



May 18, 2021
 PK No.: 4240-19.094

Ms. Patricia Davis, M.S.C.E., P.E.
City Engineer – Engineering Department
CITY OF Pflugerville
 15500 Sun Light Near Way, #B, Bldg 6, PO Box 589
 Pflugerville, Texas 78691

Re: **E. Pecan Street at Dessau Road Pavement Widening and Intersection Improvements**
Pflugerville, Travis County, Texas

Dear Ms. Davis:

The letter breaks down the bid items accompanied with Change Order #1. Once the project kicked off, RFIs started coming from the contractor. In lieu of these RFIs, it was determined by both the City and Engineer that these bid items fall under three different sections. These sections are the following:

- Value Engineering – Finding cost savings on the project.
- Accelerated Schedule – Finding ways to reduce the construction schedule.
- Omissions – Errors in the plans that require addressing.

Value Engineering

With the bid coming in over what everyone expected, the Engineer suggested to the City to involve value engineering after the bid to determine cost savings and/or time on the project. Table 1 below shows the list of Texas Department of Transportation (TxDOT) bid items associated with the project, the net change in quantity, the bid price, and the total cost savings from each change. The total amount saved by value engineering totaled **\$101,796.50**.

Table 1 – Value Engineering Table

RFI #	Change Order	Item #	Item Desc	Unit	Original #	Updated #	Change	Unit Price	\$ Change
VALUE - RFI 1	1	514-6001	PERM CTB (SGL SLOPE) (TY 1) (42)	LF	308	192	-116	\$129.00	-\$14,964.00
VALUE - RFI 2	1	529-6008	CONC CURB & GUTTER (TY II)	LF	7889	7833	-56	\$24.00	-\$1,344.00
		672-6010	REFL PAV MRKR TY II-C-R	EA	247	275	28	\$4.45	\$124.60
VALUE - RFI 14	1	540-6001	MTL W-BEAM GD FEN (TIM POST)	LF	950	920	-30	\$23.35	-\$700.50
		540-6002	MTL W-BEAM GD FEN (STEEL POST)	LF	0	30	30	\$101.03	\$3,030.90
VALUE TRAFFIC	1	681-6001	TEMP TRAF SIGNALS	LS	46200	41128	-5072	\$1.00	-\$5,072.00
VALUE ILLUM	1	618-6046	CONDT (PVC) (SCH 80) (2")	LF	3975	3635	-340	\$28.15	-\$9,571.00
		618-6047	CONDT (PVC) (SCH 80) (2") BORE	LF	990	1235	245	\$56.30	\$13,793.50
		618-6054	CONDT (PVC) (SCH 80) (3") BORE	LF	1655	1215	-440	\$61.90	-\$27,236.00
		618-6070	CONDT (RM) (2")	LF	250	0	-250	\$67.60	-\$16,900.00
		620-6003	ELEC CONDR (NO.12) BARE	LF	890	290	-600	\$1.60	-\$960.00
		620-6004	ELEC CONDR (NO.12) INSULATED	LF	1780	2690	910	\$1.85	\$1,683.50
VALUE ROADWAY*	1	628-6018	ELC SRV TY A 120/240 100(NS)AL(E)PS(U)	EA	1	0	-1	\$7,300.00	-\$7,300.00
		104-6021	REMOVING CONC (CURB)	LF	4720	4668	-52	\$9.35	-\$486.20
		247-6392	FL BS (CMP IN PLC) (TY D GR 5) (FINAL POS)	CY	1950	1139	-811	\$102.00	-\$82,722.00
		310-6001	PRIME COAT (MULTI OPTION)	GAL	996	579	-417	\$6.85	-\$2,856.45
		340-6011	D-GR HMA TY-B PG64-22	TON	1267	1598	331	\$110.00	\$36,410.00
		340-6272	TACK COAT	GAL	1243	664	-579	\$5.90	-\$3,416.10
		354-6045	PLANE ASPH CONC PAV (2")	SY	9503	9867	364	\$10.00	\$3,640.00
5001-6002	GEOGRID BASE REINFORCEMENT (TY II)	SY	833	2888	2055	\$6.35	\$13,049.25		
VALUE ENGINEERING SUM									-\$101,796.50

Accelerated Schedule

With the project already on an accelerated schedule, the RFIs by the contractor allowed the Engineer to determine adjustments and omissions to the design plan that could further accelerate the schedule. In all, these items would save at least 2 weeks at a minimum in construction time as well as save the City **\$326,770.00**. See Table 2 below for the summation of this category.

Table 2 – Accelerated Schedule Table

RFI #	Change Order	Item #	Item Desc	Unit	Original #	Updated #	Change	Unit Price	\$ Change
ACCELERATED SCHEDULE - Various RFIs	1	105-6037	REMOVING STAB BASE AND ASPH PAV (0"-16")	SY	2298	64	-2234	\$35.00	-\$78,190.00
		105-6041	REMOVING STAB BASE AND ASPH PAV (8")	SY	0	2200	2200	\$20.15	\$44,330.00
		260-6027	LIME TRT (EXST MATL) (8")	SY	4971	0	-4971	\$20.00	-\$99,420.00
		260-6043	LIME (HYD, COM OR QK) (SLURRY)	TON	8	0	-8	\$165.00	-\$1,320.00
		340-6239	D-GR HMA (SQ) TY-B SAC-B PG64-22	TON	1747	0	-1747	\$110.00	-\$192,170.00
ACCELERATED SCHEDULE SUM									-\$326,770.00

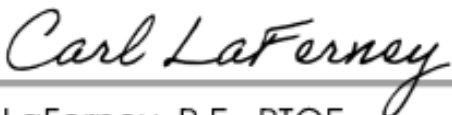
Omissions

While answering the RFIs, we discovered that certain bid items were either omitted or incorrectly calculated on the signed and sealed plan set. The Engineer answered the RFIs with the correct bid item quantities or a change request was generated for omitted bid items. The total additional cost to the project based on these omissions totaled **\$241,250.83**.

Table 3 Omissions Table

RFI #	Change Order	Item #	Item Desc	Unit	Original #	Updated #	Change	Unit Price	\$ Change
OMISSION	1	132-6003	EMBANKMENT (FINAL) (ORD COMP) (TY B)	CY	0	1840	1840	\$37.39	\$68,797.60
		161-6017	COMPOST MANUF TOPSOIL (4")	SY	7005	7071	66	\$4.00	\$264.00
		340-6138	D-GR HMA (SQ) TY-D PG76-22	TON	738	1698	960	\$140.00	\$134,400.00
		450-6006	RAIL (TY T223)	LF	366	0	-366	\$231.00	-\$84,546.00
		451-6007	RETROFIT RAIL (TY T223)	LF	0	366	366	\$301.71	\$110,425.86
		677-6001	ELIM EXT PAV MRK & MRKS (4")	LF	0	3931	3931	\$0.76	\$2,987.56
		677-6003	ELIM EXT PAV MRK & MRKS (8")	LF	0	2210	2210	\$1.51	\$3,337.10
		677-6005	ELIM EXT PAV MRK & MRKS (12")	LF	0	172	172	\$3.19	\$548.68
		677-6007	ELIM EXT PAV MRK & MRKS (24")	LF	0	172	172	\$5.91	\$1,016.52
		677-6008	ELIM EXT PAV MRK & MRKS (ARROW)	EA	0	9	9	\$79.54	\$715.86
		677-6012	ELIM EXT PAV MRK & MRKS (WORD)	EA	0	9	9	\$100.75	\$906.75
		464-6003	RC PIPE (CL III) (18 IN)	LF	28	35	7	\$300.00	\$2,100.00
		677-6018	ELIM EXT PAV MRK & MRKS (18") (YLD TRI)	EA	0	10	10	\$29.69	\$296.90
OMISSION SUM									\$241,250.83

As a result of all three sections, a Revision 1 plan set was provided back to the contractor. **The total net savings on the project from Change Order #1 is -\$187,315.67.**



 Carl LaFerney, P.E., PTOE