

Memorandum



CITY OF DALLAS

DATE April 5, 2019

TO Honorable Members of the Mobility Solutions, Infrastructure and Sustainability Committee

SUBJECT **April 10, 2019 City Council Agenda Item #49 - Margaret McDermott Bridge Status Update**

The City of Dallas began visioning and planning for signature bridges crossing the Trinity River in the early 2000s as a result of the Major Investment Study for Transportation. Following this study, private, regional, and federal funding was secured to construct one bridge and reconstruct two others, including the Interstate 30 (IH30) bridge. In September 2007 (Texas State House Bill 1947), the portion of IH30 connecting the east and west levees was renamed the Margaret McDermott Bridge. Due to increasing maintenance costs of the Margaret McDermott and IH35 bridges, funding was advanced and project delivery schedules were accelerated in 2011.

The estimated cost of the McDermott Bridge and new federal requirements for additional design modifications resulted in a new strategy whereby the Texas Department of Transportation (TxDOT) designed the vehicular components of the bridge and the City would be responsible for the design of the pedestrian and bicycle components of the bridge. The City Council was briefed on design changes to the McDermott Bridge in April 2011, and work proceeded to complete the procurement of a design-build contract. A new design was completed in 2012 to meet the schedule of construction of the pedestrian and bicycle components of the bridge. This design was incorporated into the TxDOT design-build contract for "The Horseshoe Project" that would construct the Margaret McDermott Bridge and the IH35 Bridge. Construction on the Margaret McDermott Bridge began in Spring 2013. Prior to completion of the Margaret McDermott Bridge, the cables experienced vibration that was unaccounted for in the design. TxDOT, the City, and its design team initiated work to address the vibration and performed testing in the field and the lab that ultimately resulted in the Engineer of Record recommending a change with respect to the anchor rod system. Attached is a picture from the field for reference.

The replacement of the system has been priced and a preliminary schedule has been developed by the contractor for The Horseshoe Project. The price is \$7,091,013 and the schedule estimates a total time of 34 months to complete testing, fabrication and installation. Upon completion of the testing phase, which is estimated to last approximately six months, a more detailed schedule will be provided to Council and work may proceed more quickly than currently estimated. The funding for this project is derived from the original sale of land and easements necessary for the project. The City continues to reserve its right to seek legal remedies in the future but should proceed with the solution proposed by the design team in order to retain the current contractor and ensure opening of the pedestrian and bicycle components of the Margaret McDermott

Bridge. The attached agenda item for consideration on the April 10, 2019 City Council Agenda provides additional details regarding funding, estimated schedule and, if approved, will be provided to TxDOT to incorporate into the contract for construction.

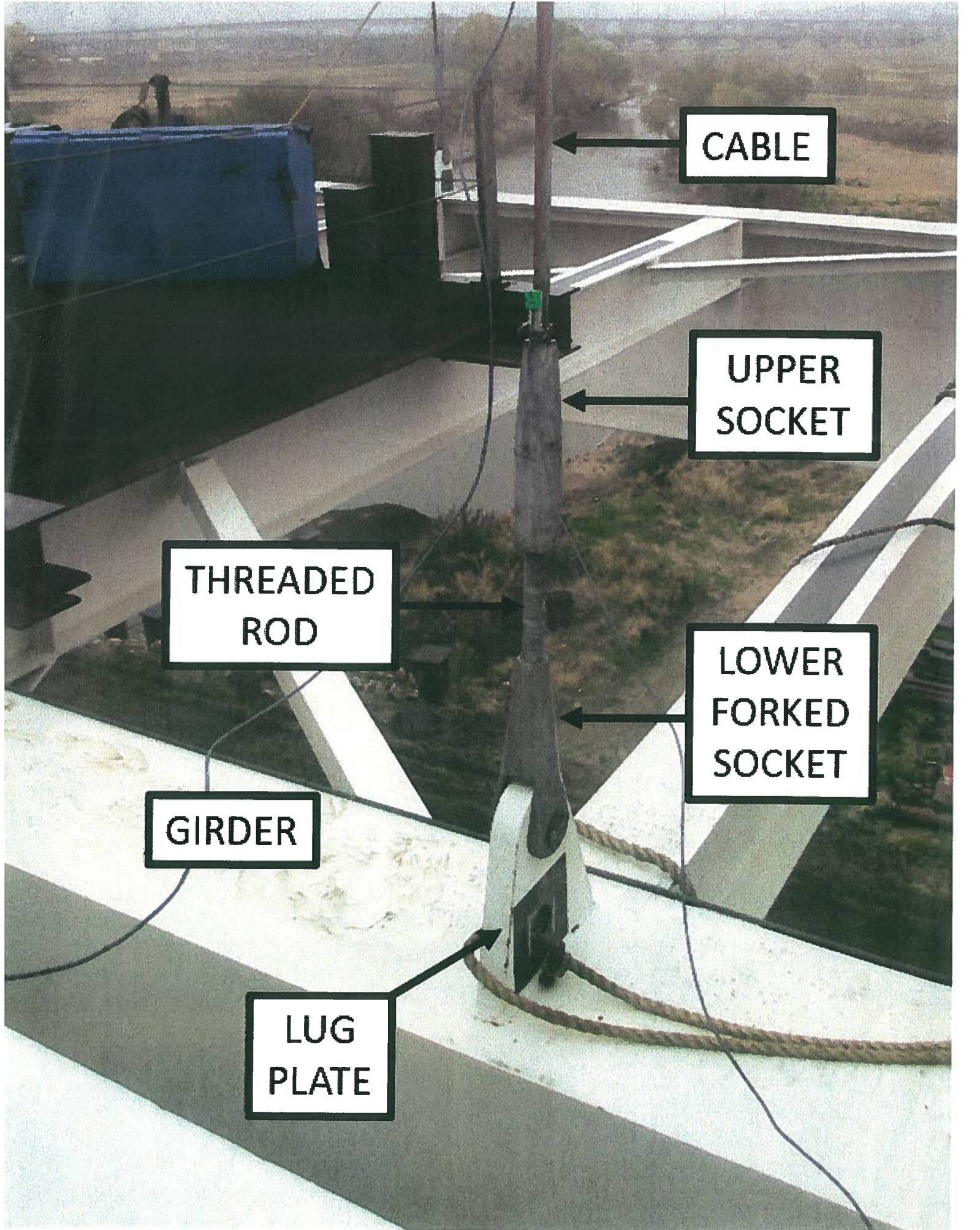


Majed A. Al-Ghafry, P.E.
Assistant City Manager

[Attachments]

c: Honorable Mayor and Members of the City Council
T.C. Broadnax, City Manager
Chris Caso, City Attorney (Interim)
Carol A. Smith, City Auditor (Interim)
Biliera Johnson, City Secretary
Preston Robinson, Administrative Judge
Kimberly Bizer Tolbert, Chief of Staff to the City Manager

Jon Fortune, Assistant City Manager
Joey Zapata, Assistant City Manager
Nadia Chandler Hardy, Assistant City Manager and Chief Resilience Officer
M. Elizabeth Reich, Chief Financial Officer
Laila Alequresh, Chief Innovation Officer
Directors and Assistant Directors



CABLE

UPPER
SOCKET

THREADED
ROD

LOWER
FORKED
SOCKET

GIRDER

LUG
PLATE



Agenda Information Sheet

File #: 19-386

Item #: 49.

STRATEGIC PRIORITY: Mobility Solutions, Infrastructure, and Sustainability

AGENDA DATE: April 10, 2019

COUNCIL DISTRICT(S): 1, 6

DEPARTMENT: Water Utilities Department

EXECUTIVE: Majed Al-Ghafry

SUBJECT

Authorize the **(1)** establishment of appropriations in the amount of \$7,091,014.00 in the IH30 Construction Fund; **(2)** transfer of funds in the amount up to \$7,091,014.00 from the General Capital Reserve Fund to the IH30 Construction Fund; and **(3)** payment to Texas Department of Transportation for additional costs associated with the construction of the bicycle and pedestrian components of the Margaret McDermott (IH30) Bridge over the Trinity Floodway in an amount up to \$7,094,014.00 - Financing: IH30 Construction Fund

BACKGROUND

Since the early 1990's, the Trinity River Corridor Project has been discussed with the community at large. Thousands of participants have contributed to the overall plan which includes flood protection, recreation, transportation, ecosystem restoration and economic development. Signature bridges have been considered a critical component of both the transportation and economic development initiatives. The City worked with Santiago Calatrava, LLC as a part of the 1998 Bond Program to design signature bridge components for the Trinity River Corridor Project. The first Calatrava bridge is the Margaret Hunt Hill Bridge which was completed in 2012. The Margaret McDermott (IH30) Bridge is the second Calatrava designed bridge crossing The Trinity.

The Texas Department of Transportation (TxDOT) is responsible for the construction of the Margaret McDermott Bridge (IH30) and the project has been included into the Horseshoe Project. The Horseshoe Project's scope entails the reconstruction of the Margaret McDermott (IH30) and Interstate Highway 35 bridges across the Trinity River Floodway and the connecting freeway segment locally known as the downtown "mixmaster". Design of the signature bridges was completed in August 2012.

TxDOT awarded the Horseshoe Design-Build contract to Pegasus Link Constructors (PLC) on November 15, 2012. The actual bids for the IH30 signature bridges came in at \$114,987,000.00. However, due to several value engineering strategies, the costs have been reduced to a total of \$112,518,433.71 which has been made available for the construction of the signature bridges

including \$91,353,860.00 in federal funding, \$11,633,140.00 in Regional Transportation Council funding, and \$9,531,433.71 in City and private funding.

To address the fatigue issue associated with the constructed cable anchorage assemblies, the Engineer of Record recommended two options. Option 1 entails retrofitting the lower cable anchorage assembly with a new lower socket and a larger anchor rod. Option 2 entails replacing all cables including a new lower cable anchorage assembly with a larger anchor rod. Both options call for additional cable dampers. TxDOT provided a cost estimate in the amount of \$7,091,013.05 for Option 2 which involves fabricating and testing new lower cable anchorage assemblies, replacing all existing cables, and installing additional cable dampers. Included in this cost are frontage road lane closures and additional contractor's bonding and insurance costs as the engineering solution was being investigated and developed.

TxDOT anticipates completing the full cable replacements within approximately 34 months from the date of authorizing the change order. TxDOT's contractor was unable to price retrofit Option 1 due to a level of uncertainty of fabrication engineering and non-standard components.

Funding for the full cable replacements will be from the original sale of land and easements associated with this project. Per the City's Local Project Advance Funding Agreement with TxDOT, the City is responsible for construction cost overruns.

This action will authorize a payment to TxDOT for the City's share of additional construction costs in an amount not to exceed \$7,091,013.05.

ESTIMATED SCHEDULE OF PROJECT

Began Design	June 2011
Completed Design	January 2013
Began Construction	April 2013
Complete Construction	April 2022

PRIOR ACTION/REVIEW (COUNCIL, BOARDS, COMMISSIONS)

On June 23, 1999, City Council authorized support of the concept of signature bridges by Resolution No. 99-2138.

On April 5, 2011, the Trinity River Corridor Project Committee was briefed and recommended the IH30 Bridge Possible New Strategy and contract for Santiago Calatrava, LLC be moved forward to full Council for approval.

On April 13, 2011, City Council authorized a professional services contract with Santiago Calatrava, LLC for engineering and design services for IH30 Bridge Pedestrian and Bicycle Components by Resolution No. 11-1004.

On June 27, 2012, City Council authorized an Interlocal Agreement with the Texas Department of Transportation to establish responsibilities for construction funding for the bicycle and pedestrian components for the Margaret McDermott (IH30) Bridge over the Trinity River by Resolution No. 12-1739.

On January 14, 2013, the Trinity River Corridor Project Committee was briefed on the Margaret McDermott Bridge Update.

On January 23, 2013, City Council authorized payment to the Texas Department of Transportation in the amount of \$8,438,228 for the City's construction funding responsibilities for the bicycle and pedestrian components of the Margaret McDermott (IH30) Bridge over the Trinity Floodway by Resolution No. 13-0250.

On January 23, 2013, City Council authorized a Project Specific Agreement with Dallas County for funding participation for design and construction of IH30 bicycle and pedestrian connections between Riverfront Boulevard and Beckley Avenue, including the Margaret McDermott (IH30) Bicycle and Pedestrian Bridges over the Trinity River Floodway by Resolution No. 13-0251.

On February 22, 2016, the Transportation and Trinity River Project Committee was briefed on the Margaret McDermott Bridge.

On June 22, 2016, City Council authorized payment to the Texas Department of Transportation for additional costs associated with the construction of the bicycle and pedestrian components of the Margaret McDermott (IH30) Bridge over the Trinity Floodway by Resolution No. 16-1082.

On April 12, 2017, City Council authorized (1) the receipt and deposit of funds from the Trinity Trust Foundation in support of the Margaret McDermott (IH30) Bridge over the Trinity Floodway; (2) Supplemental Agreement No. 3 to decrease the value of the professional services contract with Santiago Calatrava, LLC for the Margaret McDermott (IH30) Bridge over the Trinity Floodway; (3) an increase in appropriations in the IH30 Bridge Donation Fund; and (4) payment to the Texas Department of Transportation, for additional costs associated with the construction of the bicycle and pedestrian components of the Margaret McDermott (IH30) Bridge over the Trinity Floodway by Resolution No. 17-0615.

City Council was briefed on the Margaret McDermott Bridge on May 4, 2018.

City Council was briefed on the Margaret McDermott Bridge on June 29, 2018.

The Mobility Solutions, Infrastructure & Sustainability Committee was briefed on the Margaret McDermott Bridge on August 13, 2018.

City Council was briefed on the Margaret McDermott Bridge on October 26, 2018.

Information about this item will be provided to the Mobility Solutions, Infrastructure and Sustainability Committee on April 8, 2019.

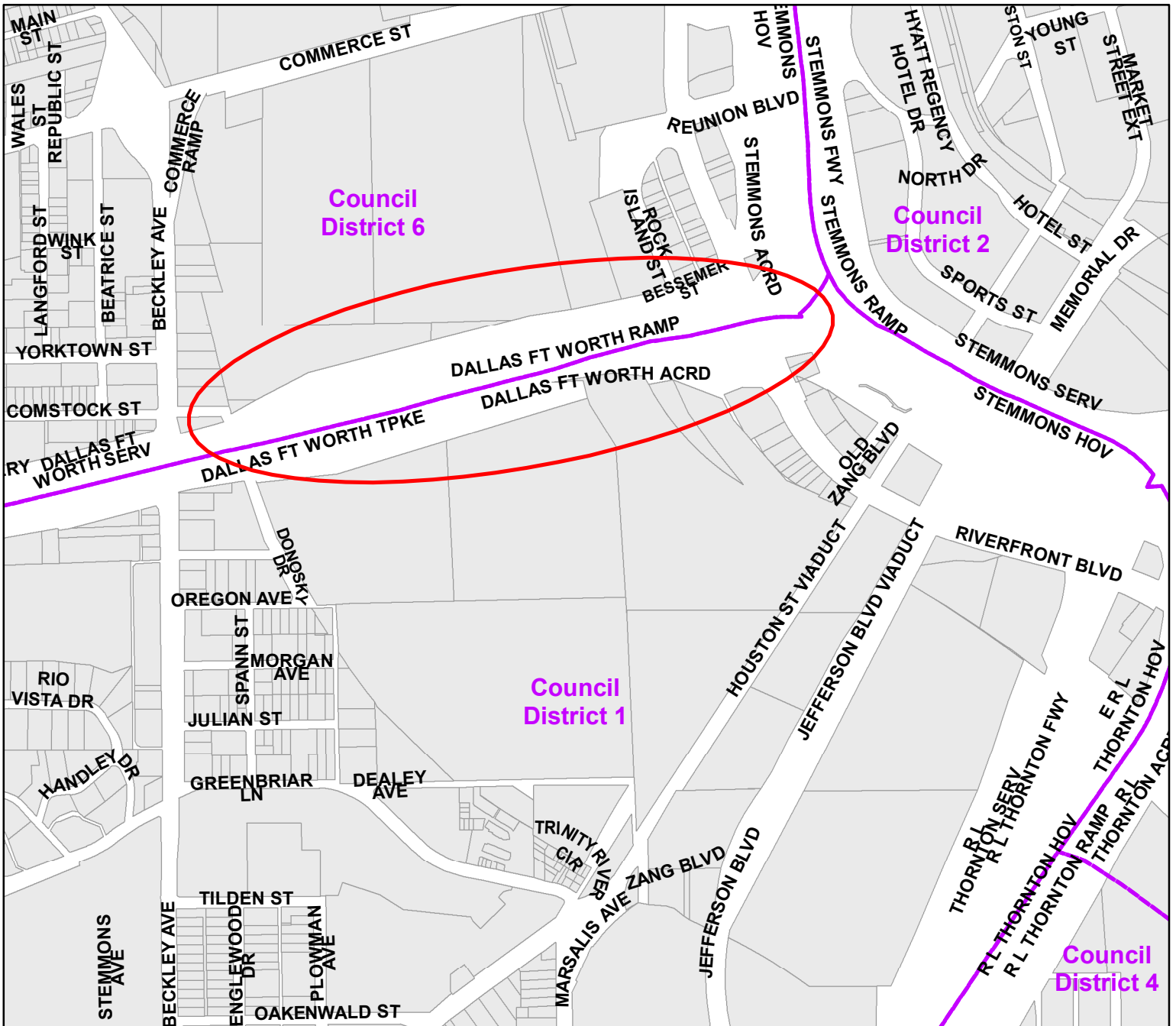
FISCAL INFORMATION

IH30 Construction Fund - \$7,091,013.05

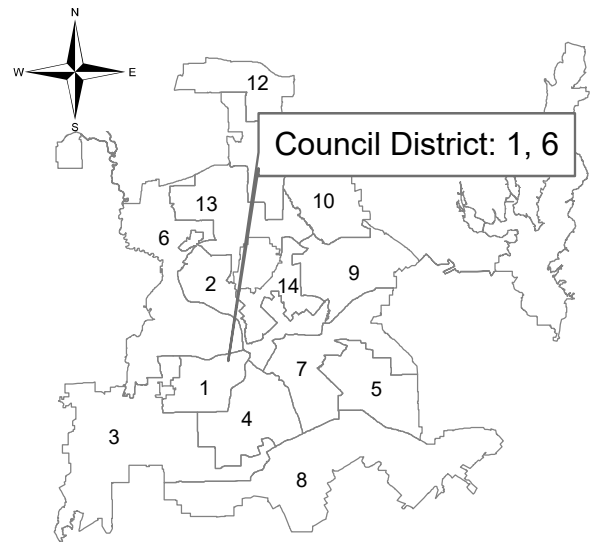
<u>Council District</u>	<u>Amount</u>
1	\$3,545,506.52
6	<u>\$3,545,506.53</u>
Total	\$7,091,013.05

MAP

Attached



Margaret McDermott (IH30) Bridge



April 10, 2019

WHEREAS, on January 23, 2013, City Council authorized a Project Specific Agreement with Dallas County for funding participation in design and construction of IH30 bicycle and pedestrian connections between Riverfront Boulevard and Beckley Avenue, including the Margaret McDermott (IH30) Bicycle and Pedestrian Bridges over the Trinity River Floodway by Resolution No. 13-0251; and

WHEREAS, on June 22, 2016, City Council authorized payment to the Texas Department of Transportation for the City's share of construction funding difference for the bicycle and pedestrian components of the Margaret McDermott (IH30) Bridge over the Trinity Floodway, in an amount of \$1,093,205.71, by Resolution No. 16-1082; and

WHEREAS, on December 2, 2016, Administrative Action No. 16-1266 authorized payment to the Texas Department of Transportation for the City's share of additional costs associated with the construction of the bicycle and pedestrian components of the Margaret McDermott (IH30) Bridge over the Trinity Floodway, in an amount of \$45,024.79; and

WHEREAS, on March 8, 2017, Administrative Action No. 17- 0317 authorized payment to the Texas Department of Transportation for the City's share of additional costs associated with the construction of the bicycle and pedestrian components of the Margaret McDermott (IH30) Bridge over the Trinity Floodway, in an amount of \$45,370.79; and

WHEREAS, on April 12, 2017, City Council authorized **(1)** the receipt and deposit of funds in the amount of \$100,000.00 from the Trinity Trust Foundation in support of the Margaret McDermott (IH30) Bridge over the Trinity Floodway; **(2)** Supplemental Agreement No. 3 to decrease the value of the professional services contract with Santiago Calatrava, LLC for the Margaret McDermott (IH30) Bridge over the Trinity Floodway for a contract credit in an amount not to exceed (\$125,000.00), from \$10,688,500.00 to \$10,563,500.00 without any change in the services to be performed under the contract; **(3)** an increase in appropriations in the IH30 Bridge Donation Fund in the amount of \$100,000.00; and **(4)** payment to the Texas Department of Transportation, in an amount not to exceed \$222,017.00 for additional costs associated with the construction of the bicycle and pedestrian components of the Margaret McDermott (IH30) Bridge over the Trinity Floodway by Resolution No. 17-0615; and

WHEREAS, it is now necessary to authorize payment to the Texas Department of Transportation (TxDOT) for additional costs associated with the construction of the bicycle and pedestrian components of the Margaret McDermott (IH30) Bridge over the Trinity Floodway.

Now, Therefore,

April 10, 2019

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF DALLAS:

SECTION 1. That the City has no other option than to pay the additional cost to get the project completed and reserves its right to pursue all other responsible third parties for these additional costs.

SECTION 2. That the City Manager is hereby authorized to establish appropriations in the amount of \$7,091,014.00 in the IH30 Construction Fund, Fund DL16, Department DWU, Unit W369, Object 3511.

SECTION 3. That the Chief Financial Officer is hereby authorized to transfer \$7,091,014.00 from the General Capital Reserve Fund, Fund 0625, Department BMS, Unit 8888, Revenue Code 8416 to the IH30 Construction Fund, Fund DL16, Department DWU, Unit W369, Object 3511.

SECTION 4. That the Chief Financial Officer is hereby authorized to make payment to the Texas Department of Transportation in an amount up to \$7,091,014, for the City's share of additional costs associated with the construction of the bicycle and pedestrian components of the Margaret McDermott (IH30) Bridge over the Trinity Floodway in accordance with the terms and conditions of the Local Transportation Project Advance Funding Agreement from IH30 Construction Fund, Fund DL16, Department DWU, Unit W369, Activity TRPP, Object 3511, Program PB98P107, Encumbrance CT-PBW98P107D2-3, Vendor 239588.

SECTION 5. That this contract is designated as Contract No. DWU-2019-00009903.

SECTION 6. That this resolution shall take effect immediately from and after its passage in accordance with the provisions of the Charter of the City of Dallas, and it is accordingly so resolved.