

The National Bridge Inventory contains data submitted by state transportation departments to the Federal Highway Administration in coded format.  
 Form Interface Design: www.historicbridges.org. Data Conversion Assistance By www.bridgehunter.com. None of the involved parties make any guarantee of accuracy.

**Basic Information**

Michigan [26] Genesee County [049] Flint [29000] IN FLINT 43-00-29 = 43.008056 083-41-51 = 83.697500

25125081000B020 Highway agency district 4 Owner State Highway Agency [01] Maintenance responsibility State Highway Agency [01]

Route 21 M-21 Toll On free road [3] Features intersected SWARTZ CREEK

Design - main Concrete [1] Design - approach Other [00] Kilometerpoint 938.6 km = 581.9 mi

1 Arch - Deck [11] 0 Other [00] Year built 1918 Year reconstructed N/A [0000]

Skew angle 0 Structure Flared

Historical significance Bridge is on the NRHP. [1]

Total length 18.9 m = 62.0 ft Length of maximum span 18.2 m = 59.7 ft Deck width, out-to-out 19 m = 62.3 ft Bridge roadway width, curb-to-curb 15.2 m = 49.9 ft

Inventory Route, Total Horizontal Clearance 18.2 m = 59.7 ft Curb or sidewalk width - left 1.9 m = 6.2 ft Curb or sidewalk width - right 1.9 m = 6.2 ft

Deck structure type Concrete Cast-in-Place [1]

Type of wearing surface Bituminous [6]

Deck protection

Type of membrane/wearing surface

**Weight Limits**

Bypass, detour length 0.2 km = 0.1 mi Method to determine inventory rating Allowable Stress(AS) [2] Inventory rating 20 metric ton = 22.0 tons

Method to determine operating rating Allowable Stress(AS) [2] Operating rating 99.9 metric ton = 109.9 tons

Bridge posting Equal to or above legal loads [5] Design Load MS 18 / HS 20 [5]

### Functional Details

Average Daily Traffic  Average daily truck traffi  % Year  Future average daily traffic  Year

Road classification  Lanes on structure  Approach roadway width

Type of service on bridge  Direction of traffic  Bridge median

Parallel structure designation

Type of service under bridge  Lanes under structure  Navigation control

Navigation vertical clearanc  Navigation horizontal clearance

Minimum navigation vertical clearance, vertical lift bridge  Minimum vertical clearance over bridge roadway

Minimum lateral underclearance reference feature

Minimum lateral underclearance on right  Minimum lateral underclearance on left

Minimum Vertical Underclearance  Minimum vertical underclearance reference feature

Appraisal ratings - underclearances

### Repair and Replacement Plans

Type of work to be performed

Work done by

Bridge improvement cost  Roadway improvement cost

Length of structure improvement  Total project cost

Year of improvement cost estimate

Border bridge - state  Border bridge - percent responsibility of other state

Border bridge - structure number

## Inspection and Sufficiency

Structure status	<input type="text" value="Open, no restriction [A]"/>	Appraisal ratings - structural	<input type="text" value="Meets minimum tolerable limits to be left in place as is [4]"/>
Condition ratings - superstructure	<input type="text" value="Good [7]"/>	Appraisal ratings - roadway alignment	<input type="text" value="Equal to present minimum criteria [6]"/>
Condition ratings - substructure	<input type="text" value="Poor [4]"/>	Appraisal ratings - deck geometry	<input type="text" value="Basically intolerable requiring high priority of corrective action [3]"/>
Condition ratings - deck	<input type="text" value="Poor [4]"/>		
Scour	<input type="text" value="Bridge is scour critical; bridge foundations determined to be unstable. [3]"/>		
Channel and channel protection	<input type="text" value="Bank protection is in need of minor repairs. River control devices and embankment protection have a little minor damage. Banks and/or channel have minor amounts of drift. [7]"/>		
Appraisal ratings - water adequacy	<input type="text" value="Equal to present desirable criteria [8]"/>	Status evaluation	<input type="text" value="Structurally deficient [1]"/>
Pier or abutment protection	<input type="text"/>	Sufficiency rating	<input type="text" value="32.1"/>
Culverts	<input type="text" value="Not applicable. Used if structure is not a culvert. [N]"/>		
Traffic safety features - railings	<input type="text"/>		
Traffic safety features - transitions	<input type="text"/>		
Traffic safety features - approach guardrail	<input type="text"/>		
Traffic safety features - approach guardrail ends	<input type="text"/>		
Inspection date	<input type="text" value="March 2009 [0309]"/>	Designated inspection frequency	<input type="text" value="24"/> Months
Underwater inspection	<input type="text" value="Not needed [N]"/>	Underwater inspection date	<input type="text"/>
Fracture critical inspection	<input type="text" value="Not needed [N]"/>	Fracture critical inspection date	<input type="text"/>
Other special inspection	<input type="text" value="Not needed [N]"/>	Other special inspection date	<input type="text"/>