

# Memo



To: Clay Pearson, City Manager  
From: Jennifer Lee, Sr. Project Manager  
CC: Jon Branson, Deputy City Manager  
Trent Epperson, Assistant City Manager  
Robert Upton, P.E., Director of Engineering  
Skipper Jones, Assistant Director of Capital Projects  
Date: July 26, 2018  
Re: SH288 Northbound Frontage Road Off-Site Drainage

7/26/2018  
To: Mayor and City Council members  
Anticipated along with the frontage road and in the budget, there's drainage work to run in parallel. Need to award design to HDR upcoming. Clay

## Purpose

This memo provides background and information on a proposed drainage engineering contract with HDR Engineers to design drainage and outfall appurtenances for the SH North Bound 288 Frontage Road that will tie into the existing Brazoria Drainage District #4 ditch and a Staff recommendation to award.

## Background

The SH288 Northbound Frontage Road Project, originally scheduled to receive Transportation Improvement Program (TIP) funding in 2025, has been accelerated through an agreement between Brazoria County, Pearland Economic Development Corporation (PEDC) and the City. The schedule for the projects was accelerated to take advantage of the beneficial unit pricing the County received for the SH288 Toll Lanes that would allow the County to add the Frontage Road work to the Toll Lane contract via Change Order.

HDR Engineering was awarded a contract to design the SH 288 Northbound Frontage Road on March 26, 2018, with the NTP on April 12, 2018. This design project includes the reversal of the ramps between CR 59 and FM 518, the construction of the frontage road and a u-turn on the northside of CR 59. Also included in the scope of work is a shared use sidewalk and a storm sewer. All of the work for the SH 288 Northbound Frontage Road project is contained in existing ROW which already has a Categorical Exclusion environmental delineation. Any changes to the scope of the project would necessitate a new Environmental Assessment through the U.S. Army Corp of Engineers. Environmental Assessments normally take an excess of two years to complete. Staff made the decision to provide off-site drainage for the frontage road to avoid having to go through the timely Environmental Assessment process. The design of the drainage system is completely independent of the Frontage Road project.

On July 9, 2018 Council approved an Inter-local Agreement with Brazoria County and the Brazoria County Toll Road Authority establishing cooperation for funding and constructing the Frontage Road.

### **Scope of Services**

An important component of the SH 288 Northbound Frontage Road is the mitigation of the drainage impact for the new roadway. HDR Engineering has completed an overall drainage analysis for Brazoria County for the SH 288 corridor. Because of HDR's familiarity with the current and future project, Staff considered it advantageous to solicit a proposal from them for design of the roadway drainage and existing drainage issues TxDOT is requiring to be corrected within this project in order to benefit from prior analyses, resources and other data already developed.

HDR proposes to complete the design of the off-site drainage ditch, provide plans and specifications and an estimate of construction cost. The design phase will include identifying existing drainage requirements and the collection of additional data, coordination with pertinent entities that may include TxDOT, Corps of Engineers, Brazoria County, and Brazoria Drainage District 4. HDR will prepare contract documents using existing bid item pricing, any necessary permits, and provide responses and clarification to the contractor. During the construction phase, HDR will provide construction administration services.

In addition to the basic services detailed above, the scope includes, topographic survey, metes and bounds, and geotechnical investigations.

### **Fees**

HDR has proposed to perform the scope of work for a total cost of \$208,177.50. This fee can be broken down as follows:

Basic Services	\$138,000.00
Bid Phase Services	\$11,480.00
Construction Phase Services	\$15,900.00
Reimbursable Expenses	\$1,660.00
Topographic Survey	\$8,442.50
Metes and Bounds	\$8,800.00
Geotechnical Investigation	\$23,895.00

**TOTAL FEE**

**\$208,177.50**

**Recommendation**

Staff will present the proposal from HDR to Council for consideration in early August and will recommend approval and award. The design phase will commence immediately and construction is expected to start in third quarter of 2019.

**Budget Info**

<b>Funding Sources</b>	<b>Series</b>	<b>To Date</b>	<b>Future</b>	<b>Total Budget</b>
General Revenue - Cash				-
Certificates of Obligation	2017	450,000		450,000
Certificates of Obligation			3,185,000	3,185,000
General Obligation Bonds				-
General Obligation Bonds				-
W/S Revenue Bonds				-
PEDC		450,000	300,000	750,000
Other Funding Sources			1,500,000	1,500,000
<b>Total Funding Sources</b>		<b>900,000</b>	<b>4,985,000</b>	<b>5,885,000</b>

<b>Expenditures</b>	<b>To Date</b>	<b>Future</b>	<b>Total</b>
PER			-
Land		610,000	610,000
Design	383,101	208,178	591,279
Construction		3,804,348	3,804,348
Construction Management/Inspection			-
Construction Materials Testing		75,000	75,000
FF&E			-
<b>Total Expenditures</b>	<b>383,101</b>	<b>4,697,526</b>	<b>5,080,627</b>

<b>Project Balance/Contingency</b>	<b>804,374</b>
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**Schedule Info**

HDR is prepared to begin the design of the off-site drainage system immediately upon contract approval and is expected to complete the design in nine months, including TxDOT reviews.

	<b>Base Line</b>	<b>Current</b>
<b>Design Start</b>	April-18	April-18
<b>Bid Start</b>	June-19	
<b>Construction Start</b>	October-19	
<b>Proposed Construction Completion</b>	January-20	

## SH 288 Northbound Frontage Road Off-Site Drainage VICINITY MAP

### Topographic Survey for Proposed Drainage Channel

Elevations will be taken at 100-foot intervals with high and low grade breaks.  
Limits of wooded areas will be shown, individual trees will not be included.

Legend



# PROJECT LOCATION MAP

