'-0" c/c brgs) steel beams with composite reinforced concrete deck on a curved alignment. Modeled two superstructure definitions in BrR, rolled steel beams Span 1 through 3, and steel plate girders in Span 4 through 9. |                 |                                         |                                                                                                               |
|                                                                 | Wearing surface of 2.50" thick integral concrete included per PLANS.                                                                                                                                                                                                                                                                             |                 |                                         |                                                                                                               |
|                                                                 | Minimum Legal Rating = 2.576, Live Load = SU7, Member =B02 - B05 (Interior (Spans 1-3)) @ Span 3 - (60.0%) (184.07ft along the member) : Limit State = SERVICE-II Steel Flexure Stress                                                                                                                                                           |                 |                                         |                                                                                                               |
| Please type or select on right using drop down arrow            |                                                                                                                                                                                                                                                                                                                                                  |                 |                                         |                                                                                                               |
| Load Rating Purpose:                                            | 8 - Update Analysis Model and Software                                                                                                                                                                                                                                                                                                           |                 | <i>Sealed by:</i><br><br>Vincent Traini | <br><i>Vincent Traini</i> |
| Bridge Appraisal Rating (0-9):                                  | 7                                                                                                                                                                                                                                                                                                                                                |                 |                                         |                                                                                                               |
| Load rating Software:                                           | 3 - AASHTO BrR                                                                                                                                                                                                                                                                                                                                   |                 |                                         |                                                                                                               |
| Software version:                                               | 7.4.1.3001                                                                                                                                                                                                                                                                                                                                       |                 |                                         |                                                                                                               |
| Routine Permit Load (RPL):                                      | N - Agency does not issue routine permits                                                                                                                                                                                                                                                                                                        |                 |                                         |                                                                                                               |
| Rating Source:                                                  | 1 - Plan information available for load rating analysis                                                                                                                                                                                                                                                                                          |                 |                                         |                                                                                                               |
| Load Rating Method:                                             | LRFR - Load & Resistance Factor Rating (RF) - Code 8                                                                                                                                                                                                                                                                                             |                 |                                         |                                                                                                               |
| Design Loading:                                                 | 3 - HS15                                                                                                                                                                                                                                                                                                                                         |                 |                                         |                                                                                                               |
| STRUCTURE RATING SUMMARY                                        |                                                                                                                                                                                                                                                                                                                                                  |                 |                                         |                                                                                                               |
| OHIO & AASHTO LEGAL VEHICLES                                    |                                                                                                                                                                                                                                                                                                                                                  |                 |                                         |                                                                                                               |
| Legal Load                                                      | GVW (Tons)                                                                                                                                                                                                                                                                                                                                       | No of Axles     | Rating Factor RF                        | Safe Weight (Tons)                                                                                            |
| 2F1                                                             | 15                                                                                                                                                                                                                                                                                                                                               | 2               | 5.660                                   | 15.00                                                                                                         |
| 3F1                                                             | 23                                                                                                                                                                                                                                                                                                                                               | 3               | 3.848                                   | 23.00                                                                                                         |
| 5C1                                                             | 40                                                                                                                                                                                                                                                                                                                                               | 5               | 2.746                                   | 40.00                                                                                                         |
| Type 3                                                          | 25                                                                                                                                                                                                                                                                                                                                               | 3               | 3.817                                   | 25.00                                                                                                         |
| Type 3-3                                                        | 40                                                                                                                                                                                                                                                                                                                                               | 6               | 2.735                                   | 40.00                                                                                                         |
| Type 3S2                                                        | 36                                                                                                                                                                                                                                                                                                                                               | 5               | 2.910                                   | 36.00                                                                                                         |
| SPECIALIZED HAULING VEHICLES (SHV)                              |                                                                                                                                                                                                                                                                                                                                                  |                 |                                         |                                                                                                               |
| SU4/4F1                                                         | 27                                                                                                                                                                                                                                                                                                                                               | 4               | 3.377                                   | 27.00                                                                                                         |
| SU5                                                             | 31                                                                                                                                                                                                                                                                                                                                               | 5               | 3.066                                   | 31.00                                                                                                         |
| SU6                                                             | 34.75                                                                                                                                                                                                                                                                                                                                            | 6               | 2.773                                   | 34.75                                                                                                         |
| SU7                                                             | 38.75                                                                                                                                                                                                                                                                                                                                            | 7               | 2.576                                   | 38.75                                                                                                         |
| DESIGN AND OPERATING RATINGS                                    |                                                                                                                                                                                                                                                                                                                                                  |                 |                                         |                                                                                                               |
| Loading Type                                                    | Rating by RF                                                                                                                                                                                                                                                                                                                                     |                 |                                         |                                                                                                               |
|                                                                 | Inventory                                                                                                                                                                                                                                                                                                                                        | Operating       |                                         |                                                                                                               |
| HL93 Loading                                                    | 1.092                                                                                                                                                                                                                                                                                                                                            | 1.415           |                                         |                                                                                                               |
| Recommendation                                                  | No Load Posting is Recommended                                                                                                                                                                                                                                                                                                                   |                 |                                         |                                                                                                               |
| Sign Posting Recommendation:                                    |                                                                                                                                                                                                                                                                                                                                                  |                 |                                         |                                                                                                               |
|                                                                 |                                                                                                                                                                                                                                                                                                                                                  |                 |                                         |                                                                                                               |
|                                                                 |                                                                                                                                                                                                                                                                                                                                                  |                 |                                         |                                                                                                               |
|                                                                 |                                                                                                                                                                                                                                                                                                                                                  |                 |                                         |                                                                                                               |
| EMERGENCY VEHICLES (EV)                                         |                                                                                                                                                                                                                                                                                                                                                  |                 |                                         |                                                                                                               |
| Check box if rating for EV3 <input checked="" type="checkbox"/> |                                                                                                                                                                                                                                                                                                                                                  |                 |                                         |                                                                                                               |
| EV2                                                             | GVW (Tons)                                                                                                                                                                                                                                                                                                                                       | No of Axles     | Rating Factor                           | Calculated Load (Tons)                                                                                        |
| EV2                                                             | 28.75                                                                                                                                                                                                                                                                                                                                            | 2               | 3.283                                   | 28.75                                                                                                         |
| EV3                                                             | 43                                                                                                                                                                                                                                                                                                                                               | 3               | 2.585                                   | 43.00                                                                                                         |
| Permit Load (PL) Analysis **                                    |                                                                                                                                                                                                                                                                                                                                                  |                 |                                         |                                                                                                               |
| Loading Type                                                    | GVW (Tons)                                                                                                                                                                                                                                                                                                                                       | No of Axles     | Rating Factor                           | Calculated Load (Tons)                                                                                        |
| PL 60T                                                          | 60                                                                                                                                                                                                                                                                                                                                               | 6               | 3.094                                   | 185.64                                                                                                        |
| PL 65T                                                          | 65                                                                                                                                                                                                                                                                                                                                               | 7               | 2.662                                   | 173.03                                                                                                        |
| Controlling Legal Load RF                                       |                                                                                                                                                                                                                                                                                                                                                  |                 |                                         |                                                                                                               |
| 150%                                                            |                                                                                                                                                                                                                                                                                                                                                  | 1.50            |                                         |                                                                                                               |
| PL Analysis Method                                              |                                                                                                                                                                                                                                                                                                                                                  |                 |                                         |                                                                                                               |
| Load & Resistance Factor Rating (LRFR)                          |                                                                                                                                                                                                                                                                                                                                                  |                 |                                         |                                                                                                               |
| AGENCY/FIRM/OFFICE                                              |                                                                                                                                                                                                                                                                                                                                                  | Gannett Fleming |                                         |                                                                                                               |
| Name                                                            | PE Number                                                                                                                                                                                                                                                                                                                                        | Phone Number    | Email                                   | Report Date:                                                                                                  |
| Rated By                                                        | Isabella Puleo                                                                                                                                                                                                                                                                                                                                   | (614) 794-9424  | ipuleo@gfnet.com                        | 2024-01-17                                                                                                    |
| Reviewed By                                                     | Vincent Traini                                                                                                                                                                                                                                                                                                                                   | 84491           | (614) 794-9424                          | vtraini@gfnet.com                                                                                             |

\*\* ODOT bridges to be analyzed for permit trucks by policy.

BR-100 (01/2024)

Analysis for permit trucks is optional for non-ODOT bridges and at owner's discretion.