DANNENBAUM ENGINEERING CORPORATION LAREDO OFFICE:

8610 McPherson, Suite 130 Laredo, Texas 78040 (956)712-9817 Office (956)712-9857 Fax

July 11, 2016

Webb County 1620 Santa Ursula, 2nd Floor Laredo, Texas 78040

Attn: Luis Perez Garcia, P.E.

Webb County Engineer

Ref: Loop 20 Main Lanes and Frontage Roads from Sta. 554+00 to Just North of Loop 20 / US 59

Overpass (TxDOT CSJ 0086-14-058)(Loop 20 Extension)

Subj: Supplemental Work Authorization No. 1 to Work Authorization No. 2

Dear Mr. Perez Garcia,

Please find attached herewith: three (3) partially executed copies of Supplemental Work Authorization No. 1 to Work Authorization No. 2 for Engineering Services for the above referenced project, each bearing an original signature. The Contract is being increased by \$109,579.96.

Please execute each of the three (3) copies of Supplemental Work Authorization No. 1 to Work Authorization No. 2 using blue ink. Thereafter, please retain one (1) original for your files, transmit one (1) original to TxDOT, and return one (1) original to our office for our records.

Provided below are the justifications for the man-hours for the disciplines of the work required to modify the schematic and the administration requirements:

FC - 164 Project Management

Original timeline of project was from 9/2/13 to 3/2/15. The original timeline has been modified due to the progress of the project. The new timeline for project begins 3/2/15 to an expected project completion of 12/2/16. An additional 17 months of administration has been requested, excluding time for the 4 month delay on the project. Additional management hours are required for continue progress in the development of the project.

FC - 110 Route and Design

- Ramp reconfiguration 3 ramp Reverse order of ramps (off-on instead of on-off).
- Frontage road turning lane Make a dual left (shared right lane left and straight) at various intersection. Also, add deceleration right turn lanes.
- Extend multiuse bike path into park Will not be included, it is to be included in a future work authorization if required.
- Realign park entrance 3 entrance design alternatives to be provided due to the high volumes of traffic into the state park.
- New Bridge over Chacon Creek Minimal work will be required to update the schematic to include the frontage road bridge over Chacon Creek.

DANNENBAUM ENGINEERING CORPORATION LAREDO OFFICE:

8610 McPherson, Suite 130 Laredo, Texas 78040 (956)712-9817 Office (956)712-9857 Fax

- Wetland for detention/treatment facility Will not be included, it is to be included in a future work authorization if required.
- Storm water detention between main lane and frontage road Will not be included, it is to be included in a future work authorization if required.
- Concrete pavement for Main lanes This work will require Dannenbaum to update the Typical sections and the cross sections in order to develop an accurate cost estimate for the project.
- Concrete pavement for Frontage roads This work will require Dannenbaum to update the Typical sections and the cross sections in order to develop an accurate cost estimate for the project.
- Reduce/Eliminate small strip acquisitions Will modify with no charge.

FC – 161 Detention Pond Analysis

• Will not be included, it is to be included in a future work authorization if required.

FC – 130 Right of Way

• Will not be included, it is to be included in a future work authorization if required.

Should you have any questions or require further information regarding this matter, please contact me at your earliest convenience by telephone at (956) 682-3677 or by email at louis.jones@dannenbaum.com

Sincerely,

Louis H. Jones, P.E.

Principal

cc:

File No. 4688-01 Richard D. Seitz, P.E. Nathaniel Olivarez, P.E. Cynthia M. Luera Dannenbaum Engineering Corporation Dannenbaum Engineering Corporation Dannenbaum Engineering Corporation Dannenbaum Engineering Corporation

Attachments:

- 1. Three (3) partially executed copies of Supplemental Work Authorization No. 1 to Work Authorization No. 2 for Engineering Services for the above referenced project, each bearing an original signature.
- 2. Three copies of:
 - a. Attachment D Form D-2 Supplemental Work Authorization No. 1 to Work Authorization No. 2 (Dated 06-22-2016)
 - b. Exhibit B Revised "Services to be provided by the Engineer" (Revised 06-22-2016)
 - c. Exhibit C Maximum Amount Payable (Revised 06-22-2016)
 - d. Exhibit C-1 Maximum Amount Payable (Revised 06-22-2016)

SUPPLEMENTAL WORK AUTHORIZATION NO. 1 TO WORK AUTHORIZATION NO. 2

ATTACHMENT D

D-2

SUPPLEMENTAL WORK AUTHORIZATION NO. __1__ TO WORK AUTHORIZATION NO. _2_ CONTRACT FOR ENGINEERING SERVICES

THIS SUPPLEMENTAL WORK AUTHORIZATION is made pursuant to the terms and conditions of Article 5 of Contract No. <u>Loop 20</u> hereinafter identified as the "Contract," entered into by and between the County of Webb (County), and Dannenbaum Engineering Corporation (the Engineer).

The following terms and conditions of Work Authorization No. 2 are hereby amended as follows:

PART I. The Engineer will perform engineering design and/or detailing services as set forth in Exhibit B –Services to be Provided by the Engineer, for Loop 20 main lanes and frontage roads from Sta. 554+00 to Just North of Loop 20 / US 59 Overpass (TxDOT CSJ 0086-14-058) situated in Webb County, Texas in accordance with the project description attached hereto and made a part of this Work Authorization, more specifically described as follows:

A. For services as detailed in Supplemental Work Authorization No. 1 to Work Authorization No. 2.

PART II. The maximum amount payable under this Work Authorization is increasing to \$677,491.94 from \$567,911.98 and the method of payment is __lump sum_ as set forth in Attachment E of the Contract. This amount is based upon fees set forth in Attachment E, Fee Schedule, of the Main Contract and the Engineer's estimated Work Authorization costs included in Exhibit D, Summary of Fees of Work Authorization No. 2, previously executed.

Original Work Authorization No. 2 Amount = \$ 567,911.98

Supplemental Work Authorization No. 1 Amount = \$ 109,579.96 **\$ 677,491.94**

The attached Exhibit D, Detailed Fee Schedule from October 2, 2013 through August 1, 2020, shall replace original Exhibit D in WA No. 2.

This Supplemental Work Authorization shall become effective on the date of final execution of the parties hereto. All other terms and conditions of Work Authorization No. 2 are to remain in full force and effect.

IN WITNESS WHEREOF, this Supplemental Work Authorization is executed in duplicate counterparts and hereby accepted and acknowledged below.

THE ENGINEER	THE COUNTY
(Signature)	(Signature)
Louis H. Jones, P.E. (Printed Name)	(Printed Name)
Principal (Title)	(Title)
(Date)	(Date)

LIST OF EXHIBITS

Exhibit C Fee Schedule summary

EXHIBIT B

SERVICES TO BE PROVIDED BY THE ENGINEER

(REVISED 6/22/2016)

Contract No. <u>CSJ: 0086-14-058</u> Supplemental Work Authorization No. 1 to Work Authorization No. 2

EXHIBIT B

(Revised 06-22-2016)

Services to be Provided by the Engineer

CSJ:

0086-14-058

Highway:

SL 20

County:

Webb County CBI 2013 (881)

Project No.: Limits:

Loop 20 from Sta. 554+00 to Just North of Loop 20 / US 59 Overpass

Project Length:

7.0 Miles

Area Office:

Laredo Area Office

Proposed Improvements

The proposed Loop 20 from Sta. 554+00 to Just North of Loop 20 / US 59 Overpass will consist of six mainlanes with shoulders and two lane frontage roads on each side eight (8) lane main lanes and no frontage roads from US 59 Hwy to Airport Drive and six (6) lane main lanes and three (3) lane frontage roads from Airport Drive to International Road for the advanced project planning Phase I and Phase II (Schematic / Environmental / Right of Way), and the Phase III – PS&E phase, may be performed at a later date, with Amendment to the Contract, which will consist of designing four mainlanes with shoulders and two lane frontage road each side eight (8) lane main lanes and no frontage roads from US 59 Hwy to Airport Drive and six (6) lane main lanes and three (3) lane frontage roads from Airport Drive to International Road with overpasses over Shiloh Road; Del Mar Road; University Drive; Jacaman Road and Laredo International Airport Road, including corresponding underground storm sewers; cross culverts; signage and traffic signals at frontage roads.

Sidewalks no both sides of the proposed Loop 20 Freeway from the Loop 20 / US 59 overpass to the Loop 20/ International Boulevard overpass.

Hike and Bike Trail along one side of the proposed Loop 20 Freeway from the Loop 20 / US 59 overpass to the Loop 20/ International Boulevard overpass.

PHASE I- ADVANCED PROJECT DEVELOPMENT SERVICES

I. FEASIBILITY STUDIES

II. ROUTE AND DESIGN STUDIES

Task: Roadway Design Criteria (FC: 110)

The Engineer shall revise the roadway design criteria to include sidewalks on both sides of Loop 20.

Supplemental Work Authorization No. 1 to Work Authorization No. 2

The Engineer shall revise the roadway design criteria to include small signs. The signs are to be designed in accordance with TxDOT "Sign Crew Field Book" and AASHTO "Guide for the Development of Bicycle Facilities (2012)

The Engineer shall revise the roadway design criteria to include a hike and bike trail on one side of Loop 20. Hike and bike trails is to be designed in accordance with AASHTO "Guide for the Development of Bicycle Facilities (2012). Details are to be added illustrating sidewalk and hike and bike crossings of driveways.

Task: Design Schematic (FC: 110)

b. Prepare a schematic plan and profile drawing (1"=50'H, 1" = 10'V) on a continuous color plot paper roll. The Schematic will include hike and bike trail, small signs, the ultimate edge of pavement, proposed hike and bike trail profile, existing utility crossings, proposed culvert crossings, proposed bridges, proposed R.O.W., existing cross streets, proposed driveways, proposed outfall channels, proposed channelized intersections, ultimate interchange configurations, signing, and pavement markings.

Task: Value Engineering Studies (FC 110)

a. TxDOT will be responsible for preparing; holding and documenting Value Engineering Study with Engineer's Staff attending one(1) day.

Supplemental Work Authorization No. 1 to Work Authorization No. 2

- Ramp reconfiguration 3 ramp Reverse order of ramps (off-on instead of on-off).
- Frontage road turning lane Make a dual left (shared right lane left and straight) at various intersection. Also, add deceleration right turn lanes.
- Extend multiuse bike path into park Will not be included, it is to be included in a future work authorization if required.
- Realign park entrance 3 alternatives will be provided on the project.
- New Bridge over Chacon Creek Minimal work will be required to update the schematic to include the frontage road bridge over Chacon Creek.
- Wetland for detention/treatment facility Will not be included, it is to be included in a future work authorization if required.
- Storm water detention between main lane and frontage road Will not be included, it is to be included in a future work authorization if required.
- Concrete pavement for Main lanes This work will require Dannenbaum to update the Typical sections and the cross sections in order to develop an accurate cost estimate for the project.
- Concrete pavement for Frontage roads This work will require Dannenbaum to update the Typical sections and the cross sections in order to develop an accurate cost estimate for the project.
- Reduce/Eliminate small strip acquisitions Will modify with no charge.

Task: Detention Pond Analysis (FC: 161)

Supplemental Work Authorization No. 1 to Work Authorization No. 2

Will not be included, it is to be included in a future work authorization if required

IV. FIELD SURVEYING AND PHOTOGRAMMETRY

FIELD SURVEY

Task: Establish Ground Control (FC: 150)

1. Set all monuments and complete GPS obstruction field sketches, to reach descriptions and reference swing ties. Also, update, if necessary, all information on existing control to be used on this survey. Monuments will consist of aluminum disks "Berntsen Driven-In Survey Monuments" that are to be driven into the ground until "refusal" or to a depth of fifteen feet (whichever is reached first). The station ID is to be stamped on the disk.

PHASE V. RIGHT OF WAY SERVICES

Task: Ownership Data and Permission for Right of Entry (FC: 130)

The Engineer shall obtain ownership data for all impacted property owners within the project limits and shall obtain right of entry from all property owners prior to commencing any work for surveying and/or right of way services. Number of parcel has increased from 50 parcels identified in "SCOPE AND FEE SCHEDULE ASSUMPTIONS", Paragraph F.8 to over 200 parcels.

<u>Task: Right-of-Way (Detention Pond) (FC: 130)</u>
Supplemental Work Authorization No. 1 to Work Authorization No. 2

· Will not be included, it is to be included in a future work authorization if required

DELIVERABLES

D. RIGHT OF WAY DELIVERABLES

1. Right of Entry letters. Number of parcel has increased from 50 parcels identified in "SCOPE AND FEE SCHEDULE ASSUMPTIONS", Paragraph F.8 to over 200 parcels.

SCOPE AND FEE SCHEDULE ASSUMPTIONS

F. RIGHT OF WAY:

8. For Right of Way Mapping, 50 parcels have been assumed. Parcel count above 50 will be considered scope change and will require additional fee. Number of parcel has increased from 50 parcels to over 200 parcels.

Page 3 of 3

EXHIBIT C MAXIMUM AMOUNT PAYABLE

EXHIBIT C SUMMARY OF FEE SCHEDULE FOR PHASE I (ADVANCED PROJECT DEVELOPMENT SERVICES) SUPPORTING LUMP SUM CALCULATIONS

Provide Advanced Project Development Services, Develop Separate Schematic, Environmental Assessment, Public Involvement, Value Engineering, Drainage Studies, Culvert Sizing and Surveying Topo/Aerial Flight, Utility Investigations (Quality Level A, B, C & D), for Extension of Loop 20 DETAILED FEE SCHEDULE FOR SUPPLEMENTAL WORK AUTHORIZATION NO. 1 TO WORK AUTHORIZATION NO. 2 PHASE I - ADVANCED PROJECT DEVELOPMENT SERVICES LOOP 20 STIMULUS PROJECT (CSJ: 0086-14-058)

from Approximately STA 554+00 to just North of the Loop 20 / US 59 Overpass.

SUPPLEMENTAL WA NO. 1 TO WA NO 2

PHASE I - ADVANCED PROJECT DEVELOPMENT SERVICES SUMMARY BY FUNCTION CODES	

PHASE I - ADVANCED PROJECT DEVELOPMENT SERVICES SUMMARY BY FUNCTION CODES	INT SERVIC	ES SUMMARY BY FUN	ICTION CC	DES									10 17 1			
		DDIME	The second second	100									I Otal Phase	lotal Phase I services =	\$10	\$109,579.96
		LIMINE		UBE		DBE		DBE		DBE		DBE	NON	NON-DBE	Z	NON-DBE
Function Codes	Danner	Dannenbaum Engineering Corporation	A Zepec	Arredondo, Zepeda&Brunz, LLC	Arias & A	Arias & Associates. Inc.		Aerial Data Services, Inc.	Ammaterr	Ammaterra Environmental		251 1113 3000	Howland Er	Howland Engineering &	Gilpin	Gilpin Engineering
	Hrs	Fee	Hrs	H P	L _r			1			2	Da, aue, IIIC.	Surve	Surveying Co.	ŭ	Company
FC 102 Feasibility Studies					2	9	2	eea	HLS	Fee	Hrs	Fee	Hrs	Fee	Hrs	Fee
FC 110 Route and Design Studies	792	\$ 109.579.96														
FC 120 Social, Economic and Environmental Studies and Public Involvement																
FC 130 Right of Way Data		6														
FC 150 Field Surveying		9														
FC 160 Roadway Design Controls																
FC 161 Drainage		69														
FC 162 Signing, Pavement Markings, Signalization																
FC 163 Miscellaneous (Roadway)																
FC 164 Managing Advanced Planning Services and Overall QA/QC Services																
FC 165 Traffic Management Systems																
FC 170 Bridge Design																
Direct Expenses																
Total	792	\$ 109,579.96	0	1 49	c	65	c	e		÷			+		1	
Percent Participation				ш)		•		e e	0	-	0	1	0	ı 69
cociici allicipation		100.00%		0.00%		%00.0		0.00%		0.00%		0.00%		0.00%		%000
		3														9/00:0
	NON DE	900	% PARTICIPATION =	≡ NOL												
	DBE		00.001													
-	TOTAL	3,000	,,,,,,,													

DETAILED FEE SCHEDULE FOR SUPPLEMENTAL WORK AUTHORIZATION NO. 1 TO WORK AUTHORIZATION NO. 2 (DANNENBAUM ENGINEERING CORPORATION)

DETAILED FEE SCHEDULE FOR SUPPLEMENTAL WORK AUTHORIZATION NO. 1 TO WORK AUTHORIZATION NO. 2

LOOP 20 STIMULUS PROJECT (CSJ: 0086-14-058)

PHASE I - ADVANCED PROJECT DEVELOPMENT SERVICES

Develop Separate Schematic, Environmental Assessment, Public Involvement, Value Engineering, Drainage Studies, Culvert Sizing and Surveying Topo/Aerial Flight, Utility Investigations (Quality Level A, B, C & D)

Extension of Loop 20 from Approximately STA 554+00 to just North of the Loop 20 / US 59 Overpass.

DANNENBAUM ENGINEERING CORPORATION

TASK DESCRIPTION	Principal or Project Manager	Depty Project Manager	Senior Engineer (Civil)	Senior Engineer (Bridge)	Engineer	Senior Designer	CAD Operator or CADD Tech. I	Clerical	TotaL Labor Hours	Task Cost
ADVANCED PROJECT DEVELOPMENT										
ADVANCE PROJECT DEVELOPMENT										
FC 164 - PROJECT MANAGEMENT (FC 102 TO FC 164) (ADVANCED PROJECT DEVELOPMENT SERVICES (ADDITIONAL 17 MONTHS)										
PREPARE CLIENT MANAGEMENT/MANAGE WORK AUTHORIZATIONS INCLUDING RECORD KEEPING/FILING (ADVANCED PROJECT DEVELOPMENT)	2	9	0	0	0	0	0	13	24	3,624.06
SCHEDULE & ATTEND WORK AUTHORIZATION DEVELOPMENT MEETINGS	7	7	6	0	0	0	0	12	32	6,079.68
COORDINATION/PREPARE SUB WORK AUTHORIZATIONS/MANAGE SUBCONSULTANTS	6	10	11	0	0	11	0	22	60	9,409.40
PREPARATION OF INVOICES AND PROGRESS REPORTS (ADDITIONAL 17 EA)	9	32	0	0	16	0	0	32	89	14,695.53
SCHEDULE, ATTEND AND PREPARE MINUTES (ADDITIONAL MEETINGS HELD)	3	7	7	0	0	0	0	7	24	4,669.01
MONITOR SUB-PROVIDER'S SCHEDULES ON MONTHLY BASIS (ADDITIONAL 17 MONTHS)	2	16	4	0	16	8	0	9	55	8,885.55
PREPARE & ASSEMBLE PRELIMINARY COST ESTIMATES (ADDITIONAL ESTIMATES DEVELOPED)	2	2	4	0	14	7	8	1	38	5,358.15
SUB-TOTAL - FC 164 - PROJECT MANAGEMENT	31	83	32	0	46	26	8	96	322	52,721.38
TOTAL ADVANCE PROJECT DEVELOPMENT MANHOURS (DANNENBAUM)	31	83	32	0	46	26	8	96	322	52,721.38
BASIC SERVICES										
BASIC SERVICES (DANNENBAUM)										
FC 110 - ROUTE AND DESIGN STUDIES										
RAMP RECONFIGURATION-3 RAMPS	2	0	14	0	26	28	30	0	100	12,736.32
FRONTAGE ROAD TURNING LANES	2	0	4	0	24	30	36	0	96	10,931,06
EXTEND MULTIUSE BIKE PATH INTO PARK (NOT INCLUDED)(FUTURE W.A. IF REQUIRED)	0	0	0	0	0	0	0	0		
REALIGN PARK ENTRANCE-3 ALTERNATIVES	1	0	3	0	12	20	24	0	60	6,724.87
NEW BRIDGE OVER CHACON CREEK	1	0	1	0	2	2	0	0	6	1,030.89
WETLAND FOR DETENTION/TREATMENT FACILITY (NOT INCLUDED)(FUTURE W.A. IF REQUIRED)	0	0	0	0	0	0	0	0		ō
STORMWATER DETENTION BEWTEEN MAIN LANE AND FRONTAGE ROAD (NOT INCLUDED)(FUTURE W.A. IF REQUIRED)	0	0	0	0	0	0	0	0		

DETAILED FEE SCHEDULE FOR SUPPLEMENTAL WORK AUTHORIZATION NO. 1 TO WORK AUTHORIZATION NO. 2

LOOP 20 STIMULUS PROJECT (CSJ: 0086-14-058)

PHASE I - ADVANCED PROJECT DEVELOPMENT SERVICES

Develop Separate Schematic, Environmental Assessment, Public Involvement, Value Engineering, Drainage Studies, Culvert Sizing and Surveying Topo/Aerial Flight, Utility Investigations (Quality Level A, B, C & D)

Extension of Loop 20 from Approximately STA 554+00 to just North of the Loop 20 / US 59 Overpass.

DANNENBAUM ENGINEERING CORPORATION

TASK DESCRIPTION	Principal or Project Manager	Depty Project Manager	Senior Engineer (Civil)	Senior Engineer (Bridge)	Engineer	Senior Designer	CAD Operator or CADD Tech. I	Clerical	TotaL Labor Hours	Task Cost
CONCRETE PAVEMENT FOR MAINLANES										
UPDATE CROSS SECTIONS FOR UPDATED ESTIMATE	1	0	4	0	8	16	24	0	53	5,995.4
UPDATE TYPICAL SECTIONS FOR UPDATED ESTIMATE	1	0	2	0	4	8	16	0	31	3,495.4
UPDATE ESTIMATE	1	3	4	0	4	4	4	0	20	3,226.8
CONCRETE PAVEMENT FOR FRONTAGE ROADS										
UPDATE CROSS SECTIONS FOR UPDATED ESTIMATE	1	0	4	0	8	16	24	0	53	5,995.4
UPDATE TYPICAL SECTIONS FOR UPDATED ESTIMATE	1	0	2	0	4	8	16	0	31	3,495.4
UPDATE ESTIMATE	1	3	4	0	4	4	4	0	20	3,226.8
REDUCE/ ELIMINATE SMALL STRIP ACQUISITIONS (WILL MODIFY WITH NO CHARGE)	0	0	0	0	0	0	0	0		
UB-TOTAL - FC 110 - ROUTE AND DESIGN STUDIES	12	6	42	0	96	136	178	0	470	56,858.5
TOTAL BASIC SERVICES MANHOURS (DANNENBAUM)	12	6	42	0	96	136	178	0	470	56,858.5
HOURS SUB-TOTALS	12	6	42	0	96	136	178	0	470	
LABOR RATE PER HOUR	\$ 327.93	\$ 236.07	\$ 225.50	\$ 225.50	\$ 132.09	\$ 106.64	\$ 83.44	\$ 64.89		
DIRECT LABOR COSTS	\$3,935.16	\$1,416.42	\$9,471.00	\$0.00	\$12,680.64	\$14,503.04	\$14,852.32	\$ -	CHECK	
TOTAL BASIC SERVICES FEE (DANNENBAUM)	3,935.16	1,416.42	9,471.00	0.00	12,680.64	14,503.04	14,852.32	0.00	56,858.58	
PERCENT LABOR UTILIZATION FOR TOTAL PROJECT (BASED ON FEE)	6.92%	2.49%	16.66%	0.00%	22.30%	25.51%	26.12%	0.00%	100.00%	
PERCENT LABOR UTILIZATION FOR TOTAL PROJECT (BASED ON MANHOURS)	2.55%	1.28%	8.94%	0.00%	20.43%	28.94%	37.87%	0.00%	100.00%	
	184 2 4	and the second	100000		- Vicin (9)					
FC-161-DETENTION POND ANALYSIS (NOT INCLUDED) (FUTURE W.A. IF REQUIRED)									\$ -	
FC 130 - RIGHT OF WAY (DETENTION POND)(NOT INCLUDED) (FUTURE W.A. IF REQUIRED)									\$ -	
	TELEVISION OF THE PERSON OF TH								\$ -	\$ -

DETAILED FEE SCHEDULE FOR SUPPLEMENTAL WORK AUTHORIZATION NO. 1 TO WORK AUTHORIZATION NO. 2

LOOP 20 STIMULUS PROJECT (CSJ: 0086-14-058)

PHASE I - ADVANCED PROJECT DEVELOPMENT SERVICES

Provide Advanced Project Development Services, Develop Separate Schematic, Environmental Assessment, Public Involvement, Value Engineering, Drainage Studies, Culvert Sizing and Surveying Topo/Aerial Flight, Utility Investigations (Quality Level A, B, C & D), for Extension of Loop 20

from Approximately STA 554+00 to just North of the Loop 20 / US 59 Overpass.

		Dan	menbaum Eng	ineering Corpo	ration						
SPECIAL SERVICES (FC 161) HYDROLOGIC TASK DESCRIPTION	Principal/PM	DEPUTY PM	Senior Engineer- Civil	Senior Engineer- Bridge	Engineer	Senior Designer	CADD Operator/ Tech	Clerical	Total Labor Hrs.	Remarks	Task Cost
FC 161 - DRAINAGE		The state of the s									
DETENTION POND ANALYSIS											
RESEARCH & EVALUATE DETENTION STORAGE LOCATIONS	0		0		0	0	0		. 0		\$
SIZE DETENTION POND STORAGE AND OUTLET SIZES	0		0		0	0	0		0		\$
QA/QC (STORAGE LOCATIONS & DETENTION POND STORAGE)	0		0						0		\$
SUBMIT FOR REVIEW AND COMMENTS	0		0		0	0	ž.		0		\$
ADDRESS COMMENTS AND SUBMIT FINAL DESIGN	0		0		0	0	0		0		\$
SUB-TOTAL - FC 161 - DRAINAGE	0	0	0	0	0	0	0	0	0	Carden Val	\$
TOTAL DIRECT EXPENSES (FROM BELOW)											
TOTAL - FC 161 - DRAINAGE INCLUDING DIRECT EXPENSES	NOT THE PERSONS AND	E TOWN THE REST	TOTAL STATES	THE STREET							\$
TOTAL ENGINEERING (SUBCONSULTANT) - SPECIAL SERVICES (FROM BELOW)						Services of the Section of					\$
TOTAL FC 161 - DRAINAGE		See See See									
IOIAL PO 191 - BRAINAGE											•
)
HOURS SUB-TOTALS	0	0	0	0	0	0	0	0			•
LABOR RATE PER HOUR	\$ 327.93	\$ 236.07	\$ 225.50	\$ 225.50	\$ 132.09	\$ 106.64	\$ 83.44				
LABOR RATE PER HOUR DIRECT LABOR COSTS	\$ 327.93 \$ -	\$ 236.07 \$ -	\$ 225.50 \$ -	\$ 225.50 \$ -	\$ 132.09 \$ -	\$ 106.64 \$ -	\$ 83.44 \$ -	\$ -	\$ -		9
HOURS SUB-TOTALS LABOR RATE PER HOUR DIRECT LABOR COSTS TOTAL	\$ 327.93 \$ -	\$ 236.07 \$ -	\$ 225.50	\$ 225.50 \$ -	\$ 132.09 \$ -	\$ 106.64	\$ 83.44 \$ -	Control of the Contro			
LABOR RATE PER HOUR DIRECT LABOR COSTS	\$ 327.93 \$ -	\$ 236.07 \$ -	\$ 225.50 \$ -	\$ 225.50 \$ -	\$ 132.09 \$ -	\$ 106.64 \$ -	\$ 83.44 \$ -	\$ -	\$ -	CHECK	
LABOR RATE PER HOUR DIRECT LABOR COSTS TOTAL	\$ 327.93 \$ - \$ -	\$ 236.07 \$ - \$ -	\$ 225.50 \$ - \$ -	\$ 225.50 \$ - \$ -	\$ 132.09 \$ - \$ -	\$ 106.64 \$ - \$ -	\$ 83.44 \$ - \$ -	\$ - \$ -	\$ - \$ -	CHECK 5 -	
LABOR RATE PER HOUR DIRECT LABOR COSTS TOTAL PERCENT LABOR UTILIZATION FOR TOTAL PROJECT (BASED ON FEE)	\$ 327.93 \$ - \$ - #DIV/0!	\$ 236.07 \$ - \$ - #DIV/0!	\$ 225.50 \$ - \$ - #DIV/0!	\$ 225.50 \$ - \$ - #DIV/0!	\$ 132.09 \$ - \$ - #DIV/0!	\$ 106.64 \$ - \$ - #DIV/0!	\$ 83.44 \$ - \$ - #DIV/0!	\$ - \$ -	\$ - \$ - #DIV/0!	CHECK	
LABOR RATE PER HOUR DIRECT LABOR COSTS TOTAL PERCENT LABOR UTILIZATION FOR TOTAL PROJECT (BASED ON FEE) PERCENT LABOR UTILIZATION FOR TOTAL PROJECT (BASED ON MANHOURS)	\$ 327.93 \$ - \$ - #DIV/0!	\$ 236.07 \$ - \$ - #DIV/0!	\$ 225.50 \$ - \$ - #DIV/0!	\$ 225.50 \$ - \$ - #DIV/0!	\$ 132.09 \$ - \$ - #DIV/0!	\$ 106.64 \$ - \$ - #DIV/0!	\$ 83.44 \$ - \$ - #DIV/0!	\$ - \$ -	\$ - \$ - #DIV/0!	CHECK \$ -	
LABOR RATE PER HOUR DIRECT LABOR COSTS TOTAL PERCENT LABOR UTILIZATION FOR TOTAL PROJECT (BASED ON FEE) PERCENT LABOR UTILIZATION FOR TOTAL PROJECT (BASED ON MANHOURS) DIRECT EXPENSES	\$ 327.93 \$ - \$ - #DIV/0!	\$ 236.07 \$ - \$ - #DIV/0!	\$ 225.50 \$ - \$ - #DIV/0!	\$ 225.50 \$ - \$ - #DIV/0!	\$ 132.09 \$ - \$ - #DIV/0!	\$ 106.64 \$ - \$ - #DIV/0!	\$ 83.44 \$ - \$ - #DIV/0!	\$ - \$ -	\$ - \$ - #DIV/0!	\$ -	
LABOR RATE PER HOUR DIRECT LABOR COSTS TOTAL PERCENT LABOR UTILIZATION FOR TOTAL PROJECT (BASED ON FEE) PERCENT LABOR UTILIZATION FOR TOTAL PROJECT (BASED ON MANHOURS) DIRECT EXPENSES REPRO -400 SHEETS X \$0.20 / PAPER SHEET x 10 Sets	\$ 327.93 \$ - \$ - #DIV/0!	\$ 236.07 \$ - \$ - #DIV/0!	\$ 225.50 \$ - \$ - #DIV/0!	\$ 225.50 \$ - \$ - #DIV/0!	\$ 132.09 \$ - \$ - #DIV/0!	\$ 106.64 \$ - \$ - #DIV/0!	\$ 83.44 \$ - \$ - #DIV/0!	\$ - \$ -	\$ - \$ - #DIV/0!	\$ -	
LABOR RATE PER HOUR DIRECT LABOR COSTS TOTAL PERCENT LABOR UTILIZATION FOR TOTAL PROJECT (BASED ON FEE) PERCENT LABOR UTILIZATION FOR TOTAL PROJECT (BASED ON MANHOURS) DIRECT EXPENSES REPRO -400 SHEETS X \$0.20 / PAPER SHEET x 10 Sets	\$ 327.93 \$ - \$ - #DIV/0!	\$ 236.07 \$ - \$ - #DIV/0!	\$ 225.50 \$ - \$ - #DIV/0!	\$ 225.50 \$ - \$ - #DIV/0!	\$ 132.09 \$ - \$ - #DIV/0!	\$ 106.64 \$ - \$ - #DIV/0!	\$ 83.44 \$ - \$ - #DIV/0!	\$ - \$ -	\$ - \$ - #DIV/0!	\$ -	
LABOR RATE PER HOUR DIRECT LABOR COSTS TOTAL PERCENT LABOR UTILIZATION FOR TOTAL PROJECT (BASED ON FEE) PERCENT LABOR UTILIZATION FOR TOTAL PROJECT (BASED ON MANHOURS) DIRECT EXPENSES REPRO -400 SHEETS X \$0.20 / PAPER SHEET x 10 Sets REPRO -200 8 1/2" x 11" COLOR COPIES X \$1.00 / PAPER SHEET x 10 Sets PER DIEM - \$121 /NIGHT STAY X 2 PERSON X 4 NIGHT (\$85 hotel/\$36 meals)	\$ 327.93 \$ - \$ - #DIV/0!	\$ 236.07 \$ - \$ - #DIV/0!	\$ 225.50 \$ - \$ - #DIV/0!	\$ 225.50 \$ - \$ - #DIV/0!	\$ 132.09 \$ - \$ - #DIV/0!	\$ 106.64 \$ - \$ - #DIV/0!	\$ 83.44 \$ - \$ - #DIV/0!	\$ - \$ -	\$ - \$ - #DIV/0!	\$ - \$ -	
DIRECT LABOR COSTS TOTAL PERCENT LABOR UTILIZATION FOR TOTAL PROJECT (BASED ON FEE) PERCENT LABOR UTILIZATION FOR TOTAL PROJECT (BASED ON MANHOURS) DIRECT EXPENSES REPRO -400 SHEETS X \$0.20 / PAPER SHEET x 10 Sets REPRO -200 8 1/2" x 11" COLOR COPIES X \$1.00 / PAPER SHEET x 10 Sets PER DIEM - \$121 /NIGHT STAY X 2 PERSON X 4 NIGHT (\$85 hotel/\$36 meals) DELIVERY SERVICES - \$50 / PACKAGE X 4 PACKAGES	\$ 327.93 \$ - \$ - #DIV/0!	\$ 236.07 \$ - \$ - #DIV/0!	\$ 225.50 \$ - \$ - #DIV/0!	\$ 225.50 \$ - \$ - #DIV/0!	\$ 132.09 \$ - \$ - #DIV/0!	\$ 106.64 \$ - \$ - #DIV/0!	\$ 83.44 \$ - \$ - #DIV/0!	\$ - \$ -	\$ - \$ - #DIV/0!	\$ - \$ -	
LABOR RATE PER HOUR DIRECT LABOR COSTS TOTAL PERCENT LABOR UTILIZATION FOR TOTAL PROJECT (BASED ON FEE) PERCENT LABOR UTILIZATION FOR TOTAL PROJECT (BASED ON MANHOURS) DIRECT EXPENSES REPRO -400 SHEETS X \$0.20 / PAPER SHEET x 10 Sets REPRO -200 8 1/2" x 11" COLOR COPIES X \$1.00 / PAPER SHEET x 10 Sets	\$ 327.93 \$ - \$ - #DIV/0!	\$ 236.07 \$ - \$ - #DIV/0!	\$ 225.50 \$ - \$ - #DIV/0!	\$ 225.50 \$ - \$ - #DIV/0!	\$ 132.09 \$ - \$ - #DIV/0!	\$ 106.64 \$ - \$ - #DIV/0!	\$ 83.44 \$ - \$ - #DIV/0!	\$ - \$ -	\$ - \$ - #DIV/0!	\$ - \$ - \$ -	

DETAILED FEE SCHEDULE FOR SUPPLEMENTAL WORK AUTHORIZATION NO. 1 TO WORK AUTHORIZATION NO. 2

LOOP 20 STIMULUS PROJECT (CSJ: 0086-14-058)

PHASE I - ADVANCED PROJECT DEVELOPMENT SERVICES

Provide Advanced Project Development Services, Develop Separate Schematic, Environmental Assessment, Public Involvement, Value Engineering, Drainage Studies, Culvert Sizing and Surveying Topo/Aerial Flight, Utility Investigations (Quality Level A, B, C & D), for Extension of Loop 20

from Approximately STA 554+00 to just North of the Loop 20 $\!\!/$ US 59 Overpass.

Dannenbaum Engineering Corporation

ROW SERVICES TASK DESCRIPTION	Principal Manager	Surveying PM	Surveying Supervisor	Field Crew (3- man)	EIT	CADD Designer	Admin Asst	Total Labor Hrs.	Task Cost
/ SERVICES									
30 - RIGHT-OF-WAY (DETENTION POND)									
PARCEL ABSTRACT	0	0	0			0		0	\$
DEVELOP WORKING SKETCHES		0	0			0		0	\$
COORDINATE WITH LAND OWNER	0	0	0					0	\$
LOCATE AND TIE CORNERS		0	0	0		0		0	\$
RESOLVE BOUNDARIES		0				0		0	\$
PREPARE ROW MAP		0	0			0	l.	0	\$
PREPARE PARCELS AND METES AND BOUNDS		0	0					0	\$
STAKE PARCEL TAKINGS		0	0	0			Ĺ	0	\$
TOTAL - ROW SERVICES	0	0	0	0	in the contract of	0	0	0	\$
ALS - RIGHT OF WAY	0	0	0	0	0	0	0	0	\$
RS SUB-TOTALS	0	0	0	0	0	0	0	0	
OR RATE PER HOUR	\$ 200.04								1
CT LABOR COSTS	\$ -		\$ -		\$ -	т		\$ -	
NL.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
DENT LADOR HTH IZATION FOR TOTAL PROJECT (RACER ON FEE)	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
CENT LABOR UTILIZATION FOR TOTAL PROJECT (BASED ON FEE) CENT LABOR UTILIZATION FOR TOTAL PROJECT (BASED ON MANHOURS)	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	ĺ
CT EXPENSES					Pre-Xmar II				
VERY SERVICES - \$50 / PACKAGE X 10 PACKAGES									\$
AGE (APPROX 1,000 MI @ \$0.565/mile				CONTRACTOR CONTRACTOR			NAME OF TAXABLE PARTY.		\$
FIC CONTROL AL DIRECT EXPENSES									\$
E DINEOT EXI ENOLO				The second secon					<u> </u>
ID TOTAL PICUT OF MAY	(I AROR CARD &	DIRECT EXPENSE)	THE RESERVE THE PARTY NAMED IN			BYREE PARTY		A PROPERTY OF THE PARTY OF THE	
ND TOTAL - RIGHT-OF-WAY	ILADUK, CADD & I	DIKECT EXPENSE)	2007年2月17日	是在 国际。	《新兴》的"孙 斯尼》	是是" 是 的"的"是我们	不要用的现在分词形式	理如为影響中學是	District Like Many
JMPTION:									

- 1. 1 PARCEL PER DETENTION POND 2. 10 DETENTION PONDS 3. RIGHT OF ENTRIES STILL VALID