


# COUNCIL COMMUNICATION

 CITY OF DES MOINES OFFICE OF THE CITY MANAGER	Number:	<b>23-532</b>	Meeting:	<b>December 4, 2023</b>
	Agenda Item:	<b>7B</b>	Roll Call:	<b>23-1678</b>
	Submitted by:	<b>Steven L. Naber, P.E., City Engineer</b>		

## AGENDA HEADING:

Ordering construction of the following: Walnut Street Bridge Replacement over the Des Moines River - Receiving bids (12-19-23) and Setting date of hearing (1-8-24). (Construction Estimate-\$19,846,988.10).

## SYNOPSIS:

Recommend the City Council order construction of the improvement and set dates to receive bids and hold a public hearing, as required by Iowa Code, utilizing the method of financing referenced below. This project provides for the replacement of the structurally deficient bridge on Walnut Street over Des Moines River, which was originally built in 1911 and rehabilitated in 1966. The existing six (6)-span bridge is being replaced with a new concrete beam four (4)-span bridge featuring standard bridge construction with an aesthetic metal panel facade, pedestrian railing, and LED lighting. The new bridge will maintain one (1) east bound lane, one (1) west bound lane, parallel parking on the south side, back-in angle parking along the north side, five (5)-foot-wide painted bike lanes, and 10-foot-wide sidewalks. This project also includes removal and replacement of the east riverwall with new balustrade railing between Walnut Avenue and Court Avenue.

## FISCAL IMPACT:

Amount: \$19,846,988.10 City Engineer's Estimate

Funding Source: 2023-2024 Capital Improvement Program (CIP), Page 26, Walnut Street Bridge over the Des Moines River, BR059, Being: \$3,400,000 in Federal Surface Transportation Block Grant (STBG) funds being 80% of eligible construction costs (\$3,400,000 maximum) under STP-U-1945 (858)--SG-77; \$296,595 from various Utility Companies for conduit installations; \$16,150,393.10 TIF Bonds and Gaming Monies

## ADDITIONAL INFORMATION:

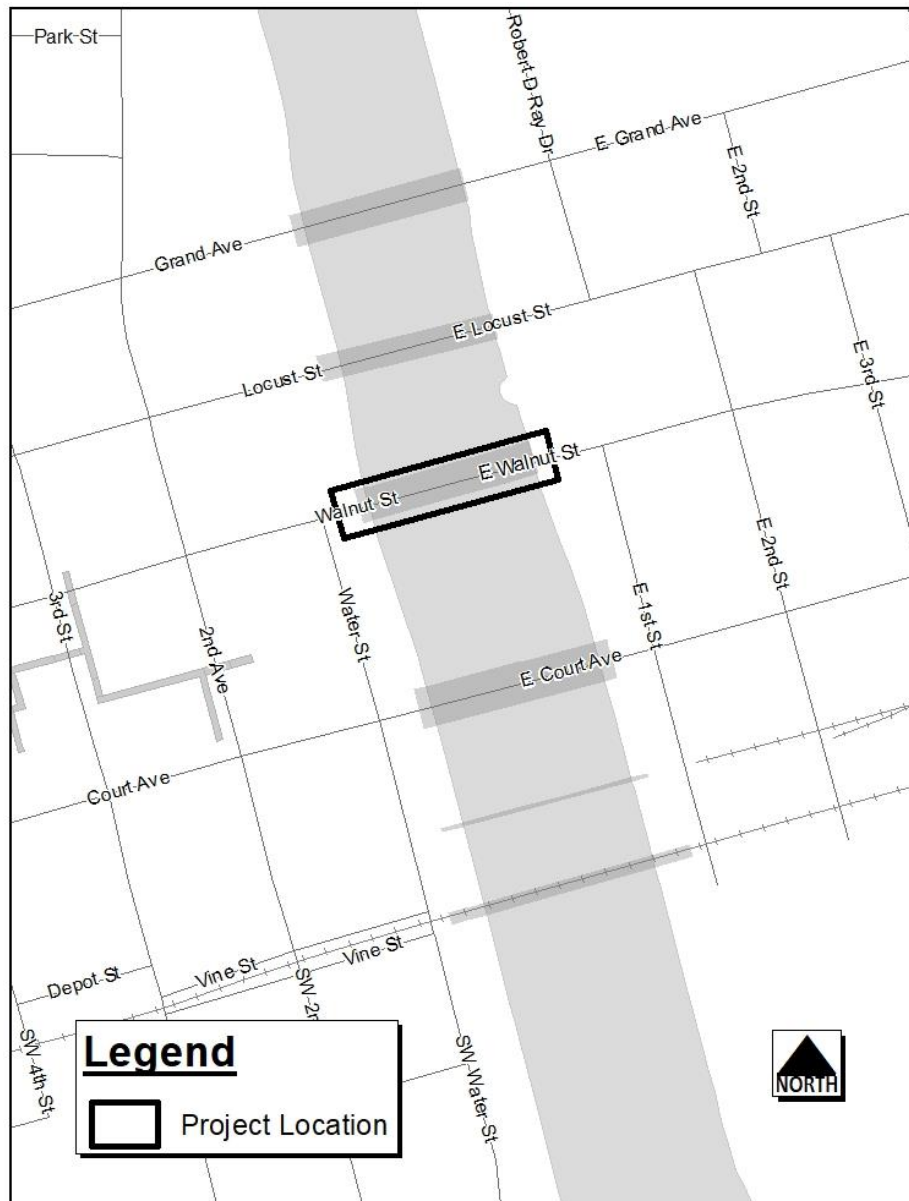
- The Engineering Department has prepared plans, specifications, form of contract documents, and City Engineer's estimate for the construction of the Walnut Street Bridge Replacement over the Des Moines River, Activity ID 12-2020-002. The improvement includes removal of the existing bridge and substructure, construction of a new pretensioned prestressed concrete beam bridge on concrete pier and drilled shaft pier foundations with integral abutments on driven steel piling, raised concrete sidewalks, pedestrian railing and aesthetic metal panel facade, aesthetic LED lighting, pavement removal, new bridge approach pavement, sidewalk removal and replacement, east riverwall removal and replacement with new balustrade railing, steel sheet pile and scour

protection, erosion control, seeding and sodding, traffic control, pavement markings, and mobilization, all in accordance with the contract documents including Plan File No. 644-001/162, located on Walnut Street over the Des Moines River between Water Street and East 1st Street.

- The estimated construction cost is \$19,846,988.10. The proposed plans, specifications, and form of contract documents are available for public inspection in the Des Moines City Engineer's Office.
- The Walnut Street Bridge over Des Moines River was constructed in 1911. The bridge is a six (6)-span, 450-foot long closed-spandrel arch bridge, supported on concrete piers and abutments on timber piles. The bridge features a roadway width of 58' - 6" that carries one (1) lane of traffic in each direction, eight (8)-foot-wide sidewalks on both sides, and 88 free back-in-angle on-street parking spaces. Significant rehabilitation of the bridge was done in 1966 and minor repairs were completed in 1990.
- As required by Federal law, the bridge is inspected in accordance with the National Bridge Inspection Standards every two (2) years, and based on recent inspections, the bridge is considered to be in "Poor" condition.
- On January 27, 2014, by Roll Call No. 14-0116, City Council approved a Professional Services Agreement with Shuck-Britson, Inc., for the Des Moines River Downtown Bridges Evaluation, for an amount not to exceed \$171,397, which included an in-depth evaluation of the Locust Street, Walnut Street, and Court Avenue Bridges. Via a life-cycle cost analysis of rehabilitation versus replacement options for the Walnut Street Bridge, the replacement option was determined to have the lowest life-cycle cost.
- On April 6, 2015, by Roll Call No. 15-0572, City Council approved the revised design concept for the Grand Avenue Bridge Replacement to proceed with the "metal panel scallop" design concept. This same design concept was also used on the Locust Street Bridge Replacement completed in 2021. The Walnut Street Bridge replacement is designed to utilize the same aesthetic design as the Grand Avenue and Locust Street Bridges.
- On November 19, 2018, by Roll Call No. 18-1894, City Council authorized the submittal of Federal STBG FY2023 Applications to the Des Moines Area Metropolitan Planning Organization, which included an application for additional funding for the Walnut Street Bridge Replacement. The City was awarded an additional \$1,400,000 in STBG Funds, providing a total of \$3,400,000 in STBG Funds for the Walnut Street Bridge Replacement project.
- On October 14, 2019, by Roll Call No. 19-1574, City Council approved a Professional Services Agreement (PSA) with Shuck-Britson, Inc. for an amount not to exceed \$1,188,126, for preliminary design, final design, and construction phase services for the complete bridge replacement, including improvements to the Simon Estes amphitheater vertical access lift and repairs to the Des Moines River's east river wall.
- On July 19, 2021, by Roll Call No. 21-1088, City Council approved and authorized the execution of the Iowa Department of Transportation (IDOT) Agreement for the Walnut Street Bridge Replacement for \$3,400,000 in STBG Federal-aid Swap funds.
- Due to the implementation of the Infrastructure Investment and Jobs Act (IIJA), the IDOT requires that the City of Des Moines convert the Federal-aid Swap funds for this project to Federal-aid

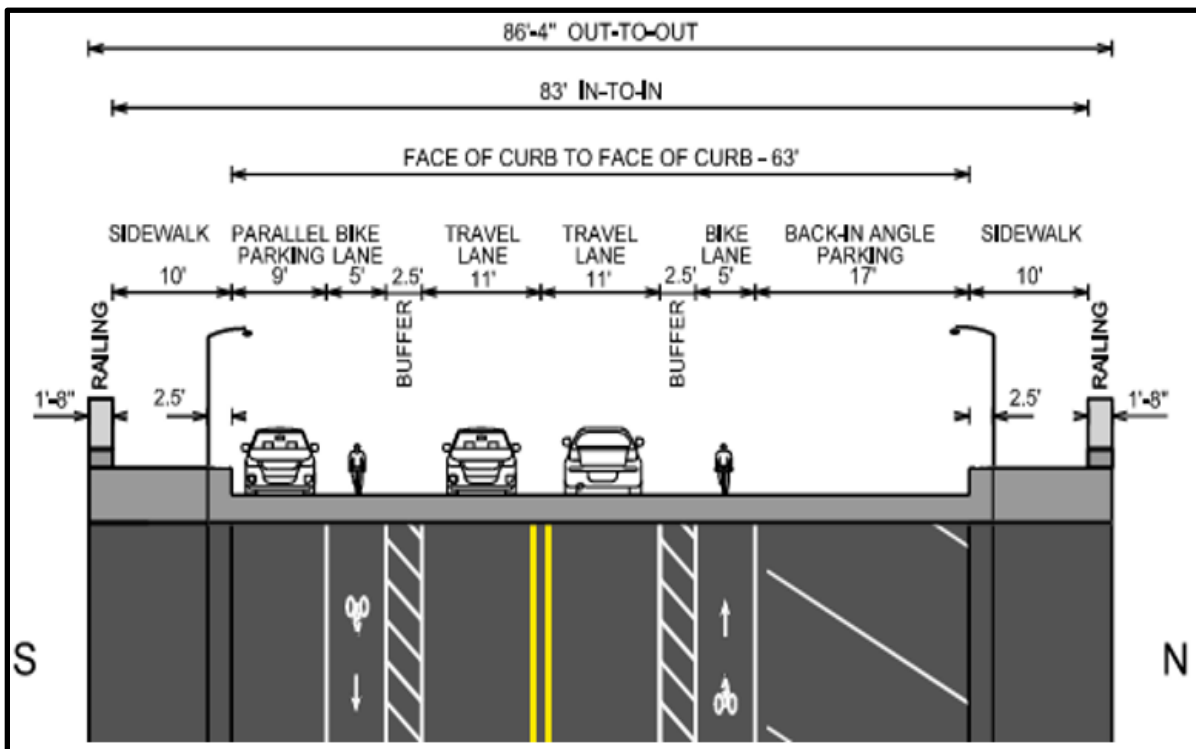
funds. The new IDOT Agreement No. 1-22-STPU-041 rescinds the previously approved IDOT Agreement No. 1-21-STBG-SWAP-016.

- On August 7, 2023, by Roll Call No. 23-1067, City Council approved and authorized the execution of IDOT Agreement No. 1-22-STPU-041 for the Walnut Street Bridge Replacement over the Des Moines River, which rescinds IDOT Agreement No. 1-21-STBG-SWAP-016.
- The Engineering Department has collaborated with the Parks and Recreation Department to review detour routes for the extended closure of the Principal Riverwalk and John Pat Dorian Trail due to bridge construction. Detour routes will accommodate all user groups of the multi-use trails.
- Construction of this project is anticipated to begin in Spring 2024 and be completed by fall 2026.





**Above Image: Rendering of Walnut Street Bridge Replacement Design**



**Above Image: Proposed Cross Section with Walnut Street Bridge Replacement**

**PREVIOUS COUNCIL ACTION(S):**

Date: August 7, 2023

Roll Call Number: [23-1067](#)

Action: [Approving](#) and authorizing the execution of IDOT Agreement No. 1-22-STPU-041 for the Walnut Street Bridge Replacement over the Des Moines River, which rescinds IDOT Agreement No. 1-21-STBG-SWAP-016. ([Council Communication No. 23-372](#)) Moved by Gatto to adopt. Second by Boesen. Motion Carried 4-2-1. Nays: Mandelbaum, Voss. Absent: Sheumaker.

**BOARD/COMMISSION ACTION(S):**

Board: Urban Design Review Board

Date: May 19, 2020

Resolution Number: E

Action: Approval of Design.

**ANTICIPATED ACTIONS AND FUTURE COMMITMENTS:**

Anticipated actions include public hearing, receive and file bids, designate lowest bidder, and approve contract and bond; also partial payments to the contractor and final acceptance of work.

For more information on this and other agenda items, please call the City Clerk's Office at 515-283-4209 or visit the Clerk's Office on the first floor of City Hall, 400 Robert D Ray Drive. Council agendas are available to the public at the City Clerk's Office on Thursday afternoon preceding Monday's Council meeting. Citizens can also request to receive meeting notices and agendas by email by calling the Clerk's Office or sending their request via email to [cityclerk@dmgov.org](mailto:cityclerk@dmgov.org).