

**HIDALGO COUNTY
Professional Engineering Services
Agreement #C-16-326-08-23**

WORK AUTHORIZATION NO. 5

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Section 3 of the Agreement made by and between **HIDALGO COUNTY**, action herein by and through the **Commissioner's Court**, hereinafter called the "**Owner**," and, **B2Z ENGINEERING LLC**, professional engineers of Mission, Texas, hereinafter called "**Engineer**".

PART 1. SCOPE OF WORK

The purpose of this Work Authorization is for the needed "Off-System Bridge Repair Details" that are identified in the "2016 Off-System Bridge Inspections For The County of Hidalgo, Precinct 2 of the Pharr District" done by Chad Wright Engineering, LLC.

The scope of services to be provided by the **Owner** is identified in **EXHIBIT "A" – Scope of Services to be provided by the Owner** attached hereto.

The scope of services to be provided by the **Engineer** is identified in **EXHIBIT "B" – Scope of Services to be provided by the Engineer** attached hereto.

PART 2. ESTIMATED COST

The estimated cost for services under this Work Authorization is **\$25,038.40**. This amount is based upon the costs outlined in the Estimated **Cost Proposal** attached hereto as **EXHIBIT "D"**.

PART 3. PAYMENT

Compensation and payment to the Engineer for the services established under this Work Authorization shall be made in accordance with Section 4 of the Agreement.

PART 4. FUNDING

This Work Authorization No. 5 shall be funded through funding source:

Account No. _ _ _ _ _ - _ _ _ _ _ - _ _ _ _ _ - _ _ _ _ _

Requisition Number _____ (**MUST BE INCLUDED AFTER CC APPROVAL**)

PART 5. PERIOD OF SERVICE

This Work Authorization shall become effective on the date of final acceptance of the parties hereto, and terminate **upon completion of scopes of the work authorization**.

PART 6. RESPONSIBILITIES AND OBLIGATIONS

This Authorization does not waive the parties' responsibilities and obligations provided under the **Agreement**.

PART 7. ACKNOWLEDGEMENT AND CONFIRMATION

Acknowledgement and Confirmation by Hidalgo County Precinct No.2, Commissioner, Eduardo Cantu, as to content and detail of this **Work Authorization No. 5**.

**HIDALGO COUNTY
COMMISSIONER PRECINCT No. 2:**

BY: _____

PART 8. ACCEPTANCE AND APPROVAL

This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners' Court on _____ as indicated below and effective as of ____ day of _____, 201__.

**THE ENGINEER:
B2Z ENGINEERING**

**THE OWNER:
HIDALGO COUNTY**



By: Nicholas Muñoz, Vice President

By: Ramon Garcia, County Judge

ATTEST:

By: Arturo Guajardo Jr., County Clerk

EXHIBIT A

Scope of Services to be provided by the County

The following provides an outline of the services to be provided by the Owner in the development of Projects (as defined and more particularly identified in Exhibit “A” attached to this Agreement).

General:

The Owner will provide to the Engineer the following:

- 1) Provide the authorization to proceed with services through coordination with the project consulting and design Engineer.
- 2) Payment for work performed by the Engineer and accepted by the Owner in accordance with Article 4 of this Agreement.
- 3) Assistance to the Engineer, as necessary, to obtain the required data and information from other local, regional, State and Federal agencies the Engineer cannot easily obtain.
- 4) Provide any available relevant data the Owner may have on file concerning the projects.
- 5) Provide timely review and decisions in response to the Engineer’s request for information and/or required submittals and deliverables, in order for the Engineer to maintain the agreed upon work schedule prepared in accordance with Exhibit “A” attached to this Agreement.
- 6) Attend and participate in progress meetings as required and as coordinated and conducted by Engineer.
- 7) Provide the authorization to proceed with services on project by project basis through consulting design and construction Engineer.

EXHIBIT B

Scope of Services to be provided by the Engineer

SECTION I - PROJECT DESCRIPTION

The services designated herein as “Services provided by the ENGINEER” shall include the performance of all engineering services for the following described facility:

COUNTY/CITY: HIDALGO COUNTY

PROJECT/DESCRIPTION: On-Call Services for “Road and Bridge, C.I.P. and Other Projects in General”
Work Authorization No. 5 ~ Off-System Bridge Repair Details (FC170)

ENGINEER shall mean B2Z Engineering.

STATE shall mean Texas Department of Transportation.

COUNTY shall mean Hidalgo County.

EXHIBIT B

Scope of Services to be provided by the Engineer


SECTION 11 - BRIDGE DESIGN (Function Code 170)

	<u>NUMBER REQUIRED</u>
b. Existing Structure(s)	
(1) Bridge Rehabilitation and/or Modification of Existing Structure(s)	<u>4</u>
(2) Bridge Replacement	<u> </u>
(3) Raising Bridge Elevation	<u> </u>
(4) Bridge Classification Culvert(s) Widening and/or Modification of Existing Structures(s)	<u> </u>
(5) Railroad Overpass(es)	<u> </u>
(6) Railroad Underpass(es)	<u> </u>
Total Existing Structures =	<u>4</u>
2. Preparation of Bridge Layouts (each bridge)	
a. Bridge Layouts (PLAN)	
(1) A general layout with field measurements will be provided on the repair detail as needed to complete the required repair.	
i. The ENGINEER will perform all necessary Field Reconnaissance in support of producing the necessary repair sheets	
4. Bridge Total Quantities needed for repair (each bridge)	
5. Bridge Special Provisions and Specifications as needed (each bridge)	
8. General Guidelines for Bridge Repair Details & Design/Analysis	
d. The ENGINEER shall make final design calculations and final detail drawings in accordance with standard requirements of the Texas Department of Transportation. All bridge repair details and design/analysis shall be in conformance with the Texas Department of Transportation Bridges and Structures Operation and Planning Manual, the current American Association of State Highway and Transportation Officials or American Railway Engineers Association Specifications for railway structures, Standard Specifications for Highway Bridges, including applicable interim specifications, and the Bridges and Structures, Foundation Exploration and Design Manual. The ENGINEER shall furnish design calculations to the County if requested. The designer and checker shall check all calculations and initial each page.	
h. The repair details will be developed in accordance with the recommendations of the “2016 Off-System Bridge Inspection For The County of Hidalgo, Pct #2 of the Pharr District” dated August 2016 by Chad Wright Engineering, LLC. The four (4) primary structures of critical importance are identified as follows:	
1) BRG 21-109-AA06-64-001 (CESAR CHAVEZ RD @ S FLOODWATER CHANNEL)	
a. Spalling at South and North Abutment Cap	
2) BRG 21-109-AA06-55-001 (TOWER RD @ S FLOODWATER CHANNEL)	
a. Spalling at West Pile – North Abutment	
b. Spalling at West Pile – South Interior Bent	
3) BRG 21-109-AA06-66-001 (SAN JUAN RD @ S FLOODWATER CHANNEL)	
a. Spalling at South and North Abutment Cap	
4) BRG 21-109-AA14-06-001 (IBWC RD @ HACKNEY LAKE INLET)	
a. Patch and Seal Gaps (Preventative Maintenance)	

EXHIBIT "C"
PROJECT SCHEDULE
On-Call Services for "Road and Bridge, C.I.P. and Other Projects in General"

WA #5 - Off-System Bridge Repair

TASK AND DESCRIPTION	2017							2018		
	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR
Off-System Bridge Repair										
BRG 21-109-AA06-64-001 (CESAR CHAVEZ RD @ S FLOODWATER CHANNEL)										
Engineering analysis of repair procedures										
Repair details (Spalling at South and North Abutment Cap)										
BRG 21-109-AA06-55-001 (TOWER RD @ S FLOODWATER CHANNEL)										
Engineering analysis of repair procedures										
Repair details (Spalling at West Pile -North Abutment West Pile - South Interior bent)										
BRG 21-109-AA06-66-001 (SAN JUAN RD @ S FLOODWATER CHANNEL)										
Engineering analysis of repair procedures										
Repair details (Spalling at South and North Abutment Cap)										
BRG 21-109-AA14-06-001 (IBWC RD @ HACKNEY LAKE INLET)										
Engineering analysis of repair procedures										
Repair details (Patch and Seal Gaps)										
General										
Field Reconnaissance										
Meetings & Coordination with Hidalgo County Pct. #2										

 B2Z Engineering



**EXHIBIT D
FEE PROPOSAL**

Off-System Bridge Repair

Hidalgo County Precinct 2

Work Authorization No. 5

<i>Hidalgo County Precinct #2 Off-System Bridge Repair Details</i>			MANHOURS			
			Senior Project Manager	Civil Engineer III	Senior Engineer Tech	Total
TASKS						
BRG 21-109-AA06-64-001 (CESAR CHAVEZ RD @ S FLOODWATER CHANNEL)						
1	Engineering analysis of repair procedures		2	4		6
2	Repair details (Spalling at South and North Abutment Cap)		2	8	20	30
BRG 21-109-AA06-55-001 (TOWER RD @ S FLOODWATER CHANNEL)						
3	Engineering analysis of repair procedures		2	4		6
4	Repair details (Spalling at West Pile -North Abutment West Pile - South Interior bent)		4	16	32	52
BRG 21-109-AA06-66-001 (SAN JUAN RD @ S FLOODWATER CHANNEL)						
5	Engineering analysis of repair procedures		2	4		6
6	Repair details (Spalling at West Pile -North Abutment West Pile - South Interior bent)		2	8	20	30
BRG 21-109-AA14-06-001 (IBWC RD @ HACKNEY LAKE INLET)						
7	Engineering analysis of repair procedures		2	4		6
8	Repair details (Patch and Seal Gaps)		2	8	20	30
General						
9	Field Reconnaissance		2	4	18	24
10	Meetings & Coordination with Hidalgo County Pct. #2		2	8		10
			22	68	110	200
Labor Hours			22	68	110	200
Hourly Base Rates			\$ 80.00	\$ 55.00	\$ 26.00	
Contract Rate FY2017			\$ 237.60	\$ 163.35	\$ 77.22	
Total Labor Costs			\$ 5,227.20	\$ 11,107.80	\$ 8,494.20	\$ 24,829.20

Direct Expenses

Mileage (\$0.56/mile)	\$	179.20
8 1/2" X 11" Copies (\$1.00/sheet)	\$	12.00
11" X 17" Copies (\$1.50/sheet)	\$	18.00

Total Direct Expenses \$ 209.20

B2Z Engineering Total Cost

\$ 25,038.40