



INNOVATIVE IDEAS  
EXCEPTIONAL DESIGN  
UNMATCHED CLIENT SERVICE

January 11, 2019

Mr. Colin Smith  
City of Ann Arbor  
Parks and Recreation Services  
301 E. Huron Street  
P.O. Box 8647  
Ann Arbor, MI 48107

RE: Proposal for Professional Design Engineering Services  
Revised Design, Drawings and Specifications for the Rehabilitation of Barton Nature Area Pedestrian Structures (North and South); Bandemer Park Structures (Pedestrian and Vehicle); Mitchell Field Pedestrian Structure; and, Gallup Park Vehicle/Pedestrian Structure

Dear Mr. Smith:

DLZ is very pleased to submit our proposal for the subject project, as requested and based on our meeting with City staff on November 27, 2018. With our recent completion of the bridge inspections of these structures, we are uniquely qualified and have immediate capacity to prepare the needed designs, drawings and specifications for the recommended rehabilitation work.

At our recent meeting, it was agreed that City staff could perform certain repair and rehabilitation work, while other work would be completed by a Contractor. We all agreed that having City staff perform some of the work would save money during both the design phase and construction phase. During the design phase, DLZ will complete the design, drawings and specifications, with a level of detail and completeness that allows the City staff to complete the work accurately and efficiently. The difference between these documents and Contractor type (bidding) documents is that no "Front End Documents" or "Bid Forms" are necessary.

During construction completed by City staff, cost savings may be realized due to not having to pay profit and overhead to a Contractor or paying a premium due to the type of work and small nature of these rehabilitation projects.

In the following sections, please find an outline of our scope of services for each of the structures. We have divided our discussion about each structure into preparing the design, drawings and specifications for rehabilitation work to be done by City staff, versus work that will be bid on and completed by a Contractor. In addition, we have removed services during construction from the proposal. We would propose to address the needs of DLZ services during construction upon completion of design.

We hope that you find our proposal to your satisfaction and would look forward to completing this important project for the City of Ann Arbor. Please review at your earliest convenience and contact us with any questions or comments.

Very truly yours,

**DLZ MICHIGAN, INC.**

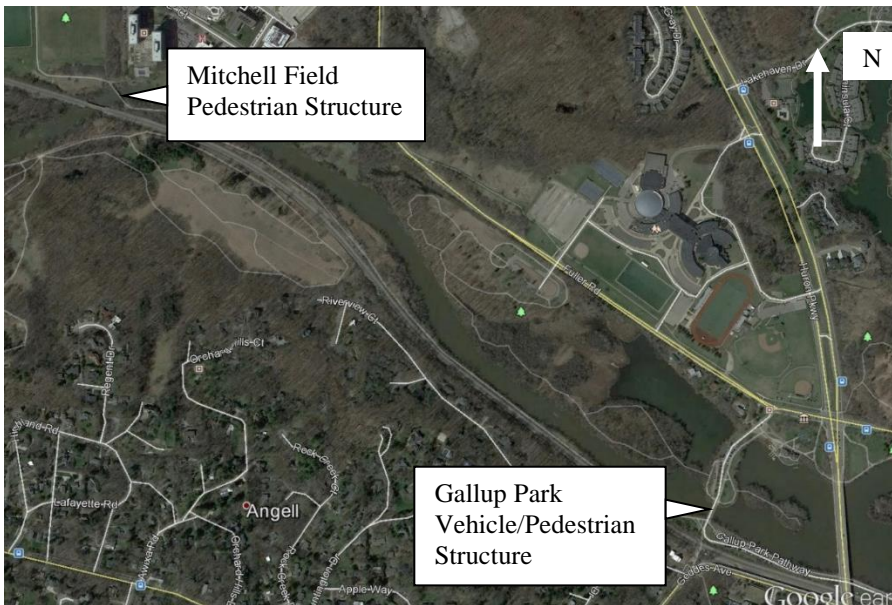
Manoj Sethi, P.E.  
President

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Akron Burns Harbor Chicago Cleveland Columbus Detroit Fort Wayne Frankfort Hammond Indianapolis Joliet Kalamazoo Lansing  
Louisville Madison Melvindale Pittsburgh Saint Joseph South Bend Toledo

## SCOPE OF SERVICES

For clarification on exact locations of the bridges included in this project, we have included the following aerial view graphics.



### **REVIEW OF KICKOFF MEETING DISCUSSION**

As discussed at the meeting, the level of design plans and specifications for both City completed rehabilitation work and Contractor completed rehabilitation work would be similar, with some noted differences. We have assumed that one set of drawings and specifications will be prepared for each of the methods used to complete the work (City completed work and Contractor completed work). One set of preliminary plans and specifications for each type of work method will be prepared and submitted, and a review meeting held to discuss the documents. DLZ will revise the documents based on the outcome of this meeting and prepare and submit final drawings and specifications for the City's use in completing or bidding the work.

Both sets of drawings would include all necessary plan, section and detail views so that the work can be completed accurately and efficiently. The set of drawings for work to be completed by the City will include "For Information Only" quantities, where needed, so that approximate quantities of different materials can be obtained. The set of drawings for work to be completed by a Contractor will include Pay Item quantities that will also be included on the Bid Form in the Proposal. We have assumed that one (1) complete set of bidding documents will be prepared that will contain all of the work at all structures to be completed by a Contractor.

Both sets of specifications would provide the necessary description, materials, and construction methods to complete the work. The Contractor completed set of specifications would also include measurement and payment information related to a particular item of work or pay item.

### **BRIDGE SCOPING AND ON-SITE MEETING WITH CONTRACTOR**

The first task in preparing the design, drawings and specifications for the recommended rehabilitation work will be a site to each structure by DLZ staff to obtain measurements and quantities related to specific items of work (e.g. number and locations of deck boards to be replaced; fill quantities, concrete quantities, etc.). We have allocated one (1) day to complete this task.

DLZ will contact one or more Contractors to discuss and meet on-site for the various rehabilitation work items that will be completed by a Contractor. The information obtained from these meetings will be used to influence the means, methods, cost estimates, drawings and specifications for this work.

### **SCOPE OF DESIGN SERVICES FOR NORTH BARTON NATURE AREA PEDESTRIAN STRUCTURE**

The recommended and agreed upon rehabilitation work for this structure can all be completed by City staff, except for one item.

#### **Rehabilitation work that was agreed upon that could be completed by City staff includes:**

1. Removal of vegetation within 10' of the sides and under all spans (all approach quadrants)
  2. Removal of soil from below the south truss to allow greater clearance, provide greater air flow and reduce moisture levels
  3. Regrading the south approach path and placing fill behind the abutment
  4. Adding additional path material at north approach to eliminate trip hazard
  5. Replacing selective deck planks across the entire structure and attaching all decking to all stingers and end angles at trusses (all spans)
  6. Removing debris from the tops of the abutment walls
-

**Rehabilitation work that was agreed upon that should be completed by a Contractor includes:**

1. Repairing concrete spall at the pier concrete at truss bearing and place nuts on anchor bolts

We have assumed that two (2) drawing sheets will be needed for the work items to be completed by the City, and one drawing for the work item to be completed by a Contractor. One specification will be needed for the timber deck planking, but this specification can be used for all structures that require this work item.

**SCOPE OF DESIGN SERVICES FOR SOUTH BARTON NATURE AREA PEDESTRIAN STRUCTURE**

The recommended and agreed upon rehabilitation work for this structure can all be completed by City staff.

**Rehabilitation work that was agreed upon that could be completed by City staff includes:**

1. Removal of vegetation within 10' of the sides and under all spans (all approach quadrants)
2. Regrading or paving the south approach so that gravel and dirt are not eroded and deposited on the rehabilitated structure completed in the above bullets
3. Removing the timber deck planking at the south end of the south truss, and repairing, replacing or placing new wood stingers, beams and timber deck planking to temporarily support the deck surface from the ground, similar to previous repairs
4. Replacing selective deck planks across the entire structure and attaching all decking to all stingers and end angles at trusses (all spans)
5. Removing debris from the tops of the abutment walls
6. Removal of soil below the south span to provide at least 12-inches of clear space to the lowest steel members, to provide the necessary air-gap required for weathering steel structures

The recommended repairs to the spalled concrete at the pier will be delayed for now and monitored during subsequent repairs. This repair will require installation of a cofferdam around the pier in order for the work to be done in the dry and also below the waterline. This is a very expensive repair and is not needed at this time. Should the structure be widened or replaced in the future, this work could be completed at that time.

We have assumed that three (3) drawing sheets will be needed for the work items to be completed by the City. One or more specifications will be needed for:

- The timber deck planking
- Timber structure work at south truss
- Regrading or paving the parking area

**SCOPE OF DESIGN SERVICES FOR BANDEMER PARK PEDESTRIAN STRUCTURE**

The recommended and agreed upon rehabilitation work for this structure can all be completed by City staff, except for one (1) item to be completed by a Contractor.

**Rehabilitation work that was agreed upon that could be completed by City staff includes:**

1. Removing vegetation within 10' of the sides of the structure and at the approaches, both ends
  2. Removing all debris from the deck surface and from the tops of the abutments, especially adjacent to the truss bearings
  3. Replacing selective deck planks across the entire structure and attaching all decking to the stringer and end angles at trusses
-

4. Replacing the damaged section of the wood handrail
5. Reattaching the chain link fence railing to the horizontal support member

**Rehabilitation work that was agreed upon that should be completed by a Contractor includes:**

1. Cleaning and coating of the steel stringers, floor beams and diagonals below the deck level. DLZ will also investigate and discuss with a Contractor replacement of the existing stringers using galvanized steel members. This approach may be more cost-effective and provide a longer-term solution than painting of the stringers. It would require complete removal of the existing timber decking, but would also provide complete encasement of the stringers (including the top flanges of the stringers that are in direct contact with the wood decking).

We have assumed that one (1) drawing sheet will be needed for the work items to be completed by the City, and two (2) drawings for the work item to be completed by a Contractor. One (1) specification will be needed for the timber deck planking, but this specification will be the same or similar for all structures requiring this work item. One (1) specification may be necessary for the work to be completed by the Contractor.

**SCOPE OF DESIGN SERVICES FOR BANDEMER PARK VEHICLE STRUCTURE**

Several of the recommended and agreed upon rehabilitation work for this structure can be completed by City staff, with some items to be completed by a Contractor.

**Rehabilitation work that was agreed upon that could be completed by City staff includes:**

1. Removing vegetation within 10' of the sides of the structure and at the approaches, both ends
2. Replacing selective deck planks across the entire structure and attaching all decking to the stringer and end angles at trusses
3. Removing all debris from the tops of the abutments, especially adjacent to the truss bearings

**Rehabilitation work that was agreed upon that should be completed by a Contractor includes:**

1. Cleaning and coating of the steel stringers, floor beams and diagonals below the deck level. DLZ will also investigate and discuss with a Contractor replacement of the existing stringers using galvanized steel members. This approach may be more cost-effective and provide a longer-term solution than painting of the stringers. It would require complete removal of the existing timber decking but would also provide complete encasement of the stringers (including the top flanges of the stringers that are in direct contact with the wood decking).
2. Replacing the approach guardrail and the guardrail on the bridge.
3. Replacing the expansion joint cover plates at both ends of the bridge.

We have assumed that one (1) drawing sheet will be needed for the work items to be completed by the City, and three (3) drawings for the work item to be completed by a Contractor. One (1) specification will be needed for the timber deck planking, but this specification will be the same or similar for all structures requiring this work item. Up to three (3) specifications may be necessary for the work to be completed by the Contractor.

**SCOPE OF DESIGN SERVICES FOR MITCHELL FIELD PEDESTRIAN STRUCTURE**

The recommended and agreed upon rehabilitation work for this structure can all be completed by City staff, except for two (2) items to be completed by a Contractor.

**Rehabilitation work that was agreed upon that could be completed by City staff includes:**

1. Removing vegetation within 10' of the sides of all spans (all approach quadrants)
-

2. Replacing all deck planks across the entire structure (truss and south approach spans) and attaching all decking to the stringers and end angles at trusses
3. Replacing deteriorated wood stringers in the south approach spans
4. Replacing the railing post members on the south approach spans
5. Removing the drop-off along south approach path, west side
6. Closing the gap between the approach railing and bridge railings at the north end
7. Removing debris from path at the ends of the structure

**Rehabilitation work that was agreed upon that should be completed by a Contractor includes:**

1. Replacing the center steel stringer on the truss span with a galvanized stringer
2. Cleaning and coating the outside two steel stringers, floor beams and diagonals below the deck level. DLZ will also investigate and discuss with a Contractor replacement of all of the existing stringers using galvanized steel members. This approach may be more cost-effective and provide a longer-term solution than painting of the stringers. It would require complete removal of the existing timber decking but would also provide complete encasement of the stringers (including the top flanges of the stringers that are in direct contact with the wood decking).

We have assumed that three (3) drawing sheets will be needed for the work items to be completed by the City, and two (2) drawings for the work item to be completed by a Contractor. One (1) specification will be needed for the timber deck planking, but this specification will be the same or similar for all structures requiring this work item. Two (2) specifications may be necessary for the work to be completed by the Contractor.

**SCOPE OF DESIGN SERVICES FOR GALLUP PARK VEHICLE/PEDESTRIAN STRUCTURE**

One (1) recommended and agreed upon rehabilitation item for this structure can be completed by City staff, with two (2) items to be completed by a Contractor.

**Rehabilitation work that was agreed upon that could be completed by City staff includes:**

1. Replacing damage or missing components of the sidewalk railings

**Rehabilitation work that was agreed upon that should be completed by a Contractor includes:**

1. Reconnecting and/or replacing with a new system the brackets that connect the vehicle deck panels and sidewalk deck panels to the floor beams and spreader beams
2. Re-attaching the spreader beam that is currently laying on the ground in front of the south abutment to the vehicle deck panels

We have assumed that one (1) drawing sheet will be needed for the work items to be completed by the City, and four (4) drawings for the work item to be completed by a Contractor. One (1) specification will be needed for the new brackets to be installed by the Contractor.

**AUTHORIZED NEGOTIATOR**

Manoj Sethi, P.E., President of DLZ Michigan, Inc., is authorized to negotiate the Professional Services Agreement with the City of Ann Arbor on behalf of DLZ. He can be reached at (517) 393-6800.

**SCHEDULE**

DLZ has qualified staff available to begin this work immediately upon receiving Notice to Proceed (NTP). We estimate that the Preliminary Plans and Specifications can be completed within four (4) weeks of NTP. We



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2018/2019 Bridge Rehabilitation Projects  
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estimate a 2-week review and discussion period should be sufficient, and the Final Plans and Specifications can be ready for final review approximately two weeks after this review period is completed.

#### **FEES AND COST**

The following pages outline our proposed hours and fees to complete the above scope of services. We recommend that some level of Construction Phase services, including shop drawing reviews and on-site inspection be completed, to verify that all construction work is completed in compliance with the project drawings and specifications. DLZ has staff members available who are highly qualified in these areas, and we would be happy to provide the City with a proposal to complete Construction Phase services, as well.



**SUMMARY OF STAFF HOUR DISTRIBUTION  
FIGURE 1**

TITLE: Parks Bridges Repair Designs

Date: January 8, 2019

FIRM: DLZ Michigan, Inc.  
Name of Company

LEVEL OF EFFORT AND TASK BREAKDOWN							
Names of Principal Staff Members	Role In Study	Task I	Task II	Task III	Task IV	Task V	TOTAL
SERVICES BY CONSULTANT:							
Mark T. Lessens, P.E.	Project Manager	22	80	36			138
Carrie L. Hamel, P.E.	QA/QC Engineer	0	16	12			28
Kyle J. Slavik, E.I.	Bridge Engineer	20	74	32			126
David A. Fildey	CAD Designer	10	96	46			152
SERVICES BY OTHERS:							
	TOTAL	52	266	126			444
<b>NOTE: ALL TIMES SHALL BE GIVEN IN PERSON-HOURS</b>							



**COST PER TASK BREAKDOWN  
FIGURE 2 A**

**TITLE: Parks Bridges Repair Designs**

FIRM: DLZ Michigan, Inc.  
Name of Company

Date: January 8, 2019

TASK # 1 TASK DESCRIPTION: Bridge Scoping and Contractor Meeting

NAME OF PRINCIPAL STAFF MEMBERS	ROLE IN STUDY	TOTAL HOURS	HOURLY RATE	DIRECT LABOR	OVERHEAD	TOTAL
Mark T. Lessens, P.E.	Project Manager	22	\$55.00	\$1,210.00	\$1,905.02	\$3,115.02
Carrie L. Hamel, P.E.	QA/QC Engineer	0	\$44.00	\$0.00	\$0.00	\$0.00
Kyle J. Slavik, E.I.	Bridge Engineer	20	\$29.50	\$590.00	\$928.90	\$1,518.90
David A. Fildey	CAD Designer	10	\$32.35	\$323.50	\$509.32	\$832.82
SUBTOTAL =		52		\$2,123.50	\$3,343.24	\$5,466.74
SUPPLIES & MATERIALS:						
TRANSPORTATION:						\$50.00
OTHER DIRECT COSTS:						
PROFIT (11%)						\$601.34
TOTAL						\$6,118.08

**COST PER TASK BREAKDOWN  
FIGURE 2 A**

**TITLE: Parks Bridges Repair Designs**

FIRM: DLZ Michigan, Inc.  
Name of Company

Date: January 8, 2019

TASK #      II      TASK DESCRIPTION: Preliminary Design, Drawings and Specifications

NAME OF PRINCIPAL STAFF MEMBERS	ROLE IN STUDY	TOTAL HOURS	HOURLY RATE	DIRECT LABOR	OVERHEAD	TOTAL
Mark T. Lessens, P.E.	Project Manager	80	\$55.00	\$4,400.00	\$6,927.36	\$11,327.36
Carrie L. Hamel, P.E.	QA/QC Engineer	16	\$44.00	\$704.00	\$1,108.38	\$1,812.38
Kyle J. Slavik, E.I.	Bridge Engineer	74	\$29.50	\$2,183.00	\$3,436.92	\$5,619.92
David A. Fildey	CAD Designer	96	\$32.35	\$3,105.60	\$4,889.46	\$7,995.06
SUBTOTAL =		266		\$10,392.60	\$16,362.11	\$26,754.71
SUPPLIES & MATERIALS:						
TRANSPORTATION:						\$50.00
OTHER DIRECT COSTS:						
PROFIT (11%)						\$2,943.02
TOTAL						\$29,747.73

**COST PER TASK BREAKDOWN  
FIGURE 2 A**

**TITLE: Parks Bridges Repair Designs**

FIRM: DLZ Michigan, Inc. Date: January 8, 2019  
 Name of Company \_\_\_\_\_  
 TASK # III TASK DESCRIPTION: Final Design, Drawings and Specifications

NAME OF PRINCIPAL STAFF MEMBERS	ROLE IN STUDY	TOTAL HOURS	HOURLY RATE	DIRECT LABOR	OVERHEAD	TOTAL
Mark T. Lessens, P.E.	Project Manager	36	\$55.00	\$1,980.00	\$3,117.31	\$5,097.31
Carrie L. Hamel, P.E.	QA/QC Engineer	12	\$44.00	\$528.00	\$831.28	\$1,359.28
Kyle J. Slavik, E.I.	Bridge Engineer	32	\$29.50	\$944.00	\$1,486.23	\$2,430.23
David A. Fildey	CAD Designer	46	\$32.35	\$1,488.10	\$2,342.86	\$3,830.96
SUBTOTAL =		126		\$4,940.10	\$7,777.69	\$12,717.79
SUPPLIES & MATERIALS:						
TRANSPORTATION:						\$50.00
OTHER DIRECT COSTS:						
PROFIT (11%)						\$1,398.96
TOTAL						\$14,166.75

**SUMMARY OF COSTS  
FIGURE 3**

**TITLE: Parks Bridges Repair Designs**

FIRM: DLZ Michigan, Inc.  
Name of Company

Date: January 8, 2019

TASK NO.	TASK DESCRIPTION	LABOR	OVERHEAD	MATERIALS	TRANS-PORTATION	OTHER COSTS	PROFIT	TOTAL
I	Bridge Scoping and Contractor Meeting	\$2,123.50	\$3,343.24	\$0.00	\$50.00	\$0.00	\$601.34	\$6,118.08
II	Preliminary Design, Drawings and Specifications	\$10,392.60	\$16,362.11	\$0.00	\$50.00	\$0.00	\$2,943.02	\$29,747.73
III	Final Design, Drawings and Specifications	\$4,940.10	\$7,777.69	\$0.00	\$50.00	\$0.00	\$1,398.96	\$14,166.75
<b>TOTAL</b>	<b>TASKS I-III NOT TO EXCEED COSTS</b>	<b>\$17,456.20</b>	<b>\$27,483.04</b>	<b>\$0.00</b>	<b>\$150.00</b>	<b>\$0.00</b>	<b>\$4,943.32</b>	<b>\$50,032.56</b>
<b>CONSULTANT SHALL SUMMARIZE ALL APPLICABLE COSTS IN DIFFERENT TASKS INTO THE ABOVE FIGURE</b>								