

MARICOPA AMTRAK STATION SIDING

RailPros

Estimated Time and Expense Sheet

	VP/Principal/Principal Signal Manager	Sr. Project Manager	Project Manager	Sr. Rail Engineer	Sr. Engineer	Engineer	Designer	Sr. CADD	CADD	Controller	Hours Per-Task	Costs Per-Task
Fully Burdened Rate	\$ 318	\$ 249	\$ 211	\$ 177	\$ 163	\$ 108	\$ 90	\$ 147	\$ 94	\$ 87		
Task 1 - Union Pacific and Amtrak Coordination												
Support City's Railroad Coordinator		8				12					20	\$ 3,283
Right of Entry Application to Union Pacific			6							3	9	\$ 1,529
Develop Information Requests for Union Pacific		4				4					8	\$ 1,426
Identify Construction Role for Union Pacific		2		6							8	\$ 1,559
Coordinate with Amtrak	4	2	8								14	\$ 3,460
Develop Conceptual Rail, Platform, and Future Amtrak Station Layout with City		8		6		16		10			40	\$ 6,244
											0	\$ -
											0	\$ -
Subtotal Hours	4	24	14	12	0	32	0	10	0	3	99	\$ 17,500
Subtotal Costs	\$ 1,271	\$ 5,967	\$ 2,960	\$ 2,123	\$ -	\$ 3,450	\$ -	\$ 1,469	\$ -	\$ 260		\$ 17,500
Task 2 - Field Data Collection												
Field Survey		2								2	4	\$ 671
Field Survey											0	\$ -
Develop Basemapping											0	\$ -
Geotechnical Investigations		3								2	5	\$ 919
Site Reconnaissance											0	\$ -
Prepare Draft Geotechnical Report											0	\$ -
Prepare Final Geotechnical Report											0	\$ -
											0	\$ -
											0	\$ -
Subtotal Hours	0	5	0	0	0	0	0	0	0	4	9	\$ 1,590
Subtotal Costs	\$ -	\$ 1,243	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 347		\$ 1,590
Task 3 - 10% Conceptual Design												
10% Track Design Concept Verification											0	\$ -
10% Track Alignment Design		2		20		4					26	\$ 4,466
10% Track Profile Design		1		8		6					15	\$ 2,311
10% Track Typical Sections		1		2		4					7	\$ 1,034
10% Culvert Sizing		1				8					9	\$ 1,111
10% Union Pacific Submittal		6		8				12			26	\$ 4,669
10% Site Conceptual Design											0	\$ -
Site Visit		6		6							12	\$ 2,553
Programming Meeting with City		6		6							12	\$ 2,553
Conceptual Drainage Design		2									2	\$ 497
Review Data from FEMA Studies, Other Nearby Projects											0	\$ -
Develop Design Flows											0	\$ -
Initial Stormwater Modeling											0	\$ -
Develop Inundation Elevations											0	\$ -
Conceptual Site Plan											0	\$ -
Site Design (Station, Parking Lot)		3		4		10	12	12			41	\$ 5,371
Roadway Design (Alignment, Profile, Typical Sections)				3							3	\$ 531
Roadway Relocation Plan				2							2	\$ 354
											0	\$ -
											0	\$ -
Subtotal Hours	0	28	0	59	0	32	12	24	0	0	155	\$ 25,450
Subtotal Costs	\$ -	\$ 6,961	\$ -	\$ 10,437	\$ -	\$ 3,450	\$ 1,077	\$ 3,524	\$ -	\$ -		\$ 25,450
Task 4 - 30% Design and Environmental Documentation												
30% Track Design											0	\$ -
Track Alignment Refinement		4		18			6	4			32	\$ 5,305
Track Profile Refinement		2		8							10	\$ 1,912
Culvert Layout				4		8	6				18	\$ 2,109
Track Grading Design		2		18		10					30	\$ 4,760
Preliminary Signal Design	4	2			12						18	\$ 3,728
30% Platform Geometry			2	9				6			17	\$ 2,579
Union Pacific 30% Submittal (separate from City Submittal)				8		12		8	6		28	\$ 3,884
											0	\$ -
30% Site Design											0	\$ -
Refine R/W Lines											0	\$ -
Update Site Plan for Station		4									4	\$ 994
Preliminary Footprint and Preliminary Contours to Support Drainage Design		2		6		8	4				20	\$ 2,780
Refine Surface Water/Drainage Design											0	\$ -
Define Culvert Sizing											0	\$ -
Refine Roadway Relocation Design											0	\$ -
Roadway Alignment				1		3					4	\$ 500
Roadway Profile				1		3					4	\$ 500
Roadway Grading (Cross Sections)						1					1	\$ 108
Identify Utility Relocations/Coordination		2				2					4	\$ 713
Establish Project Area of Potential Effect		5				8		8			21	\$ 2,857
30% Quantities and Cost Estimate		3				6	5				14	\$ 1,842
Preliminary Specifications		8	8								16	\$ 3,681
											0	\$ -
Environmental Documentation											0	\$ -
Natural Resources Site Visit											0	\$ -
Cultural Resources File Search											0	\$ -
Phase 1 Site Assessment											0	\$ -
Verify Absence of Waters of the US											0	\$ -
Environmental Technical Memo		5		4							9	\$ 1,951
											0	\$ -
											0	\$ -
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												
60% Track Design											0	\$ -
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
Culvert Layout and Structural Design		1		8		32		14	28		83	\$ 9,801

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Estimated Time and Expense Sheet

	VP/Principal/Principal Signal Manager	Sr. Project Manager	Project Manager	Sr. Rail Engineer	Sr. Engineer	Engineer	Designer	Sr. CADD	CADD	Controller	Hours Per Task	Costs Per Task
Fully Burdened Rate	\$ 318	\$ 249	\$ 211	\$ 177	\$ 163	\$ 108	\$ 90	\$ 147	\$ 94	\$ 87		
Track Grading Design		2		10		18					30	\$ 4,207
Preliminary Signal Design		2			8						10	\$ 1,804
Finalize Platform Geometry		2		6		6					14	\$ 2,206
60% Site Design											0	\$ -
Update Site Plan		1		3							4	\$ 779
Refine Preliminary Footprint and Contours				2							2	\$ 354
Surface Water Design											0	\$ -
Verify Conuty Drainage Plan/Floodplain Use Permit Qualification		3									3	\$ 746
Roadway Relocation Design											0	\$ -
Refine Roadway Alignment											0	\$ -
Refine Profile											0	\$ -
Refine Typical Sections											0	\$ -
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	2		6	2				13	\$ 1,852
60% Specifications		16	8								24	\$ 5,670
											0	\$ -
											0	\$ -
Subtotal Hours	0	32	10	55	8	74	22	14	28	0	243	\$ 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		3			6				10	\$ 1,318
Track Typical Sections				2			7				9	\$ 982
Culvert Layout and Structural Design		1		2		15		10			28	\$ 3,688
Track Grading Design		4		14		16					34	\$ 5,196
Track Details		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											0	\$ -
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)			2			6	2				10	\$ 1,249
90% Specifications		11	6								17	\$ 4,004
											0	\$ -
											0	\$ -
Subtotal Hours	0	25	8	33	0	41	35	10	0	0	152	\$ 22,776
Subtotal Costs	\$ -	\$ 6,215	\$ 1,692	\$ 5,838	\$ -	\$ 4,421	\$ 3,142	\$ 1,469	\$ -	\$ -		\$ 22,776
Task 7 - 100% Design												
100% Track Design											0	\$ -
100% Track Design - Plans, Profiles, Details		4		16		10					30	\$ 4,903
100% Track Design - Typical Sections, Cross Sections		2		10		14					26	\$ 3,776
100% Culvert Layout and Structural Design		2		2		6					10	\$ 1,498
100% RoadwayDrawings											0	\$ -
Plans, Profiles, Cross Sections											0	\$ -
Typcial Sections, Cross Sections											0	\$ -
Drainage Design											0	\$ -
100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc)											0	\$ -
100% Quantites and Estimate (Roadway and Track)		1	2			5					8	\$ 1,211
100% Specifications		6	4								10	\$ 2,338
											0	\$ -
											0	\$ -
Subtotal Hours	0	15	6	28	0	35	0	0	0	0	84	\$ 13,725
Subtotal Costs	\$ -	\$ 3,729	\$ 1,269	\$ 4,953	\$ -	\$ 3,774	\$ -	\$ -	\$ -	\$ -		\$ 13,725
Task 8 - Ad-Ready Design												
Ad-Ready Track Design											0	\$ -
Ad-Ready Track Design		4	8	20		16	24		8		80	\$ 10,856
Ad-Ready Union Pacific Submittal		4		16		12	16	4	6		58	\$ 7,706
Ad-Ready Roadway Drawings											0	\$ -
Plans, Profiles, Cross Sections		1		2							3	\$ 602
Drainage Design				2							2	\$ 354
Ad-Ready Quantites and Estimate		3	2	8		8					21	\$ 3,446
Ad-Ready Specifications		6	4								10	\$ 2,338
Ad-Ready Bid Documents		2		16		16		4	10		48	\$ 6,580
											0	\$ -
											0	\$ -
Subtotal Hours	0	20	14	64	0	52	40	8	24	0	222	\$ 31,882
Subtotal Costs	\$ -	\$ 4,972	\$ 2,960	\$ 11,321	\$ -	\$ 5,606	\$ 3,591	\$ 1,175	\$ 2,256	\$ -		\$ 31,882
Task 9 - Project Management												
Kick-Off Meeting				8							16	\$ 3,404
Bi-Weekly Meetings or Conference Calls with City (Approx. 20 Total)				8		20					28	\$ 5,527
Coordination with City & Railroad Coordinator				12		20				12	44	\$ 7,562
Internal Team BiWeekly Conference Calls (approx 20)				10		20					50	\$ 8,180
											0	\$ -
											0	\$ -
Subtotal Hours	0	38	0	68	0	20	0	0	0	12	138	\$ 24,673
Subtotal Costs	\$ -	\$ 9,447	\$ -	\$ 12,029	\$ -	\$ 2,156	\$ -	\$ -	\$ -	\$ 1,041		\$ 24,673
Task 10 - Design Support During Construction												
Attend Pre-Bid Meeting				10							10	\$ 1,769
Respond to 5 Bidder's Questions		4		3		5					12	\$ 2,064

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Estimated Time and Expense Sheet

	VP/Principal/Principal Signal Manager	Sr. Project Manager	Project Manager	Sr. Rail Engineer	Sr. Engineer	Engineer	Designer	Sr. CADD	CADD	Controller	Hours Per-Task	Costs Per-Task
Fully Burdened Rate	\$ 318	\$ 249	\$ 211	\$ 177	\$ 163	\$ 108	\$ 90	\$ 147	\$ 94	\$ 87		
Attend Pre-Construction Meeting				10							10	\$ 1,769
Review 8 Submittals		2		4		6					12	\$ 1,852
Respond to 8 RFIs		2		4							6	\$ 1,205
											0	\$ -
											0	\$ -
Subtotal Hours	0	8	0	31	0	11	0	0	0	0	50	\$ 8,659
Subtotal Costs	\$ -	\$ 1,989	\$ -	\$ 5,484	\$ -	\$ 1,186	\$ -	\$ -	\$ -	\$ -		\$ 8,659
												\$ -
Grand Subtotal (hours)	8	234	62	427	20	358	130	78	66	19	1402	\$ 222,206
Grand Subtotal (costs per Classification)	\$ 2,541	\$ 58,176	\$ 13,111	\$ 75,534	\$ 3,267	\$ 38,599	\$ 11,672	\$ 11,454	\$ 6,203	\$ 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 Mtg; Pre-Construction Mtg)												\$ 5,500
Other Direct Costs - UPRR Right of Entry (Rush Handling-Estimated)												\$ 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

MARICOPA AMTRAK STATION SIDING

Entellus

Estimated Time and Expense Sheet

	Principal	Sr. Project Manager	Title (Name)	Senior Designer	CAD Tech	Senior Drainage Engineer	Drainage Engineer	EIT	GIS tech	Survey Manager	2-Man Survey Crew	Project Coordinator/Clerical	Hours Per Task	Costs Per Task
Fully Burdened Rate	\$ 172	\$ 144	\$ 207	\$ 95	\$ 72	\$ 129	\$ 100	\$ 72	\$ 92	\$ 118	\$ 135	\$ 57		
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													0	\$ -
Identify Construction Role for Union Pacific													0	\$ -
Coordinate with Amtrak													0	\$ -
Develop Conceptual Rail, Platform, and Future Amtrak Station Layout with City	1	8		8								2	19	\$ 2,193
													0	\$ -
													0	\$ -
Subtotal Hours	1	8	0	8	0	0	0	0	0	0	0	2	19	\$ 2,193
Subtotal Costs	\$ 172	\$ 1,148	\$ -	\$ 758	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 115	\$	\$ 2,193
Task 2 - Field Data Collection														
Field Survey													0	\$ -
Field Survey		3								12	82		97	\$ 12,908
Utility Data Collection					12							2	14	\$ 976
Develop Basemapping		2			24								38	\$ 3,422
Geotechnical Investigations													0	\$ -
Site Reconnaissance													0	\$ -
Prepare Draft Geotechnical Report													0	\$ -
Prepare Final Geotechnical Report													0	\$ -
													0	\$ -
Subtotal Hours	0	5	0	0	36	0	0	0	0	24	82	2	149	\$ 17,306
Subtotal Costs	\$ -	\$ 718	\$ -	\$ -	\$ 2,584	\$ -	\$ -	\$ -	\$ -	\$ 2,825	\$ 11,065	\$ 115	\$	\$ 17,306
Task 3 - 10% Conceptual Design														
10% Track Design Concept Verification													0	\$ -
10% Track Alignment Design													0	\$ -
10% Track Profile Design													0	\$ -
10% Track Typical Sections													0	\$ -
10% Culvert Sizing													0	\$ -
10% Union Pacific Submittal													0	\$ -
10% Site Conceptual Design													0	\$ -
Site Visit		6		6		6							18	\$ 2,205
Programming Meeting with City		8		8								2	18	\$ 2,021
Conceptual Drainage Design													0	\$ -
Review Data from FEM/A Studies, Other Nearby Projects		2				4	8	8	8				30	\$ 2,917
Develop Design Flows		2				4	8	32					46	\$ 3,905
Initial Stormwater Modeling		2				4	8	32	8				54	\$ 4,640
Develop Inundation Elevations		2				4	8	32	8				54	\$ 4,640
Conceptual Site Plan													0	\$ -
Site Design (Station, Parking Lot)	1	6		10	16	2							35	\$ 3,388
Roadway Design (Alignment, Profile, Typical Sections)	1	6		10	16	2							35	\$ 3,388
Roadway Relocation Plan													0	\$ -
													0	\$ -
Subtotal Hours	2	34	0	34	32	26	32	104	24	0	0	2	290	\$ 27,102
Subtotal Costs	\$ 345	\$ 4,881	\$ -	\$ 3,221	\$ 2,297	\$ 3,359	\$ 3,216	\$ 7,465	\$ 2,205	\$ -	\$ -	\$ 115	\$	\$ 27,102
Task 4 - 30% Design and Environmental Documentation														
30% Track Design													0	\$ -
Track Alignment Refinement													0	\$ -
Track Profile Refinement													0	\$ -
Culvert Layout													0	\$ -
Track Grading Design													0	\$ -
Preliminary Signal Design													0	\$ -
Finalize Platform Geometry													0	\$ -
Union Pacific 30% Submittal (separate from City Submittal)													0	\$ -
30% Site Design													0	\$ -
Refine R/W Lines					8					12			20	\$ 1,987
Update Site Plan for Station		2		4	8								14	\$ 1,240
Preliminary Footprint and Preliminary Contours to Support Drainage Design													0	\$ -
Refine Sureface Water/Drainage Design		2				4	8	16					30	\$ 2,756
Define Culvert Sizing		2					2	8					12	\$ 1,062
Refine Roaway Relocation Design													0	\$ -
Roadway Alignment		2		2	8	1							13	\$ 1,180
Roadway Profile				2	8	1							11	\$ 893
Roadway Grading (Cross Sections)				2	8	1							11	\$ 893
Identify Utility Relocations/Coordination				8									8	\$ 758
Establish Project Area of Potential Effect				4									4	\$ 379
30% Quantities and Cost Estimate		2		2	4							2	10	\$ 879
Preliminary Specifications		2		8								4	14	\$ 1,275
Environmental Documentation													0	\$ -
Natural Resources Site Visit													0	\$ -
Cultural Resources File Search													0	\$ -
Phase 1 Site Assessment													0	\$ -
Verify Absence of Waters of the US													0	\$ -
Environmental Technical Memo													0	\$ -
													0	\$ -
Subtotal Hours	0	12	0	32	44	7	10	24	0	12	0	6	147	\$ 13,301
Subtotal Costs	\$ -	\$ 1,723	\$ -	\$ 3,032	\$ 3,158	\$ 904	\$ 1,005	\$ 1,723	\$ -	\$ 1,413	\$ -	\$ 345	\$	\$ 13,301
Task 5 - 60% Design														
60% Track Design													0	\$ -
Track Alignment Refinement													0	\$ -
Track Profile Refinement													0	\$ -
Track Typical Sections													0	\$ -
Culvert Layout and Structural Design													0	\$ -
Track Grading Design													0	\$ -
Preliminary Signal Design													0	\$ -
Finalize Platform Geometry													0	\$ -
60% Site Design													0	\$ -
Update Site Plan	1	4		4	8								17	\$ 1,700
Refine Preliminary Footprint and Contours													0	\$ -
Surface Water Design													0	\$ -
Verify County Drainage Plan/Floodplain Use Permit Qualification		2				4	8	32	8				54	\$ 4,640
Roadway Relocation Design													0	\$ -

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Entellus

Estimated Time and Expense Sheet

	Principal	Sr. Project Manager	Title (Name)	Senior Designer	CAD Tech	Senior Drainage Engineer	Drainage Engineer	EIT	GIS tech	Survey Manager	2-Man Survey Crew	Project Coordinator/Clerical	Hours Per Task	Costs Per Task
Fully Burdened Rate	\$ 172	\$ 144	\$ 207	\$ 95	\$ 72	\$ 129	\$ 100	\$ 72	\$ 92	\$ 118	\$ 135	\$ 57		
Refine Roadway Alignment		2		4	12		2						20	\$ 1,728
Refine Profile				2	8		2						12	\$ 965
Refine Typical Sections				2	8		2						12	\$ 965
Refine Roadway Cross Sections				2	8		2						10	\$ 764
Construction SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc)		2		2	8								12	\$ 1,051
60% Quantities and Estimate (Roadway and Track)		2		2	8								6	\$ 620
60% Specifications		2		8								2	12	\$ 1,160
													0	\$ -
													0	\$ -
Subtotal Hours	1	14	0	26	54	4	14	32	8	0	0	2	155	\$ 13,591
Subtotal Costs	\$ 172	\$ 2,010	\$ -	\$ 2,463	\$ 3,876	\$ 517	\$ 1,407	\$ 2,297	\$ 735	\$ -	\$ -	\$ 115		\$ 13,591
Task 6 - 90% Design														
90% Track Design													0	\$ -
Track Alignment Refinement													0	\$ -
Track Profile Refinement													0	\$ -
Track Typical Sections													0	\$ -
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	8	24	8				47	\$ 4,238
90% Roadway Relocation Design													0	\$ -
Refine Roadway Alignment	1	2	2	8			2						15	\$ 1,424
Refine Profile			2	8			2						12	\$ 965
Refine Typical Sections			2	4									6	\$ 477
Refine Roadway Cross Sections			2	4									6	\$ 477
Refine Construction SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc)			2	4									6	\$ 477
90% Quantities and Estimate (Roadway and Track)		2	2	2									6	\$ 620
90% Specifications		2		8								2	12	\$ 1,160
													0	\$ -
													0	\$ -
Subtotal Hours	2	8	0	20	30	4	12	24	8	0	0	2	110	\$ 9,836
Subtotal Costs	\$ 345	\$ 1,148	\$ -	\$ 1,895	\$ 2,153	\$ 517	\$ 1,206	\$ 1,723	\$ 735	\$ -	\$ -	\$ 115		\$ 9,836
Task 7 - 100% Design														
100% Track Design													0	\$ -
100% Track Design - Plans, Profiles, Details													0	\$ -
100% Track Design - Typical Sections, Cross Sections													0	\$ -
100% Culvert Layout and Structural Design													0	\$ -
100% Roadway Drawings													0	\$ -
Plans, Profiles, Cross Sections	1	4	2	8									15	\$ 1,510
Typical Sections, Cross Sections			2	6									8	\$ 620
Drainage Design						4	8	20					32	\$ 2,756
100% SWPP Plan, General Sheets (Legend, Notes, Curve Definitions, etc)			2	2	2	1	2	10					17	\$ 1,381
100% Quantities and Estimate (Roadway and Track)	1	2	2	2									5	\$ 649
100% Specifications	1	2	4									2	9	\$ 953
													0	\$ -
													0	\$ -
Subtotal Hours	3	8	0	12	16	5	10	30	0	0	0	2	86	\$ 7,869
Subtotal Costs	\$ 517	\$ 1,148	\$ -	\$ 1,137	\$ 1,148	\$ 646	\$ 1,005	\$ 2,153	\$ -	\$ -	\$ -	\$ 115		\$ 7,869
Task 8 - Ad-Ready Design														
Ad-Ready Track Design													0	\$ -
Ad-Ready Track Design													0	\$ -
Ad-Ready Union Pacific Submittal													0	\$ -
Ad-Ready Roadway Drawings	1	2	4									2	9	\$ 953
Plans, Profiles, Cross Sections													0	\$ -
Drainage Design													0	\$ -
Ad-Ready Quantities and Estimate	1	2	2	2									9	\$ 907
Ad-Ready Specifications	1	2	4										9	\$ 953
Ad-Ready Bid Documents	1	2	4									2	9	\$ 953
													0	\$ -
													0	\$ -
Subtotal Hours	4	8	0	14	2	0	0	0	0	0	0	8	36	\$ 3,767
Subtotal Costs	\$ 689	\$ 1,148	\$ -	\$ 1,326	\$ 144	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 459		\$ 3,767
Task 9 - Project Management														
Kick-Off Meeting		6		6			6						18	\$ 2,033
Bi-Weekly Meetings or Conference Calls with City (Approx. 20 Total)		15											15	\$ 2,153
Coordination with City & Railroad Coordinator													0	\$ -
Internal Team BiWeekly Conference Calls (approx. 20)		10		5									15	\$ 1,909
													0	\$ -
													0	\$ -
Subtotal Hours	0	31	0	11	0	0	6	0	0	0	0	0	48	\$ 6,095
Subtotal Costs	\$ -	\$ 4,450	\$ -	\$ 1,042	\$ -	\$ -	\$ 603	\$ -	\$ -	\$ -	\$ -	\$ -		\$ 6,095
Task 10 - Design Support During Construction														
Attend Pre-Bid Meeting		6											6	\$ 861
Respond to 5 Bidder's Questions		5		8								4	17	\$ 1,705
Attend Pre-Construction Meeting		6											6	\$ 861
Review 8 Submittals		5		20								4	29	\$ 2,842
Respond to 8 RFIs		4		16									24	\$ 2,320
													0	\$ -
													0	\$ -
Subtotal Hours	0	26	0	44	0	0	0	0	0	0	0	12	82	\$ 8,590
Subtotal Costs	\$ -	\$ 3,732	\$ -	\$ 4,169	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 689		\$ 8,590
													0	\$ -
													0	\$ -
Grand Subtotal (hours)	13	154	0	201	214	46	84	214	40	36	82	38	1122	
Grand Subtotal (costs per Classification)	\$ 2,239	\$ 22,107	\$ -	\$ 19,043	\$ 15,360	\$ 5,943	\$ 8,441	\$ 15,360	\$ 3,675	\$ 4,238	\$ 11,065	\$ 2,182	\$ 109,652	\$ 109,652
Total: DESIGN FEE														\$ 109,652
Other Direct Costs														
Other Direct Costs - Printing, Reproduction, and Mailing														\$ 1,000.00
Other Direct Costs - Travel (Mileage)														\$ 1,900.00
Ortho-Rectified Aerial Photograph(Station Site Planning & Roadway Circulation)														\$ 1,395.00

MARICOPA AMTRAK STATION SIDING

Entellus

Estimated Time and Expense Sheet

	Principal	Sr. Project Manager	Title (Name)	Senior Designer	CAD Tech	Senior Drainage Engineer	Drainage Engineer	EIT	GIS tech	Survey Manager	2-Man Survey Crew	Project Coordinator/Clerical	Hours Per Task	Costs Per Task
Fully Burdened Rate	\$ 172	\$ 144	\$ 207	\$ 95	\$ 72	\$ 129	\$ 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 / Geologist / Envir Scientist	Senior Eng / Geologist / Enviro Scientist	Senior Project Eng / Geologist / Enviro Scientist	Project Eng / Geologist / Enviro Scientist	Senior Staff Eng / Geologist / Enviro Scientist	Staff Eng / Geologist / Enviro Scientist	Sen Field / Lab Technician	Field / Lab Technician	Tech Illustrator / CAD Operator	Data Processing, Tech Editing, or Reproduction	Hours Per Task	Costs Per Task
Fully Burdened Rate	\$ 168	\$ 133	\$ 99	\$ 120	\$ 83	\$ 67	\$ 75	\$ 69	\$ 84	\$ 52		
Task 1 - Union Pacific and Amtrak Coordination											0	\$ -
Subtotal Hours	0	0	0	0	0	0	0	0	0	0	0	\$ -
Subtotal Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Task 2 - Field Data Collection												
Field Survey											0	\$ -
Field Survey											0	\$ -
Develop Basemapping											0	\$ -
Geotechnical Investigations											0	\$ -
Site Reconnaissance							8				8	\$ 533
Prepare Draft Geotechnical Report	2			14	9				5	5	35	\$ 3,439
Prepare Final Geotechnical Report	2			2	2				2	2	10	\$ 1,013
Subtotal Hours	4	0	0	16	11		8	0	7	7	53	\$ 4,984
Subtotal Costs	\$ 672	\$ -	\$ -	\$ 1,919	\$ 909	\$ 533	\$ -	\$ -	\$ 588	\$ 364	\$	\$ 4,984
Task 3 - 10% Conceptual Design											0	\$ -
Subtotal Hours	0	0	0	0	0	0	0	0	0	0	0	\$ -
Subtotal Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Task 4 - 30% Design and Environmental Documentation											0	\$ -
Subtotal Hours	0	0	0	0	0	0	0	0	0	0	0	\$ -
Subtotal Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Task 5 - 60% Design											0	\$ -
Subtotal Hours	0	0	0	0	0	0	0	0	0	0	0	\$ -
Subtotal Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Task 6 - 90% Design											0	\$ -
Subtotal Hours	0	0	0	0	0	0	0	0	0	0	0	\$ -
Subtotal Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Task 7 - 100% Design											0	\$ -
Subtotal Hours	0	0	0	0	0	0	0	0	0	0	0	\$ -
Subtotal Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Task 8 - Ad-Ready Design											0	\$ -
Subtotal Hours	0	0	0	0	0	0	0	0	0	0	0	\$ -
Subtotal Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
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											0	\$ -
Internal Team BiWeekly Conference Calls (approx 4)	4			2							6	\$ 912
Subtotal Hours	8	0	0	8	0	0	0	0	0	0	16	\$ 2,303
Subtotal Costs	\$ 1,344	\$ -	\$ -	\$ 960	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	\$ 2,303
Task 10 - Design Support During Construction												
Attend Pre-Bid Meeting											0	\$ -
Respond to 2 Bidder's Questions				2							2	\$ 240
Attend Pre-Construction Meeting											0	\$ -
Review 2 Submittals				1							1	\$ 120
Respond to 2 RFIs				2							2	\$ 240
Subtotal Hours	0	0	0	5	0	0	0	0	0	0	5	\$ 600
Subtotal Costs	\$ -	\$ -	\$ -	\$ 600	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	\$ 600
Grand Subtotal (hours)	12	0	0	29	11	8	0	0	7	7	74	\$ -
Grand Subtotal (costs per Classification)	\$ 2,016	\$ -	\$ -	\$ 3,478	\$ 909	\$ 533	\$ -	\$ -	\$ 588	\$ 364	\$ 7,887	\$ 7,887
Total: DESIGN FEE												\$ 7,887
Other Direct Costs												
Other Direct Costs - Printing, Reproduction, and Mailing												\$ 77
Other Direct Costs - Travel												\$ 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



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 air quality analysis will be required

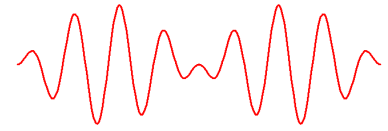


Cost Estimate Worksheet

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 Cost:														
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 Expert Acoustical 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 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

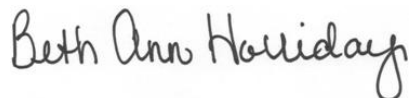
7. Revisions and updates to the noise analysis and final report.

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