

REQUEST FOR PURCHASE IN EXCESS OF \$20,000/CHANGE ORDER



To: MAYOR AND CITY COUNCIL

Agenda Item #: IV. C.

From: Chad A. Millner, PE, Director of Engineering

The Recommended Bid is

Within Budget

Not Within Budget

Date: February 3, 2015

Subject: Request for Purchase – Authorize Engineering Services for the 50th Street and Wooddale Avenue Bridge Repairs

Date Bid Opened or Quote Received:
January 13, 2015

Bid or Expiration Date:
NA

Company:

Amount of Quote or Bid:

Toltz, King, Duvall, Anderson & Associates (TKDA), Inc. \$63,800.00

Recommended Quote or Bid:

TKDA, Inc. \$63,800.00

General Information:

The 50th Street (Bridge # 90643) and Wooddale Avenue (Bridge # 90646) Bridges were damaged from the high precipitation during 2014. Both bridges span Minnehaha Creek. The damages do not affect the safety of the traveling public.

The table below summarizes current and past proposals to address specific repairs at each bridge.

Item #	Date	Location	Description of Work	Amount
1	Oct. 10, 2014	50 th Street Bridge	Engineering Services for Embankment Repair	\$10,300
2	Oct. 31, 2014	50 th Street Bridge	Engineering Services for Scour Countermeasures Repairs	\$8,700
3	Jan. 13, 2015	Wooddale Avenue Bridge	Engineering Services for Reconstruction of the Historic Channel Walls	\$44,800
Total Contract Amount				\$63,800

Item #1 was identified during inspection of City facilities following the flooding events as part of FEMA's review. Item #2 was identified during our yearly bridge inspections by probing in the pool of water below the Browndale Dam. Item #3 was also discovered during our yearly bridge inspections.

Per the City's purchasing policy, items #1 and #2 were approved by me. Item #3 requires approval from the council due to the purchase amount. TKDA has been working on items #1 and #2 and these plans are scheduled for a bid opening on Feb. 10 and an award at the Feb. 17 City Council Meeting.

Because the Wooddale Avenue Bridge is classified as historic, the requirements for repairs are far greater than other structures. Item #3 addresses gaining approval for the repairs to meet those requirements.

The projects will be funded by a combination of funds. These include CIP #15-097 Bridge Repairs, FEMA disaster relief and potentially some of our yearly State Aid Maintenance Funds. Staff recommends approving the attached engineering proposal with TKDA.

Attachment:

- Authorization for Professional Services (Item #1)
- Supplemental Authorization No. 1 (Item #2)
- Supplemental Authorization No. 2 (Item #3)

THE CITY OF EDINA, MINNESOTA
AUTHORIZATION FOR PROFESSIONAL SERVICES

TO: Toltz, King, Duvall, Anderson
and Associates, Incorporated
444 Cedar Street, Suite 1500
St. Paul, Minnesota 55101

Pursuant to our Agreement dated June 27, 2005, you are hereby authorized to proceed with the professional services described as follows:

2014 BRIDGE 90463 REPAIRS

I. PROJECT DESCRIPTION

The CITY has requested assistance with development of construction plans for the embankment repair at Bridge 90643 resulting from 2014 flooding. The repaired embankment will utilize riprap scour protection and will realign the channel to its pre-flood configuration. In addition to the embankment slope erosion, the flooding has also partially undermined the northeast wing wall footing of Bridge 90643. The Project site includes an existing park bench and concrete foundation that were undermined and moved by the flooding. The bench and foundation will be salvaged and repositioned.

II. SERVICES TO BE PROVIDED

TKDA is requested to provide the following services for the Project:

A. SCOUR COUNTERMEASURE DESIGN AND PERMITTING

Develop scour countermeasures to reestablish protection of the Bridge's northeast embankment.

Prepare and submit applications for construction permits to the following agencies:

- US Army Corps of Engineers
- Minnehaha Creek Watershed District
- Minnesota Department of Natural Resources

B. BRIDGE 90463 WINGWALL FOOTING REPAIR

Develop repair plans utilizing cast-in-place concrete fill to re-establish bearing beneath the in-place footing.

C. BIDDING AND CONSTRUCTION SUPPORT

Included with the plan deliverables will be an Engineer's opinion of probable construction cost and Schedule of Quantities Bid Quantities for the Project. To assist the CITY during the bidding and construction phases, an assumed 16 hours of staff time have been allocated to address contractor questions. It is assumed the CITY will provide on-site construction observation such that site visits by TKDA staff will not be required.

D. PROJECT MANAGEMENT

Manage TKDA's services for the Project including developing and maintaining the work schedule, meeting minutes, documenting communications and review comments, QMP, invoicing, and updating the Project scope and budget as necessary.

III. ADDITIONAL SERVICES

If the need for Additional Services is determined, and the fee for the additional work is agreeable and the CITY authorizes such services in writing, TKDA shall furnish or obtain from others services of the types listed below. These Additional Services shall be compensated for on an Hourly Rate basis as defined in Agreement Article 3, a part hereof, and such compensation shall be over and above any maximums or lump sum amounts set forth in this Authorization.

- A. It is assumed that bridge material testing will not be required. In the event material testing will be necessary, TKDA will provide or obtain the same as additional services.
- B. Additional construction or bid support beyond the hours included in SECTION II.C.
- C. Professional services for repairs not listed under section SECTION I.

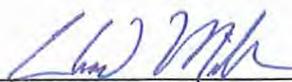
IV. PERIOD OF SERVICE

SECTION II services will be completed within 16 weeks from the date of executed Authorization.

V. COMPENSATION

Compensation to TKDA for services provided as described shall be on an Hourly Time and Materials basis in an amount not to exceed \$10,300. A detailed Project Fee Estimate is attached.

During the course of the Project if this amount is found to be insufficient, TKDA agrees not perform services or incur costs which result in billing in excess of such amount until advised by the CITY that additional funds are available and services can continue.

Approved By , October 10, 2014.
Chad Millner, Director of Engineering

TKDA Acceptance by , October 13, 2014.
Authorized TKDA Representative
Kevin R. Cullen, PE; Vice President



Project Fee Estimate

Client:	City of Edina	Date:	10/9/2014				
Project:	2014 Bridge 90463 Repairs	Prepared By:	HLE				
Task	Task Description	Estimated Person Hours Required				Total Hours	Total Dollars
		Sr Reg Eng	ES I	Tech II	Tech II		
A	Scour Countermeasures & Permitting						
	Design and Plan Development		12		16	28	\$ 2,620
	USACE Permit		8		2	10	\$ 1,114
	MCWD Permit		12		2	14	\$ 1,598
	MnDNR Permit		4		2	6	\$ 630
B	Wingwall Footing Repair						
	Design and Plan Development	8				8	\$ 992
C	Bid & Construction Support						
	Bid & Construction Support	8	8			16	\$ 1,960
D	Project Management						
	Schedule, staffing, invoicing, QMP, etc.	8		2		10	\$ 1,140
Total Person Hours		24	44	2	22	92	
Billing Rate/Hr x Multiplier		\$ 124	\$ 121	\$ 74	\$ 73		
Total Billable for Charged Time		\$ 2,976	\$ 5,324	\$ 148	\$ 1,606		\$ 10,054
Expenses:							
Travel & Subsistence (TS)							\$ 200
Reproduction & Reprographics (RR)							\$ 50
Total Project Fees							\$ 10,304
ROUNDED TO							\$ 10,300

THE CITY OF EDINA, MINNESOTA
SUPPLEMENTAL AUTHORIZATION NO. 1

TO: Toltz, King, Duvall, Anderson
and Associates, Incorporated
444 Cedar Street, Suite 1500
St. Paul, Minnesota 55101

Pursuant to our Agreement dated June 27, 2005, and supplemental to the Authorization for the Project dated October 10, 2014, TKDA is hereby authorized to proceed with the following additional Professional Services.

2014 BRIDGE 90463
DEVELOPMENT OF SCOUR COUNTERMEASURE REPAIRS

- I. Add the following paragraph to SECTION I of the Authorization:

The Project scope shall be expanded to include Scour Countermeasure Repairs to Bridge No. 90646. The CITY's 2014 Bridge Inspection program identified loss of the riprap scour protection at the Bridge's north abutment resulting in partial undermining of the spread footing. To repair, grout will be injected below the undermined footing to provide direct bearing between the footing and supporting soil, and new riprap added within the channel.

- II. Under SECTION II of the Authorization, make the following changes to A, C and D:

A. SCOUR COUNTERMEASURE DESIGN AND PERMITTING

Develop scour countermeasures to reestablish protection of the Bridge's north abutment. **Countermeasures to include grouting undermined portions of the north footing to reestablish direct bearing between the footing and the supporting soil.**

Prepare and submit applications for construction permits to the following agencies relative to the scour countermeasures:

- US Army Corps of Engineers
- Minnehaha Creek Watershed District
- Minnesota Department of Natural Resources

C. BIDDING AND CONSTRUCTION SUPPORT

Included with the plan deliverables will be an Engineer's opinion of probable construction cost and Schedule of Quantities Bid Quantities for the Project. To assist the CITY during the bidding and construction phases, an **assumed additional 8 hours (total 24 hours)** of staff time have been allocated to address contractor questions. It is assumed the CITY will provide on-site construction observation such that site visits by TKDA staff will not be required.

D. PROJECT MANAGMENT

Provide an **additional 8 hours** of Project Management time.

III. Modify the compensation under SECTION V of the Authorization as follows:

Original Authorization	\$10,300	Previous approval
Supplemental Authorization No. 1	<u>\$8,700</u>	10/31/14
Revised Total Authorization	\$19,000	Add. from 1

A Supplemental Project Fee Estimate is attached.

Approved By , 10/31, 2014.
Chad Millner, Director of Engineering

TKDA Acceptance by , October 31, 2014.
Authorized TKDA Representative
Kevin R. Cullen, PE; Vice President



**Supplemental Authorization No. 1 -
Project Fee Estimate**

Client:	City of Edina	Date:	10/30/2014			
Project:	2014 Bridge 90463 Repairs - Scour Countermeasures	Prepared By:	HLE			
Task	Task Description	Estimated Person Hours Required			Total Hours	Total Dollars
		Sr Reg Eng	ES I	Tech II		
A	Scour Countermeasures & Permitting					
	Design and Plan Development	8	12	16	36	\$ 3,612
	USACE Permit		8	2	10	\$ 1,114
	MCWD Permit		12	2	14	\$ 1,598
	MnDNR Permit		4	2	6	\$ 630
C	Bid & Construction Support					
	Bid & Construction Support	4	4		8	\$ 980
D	Project Management					
	Schedule, staffing, invoicing, QMP, etc.	4			4	\$ 496
Total Additional Person Hours		16	40	22	78	
Billing Rate/Hr x Multiplier		\$ 124	\$ 121	\$ 73		
Total Additional Billable for Charged Time		\$ 1,984	\$ 4,840	\$ 1,606		\$ 8,430
Expenses:						
Travel & Subsistence (TS)						\$ 200
Reproduction & Reprographics (RR)						\$ 50
Supplemental Authorization No. 1 Total Fees						\$ 8,680
Supplemental Authorization No. 1 Total Fees (Rounded)						\$ 8,700
Original Authorization Fees						\$ 10,300
Revised Total Authorized Fees						\$ 19,000

THE CITY OF EDINA, MINNESOTA
SUPPLEMENTAL AUTHORIZATION NO. 2

TO: Toltz, King, Duvall, Anderson
and Associates, Incorporated
444 Cedar Street, Suite 1500
St. Paul, Minnesota 55101

Pursuant to our Agreement dated June 27, 2005, and supplemental to the Authorization for the Project dated October 10, 2014, as modified by Supplemental Authorization No. 1 signed October 31, 2014, TKDA is hereby authorized to proceed with the following additional Professional Services.

2014 BRIDGE 90463
DEVELOPMENT OF SCOUR COUNTERMEASURE REPAIRS

- I. Add the following paragraph to SECTION I of the Authorization:

The Project scope shall be expanded to include Evaluation and Reconstruction of the historic channel walls framing into the abutments of Bridge No. 90646. The CITY's 2014 Bridge Inspection program identified complete failure of one of the walls due to 2014 flooding and continued deterioration of the remaining three. Wall repairs to be completed in accordance with the Secretary of the Interior's Standards for the treatment of historic properties.

- II. Under SECTION II of the Authorization, make the following changes to A, C and D, and add Section E:

A. SCOUR COUNTERMEASURE DESIGN AND PERMITTING

Develop scour countermeasures to reestablish protection of the Bridge 90643's northeast embankment and Bridge 90646's north abutment. Countermeasures to include grouting undermined portions of the north footing to reestablish direct bearing between the footing and the supporting soil.

Develop embankment restoration and protection plans for the upstream erosion occurring at Bridge 90646.

Prepare and submit applications for construction permits to the following agencies relative to the scour countermeasures **and upstream channel restoration**:

- US Army Corps of Engineers
- Minnehaha Creek Watershed District
- Minnesota Department of Natural Resources

C. BIDDING AND CONSTRUCTION SUPPORT

Included with the plan deliverables will be an Engineer's opinion of probable construction cost and Schedule of Quantities Bid Quantities for the Project. To assist the CITY during the bidding and construction phases, an assumed additional 8 hours (total 24 hours) of staff time have been allocated to address

contractor questions. **This time does not include specific tasks pertaining to the reconstruction of Bridge 90646's historic channel walls.** It is assumed the CITY will provide on-site construction observation such that site visits by TKDA staff will not be required.

D. PROJECT MANAGMENT

Provide an **additional 8 hours** of Project Management time.

E. BRIDGE 90646 CHANNEL WALL REPAIR

Develop repair plans and specifications for reconstruction of the historic channel walls framing into the bridge abutment corners. Repair plans to be developed in accordance with the Secretary of the Interior's Standards for the treatment of historic properties. It is assumed that the condition of the in-place masonry is beyond salvage and full replacement is required. It is assumed that cast-in-place concrete walls with a stone veneer matching the historic characteristics of the in-place walls will be used for reconstruction. The walls will be supported on cast-in-place concrete spread footings. Given the size and configuration of the reconstructed walls, it is assumed that unique geotechnical foundation recommendations are not required. A site survey and utility coordination is included.

III. Modify the compensation under SECTION V of the Authorization as follows:

Original Authorization	\$10,300
Supplemental Authorization No. 1	<u>\$8,700</u>
Supplemental Authorization No. 2	<u>\$44,800</u>
Revised Total Authorization	\$63,800

A Supplemental Project Fee Estimate is attached.

Approved By _____, _____, 2015.
Chad Millner, Director of Engineering

TKDA Acceptance by _____, _____, 2015.
Authorized TKDA Representative



**Supplemental Authorization No. 2 -
Project Fee Estimate**

Client:	City of Edina							Date:	1/13/2015	
Project:	2014 Bridge 90463 Repairs - Scour Countermeasures/Bridge 90646 Embankment Protection							Prepared By:	HLE	
Task	Task Description	Estimated Person Hours Required						Total Hours	Total Dollars	
		Sr Reg Eng	Reg Eng	Grad Eng	ES I	ES I	Tech II			Tech II
A	Scour Countermeasures & Permitting									
	Design and Plan Development			12	16			28	\$ 2,908	
	USACE Permit							-	\$ -	
	MCWD Permit							-	\$ -	
	MnDNR Permit							-	\$ -	
C	Bid & Construction Support									
	Bid & Construction Support							-	\$ -	
D	Project Management									
	Schedule, staffing, invoicing, QMP, etc.	8						8	\$ 1,040	
E	Historic Wall Repairs									
	Research / Data Collection / Survey	8	6			8	16	38	\$ 4,180	
	SHPO Review Meetings / Coordination	8	8					16	\$ 1,984	
	40% Design	16	16	40		8		80	\$ 7,912	
	80% Design	16	8	24		8	4	60	\$ 6,108	
	100% Design	16	10	24		8	6	64	\$ 6,498	
Total Additional Person Hours		72	48	100	16	32	16	10	294	
Billing Rate/Hr x Multiplier		\$ 130	\$ 118	\$ 73	\$ 127	\$ 128	\$ 88	\$ 77		
Total Additional Billable for Charged Time		\$ 9,360	\$ 5,664	\$ 7,300	\$ 2,032	\$ 4,096	\$ 1,408	\$ 770	\$ 30,630	
Expenses:										
Subconsultant Fees - McDonald & Mack									\$ 14,000	
Travel & Subsistence (TS)									\$ 100	
Reproduction & Reprographics (RR)									\$ 50	
Supplemental Authorization No. 2 Total Fees									\$ 44,780	
Supplemental Authorization No. 2 Total Fees (Rounded)									\$ 44,800	
Supplemental Authorization No. 1 Fees									\$ 8,700	
Original Authorization Fees									\$ 10,300	
Revised Total Authorized Fees									\$ 63,800	