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|   |  |                            |  |                                 |  |                                  |  |                                |  |   |  |                                    |  |                  |  |
|---|--|----------------------------|--|---------------------------------|--|----------------------------------|--|--------------------------------|--|---|--|------------------------------------|--|------------------|--|
| <b>Basic Information</b>                    |  | Pennsylvania [42]          |  | Allegheny County [003]          |  | Pittsburgh [61000]               |  | LIBERTY BRIDGE                 |  | 40-25-45 = 40.429167  |  | 079-59-56 = - 79.998889            |  |                  |  |
| 023069011001350                             |  | Highway agency district 11 |  | Owner State Highway Agency [01] |  | Maintenance responsibility       |  | State Highway Agency [01]      |  |   |  |                                    |  |                  |  |
| Route 0                                     |  | North [1]                  |  | LIBERTY BR                      |  | Toll On free road [3]            |  | Features intersected           |  | MON R,I376,0837,2 AV,ARL                                      |  |                                    |  |                  |  |
| Design - main                               |  | Steel continuous [4]       |  | Design - approach               |  | Steel [3]                        |  | Kilometerpoint                 |  | 783.1 km = 485.5 mi   |  |                                    |  |                  |  |
| 11  |  | Truss - Deck [09]          |  | 5                               |  | Girder and floorbeam system [03] |  | Year built                     |  | 1928  |  | Year reconstructed                 |  | 1983             |  |
|   |  |                            |  |                                 |  |                                  |  | Skew angle                     |  | 0   |  | Structure Flared                   |  | Yes, flared [1]  |  |
|   |  |                            |  |                                 |  |                                  |  | Historical significance        |  | Historical significance is not determinable at this time. [4] |  |                                    |  |                  |  |
| Total length                                |  | 811.7 m = 2663.2 ft        |  | Length of maximum span          |  | 143.3 m = 470.2 ft               |  | Deck width, out-to-out         |  | 20.1 m = 65.9 ft  |  | Bridge roadway width, curb-to-curb |  | 17.1 m = 56.1 ft |  |
| Inventory Route, Total Horizontal Clearance |  | 17.1 m = 56.1 ft           |  | Curb or sidewalk width - left   |  | 1.8 m = 5.9 ft                   |  | Curb or sidewalk width - right |  | 0.2 m = 0.7 ft  |  |                                    |  |                  |  |
| Deck structure type                         |  | Closed Grating [4]         |  |                                 |  |                                  |  |                                |  |   |  |                                    |  |                  |  |
| Type of wearing surface                     |  | Bituminous [6]             |  |                                 |  |                                  |  |                                |  |   |  |                                    |  |                  |  |
| Deck protection                             |  |                            |  |                                 |  |                                  |  |                                |  |   |  |                                    |  |                  |  |
| Type of membrane/wearing surface            |  |                            |  |                                 |  |                                  |  |                                |  |   |  |                                    |  |                  |  |

|                      |  |                                      |  |                                      |  |                     |  |                             |  |                             |  |
|----------------------|--|--------------------------------------|--|--------------------------------------|--|---------------------|--|-----------------------------|--|-----------------------------|--|
| <b>Weight Limits</b> |  | Bypass, detour length                |  | Method to determine inventory rating |  | Load Factor(LF) [1] |  | Inventory rating            |  | 13.6 metric ton = 15.0 tons |  |
| 0.5 km = 0.3 mi      |  | Method to determine operating rating |  | Load Factor(LF) [1]                  |  | Operating rating    |  | 36.3 metric ton = 39.9 tons |  |                             |  |
| Bridge posting       |  | Equal to or above legal loads [5]    |  | Design Load                          |  | M 13.5 / H 15 [2]   |  |                             |  |                             |  |

### Functional Details

|   |  |                            |                       |   |  |                        |  |       |      |      |
|---|--|----------------------------|-----------------------|---|--|------------------------|--|-------|------|------|
| Average Daily Traffic                                       | 20913  | Average daily truck traffi | 3                     | %   | Year                                   | 2007                   | Future average daily traffic                                 | 59626 | Year | 2018 |
| Road classification   | Other Principal Arterial (Urban) [14]                                  |                            | Lanes on structure    | 4   |  | Approach roadway width | 17.1 m = 56.1 ft   |       |      |      |
| Type of service on bridge                                   | Highway-pedestrian [5]   |                            | Direction of traffic  | 2 - way traffic [2]                               |  | Bridge median          |  |       |      |      |
| Parallel structure designation                              | No parallel structure exists. [N]                                      |                            |                       |   |  |                        |  |       |      |      |
| Type of service under bridge                                | Highway-waterway-railroad [  |                            | Lanes under structure | 75  |  | Navigation control     | Navigation control on waterway (bridge permit required). [1] |       |      |      |
| Navigation vertical clearanc                                | 13.4 m = 44.0 ft   |                            |                       | Navigation horizontal clearance                   | 136.6 m = 448.2 ft                     |                        |  |       |      |      |
| Minimum navigation vertical clearance, vertical lift bridge |  |                            |                       | Minimum vertical clearance over bridge roadway    | 99.99 m = 328.1 ft                     |                        |  |       |      |      |
| Minimum lateral underclearance reference feature            | Highway beneath structure [H]  |                            |                       |   |  |                        |  |       |      |      |
| Minimum lateral underclearance on right                     | 0.3 m = 1.0 ft   |                            |                       |   | Minimum lateral underclearance on left | 0 = N/A                |  |       |      |      |
| Minimum Vertical Underclearance                             | 4.47 m = 14.7 ft   |                            |                       | Minimum vertical underclearance reference feature | Highway beneath structure [H]          |                        |  |       |      |      |
| Appraisal ratings - underclearances                         | Basically intolerable requiring high priority of corrective action [3] |                            |                       |   |  |                        |  |       |      |      |

### Repair and Replacement Plans

|   |                                   |                   |                                 |   |       |  |
|---|-----------------------------------|-------------------|---------------------------------|---|-------|--|
| Type of work to be performed                                  | Work done by                      |                   | Work to be done by contract [1] |   |       |  |
| Other structural work, including hydraulic replacements. [38] | Bridge improvement cost           | 1000              | Roadway improvement cost        | 4000  |       |  |
|   | Length of structure improvement   | 823 m = 2700.3 ft |                                 | Total project cost                                    | 17000 |  |
|   | Year of improvement cost estimate |                   |                                 |   |       |  |
|   | Border bridge - state             |                   |                                 | Border bridge - percent responsibility of other state |       |  |
|   | Border bridge - structure number  |                   |                                 |   |       |  |

## Inspection and Sufficiency

|   |  |                                       |   |
|---|--|---------------------------------------|---|
| Structure status                                  | Open, no restriction [A]   | Appraisal ratings - structural        | Basically intolerable requiring high priority of corrective action [3]          |
| Condition ratings - superstructure                | Fair [5]   | Appraisal ratings - roadway alignment | Equal to present desirable criteria [8]   |
| Condition ratings - substructure                  | Fair [5]   | Appraisal ratings - deck geometry     | Somewhat better than minimum adequacy to tolerate being left in place as is [5] |
| Condition ratings - deck                          | Fair [5]   |                                       |   |
| Scour   | Bridge foundations determined to be stable for assessed or calculated scour conditions; field review indicates action is required. [4] |                                       |   |
| Channel and channel protection                    | Bank protection is being eroded. River control devices and/or embankment have major damage. Trees and rush restrict the channel. [5]   |                                       |   |
| Appraisal ratings - water adequacy                | Superior to present desirable criteria [9]   | Status evaluation                     | Functionally obsolete [2]   |
| Pier or abutment protection                       |  | Sufficiency rating                    | 42.7  |
| Culverts  | Not applicable. Used if structure is not a culvert. [N]  |                                       |   |
| Traffic safety features - railings                |  |                                       |   |
| Traffic safety features - transitions             | Inspected feature meets currently acceptable standards. [1]  |                                       |   |
| Traffic safety features - approach guardrail      | Inspected feature meets currently acceptable standards. [1]  |                                       |   |
| Traffic safety features - approach guardrail ends | Inspected feature meets currently acceptable standards. [1]  |                                       |   |
| Inspection date                                   | April 2009 [0409]  | Designated inspection frequency       | 24 Months   |
| Underwater inspection                             | Every two years [Y24]  | Underwater inspection date            | April 2005 [0405]   |
| Fracture critical inspection                      | Not needed [N]   | Fracture critical inspection date     |   |
| Other special inspection                          | Not needed [N]   | Other special inspection date         |   |