

WORK AUTHORIZATION NO. 1
HIDALGO COUNTY
Agreement #C-21-0944-02-08
Work Authorization Form

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Section 7 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, hereinafter called “**Engineer**”.

PART 1. SCOPE OF WORK

The purpose of this Work Authorization is for the Engineer to provide Engineering Services required for a Feasibility Study of the proposed Recreational Trails Connectivity Project located within the Cities of Mission, McAllen, Pharr, Hidalgo, San Juan, and within the unincorporated areas along the project limits in Hidalgo County.

The **Engineer** is to provide the Services as required by the Agreement with Owner. This includes but is not limited to the services identified in **EXHIBIT “A” – Scope of Services to be provided by the Engineer** which is attached hereto and incorporated by reference.

PART 2. ESTIMATED COST

The estimated cost for services under this Work Authorization is \$126,867.07. This amount is based upon the costs outlined in the Estimated **Cost Proposal** attached hereto as **EXHIBIT “B”**.

PART 3. PAYMENT

Compensation and payment to the Engineer for the services established under this Work Authorization shall be made in accordance with the On-Call Services Agreement between Owner and Engineer.

PART 4. FUNDING

This Work Authorization No. 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 as indicated in the **EXHIBIT “C” – Work Schedule**.

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. 1 .

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

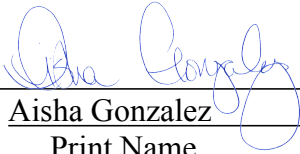
BY: _____

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 _____, 20__.

THE ENGINEER:
B2Z ENGINEERING, LLC

THE OWNER:
HIDALGO COUNTY



By: Aisha Gonzalez
Print Name

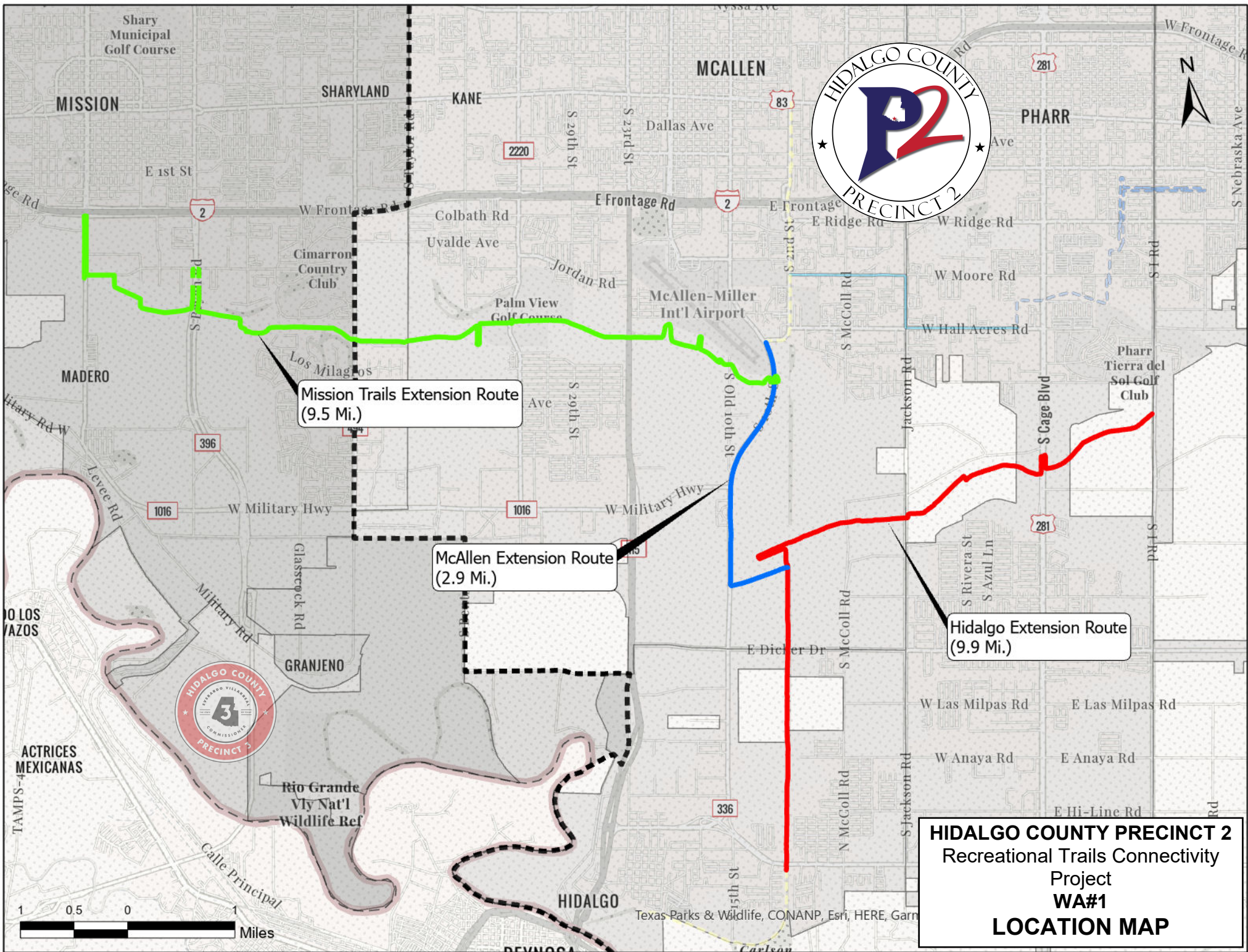
By: Richard F. Cortez, County Judge

ATTEST:

By: Arturo Guajardo Jr., County Clerk

LIST OF ATTACHMENTS

- Location Map
- Exhibit A – Services to be Provided by the Engineer
- Exhibit B – Fee Proposal
- Exhibit C – Work Schedule

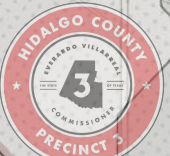


Mission Trails Extension Route
(9.5 Mi.)

McAllen Extension Route
(2.9 Mi.)

Hidalgo Extension Route
(9.9 Mi.)

HIDALGO COUNTY PRECINCT 2
 Recreational Trails Connectivity
 Project
WA#1
LOCATION MAP



Texas Parks & Wildlife, CONANP, Esri, HERE, Garmin

EXHIBIT “A”

Services to be provided by the Engineer

PROJECT INFO:

- **Project Name:** Recreational Trails Connectivity Project – Feasibility Study
- **Project Limits:** From City of Mission to McAllen
From City of Hidalgo to San Juan

GENERAL SCOPE OF WORK:

The work to be performed by the **Engineer** under this work authorization shall consist of providing Engineering Services required for a Feasibility Study of the proposed Recreational Trails Connectivity Project located within the Cities of Mission, McAllen, Pharr, Hidalgo, San Juan, and within the unincorporated areas along the project limits in Hidalgo County hereinafter denoted as the **Project**.

The **Engineer** will furnish all equipment, materials, supplies, and incidentals as needed to perform the services required by this Work Authorization, except as otherwise specified in Exhibit A, “Services to be provided by the **Owner**.”

Specific activities to be performed by the **Engineer**, as generally outlined in the Contract, including the following:

SECTION 2 – FEASIBILITY STUDIES

Services

Provided By:

ENGINEER COUNTY

YES NO Data Collection (sUAV)

The **Engineer** will work with the **Owner** to collect the latest aerial imagery along with the project limits, including, but not limited to, elevation data (i.e., LiDAR, contours, DTM, etc.)

YES NO Preliminary Design Values

The **Engineer** will work with the **Owner** to establish basic design concepts, project controls, and the general scope of the Project.

YES NO Uncontrolled Mapping (w/Contours & GIS Info)

The **Engineer** will investigate various routes and coordinate with the **Owner** on establishing the best-fit alignment and geometry.

*Hidalgo County Pct. 2 – WA#1
Recreational Trails Connectivity Project – Feasibility Study*

- YES NO Preliminary Location Design Layout
- The **Engineer** will complete a finalized layout for the **Project** upon completion of route studies and all other tasks noted in this Work Authorization. The layout will include final alignment, crossing locations, proposed locations of potential parking access areas, and typical sections.
- YES NO Preliminary ROW Requirements
- The **Engineer** will research and identify affected property owners on the **Project** alignment utilizing the latest appraisal district file information from Hidalgo County Appraisal District and information from Carson Maps. The **Engineer** will document any easements affecting parcels.
- YES NO Preliminary Cost Estimates
- The **Engineer** will calculate preliminary construction cost estimates for the finalized locations and geometry of the **Project**. The cost estimates will be developed for two (2) paving scenarios of asphalt pavement and concrete options.
- YES NO Preliminary Environmental Analysis (for fatal flaws)
- The **Engineer** will perform “Preliminary Environmental Constraint Mapping to determine if any fatal flaws exist along the proposed alignment.
- YES NO Evaluation of Crossings at Major Roadways & Drainage Structures & Coordination w/ TxDOT and HCDD#1
- The **Engineer** will coordinate with the **Owner** to establish design options for crossings at major roadways and drainage structures. The crossings will be part of the Design Visualization task of this Work Authorization. Coordination with HCDD#1 and TxDOT on crossing types/locations is also part of this task.
- YES NO Preparation of Project Fact Sheet (Total Project Cost)
- The **Engineer** will coordinate with and assist the **Owner** in preparing all necessary documents needed to ensure AARPA funding is utilized for this Project. The **Engineer** will also assist in the development of all the required attachments to the documents.
- YES NO Preliminary Engineering Report
- The **Engineer** will provide an Engineering report to the **Owner** to be used during the Schematic and PS&E phases of the Project.

*Hidalgo County Pct. 2 – WA#1
Recreational Trails Connectivity Project – Feasibility Study*

YES NO Coordinate & Outreach with Affected Municipalities

The **Engineer** will coordinate with the **Owner** to plan meetings with cities and counties to support the **Project**. In meetings, the **Engineer** will assist in the presentation of project data and visualization. This task may also include informal correspondence (phone, fax, email, etc.)

YES NO Meetings & Coordination in Support for Project Development Activities

The **Engineer** shall provide coordination services and assist in meetings and workshops with Hidalgo County, Hidalgo County Drainage District No. 1, and Hidalgo County Irrigation Districts. The **Engineer** shall serve as representative for the **Owner** in coordination items. The **Engineer** shall coordinate with the **Owner's** staff on all **Project** related items.

EXHIBIT "B"
FEE PROPOSAL

Hidalgo County Precinct 2: Recreational Trails Connectivity Project - Feasibility Study
WA#1 - Feasibility Study

WA #1 - Feasibility Study		MANHOURS							Subtotal
		Project Manager	Senior Engineer	Project Engineer	Sr. Engineering Tech	UAS Pilot	Admin/ Clerical	Total	
TASKS									
Segment 1 : Mission Trails Extension Route (9.5 Miles)									
1	Data Collection (sUAV)					12		12	\$1,012.56
2	Preliminary Design Values	1		2	4			7	\$968.81
3	Uncontrolled Mapping (w/Contours & GIS Info)	8		19	36			63	\$8,647.41
4	Preliminary Location Design Layout	3	1	10	9			23	\$3,306.43
5	Preliminary R.O.W. Requirements				27		3	30	\$3,412.77
6	Preliminary Cost Estimate	5	3	10	2		2	22	\$3,425.15
7	Preliminary Environmental Analysis (for fatal flaws)	3		8				11	\$1,762.57
8	Evaluation of Crossings at major Roadways and Drainage Structures & Coordination w/TxDOT and HCDD#1	6	8	12				26	\$4,512.70
9	Preparation of Project Fact Sheet (Total Project Cost)	1	4	6				11	\$1,831.33
10	Preliminary Engineering Report	1	2	6	14		7	30	\$3,587.70
11	Coordinate & Outreach with Affected Municipalities	17		10			2	29	\$5,156.47
12	Meetings & Coordination in Support for Project Development Activities	18	4	18	2		2	44	\$7,506.58
							SUB-TOTAL	308	\$45,130.48
Segment 2 : McAllen Extension Route (2.9 Miles)									
1	Data Collection (sUAV)					12		12	\$1,012.56
2	Preliminary Design Values	1		1	2			4	\$590.66
3	Uncontrolled Mapping (w/Contours & GIS Info)	7		14	23			44	\$6,187.87
4	Preliminary Location Design Layout	1	1	7	6			15	\$2,103.24
5	Preliminary R.O.W. Requirements				17		2	19	\$2,156.42
6	Preliminary Cost Estimate	3	2	6	2		1	14	\$2,175.10
7	Preliminary Environmental Analysis (for fatal flaws)	3		4				7	\$1,200.05
8	Evaluation of On-System Road Utilization & Coordination w/TxDOT, City of McAllen, and McAllen Airport	4	5	8				17	\$2,943.88
9	Preparation of Project Fact Sheet (Total Project Cost)	2	2	3				7	\$1,234.43
10	Preliminary Engineering Report	1	2	3	9		4	19	\$2,365.76
11	Coordinate & Outreach with Affected Municipalities	11		7			1	19	\$3,390.77
12	Meetings & Coordination in Support for Project Development Activities	10	4	12	2		1	29	\$4,893.97
							SUB-TOTAL	206	\$30,254.71
Segment 3 : Hidalgo Extension Route (9.9 Miles)									
1	Data Collection (sUAV)					22		22	\$1,856.36
2	Preliminary Design Values	1		2	4			7	\$968.81
3	Uncontrolled Mapping (w/Contours & GIS Info)	8		19	46			73	\$9,835.01
4	Preliminary Location Design Layout	3	1	10	9			23	\$3,306.43
5	Preliminary R.O.W. Requirements				27		3	30	\$3,412.77
6	Preliminary Cost Estimate	5	3	10	2		2	22	\$3,425.15
7	Preliminary Environmental Analysis (for fatal flaws)	3		8				11	\$1,762.57
8	Evaluation of Crossings at major Roadways and Drainage Structures & Coordination w/TxDOT, IBWC, and HCDD#1	6	8	12				26	\$4,512.70
9	Preparation of Project Fact Sheet (Total Project Cost)	1	4	6				11	\$1,831.33
10	Preliminary Engineering Report	1	2	6	14		7	30	\$3,587.70
11	Coordinate & Outreach with Affected Municipalities	17		10			2	29	\$5,156.47
12	Meetings & Coordination in Support for Project Development Activities	18	4	18	2		2	44	\$7,506.58
							SUB-TOTAL	328	\$47,161.88
Labor Hours		169	60	267	259	46	41	842	
Hourly Base Rates	\$	68.00	\$ 62.00	\$ 45.00	\$ 38.00	\$ 27.00	\$ 22.00		
Contract Rate FY2021	\$	212.51	\$ 193.76	\$ 140.63	\$ 118.76	\$ 84.38	\$ 68.75		
Total Labor Costs	\$	35,914.19	\$ 11,625.60	\$ 37,548.21	\$ 30,758.84	\$ 3,881.48	\$ 2,818.75		\$ 122,547.07

Direct Expenses

Aerial Drone Flight (\$250.00/hr.)	\$	3,780.00
Mileage (\$0.56/mile)	\$	540.00

Total Direct Expenses \$ 4,320.00

\$ 126,867.07

EXHIBIT "C"
WORK SCHEDULE

TASK AND DESCRIPTION	2022											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Segment 1 : Mission Trails Extension Route (9.5 Miles)												
Data Collection (sUAV)												
Route Studies, Geometrics, Projeet Exhibits, Cost Estimates												
Design Exhibits and Layouts												
Coordination w/ Affected Parties (Pct #1, HCDD #1, TxDOT, Cities, County, etc.)												
Segment 1 Final Regional Hike & Bike Layout												
Segment 2 : McAllen Extension Route (2.9 Miles)												
Data Collection (sUAV)												
Route Studies, Geometrics, Projeet Exhibits, Cost Estimates												
Design Exhibits and Layouts												
Coordination w/ Affected Parties (Pct #1, HCDD #1, TxDOT, Cities, County, etc.)												
Segment 1 Final Regional Hike & Bike Layout												
Segment 3 : Hidalgo Extension Route (9.9 Miles)												
Data Collection (sUAV)												
Route Studies, Geometrics, Projeet Exhibits, Cost Estimates												
Design Exhibits and Layouts												
Coordination w/ Affected Parties (Pct #1, HCDD #1, TxDOT, Cities, County, etc.)												
Segment 1 Final Regional Hike & Bike Layout												