BIRKHOFF, HENDRICKS & CARTER, L.L.P. PROFESSIONAL ENGINEERS

11910 Greenville Ave., Suite 600

Dallas, Texas 75243

Phone (214) 361-7900

www.bhcllp.com

JOHN W. BIRKHOFF, P.E. GARY C. HENDRICKS, P.E. JOE R. CARTER, P.E. MATT HICKEY, P.E. ANDREW MATA, JR., P.E. JOSEPH T. GRAJEWSKI, III, P.E. DEREK B. CHANEY, P.E. CRAIG M. KERKHOFF, P.E.

May 29, 2018

Mr. Clarence T. Daugherty, P.E. County Engineer Collin County 4690 Community Ave., Suite 200 McKinney, TX 75071

RE: Frontier Parkway Engineering Services Agreement Collin County Contract No. 2016-229 Collin County Purchase Order No. 199212 Amendment No. 4

Dear Mr. Daugherty:

As you requested, we are pleased to submit Amendment No. 4 to our Engineering Services Agreement with Collin County dated Sept. 27, 2016 (Collin County Purchase Order No. 199212) for the design of Frontier Parkway, from the Dallas North Tollway (DNT) to S.H. 289 (Collin County Contract No. 2016-229).

This Amendment No. 4 makes changes to the scope, fee and schedule in the original agreement. The **Base Amendment** changes are summarized as follows:

Amendment No. 4A – Base Changes

- 1. Re-design of the project to include the full width BNSF Overpass (6-lanes) with 4-lane approaches as the "Base Project" with a deductive "Alternate Project" bid package for the original 4-lane BNSF Overpass.
- 2. Hydrologic and Hydraulic Analysis of Tributary C Flows and Offsite Flows contributing to flow on the east side of the Dallas North Tollway Culverts located south of Frontier Parkway.
- 3. Design of a Detention Pond on the Prosper Independent School District High School tract south and east of the BNSF Railroad as described in the previously published hydrologic and hydraulic report.
- 4. Attendance at twelve (12) additional Monthly Design Meetings with Collin County, the City of Celina and Town of Prosper for a total of twenty-four (24) monthly design meetings.
- 5. Preparation of the Prosper Independent School District (PISD) Prosper High School Re-Plat incorporating the drainage and maintenance easement required to accommodate the PISD detention pond (Item 3 above).

Amendment No. 4B – Re-design of North Access Road:

At the request of the City of Celina, schematic re-alignment and re-design of the North Access Road, connecting to and utilizing proposed Prairie Crossing Road and Street A as the Frontier Parkway detour during construction of the BNSF Overpass. This additional scope provides for design and construction of Prairie Crossing Road and Street A with the Frontier Parkway Improvements as shown on attached **Exhibit A**.

Scope Changes - Base Amendment No. 4A

A. LUMP SUM SCOPE ITEMS: (Base Portion 4A)

Part I – Design Services

Part I.C. (New Task Item):

Re-design of the project to include the full width BNSF Overpass (6-lanes) with 4-lane approaches as the "Base Project" with a deductive "Alternate Project" bid package for the original 4-lane BNSF Overpass.

Part I.D. (New Task Item):

Design of a Detention Pond on the Prosper Independent School District High School tract south and east of the BNSF Railroad as described in the previously published hydrologic and hydraulic report.

Part II - Bidding Phase Services

Increased scope for to Base Bid Proposal for 6-lane BNSF Overpass and including analysis and recommendations for Alternate Bid Proposal for 4-lane BNSF Overpass

Part III - Construction Administration Services

Increased scope for 6-lane BNSF Overpass Construction including record drawings of base or alternate bid construction.

B. ADDITIONAL SERVICES SCOPE ITEMS: (Base Portion 4A)

- Task 1: Field Surveys Increase scope and fee for additional; field surveys in support of PISD Detention Pond (Item Part I.D) and Re-plat of PISD High School Final Plat (Item B.14)
- Task 9: Additional Design Meetings-Increased scope for twelve (12) additional design review meetings.

Task 13a (New): Doe Branch Tributary C Hydrologic and Hydraulic Evaluation and Report

Increased scope and fee for evaluation of hydrologic and hydraulic conditions contributing flow to the culverts on the east side of the Dallas North Tollway south of Frontier Parkway.

Task 13b (New): Revised Flood Study for Doe Branch Tributary C and PISD Detention Pond

Perform Flood Study relative to final Frontier Parkway design including PISD Detention Pond and culverts crossing Frontier Parkway at Tributary C.

Task Item 14 (New): PISD High School Replat for Detention Pond

Prepare a replat to define the new area for the PISD Detention Pond at the High School

Mr. Clarence Daugherty, P.E. Frontier Parkway Engineering Services Agreement – Amendment No. 4 May 29, 2018 Page 3 of 7

Scope and Fee Changes - Amendment 4B Re-Design of North Access:

A. LUMP SUM SCOPE ITEMS: (North Access Road Re-Design 4B)

Part I – Design Services

Part I.A. Schematic Design Phase

Schematic re-alignment of the North Access Road, connecting to and utilizing proposed Prairie Crossing Road and Street A as the Frontier Parkway detour during construction of the BNSF Overpass. This option provides for design and construction of Prairie Crossing Road and Street A with the Frontier Parkway Improvements as shown on attached **Exhibit A**

Part I.E. (New task Item) Prairie Crossing and Street A Design

Re-design of the North Access Road, connecting to and utilizing proposed Prairie Crossing Road and Street A as the Frontier Parkway detour during construction of the BNSF Overpass. This option provides for design and construction of Prairie Crossing Road and Street A with the Frontier Parkway Improvements as shown on attached **Exhibit A**.

Part II – Bidding Phase Services

Increased scope for including Prairie Crossing Road and Road A.

Part III - Construction Administration Services

Increased scope for construction administration services related to for Prairie Crossing Road and Road A.

B. ADDITIONAL SERVICES SCOPE ITEMS: (North Access Road Re-Design 4B)

No Change to Original Additional Services Tasks 6 through 11.

Task 1: Field Surveys

Additional scope for surveys related to design of Prairie Crossing Road and Road A.

Task 2: R-O-W- Map, Plats and Field Note Descriptions

Increased scope due to revisions in right-of-way map, plats and field notes from Prairie Crossing Road and Road A.

Task 3: Geotechnical Investigation and Report

Additional scope related to borings for Prairie Crossing Road and Road A.

Task 5: NCTCOG Environmental Form

Additional scope related to adding Prairie Crossing Road and Road A.

PROJECT SCHEDULE

This Amendment 4 revises Exhibit B in the original agreement "Projected Completion Schedule". The revision is necessary to account for time required to resolve the project hydrologic and hydraulic evaluation and to account for additional time required for other changes in scope as described previously.

In summary, the amount of time required is as follows: (Based on notice to proceed June 1, 2018)

Part A -Base Portion Scope Revisions	60 Calendar Days
Part B -Re-Design North Access Road Scope Revisions	60 Calendar Days
Time on Hold for Hydrologic and Hydraulic Evaluation and Report (13.a)	<u>160 Calendar Days</u>

Total, Amendment No. 4

280 Calendar Days

CHANGE IN FEE

It is understood that Collin County may choose to authorize all or parts of this Amendment No. 4 without effect on other independent scope and fee items in this Amendment.

Further, based on the outcome of on-going negotiations between Collin County, City of Celina and the Light Farms development, all or portions of Amendment No. 4, Part B may be designed by others and incorporated into the bidding and construction documents for this project. Those scope and fee elements are highlighted in yellow on "Exhibit C – Fee Schedule" and may be deducted from the total amount of this Amendment should the County so desire.

The fee schedule shown in Exhibit C is hereby modified by the amounts shown under the column heading "Amendment No. 4" and further itemized by the sub-column headings "A. Base Amendment" and "B. Revised North Access Road Via Prairie Crossing Road" on the attached Revised Exhibit C.

			Contract Amounts (\$)			
Engineering Service Agreement Phase			Amendment No. 4			
		Contract Amount Through Amendment No. 3	A. Base Amendment	B. Revised North Access Road via Prairie Crossing Rd	Revised Contract Amount, this Amendment (4A + 4B)	
A. Basic Services Parts I -III (Lump Sum)	Part I. A.	Schematic Design	\$150,000		\$15,000	\$165,000
	Part I.B.	Final Design	\$1,162,000			\$1,162,000
	Part I.C.	Full Bridge Width Design with Alternate Bid for 4-lane Bridge	\$0	\$120,700		\$120,700
	Part I.D.	PISD Detention Pond Design	\$0	\$25,992		\$25,992
	Part I.E.	Prairie Crossing Road & Street A (Light Farms) Design	\$0		\$114,999	\$114,999
A.I.	Part II	Bidding Phase	\$9,000	\$8,400	\$5,750	\$23,150
	Part III.	Construction Administration	\$180,000	\$18,099	\$17,250	\$215,349
		Subtotal - Basic Services (Part A.)	\$1,501,000	\$173,191	\$152,999	\$1,827,190
B. Additional Services (Hourly)	1	Field Surveys (Design, Property and Construction Support):	\$39,840	\$2,500	\$8,500	\$50,840
	2	R-O-W Map, Plats and Field Notes Descriptions (16 each):	\$29,600		\$17,800	\$47,400
	3	Geotechnical Investigation and Report:	\$77,199		\$5,000	\$82,199
	4	Flood Study:	\$24,800			\$24,800
	5	NCTCOG Environmental Form:	\$22,200		\$2,000	\$24,200
	6	404 Permit Application (Nationwide Permit 14):	\$47,751			\$47,751
	7	Permits (TxDOT, BNSF) and Utility Relocation Coordination:	\$13,000			\$13,000
	8	Asbestos Evaluation (4 Buildings):	\$11,000			\$11,000
	9	Twelve (12) additional Design Meetings with collin County,Celina, Prosper & PISD (Total = 24)	\$23,400	\$13,200		\$36,600
	10	Attend Twenty(20) Additional Progress Meetings:	\$21,000			\$21,000
	11	Additional Printing of Construction Plans and Specifications:	\$4,000			\$4,000
	12	Revised Schematic Layouts, Drainage Evaluations, Cost Estimates and Coordination Meetings	\$20,000			\$20,000
	13a.	Doe Branch Tributary C Hydraulic Evaluations and Report	\$0	\$32,000		\$32,000
	13b.	Revised Flood Study for Detention Pond Design	\$0	\$18,000		\$18,000
	14	PISD Detention Pond Replat	\$0	\$15,000		\$15,000
		Subtotal Additional Services (Part B):	\$333,790	\$80,700	\$33,300	\$447,790
C. Optional Services (Hourly)	1	Traffic Signal Warrant Study	\$5,500			\$5,500
	2	Street Lighting Design	\$46,000			\$46,000
	3	Full Irrigation Design Plans and Specifications	\$50,000			\$50,000
	3a	Irrigation and Lighting Conduit Sleeves Only	\$5,000			\$5,000
	4	Sidewalks and Barrier Free Ramps (TDLR \$2,085 fee Included)	\$42,000			\$42,000
	5	On-site Observation of Construction Activity	TBD			TBD
		Subtotal Optional Services (Part C)	\$148,500			\$148,500
Engineering Services Agreement Grand Total:		\$1,983,290	\$253,891 \$440	\$186,299	\$2,423,480	
Engineering Services Agreement Grand Total: Amendment 4 Deductive Option:		\$1,703,290	5440	,170	\$2, 4 23,480	
Scope Items highlighted in yellow may be designed by the Light Farms design team and incorporated into this project bid package. If so, deduct amount shown from			\$0	(\$128,499)		
this Amendment No. 4			\$253,891	\$57,800		
Option B Engineering Service Agreement Grand Total:		\$1,983,290	\$311	,691	\$2,294,981	

Exhibit "C" Engineering Service Fee Schedule – Amendment No. 4 (Parts A and B)

Mr. Clarence Daugherty, P.E. Frontier Parkway Engineering Services Agreement – Amendment No. 4 May 29, 2018 Page 6 of 7

If this Amendment No. 4 to our original agreement dated September 27, 2016 meets with your approval, please indicate your choice of **Amendment 4**, **Base Part A** and **Amendment 4 Part B-Redesign of the North Access Road** (or parts thereof) have one set executed for Collin County and returned to our office. We look forward to our continued work on this project with you and your staff.

Sincerely,

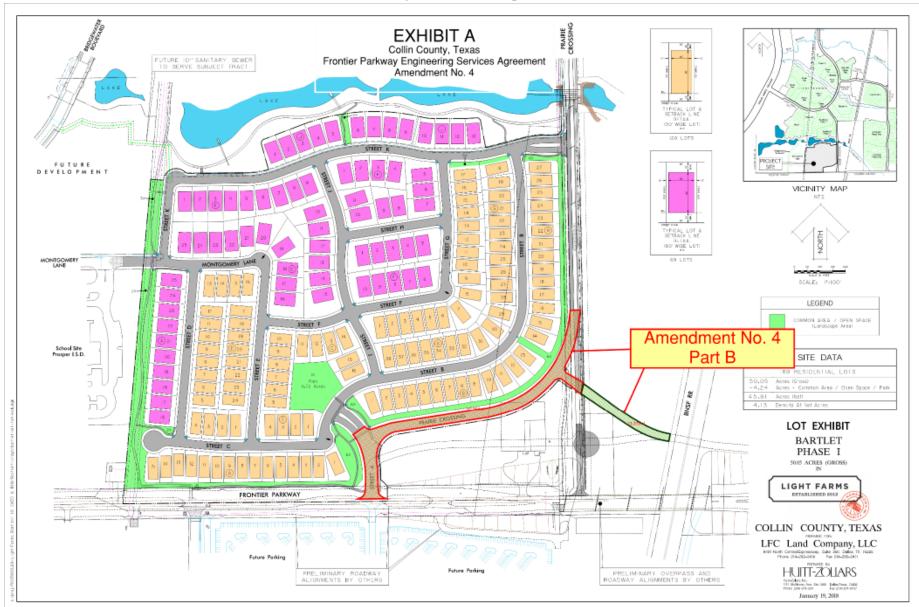
APPROVED BY COLLIN COUNTY, TEXAS

Gary C. Hendricks, P.E., R.P.L.S.

By:

Date:

EXHIBIT A Amendment No. 4 – Part B Re-Design of North Access Road



Project Location Map