

Armstrong Mill Sidewalks

**Fayette County
ITEM NO. 7-3213**

**Contract Mod #1
PHASE I & II DESIGN
ENGINEERING AND RELATED SERVICES**

PROPOSED PRODUCTION HOURS AND FEE

Submitted by:

**Integrated Engineering, PLLC
166 Prosperous Place, Suite 220
Lexington, Kentucky 40509
859-368-0145**



December 6, 2018

PRELIMINARY LINE AND GRADE

No.	ITEM	UNIT	AMOUNT	THRS/UNIT	HOURS
30	Computer setup	LS			0
31	Prepare existing manuscripts	Mile	0.1	40	4
32	Establish approximate property lines and ownership	Parcel			0
33	Study and develop typical sections	No.	1	8	8
34	Study and develop horizontal alignments	Mile			0
35	Study and develop vertical alignments	Mile			0
36	Create and evaluate proposed roadway models	Mile			0
37	Design entrances	No.	1	4	4
38	Pre-size pipes (all alternates)	No.			0
39	Pre-size culverts (all alternates)	No.			0
40	Pre-size bridges (all alternates)	No.			0
41a	Conduct Traffic Engineering Analysis (Basic; Highway Capacity Man	Intersection			0
41b	Conduct Traffic Engineering Analysis (Advanced; Micro-simulation)	Intersection			0
42	Study and development of interchange	No.			0
43	Study and development of intersection	No.	1	30	30
44	Study and develop maintenance of traffic plan	LS			0
45	Plot/print copies of plans for team meeting and inspections	LS			0
46	Calculate preliminary quantities and develop cost estimates	Alt.			0
47	Revise plans and estimates	LS			0
48	Preliminary Right of Way with taking areas	Parcel			0
49	Prepare Design Executive Summary	LS			0
50	Develop/document "Avoidance Alternatives to Water Related Impact	LS			0
PRELIMINARY LINE & GRADE MISCELLANEOUS					
51	Develop & Revise Preliminary Layouts	LS	1	40	40
52					0
53					0
54					0
55					0
PRELIMINARY LINE AND GRADE TOTAL					86

UTILITY COORDINATION

No.	ITEM	PERSONS	UNIT	AMOUNT	HRS/UNIT	HOURS
56	Utility Coordination Meeting	2	No.			0
57	Develop Utility Relocation Layout Sheets (1"=200')		Mile			0
58	Develop Utility Relocation Plans (1"=50')		Mile			0
UTILITY COORDINATION MISCELLANEOUS						
59						
UTILITY COORDINATION TOTAL						0

RIGHT OF WAY PLANS

No.	ITEM	UNIT	AMOUNT	HRS/UNIT	HOURS	
60	Deed research	Parcel			0	
61	Establish property and ownership	Parcel			0	
62	Calculate Right of Way	Parcel			0	
63	Prepare legal descriptions	Parcel			0	
64	Complete Right of Way summary sheet	Parcel			0	
65	Generate Right of Way strip map (scale 1" = 50')	Sheet			0	
66	Prepare Right of Way Plans Submittal	LS			0	
67	Right of Way revisions after Right of Way submittal	LS			0	
R/W PLANS MISCELLANEOUS						
68	Deed Research for Existing Alignments	LS			0	
69	Deed Research for Existing Parcels	Parcel			0	
70	Prepare Legal Descriptions for Right of Way transfer	Parcel			0	
71						
72						
RIGHT OF WAY PLANS TOTAL						0

FINAL PLAN PREPARATION

No.	ITEM	UNIT	AMOUNT	THRS/UNIT	HOURS
80	Computer setup	LS			0
81	Update existing topography and terrain model	Mile			0
82	Refine alignments (horizontal & vertical)	Mile			0
83	Develop pavement design	No.			0
84	Finalize templates & transitions	No.			0
85	Develop final roadway model	Mile			0
86	Develop proposed design	Mile	0.1	80	8
87	Generate plan sheets (scale 1" = 20')	Sheet	1	4	4
88	Generate profile sheets (scale 1" = xxx')	Sheet			0
89	Detail cross sections (scale 1" = xxx')	No.	5	2	10
90	Design entrances	No.	1	4	4
91	Revise roadway plans from soils report	Mile			0
DRAINAGE					
92	Develop pipe sections (< 54")	No.			0
93	Develop drainage system map	Mile			0
94	Develop drainage situation (bridge)	No.			0
95	Develop drainage situation (culvert)	No.			0
96	Develop blue line stream channel change (=> 200')	No.			0
97	Drainage analysis (entrance pipes)	No.			0
98	Drainage analysis (A <= 200 acres)	No.	1	4	4
99	Drainage analysis (200 acres < A < 1.0 sq. mile)	No.			0
100	Drainage analysis (A => 1.0 sq. mile) level 1 analysis	No.			0
101	Drainage analysis (A => 1.0 sq. mile) level 2 analysis	No.	1	10	10
102	Drainage analysis (A => 1.0 sq. mile) level 3 analysis	No.			0
103	Special drainage studies	No.			0
104	Roadway ditches and channels	Mile			0
105	Develop Erosion Control Plan	Mile			0
106	Inlet spacing calculations	No.	1	2	2
107	Storm sewers calculations	No.	1	4	4
108	Perform scour analysis	No.			0
109	Assemble preliminary and final drainage folders	LS			0
110	Prepare advanced situation folder - bridge	No.			0
111	Prepare advanced situation folder - culvert	No.			0
DRAINAGE MISCELLANEOUS					
112		LS			0
113					0
114					0
115					0

FINAL PLAN PREPARATION (Continued)

No.	ITEM	UNIT	AMOUNT	HRS/UNIT	HOURS
116	Prepare layout sheet	LS			0
117	Prepare typical sections	No.			0
118	Prepare Interchange geometric approval	No.			0
119	Prepare intersection geometric approval	No.			0
120	Prepare coordinate control sheet	Mile			0
121	Prepare elevation developments	No.			0
122	Prepare striping plan	No.			0
123	Calculate final quantities	Mile			0
115	Complete general summary	LS			0
125	Complete paving summary	LS			0
126	Complete drainage summary	LS			0
127	Complete pavement under-drain summary	LS			0
128	Prepare cost estimate	LS			0
129	Plot/print copies of plans	LS			0
130	Plan revisions	Mile	0.1	40	4
131	Prepare final construction plans submittal	LS			0
MAINTENANCE OF TRAFFIC					
132	Write maintenance of traffic notes (TCP)	LS			0
133	Prepare construction phasing plans	Mile			0
134	Develop diversion plan sheets	Sheet			0
135	Develop diversion profile sheets	Sheet			0
136	Develop diversion cross sections	No.			0
137	Develop temporary drainage	No.			0
FINAL PLANS MISCELLANEOUS					
138	Document available rock quantities	LS			0
139	LPA Coordination	LS	1	8	8
140					0
141					0
142					0
143					0
FINAL PLANS TOTAL					58

MEETINGS

No.	ITEM	PERSONS	UNIT	AMOUNT	HRS/UNIT	HOURS
150	Prelim. line and grade inspection	2	No.			0
151	Drainage inspection	2	No.			0
152	Final inspection	2	No.			0
153	Misc. project coordination meetings	2	No.			0
154	Project team meetings	2	No.	1	2	4
MEETINGS MISCELLANEOUS						
155	Value Engineering Study		LS			0
156	Constructability Review		LS			0
MEETINGS TOTAL						4

PUBLIC INVOLVEMENT

No.	ITEM	PERSONS	UNIT	AMOUNT	HRS/UNIT	HOURS
160	Develop and Maintain Mailing List		LS			0
161	Prepare for Advisory Committee/Officials Meeting		No.			0
162	Attend Advisory Committee/Officials Meeting	2	No.			0
163	Prepare for Public Meetings/Hearings		No.			0
164	Attend Public Meetings/Hearings	2	No.			0
165	Prepare and Distribute Newsletter		No.			0
166	Property owner coordination		No.			0
PUBLIC INVOLVEMENT MISCELLANEOUS						
167						0
168						0
169						0
PUBLIC INVOLVEMENT TOTAL						0

STRUCTURES

No.	ITEM	UNIT	AMOUNT	HRS/UNIT	HOURS
180	Structure Design	LS	1	156	156
181	Structure review				0
QA/QC TOTAL					156

PRODUCTION-HOUR SUMMARY

SURVEY TOTAL		16
LINE AND GRADE TOTAL		86
UTILITY COORDINATION TOTAL		0
RIGHT OF WAY PLANS TOTAL		0
FINAL PLANS TOTAL		58
MEETINGS TOTAL		4
PUBLIC INVOLVEMENT TOTAL		0
QA/QC TOTAL		156
GRAND TOTAL		320



KENTUCKY TRANSPORTATION CABINET
 Department of Highways
 DIVISION OF PROFESSIONAL SERVICES
ENGINEERING AND RELATED SERVICES FEE PROPOSAL

TC 40-2
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SECTION 1: PROJECT INFORMATION

DATE:	Dec 6, 2018	COUNTY:	Fayette	ITEM #:	7-3213
PROJECT:	Armstrong Mill Sidewalks				
DESC:					

SECTION 2: BUDGET INFORMATION

FEE CONSIDERATIONS	PROPOSED MAN HOURS	NEGOTIATED MAN HOURS	AVERAGE RATE	ESTIMATED COST
Survey		16	\$ 42.88	\$ 686.14
Line and Grade		86	\$ 45.83	\$ 3,941.64
Utility Coordination		0	\$ 48.33	\$ -
Right of Way Plans		0	\$ 48.33	\$ -
Final Plans		58	\$ 48.33	\$ 2,803.14
Meetings		4	\$ 63.89	\$ 255.56
Public Involvement		0	\$ 63.89	\$ -
Structures		156	\$ 52.65	\$ 8,212.62
				\$ -
				\$ -
TOTAL PRODUCTION HOURS & PAYROLL		320	\$ 49.68	\$ 15,899.10

	OVERHEAD (161.54 %)	\$ 25,683.41
	PROFIT (15.00 %)	\$ 6,237.38
	COST OF MONEY (0.61 %)	\$ 96.98

DIRECT COSTS	AMOUNT
Mileage and Meals	\$ -
Lodging	\$ -
Survey Travel Time	\$ -
Miscellaneous	\$ 500.00
Printing	\$ 150.00
TOTAL DIRECT COSTS	\$ 650.00

SUBCONSULTANTS	AMOUNT
WSP (Signal Design)	\$ 12,550.00
TOTAL SUBCONSULTANTS	\$ 12,550.00

	TOTAL FEE	\$ 61,117
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*Rounded to the nearest dollar

SECTION 3: SIGNATURE

FIRM NAME: Integrated Engineering	SIGNED BY: Mike Yeager	
	Vice President	12/6/2018
_____ CONSULTANT SIGNATURE	_____ TITLE	_____ DATE
_____ PROFESSIONAL SERVICES SIGNATURE	_____ TITLE	_____ DATE

CLASSIFICATIONS AND PERCENTAGES FOR DESIGN

Escalation:

Estimated Notice to Proceed: 12/15/2018

Estimated End of Project: 2/1/2019

midpoint: 1/8/2019

rate = 4.16%

period = 0.75

factor = 0.03104

* effective 4/8/2018

DESCRIPTION	AVERAGE RATE	CLASSIFICATIONS, CERTIFIED / AUDITED RATES, AND PERCENTAGES									TOTAL PERCENT	
		Principal	Project Manager	Project Engineer	Engineer-in-Training II	CADD Tech	Party Chief	Instrument Man	Structural Project Manager			
		\$72.00	\$51.94	\$40.00	\$33.38	\$31.25	\$38.05	\$22.58	\$53.10	\$0.00		\$0.00
		\$74.23	\$53.55	\$41.24	\$34.42	\$32.22	\$39.23	\$23.28	\$54.75	\$0.00	\$0.00	
Survey	\$ 42.88	5%	30%				50%	15%				100%
Line and Grade	\$ 45.83	10%	40%		40%	10%						100%
Utility Coordination	\$ 48.33	10%	40%	35%	10%	5%						100%
Right of Way Plans	\$ 48.33	10%	40%	35%	10%	5%						100%
Final Plans	\$ 48.33	10%	40%	35%	10%	5%						100%
Meetings	\$ 63.89	50%	50%									100%
Public Involvement	\$ 63.89	50%	50%									100%
Structures	\$ 52.65	10%		30%					60%			100%
												0%

DIRECT COSTS

MILEAGE AND MEAL EXPENSES								
ACTIVITY	NO. OF TRIPS	MILEAGE COST			DAILY MEAL COST			TOTAL COST
		TRIP MILES	MILEAGE RATE	MILEAGE COST	NO. OF PEOPLE	COST	MEAL COST	
Surveying Weekly Trips			\$0.54		2	\$36.00		
Final Project Meeting			\$0.41		2	\$36.00		
Job Site Trips			\$0.54		2	\$36.00		
MILEAGE AND MEAL EXPENSES TOTAL:								\$0
LODGING EXPENSES								
LODGING	NO. OF NIGHTS	NO. OF PEOPLE		COST PER ROOM	TOTAL COST			
Cost of Lodging								\$0
LODGING EXPENSES TOTAL:								\$0
SURVEY TRAVEL TIME								
SURVEY TRAVEL TIME	NO. OF TRIPS	HOURS PER TRIP	NO. OF PEOPLE	AVERAGE RATE	MULTIPLIER	TOTAL COST		
Weekly Trips from Lexington		7.0	2	\$42.26	1.3			\$0
SURVEY TRAVEL TIME:								\$0
MISCELLANEOUS SURVEYING EXPENSES								
ITEM								TOTAL COST
Stakes, Flags, Hubs, Pins								\$500
MISCELLANEOUS SURVEYING EXPENSES TOTAL:								\$500
PRINTING EXPENSES								
PRINTING ITEM	NO. OF B/W COPIES	NO. OF PAGES		COST PER PAGE	TOTAL COST			
Printing Plans	10		30	\$0.50				\$150
TOTAL PRINTING COSTS								\$150

TOTAL DIRECT COSTS	\$650.00
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