

LOCAL BRIDGE PROGRAM CALL FOR APPLICATIONS FUNDING YEAR 2017

NOTE TO USERS: Please be sure that all structure information is correct on your SI&A form in MiBridge before submitting your application. Applications received after May 1, 2014 will not be accepted. For assistance, please call (517) 373-2346 or 373-0041.

Instructions: (This form requires Adobe Acrobat Standard or Professional and is not enabled for use in the free Adobe Reader. If you only have access to Adobe Reader, please submit paper documents.)

1. Complete the required application information below.
2. Click on ADD APPLICATION DOCS button to add your signed resolution, cost estimate, map showing structure location and detour route, narrative description of project, letters of support and photos of the structure.
3. When you have finished, click on SAVE AS to keep a copy for each structure you are submitting.
4. Click on SUBMIT to email your application to MDOT-DesignLAP@michigan.gov.

**** Multiple structure applications need to be applied for as individual structures and choose "Multiple PM" for "Type of Work".***

APPLICATION INFORMATION (REQUIRED)

Agency Name:

Structure Number:

Facility Carried:

Feature Intersected:

Cost Estimate (Bridge and Approach construction cost):

Type of Work:

(This form requires Adobe Acrobat Standard or Professional and is not enabled for use in the free Adobe Reader. If you only have access to Adobe Reader, please submit paper documents.)

2017 Application for Bridge Funding

Submitted By: City of Mt. Pleasant

Priority List:

1. 4379 – Pickard Avenue Bridge over the Chippewa River (Rehabilitation)

APPLICATION FOR FUNDING

For

REHABILITATION OF

PICKARD AVENUE BRIDGE OVER THE CHIPPEWA RIVER

PRIORITY #1

City of Mount Pleasant, Isabella County

Submitted by:
City of Mount Pleasant
April 2014

Pickard Avenue over the Chippewa River

The City of Mount Pleasant is requesting local bridge funds for the **rehabilitation** of Pickard Avenue over the Chippewa River Bridge. The City of Mount Pleasant is committed to having this structure funded for the 2017 fiscal year. This bridge is the City's #1 priority for funding.

CONTACT

Stacie Tewari
1303 N. Franklin Street
Mount Pleasant, MI 48858
Phone: (989) 779-5401

BACKGROUND

The Pickard Avenue over the Chippewa River Bridge is a 133 foot long, 3 span structure and has 4 lanes of traffic with sidewalks on each side for a total width of 56'-5". The bridge superstructure is composed of adjacent concrete box beams with a concrete deck and raised sidewalks. The bridge approach consists of HMA pavement. The substructures consist of cast in place concrete abutments and piers. The structure was originally constructed in 1979 and widened in 1994. Inspection indicates the concrete deck is in overall fair condition with longitudinal hairline beamline cracks and random transverse cracks. The joints over the piers are heavily patched and spalled with numerous cracks. The open parapet railing is severely map cracked and the cracks in most ends of the rails are expanding and breaking apart. The north railing in Span 1w at Pier 1w is spalled. The raised sidewalks are heavily patched, spalled, or delaminated. They have longitudinal and map cracking with efflorescence throughout. Due to the condition of the concrete deck, there is significant leakage between the beams with efflorescence and stalactites throughout. The concrete piers have some minor spalls. The sidewalks on the bridge have been previously patched and over 50% of the remaining sidewalk is delaminated or spalled due to ASR.

WEIGHT LIMIT

This structure is not currently posted.

FUNCTIONAL CLASSIFICATION AND ECONOMIC IMPORTANCE

Pickard Avenue is classified as an "urban minor arterial". It is a 4-lane asphalt road which carries local, commercial, and pedestrian traffic. Pickard Avenue is a heavily traveled east and west road in the city. The current (1998) average daily traffic volume is 9,495 vehicles per day (vpd). The future traffic volumes (2018) are estimated to be 15,192 vpd.

Further deterioration of the concrete deck due to ASR will lead to deterioration of the superstructure and to a restricted loading. The economic importance of this structure is based on the extra travel time that will be needed due to the detour route if this structure deteriorates to the point where a weight restriction is required. The extra travel time impacts local residents and business. Two local businesses that would be heavily impacted include Coyne Oil Corporation and McGuirk Sand and Gravel, both located just west of the bridge. The bridge is the main link between these businesses and major roadways including U.S. Route 127.

Furthermore, just west of the Coyne Oil Corporation is the Mount Pleasant Center Property, consisting of about 300 acres of city owned property. In the near future this property will be sold and developed. If a

load restriction is placed on the bridge the future development of this site could be impacted.

LOCAL IMPACTS AND DETOUR ROUTE

The detour route for traffic when the bridge will be closed for construction is as follows: Main Street to W Broadway Street to N Harris Street back to Pickard Avenue. If the structure is closed, the detour would affect the route of school buses for nearby schools, the response time of emergency vehicles for emergencies, and it would increase the amount of traffic on surrounding streets. The approximate length of this detour is 2.1 miles utilizing paved city streets.

REHABILITATION WORK

Rehabilitation of the Pickard Avenue over the Chippewa River Bridge would include a deck replacement (including railings), pier and abutment repair, and replacement of the approach pavement.

ESTIMATED REHABILITATION COST

| | |
|---------------------------------|------------------|
| A. Approach Construction..... | \$68,000 |
| B. Structure Construction | <u>\$644,000</u> |
| Total | \$712,000 |

| Facility | Federal Structure ID | Inspector Name | Agency/Consultant | Inspection Date | Legend | | | | |
|----------------|----------------------|----------------|-------------------|-----------------|----------|------------|---------|----------|--------------------|
| PICKARD AVENUE | 374458400024B01 | Casey Collings | ROWE PSC | 07/02/2012 | 9 New | | | | |
| Feature | Latitude | Longitude | Struc Num | Insp Freq | Insp Key | 7-8 Good | | | |
| CHIPPEWA RIVER | 43 36' 42.59" | 84 46' 43.62" | 4379 | 24 | NFGZ | 5-6 Fair | | | |
| Location | Length | Width | Year Built | Year Recon | Br Type | Scour Eval | No.Pins | 3-4 Poor | 2 or Less Critical |
| IN MT PLEASANT | 132.9 | 56.43 | 1979 | 1994 | 5 05 5 | | | | |

08 10 12

NBI INSPECTION

| | | | | |
|--------------------------------|---|---|---|---|
| 1. Surface SIA-58A | 5 | 5 | 5 | Concrete deck. Some delamination on < 2% of deck. Hairline longitudinal beam cracks w/ random transverse cracking. (12) Concrete deck. Hairline longitudinal beam cracks w/ random transverse cracking. (10) Hairline longitudinal beam cracks w/ random transverse cracking. (08) |
| 2. Expansion Jts | 4 | 4 | 4 | Joints over piers are leaching water onto pier caps. Some spalls and numerous hairline cracks at joints. Concrete header spalling. Ref line joints are HPR with minor leakage. (12) Joints over Piers are leaching water onto pier caps. Some spalls and numerous hairline cracks at joints. (10) Joints full of dirt-appear to be losing seal. There is moderate leaking over west pier especially near center line and light leaking over east pier. (08) |
| 3. Other Joints | N | N | N | (12) (10) (08) |
| 4. Railings | 6 | 5 | 5 | Concrete open parapet rail with metal tube above. Concrete has map cracking throughout. Half of the end blocks are spalling with rust and/or frost expanding and breaking them apart. This is a small area based on surface area, but major delamination. Approach rail is in place in all but the NW quadrant. (12) Concrete Open Parapet Rail with metal tube above. Concrete has map cracking throughout. Half of the end blocks are spalling with rust and/or frost expanding and breaking them apart. This is a small area based on surface area, but major deterioration. Approach rail is in place in all but the NW quadrant. (10) Map cracking throughout railings. Sounding does not indicate delamination. (08) |
| 5. Sidewalks or curbs | 3 | 3 | 3 | Concrete sidewalks. Approximately 10 to 15% of sidewalk area has been previously repaired. More than 50% of remaining sidewalk area is delaminated based on sounding. Monitor sidewalks. They will be spalling soon. (12) Concrete sidewalks. Approximately 10 to 15% of sidewalk area has been previously repaired. More than 50% of remaining sidewalk area is delaminated based on sounding. Monitor sidewalks. They will be spalling soon. (10) 2 more areas patched from the last inspection. There is a 2' by 2' area in the SE quadrant that is failing. area has spalled and appears to have deteriorated to a gravel state. (08) |
| 6. Deck Bottom Surface SIA-58B | | | N | Adjacent box beams. (12) Adj Box beams. (10) (08) |
| 7. Deck SIA-58 | 7 | 5 | 5 | Concrete deck. Rating is based on top surface condition only. (12) Concrete deck. Rating is based on exposed top surface only. (10) Light leaching between a few beams on east span. Some efflorescence is visible. (08) |
| 8. Drainage | | | | (12) (10) (08) |
| 9. Stringer SIA-59 | 7 | 7 | 7 | Adjacent box beams. Grout is failing in isolated areas between beams in east span with significant leakage. Minor leakage noted in other spans. (12) Adj box beams. Grout is failing in isolated areas between beams in east span with significant leakage. Minor leakage noted in other spans (10) Grout is failing in isolated areas between beams. Appears to be under post tensioning pockets. (08) |
| 10. Paint SIA-59A | N | N | N | (12) Concrete structure (10) (08) |
| 11. Section Loss | N | N | N | (12) Concrete structure (10) (08) |

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| Location | Length | Width | Year Built | Year Recon | Br Type | Scour Eval | No.Pins | 3-4 Poor |
| IN MT PLEASANT | 132.9 | 56.43 | 1979 | 1994 | 5 5 5 | | | 2 or Less Critical |

08 10 12

NBI INSPECTION

| | | | | |
|---------------------------|---|---|---|---|
| 12. Bearings | 8 | 8 | 8 | Bearings are not visible, but appear to be functioning. (12) Bearings not visible, but appear to be functioning. (10) (08) |
| 13. Abutments SIA-60 | 8 | 7 | 7 | Concrete abutments. Some map cracking at north end of west abutment. No delaminations found. (12) Concrete abutments. Some map cracking at north end of west abutment. No delaminations found. (10) No noteworthy deficiencies (08) |
| 14. Piers SIA-60 | 7 | 7 | 6 | Original piers are concrete. Widened piers are galvanized pile bend with concrete pile cap. Minor spalling at the bottom at the north end of west pier. Minor spalling and delamination at centerline of w. pier. Minor delamination at south end of east pier. At 5th and 13th beam from south fascia minor spalling at bearing of east pier. Piers have sheet pile protection visible below the waterline. (12) Original piers are concrete. Widened piers are galvanized pile bend with concrete pile cap. Minor spalling at the bottom at the north end of west pier. Minor spalling and delamination at centerline of w. pier. Minor delamination at south end of east pier. At 5 and 13 beam from south fascia minor spalling at bearing of east pier. Piers have sheet pile protection visible below the water line. (10) Minor spalling at the bottom at the north end of west pier. Minor spalling and delamination at centerline of w. pier. Minor delamination at south end of east pier. At 5 and 13 beam from south fascia minor spalling at bearing of east pier. (08) |
| 15. Slope Protection | 7 | 7 | 7 | Heavy riprap protecting abutments. Sheet pile and riprap protecting piers. Slope protection is in good condition. (12) Heavy riprap protecting abutments. Sheet pile and riprap protecting piers. Slope protection is in good condition. (10) Abutments well protected. Riprap has some undermining but appears stable. (08) |
| 16. Approach Pavt | 8 | 8 | 7 | HMA approach pavement. No deficiencies noted. Sealed longitudinal joints. (12) HMA approach pavement. No deficiencies noted. (10) (08) |
| 17. Approach Shldr Swalks | 7 | 7 | 6 | Concrete sidewalks and curb and gutter along roadway. Delamination in SW quad. (12) Concrete sidewalks and curb and gutter along roadway. Both in good condition. (10) (08) |
| 18. Approach Slopes | | | | Heavy vegetation. (12) Well vegetated. (10) (08) |
| 19. Utilities | | | | Conduit and box on east span of north fascia. (12) Conduit and box on east span of north fascia. (10) (08) |
| 20. Channel SIA-61 | 7 | 7 | 7 | No scour. Sheet pile visible at waterline. (12) No scour. Sheet pile visible below waterline. (10) (08) |
| 21. Drainage Culverts | | | | Culvert in SE quadrant. (12) Culvert in SE Quadrant (10) Culvert on SE Quad in good condition (08) |

| | | | | | | | | |
|-----------------|-----------------------------|-----------------------|--------------------------|------------------------|-----------------|-------------------|----------------|---|
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| Location | Length | Width | Year Built | Year Recon | Br Type | Scour Eval | No.Pins | 9 New 7-8 Good 5-6 Fair 3-4 Poor 2 or Less Critical |
| IN MT PLEASANT | 132.9 | 56.43 | 1979 | 1994 | 5 | 5 | 5 | |

08 10 12

NBI INSPECTION

| | | | | |
|--------------------------------|-------------------------------|---------------------|------------------------------|---|
| Guard Rail | Crit Feat Insp(SIA-92) | 71 Watr Adeq | <input type="checkbox"/> 8 | General Notes QTL - Casey J. Collings, P.E. Assisted by Mitch J. Hastings Plan for replacement of expansion joints. Sidewalk is in need of replacement due to delamination failure and ASR failure. There is no Guardrail, Transition or Guardrail ending on the NW quadrant of the bridge. Also, the aluminum tube above the open parapet wall no longer meets federal requirements for crashworthiness. |
| 36A <input type="checkbox"/> 0 | Freq Date | 72 Appr Align | <input type="checkbox"/> 8 | |
| 36B <input type="checkbox"/> 0 | 92A Frac Crit | Temp Supp | <input type="checkbox"/> | |
| 36C <input type="checkbox"/> 0 | 92B Und. Watr | Hi Ld Hit (M) | <input type="checkbox"/> | |
| 36D <input type="checkbox"/> 0 | 92C Spl.Insp | Special Insp Equip. | <input type="checkbox"/> | |
| | Fatg Sntv.Insp | | <input type="checkbox"/> 0 - | |

MDOT Bridge ID

3745844 0002401B01

Control Section

3745844 0..

| NBI Bridge ID | Struct Num | Region | TSC | County | City Resp | City Location | 7- Facility Carried |
|------------------------|----------------|---------------|---------------|--------|------------|---------------|---------------------|
| 374458400024B01 | 4379 | 04 | 4A | 37 | 4584 | 4584 | PICKARD AVENUE |
| 6- Feature Intersected | 9- Location | Latitude | Longitude | Owner | Maint Resp | | |
| CHIPPEWA RIVER | IN MT PLEASANT | 43 36' 42.59" | 84 46' 43.62" | 4 | 4 | | |

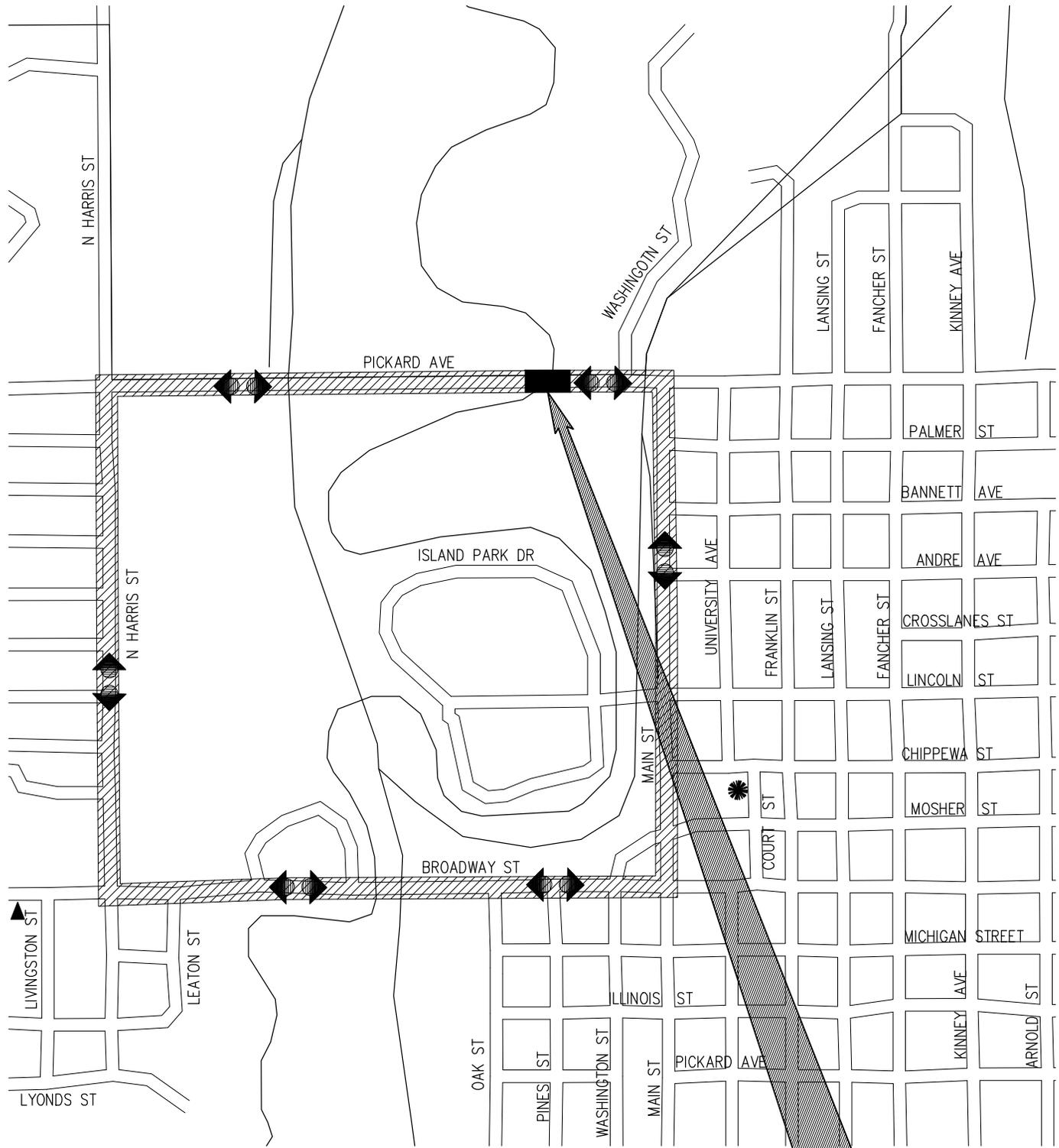
| Bridge History, Type, Materials | Route Carried By Structure(ON Record) | Route Under Structure(UNDER Record) |
|--|--|--|
| 27 - Year Built 106 - Year Reconstructed 202 - Year Painted 203 - Year Overlay 43 - Main Span Bridge Type 44 - Appr Span Bridge Type 77 - Steel Type 78 - Paint Type 79 - Rail Type 80 - Post Type 107 - Deck Type 108A - Wearing Surface 108B - Membrane 108C - Deck Protection | 5A - Record Type 5B - Route Signing 5C - Level of Service 5D - Route Number 5E - Direction Suffix 10L - Best 3m Unclr-Lt 10R - Best 3m Unclr- Rt PR Number Control Section 11- Mile Point 12- Base Highway Network 13- LRS Route-Subroute 19- Detour Length 20- Toll Facility 26- Functional Class 28A - Lanes On 29 - ADT 30 - Year of ADT 32- Appr Roadway Width 32A/B - Ap Pvt Type/Width 42A- Service Type On 47L - Left Horizontal Clear 47R- Right Horizontal Clear 53- Min Vert Clr Ov Deck 100- STRAHNET 102 - Traffic Direct 109 - Truck % 110 - Truck Network 114 - Future ADT 115 - Year Future ADT Freeway | 5A - Record Type 5B - Route Signing 5C - Level of Service 5D - Route Number 5E - Direction Suffix 10L - Best 3m Unclr-Lt 10R- Best 3m Unclr- Rt PR Number Control Section 11- Mile Point 12- Base Highway Network 13- LRS Route-Subroute 19- Detour Length 20- Toll Facility 26- Functional Class 28B - Lanes Under 29 - ADT 30 - Year of ADT 42B- Service Type Under 47L - Left Horizontal Clear 47R- Right Horizontal Clear 54A - Left Feature 54B- Left Underclearance 54C- Right Feature 54D- Right Underclearance Under Clearance Year 55A - Reference Feature 55B- Right Horiz Clearance 56- Left Horiz Clearance 100- STRAHNET 102 - Traffic Direct 109 - Truck % 110 - Truck Network 114 - Future ADT 115 - Year Future ADT Freeway |
| 1979 1994 | 1 5 1 02024 0 0 0 99 99 0 0.0 0 000.. - 2 3 16 4 9495 1998 54.0 4 54.0 5 0.0 47.9 99 99 0 2 6 0 15192 2018 0 | |
| Structure Dimensions | Structure Appraisal | Proposed Improvements |
| 34 - Skew 35 - Struct Flared 45 - Num Main Spans 46 - Num Apprs Spans 48 - Max Span Length 49 - Structure Length 50A - Width Left Curb/SW 50B - Width Right Curb/SW 33 - Median 51 - Width Curb to Curb 52 - Width Out to Out 112 - NBIS Length | 36A- Bridge Railing 36B-Rail Transition 36C- Approach Rail 36D- Rail Termination 67- Structure Evaluation 68- Deck Geometry 69- Underclearance 71- Waterway Adequacy 72- Approach Alignment 103- Temporary Structure 113- Scour Criticality | 75 - Type of Work 76- Length of Improvement 94- Bridge Cost 95- Roadway Cost 96- Total Cost 97- Year of Cost Estimate |
| 35 0 3 0 62 132.9 0 4.92 0 48.0 56.43 Y | 0 0 0 0 8 8 5 | |
| Inspection Data | Miscellaneous | Load Rating and Posting |
| 90 - Inspection Date 91 - Inspection Freq 92A - Frac Crit Req/Freq 93A - Frac Crit Insp Date 92B - Und Water Req/Freq 93B - Und Water Insp Date 92C - Oth Spec Insp Req/F.. 93C - Oth Spec Insp Date 176A - Und Water Insp Met.. 58 - Deck Rating 58A - Deck Surface Rtg 59 - Superstructure Rating 59A - Paint Rating 60 - Substructure Rating 61 - Channel Rating 62 - Culvert Rating | 37- Historical Significance 98A- Border Bridge State 98B- Border Bridge % 101- Parallel Structure EPA ID Stay in Place Forms | 31- Design Load 41- Open, Posted, Closed 63- Oper Rtg Method 64F- Fed Rtg Method 64M- Mich Oper Rtg 65- Inv Rtg Method 66- Inventory Load 70- Posting 141- Posted Loading 195- Analysis ID 193- Overload Class |
| 07/02/2012 24 N N N N 5 5 7 N 6 7 N | 5 N | 5 A 1 59.1 9 124 1 46.4 5 |
| Navigation Data | | |
| 38 - Navigation Control 39 - Vertical Clearance 40 - Horizontal Clearance 111 - Pier Protection 116 - Lift Brdg Vert Clear | | |
| 0 0 0 | | |

| | | | | | | | |
|-----------------|-----------------------------|-----------------------|--------------------------|------------------------|-----------------|-------------------|----------------|
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| IN MT PLEASANT | 132.9 | 56.43 | 1979 | 1994 | 5 | 5 | 5 |

THERE ARE NO CoRe ELEMENTS FOR THIS STRUCTURE

WORK RECOMMENDATIONS

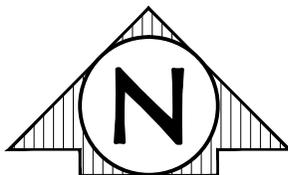
| CREW RECOMMENDATIONS | | | CONTRACT RECOMMENDATIONS | | |
|----------------------|---|--|----------------------------|---|---|
| Deck Patching | M | Hand chip delaminated areas and patch | Bridge Replacement | | |
| Approach Pavement | | | Superstructure Replacement | | |
| Joint Repair | H | Seal Expansion joints | Deck Replacement | M | Due to ASR, deck and sidewalk should be replaced. Verify load rating prior to applying for funding. |
| Railing Repair | L | Monitor railing for ASR failure. Sidewalk replacement may impact railing | Overlay | | |
| Detailed Insp | | | Widen | | |
| Zone Paint | | | Paint | | |
| Substr. Repair | | | Zone Paint | | |
| Slope Repair | | | Pin and Hanger | | |
| Brush Cut | | | Substructure Repair | | |
| Other Crew Work | M | Chip and patch SW quad as need on annual basis. | Other Contract Work | | |



KEY

- ☼ - POLICE STATION
- - FIRE STATIONS
- ★ - AMBULANCE SUB STATION
- ▲ - SCHOOL
- - HOSPITAL

CITY OF MOUNT PLEASANT



PICKARD AVENUE OVER THE CHIPPEWA RIVER

◆◆ - DETOUR ROUTE

LAP - BRIDGE COST ESTIMATE WORKSHEET

- CPM, REHAB, REPLACE -

REGION: Bay FISCAL YEAR: 2017 STRUCTURE ID: 4379
 ENGINEER: A. Hemeyer DATE: 3/10/2014
 LOCATION: Pickard Avenue over the Chippewa River DECK AREA: 7,515 SFT BRIDGE ID:
 PRIMARY WORK ACTIVITY: Rehabilitation - Deck Replacement DECK DIM: 133 ft x 56.5 ft STR. TYPE: Adj. Box Beams

| <u>WORK ACTIVITY</u> | | <u>QUANTITY</u> | <u>UNIT</u> | <u>UNIT COST</u> | <u>TOTAL</u> |
|---|---|-----------------|-------------|------------------|--------------|
| NEW BRIDGE | | | | | |
| Multiple Spans, Concrete | (add demo & road approach & traffic control) | | SFT | \$190.00 /SFT | |
| Multiple Spans, Steel | (as above) | | SFT | \$210.00 /SFT | |
| Over Water or Single Span | (add to replacement cost) | | SFT | \$45.00 /SFT | |
| Other | | | | | |
| NEW SUPERSTRUCTURE | | | | | |
| Concrete | (includes remove exist super, new railing; add t.c. & approach) | | SFT | \$120.00 /SFT | |
| Steel | (as above) | | SFT | \$150.00 /SFT | |
| Over Water | (add to new superstructure cost) | | SFT | \$30.00 /SFT | |
| Raise Superstructure | (includes substructure work) | | SFT | \$110.00 /SFT | |
| Other | | | | | |
| WIDENING | | | | | |
| Added portion only. | _____ ft of width (add road approach transition) | | SFT | \$210.00 /SFT | |
| Other | | | | | |
| NEW DECK | | | | | |
| Includes remove exist deck & new railing | (add t.c. & approach) | 7,514.5 | SFT | \$66.00 /SFT | \$495,957 |
| Other | | | | | |
| DEMOLITION | | | | | |
| Entire bridge, grade separation | | | SFT | \$28.00 /SFT | |
| Entire bridge, over water | | | SFT | \$38.00 /SFT | |
| Other | | | | | |
| SUPERSTRUCTURE REPAIR | | | | | |
| Concrete Deck Patch | (includes hand chipping) | | SFT | \$33.00 /SFT | |
| Full Depth Patch | | | SFT | \$70.00 /SFT | |
| HMA Cap | (no membrane, add bridge rail if req'd) | | SFT | \$1.25 /SFT | |
| HMA Overlay with WP membrane | (add bridge rail if req'd) | | SFT | \$4.50 /SFT | |
| Removal of Concrete Wearing Course (latex) or HMA Overlay | | | SFT | \$1.00 /SFT | |
| Epoxy Overlay | | | SYD | \$34.00 /SYD | |
| Shallow Overlay | (includes joint repl & hydro; add bridge rail if req'd) | | SFT | \$23.00 /SFT | |
| Deep Overlay | (includes joint repl & hydro; add bridge rail if req'd) | | SFT | \$24.00 /SFT | |
| PCI Beam End Repair | (\$2000-\$4000 per beam end) | | EA | \$3,000.00 EA | |
| High Load Hit Repair | (PCI Beam) | | SFT | \$180.00 /SFT | |
| Repair Structural Steel | (\$2000 bolted, \$6000 welded) | | EA | \$5,000.00 EA | |
| Paint Structural Steel | (includes clean & coat) | | SFT | \$9.00 /SFT | |
| Partial Painting | (includes clean & coat) | | SFT | \$18.00 /SFT | |
| Pin & Hanger replacement | (includes temporary supports) | | EA | \$6,200.00 EA | |
| Other | | | | | |
| SUBSTRUCTURE REPAIR | | | | | |
| Pier repair | (measured x 2) Replace unit if spalled area > 30% | | CFT | \$200.00 /CFT | |
| Pier repair over water | (measured x 2) | 60.0 | CFT | \$225.00 /CFT | \$13,500 |
| Pier replacement | | | CFT | \$75.00 /CFT | |
| Abutment repair | (measured x 2) | 14.0 | CFT | \$200.00 /CFT | \$2,800 |
| Temporary Supports for Substructure Repair | | | EA | \$1,500.00 EA | |
| Slope Protection repairs | | | SYD | \$82.00 /SYD | |
| Other | | | | | |
| MISCELLANEOUS | | | | | |
| Expansion or Construction Joints | (includes removal) | | FT | \$480.00 /FT | |
| Bridge Railing, remove and replace | (\$205 Type 4, \$270 Aesthetic Parapet) | | FT | \$235.00 /FT | |
| Thrie Beam Railing retrofit | | | FT | \$30.00 /FT | |
| Deck Drain Extensions | | | EA | \$400.00 EA | |
| Scour Countermeasures | | | LSUM | LSUM | |
| Other | | | | | |
| ROAD WORK | | | | | |
| Approach Pavement, 12" RC | (add C & G, GR, Slope, Shldr.) 40' ea. end | 1,920.0 | SFT | \$14.00 /SFT | \$26,880 |
| Approach Curb & Gutter | (18' ea. quad.) | 80.0 | FT | \$42.00 /FT | \$3,360 |
| Guardrail Anchorage to Bridge | (<40') | 4.0 | quads | \$1,500.00 /quad | \$6,000 |
| Guardrail, Type B or T | (beyond GR anchorage to bridge, <200') | 50.0 | FT | \$20.00 /FT | \$1,000 |
| Guardrail Ending | (end section) | 3.0 | EA | \$1,750.00 /EA | \$5,250 |
| Roadway Approach work | (beyond approach pavement) | | LSUM | LSUM | |
| Utilities | | | LSUM | LSUM | |
| Other | | | | | |
| TRAFFIC CONTROL <i>Unit Cost to be determined by Region or TSC T&S</i> | | | | | |
| Part Width Construction | | | LSUM | LSUM | |
| Crossovers | | | EA | \$250,000.00 EA | |
| Temporary Traffic Signals | | | set | \$20,000.00 /set | |
| RR Flagging | | | LSUM | LSUM | |
| Detour | | 1.0 | LSUM | \$10,000.00 LSUM | \$10,000 |
| Other | | | | | |
| CONTINGENCY (10% - 15%) (use higher contingency for small projects) | | | | | |
| MOBILIZATION | (estimate at 5% but put "10% max" in pay item description) | 10 | % | \$565,000.00 | \$57,000 |
| INFLATION | (assume 3% per year, beginning in 2015) | 5 | % | \$622,000.00 | \$31,000 |
| | | 9 | % | \$653,000.00 | \$59,000 |

(DOES NOT INCLUDE PE & CE)

CONSTRUCTION TOTAL \$712,000



Looking West over Pickard Avenue Bridge



Plan View from the North





Delaminated/map cracked sidewalk



Patchwork on Bridge Deck





Spalling on Bridge Deck



Spalls and cracks at ends of rails





Spalling on Pier Cap



Spalling on Pier Cap



**RESOLUTION FOR PICKARD AVENUE BRIDGE REHABILITATION
THROUGH THE LOCAL BRIDGE PROGRAM**

On a motion duly made by Commissioner Kulick seconded by Commissioner Rautanen and passed with 6 Ayes, 0 Nays and 1 Absent, it was moved to adopt the following resolution:

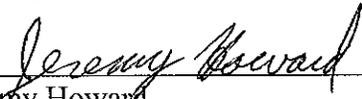
WHEREAS, the condition of the bridge listed below is deteriorating to such an extent that rehabilitation is expected to be necessary, and

WHEREAS, the budget of the City of Mt. Pleasant does not allow sufficient funds for such a large rehabilitation project without additional funds from other sources

THEREFORE BE IT NOW RESOLVED that the City of Mount Pleasant request local bridge program funds for rehabilitation of the Pickard Avenue over Chippewa River Bridge for the year 2017, and that the Mayor and Clerk be authorized to execute the application documents on behalf of the City of Mount Pleasant.

I hereby certify the above is a true and correct copy of a resolution unanimously adopted by the City of Mount Pleasant City Commission at a meeting held on Monday, March 24, 2014.

ATTEST:



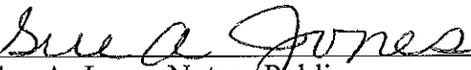
Jeremy Howard
City Clerk

Dated: March 26, 2014

Drafted by:

Jeremy Howard
City Hall
320 W. Broadway
Mt. Pleasant MI 48858

Subscribed and sworn to before me on the above date:



Sue A. Jones, Notary Public,
Isabella County, Michigan
My Commission Expires: 07/19/2015