

CITY OF AUSTIN
CONSTRUCTION COST ESTIMATE (Form 4)

PROJECT NAME					Jain Lane Street Realignment (Street Reconstruction)		ESTIMATE CLASS				
PROJECT LIMITS					Shady Lane to Stuart Circle		C				
PREPARED		SERVICE AGREEMENT/AMENDMENT/WORK ORDER #		C.I.P. NUMBER		FUND		AGENCY		ORGANIZATION	
By	EZ	Service Agreement #1		C.I.P ID #		8112		6207		A476	
Date	1/18/2017	Rev. Date: 06/23/17		6319.013							
SUMMARY OF EXISTING AND PROPOSED CONDITIONS OF PROJECT											
	EXISTING		PROPOSED		EXISTING		PROPOSED				
Traffic	yes	City Collector		Length	1,150'		1,200'				
Pavement	yes	Yes		Classification	n/a		City Collector				
Sidewalk	yes, not complete	Yes, complete		Ex. Street Section	n/a		n/a				
Median	None	None		Pr. Street Section	one lane each direction		40' FOC-FOC				
Bicycle	None	Yes		Exist. R.O.W.	30'		n/a				
Drainage	Ditch, 18" RCP culvert	Storm Sewer		Prop. R.O.W.	n/a		64' R.O.W.				
COMMENTS											
<p>This Document is released under the authority of Xiaoqin Zhang, P.E., Lic. #96436, July 31, 2017.</p> <p>Neighborhood collector pavement design assumptions: Option C for Stratum I Soils (Option G for Stratum II Soils): 3" HMAC type D, 12" Min. Crushed Limestone Base, 8" Lime Stabilized Subgrade (6" Moisture Conditioned Subgrade). Total Equivalent 18-kip Single Axle Load Applications, based on Theoretical 20-year Pavement Life, Construction Cost Index (CCI =10,789.41) and annual inflation rate of 4% in July 2017.</p>											
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ITEM	ITEM DESCRIPTION				QUANTITY	UNIT	UNIT PRICE	AMOUNT			
101S-B	Preparing Right-of-Way, Per 100 Foot Sta.				12	STA	\$9,850.00	\$118,200			
110S-B	Street Excavation				3,911	CY	\$50.00	\$195,556			
132S-A	Embankment (for Roadway)				889	CY	\$35.00	\$31,111			
132S-1	Pond Embankment				1,000	CY	\$15.00	\$15,000			
203S-A	Subgrade Preparation (Incl. 8" Lime Stabilization for Stratum I Soils or 6" Moisture conditioned Subgrad for Stratum II Soils)				3,911	CY	\$10.00	\$39,111			
204S-A	Portland Cement Treatment of Materials in Place 6 Inch thickness				320	SY	\$80.00	\$25,600			
210S-A	12" Flexible Base				1,778	CY	\$75.00	\$133,333			
340S-B	3" Type D HMAC				5,333	SY	\$25.00	\$133,333			
360S-A	10 Inch Concrete Pavement w/ Steel Reinf. PER COA Standard Detail 1000S-7 (FOR BUS PAVING SECTION)				117	SY	\$70.00	\$8,167			
401S-1	Pond Excavation				587	CY	\$13.00	\$7,627			
403S-1	Concrete for Structures (Splitter Box)				1	EA	\$30,000.00	\$30,000			
414S-A	Concrete Retaining Walls				500	SF	\$50.00	\$25,000			
414S-C2	Cast-in-place Portland Cement Concrete Foundation				1	LS	\$15,000.00	\$15,000			
432S-4	New P.C. Concrete Sidewalks and Median Noses, 4-Inch Thickness				30,270	SF	\$12.50	\$378,375			
480S-RP-1	Curb Ramp with Pavers (Type 1)				12	EA	\$3,500.00	\$42,000			
504S-1RM8	Adjusting Water Valve Boxes to Grade				4	EA	\$1,000.00	\$4,000			
506-S11	4' Diameter Storm Sewer Manhole				3	EA	\$3,500.00	\$10,500			
506S M1WW	Standard Pre-cast Manhole, 48 In. Dia.				4	EA	\$5,500.00	\$22,000			
508S-2	Biofiltration Bed (incl. Sand, Pipes and Liner)				1,000	SF	\$10.00	\$10,000			
508S-SET	Safety End Treatment, 24" RCP Pipe Storm System				1	EA	\$12,000.00	\$12,000			
508S-H2	Concrete Headwalls and Wingwalls				2	EA	\$10,000.00	\$20,000			
508S-I10S	Inlet, Standard (10-foot)				4	EA	\$5,000.00	\$20,000			
508S-20	Storm Drain Outfall Structures				2	LS	\$30,000.00	\$60,000			
509S-1W	Trench Excavation Safety Protection Systems (all depths)				2,150	LF	\$1.00	\$2,150			
510-A24SW	Storm Drain 24" Class IV Reinforced Concrete Pipe (all depths), including Excavation and Backfill				300	LF	\$160.00	\$48,000			
510-AW6DI	Pipe, 6" Dia. DI CL 350 (All Depths), including Excavation and Backfill				215	LF	\$75.00	\$16,125			
510-AW8PVC	Pipe, 8" Dia. PVC C-900 (All Depths), including Excavation and Backfill				1,150	LF	\$120.00	\$138,000			

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		EXISTING		PROPOSED				EXISTING		PROPOSED			
Traffic		yes		City Collector		Length		1,150'		1,200'			
Pavement		yes		Yes		Classification		n/a		City Collector			
Sidewalk		yes, not complete		Yes, complete		Ex. Street Section		n/a		n/a			
Median		None		None		Pr. Street Section		one lane each direction		40' FOC-FOC			
Bicycle		None		Yes		Exist. R.O.W.		30'		n/a			
Drainage		Ditch, 18" RCP culvert		Storm Sewer		Prop. R.O.W.		n/a		64' R.O.W.			
COMMENTS													
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ITEM		ITEM DESCRIPTION				QUANTITY		UNIT		UNIT PRICE		AMOUNT	
510-AWW8		Pipe, 8" Dia. PVC SDR 26 (All Depths), including Excavation and Backfill				1,122		LF		\$95.00		\$106,590	
510-BWW 6"x8"		Installing or Reconnecting Lateral Service to Existing or Replaced Pipe (6" Dia. SDR-26 PVC Wastewater Service				5		EA		\$2,500.00		\$12,500	
510-KW		Ductile Iron Fittings				1.50		TON		\$8,000.00		\$12,000	
511S-B		Fire hydrants (See Standard No. 511S-17)				4.00		EA		\$4,000.00		\$16,000	
591S-A		Riprap for Slope Protection				333		SY		\$25.00		\$8,333	
591S-A		Dry Rip-Rap -- 4"-6" Salvaged Limestone Rubble				222		SY		\$25.00		\$5,550	
591S-F		Concrete Rip-Rap, 8-inch depth				160		SY		\$50.00		\$8,000	
604S-1		Hydromulch ROW and Spoil Site				8,000		SY		\$2.00		\$16,000	
SS508BM		Biofiltration Medium				250		CY		\$50.00		\$12,500	
SP608S-2E		Tree Staking System				61		EA		\$35.00		\$2,135	
SP608S-T1		Transplanting, Tree, 8 in Diameter				8		EA		\$1,000.00		\$8,000	
609S-1		Standard Native Grass Seeding and Planting for Medians				3,500		SY		\$7.00		\$24,500	
SS611-A		Extended Landscape Maintenance				12		MO		\$800.00		\$9,600	
SS612-A		Topsoil Mix				1,150		CY		\$35.00		\$40,250	
SS1699WQBP1		Water Quality Biofiltration Pond #1 incl. Fie-in-lieu of WQ				1		EA		\$95,000.00		\$95,000	
609S-1		Pond Revegetation and Vegetated Filter Strips				450		SY		\$7.00		\$3,150	
610S-1		Preservation of Trees and Other Vegetation				1,000		LF		\$3.00		\$3,000	
627S-1		Grass-Lined Swale				1,800		CY		\$10.00		\$18,000	
632S-1		Storm Inlet Sediment Trap				4		EA		\$50.00		\$200	
639S		Rock Berm				750		LF		\$14.00		\$10,500	
641S		Stabilized Construction Entrance				2		EA		\$1,000.00		\$2,000	
642S		Silt Fence for Erosion Control				2,500		LF		\$3.00		\$7,500	
700S-TM		Total Mobilization				1		LS		\$200,000.00		\$200,000	
704		Metal Beam Guard Railing				200		LF		\$50.00		\$10,000	
802S-A		Project Signs				2		EA		\$100.00		\$200	
803-CD		Barricades, Signs, Traffic Handling				365		CD		\$125.00		\$45,625	
803S-SF		Safety Fencing				250		LF		\$2.50		\$625	
824S		Traffic Signs				18		EA		\$50.00		\$900	

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ITEM	ITEM DESCRIPTION			QUANTITY	UNIT	UNIT PRICE	AMOUNT		
825S	Street Name Signs			2	EA	\$50.00	\$100		
827S-A	Bicycle Lane Ahead Sign			2	EA	\$50.00	\$100		
827S-B	Bicycle Lane Ends Sign			2	EA	\$50.00	\$100		
829S-A	Type I Bicycle Lane Markings, 6", White			2,650	LF	\$0.50	\$1,325		
829S-B	Type I Bicycle Lane Preferential (directional arrow) Symbols, White			15	EA	\$50.00	\$750		
829S-C	Type I Bicycle Lane (Bike Rider) Symbol, White			6	EA	\$50.00	\$300		
-	Miscellaneous (Art In Public Places, Permits/Fees, etc.)			1	LS	\$61,100.00	\$61,100		
-	Preject Base Operation & Maintenance (O&M)*			1	LS	\$898,703.52	\$898,704		
871S-A4SY	Refactorized Type I Thermoplastic Pavement Markings 4 inches in width, 90 mils in thickness, Solid Yellow in color)			1,250	LF	\$0.45	\$563		
LINE ITEM TOTAL							\$3,201,887		
CONTINGENCY							20.00%		
CONSTRUCTION COST ESTIMATE							\$3,842,265		
Note: Life Cycle Cost Analysis including O&M									
1	Testing						\$22,561		
2	Project Management						\$169,205		
3	Construction Inspection						\$169,205		
4	Construction Contingency						\$520,632		
5	Miscellaneous (Debt Issuance, Utility relocations, etc.)						\$17,100		
Project Base O&M Cost							\$898,704		
Construction Cost Estimate							\$3,842,265		
Inflation (Assuming 4% Escalation Per Year)							4%		
Life Cycle Cost incl. O&M (Based on 20-Year Cost Escalation)							\$4,912,731		

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