

 <p style="text-align: center;">Council Communication Office of the City Manager</p>	Date:	October 12, 2015
	Agenda Item No.	5
	Roll Call No.	<u>15-1663</u>
	Communication No.	<u>15-536</u>
	Submitted by:	Pamela S. Cooksey, P.E., City Engineer

AGENDA HEADING:

Approving and authorizing the execution of Iowa Department of Transportation (IDOT) agreement for replacement of Grand Avenue Bridge over Des Moines River.

SYNOPSIS:

Recommend approval of IDOT Agreement No. 1-15-STPU-013 for \$2,129,000 in Surface Transportation Program project funding for replacement of Grand Avenue Bridge over Des Moines River.

FISCAL IMPACT:

Amount: \$9,300,000

Funding Source: Various funding sources as follows:

- \$2,129,000: IDOT Surface Transportation Program Funds
- \$7,171,000: 2015-2016 CIP, Page Bridge/Viaduct Improvements-10, Grand Avenue Bridge over the Des Moines River, BR047, G.O. Bonds

ADDITIONAL INFORMATION:

The rehabilitation of the Grand Avenue Bridge over Des Moines River was identified as a high priority project in the 2011 City-Wide Bridge and Structure Evaluation. The structural evaluation report, prepared by Shuck-Britson, Inc. in 2013, discovered the Grand Avenue Bridge to be in worse condition than originally anticipated. The consultant evaluated the initial construction costs and life cycle costs for different repair options and replacement options. It was determined that the replacement option had the lowest life cycle cost and was recommended that the bridge be replaced rather than rehabilitated.

This project has received IDOT Surface Transportation Program Funds for a maximum amount of \$2,129,000 as outlined the Des Moines Area Metropolitan Planning Organization current Transportation Improvement Program.

On April 6, 2015, by Roll Call 15-0572, City Council approved the revised design concept for the replacement bridge to proceed with the “metal panel scallop” design concept. With this approval, the aesthetic review committee was reconvened to further develop this design and provide final input to the design team. This input was applied to the design and the design proposal was taken back to the

Urban Design Review Board on August 4, 2015 for Final Approval. The proposed bridge will match the width of the existing bridge, filling the existing openings in the floodwalls and providing flexibility for traffic configurations over time. The configuration currently proposed includes 14-foot sidewalks on both the north and south sides of the bridge, one (1) lane of parking on the south side, three (3) travel lanes (one (1) east bound, two (2) west bound), and a bike lane. The vehicle and pedestrian barrier is combined into one (1) element at the outer edge of the bridge. The barrier is a modified standard IDOT design that is adjusted to be the pedestrian barrier as well. The barrier is galvanized steel in place of a typical concrete, allowing for a better view of the river for pedestrians. Roadway lighting will utilize standard MidAmerican fixtures; pedestrian lighting will be integrated into the railing. A third type of lighting along the length of the bridge will highlight the scallops at night. The exterior of the bridge is made of painted metal panels (galvanized steel or aluminum) that create a 'scalloped' effect on both the north and south side of the bridge. The scalloped edge will mask the standard IDOT concrete beams that will form the superstructure of the bridge.

PREVIOUS COUNCIL ACTION(S):

Date: April 6, 2015

Roll Call Number: [15-0572](#)

Action: [Approving](#) revised design concept for Grand Avenue Bridge over Des Moines River. ([Council Communication No. 15-173](#)) Moved by Mahaffey to adopt. Motion Carried 6-1.

Date: January 27, 2014

Roll Call Number: [14-0117](#)

Action: [Approving](#) Professional Services Agreement with Shuck-Britson, Inc. for Design and Construction Phase Services for the Grand Avenue over Des Moines River Bridge Replacement, not to exceed \$626,169. ([Council Communication No. 14-019](#)) Moved by Mahaffey to adopt. Motion Carried 5-2.

Date: May 6, 2013

Roll Call Number: [13-0697](#)

Action: [Approving](#) Professional Services Agreement with Shuck-Britson, Inc. for evaluation, design, and construction phase services for the Grand Avenue over Des Moines River Bridge Rehabilitation, not to exceed \$273,947. ([Council Communication No. 13-216](#)) Moved by Mahaffey to adopt. Motion Carried 7-0.

BOARD/COMMISSION ACTION(S):

Board: Urban Design Review Board

Date: August 4, 2015

Action: The design team described their assessment, based on consolidating the aesthetic review committee's input and further refining their design concept on the metal panel arch "scallop". Discussion was had on the metal panel material options and the development of the bridge railing, among other concerns regarding the geometric configuration of the traffic lanes, sidewalks, parking, etc. Additional discussion was on whether the proposed project qualifies for funding from tax increment.

- Motion passed to "Approve the design subject to evaluation of the lane configurations on the bridge after the walkability study is complete."
- Motion passed to "Approved the use of TIF."

Board: Urban Design Review Board

Date: April 15, 2014

Action: The Board was asked to make an initial recommendation to City Council regarding the alternatives for the Grand Avenue Bridge Replacement. Board comments received were that the options presented do not reflect today's technologies and ability to create material details. As design develops, explore the quest for arches within the processes, materials and technologies available now; do not attempt to recreate and veneer the details from 100 years ago. The new bridge should be a reflection of the historical context and today's structures and aesthetics. Maintain the public discourse; the bridges are significant pieces of public infrastructure and this bridge will set a precedent for work on the other bridges.

ANTICIPATED ACTIONS AND FUTURE COMMITMENTS:

Normal actions for award of the construction contract for the work.

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