MARICOPA AMTRAK STATION SIDING RailPros Estimated Time and Expense Sheet

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Preliminary Signal Design	Roadway Design (Alignment, Profile, Typical Sections) Roadway Relocation Plan Subtotal Hours Subtotal Costs Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Alignment Refinement Track Profile Refinement	-	\$ 6,961	\$ -	\$ 10,437 18		\$ 3,450	\$ 1,077	\$ 3,524	14		0	3 1	3 \$ 2 \$ 5 0 \$ 0 \$ 5 \$ \$ 5 \$ \$ 5 \$ 5 \$ 5 \$ 5 \$	531 354 - - 25,450 25,450 - 5,305 1,912
Union Pacific 30% Submittal (separate from City Submittal)	Roadway Design (Alignment, Profile, Typical Sections) Roadway Relocation Plan Subtotal Hours Subtotal Costs Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Alignment Refinement Track Profile Refinement Culvert Layout	-	\$ 6,961	\$ - 4 4 2	\$ 10,437 18 8 4	\$ -	\$ 3,450	\$ 1,077	\$ 3,524	14		0 -	3 3 1 1	3 \$ 2 \$ 0 \$ 0 \$ 5 \$ \$ \$ 0 \$ \$ 0 \$ \$ 5 \$ \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ \$ 0 \$	531 354 - 25,450 25,450 - 5,305 1,912 2,109
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Verify Absence of Waters of the US	Roadway Design (Alignment, Profile, Typical Sections) Roadway Relocation Plan Subtotal Hours Subtotal Costs Task 4 - 30% Design and Environmental Documentatior 30% Track Design Track Alignment Refinement Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design 30% Platform Geometry Union Pacific 30% Submittal (separate from City Submittal) 30% Site Design Refine RW Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Sureface Water/Drainage Design Refine Roadway Relocation Design Roadway Alignment Roadway Grading (Cross Sections) Identify Utility Relocations/Cooridnation Establish Project Area of Potential Effect 30% Quantities and Cost Estimate Preliminary Specifications Environmental Documentation Natural Resources Site Visit	\$ -	\$ 6.961	4 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 3 3 3 3	18 18 8 4 18	\$ -	\$ 3,450 \$ 3,450 \$ 10 2 2 \$ 8	\$ 1,077	\$ 3,524	14	66	0	15 3 1 1 1 1 2 2 2 2 1 1 1	3 3 3 5 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	531 354 - 25,450 25,450 - 5,305 1,912 2,109 4,760 3,728 - - - - - - 5,305 1,912 2,109 4,760 3,728 - - - - - - - - - - - - -
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Subtotal Hours 4 39 10 77 12 61 21 12 14 0 250 \$ 40,203 Subtotal Costs \$ 1,271 \$ 9,696 \$ 2,115 \$ 13,621 \$ 1,960 \$ 6,577 \$ 1,885 \$ 1,762 \$ 1,316 \$ - \$ 40,203 Task 5 - 60% Design \$ 1 \$	Roadway Design (Alignment, Profile, Typical Sections) Roadway Relocation Plan Subtotal Hours Subtotal Costs Task 4 - 30% Design and Environmental Documentatior 30% Track Design Track Alignment Refinement Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design 30% Platform Geometry Union Pacific 30% Submittal (separate from City Submittal) 30% Site Design Refine RW Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Sureface Water/Drainage Design Refine Sureface Water/Drainage Design Refine Roaway Relocation Design Refine Roaway Relocation Design Roadway Jignment Roadway Grading (Cross Sections) Identify Utility Relocations/Cooridnation Establish Project Area of Potential Effect 30% Quantities and Cost Estimate Preliminary Specifications Environmental Documentation Natural Resources Site Visit Cultural Resources File Search Phase I Site Assessment	\$ -	\$ 6.961	4 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	18 18 8 4 18	\$ -	\$ 3,450 \$ 3,450 \$ 10 2 2 \$ 8	\$ 1,077	\$ 3,524	14	66	0	15 3 1 1 1 1 1 2 2 2 2 1 1 1	3 3 S S S S S S S S S S S S S S S S S S	531 354 - 25,450 25,450 25,450 25,450 - 5,305 1,912 2,109 4,760 3,728 2,579 3,884 - - - - - - - - - - - - -
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Track Alignment Refinement 2 8 8 18 \$ 2,775 Track Profile Refinement 1 6 7 \$ 1,310 Track Typical Sections 1 2 4 7 \$ 1,034	Roadway Design (Alignment, Profile, Typical Sections) Roadway Relocation Plan Subtotal Hours Subtotal Costs Task 4 - 30% Design and Environmental Documentatior 30% Track Design Track Alignment Refinement Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design 30% Platform Geometry Union Pacific 30% Submittal (separate from City Submittal) 30% Site Design Refine Krw Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Define Culvert Sizing Refine Roaway Relocation Design Roadway Alignment Roadway Alignment Roadway Orading (Cross Sections) Identify Utility Relocations/Cooridnation Establish Project Area of Potential Effect 30% Quantities and Cost Estimate Preliminary Specifications Environmental Documentation Natural Resources Site Visit Cultural Resources Site Visit Cultural Resources Site Visit Cultural Resources File Search Phase I Site Assessment Verify Absence of Waters of the US Environmental Technical Memo	4	\$ 6,961	\$ - 4 4 2 2 2 2 2 2 2 2 2 3 8 8 8 8 8 8 9 10 10 10 10 10 10 10 10 10 10 10 10 10	\$ 10,437 188 8 4 4 188 9 8 8 1 1 1		8 10 2 2 4 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	122 S 1,077	\$ 3,524	88	8 8 8	0	2 2 2 1 1	3 3 S S S S S S S S S S S S S S S S S S	531 354 - - - - - - - - - - - - -
Track Profile Refinement 1 6 7 \$ 1,310 Track Typical Sections 1 2 4 7 \$ 1,034	Roadway Design (Alignment, Profile, Typical Sections) Roadway Relocation Plan Subtotal Hours Subtotal Costs Task 4 - 30% Design and Environmental Documentatior 30% Track Design Track Alignment Refinement Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design 30% Platform Geometry Union Pacific 30% Submittal (separate from City Submittal) 30% Site Design Refine KW Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Define Culvert Sizing Refine Roaway Relocation Design Define Culvert Sizing Refine Roaway Relocation Design Roadway Alignment Roadway Aflignment Roadway Orading (Cross Sections) Identify Utility Relocations/Cooridnation Establish Project Area of Potential Effect 30% Quantities and Cost Estimate Preliminary Specifications Environmental Documentation Natural Resources Site Visit Cultural Resources Site Visit Cultural Resources Site Visit Environmental Technical Memo Subtotal Hours Subtotal Costs Task 5 - 60% Design	4	\$ 6,961	\$ - 4 4 2 2 2 2 2 2 2 2 2 3 8 8 8 8 8 8 9 10 10 10 10 10 10 10 10 10 10 10 10 10	\$ 10,437 188 8 4 4 188 9 8 8 1 1 1		8 10 2 2 4 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	122 S 1,077	\$ 3,524	88	8 8 8	0	15 3 1 1 1 1 1 2 2 2 1 1 1	3 3 S S S S S S S S S S S S S S S S S S	531 354 - - - - - - - - - - - - -
Track Typical Sections 1 2 4 7 \$ 1,034	Roadway Design (Alignment, Profile, Typical Sections) Roadway Relocation Plan Subtotal Hours Subtotal Costs Task 4 - 30% Design and Environmental Documentatior 30% Track Design Track Alignment Refinement Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design 30% Platform Geometry Union Pacific 30% Submittal (separate from City Submittal) 30% Site Design Refine R/W Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Define Culvert Sizing Refine Sureface Water/Drainage Design Define Culvert Sizing Refine Roaway Relocation Design Roadway Jignment Roadway Profile Roadway Alignment Roadway Profile Roadway Grading (Cross Sections) Identify Utility Relocations/Cooridnation Establish Project Area of Potential Effect 30% Quantities and Cost Estimate Preliminary Specifications Environmental Documentation Natural Resources File Search Phase I Site Assessment Verify Absence of Waters of the US Environmental Technical Memo Subtotal Hours Subtotal Hours Subtotal Hours Subtotal Posign 60% Track Design 60% Track Design	4	\$ 6.961	\$ - \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\$ 10,437 188 8 4 4 18 9 8 6 6 1 1 1 1 77 \$ 13,621		8 10 2 2 12 8 8 6,577	122 S 1,077	\$ 3,524	88	8 8 8	0	15 3 1 1 1 1 2 2 2 1 1 1	3 3 3 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	531 354 - 25,450 25,450 25,450 - 5,305 1,912 2,109 4,760 3,728 2,579 3,884 - - - - - - - - - - - - -
Culvert Layout and Structural Design 1 8 32 14 28 83 \$ 9,801	Roadway Design (Alignment, Profile, Typical Sections) Roadway Relocation Plan Subtotal Hours Subtotal Costs Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Alignment Refinement Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design 30% Platform Geometry Union Pacific 30% Submittal (separate from City Submittal) 30% Site Design Refine R/W Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Define Culvert Sizing Refine Roway Relocation Design Refine Roway Relocation Design Refine Roadway Alignment Roadway Alignment Roadway Grading (Cross Sections) Identify Utility Relocations Coordination Establish Project Area of Potential Effect 30% Quantities and Cost Estimate Preliminary Specifications Environmental Documentation Natural Resources File Search Phase I Site Assessment Verify Absence of Waters of the US Environmental Technical Memo Subtotal Hours Subtotal Hours Subtotal Costs Track Alignment Refinement	4	\$ 6.961	\$	\$ 10,437 188 88 44 188 9 88 66 11 11 11 12 13 14 44 47 77 \$ 13,621		8 10 2 2 12 8 8 6,577	122 S 1,077	\$ 3,524	88	8 8 8	0	15 3 3 1 1 1 1 2 2 2 2 2 1 1 1 1 1 1 2 2 2 5 2 5	3 3 S S S S S S S S S S S S S S S S S S	531 354 - 25,450 25,450 25,450 - 5,305 1,912 2,109 4,760 3,728 2,579 3,884 - - - - - - - - - - - - -
	Roadway Design (Alignment, Profile, Typical Sections) Roadway Relocation Plan Subtotal Hours Subtotal Costs Task 4 - 30% Design and Environmental Documentatior 30% Track Design Track Alignment Refinement Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design 30% Platform Geometry Union Pacific 30% Submittal (separate from City Submittal) 30% Site Design Refine R/W Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Define Culvert Sizing Refine Sareface Water/Drainage Design Define Culvert Sizing Refine Roaway Relocation Design Roadway Grading (Cross Sections) Identify Utility Relocations/Cooridnation Establish Project Area of Potential Effect 30% Quantities and Cost Estimate Preliminary Specifications Environmental Documentation Natural Resources File Search Phase I Site Sasessment Verify Absence of Waters of the US Environmental Technical Memo Subtotal Hours Subtotal Hours Subtotal Costs Task 5 - 60% Design 60% Track Design Track Alignment Refinement Track Typical Sections	4	\$ 6.961	\$ - \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\$ 10,437 188 8 4 4 18 9 8 6 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1		8 10 2 2 12 12 8 8 6,577 8 8 8	\$ 1,077	\$ 3,524 \$ 3,524	88	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	0	25 25	33 S S S S S S S S S S S S S S S S S S	531 354 - 25,450 25,450 25,450 - 5,305 1,912 2,109 4,760 3,728 2,579 3,884 - - - - - - - - - - - - -

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MARICOPA AMTRAK STATION SIDING RailPros

							Estimated	RailPros Time and Ex	pense Sheet					
	VP/Principal/Princial Signal Manager		Sr. Project Manager	Project Manager	Sr. Rail Engineer	Sr. Engineer	Engineer	Designer	Sr. CADD	CADD	Controller		Hours Per Lask	Costs Per Task
Fully Burdened Rate Track Grading Design	\$ 318	8 \$	249	\$ 211	\$ 177 10	\$ 163	\$ 108 18		\$ 147	\$ 94	\$ 87		30 \$	4,207
Preliminary Signal Design			2		10	8	10						10 \$	1,804
Finalize Platform Geometry			2		6		6						14 \$	2,206
COV COV D													0 \$	-
60% Site Design Update Site Plan			1		3								0 \$	779
Refine Preliminary Footprint and Contours					2								2 \$	354
Surface Water Design													0 \$	-
Verify Conuty Drainage Plan/Floodplain Use Permit Qualification Roadway Relocation Design		+	3										3 \$ 0 \$	746
Refine Roadway Alignment													0 \$	-
Refine Profile													0 \$	-
Refine Typical Sections Refine Roadway Cross Sections													0 \$	-
Construction SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc)					8			20					28 \$	3,211
60% Quantites and Estimate (Roadway and Track)			1	2			6	2					13 \$	1,852
60% Specifications			16	8									24 \$	5,670
													0 \$	-
Subtotal Hours		0	32	10	55		74	22	. 14	28	-		43 \$	35,748
Subtotal Costs	\$ -	\$	7,956	\$ 2,115	\$ 9,729	\$ 1,307	\$ 7,978	\$ 1,975	\$ 2,056	\$ 2,632	\$ -		\$	35,748
Task 6 - 90% Design														
90% Track Design	+	+						-					0 \$	-
Track Alignment Refinement			1		4			10					15 \$	1,854
Track Profile Refinement	1	-	1		3			6					10 \$	1,318
Track Typical Sections Culvert Layout and Structural Design	1	-	1		2		15		10				9 \$ 28 \$	982 3,688
Track Grading Design			4		14		16					3	34 \$	5,196
Track Details		\perp	1		8		4	10					23 \$	2,993
90% Surface Water Design													0 \$	-
Verify Conuty Drainage Plan/Floodplain Use Permit Qualification			4										4 \$	994
90% Roadway Relocation Design													0 \$	-
Refine Roadway Alignment			1										1 \$	249
Refine Profile Refine Typical Sections													0 \$	-
Refine Roadway Cross Sections			1										1 \$	249
Refine Construction SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc)													0 \$	-
90% Quantites and Estimate (Roadway and Track) 90% Specifications			11	6			6	2					10 \$ 17 \$	1,249 4,004
30% Specifications			- 11	0									0 \$	-,004
													0 \$	-
Subtotal Hours	¢.	0	25	8	33						6	0 1:	52 \$	22,776
Subtotal Hours Subtotal Costs	\$ -	\$	25 6,215	\$ 1,692	\$ 5,838		\$ 4,421				\$ -	0 1:	\$	22,776
	\$ -	\$									\$ -	0 15	\$	
Subtotal Costs Task 7 - 100% Design 100% Track Design	\$ -	\$	6,215		\$ 5,838	\$ -	\$ 4,421	\$ 3,142			\$ -		0 \$	22,776
Subtotal Costs Task 7 - 100% Design 100% Track Design 100% Track Design - Plans, Profiles, Details	\$ -	\$	6,215		\$ 5,838	S -	\$ 4,421	\$ 3,142			\$ -	3	0 \$ 30 \$	- 4,903
Subtotal Costs Task 7 - 100% Design 100% Track Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections	\$ -	\$	6,215		\$ 5,838	\$ -	\$ 4,421	\$ 3,142			\$ -		0 \$ 30 \$ 26 \$	- 4,903 3,776
Subtotal Costs Task 7 - 100% Design 100% Track Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design	\$ -	0 \$	6,215 4 2		\$ 5,838	\$ -	\$ 4,421 10 14	\$ 3,142			\$ -		0 \$ 80 \$ 26 \$ 10 \$ 0 \$	22,776 - 4,903 3,776 1,498
Subtotal Costs Task 7 - 100% Design 100% Track Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings	\$ -	0 \$	6,215 4 2		\$ 5,838	\$ -	\$ 4,421 10 14	\$ 3,142			\$ -		0 \$ 30 \$ 26 \$ 10 \$ 0 \$ 0 \$	22,776 - 4,903 3,776 1,498 -
Subtotal Costs Task 7 - 100% Design 100% Track Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections	\$ -	0 \$	6,215 4 2		\$ 5,838	\$ -	\$ 4,421 10 14	\$ 3,142			\$ -		0 \$ 30 \$ 26 \$ 10 \$ 0 \$ 0 \$ 0 \$	22,776 - 4,903 3,776 1,498 - -
Subtotal Costs Task 7 - 100% Design 100% Track Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings	\$ -	0 \$	6,215 4 2		\$ 5,838	\$ -	\$ 4,421 10 14	\$ 3,142			\$ -		0 \$ 30 \$ 26 \$ 10 \$ 0 \$ 0 \$	22,776 - 4,903 3,776 1,498 -
Subtotal Costs Task 7 - 100% Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Plans, Profiles, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typcial Sections, Cross Sections Typcial Sections, Cross Sections Drainage Design Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc)	S -	0 \$	6,215 4 2 2	\$ 1,692	\$ 5,838 16 10 2	\$ -	\$ 4,421 10 14 6	\$ 3,142			\$ -		0 \$ 300 \$ 266 \$ 810 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ \$ 0 \$ \$ \$ \$ \$ 0 \$ \$ \$ \$ \$ 0 \$ \$ \$ \$ \$ 0 \$ \$ \$ \$ \$ 0 \$ \$ \$ \$ \$ 0 \$ \$ \$ \$ \$ 0 \$ \$ \$ \$ \$ \$ 0 \$ \$ \$ \$ \$ \$ 0 \$ \$ \$ \$ \$ \$ \$ 0 \$ \$ \$ \$ \$ \$ \$ \$ 0 \$	22,776 - 4,903 3,776 1,498 - - -
Subtotal Costs Task 7 - 100% Design 100% Track Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typical Sections, Cross Sections Typical Sections, Cross Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Quantities and Estimate (Roadway and Track)	\$ -	0	6,215	\$ 1,692	\$ 5,838 16 10 2	\$ -	\$ 4,421 10 14	\$ 3,142			\$ -		0 \$ 30	22,776
Subtotal Costs Task 7 - 100% Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Plans, Profiles, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typcial Sections, Cross Sections Typcial Sections, Cross Sections Drainage Design Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc)	S -	\$	6,215 4 2 2	\$ 1,692	\$ 5,838 16 10 2	\$ -	\$ 4,421 10 14 6	\$ 3,142			S -		0 \$ 300 \$ 266 \$ 810 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ 0 \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ 0 \$ \$ \$ \$ \$ 0 \$ \$ \$ \$ \$ 0 \$ \$ \$ \$ \$ 0 \$ \$ \$ \$ \$ 0 \$ \$ \$ \$ \$ 0 \$ \$ \$ \$ \$ 0 \$ \$ \$ \$ \$ 0 \$ \$ \$ \$ \$ \$ 0 \$ \$ \$ \$ \$ \$ 0 \$ \$ \$ \$ \$ \$ \$ 0 \$ \$ \$ \$ \$ \$ \$ \$ 0 \$	22,776 - 4,903 3,776 1,498 - - -
Subtotal Costs Task 7 - 100% Design 100% Track Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typical Sections, Cross Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Under the Company of the Condense of the Conden	\$ -	\$	6,215	\$ 1,692	\$ 5,838 166 100 2	S -	\$ 4,421 100 114 6	\$ 3,142	\$ 1,469	\$ -	S -		0 S 30 S 26 S 10 S 0 S 0 S 0 S 0 S 0 S 0 S 0 S	22,776 4,903 3,776 1,498 - - - - - 1,211 2,338
Subtotal Costs Task 7 - 100% Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typical Sections, Cross Sections Typical Sections, Cross Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Quantites and Estimate (Roadway and Track) 100% Specifications	S -	\$	6,215 4 2 2 2	\$ 1,692 2 4	\$ 5,838 166 100 2	S -	\$ 4,421 100 144 6	\$ 3.142	\$ 1,469	S -	\$ -		0 S 30 S 26 S 10 S 0 S 0 S 0 S 0 S 0 S 0 S	22,776 4,903 3,776 1,498 - - - 1,211 2,338 - - 13,725
Subtotal Costs Task 7 - 100% Design 100% Track Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typical Sections, Cross Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Under the Company of the Condense of the Conden	\$ -	\$	6,215	\$ 1,692	\$ 5,838 166 100 2	S -	\$ 4,421 100 114 6	\$ 3.142	\$ 1,469	\$ -	S -		0 S 30 S 26 S 10 S 0 S 0 S 0 S 0 S 0 S 0 S 0 S	22,776 4,903 3,776 1,498 - - - - - 1,211 2,338
Subtotal Costs Task 7 - 100% Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typical Sections, Cross Sections Typical Sections, Cross Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Quantites and Estimate (Roadway and Track) 100% Specifications	S -	\$	6,215 4 2 2 2	\$ 1,692 2 4	\$ 5,838 166 100 2	S -	\$ 4,421 100 144 6	\$ 3.142	\$ 1,469	S -	\$ -		0 S 30 S 26 S 10 S 0 S 0 S 0 S 0 S 0 S 0 S 0 S	22,776 4,903 3,776 1,498 - - - 1,211 2,338 - - 13,725
Subtotal Costs Task 7 - 100% Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typical Sections, Cross Sections Typical Sections, Cross Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Swpr Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Specifications Subtotal Hours Subtotal Costs Task 8 - Ad-Ready Design Ad-Ready Track Design	S -	\$	6,215 4 2 2 1 6 15 3,729	\$ 1,692 2 4 4 6 5 1,269	\$ 5,838 166 100 2 2 28 \$ 4,953	S - ()	\$ 4,421 100 14 6 5 5 \$ 3,774	\$ 3,142	\$ 1,469	0 0 5 -	S -		0 S 30 S 26 S 10 S 0 S 0 S 0 S 0 S 0 S 0 S 0 S 0 S 0 S	22,776 4,903 3,776 1,498 - - - 1,211 2,338 - - 13,725 13,725
Subtotal Costs Task 7 - 100% Design 100% Track Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typical Sections, Cross Sections Typical Sections, Cross Sections Typical Sections, Cross Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Support Sections 100% Support Sections Subtotal Hours Subtotal Hours Subtotal Hours Subtotal Costs Task 8 - Ad-Ready Design Ad-Ready Track Design Ad-Ready Track Design	S -	\$	6,215 4 2 2 2	\$ 1,692 2 4	\$ 5,838 166 100 2 2 28 \$ 4,953	S - C S	\$ 4,421 100 144 6 5 5 335 \$ 3,774	\$ 3,142	\$ 1,469	S - 0 S - 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	S -	0 1	0 S S S S S S S S S S S S S S S S S S S	22,776 4,903 3,776 1,498 - - - 1,211 2,338 - 13,725 13,725
Subtotal Costs Task 7 - 100% Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typical Sections, Cross Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Quantites and Estimate (Roadway and Track) 100% Specifications Subtotal Hours Subtotal Hours Subtotal Costs Task 8 - Ad-Ready Design Ad-Ready Track Design Ad-Ready Track Design Ad-Ready Union Pacific Submittal	S -	\$	6,215 4 2 2 1 6 15 3,729	\$ 1,692 2 4 4 6 5 1,269	\$ 5,838 166 100 2 2 28 \$ 4,953	S - C S	\$ 4,421 100 14 6 5 5 \$ 3,774	\$ 3,142	\$ 1,469	0 0 5 -	S -	000	S	22,776 4,903 3,776 1,498 - - - 1,211 2,338 - - 13,725 13,725
Subtotal Costs Task 7 - 100% Design 100% Track Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typical Sections, Cross Sections Typical Sections, Cross Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Suppose Swpp Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Specifications Subtotal Hours Subtotal Costs Task 8 - Ad-Ready Design Ad-Ready Track Design Ad-Ready Union Pacific Submittal Plans, Profiles, Cross Sections	S -	\$	6,215 4 2 2 1 6 15 3,729	\$ 1,692 2 4 4 6 5 1,269	\$ 5,838 166 100 2 2 28 \$ 4,953	S -	\$ 4,421 100 144 6 5 5 335 \$ 3,774	\$ 3,142	\$ 1,469	S - 0 S - 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	S -	000	S	22,776 4,903 3,776 1,498 1,211 2,338 13,725 13,725 10,856 7,706 - 602
Subtotal Costs Task 7 - 100% Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typical Sections, Cross Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Quantites and Estimate (Roadway and Track) 100% Specifications Subtotal Hours Subtotal Hours Subtotal Costs Task 8 - Ad-Ready Design Ad-Ready Track Design Ad-Ready Union Pacific Submittal Ad-Ready Union Pacific Submittal Ad-Ready Union Pacific Submittal Ad-Ready Roadway Drawings Plans, Profiles, Cross Sections Drainage Design Drainage Design	S -	\$	6,215 4 2 2 2 1 6 15 3,729	\$ 1,692 2 4 4 5 1,269	\$ 5,838 166 100 2 2 28 \$ 4,953 20 166 162 2 2	S -	\$ 4,421 100 144 6 5 \$ 3,774 16 12	\$ 3,142	\$ 1,469	S - 0 S - 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	S -	000	0 S S S S S S S S S S S S S S S S S S S	22,776
Subtotal Costs Task 7 - 100% Design 100% Track Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typical Sections, Cross Sections Typical Sections, Cross Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Suppose Sections Drainage Design 100% Specifications Subtotal Hours Subtotal Hours Subtotal Costs Task 8 - Ad-Ready Design Ad-Ready Track Design Ad-Ready Union Pacific Submittal Ad-Ready Track Design Ad-Ready Union Pacific Submittal Ad-Ready Track Design Ad-Ready Union Pacific Submittal Ad-Ready Design Ad-Ready Quantities and Estimate	S -	\$	1 1 6 2 2 2 2 2 2 2 2 2 2 2 2 2 3 3,729 4 4 4 4 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3	\$ 1,692 2 4 4 8 8 8	\$ 5,838 166 100 2 2 8 \$ 4,953 20 166 2 2 2 8	S -	\$ 4,421 100 144 6 5 5 335 \$ 3,774	\$ 3,142	\$ 1,469	S - 0 S - 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	S -	0 8	0 0 S 0	22,776 - 4,903 3,776 1,498
Subtotal Costs Task 7 - 100% Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typical Sections, Cross Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Quantites and Estimate (Roadway and Track) 100% Specifications Subtotal Hours Subtotal Hours Subtotal Costs Task 8 - Ad-Ready Design Ad-Ready Track Design Ad-Ready Union Pacific Submittal Ad-Ready Union Pacific Submittal Ad-Ready Union Pacific Submittal Ad-Ready Roadway Drawings Plans, Profiles, Cross Sections Drainage Design Drainage Design	S -	\$	6,215 4 2 2 2 1 6 15 3,729	\$ 1,692 2 4 4 8 8 8	\$ 5,838 166 100 2 2 8 8 4,953 20 166 2 2 2 8	S -	\$ 4,421 100 144 6 5 \$ 3,774 16 12	\$ 3,142	\$ 1,469	S - 0 0 S - 8 8 6 6	\$ - \$ -	000	S	22,776 4,903 3,776 1,498 1,211 2,338 2,338 - 13,725 13,725 10,856
Subtotal Costs Task 7 - 100% Design 100% Track Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typical Sections, Cross Sections Typical Sections, Cross Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Ouantities and Estimate (Roadway and Track) 100% Specifications Subtotal Hours Subtotal Costs Task 8 - Ad-Ready Design Ad-Ready Track Design Ad-Ready Union Pacific Submittal Ad-Ready Union Pacific Submittal Ad-Ready Union Pacific Submittal Ad-Ready Ouantities and Estimate Ad-Ready Quantities and Estimate Ad-Ready Specifications	S -	\$	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$ 1,692 2 4 4 8 8 8	\$ 5,838 166 100 2 2 2 4,953 200 166 2 2 8	S -	\$ 4,421 100 144 6 6 5 5 \$ 3,774 16 12	\$ 3,142	\$ 1,469	0 0 5 -	\$ - \$ -	0 3	S	22,776 4,903 3,776 1,498 1,211 2,338 - 13,725 13,725 10,856 7,706 602 354 3,446 2,338 6,580
Subtotal Costs Task 7 - 100% Design 100% Track Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typical Sections, Cross Sections Typical Sections, Cross Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Ouantities and Estimate (Roadway and Track) 100% Specifications Subtotal Hours Subtotal Costs Task 8 - Ad-Ready Design Ad-Ready Track Design Ad-Ready Union Pacific Submittal Ad-Ready Union Pacific Submittal Ad-Ready Union Pacific Submittal Ad-Ready Ouantities and Estimate Ad-Ready Quantities and Estimate Ad-Ready Quantities and Estimate Ad-Ready Quantities and Estimate Ad-Ready Byecifications Ad-Ready Bid Documents	S - S -	5	15 3.729 4 4 4 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	\$ 1,692 2 4 6 \$ 1,269 8	\$ 5,838 166 100 2 2 2 4,953 200 166 2 2 2 8	S -	\$ 4,421 100 144 6 6 5 5 \$ 3,774 16 12 8 8	\$ 3,142 (\$ -	\$ 1,469	S - 0 0 S - 6 6 10 10 10 10 10 10 10 10 10 10 10 10 10	\$ -	00 8	S	22,776 4,903 3,776 1,498 1,211 2,338 13,725 13,725 10,856 7,706 602 354 3,446 2,338 6,580
Subtotal Costs Task 7 - 100% Design 100% Track Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typical Sections, Cross Sections Typical Sections, Cross Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Ouantities and Estimate (Roadway and Track) 100% Specifications Subtotal Hours Subtotal Costs Task 8 - Ad-Ready Design Ad-Ready Track Design Ad-Ready Union Pacific Submittal Ad-Ready Union Pacific Submittal Ad-Ready Union Pacific Submittal Ad-Ready Ouantities and Estimate Ad-Ready Quantities and Estimate Ad-Ready Specifications	S - S -	\$	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$ 1,692 2 4 4 6 \$ 1,269 8	\$ 5,838 166 100 2 2 2 4,953 200 166 2 2 2 8	S -	\$ 4,421 100 144 6 6 5 5 \$ 3,774 16 12	\$ 3,142	\$ 1,469	S - 0 S - 8 8 6 6	\$ -	00 8	S	22,776 4,903 3,776 1,498 - - - 1,211 2,338 - - 13,725 13,725 10,856 7,706 602 354 3,446 2,338 6,580
Subtotal Costs Task 7 - 100% Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typical Sections, Cross Sections Typical Sections, Cross Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Ouantities and Estimate (Roadway and Track) 100% Specifications Subtotal Hours Subtotal Costs Task 8 - Ad-Ready Design Ad-Ready Track Design Ad-Ready Union Pacific Submittal Ad-Ready Union Pacific Submittal Ad-Ready Union Pacific Submittal Ad-Ready Ouantities and Estimate Ad-Ready Quantities and Estimate Ad-Ready Quantities and Estimate Ad-Ready Quantities and Estimate Ad-Ready Byecifications Ad-Ready Bid Documents	S - S - S - S - S - S - S - S - S - S -	00 5	15 3,729 4 4 4 1 1 2 2 2 2	\$ 1,692 2 4 6 5 1,269 8 8	\$ 5,838 166 100 2 2 28.8 \$ 4,953 20 166 166	S - C S - C	\$ 4,421 100 144 6 6 5 5 \$ 3,774 166 128	\$ 3,142	\$ 1,469	S - 0 S - 8 8 6 6	\$ -	00 8	S	22,776 4,903 3,776 1,498 1,211 2,338 - 13,725 13,725 10,856 7,706 - 602 3544 3,446 2,338 6,580 - 31,882
Subtotal Costs Task 7 - 100% Design 100% Track Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typical Sections, Cross Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 1100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 1100% Syecifications Subtotal Hours Subtotal Hours Subtotal Yurian Pacific Submittal Ad-Ready Track Design Ad-Ready Track Design Ad-Ready Goadway Drawings Plans, Profiles, Cross Sections Drainage Design Ad-Ready Quantities and Estimate Ad-Ready Quantities and Estimate Ad-Ready Quantities and Estimate Ad-Ready Design Ad-Ready Bid Documents	S - S - S - S - S - S - S - S - S - S -	00 5	115 3,729 4 4 4 1 1 2 2 2 2	\$ 1,692 2 4 6 5 1,269 8 8	\$ 5,838 116 100 2 2 28 \$ 4,953 200 166 2 2 2 2 2 8 8 4 11,321	S - C S - C	\$ 4,421 100 144 6 6 5 5 \$ 3,774 166 128	\$ 3,142	\$ 1,469	S - 0 S - 8 8 6 6	\$ -	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 S S S S S S S S S S S S S S S S S S S	22,776 4,903 3,776 1,498 1,211 2,338 - 13,725 13,725 10,856 7,706 - 602 354 3,446 2,338 6,580 - 31,882 31,882
Subtotal Costs Task 7 - 100% Design 100% Track Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typical Sections, Cross Sections Typical Sections, Cross Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Support Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Support Sections Subtotal Hours Subtotal Hours Subtotal Costs Task 8 - Ad-Ready Design Ad-Ready Track Design Ad-Ready Track Design Ad-Ready Union Pacific Submittal Ad-Ready Union Pacific Submittal Ad-Ready Union Pacific Submittal Ad-Ready Roadway Drawings Plans, Profiles, Cross Sections Drainage Design Ad-Ready Quantities and Estimate Ad-Ready Specifications Ad-Ready Bid Documents Subtotal Hours Subtotal Hours Subtotal Hours Subtotal Hours Subtotal Costs	S - S - S - S - S - S - S - S - S - S -	00 5	11 15 15 15 15 16 16 16 16 16 16 16 16 16 16 16 16 16	\$ 1,692 2 4 6 5 1,269 8 8	\$ 5,838 166 100 2 2 288 \$ 4,953 200 166 2 2 2 8 8 4953	S - C S - C S -	\$ 4,421 100 144 6 6 5 5 \$ 3,774 166 128	\$ 3,142	\$ 1,469	S - 0 S - 8 8 6 6	\$ -	0 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	S S S S S S S S S S	22,776 - 4,903 3,776 1,498
Subtotal Costs Task 7 - 100% Design 100% Track Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typical Sections, Cross Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 1100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 1100% Syecifications Subtotal Hours Subtotal Hours Subtotal Yurian Pacific Submittal Ad-Ready Track Design Ad-Ready Track Design Ad-Ready Goadway Drawings Plans, Profiles, Cross Sections Drainage Design Ad-Ready Quantities and Estimate Ad-Ready Quantities and Estimate Ad-Ready Quantities and Estimate Ad-Ready Design Ad-Ready Bid Documents	S - S - S - S - S - S - S - S - S - S -	00 5	115 3,729 4 4 4 1 1 2 2 2 2	\$ 1,692 2 4 6 \$ 1,269 8 8 2 4 4 4	\$ 5,838 116 100 2 2 28 \$ 4,953 200 166 2 2 2 2 2 8 8 4 11,321	S - C S - C	\$ 4,421 100 144 6 6 5 5 \$ 3,774 166 128	\$ 3,142	\$ 1,469	S - 0 S - 8 8 6 6	\$ -	00 11 11 11 11 11 11 11 11 11 11 11 11 1	0 S S S S S S S S S S S S S S S S S S S	22,776 4,903 3,776 1,498 1,211 2,338 - 13,725 13,725 10,856 7,706 - 602 354 3,446 2,338 6,580 - 31,882 31,882
Subtotal Costs Task 7 - 100% Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typical Sections, Cross Sections Typical Sections, Cross Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Oquantities and Estimate (Roadway and Track) 100% Specifications Subtotal Hours Subtotal Costs Task 8 - Ad-Ready Design Ad-Ready Track Design Ad-Ready Track Design Ad-Ready Union Pacific Submittal Ad-Ready Union Pacific Submittal Ad-Ready Condown Drawings Plans, Profiles, Cross Sections Drainage Design Ad-Ready Quantities and Estimate Ad-Ready Design Ad-Ready Byecifications Ad-Ready Byecifications Ad-Ready Byecifications Ad-Ready Byecifications Ad-Ready Bid Documents Subtotal Hours Subtotal Hours Subtotal Costs Task 9 - Project Management Kick-Off Meeting Bi-Weekly Meetings or Conference Calls with City (Approx. 20 Total)	S - S - S - S - S - S - S - S - S - S -	00 5	15 15 3,729 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	\$ 1,692 2 4 6 \$ 1,269 8 8 2 4 4 4	\$ 5,838 166 100 2 2 2 8 \$ 4,953 200 166 2 2 8 8 163 164 8 11,321	S - C S - C	\$ 4,421 100 144 6 6 5 5 \$ 3,774 166 128	\$ 3,142 \$ (\$	\$ 1,469	S - 0 S - 8 8 6 6	S	0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	S S S S S S S S S S	22,776 4,903 3,776 1,498 1,211 2,338 13,725 13,725 10,856 7,706
Subtotal Costs Task 7 - 100% Design 100% Track Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typical Sections, Cross Sections Typical Sections, Cross Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Support Suppo	S - S - S - S - S - S - S - S - S - S -	00 5	1 1 5 3,729 4 4 4 4 9 2 2 2 2 2 4 9 7 2 8 8 8 8 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	\$ 1,692 2 4 6 \$ 1,269 8 8 2 4 4 4	\$ 5,838 166 100 2 2 28 \$ 4,953 20 166 48 11,321 8 8 20 20	S - C S - C	\$ 4,421 100 144 6 6 5 5 8 8 16 12 8 8 16 5 5 5 6	\$ 3,142 \$ (\$	\$ 1,469	S - 0 S - 8 8 6 6	S	3 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	0 S S S S S S S S S S S S S S S S S S S	22,776 4,903 3,776 1,498 1,211 2,338 - 13,725 13,725 10,856 7,706 - 602 354 3,446 2,338 6,580 31,882 31,882 3,404 5,527 7,562 8,180
Subtotal Costs Task 7 - 100% Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typical Sections, Cross Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Suppose Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Suppose Sections Subtotal Hours Subtotal Hours Subtotal Costs Task 8 - Ad-Ready Design Ad-Ready Track Design Ad-Ready Track Design Ad-Ready Union Pacific Submittal Ad-Ready Union Pacific Submittal Ad-Ready Union Pacific Submittal Ad-Ready Quantities and Estimate Ad-Ready Specifications Drainage Design Ad-Ready Specifications Ad-Ready Bid Documents Subtotal Hours Subtotal Costs	S - S - S -	00 5	155 3,729 4 4 4 2 2 2 2 3 3,729 4 4 4 4 972 8 8 8 12 10	\$ 1,692 2 4 6 \$ 1,269 8 8 2 4 4 4	\$ 5,838 166 100 2 2 28 \$ 4,953 20 166 48 5 11,321 8 8 20 20 20 20	S - C S - C	\$ 4,421 100 144 6 6 5 5 \$ 3,774 166 122 \$ 8,5,606	\$ 3,142 (\$	\$ 1,469	8 0 0 \$ - 10 10 8 24 \$ 2,256	S	0 22	S S S S S S S S S S	22,776 - 4,903 3,776 1,498
Subtotal Costs Task 7 - 100% Design 100% Track Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typical Sections, Cross Sections Typical Sections, Cross Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Support Suppo	S - S - S -	000 5	1 1 5 3,729 4 4 4 4 9 2 2 2 2 2 4 9 7 2 8 8 8 8 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	\$ 1,692 2 4 6 \$ 1,269 8 8	\$ 5,838 166 100 2 2 28 \$ 4,953 20 166 48 11,321 8 8 20 20	S - C S - C C S - C C S - C C C S - C C C C	\$ 4,421 100 144 6 6 5 5 8 8 16 12 8 8 16 5 5 5 6	\$ 3,142	\$ 1,469	8 0 0 \$ - 10 10 8 24 \$ 2,256	S		S S S S S S S S S S	22,776 4,903 3,776 1,498 1,211 2,338 - 13,725 13,725 10,856 7,706 - 602 354 3,446 2,338 6,580 31,882 31,882 31,882 3,404 5,527 7,562 8,180
Subtotal Costs Task 7 - 100% Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typical Sections, Cross Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Suppose Sections Drainage Design 100% Specifications Subtotal Hours Subtotal Hours Subtotal Costs Task 8 - Ad-Ready Design Ad-Ready Track Design Ad-Ready Track Design Ad-Ready Track Design Ad-Ready Union Pacific Submittal Ad-Ready Union Pacific Submittal Ad-Ready Union Pacific Submittal Ad-Ready Union Pacific Submittal Ad-Ready Specifications Drainage Design Ad-Ready Quantities and Estimate Ad-Ready Specifications Ad-Ready Bid Documents Subtotal Hours Subtotal Hours Subtotal Costs Task 9 - Project Management Kick-Off Meeting Bi-Weekly Meetings or Conference Calls with City (Approx. 20 Total) Coordination with City & Railroad Coordinator Internal Team BiWeekly Conference Calls (approx 20)	S - S - S -	00 5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$ 1,692 2 4 4 5 1,269 8 8 8 2,960	\$ 5,838 166 100 2 2 28 \$ 4,953 20 16 2 2 2 3 8 8 163 1 1,321	S - C S - C C S - C C S - C C C S - C C C C	\$ 4,421 100 144 6 5 5 \$ 3,774 166 122 8 8 166 169 200 200	\$ 3,142	\$ 1,469	8 - 0 0 0 S - 10 10 10 10 10 10 10 10 10 10 10 10 10	S		S S S S S S S S S S	22,776 4,903 3,776 1,498 1,211 2,338 - 13,725 13,725 10,856 7,706
Subtotal Costs Task 7 - 100% Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typcial Sections, Cross Sections Typcial Sections, Cross Sections Typcial Sections, Cross Sections Typcial Sections, Cross Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Suppose Sections Subtotal Hours Subtotal Hours Subtotal Hours Subtotal Costs Task 8 - Ad-Ready Design Ad-Ready Track Design Ad-Ready Track Design Ad-Ready Union Pacific Submittal Ad-Ready Union Pacific Submittal Ad-Ready Gountities and Estimate Ad-Ready Oguantities and Estimate Ad-Ready Specifications Ad-Ready Specifications Ad-Ready Bid Documents Subtotal Hours	S - S - S -	00 5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$ 1,692 2 4 4 5 1,269 8 8 8 2,960	\$ 5,838 166 100 2 2 28 \$ 4,953 200 166 2 2 2 8 8 164 \$ 11,321 8 8 2 20 2 20	S - C S - C S - C	\$ 4,421 100 144 6 5 5 \$ 3,774 166 122 8 8 166 169 200 200	\$ 3,142	\$ 1,469	8 - 0 0 0 S - 10 10 10 10 10 10 10 10 10 10 10 10 10	S		S S S S S S S S S S	22,776 4,903 3,776 1,498 1,211 2,338 - 13,725 13,725 10,856 7,706 - 602 354 3,446 2,338 6,580 - 31,882 31,882 31,882 3,404 5,527 7,562 8,180 8,180
Subtotal Costs Task 7 - 100% Design 100% Track Design - Plans, Profiles, Details 100% Track Design - Typical Sections, Cross Sections 100% Culvert Layout and Structural Design 100% RoadwayDrawings Plans, Profiles, Cross Sections Typical Sections, Cross Sections Drainage Design 100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc) 100% Suppose Sections Drainage Design 100% Specifications Subtotal Hours Subtotal Hours Subtotal Costs Task 8 - Ad-Ready Design Ad-Ready Track Design Ad-Ready Track Design Ad-Ready Track Design Ad-Ready Union Pacific Submittal Ad-Ready Union Pacific Submittal Ad-Ready Union Pacific Submittal Ad-Ready Union Pacific Submittal Ad-Ready Specifications Drainage Design Ad-Ready Quantities and Estimate Ad-Ready Specifications Ad-Ready Bid Documents Subtotal Hours Subtotal Hours Subtotal Costs Task 9 - Project Management Kick-Off Meeting Bi-Weekly Meetings or Conference Calls with City (Approx. 20 Total) Coordination with City & Railroad Coordinator Internal Team BiWeekly Conference Calls (approx 20)	S - S - S -	00 5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$ 1,692 2 4 4 6 \$ 1,269 8 8 2 2,960	\$ 5,838 166 100 2 2 28 \$ 4,953 20 16 2 2 2 3 8 8 163 1 1,321	S - C S - C	\$ 4,421 100 144 6 5 5 \$ 3,774 166 122 8 8 166 169 200 200	\$ 3,142 \$ - \$ - \$ 3,591 \$ -	\$ 1,469	8 - 0 0 0 S - 10 10 10 10 10 10 10 10 10 10 10 10 10	S		S S S S S S S S S S	22,776 4,903 3,776 1,498 1,211 2,338 13,725 13,725 10,856 7,706 - 602 354 2,338 6,580 - 31,882 31,882 31,882 31,882 24,673

MARICOPA AMTRAK STATION SIDING RailPros Estimated Time and Expense Sheet

								Estima	ted T	ime and Ex	pense S	heet							
	VP/Principal/Princial Signal Manager		Sr. Project Manager	Project Manager		Sr. Rail Engineer	Sr. Engineer		Engineer	Designer		Sr. CADD		CADD		Controller	Hours Por Task		Costs Per Task
Fully Burdened Rate	\$ 318	\$ 2	19 \$	211	\$	177 \$	163	\$ 1	108	\$ 90	\$	147	\$	94	\$	87			
Attend Pre-Construction Meeting						10											1	0 \$	1,769
Review 8 Submittals			2			4			6								1	2 \$	1,852
Respond to 8 RFIs			2			4												6 \$	1,205
																		0 \$	-
																		0 \$	-
Subtotal Hours	()	8	0		31	0		11	0)	0)	0		0	5	0 \$	8,659
Subtotal Costs	\$ -	\$ 1,9	39 \$	-	\$ 5,	,484 \$	-	\$ 1,1	186	\$ -	\$	-	\$		\$	-		\$	8,659
																		\$	-
Grand Subtotal (hours)		3	234	62		427	20		358	130)	78	3	66		19	140	2 \$	222,206
Grand Subtotal (costs per Classification)	\$ 2,541	\$ 58,1	76 \$	13,111	\$ 75,	,534 \$	3,267	\$ 38,5	599	\$ 11,672	\$:	11,454	\$ 6	,203	\$ 1	1,648		\$	222,206
Total: RAILPROS DESIGN FEE																		\$	222,206
Other Direct Costs																			
Subconsultant - EcoPlan Associates																		\$	24,248
Subconsultant - Entellus																		\$	113,047
Subconsultant - Ninyo and Moore																		\$	10,614
Other Direct Costs - Printing, Reproduction, and Mailing																		\$	200
Other Direct Costs - Travel (Kick-Off Mtg; Programming Mtg; Contractors Pre-Bid M	Itg: Pre-Construction	n Mtg)																\$	5,500
Other Direct Costs - UPRR Right of Entry (Rush Handling-Estimated)		- 0/																\$	4,000
Railroad Flagging (8 days - Estimated)																		\$	10,000
Other Direct Costs - Railroad Protective Liability Insurance (Estimated)																		\$	10,000
																		-	
GRAND TOTAL (including Subconsultants and ODCs):																		\$	399,815
GREET TOTTLE (Including Subconsultants and ODCs).																		Ψ	577,015

MARICOPA AMTRAK STATION SIDING Entellus

				Estimated	Time and Ex	pense Sheet									
		Sr. Project Manager	(Name)	ner		inage	Engieer			lanager	2-Man Survey Crew	6	Project Coordinator/Clerical	r Task	Task
	Principal	ir. Projec	Title (N	Senior Design	CADTech	Senior D	Drainage Engieer	EIT	GIS tech	Survey Manager	-Man Su		Project	Hours Per	Costs Per Task
Fully Burdened Rate	\$ 172	\$ 144	\$ 207	\$ 95	\$ 72	\$ 129				\$ 118			57	т.	0
Task 1 - Union Pacific and Amtrak Coordination															
Support City's Railroad Coordinator														0	\$ -
Right of Entry Application to Union Pacific													_	0	
develop Information Requests for Union Pacific Identify Construction Role for Union Pacific														0	
Coordinate with Amtrak				0									2	0 19	
Develop Conceptual Rail, Platform, and Future Amtrak Station Layout with City													- 4	0	\$ -
Subtotal Hours			0	9		0	(0		0		n	2	0 19	\$ - \$ 2,193
Subtotal Costs	\$ 172	\$ 1,148	\$ -	\$ 758	\$ -	\$ -	s -	\$ -	s -	\$ -	\$ -	\$	115	1)	\$ 2,193
Task 2 - Field Data Collection													-		
Field Survey														0	\$ -
Field Survey		3			1.0					12	8:	2		97	
Utility Data Collection Develop Basemapping		2			12 24					12			2	14 38	
Geotechnical Investigations														0	\$ -
Site Reconaissance Prepare Draft Geotechnical Report													-	0	\$ - \$ -
Prepare Final Geotechnical Report														0	\$ -
													-		\$ - \$ -
Subtotal Hours			0	0	36	0	(0		24			2	149	\$ 17,306
Subtotal Costs	S -	\$ 718	\$ -	\$ -	\$ 2,584	\$ -	\$ -	\$ -	S -	\$ 2,825	\$ 11,065	\$	115		\$ 17,306
Task 3 - 10% Conceptual Design															
10% Track Design Concept Verification													\dashv		\$ -
10% Track Alignment Design 10% Track Profile Design												1		0	\$ - \$ -
10% Track Typical Sections														0	\$ -
10% Culvert Sizing 10% Union Pacific Submittal												1	-		\$ - \$ -
10% Site Conceptual Design				_											\$ -
Site Visit Programming Meeting with City		8		8		6							2	18 18	
Conceptual Drainage Design														0	\$ -
Review Data from FEMA Studies, Other Nearby Projects Develop Design Flows		2				4							-	30 46	
Initial Stormwater Modeling		2				4	8	32	8					54	\$ 4,640
Develop Inundation Elevations Conceptual Site Plan		2				4	8	32	8					54 0	
Site Design (Station, Parking Lot)				10		2								35	\$ 3,388
Roadway Design (Alignment, Profile, Typical Sections) Roadway Relocation Plan		1 6		10	16	2							-	35 0	
Rollway Relocation 1 and														0	\$ -
														0	\$
Subtotal Hours		34	0	34	32	26	32	104	2.4	0		0	2		\$ - \$ 27.102
Subtotal Hours Subtotal Costs	\$ 345	2 34 \$ 4,881	\$ -	34 \$ 3,221		\$ 3,359			\$ 2,205	\$ -	\$ -	\$	2 115	290	
Subtotal Costs	\$ 345		\$ -							\$ -	\$ -	\$	115		\$ 27,102
Subtotal Costs Task 4 - 30% Design and Environmental Documentation 30% Track Design	\$ 345		\$ -							\$ -	\$ -	\$	115	290	\$ 27,102 \$ 27,102 \$ -
Subtotal Costs Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Alignment Refinement	\$ 345		\$ -							\$ -	\$ -	\$	115	0 0	\$ 27,102 \$ 27,102 \$ - \$ -
Subtotal Costs Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Alignment Refinement Track Profile Refinement Culver Layout	\$ 345		\$ -							\$ -	\$ -	\$	115	0 0	\$ 27,102 \$ 27,102 \$ - \$ - \$ - \$ - \$ -
Subtotal Costs Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Sugment Refinement Track Profile Refinement Culvert Layout Track Grading Design	\$ 345		\$ -							\$ -	\$ -	\$	2 115	0 0 0 0 0	\$ 27,102 \$ 27,102 \$ - \$ - \$ - \$ - \$ - \$ - \$ -
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Posting Track Profile Refinement Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design Finalize Platform Geometry	\$ 345		\$ -							\$ -	\$ -	\$	2 115	0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Alignment Refinement Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design	\$ 345		\$ -							\$ -	\$ -	0 \$	2 115	0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Alignment Refinement Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design Preliminary Signal Design Finalize Platform Geometry Union Pacific 30% Submittal (separate from City Submittal) 30% Site Design	\$ 345		\$ -							5 -	\$ -	0 \$	2 115	0 0 0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$ - \$ \$ - \$
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Alignment Refinement Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design Preliminary Signal Design Finalize Platform Geometry Union Pacific 30% Submittal (separate from City Submittal) 30% Site Design Refine R/W Lines	\$ 345		\$ -							5 -	S -	5	2 115	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Alignment Refinement Track Profile Refinement Track Profile Refinement Track Grading Design Preliminary Signal Design Preliminary Signal Design Primize Platform Geometry Union Pacific 30% Submittal (separate from City Submittal) 30% Site Design Refine R/W Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design	\$ 345		0 5 -							S -	S -	5	2 115	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Signment Refinement Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design Preliminary Signal Design Finalize Platform Geometry Union Pacific 30% Submittal (separate from City Submittal) 30% Site Design Refine R/W Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Design Refine Surface Water/Drainage Design	\$ 345		5 -				\$ 3,216		\$ 2,205	S -	S -	5	2 115	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Profile Refinement Track Profile Refinement Track Profile Refinement Track Grading Design Track Grading Design Preliminary Signal Design Preliminary Signal Design Preliminary Signal Design Preliminary Signal Design Finalize Platform Geometry Union Pacific 30% Submittal (separate from City Submittal) 30% Site Design Refine R.W Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Sureface Water/Drainage Design Define Calvert Sizing	\$ 345		5 -			\$ 3,359	\$ 3,216	\$ 7,465	\$ 2,205	S -	S -	0 \$	2 115	990 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 14 0 0 300 12 12	\$ 27,102 \$ 27,102 \$ 27,102 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Design Track Refinement Track Profile Refinement Track Profile Refinement Track Grading Design Track Grading Design Preliminary Signal Design Preliminary Signal Design Preliminary Signal Design Trinalize Plafform Geometry Union Pacific 30% Submittal (separate from City Submittal) 30% Site Design Refine RW Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Pefine Culvert Sizing Refine Roaway Relocation Design Refine Roaway Relocation Design Roadway Alignment	\$ 345		S -	\$ 3,221 4	\$ 2,297	\$ 3,359	\$ 3,216	\$ 7,465	\$ 2,205	S -	S -	0 8	2 115	290 0 0 0 0 0 0 0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Design Track Design Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design Finalize Pattern Geometry Union Pacific 30% Submittal (separate from City Submittal) 30% Site Design Refine R.W Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Suverface Water/Drainage Design Define Culvert Sizing Refine Roaway Relocation Design Refine Roaway Relocation Design Roadway Alignment Roadway Profile	\$ 345		S -	\$ 3,221	\$ 2,297 8 8 8 8 8 8	\$ 3,359	\$ 3,216	\$ 7,465	\$ 2,205	S -	S -	5	2 115	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$ - 27,102 \$ - 5 \$ - 7 \$ - 7 \$ 1,987 \$ 1,240 \$ - 7,240 \$ - 7,240
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Design Track Define Refinement Track Profile Refinement Track Profile Refinement Track Profile Refinement Track Ground Refinement Union Pacific 30% Submittal (Separate from City Submittal) 30% Site Design Refine R.W Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Sureface Water/Drainage Design Define Culvert Sizing Refine Roaway Relocation Design Roadway Alignment Roadway Alignment Roadway Profile Roadway Grading (Cross Sections) Identify Utility Relocations/Cooridnation	\$ 345		S -	\$ 3,221 4 2 2 2 2 2 8	\$ 2,297	\$ 3,359 4 4 1	\$ 3,216	\$ 7,465	\$ 2,205	S -	S -	\$	2 115	290 0 0 0 0 0 0 0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$.
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Design Track Design Track Design Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design Preliminary Signal Design Preliminary Signal Design Finalize Platform Geometry Union Pacific 30% Submittal (separate from City Submittal) 30% Site Design Refine R/W Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Rareace Water/Drainage Design Define Culvert Sizing Refine Roadway Relocation Design Roadway Alignment Roadway Arding (Cross Sections) Identify Utility Relocations/Cooridnation Establish Project Area of Potential Effect	\$ 345		S -	\$ 3,221 4 2 2 2 2	\$ 2,297 8 8 8 8 8 8 8 8	\$ 3,359 4 4 1	\$ 3,216	\$ 7,465	\$ 2,205	S -	S -	\$	2 115	290 0 0 0 0 0 0 0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$ - 27,102 \$ - 5 \$ - 7 \$ 1,987 \$ 1,240 \$ 1,062 \$ 2,756 \$ 1,180 \$ 2,756 \$ 1,180 \$ 3,893 \$ 893 \$ 893 \$ 758 \$ 893 \$ 379
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Design Track Alignment Refinement Track Profile Refinement Track Profile Refinement Track Profile Refinement Track Grading Design Preliminary Signal Design Preliminary Signal Design Preliminary Signal Design Preliminary Pacific 30% Submittal (separate from City Submittal) 30% Site Design Refine R.W Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Sureface Water/Drainage Design Define Culvert Sizing Refine Roaway Relocation Design Roadway Alignment Roadway Alignment Roadway Frofile Roadway Grading (Cross Sections) Identify Utility Relocations Cooridnation	\$ 345		5 -	\$ 3,221 4 4 2 2 2 2 2 2 8 8	\$ 2,297 8 8 8 8 8 8 8 8	\$ 3,359 4 4 1	\$ 3,216	\$ 7,465	\$ 2,205	S -	S -	\$	2 115	290 0 0 0 0 0 0 0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$ 27,102 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Design Track Refinement Track Profile Refinement Track Profile Refinement Track Grading Design Track Grading Design Preliminary Signal Design Preliminary Signal Design Preliminary Signal Design Preliminary Signal Design Refine R/W Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Race Water/Drainage Design Define Culvert Sizing Refine Roaway Relocation Design Roadway Alignment Roadway Profile Roadway Profile Roadway Orading (Cross Sections) Identify Utility Relocations Cooridanation Establish Project Area of Potential Effect 30% Quantities and Cost Estimate Preliminary Specifications	\$ 345		5 -	\$ 3,221 4 4 2 2 2 2 2 2 8 8	\$ 2,297 8 8 8 8 8 8 8 8	\$ 3,359 4 4 1	\$ 3,216	\$ 7,465	\$ 2,205	S -	S -	\$	2 115	290 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 144 0 0 122 0 133 111 111 8 4 10	\$ 27,102 \$ 27,102 \$ -27,102 \$ -3 -4 \$ -5 \$ -7,56 \$ 1,062 \$ 1,180 \$ 8,93 \$
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Design Track Profile Refinement Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design Preliminary Signal Design Preliminary Signal Design Preliminary Signal Design Finalize Platform Geometry Union Pacific 30% Submittal (separate from City Submittal) 30% Site Design Refine RW Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Sureface Water/Drainage Design Define Culvert Sizing Refine Rowaway Refocation Design Roadway Alignment Roadway Alignment Roadway Grading (Cross Sections) Identify Utility Relocations/Cooridnation Establish Project Area of Potential Effect 30% Quantities and Cost Estimate Preliminary Specifications Environmental Documentation Natural Resources Site Visit	\$ 345		5 -	\$ 3,221 4 4 2 2 2 2 2 2 8 8	\$ 2,297 8 8 8 8 8 8 8 8	\$ 3,359 4 4 1	\$ 3,216	\$ 7,465	\$ 2,205	S -	S -	\$	2 115	290 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$ - 27,102 \$ - 5 \$ - 7 \$ 1,240 \$ - 7 \$ 1,180 \$ 5 1,180 \$ 8 93 \$ 893 \$ 893 \$ 893 \$ 879 \$ 879 \$ 1,275 \$ - 758 \$ 3,758 \$ 3,798 \$ 3,79
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Design Track Refinement Track Profile Refinement Track Profile Refinement Track Grading Design Preliminary Signal Design Refine RW Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Roway Relocation Design Refine Rowaya Relocation Design Refine Rowaya Relocation Design Refine Rowaya Relocation Design Roadway Profile Roadway Securions Cooridanation Establish Project Area of Potential Effect 30% Quantities and Cost Estimate Preliminary Specifications Environmental Documentation Natural Resources File Search	\$ 345		5 -	\$ 3,221 4 4 2 2 2 2 2 2 8 8	\$ 2,297 8 8 8 8 8 8 8 8	\$ 3,359 4 4 1	\$ 3,216	\$ 7,465	\$ 2,205	S -	S -	S S S S S S S S S S S S S S S S S S S	2 115	290 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 14 14 14 14 10 0 0 0	\$ 27,102 \$ 27,102 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Design Track Refinement Track Profile Refinement Track Profile Refinement Track Grading Design Track Grading Design Preliminary Signal Design Preliminary Signal Design Preliminary Signal Design Refine Row Lines Union Pacific 30% Submittal (separate from City Submittal) 30% Site Design Refine RW Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Rowardsew Mater/Drainage Design Define Culvert Sizing Refine Roway Relocation Design Roadway Alignment Roadway Profile Roadway Profile Roadway Profile Soadway Profile Soadway Profile Soadway Profile Soadway Profile Soadway Profile Roadway Roa	\$ 345		S -	\$ 3,221 4 4 2 2 2 2 2 2 8 8	\$ 2,297 8 8 8 8 8 8 8 8	\$ 3,359 4 4 1	\$ 3,216	\$ 7,465	\$ 2,205	S -	S -	S S S S S S S S S S S S S S S S S S S	2 115	290 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 144 0 1330 122 0 1331 111 111 111 0 0 0 0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$ - 27,102 \$ - 5 \$ - 7 \$ 1,240 \$ - 7 \$ 1,180 \$ 5 1,180 \$ 8 93 \$ 893 \$ 893 \$ 893 \$ 879 \$ 879 \$ 1,275 \$ - 758 \$ 3,758 \$ 3,798 \$ 3,79
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Design Track Profile Refinement Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design Preliminary Signal Design Preliminary Signal Design Finalize Platform Geometry Union Pacific 30% Submittal (separate from City Submittal) 30% Site Design Refine R/W Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Encalee Water-Drainage Design Define Culvert Sizing Refine Roadeway Affigament Roadway Affigament Roadway Affigament Roadway Orading (Cross Sections) Identify Utility Relocations/Cooridnation Establish Project Area of Potential Effect 30% Quantities and Cost Estimate Preliminary Specifications Environmental Documentation Natural Resources Site Visit Cultural Resources File Search Phase 1 Site Assessment	\$ 345		S -	\$ 3,221 4 4 2 2 2 2 2 2 8 8	\$ 2,297 8 8 8 8 8 8 8 8	\$ 3,359 4 4 1	\$ 3,216	\$ 7,465	\$ 2,205	S -	S -	\$	2 115	290 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 14 0 0 14 11 11 8 4 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Design Track Profile Refinement Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design Refine Ray Lines Update Site Plan for Station Refine Row Lines Update Site Plan for Station Update Site Plan for Station Update Site Plan for Station Refine Rowavay Relocation Design Refine Rowavay Relocation Design Roadway Alignment Roadway Forfile Roadway Grading (Cross Sections) Identify Utility Relocations/Cooridnation Establish Project Area of Potential Effect 30% Quantities and Cost Estimate Preliminary Specifications Environmental Documentation Natural Resources Site Visit Cultural Resources File Search Phase 1 Site Assessment Verify Absence of Waters of the US Environmental Technical Memo	\$ 345	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	S -	\$ 3,221 4 4 2 2 2 2 2 8 8 4 4 2 2 8 8	\$ 2,297	\$ 3,359 4 4 1	\$ 3,216	\$ 7,465	\$ 2.205	12		S S S S S S S S S S S S S S S S S S S	2 115	290 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 12 14 0 0 12 11 11 11 8 4 4 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$.
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Design Track Refinement Track Profile Refinement Track Profile Refinement Track Grading Design Track Grading Design Preliminary Signal Design Preliminary Signal Design Preliminary Signal Design Refine Row Lines Union Pacific 30% Submittal (separate from City Submittal) 30% Site Design Refine RW Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Rowardsew Mater/Drainage Design Define Culvert Sizing Refine Roway Relocation Design Roadway Alignment Roadway Profile Roadway Profile Roadway Profile Soadway Profile Soadway Profile Soadway Profile Soadway Profile Soadway Profile Roadway Roa	\$ 345	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	S -	\$ 3,221 4 2 2 2 8 8 4 2 3 3	\$ 2,297 8 8 8 8 8 8 8 4	4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$ 3,216	\$ 7,465	\$ 2,205	12		00 8	2 2 115	290 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 144 0 122 0 133 111 111 8 4 100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$ 27,102 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Design Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design Refine R/W Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Environmental Design Refine Race Water/Drainage Design Define Culvert Sizing Refine Race Water/Drainage Design Define Culvert Sizing Roadway Alignment Roadway Alignment Roadway Groding (Cross Sections) Identify Utility Relocations/Cooridnation Establish Project Area of Potential Effect 30% Quantities and Cost Estimate Preliminary Specifications Preliminary Specifications Preliminary Specifications Preliminary Specifications Design Roadway Specifications Desig		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	S - S - S - S - S - S - S - S - S - S -	\$ 3,221 4 4 2 2 2 2 2 8 8 4 4 2 2 8 8	\$ 2,297 8 8 8 8 8 8 8 4	4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$ 3,216	\$ 7,465	\$ 2,205	12		0 5	2 4 4	290 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 12 14 0 0 12 11 11 11 8 4 4 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$ - 27,102 \$ - 5 \$ - 7 \$ 1,240 \$ 1,062 \$ 1,062 \$ 1,180 \$ 1,180 \$ 8,93 \$ 758 \$ 379 \$ 879 \$ 1,275 \$ - 75 \$ 1,275 \$ 1,275 \$ 1,275 \$ 1,180 \$ 1,275 \$ 1,180 \$ 1,18
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Posting Refinement Track Profile Refinement Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design Preliminary Signal Design Preliminary Signal Design Refine R/W Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Raw Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Rowacay Relocation Design Refine Rowavay Alignment Roadway Alignment Roadway Alignment Roadway Alignment Roadway Profile Roadway Crading (Cross Sections) Identify Utility Relocations/Cooridnation Establish Project Area of Potential Effect 30% Quantities and Cost Estimate Preliminary Specifications Environmental Documentation Natural Resources Site Visit Cultural Resources Site Search Phase 1 Site Assessment Verify Absence of Waters of the US Environmental Technical Memo Subtotal Hours Subtotal Costs Task 5 - 60% Design		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	S -	\$ 3,221 4 2 2 2 8 8 4 2 3 3 3	\$ 2,297 8 8 8 8 8 8 8 4	4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$ 3,216	\$ 7,465	\$ 2,205	12		0 5	2 4 4	290 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 144 0 122 0 133 111 111 8 4 10 0 0 0 0 0 0 0 0 144 144 0 0 0 0 0	\$ 27,102 \$ 27,102 \$ - 27,102 \$ - 5 \$ - 7,56 \$ 1,062 \$ 1,062 \$ 1,180 \$ 893 \$ 893 \$ 758 \$ 1,240 \$
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Profile Refinement Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design Preliminary Signal Design Preliminary Signal Design Preliminary Signal Design Refine R/W Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine R/W Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Rafeace Water/Drainage Design Define Culvert Sizing Refine Radace Water/Drainage Design Roadway Alignment Roadway Alignment Roadway Arofile Roadway Groding (Cross Sections) Identify Utility Relocations/Cooridanation Establish Project Area of Potential Effect 30% Quantities and Cost Estimate Preliminary Specifications Environmental Documentation Natural Resources File Search Phase 1 Site Assessment Verify Absence of Waters of the US Environmental Technical Memo		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	S -	\$ 3,221 4 2 2 2 8 8 4 2 3 3 3	\$ 2,297 8 8 8 8 8 8 8 4	4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$ 3,216	\$ 7,465	\$ 2,205	12		00 5	2 4 4	290 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 14 0 0 12 0 13 11 11 8 4 4 0 0 0 0 0 0 0 14 14 0 0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$ 27,102 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Posign Track Profile Refinement Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design Preliminary Signal Design Preliminary Signal Design Primitize Platform Geometry Union Pacific 30% Submittal (separate from City Submittal) 30% Site Design Refine Raw Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Sureface Water/Drainage Design Define Culvert Sizing Refine Roaway Relocation Design Roadway Alignment Roadway Profile Roadway Frofile Roadway Frofile Roadway Grading (Cross Sections) Identify Utility Relocations/Coordination Establish Project Area of Potential Effect 30% Quantities and Cost Estimate Preliminary Specifications Environmental Documentation Natural Resources Site Visit Cultural Resources File Search Phase 1 Site Assessment Verify Absence of Waters of the US Environmental Technical Memo Subtotal Hours Subtotal Hours Subtotal Costs Task 5 - 60% Design 60% Track Alignment Refinement Track Profile Refinement		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	S -	\$ 3,221 4 2 2 2 8 8 4 2 3 3 3	\$ 2,297 8 8 8 8 8 8 8 4	4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$ 3,216	\$ 7,465	\$ 2,205	12		0 5	2 4 4	290 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 14 0 0 12 0 13 111 11 11 0 0 0 0 0 0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Design Track Profile Refinement Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design Preliminary Signal Design Finalize Platform Geometry Union Pacific 30% Submittal (separate from City Submittal) 30% Site Design Refine R?W Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Rareace Water/Drainage Design Perliminary Footprint and Preliminary Contours to Support Drainage Design Refine Roadway Relocation Design Roadway Alignment Roadway Alignment Roadway Grading (Cross Sections) Identify Utility Relocations/Cooridnation Establish Project Area of Potential Effect 30% Quantities and Cost Estimate Preliminary Specifications Environmental Documentation Natural Resources Site Visit Cultural Resources Site Visit Cultural Resources File Search Phase 1 Site Assessment Verify Absence of Waters of the US Environmental Technical Memo Subtotal Hours Subtotal Costs Track A Signment Refinement		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	S -	\$ 3,221 4 2 2 2 8 8 4 2 3 3 3	\$ 2,297 8 8 8 8 8 8 8 4	4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$ 3,216	\$ 7,465	\$ 2,205	12		00 5	2 4 4	290 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$ -2,702 \$ -3, -4, -5, -5, -5, -5, -5, -5, -5, -5, -5, -5
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Design Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design Refine RW Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine RW Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Rwareace Water/Drainage Design Refine Roadway Relocation Design Roadway Alignment Roadway Jordie Roadway Jordie Roadway Grading (Cross Sections) Identify Utility Relocations/Cooridanation Establish Project Area of Potential Effect 30% Quantities and Cost Estimate Preliminary Specifications Environmental Documentation Natural Resources Fite Search Phase 1 Site Assessment Verify Absence of Waters of the US Environmental Technical Memo Task 5 - 60% Design 60% Track Design Track Alignment Refinement Track Profile Refinement Track Typical Sections Culvert Layout and Structural Design		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	S -	\$ 3,221 4 2 2 2 8 8 4 2 3 3 3	\$ 2,297 8 8 8 8 8 8 8 4	4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$ 3,216	\$ 7,465	\$ 2,205	12		00 5	2 4 4	290 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Pofine Refinement Track Profile Refinement Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design Preliminary Signal Design Preliminary Signal Design Refine Row Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Row Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Roway Alignment Roadway Alignment Roadway Alignment Roadway Forbile Roadway Forbile Roadway Grading (Cross Sections) Identify Utility Relocations/Cooridnation Establish Project Area of Potential Effect 30% Quantities and Cost Estimate Preliminary Specifications Environmental Documentation Natural Resources Site Visit Cultural Resources Site Search Phase 1 Site Assessment Verify Absence of Waters of the US Environmental Technical Memo Subtotal Hours Subtotal Costs Task 5 - 60% Design 60% Track Design Track Alignment Refinement Track Profile Refinement		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	S	\$ 3,221 4 2 2 2 8 8 4 2 3 3 3	\$ 2,297 8 8 8 8 8 8 8 4	4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$ 3,216	\$ 7,465	\$ 2,205	12		0 0 5	2 4 4	290 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$ -2,702 \$ -3,5 \$ -5,5 \$ -5,5 \$ -5,5 \$ -5,5 \$ -7,5 \$ 1,987 \$ 1,240 \$ 2,756 \$ 1,062 \$ 1,180 \$ 893 \$ 379 \$ 893 \$ 758 \$ 1,225 \$ 1,240 \$ 1,180 \$ 1,275 \$ 1,180 \$ 1,1
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Design Track Profile Refinement Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design Preliminary Signal Design Preliminary Signal Design Refine R/W Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine R/W Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Rareace Water/Drainage Design Define Culvert Sizing Refine Roadeway Relocation Design Roadway Alignment Roadway Variding (Cross Sections) Identify Utility Relocations/Cooridnation Establish Project Area of Potential Effect 30% Quantities and Cost Estimate Preliminary Specifications Environmental Documentation Natural Resources Site Visit Cultural Resources Site Visit Cultural Resources Site Search Phase 1 Site Assessment Verify Absence of Waters of the US Environmental Technical Memo Subtotal Hours Subtotal Costs Task 5 - 60% Design 60% Track Design Track Alignment Refinement Track Typical Sections Culvert Layout and Structural Design Track Grading Design Finalize Platform Geometry		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	S - S - S - S - S - S - S - S - S - S -	\$ 3,221 4 2 2 2 8 8 4 2 3 3 3	\$ 2,297 8 8 8 8 8 8 8 4	4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$ 3,216	\$ 7,465	\$ 2,205	12		0 5 5	2 4 4	290 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$ 27,102 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Design Track Profile Refinement Track Profile Refinement Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design Preliminary Signal Design Preliminary Signal Design Refine R/W Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Rareace Water/Drainage Design Refine Rowards Refore Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Rowards Water/Drainage Design Refine Rowardy Refocation Design Roadway Alignment Roadway Alignment Roadway Alignment Roadway Viroling Roadway Grading (Cross Sections) Identify Utility Relocations/Cooridnation Establish Project Area of Potential Effect 30% Quantities and Cost Estimate Preliminary Specifications Environmental Documentation Natural Resources Site Visit Cultural Resources Site Search Phase 1 Site Assessment Verify Absence of Waters of the US Environmental Technical Memo Subtotal Hours Subtotal Costs Task 5 - 60% Design 60% Track Design Track Alignment Refinement Track Profile Refinement Track Profile Refinement Track Profile Refinement Track Profile Refinement Track Arging Design Preliminary Signal Design		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	S -	\$ 3,221 4 2 2 2 8 8 4 2 3 3 3	\$ 2,297 8 8 8 8 8 8 8 4	4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$ 3,216	\$ 7,465	\$ 2,205	12		0 0 5	2 4 4	290 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$ -2,102 \$ -5 \$ -7 \$ 1,240 \$ 1,240
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Profile Refinement Track Profile Refinement Track Profile Refinement Univer Layout Track Grading Design Preliminary Signal Design Refine Row Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Rowaya Relocation Design Refine Sureface Water/Drainage Design Define Culvert Sizing Refine Rowaya Relocation Design Roadway Alignment Roadway Profile Roadway Frofile Roadway Grading (Cross Sections) Identify Utility Relocations/Coordination Establish Project Area of Potential Effect 30% Quantities and Cost Estimate Preliminary Specifications Environmental Documentation Natural Resources Site Visit Cultural Resources File Search Phase 1 Site Assessment Verify Absence of Waters of the US Environmental Technical Memo Subtotal Hours Subtotal Costs Task 5 - 60% Design 60% Track Design Track Alignment Refinement Track Profile Refinement Track Typical Sections Culvert Layout and Structural Design Track Grading Design Preliminary Signal Design Frinalize Platform Geometry 60% Site Design Update Site Plan Refine Perliminary Footprint and Contours		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	S -	\$ 3,221 4 2 2 2 8 8 4 2 3 3 3	\$ 2,297 8 8 8 8 8 8 8 4	4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$ 3,216	\$ 7,465	\$ 2,205	12		0 5 5	2 4 4	290 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$ 27,102 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Profile Refinement Culvert Layout Track Grading Design Preliminary Signal Design Refine RW Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine RW Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Raveavay Relocation Design Roadway Alignment Roadway Alignment Roadway Forlite Roadway Grading (Cross Sections) Identify Unity Relocations Cooridanation Establish Project Area of Potential Effect 30% Quantities and Cost Estimate Preliminary Specifications Environmental Documentation Natural Resources Site Visit Cultural Resources File Search Phase 1 Site Assessment Verify Absence of Waters of the US Environmental Technical Memo Subtotal Hours Subtotal Hours Subtotal Hours Subtotal Ferniement Track Profile Refinement Track Stepical Site Plan Refine Preliminary Spoprint and Contours Surface Water Design		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	S	\$ 3,221 4 2 2 2 8 8 4 2 3 3 3	\$ 2,297 8 8 8 8 8 8 8 4	4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$ 3,216	\$ 7,465	S 2.205	12		0 5	2 4 4	290 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$ 27,102 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -
Task 4 - 30% Design and Environmental Documentation 30% Track Design Track Design Track Profile Refinement Track Profile Refinement Track Profile Refinement Union Profile Refinement Track Profile Refinement Track Profile Refinement Track Profile Refinement Track Grading Design Preliminary Signal Design Preliminary Signal Design Preliminary Signal Design Preliminary Signal Design Refine Row Lines Update Site Plan for Station Preliminary Footprint and Preliminary Contours to Support Drainage Design Refine Roway Refocation Design Refine Roway Refocation Design Roadway Alignment Roadway Alignment Roadway Profile Roadway Frofile Roadway Frofile Roadway Straffing (Cross Sections) Identify Utility Relocations/Coordination Establish Project Area of Potential Effect 30% Quantities and Cost Estimate Preliminary Specifications Environmental Documentation Natural Resources Site Visit Cultural Resources File Search Phase 1 Site Assessment Verify Absence of Waters of the US Environmental Technical Memo Subtotal Hours Subtotal Hours Subtotal Costs Task 5 - 60% Design 60% Track Alignment Refinement Track Profile Refinement Track Varyical Sections Culvert Layout and Structural Design Preliminary Signal Design Finalize Platform Geometry 60% Site Design Update Site Plan Refine Perliminary Footprint and Contours		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	S	\$ 3,221 4 2 2 2 8 8 4 2 3 3 3	\$ 2,297 8 8 8 8 8 8 8 4	4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$ 3,216	\$ 7,465	S 2.205	12		00 5	2 4 4	290 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$ 27,102 \$ 27,102 \$ 27,102 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -

MARICOPA AMTRAK STATION SIDING Entellus Estimated Time and Expense Sheet

			r		1	Estima	ed Time a	nus nd Expen	nse Sheet			1						
	✓ Principal	172	6	Sr. Project Manager		Ine (name)	Senior Designer	CADTech	Senior Drainage Engineer	Drainage Enoieer		GIS tech	Survey Manager	Man Curcan	2-Mail Suivey Clew	Project Coordinator/Clerical	Hours Per Task	Costs Per Task
Fully Burdened Rate Refine Roadway Alignment	2	172	2	144	\$ 20	/ \$	95 \$	72 \$ 12	129	\$ 100	\$ 72	\$ 92	\$ 118	\$ 135	2 2	57	20 \$	1,728
Refine Profile Refine Typical Sections							2	8									12 \$ 12 \$	965 965
Refine Roadway Cross Sections							2	8									10 \$	764
Construction SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc)				2			2	8									12 \$	1,051
60% Quantites and Estimate (Roadway and Track) 60% Specifications				2			8	- 2								2	6 \$	1,160
																	0 \$	-
Subtotal Hours		1		14		0	26	54	4	1-	4 32	8	. 0		0	2	155 \$	13,591
Subtotal Costs	\$	172	\$	2,010	\$ -	\$ 2,4	63 \$ 3	,876 \$	517	\$ 1,407	\$ 2,297	\$ 735	\$ -	\$ -	\$	115	\$	13,591
Task 6 - 90% Design																		
90% Track Design Track Alignment Refinement																=	0 \$	-
Track Profile Refinement																	0 \$	-
Track Typical Sections Culvert Layout and Structural Design																	0 \$	-
Track Grading Design																-	0 \$	-
Track Details																	0 \$	-
90% Surface Water Design																-	0 \$	-
Verify County Drainage Plan/Floodplain Use Permit Qualification		1		2					4		3 24	8					47 \$	4,238
90% Roadway Relocation Design Refine Roadway Alignment		1		2			2	8			2				+-	\dashv	0 \$ 15 \$	1,424
Refine Profile							2	8									12 \$	965
Refine Typical Sections Refine Roadway Cross Sections					-		2	4			1				1	-	6 \$	477 477
Refine Construction SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc)	L						2	4									6 \$	477
90% Quantites and Estimate (Roadway and Track)				2			2	2			1		1	1	1	- 2	6 \$ 12 \$	620 1,160
90% Specifications							0										0 \$	-
Subtotal Hours		-		8		0	20	30		11	2 24				0		0 \$ 110 \$	9,836
Subtotal Hours Subtotal Costs	\$	345	\$	1,148				2,153 \$	517					\$ -	\$	115	\$	9,836
T. 1.7. 4000/ D. 1																		
Task 7 - 100% Design 100% Track Design																\rightarrow	0 \$	
100% Track Design - Plans, Profiles, Details																_	0 \$	-
100% Track Design - Typical Sections, Cross Sections																	0 \$	-
100% Culvert Layout and Structural Design																-	0 \$	-
100% RoadwayDrawings																	0 \$	-
Plans, Profiles, Cross Sections Typcial Sections, Cross Sections		1		4			2	8								-	15 \$ 8 \$	1,510 620
Drainage Design							_		4		8 20						32 \$	2,756
100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc)		1		2			2	2	1		2 10						17 \$	1,381
100% Quantites and Estimate (Roadway and Track) 100% Specifications		1		2			4									2	5 \$	953
																	0 \$	-
Subtotal Hours		3		8		0	12	16	5	1) 30	0	0 0		0	2	0 \$ 86 \$	7,869
Subtotal Costs	\$	517	\$	1,148	\$ -	\$ 1,1	37 \$		646	\$ 1,005			\$ -	\$ -	\$	115	\$	7,869
Task 8 - Ad-Ready Design																		
Ad-Ready Track Design																	0 \$	-
Ad-Ready Track Design Ad-Ready Union Pacific Submittal																_	0 \$	-
Ad-Ready Roadway Drawings		1		2			4									2	9 \$	953
Plans, Profiles, Cross Sections																	0 \$	-
Drainage Design Ad-Ready Quantities and Estimate		1		2			2	2								2	0 \$	907
Ad-Ready Specifications		1		2			4									2	9 \$	953
Ad-Ready Bid Documents		1		2			4				1			1		2	9 \$	953
	L																0 9	-
Subtotal Hours Subtotal Costs	s	689	_	8		0	14										0 \$	
	-		5	1.148	\$.	S 13		144 ¢	0	S -	\$ -	S -	\$ -	\$ -	0 \$	8 459	36 \$	3,767 3,767
		00)	\$	1,148	\$ -	\$ 1,3		144 \$	<u>0</u>	\$ -	\$ -	\$ -	\$ -	\$ -	0 \$	8 459		3,767 3,767
Task 9 - Project Management		007	\$			\$ 1,3		144 \$	0 3 -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	8 459	36 \$	3,767
Task 9 - Project Management Kick-Off Meeting Bi-Weekly Meetings or Conference Calls with City (Approx. 20 Total)		007	\$	1,148 6 15		\$ 1,3		144 \$	-	\$ -	\$ -	\$ -	\$ -	\$ -	0 \$	8 459	36 \$ \$	
Kick-Off Meeting Bi-Weekly Meetings or Conference Calls with City (Approx. 20 Total) Coordination with City & Railroad Coordinator		087	\$	6		\$ 1,3		144 \$	· -	\$ -	5	\$ -	\$ -	\$ -	\$	8 459	36 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2,033 2,153
Kick-Off Meeting Bi-Weekly Meetings or Conference Calls with City (Approx. 20 Total)		087	\$	6		\$ 1,3		144 \$	0	\$ -	5	\$ -	\$ -	\$ -	0 \$	8 459	36 \$	2,033
Kick-Off Meeting Bi-Weekly Meetings or Conference Calls with City (Approx. 20 Total) Coordination with City & Railroad Coordinator Internal Team BiWeekly Conference Calls (approx. 20)		087	\$	6 15			6	144 \$	0	\$ -	55	\$ -	\$ -	\$ -	0 \$	8 459	36 S S 18 S 15 S 0 S 15 S 0 S	2,033 2,153 - 1,909
Kick-Off Meeting Bi-Weekly Meetings or Conference Calls with City (Approx. 20 Total) Coordination with City & Railroad Coordinator	S	0	\$	6		0		0 - 8	0	\$ -	55 0 5 0	\$ -	\$ -	\$ -	0 \$	8 459	36 S S 18 S 15 S 0 S 15 S	2,033 2,153 - 1,909
Kick-Off Meeting Bi-Weekly Meetings or Conference Calls with City (Approx. 20 Total) Coordination with City & Railroad Coordinator Internal Team BiWeekly Conference Calls (approx. 20) Subtotal Hours Subtotal Costs	S	0		6 15 10		0	6	0 - \$	0	\$ -	5 -	\$ -			0	8 459	36 S S 18 S 15 S 0 S 15 S 0 S 0 S	2,033 2,153 - 1,909 - - 6,095
Kick-Off Meeting Bi-Weekly Meetings or Conference Calls with City (Approx. 20 Total) Coordination with City & Railroad Coordinator Internal Team BiWeekly Conference Calls (approx. 20) Subtotal Hours Subtotal Costs Task 10 - Design Support During Construction	S	0		6 15 10 31 4,450	\$ -	0	6	0 - \$	0	\$ -	5 5 6 8 -	0 5 -			0	8 459	36 S S 18 S 15 S 0 S 15 S 0 S 48 S	2,033 2,153 - 1,909 - - 6,095 6,095
Kick-Off Meeting Bi-Weekly Meetings or Conference Calls with City (Approx. 20 Total) Coordination with City & Railroad Coordinator Internal Team Bi-Weekly Conference Calls (approx. 20) Subtotal Hours Subtotal Costs Task 10 - Design Support During Construction Attend Pre-Bid Meeting Respond to 5 Bidder's Questions	S	0		6 15 10 31 4,450	\$ -	0	6	0 - \$	0	\$ -	5 (\$ -	0 5 -			0 \$	8 459	36 S 18 S 15 S 0 S 15 S 0 S 15 S 0 S 17 S	3,767 2,033 2,153 - 1,909 6,095 6,095 861 1,705
Kick-Off Meeting Bi-Weekly Meetings or Conference Calls with City (Approx. 20 Total) Coordination with City & Railroad Coordinator Internal Team BiWeekly Conference Calls (approx. 20) Subtotal Hours Subtotal Hours Subtotal Costs Task 10 - Design Support During Construction Attend Pre-Bid Meeting Respond to 5 Bidder's Questions Attend Pre-Construction Meeting	S	0		6 15 10 31 4,450 6 5 6	\$ -	0	6 5 5 111 42 \$ 8	0 - \$	0	S -	5 - 5 - 5 - 5 - 5 - 5 - 5 - 6 - 6 - 6 -	S -			0 \$	0 -	36 S 18 S 15 S 0 S 0 S 0 S 0 S 17 S 6 S 17 S	3,767 2,033 2,153 - 1,909 6,095 6,095 861 1,705
Kick-Off Meeting Bi-Weekly Meetings or Conference Calls with City (Approx. 20 Total) Coordination with City & Railroad Coordinator Internal Team Bi-Weekly Conference Calls (approx. 20) Subtotal Hours Subtotal Costs Task 10 - Design Support During Construction Attend Pre-Bid Meeting Respond to 5 Bidder's Questions	S	0 -		6 15 10 31 4,450	\$ -	0	6	0 - \$	0	\$ -	5 5 6 5 5 5	S -			0 \$	8 459 0 - 4 4 4	36 S 18 S 15 S 0 S 15 S 0 S 15 S 0 S 17 S	3,767 2,033 2,153 - 1,909 6,095 6,095 861 1,705
Kick-Off Meeting Bi-Weekly Meetings or Conference Calls with City (Approx. 20 Total) Coordination with City & Railroad Coordinator Internal Team BiWeekly Conference Calls (approx. 20) Subtotal Hours Subtotal Costs Task 10 - Design Support During Construction Attend Pre-Bid Meeting Respond to 5 Bidder's Questions Altend Pre-Construction Meeting Review 8 Submitals	S	0 -		6 15 10 31 4,450 6 5 6 5	\$ -	0	6 5 5 111 42 \$ 8 20	0 - \$	0	\$ -	5 5 6 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	S - C S -			0 5	8 459 0 -	36 S 18 S 18 S 15 S 0 S 15 S 0 S 48 S 6 S 17 S 6 S 29 S 24 S 0 S	3,767 2,033 2,153 - 1,909 - 6,095 6,095 861 1,705 861 2,842
Kick-Off Meeting Bi-Weekly Meetings or Conference Calls with City (Approx. 20 Total) Coordination with City & Railroad Coordinator Internal Team BiWeekly Conference Calls (approx. 20) Subtotal Hours Subtotal Costs Task 10 - Design Support During Construction Attend Pre-Bid Meeting Respond to 5 Bidder's Questions Altend Pre-Construction Meeting Review 8 Submitals	S	0 0		6 15 10 31 4,450 6 5 6 5 4	S -	0	6 5 5 111 42 \$ 8 20	0 - \$	0 0	\$ -	5 5 6 5 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6	S - C S - C			0 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	8 459 0 0 1 - 4 4 4 4 4 12 12	36 S 18 S 18 S 15 S 0 S 0 S 0 S 6 S 17 S 6 S 24 S	3,767 2,033 2,153 - 1,909 - 6,095 6,095 861 1,705 861 2,842
Kick-Off Meeting Bi-Weekly Meetings or Conference Calls with City (Approx. 20 Total) Coordination with City & Railroad Coordinator Internal Team Bi-Weekly Conference Calls (approx. 20) Subtotal Hours Subtotal Hours Subtotal Costs Task 10 - Design Support During Construction Attend Pre-Bid Meeting Respond to 5 Bidder's Questions Attend Pre-Construction Meeting Review & Submittals Respond to 8 RFIS	S	0		6 15 10 31 4,450 6 5 6 6 5 4	S -	0 \$ 1,0	6 5 5 11 11 42 \$ 8 20 16 44	0 - S	0	\$ - S 603) () () () () () () () () () (S - 0 S - 0			00 5	0 -	36 S 18 S 18 S 15 S 0 S 0 S 48 S 6 S 17 S 6 S 29 S 24 S 0 S 0 S	3,767 2,033 2,153 - 1,909 - 6,095 6,095 861 1,705 861 2,842 2,320
Kick-Off Meeting Bi-Weekly Meetings or Conference Calls with City (Approx. 20 Total) Coordination with City & Railroad Coordinator Internal Team BiWeekly Conference Calls (approx. 20) Subtotal Hours Subtotal Hours Subtotal Costs Task 10 - Design Support During Construction Attend Pre-Bid Meeting Respond to 5 Bidder's Questions Attend Pre-Construction Meeting Review 8 Submittals Respond to 8 RFIs Subtotal Hours	S	0 -		6 15 10 31 4,450 6 5 6 5 4	S -	0 S 1,C	6 5 5 11 11 42 \$ 8 20 16 44	0 0 - \$	0	\$ - S 603	5 C S - C S	S - 0 0 S - 0 0 S - 0 0 S - 0 0 0 S - 0 0 0 0			00 5	0 - 4 4 4 4	36 S 18 S 18 S 0 S 15 S 0 S 15 S 0 S 48 S 5 6 S 24 S 0 S 24 S 0 S 28 S	3,767 2,033 2,153 - 1,909 - - - - - - - - - - - - -
Kick-Off Meeting Bi-Weekly Meetings or Conference Calls with City (Approx. 20 Total) Coordination with City & Railroad Coordinator Internal Team BiWeekly Conference Calls (approx. 20) Subtotal Hours Subtotal Hours Subtotal Costs Task 10 - Design Support During Construction Attend Pre-Bid Meeting Respond to 5 Bidder's Questions Attend Pre-Construction Meeting Review 8 Submittals Respond to 8 RFIs Subtotal Hours	S	0 0		6 15 10 31 4,450 6 5 6 5 4	S -	0 S 1,C	6 5 5 11 11 42 \$ 8 20 16 44	0 0 - \$	0 0	\$ -	5 S - S - S - S - S - S - S - S - S - S	S - 0 S - 0 S - 0 S - 0			000 5	0 - 4 4 4 4	36 S 18 S 18 S 15 S 0 S 0 S 48 S 17 S 6 S 17 S 29 S 24 S 0 S 28 S 82 S	3,767 2,033 2,153 - 1,909 - - - - - - - - - - - - -
Kick-Off Meeting Bi-Weekly Meetings or Conference Calls with City (Approx. 20 Total) Coordination with City & Railroad Coordinator Internal Team Bi-Weekly Conference Calls (approx. 20) Subtotal Hours Subtotal Costs Task 10 - Design Support During Construction Attend Pre-Bid Meeting Respond to 5 Bidder's Questions Attend Pre-Construction Meeting Review 8 Submittals Respond to 8 RFIs Subtotal Hours Subtotal Costs Grand Subtotal (hours)	S	0 0	S	66 15 10 31 4,450 6 6 5 5 6 6 6 3,732 154	S -	0 S 1,0	6 5 5 5 8 8 8 20 16 44 44 559 \$ \$	0 - \$	0	\$ -) (\$ -	0 S -	S - 0 S - 36	S	0 5	0 0 - 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	36 S 18 S 18 S 15 S 0 S 0 S 48 S 6 S 17 S 6 S 29 S 24 S 0 S 82 S 83 S	3,767 2,033 2,153 - 1,909 - 6,095 6,095 861 1,705 861 2,842 2,320 - - - - - - - - - - - - -
Kick-Off Meeting Bi-Weekly Meetings or Conference Calls with City (Approx. 20 Total) Coordination with City & Railroad Coordinator Internal Team BiWeekly Conference Calls (approx. 20) Subtotal Hours Subtotal Gosts Task 10 - Design Support During Construction Attend Pre-Bid Meeting Respond to 5 Bidder's Questions Attend Pre-Construction Meeting Review 8 Submittals Respond to 8 RFIs Subtotal Hours Subtotal Costs	S	0	S	6 15 10 10 311 4,450 6 5 5 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	S -	0 S 1,0	6 5 5 5 8 8 8 20 16 44 44 559 \$ \$	0 - \$	0	\$ -	5 -	0 S -	S - 0 S - 36	S	0 5	0 0 - 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	36 S 18 S 18 S 0 S 15 S 0 S 15 S 0 S 48 S 6 S 17 S 6 S 29 S 24 S 0 S 28 S 82 S	3,767 2,033 2,153 - 1,909 - - - - - - - - - - - - -
Kick-Off Meeting Bi-Weekly Meetings or Conference Calls with City (Approx. 20 Total) Coordination with City & Railroad Coordinator Internal Team Bi-Weekly Conference Calls (approx. 20) Subtotal Hours Subtotal Costs Task 10 - Design Support During Construction Attend Pre-Bid Meeting Respond to 5 Bidder's Questions Attend Pre-Construction Meeting Review 8 Submittals Respond to 8 RFIs Subtotal Hours Subtotal Costs Grand Subtotal (hours)	S	0 0	S	66 15 10 31 4,450 6 6 5 5 6 6 6 3,732 154	S -	0 S 1,0	6 5 5 5 8 8 8 20 16 44 44 559 \$ \$	0 - \$	0	\$ -) (\$ -	0 S -	S - 0 S - 36	S	0 5	0 0 - 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	36 S 18 S 18 S 15 S 0 S 15 S 0 S 48 S 6 S 17 S 6 S 29 S 24 S 0 S 28 S 0 S 0 S 82 S 0 S 82 S 83 S	3,767 2,033 2,153 - 1,909 - 6,095 6,095 861 1,705 861 2,842 2,320 - - - - - - - - - - - - -
Kick-Off Meeting Bi-Weetly Meetings or Conference Calls with City (Approx. 20 Total) Coordination with City & Railroad Coordinator Internal Team BiWeekly Conference Calls (approx. 20) Subtotal Hours Subtotal Hours Subtotal Costs Task 10 - Design Support During Construction Attend Pre-Bid Meeting Respond to 5 Bidder's Questions Attend Pre-Construction Meeting Review 8 Submittals Respond to 8 RFIs Subtotal Hours Subtotal Costs Subtotal Costs Grand Subtotal (bours) Grand Subtotal (bours) Grand Subtotal (costs per Classification) Total: DESIGN FEE	S	0 0	S	66 15 10 31 4,450 6 6 5 5 6 6 6 3,732 154	S -	0 S 1,0	6 5 5 5 8 8 8 20 16 44 44 559 \$ \$	0 - \$	0	\$ -) (\$ -	0 S -	S - 0 S - 36	S	0 5	0 0 - 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	36 S 18 S 18 S 15 S 0 S 15 S 0 S 48 S 6 S 17 S 6 S 29 S 24 S 0 S 28 S 0 S 0 S 82 S 0 S 82 S 83 S	3,767 2,033 2,153 - 1,909 - - - - - - - - - - - - -
Kick-Off Meeting Bi-Weekly Meetings or Conference Calls with City (Approx. 20 Total) Coordination with City & Railroad Coordinator Internal Team Bi-Weekly Conference Calls (approx. 20) Subtotal Hours Subtotal Costs Task 10 - Design Support During Construction Attend Pre-Bid Meeting Respond to 5 Bidder's Questions Attend Pre-Construction Meeting Review & Submittals Respond to 8 RFIs Subtotal Hours Subtotal Hours Subtotal Hours Subtotal Costs Grand Subtotal (hours) Grand Subtotal (hours) Grand Subtotal (costs per Classification) Total: DESIGN FEE Other Direct Costs	S	0 0	S	66 15 10 31 4,450 6 6 5 5 6 6 6 3,732 154	S -	0 S 1,0	6 5 5 5 8 8 8 20 16 44 44 559 \$ \$	0 - \$	0	\$ -) (\$ -	0 S -	S - 0 S - 36	S	0 5	0 0 - 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	36 S 18 S 18 S 15 S 0 S 15 S 0 S 48 S 6 S 17 S 6 S 29 S 24 S 0 S 28 S 0 S 0 S 82 S 0 S 82 S 83 S	3,767 2,033 2,153 - 1,909 6,095 6,095 861 1,705 861 2,842 2,320 109,652 109,652
Kick-Off Meeting Bi-Weekly Meetings or Conference Calls with City (Approx. 20 Total) Coordination with City & Railroad Coordinator Internal Team Bi-Weekly Conference Calls (approx. 20) Subtotal Hours Subtotal Costs Task 10 - Design Support During Construction Attend Pre-Bid Meeting Respond to 5 Bidder's Questions Attend Pre-Construction Meeting Respond to 8 RFIs Subtotal Hours Subtotal Costs Subtotal Costs Subtotal Gosts Grand Subtotal (bours) Grand Subtotal (bours) Grand Subtotal (costs per Classification) Total: DESIGN FEE	S	0 0	S	66 15 10 31 4,450 6 6 5 5 6 6 6 3,732 154	S -	0 S 1,0	6 5 5 5 8 8 8 20 16 44 44 559 \$ \$	0 - \$	0	\$ -) (\$ -	0 S -	S - 0 S - 36	S	0 5	0 0 - 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	36 S 18 S 18 S 15 S 0 S 15 S 0 S 48 S 48 S 6 S 17 S 6 S 29 S 24 S 0 S 24 S 25 S 0 S 8 S 8 S 8 S 8 S 8 S 8 S 8	3,767 2,033 2,153 - 1,909 - - - - - - - - - - - - -

MARICOPA AMTRAK STATION SIDING Entellus

					Estimated 1	time and Ex	pense Sheet									
	Principal		Sr. Project Manager	Title (Name)	Senior Designer	CAD Tech	Senior Drainage		Drainage Engieer	EIT	GIS tech	Survey Manager	2-Man Survey Crew	Project Coordinator/Clerical	Hours Per Task	Costs Per Task
Fully Burdened Rate	\$ 1	172 \$	144 \$	207 5	95	\$ 72	\$ 12	9 \$	100 \$	72 \$	92	118	\$ 135	\$ 57		
Other Direct Costs - UPRR Right of Entry																\$ -
Geotechnical Borings and Lab Costs																\$ -
Other Direct Costs - Railroad Protective Liability Insurance																\$ -

GRAND TOTAL ENTELLUS FEE: \$ 113,047

MARICOPA AMTRAK STATION SIDING Ninyo & Moore Estimated Time and Expense Sheet

	Principal Eng/	Senior Eng	Senior Pro	viact D	roject Eng /	Senior Staff	Estimate Staff Eng /	d Time and Exp Sen Field /	ense Sheet Field / Lab	Tech	Data			_	
	Geologist /	Geologist /	Eng /	G	leologist /	Eng/	Geologist /	Lab	Technician	Illustrator /	Proces		ľask		ask
	Envir Scientist	Enviro Scientist	Geologist Enviro		nviro cientist	Geologist / Enviro	Enviro Scientist	Technician		CAD Operato	r Tech I	Editing,	Per Task		Costs Per Task
		Beleinist	Scientist	ľ	cicinist	Scientist	belentist				Repro	duction	Hours		osts]
Fully Burdened Rate	\$ 168	S 1	33 \$	99 5	\$ 120	\$ 83	3 \$ 67	\$ 75	\$ 69	\$ 84	\$	52	並		ŭ
Task 1 - Union Pacific and Amtrak Coordination													0	c	
													0		-
Subtotal Hours	S -		0	0	0		0 0	((0	0	0	0		-
Subtotal Costs	\$ -	\$ -	\$	- 3	· -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-		\$	-
Task 2 - Field Data Collection															
Field Survey													0		-
Field Survey Develop Basemapping													0		-
Geotechnical Investigations													0	S	-
Site Reconaissance Prepare Draft Geotechnical Report	,				14		9	1			5	5	8 35		533 3,439
Prepare Final Geotechnical Report	2				2		2				2	2	10	S	1,013
													0		-
Subtotal Hours	4		0	0	16		1 8		()	7	7	53	\$	4,984
Subtotal Costs	\$ 672	s -	S	- 5	\$ 1,919	\$ 909	9 \$ 533	\$ -	\$ -	\$ 588	\$	364		\$	4,984
Task 3 - 10% Conceptual Design															
													0		-
Subtotal Hours			0	0	0		0)	0	0	0		-
Subtotal Hours Subtotal Costs	s -	s -	s	- 5	S -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-		\$	
Task 4 - 30% Design and Environmental Documentation													0	c	
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Subtotal Hours	0		0	0	0		0 0	((0	0	0	0		-
Subtotal Costs	\$ -	\$ -	S	- 5	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-		\$	-
Task 5 - 60% Design															
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Task 6 - 90% Design													0	c	
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Subtotal Hours	0		0	0	0	_	0 () ()	0	0	0		-
Subtotal Costs	S -	\$ -	S	- 3	5 -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-		\$	-
Task 7 - 100% Design															
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Task 8 - Ad-Ready Design															
													0		-
Subtotal Hours	C		0	0	0		0 0) ()	0	0	0		-
Subtotal Costs	s -	s -	S	- 5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-		\$	-
Task 9 - Project Management															
Kick-Off Meeting					2								2	\$	240
Bi-Weekly Meetings or Conference Calls with City (Approx. 4 Total)	4				4								8		1,152
Coordination with City & Railroad Coordinator Internal Team BiWeekly Conference Calls (approx 4)	4				2								6		912
, , , , , , , , , , , , , , , , , , , ,													0	\$	-
Subtotal Hours	c		0	0	0		0 0) (1 ()	0	. 0	0 16		2,303
Subtotal Costs	\$ 1,344	s -	s	- 5	\$ 960	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	10		2,303
Task 10 - Design Support During Construction Attend Pre-Bid Meeting			-						1	1	1		0	S	_
Respond to 2 Bidder's Questions	<u></u>	<u> </u>	1		2						L		0	\$	240
Attend Pre-Construction Meeting				4									0	\$	-
Review 2 Submittals Respond to 2 RFIs			-	\dashv	2					1	1		1 2		120 240
													0	\$	-
Subtotal Hours			0	0			0 () ()	0	0	5		600
Subtotal Hours Subtotal Costs	S -	S -	\$	- 5	\$ 600	\$ -	\$ -	\$ -	\$ -	\$ -	\$	- 0		\$	600
	1	1	+	+					-		1				
													0	\$	-
Grand Subtotal (hours) Grand Subtotal (costs per Classification)	\$ 2.016		0	0	29		1 8	(s -		7	7	74 \$ 7.997	•	7,887
	\$ 2,016	3 -	à.	- 5	\$ 3,478	ja 905	3 533	٠ -	- w	j 588	\$	364			
Total: DESIGN FEE														\$ 7	7,887
Other Direct Costs	1												-		
Other Direct Costs - Printing, Reproduction, and Mailing	<u></u>													S	77
Other Direct Costs - Travel	1		-			-					-			S	150
Other Direct Costs - UPRR Right of Entry Geotechnical Borings and Lab Costs														\$ \$	2,500
Other Direct Costs - Railroad Protective Liability Insurance														NA	
GRAND TOTAL NINYO AND MOORE FEE:														\$ 10),614

GRAND TOTAL NINYO AND MOORE FEE: \$ 10,614



SCOPE OF WORK

City of Maricopa Track Design Services related to Amtrak Station Relocation Environmental Assessment Re- evaluation EcoPlan No. 13-01157

Environmental Documentation

Environmental documentation is based on federal process due to the federal nexus established by Federal Highway Administration (FHWA) related to the Arizona Department of Transportation (ADOT) SR 347 @ UPRR Grade Separation project. The SR347 project Draft Environmental Assessment (EA) is currently in review by FHWA. Approval of the draft is expected in April 2014 and approval of the Final EA and Finding of No Significant Impact (FONSI) is scheduled for July 2014 pending the outcome of the public hearing and review period.

For the purpose of scope development it is assumed an EA Re-Evaluation will be required based on design plans developed by the City of Maricopa and RailPros. The Re-Evaluation will be completed in an addendum style, addressing only those items that are subsequent to the project scope approved in the FONSI. The following technical studies / reports will be prepared to support the EA Re-Evaluation.

- **Task 1. Project Management, Coordination and Meetings** EcoPlan will coordinate with Rail Pros as primary contact on the project. EcoPlan will attend two project team meetings in Maricopa.
- **Task 2. Public and Agency Scoping Letters** EcoPlan will prepare scoping letters to affected agencies and adjacent properties (40 addresses) describing the Phase 1 project. Results of the scoping responses will be documented in the EA Re-Evaluation.
- **Task 3. Environmental Assessment Re-Evaluation Document** EcoPlan will prepare draft and final documents addressing the project elements of the Phase 1 Amtrak project. The Re-Evaluation document will be in standard ADOT/FHWA addendum style. This will include a description of the specific Phase 1 project details and updates to all chapters affected by the Phase 1 project, including any new mitigation measures.
- **Task 4. Biological Resources** EcoPlan will review the USFWS and AGFD data bases for protected species in the vicinity and prepare brief letter report or update the Biological Review Report prepared for the SR347 UPRR Grade Separation project. EcoPlan will coordinate with ADOT to determine their preference.
- **Task 5. Cultural Resources** EcoPlan will prepare a Consultation Initiation Form (CIF) meeting ADOT standards and draft Section 106 consultation letters. Based on current research and coordination with ADOT the project area has been fully surveyed, no additional survey is required.
- **Task 6. Hazardous Materials** The Preliminary Initial Site Assessment (PISA) prepared for the SR347 @ UPRR Grade Separation is in the process of an update by Ninyo and Moore through ADOT. The scheduled delivery is in April 2014. The update will include Garvey Avenue realignment and railroad siding. No additional work is anticipated for this project.
- **Task 7. Clean Water Act** EcoPlan will conduct a field review of the drainages to confirm no Waters of US are present and document for the city the lack of need for Section 404/401 permitting.
- **Task 8. Noise Analysis** (prepared by Noise Expert Acoustical Consulting, sub to EcoPlan) This document will follow ADOT/FHWA Noise Abatement Policy to consider impacts to sensitive noise receivers (residences) in the project vicinity.



Assumptions

Assumptions used to generate this scope of work and the associated cost estimate are summarized below. Should additional services be required that are not described in this scope of work, EcoPlan will provide a supplemental scope and cost.

- 1. No new right-of-way or property acquisition will be required.
- 2. EcoPlan will be provided copies of all documents relative to the SR347 EA (EA, Noise Report, PISA, Biological Review Report, Air Quality Report, Cultural Survey Report and consultation letters, Design Concept Report)
- 3. EcoPlan will not need to provide a PISA; the work by ADOT (Ninyo and Moore) will meet project needs.
- 4. No asbestos or lead based paint testing will be required.
- 5. No Waters of the U.S. will be present and no jurisdictional delineation will be required.
- 6. No protected species surveys will be required.
- 7. No more than two rounds of document reviews will occur with ADOT/FHWA
- 8. No qualitative 0air quality analysis will be required



Cost Estimate Worksheet

Prepared for: Rail Pros

City of Maricopa - Track Design Services

Project Name: Related to the Amtrack Station Relocation

EcoPlan # 13-01157

Task Description	Principal	Environmental Coordinator	Senior Environmental Planner III	Environmental Planner / Scientist	Senior Biologist	Senior Field Biologist	Cultural Principal Investigator	Cultural Crew Chief	Quality Control Specialist / Editor	GIS Graphics Specialist	Technician Drafter	Total Hours	Total Costs
Billing Rate	\$160.86	\$144.65	\$112.21	\$72.64	\$98.59	\$73.94	\$138.81	\$62.71	\$98.59	\$76.54	\$55.13		
Task Management													
Project Management, Coordination and Meetings	2	16	0	0	0	0	0	0	0	0	8	26	\$ 3,077.16
Public and Agency Scoping	0	4	0	12	0	0	0	0	4	2	8	30	\$ 2,438.76
NEPA Document Preparation	0	6	0	40	0	0	0	0	16	4	4	70	\$ 5,877.62
Biological Resources	0	1	0	0	1	4	0	0	0	0	0	6	\$ 539.00
Cultural Resources	0	1	0	0	0	0	6	20	0	4	0	31	\$ 2,537.87
Noise Analysis	0	4	0	0	0	0	0	0	0	0	0	4	\$ 578.60
Hazardous Materials	0	2	0	0	0	0	0	0	0	0	0	2	\$ 289.30
Clean Water Act	0	0	4	0	0	0	0	0	0	0	2	6	\$ 559.10
Subtotal:	2	34	4	52	1	4	6	20	20	10	22	175	\$ 15,897.41
Total Hours:	2	34	4	52	1	4	6	20	20	10	22	175	
Labor Subtotal:													\$ 15,897.41
Direct Expenses													
Mileage				320	miles @	\$0.565	/mile						\$ 180.80
Other Direct Costs at Actual Reasonable Co	ost:												
Reproduction													\$ 50.00
Outside Services and Consultants													
Noise Expert - Accoustical Consulting													\$ 8,120.00
Total Direct Expenses:													\$ 8,350.80
Total Cost:												_	\$ 24,248.00

Noise ExpertAcoustical Consulting



2850 East Laurel St Mesa, AZ 85213 Phone: 480-332-9325 Fax: 888-886-1770 Email: info@noiseexpert.com Website: www.noiseexpert.com

March 11, 2014

Mike Dawson Senior Environmental Planner EcoPlan Associates 78 W. Cushing Street Tucson, Az. 85701 520.624.4326 ext. 177

RE: SR 347 at UPRR - Noise Study Review (NE 14026)

Mike,

The following fee and scope of Basic Services is for the SR347 at UPRR project.

Basic Services

1. Assess the existing and planned land uses (residential, commercial, industrial, etc.) and determine the noise sensitive receivers within the project corridor.

2 hours - \$220

2. Predict the noise radiating from the existing road and rail operations. Road noise predictions will be performed using FHWA's Traffic Noise Model (TNM 2.5). Rail noise will be predicted using using the procedure outlined in the FHWA document entitled: "Advanced Prediction and Abatement of Highway Traffic Noise, June 1982".

16 hours - \$1,760

3. Verify the noise models by comparing the predicted existing noise levels with the measure the existing noise levels at representative noise sensitive receivers. Noise measurements will be made during a 6-hour period, in accordance with as outlined in the Arizona Department of Transportation (ADOT) guidelines for noise study reports.

10 hours - \$1,100

4. Predict the noise radiating from the future road and rail operations using TNM 2.5 and the Advanced Prediction and Abatement of Highway Traffic Noise procedure.

16 hours - \$1,760

5. Compare the modeled results with the noise abatement criteria.

4 hours - \$440

6. Generate a noise report that includes figures.

16 hours - \$1,760

7. Revisions and updates to the noise analysis and final report.

8 hours - \$880

Compensation for Services

We propose to perform the Basic Services described above on an hourly basis with a not to exceed limit of \$8,120.00 (eight-thousand one-hundred twenty dollars). Reasonable expenses, including travel and printing, are included in this fee.

Sincerely,

Beth Holliday

Acoustical Consultant

Beth ann Houiday