



	Approved	Denied
Date Action Taken:	7/11/11	
Other:		
Verified by:	<i>[Signature]</i>	

WASILLA CITY COUNCIL ACTION MEMORANDUM

AM No. 11-18

TITLE: AUTHORIZING THE ALASKA RAILROAD TO UPGRADE THE CROSSINGS AT SNIDER ROAD AND SOUTH MACK DRIVE IN THE AMOUNT OF \$162,600.

Agenda of: July 11, 2011
Originator: Public Works Director

Date: June 28, 2011

Route to:	Department	Signature/Date
X	Public Works Director	<i>[Signature]</i> 6/28/11
X	Finance Director	<i>[Signature]</i> 6/29/11
X	Deputy Administrator	<i>[Signature]</i> 6/29/11
X	City Clerk	<i>[Signature]</i>

REVIEWED BY MAYOR VERNE E. RUPRIGHT: *[Signature]*

FISCAL IMPACT: yes \$162,600 or no Funds Available yes
Account name/number: Railroad Crossing Improvements/160-4320-432.45-40

Attachments: Alaska Railroad Cost Estimates (6 pages)

SUMMARY STATEMENT: The Alaska Railroad is in the final year of upgrading the road crossings through Wasilla. The crossings previously upgraded include Jude Street at the Sewage Treatment Plant, Glenwood Avenue and Hallea Lane. As part of the City's permit to cross the railroad with its roads, the City is required to pay for maintenance and upgrades. The Snyder Crossing is the last major upgrade, whereas South Mack Drive is an adjustment to the settlement (speed hump effect) that has occurred between the road and the railroad.

STAFF RECOMMENDATION: Authorize the Alaska Railroad to upgrade the crossings at Snider Road and South Mack Drive in the amount of \$162,600.



Alaska Railroad Corporation

SOUTH MACK DRIVE CROSSING ESTIMATE

Location: MP162.30
ARRC No: xxxxx
Other No: xxxxx

Crossing 910335C at 90°, assume 2011 construction, pull existing panels, surface through the concrete modular crossing, re-install panels

Prepared by: TJ Sheffield on 2011.06.17

REIMBURSABLE

Description	Qty	Unit	Unit Price	Total	Notes / Comments
Construction					
Crossing Construction				\$	22,100
Equipment				\$	6,648
ARRC Equipment	3	DY	\$ 58	\$ 175	V1135 truck or equal, project manager
ARRC Equipment	2	DY	\$ 37	\$ 75	SSL1 skid steer or equal
ARRC Equipment	2	DY	\$ 155	\$ 310	V1260 truck or equal, boom
ARRC Equipment	6	DY	\$ 81	\$ 485	V1283 truck or equal, 4 each, Roadmaster, Section & HE operators
ARRC Equipment	1	DY	\$ 2,636	\$ 2,636	C10 work train or equal, ballast delivery
ARRC Equipment	1	DY	\$ 58	\$ 58	V1286 truck or equal, work train & dump crew
ARRC Equipment	3	DY	\$ 155	\$ 465	V1301 tractor or equal, with trailer, HE Operators
ARRC Equipment	1	DY	\$ 855	\$ 855	ET19 tamper or equal
ARRC Equipment	1	DY	\$ 545	\$ 545	BR20 ballast regulator or equal
Rental Equipment	1	DY	\$ 55	\$ 55	R-803 rental hy-rail, surfacing gang, or equal
Rental Equipment	2	DY	\$ 326	\$ 653	R-1011 rental loader, Volvo 180 or equal
Rental Equipment Op \$	10	HR	\$ 29	\$ 289	Rental loader, operating cost
Rental Equipment Op \$	10	HR	\$ 5	\$ 49	Rental hy-rail, surfacing gang, operating cost
Labor				\$	13,202
Labor	20	MH	\$ 54	\$ 1,071	Roadmaster
Labor	16	MH	\$ 44	\$ 698	Gang foreman, ST
Labor	8	MH	\$ 65	\$ 524	Gang foreman, OT
Labor	64	MH	\$ 32	\$ 2,055	Track laborers, ST
Labor	32	MH	\$ 48	\$ 1,541	Track laborers, OT
Labor	24	MH	\$ 37	\$ 890	HE operators, ST
Labor	32	MH	\$ 56	\$ 1,781	HE operators, OT
Labor	1	DY	\$ 1,777	\$ 1,777	Train Crew, Work Train
Labor	1	DY	\$ 557	\$ 557	Dump Crew, Work Train
Labor	1	DY	\$ 1,139	\$ 1,139	Surfacing Gang
Labor	8	MH	\$ 35	\$ 277	Signal maintainer, ST
Labor	4	MH	\$ 52	\$ 208	Signal maintainer, OT
Per Diem	2	MD	\$ 88	\$ 175	Surfacing Gang
Per Diem	0	MD	\$ 88	\$ -	Track Crew & HE Operators, assume Section Gang (i.e. no per diem)
Per Diem	1	LS	\$ 510	\$ 510	Train Crew, Work Train
Materials				\$	2,030
Ballast	75	TN	\$ 27	\$ 2,030	Ballast, Curry, inventory price
Contracts				\$	250
Asphalt, Underlayment	0	TN	\$ 95	\$ -	No asphalt delivery, ARRC rolls out, 6" thick, 12 ft. wide x 80 ft. long panel, 150 pcf
Asphalt, Contractor Mob	0	LS	\$ 1,500	\$ -	No asphalt, contractor, mobilization
Asphalt, Saw Cuts	0	LF	\$ 4	\$ -	By others, asphalt saw cuts, contractor, both sides of road
Asphalt, Removal	0	SY	\$ 15	\$ -	By others, asphalt removal, contractor, road width 24 ft.
D1, Sub-base	0	TN	\$ 60	\$ -	By others, D1 material, delivered & placed, 4" thick, for road pullback, both sides
Asphalt, Paving	0	TN	\$ 240	\$ -	By others, asphalt, delivered & placed, 4" thick, 150 pcf, for pullback, both sides



Alaska Railroad Corporation

SOUTH MACK DRIVE CROSSING ESTIMATE

Location: MP162.30
ARRC No: xxxxx
Other No: xxxxx

Crossing 910335C at 90°, assume 2011 construction, pull existing panels, surface through the concrete modular crossing, re-install panels

Prepared by: TJ Sheffield on 2011.06.17

REIMBURSABLE

Description	Qty	Unit	Unit Price	Total	Notes / Comments
Dumpster	0	DY	\$ 750	\$ -	Deliver to site, pick up and dispose
Portable Toilet	2	DY	\$ 75	\$ 150	Portable toilet during construction
Road Closure Permit	1	LS	\$ 100	\$ 100	Road closure permit
Traffic Control Plan	1	LS	\$ 2,500	\$ -	Assume City of Wasilla provides the Traffic Control Plan
Timber Crossing				\$ -	
Utility Construction				\$ -	
Signal Construction				\$ -	
Flagging				\$ 2,000	
Equipment			Subtotal	\$ 243	
ARRC Equipment	3	DY	\$ 81	\$ 243	Flagging, vehicle, assume flagging during activity by others
Rental Equipment	0	DY	\$ 55	\$ -	
Rental Equipment Op \$	0	HR	\$ 5	\$ -	
Labor			Subtotal	\$ 1,722	
Labor, ST	24	MH	\$ 41	\$ 984	Flagman, ST, assume flagging during activity by others
Labor, OT	12	MH	\$ 62	\$ 738	Flagman, OT, assume flagging during activity by others
Materials			Subtotal	\$ -	
Contracts			Subtotal	\$ -	
Construction Subtotal				\$ 24,100	
Mobilization	5.00%			\$ 1,200	
Construction Total				\$ 25,300	
Design & Support					
Engineering and Design				\$ -	
Management				\$ 800	
Project Management	2.00%			\$ 500	
Project Management Support	1.00%			\$ 300	
Construction Management	0.00%			\$ -	
Quality Assurance Mgmt	0.00%			\$ -	
Design & Support Total				\$ 800	
Project Subtotal				\$ 26,100	
Reimbursable Total			* Reimbursable rate is 51.02%	\$ 13,300	
Grand Total (Rounded)			*Note: Reimbursable Rate Applied	\$ 39,400	



Alaska Railroad Corporation

SOUTH MACK DRIVE CROSSING ESTIMATE

Location: MP162.30
ARRC No: xxxxx
Other No: xxxxx

Crossing 910335C at 90°, assume 2011 construction, pull existing panels, surface through the concrete modular crossing, re-install panels

Prepared by: TJ Sheffield on 2011.06.17

REIMBURSABLE

Description	Qty	Unit	Unit Price	Total	Notes / Comments
Assumptions and Scope					
<p>Assume one 48 ft. concrete modular road crossing, pull panels, surface though, reinstall panels using new lag screws. Assume a road closure. Assume no temporary timber plank (detour) crossing is needed. Assume by others: Pull-back on both sides of the crossing, level road approach prior to the concrete panels. Assume by others: Saw cuts for the lanes, plus shoulders, at the skew angle of the crossing. Assume by others: Removal and disposal of existing asphalt, D1 for road approachs prior to ARRC crossing work. Assume by others: Traffic control plan, detour signs and barriers. Assume remove old panels, surface though, replace existing panels using new lag screws Assume a company work train delivers ballast for the crossing. Assume the Surfacing Gang surfaces through the crossing. Assume no crossing signal construction is needed.</p>					



Alaska Railroad Corporation

SNIDER ROAD CROSSING ESTIMATE

Location: MP160.80
ARRC No: xxxxx
Other No: xxxxx

Crossing 868319F at 90°, assume 2012 construction, replace an existing 24 ft. timber crossing with concrete modular crossing panels

Prepared by: TJ Sheffield on 2011.06.17

REIMBURSABLE

Description	Qty	Unit	Unit Price	Total	Notes / Comments	
Construction						
Crossing Construction				\$	72,000	
Equipment				\$	9,764	
ARRC Equipment	4	DY	\$ 60	\$ 240	V1135 truck or equal, project manager	
ARRC Equipment	3	DY	\$ 38	\$ 115	SSL1 skid steer or equal	
ARRC Equipment	3	DY	\$ 160	\$ 479	V1260 truck or equal, boom	
ARRC Equipment	12	DY	\$ 83	\$ 999	V1283 truck or equal, 4 each, Roadmaster, Section & HE operators	
ARRC Equipment	1	DY	\$ 2,715	\$ 2,715	C10 work train or equal, ballast delivery	
ARRC Equipment	1	DY	\$ 59	\$ 59	V1286 truck or equal, work train & dump crew	
ARRC Equipment	3	DY	\$ 160	\$ 479	V1301 tractor or equal, with trailer, HE Operators	
ARRC Equipment	2	DY	\$ 881	\$ 1,761	ET19 tamper or equal	
ARRC Equipment	2	DY	\$ 561	\$ 1,122	BR20 ballast regulator or equal	
ARRC Equipment	1	DY	\$ 78	\$ 78	TF-19 forklift or equal, TOFC loads and unloads materials	
ARRC Equipment	1	DY	\$ 48	\$ 48	V1147 truck or equal, TOFC loads and unloads materials	
Rental Equipment	2	DY	\$ 56	\$ 113	R-803 rental hy-rail, surfacing gang, or equal	
Rental Equipment	3	DY	\$ 336	\$ 1,009	R-1011 rental loader, Volvo 180 or equal	
Rental Equipment Op \$	15	HR	\$ 30	\$ 447	Rental loader, operating cost	
Rental Equipment Op \$	20	HR	\$ 5	\$ 100	Rental hy-rail, surfacing gang, operating cost	
Labor				\$	27,216	
Labor	40	MH	\$ 55	\$ 2,207	Roadmaster	
Labor	32	MH	\$ 45	\$ 1,439	Gang foreman, ST	
Labor	16	MH	\$ 67	\$ 1,079	Gang foreman, OT	
Labor	160	MH	\$ 33	\$ 5,291	Track laborers, ST	
Labor	80	MH	\$ 50	\$ 3,968	Track laborers, OT	
Labor	64	MH	\$ 38	\$ 2,446	HE operators, ST	
Labor	56	MH	\$ 57	\$ 3,210	HE operators, OT	
Labor	1	DY	\$ 1,830	\$ 1,830	Train Crew, Work Train	
Labor	1	DY	\$ 574	\$ 574	Dump Crew, Work Train	
Labor	2	DY	\$ 1,173	\$ 2,345	Surfacing Gang	
Labor	8	MH	\$ 36	\$ 285	Signal maintainer, ST	
Labor	4	MH	\$ 53	\$ 214	Signal maintainer, OT	
Per Diem	4	MD	\$ 90	\$ 361	Surfacing Gang	
Per Diem	16	MD	\$ 90	\$ 1,443	Track Crew & HE Operators	
Per Diem	1	LS	\$ 525	\$ 525	Train Crew, Work Train	
Materials				\$	26,852	
Crossing Panel, Gauge, Concrete	4	EA	\$ 1,074	\$ 4,297	Concrete modular crossing panels	
Crossing Panel, Field	8	EA	\$ 464	\$ 3,710	"	
Crossing Panel, Ramp, Left	2	EA	\$ 80	\$ 159	"	
Crossing Panel, Ramp, Right	2	EA	\$ 80	\$ 159	"	
Crossing Panel, Ramp, Center	2	EA	\$ 157	\$ 313	"	



SNIDER ROAD CROSSING ESTIMATE

Location: MP160.80
 ARRC No: xxxxx
 Other No: xxxxx

Crossing 868319F at 90°, assume 2012 construction, replace an existing 24 ft. timber crossing with concrete modular crossing panels

Prepared by: TJ Sheffield on 2011.06.17

REIMBURSABLE

Description	Qty	Unit	Unit Price	Total	Notes / Comments
Panel Installation Jewelry	1	LOT	\$ 501	\$ 501	Lag screws, drill bits, drive socket
Ties, 10 ft.	50	EA	\$ 77	\$ 3,840	Ties, 10 ft. assume an 80 ft. track panel is required
Ties, 10 ft. transition	0	EA	\$ 77	\$ -	- Ties, 10 ft. assume track panel covers transition ties, otherwise ten ties on each end
Plates, pandrol	100	EA	\$ 15	\$ 1,509	Plates, pandrol
E-clips, pandrol	8	BG	\$ 39	\$ 313	
Screws, pandrol	10	BG	\$ 58	\$ 581	
Angle bars	4	PR	\$ 118	\$ 472	Angle bars for joints at end of panel
Bolts, track	2	PAIL	\$ 71	\$ 143	Bolt, nut and washer assembly, 20 per pail
Ballast	150	TN	\$ 27	\$ 4,061	Ballast, Curry, inventory price
Rail	160	LF	\$ 21	\$ 3,428	Rail, 115RE, new, for track panel
4" RSG Conduit	4	LGTH	\$ 325	\$ 1,299	4" conduit, signal, 20 ft. lengths
4" RSG Conduit, Coupling	3	EA	\$ 11	\$ 33	4" conduit, couplings
4" RSG Conduit, Cap	4	EA	\$ 39	\$ 157	4" conduit, end caps
6" CMP Perf Pipe	5	LGTH	\$ 253	\$ 1,266	Drain pipe, 6" perforated, 20 ft. lengths
6" CMP Perf Pipe, Bands	4	EA	\$ 15	\$ 60	Drain pipe, 6" coupling bands
6" CMP Perf Pipe, Elbows	4	EA	\$ 91	\$ 366	Drain pipe, 6" elbows, 45 deg.
TOFC material	1	LS	\$ 186	\$ 186	Straps, binders, dunnage timber
Contracts		Subtotal		\$ 8,202	
Asphalt, Underlayment	36	TN	\$ 95	\$ 3,402	Asphalt delivery, ARRC rolls out, 6" thick, 12 ft. wide x 80 ft. long track panel, 150 pcf
Asphalt, Contractor Mob	1	LS	\$ 1,500	\$ 1,500	Asphalt, contractor, mobilization
Asphalt, Saw cuts	0	LF	\$ 4	\$ -	- By others, asphalt saw cuts, contractor, both sides of road
Asphalt, Removal	0	SY	\$ 15	\$ -	- By others, asphalt removal, contractor, road width 24 ft.
D1, Sub-base	0	TN	\$ 60	\$ -	- By others, D1 material, delivered & placed, 4" thick, for road pullback, both sides
Asphalt, Paving	0	TN	\$ 240	\$ -	- By others, asphalt, delivered & placed, 4" thick, 150 pcf, for pullback, both sides
Dumpster	4	DY	\$ 750	\$ 3,000	Deliver to site, pick up and dispose
Portable Toilet	4	DY	\$ 75	\$ 300	Portable toilet during construction
Traffic Control Plan	1	LS	\$ 2,500	\$ -	Assume City of Wasilla provides the Traffic Control Plan
Timber Crossing				\$ -	
Utility Construction				\$ -	
Signal Construction				\$ -	
Flagging				\$ 3,400	
Equipment		Subtotal		\$ 500	
ARRC Equipment	6	DY	\$ 83	\$ 500	Flagging, vehicle
Rental Equipment	0	DY	\$ 56	\$ -	
Rental Equipment Op \$	0	HR	\$ 5	\$ -	
Labor		Subtotal		\$ 2,940	
Labor, ST	40	MH	\$ 42	\$ 1,680	Flagman, ST, assume flagging required during activity by others
Labor, OT	20	MH	\$ 63	\$ 1,260	Flagman, OT, assume flagging required during activity by others
Materials		Subtotal		\$ -	
Contracts		Subtotal		\$ -	



SNIDER ROAD CROSSING ESTIMATE

Location: MP160.80
 ARRC No: xxxxx
 Other No: xxxxx

Crossing 868319F at 90°, assume 2012 construction, replace an existing 24 ft. timber crossing with concrete modular crossing panels

Prepared by: TJ Sheffield on 2011.06.17

REIMBURSABLE

Description	Qty	Unit	Unit Price	Total	Notes / Comments
Construction Subtotal				\$ 75,400	
Mobilization	5.00%			\$ 3,800	
Construction Total				\$ 79,200	
Design & Support					
Engineering and Design				\$ -	
Management				\$ 2,400	
Project Management	2.00%			\$ 1,600	
Project Management Support	1.00%			\$ 800	
Construction Management	0.00%			\$ -	
Quality Assurance Mgmt	0.00%			\$ -	
Design & Support Total				\$ 2,400	
Project Subtotal				\$ 81,600	
Reimbursable Total			* Reimbursable rate is 51.02%	\$ 41,600	
Grand Total (Rounded)			* Note: Reimbursable Rate Applied	\$ 123,200	

Assumptions and Scope

Assume one 24 ft. concrete modular road crossing replaces an existing timber crossing.
 Assume a road closure.
 Assume no temporary timber plank (detour) crossing is needed. Highway traffic will be detoured to Lucille Lane Crossing.
 Assume by others: Pull-back on both sides of the crossing, with road approaches to match Parks Highway, prior to the concrete panels.
 Assume by others: Saw cuts for the lanes, plus shoulders, at the skew angle of the crossing.
 Assume by others: Removal and disposal of existing asphalt, D1 for road approaches prior to ARRC crossing work.
 Assume by others: Traffic control plan, detour signs and barriers.
 Assume remove old panels, rail and ties, excavate, pave, place signal conduits and CMP drains, backfill with mainline ballast, install a new 80 ft. track panel.
 Assume the track panel uses new 10 ft. ties throughout on 19-1/2" centers, with new pandrol plates, pandrol screws and 115RE rail.
 Assume a company work train delivers ballast for the crossing.
 Assume the Surfacing Gang surfaces through the crossing.
 Assume no crossing signal construction is needed.