


COUNCIL COMMUNICATION

 CITY OF DES MOINES OFFICE OF THE CITY MANAGER	Number:	23-564	Meeting:	December 18, 2023
	Agenda Item:	6	Roll Call:	23-1738
	Submitted by:	Steven L. Naber, P.E., City Engineer and Benjamin R. Page, Park and Recreation Director		

AGENDA HEADING:

Authorizing submittal of Federal Surface Transportation Block Grant (STBG) Program and Surface Transportation Block Grant Set-Aside Program Fiscal Year (FY) 2028 applications to the Des Moines Area Metropolitan Planning Organization (MPO).

SYNOPSIS:

The MPO is currently soliciting project applications for STBG and STBG Set-aside funds for Federal FY 2028. City staff recommend submitting applications for the following projects:

STBG Funds:

1. East Army Post Road Improvements – Southeast 14th Street to Indianola Avenue
2. Fleur Drive Bridge over the Raccoon River Rehabilitation
3. Intelligent Transportation Systems Upgrade

STBG Set-aside Funds:

1. Central Place Levee Trail Phase 2
2. 6th Avenue Improvements – Hickman Road to Euclid Avenue

FISCAL IMPACT:

Amount: Local matching funds for the following projects are included in the 2023-2024/2025-2027 Capital Improvement Program (CIP) or will be included in future CIPs if the applications are successful.

Funding Source:

STBG Funds:

1. East Army Post Road Improvements – Southeast 14th Street to Indianola Avenue

FY 2028 STBG Funds Request	\$ 2,900,000
FY 2027 STBG Funds Received	\$ 2,600,000
Anticipated City Funds	\$ 6,500,000
<i>(2023-2024 CIP, Page 142, E. Army Post Road SE 14th to SE 36th Corridor, ST293)</i>	
Total Estimated Construction Cost	\$12,000,000

2. Fleur Drive Bridge over the Raccoon River Rehabilitation

FY 2028 STBG Funds Request	\$ 2,100,000
FY 2024 STBG Funds Received (rolled to FY 2025)	\$ 1,000,000
FY 2025 STBG Funds Received	\$ 1,000,000
Anticipated City Funds	\$ 3,900,000
<i>(2023-2024 CIP, Page 28, Fleur Drive Bridge over Raccoon River, BR063)</i>	
Total Estimated Construction Cost	\$ 8,000,000

3. Intelligent Transportation Systems Upgrade

FY 2028 STBG Funds Request for Phase 8	\$ 1,000,000
STBG Funds Previously Received	\$ 4,500,000
FY 2022 \$ 500,000 STBG for Phase 2	
FY 2023 \$ 500,000 STBG for Phase 3	
FY 2024 \$ 500,000 STBG for Phase 4	
FY 2025 \$ 500,000 STBG for Phase 5	
FY 2026 \$1,500,000 STBG for Phase 6	
FY 2027 \$1,000,000 STBG for Phase 7	
Anticipated City Funds	\$1,000,000 to \$1,500,000 per year
<i>(2023-2024 CIP, Page 178, Traffic System Operation Improvements, TR097)</i>	
Total Estimated Construction Cost	\$12,500,000

STBG Set-aside Funds:

1. Central Place Levee Trail Phase 2

FY 2028 TAP Funds Request	\$ 500,000
FY 2025 TAP Funds Awarded (rolled to FY2026)	\$ 300,000
FY 2026 TAP Funds Awarded	\$ 500,000
FY 2024 Federal Recreational Trail Program Funds Awarded	\$ 300,000
Broadlawns Medical Center Secured Private Donation	\$ 150,000
Friends of Des Moines Parks Secured Private Donation	\$ 5,000
Anticipated 2024 Iowa Department of Natural Resources (IDNR) Resource Enhancement and Protection	\$ 300,000
Anticipated FY 2025 State Recreational Trail Program Funds	\$ 300,000
Anticipated FY 2027 Water Quality Grants (Wright & WQI)	\$ 115,000
Anticipated City Funds	\$ 830,000
<i>(2023-2024 CIP, Page 93, Central Place Levee Trail, PK193)</i>	
Total Project Cost	\$ 3,300,000

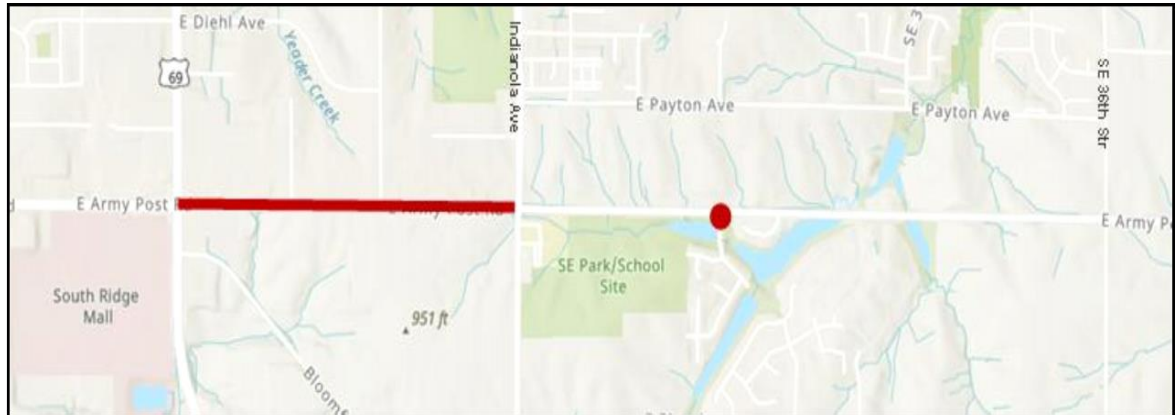
2. 6th Avenue Improvements – Hickman Road to Euclid Avenue

FY 2028 TAP Funds Request	\$ 500,000
Anticipated City Funds	\$ 500,000
<i>(2023-2024 CIP, Page 150, 6th Ave. Lane Reconfiguration – Hickman to Euclid, ST301)</i>	
Total Project Cost	\$ 1,000,000

ADDITIONAL INFORMATION:

- The MPO will award STBG and STBG Set-aside Program funds to transportation projects throughout the region. The STBG Set-aside Program is formerly known as the Transportation Alternatives Program (TAP).
- The MPO is currently soliciting project applications for STBG and STBG Set-aside for Federal FY 2028. The STBG and STBG Set-aside applications must be submitted to the MPO by January 5, 2024. Each year, approximately \$13 million is available in STBG funding and approximately \$1.2 million is available in STBG Set-aside funding for the Greater Des Moines region.
- The MPO is considering five (5) major categories of STBG projects:
 - Roadway Projects/System Capacity
 - Major Reconstruction/Replacement
 - System Optimization
 - Bridge Program
 - Transit
- STBG Project Applications - Staff reviewed potential STBG eligible projects and recommends submitting applications for the following projects for FY 2028 funding:
 1. East Army Post Road Improvements – Southeast 14th Street to Indianola Avenue
 - In 2022, a traffic study was completed for the East Army Post Road corridor from Southeast 14th Street to the east corporate limits. The purpose of the study was to evaluate existing and proposed conditions along the corridor and recommend improvements to address traffic safety and future development. The study showed that over 200 crashes occurred on the entire study corridor over a five (5)-year period, with the segment between Southeast 14th Street and Indianola Avenue experiencing a crash rate 30% higher than the statewide average for similar corridors.
 - East Army Post Road, east of Southeast 14th Street, is a two (2)-lane roadway with a rural cross section and no pedestrian or bicycle facilities.
 - While improvements are recommended for the entire corridor between Southeast 14th Street and the east corporate limits, based on the high crash rate, existing commercial development and planned Exodus development in this area, Engineering staff recommends phasing improvements beginning with the section between Southeast 14th Street and Indianola Avenue. Proposed improvements include reconstruction of the roadway to a three (3)-lane, urban cross-section, storm sewer, construction of a shared-use path on the north side, filling in sidewalk gaps on the south side, and medians for access management where possible.
 - Staff also recommend including the proposed roundabout at the intersection with Three Lakes Parkway to coincide with the planned roundabout at SE 36th Street and East Army Post Road.
 - The total estimated construction cost for this project is \$12,000,000.

- The City has received \$2,600,000 in FY 2027 STBG funding for this project.
- City staff recommend applying for an additional \$2,900,000 in STBG funding for this project. If awarded, this will provide a total of \$5,500,000 in federal funding for this project.



2. Fleur Drive Bridge over the Raccoon River Rehabilitation

- The Fleur Drive Bridge over Raccoon River was constructed in 1936, rehabilitated and widened in 1970, and rehabilitated and repaired in 1990 and 2008.
- During the 2017 biennial inspections, the Fleur Drive Bridge over Raccoon River was downgraded to be classified as structurally deficient, primarily to continued concrete deterioration. Additionally, newer rating analysis indicates possible rating capacity issues in the north and south end spans. The rating capacity will be further analyzed, and additional feasibility level analysis will be done concurrently evaluating strengthening and rehabilitation options.
- The bridge is approximately 947 feet long from west abutment to east abutment, spanning the Raccoon River and three (3) sets of railroad tracks.
- The bridge carries two (2) lanes of traffic in each direction separated by a four (4)-foot wide median, and has five (5)-foot sidewalks on each side. The southbound traffic tapers into one (1) lane near the south end of the bridge, and the northbound traffic enters the bridge from a single lane ramp. The bridge also supports two (2), 30-inch diameter water mains and a 12" diameter gas main under the bridge deck.
- With the bridge only carrying 6,100 vehicles per day (Iowa Department of Transportation {IDOT} 2016 traffic count), City staff recommend modifying the bridge to provide one (1) lane in each direction. With this roadway being on the Core Bicycle Network per MoveDSM, City staff also recommend modifying the bridge to provide wider sidewalks and accommodate a bicycle facility on one (1) side of the bridge.
- The City has received \$2,000,000 in STBG funds (\$1,000,000 in FY 2024 funds and \$1,000,000 in FY 2025 funds).
- The cost estimate to rehabilitate the Fleur Drive Bridge over Raccoon River and make geometric changes to the bridge is \$8,000,000.

- City staff recommend applying for an additional \$2,100,000 in FY 2028 STBG funds. If awarded, this will provide a total of \$4,100,000 in federal funding for this project.

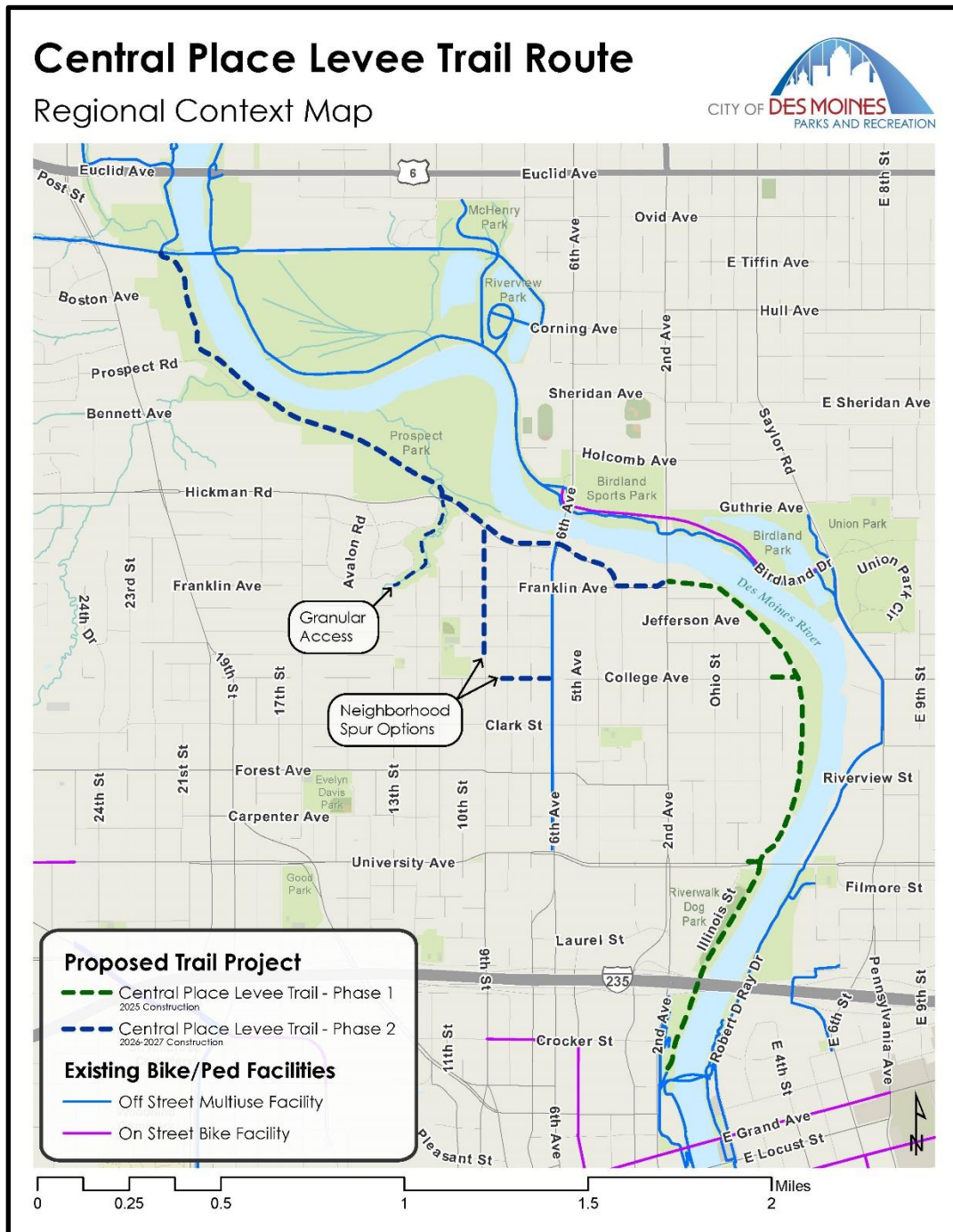
3. Intelligent Transportation Systems (ITS) Upgrade

- The City of Des Moines ITS Master Plan Report was completed and adopted by the City Council on November 19, 2018, by Roll Call No. 18-1895. The City has an eight (8)-phase implementation plan to upgrade of the City's ITS systems (traffic signals, communication network, video camera observation system, central management software, etc.), which will enable the City to actively manage traffic during peak travel times, special events, construction detours, and emergency situations. This capability will provide safer and more efficient travel for people throughout the region as they travel to, from, or within Des Moines.
- This project consists of updating the City's traffic signal controllers, central management software, transportation communication system, and video observation camera system. The total estimated project cost is \$12.5 million. The City plans to request \$1,000,000 in FY 2028 funds for Upgrade Phase 8. Previously, STP funds in the amounts of \$500,000 (FY 2022 – Phase 2), \$500,000 (FY 2023 – Phase 3), \$500,000 (FY 2024 – Phase 4), \$500,000 (FY 2025 – Phase 5), \$1,500,000 (FY 2026 – Phase 6), and \$1,000,000 (FY 2027 – Phase 7) were awarded. Phase 1 construction was substantially completed in 2021. Phase 2 construction was completed in spring 2023. Phase 3 construction is underway and scheduled to be completed in spring 2024. Phase 4 construction is anticipated to start in the spring 2024.

- STBG Set-aside Project Applications - Staff reviewed several potential STBG Set-aside projects and recommends the following project be submitted for FY 2028 STBG Set-aside funding:

1. Central Place Levee Trail Phase 2

- Informed by LiveDSM, the Parks and Recreation Department's comprehensive plan, and the Future Core Bike Network from MoveDSM, the City of Des Moines' Transportation Master Plan, the Central Place Levee Trail Phase 2 is an equity-focused project that will serve an area of the City experiencing among the highest degrees of disadvantage across the City per the MPO's 2021 Environmental Justice Area mapping and analysis.
- The Central Place Levee Trail Phase 2 project includes constructing approximately 2.1-miles of new multi-use trail section along the west bank of the Des Moines River and City right-of-way between the intersection of 2nd Avenue and Franklin Avenue and the intersection of the Inter-Urban and Trestle to Trestle multi-use trails. The new trail spine will be a 10-foot-wide concrete section, approximately 1.8-miles in length. An approximate 0.3-miles long neighborhood service trail spur will be an 8-foot-wide concrete section. The project is also expected to include street tree plantings and associated water quality improvements. The project is currently estimated to cost \$3,300,000. The City plans to request \$500,000 in FY 2028 STBG Set-aside funds.



2. 6th Avenue Improvements – Hickman Road to Euclid Avenue

- In 2023, a traffic study was completed for the 6th Avenue corridor from Hickman Road to Euclid Avenue. Over the past several years, the City has invested in an extensive streetscape project on 6th Avenue from Hickman Road to the south. A component of the 6th Avenue Streetscape included an eight (8)-foot-wide sidepath on the west side of the street. North of Hickman Road, 6th Avenue is currently a five (5)-lane street with narrow sidewalks. The purpose of the study was to determine the feasibility of a “road diet” to reduce the street cross-section to three (3) lanes of traffic and to develop a concept plan that includes a new bicycle facility.

- The study showed that 6th Avenue can be reduced from five (5) lanes to three (3) lanes. The study recommended that the improvements be divided into near-term and ultimate, long-term improvements.
- The near-term improvements include converting 6th Avenue to a three (3)-lane roadway with a two (2)-way cycle track on the west side from Hickman Road to Corning Avenue. From Corning Avenue to Euclide Avenue, the street will include three (3) lanes with buffered bike lane on each side of the street. The near-term improvements also include a pedestrian crosswalk at 6th Avenue and Corning Avenue with a rectangular rapid flashing beacon (RRFB) and the consolidation of several redundant driveways to reduce conflict points.
- The existing barrier rail on the west side of the 6th Avenue bridge over the Des Moines River will be removed and rebuilt to accommodate the proposed lane reduction and bicycle facility.
- The ultimate, long-term corridor improvements include full reconstruction of the street, moving the existing curbs in and building a protected bicycle facility. The estimated cost of these improvements is \$4 million. The reconstruction work is currently not programmed or funded in the Capital Improvement Program.
- The total estimated construction cost for this project (near-term improvements) is \$1,000,000. City staff recommend applying for \$500,000 in FY 2028 STBG Set-aside funding to construct the recommended near-term improvements.

PREVIOUS COUNCIL ACTION(S):

Date: December 12, 2022

Roll Call Number: [22-1859](#)

Action: [Submittal](#) of STBG Program FY 2027 applications to the MPO. ([Council Communication No. 22-569](#)) Moved by Gatto to adopt. Second by Voss. Motion Carried 7-0.

BOARD/COMMISSION ACTION(S): NONE**ANTICIPATED ACTIONS AND FUTURE COMMITMENTS:**

Approval of project agreements with the IDOT.

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.