



	Approved	Denied
Date Action Taken:	10/22/07	
Other:		
Verified by:	K.S.M.H.	

WASILLA CITY COUNCIL ACTION MEMORANDUM

AM No. 07-64

TITLE: CONTRACT AMENDMENT FOR RAVEN ENGINEERING IN THE AMOUNT OF \$28,551 FOR GARDEN TERRACE WATER MAIN EXTENSION THROUGH ABBY BOULEVARD.

Agenda of: October 22, 2007
 Originator: Public Works Director

Date: October 10, 2007

Route to:	Department	Signature/Date
	Police Chief Youth Court, Dispatch, Code Compliance	
	Culture and Recreation Services Director Library, Museum, Sports Complex	
X	Public Works & Recreation Facility Maintenance Director	<i>[Signature]</i> 10.10.07
X	Finance, Risk Management & MIS Director Purchasing	<i>[Signature]</i>
X	Deputy Administrator Planning, Economic Development, Human Resources	
X	City Clerk	<i>[Signature]</i>

REVIEWED BY MAYOR DIANNE M. KELLER: *[Signature]* 10/12/07

FISCAL IMPACT: yes \$28,551 or no Funds Available yes no

Account name/number: Garden Terrace City/320-4369-436.45-25 \$1,999
 Garden Terrace State/320-4369-436.45-35 \$14,275
 Garden Terrace Fed/320-4369-436.45-36 \$12,277

Attachments: AM 05-02, AM 06-07, AM 06-47, AM 07-23, CID Detail Sheet, and Raven Engineering Proposal

SUMMARY STATEMENT: The current phase of the project has recently been completed approximately \$191,000 under budget. This contract amendment will design the final water main extension for this project using a portion of these funds. The final extension needs to be through Garden Terrace subdivision along Abby Blvd. to upgrade the existing line for fire hydrants. In addition, this upgrade will also provide the necessary fire flow to The Ranch Subdivision and future elementary school in the area.

ACTION: Authorize the Mayor to execute a contract amendment with Raven Engineering in the amount of \$28,551 for the Garden Terrace water main extension through ABBY Blvd.

City Of Wasilla
Capital Improvement Project Detail
Fiscal Year 2008
Through Fiscal Year 2012

Project Title:

Project Number:
(Assigned By Finance Department)

Project Description:

Department/Div.:

Ranking:
(Assigned By Administration)

Project Narrative:

This project will extend the water utility east towards Trunk Road in the city's water service area, outside the city limits to a subdivision of 50 homes that is running of water. The expanded customer base will help the utility's annual financial statement. This extension will also allow "The Ranch", a new adjacent subdivision to be connected to the city utility. Phase 1 construction will be complete in 2007 that consists of 2 pressure reducing valve buildings. FY08-FY09 funding will be for Phase 2 main line piping approximately 1.4 miles in length to connect the PRV buildings and tie-in City water. Depending on the level of state and federal funding in FY08-FY09, the project will also replace the main line through Garden Terrace Subdivision to improve fire flow to the existing fire hydrants.

Impact on Operating Budget:

Increase in operating cost (\$5,000) will be less than the estimated revenue (\$20,000) generated by the customers. Also revenue will be increased in the future due to the ability of the City to provide water to other developments beyond Garden Terrace. It is projected that this revenue will be substantial in the future (i.e. projections range from \$90,000 and higher per Fiscal year).

Project Cost Summary

Expenditure Category:

	Prior Budget	Project Expenditures To Date	Project Balance	Additions					Total CIP Cost
				Fiscal YR 2008	Fiscal YR 2009	Fiscal YR 2010	Fiscal YR 2011	Fiscal YR 2012	
Administration/OH	-	-	-	-	-	-	-	-	-
Land	-	-	-	-	-	-	-	-	-
Design Services	-	-	-	-	-	-	-	-	-
Engineering	-	-	-	-	110,000	-	-	-	110,000
Construction	2,137,780	2,137,780	-	1,528,100	2,223,900	-	-	-	5,889,780
Equipment	-	-	-	-	-	-	-	-	-
Other Services	-	-	-	-	-	-	-	-	-
Contingency	-	-	-	-	-	-	-	-	-
Totals	2,137,780	2,137,780	-	1,528,100	2,333,900	-	-	-	5,999,780

Funding Source Summary

Funding Sources:

	Prior Budget	Project Revenue To Date	Project Balance	Additions					Total CIP Funding
				Fiscal YR 2008	Fiscal YR 2009	Fiscal YR 2010	Fiscal YR 2011	Fiscal YR 2012	
Federal:									
	948,788	948,788	-	-	1,250,000	-	-	-	2,198,788
	-	-	-	-	-	-	-	-	-
State:									
	843,331	843,331	-	1,376,100	1,023,900	-	-	-	3,243,331
	-	-	-	-	-	-	-	-	-
Local:									
Operating Transfers	191,855	191,855	-	152,000	60,000	-	-	-	403,855
	153,806	153,806	-	-	-	-	-	-	153,806
Totals	2,137,780	2,137,780	-	1,528,100	2,333,900	-	-	-	5,999,780

Cost Beyond 5-Year

Program:

Raven Engineering Inc.

3825 Palmdale Drive
Wasilla, Alaska 99654
Phone (907) 376-9614
Fax (907) 376-9613
raveneng@mtaonline.net

Thursday, August 30, 2007

City of Wasilla
290 E. Herning Ave.
Wasilla, AK 99654

ATTN: Mr. Archie Giddings, PE

RE: Design Services Proposal, Abby Boulevard Water Main Extension

Archie;

Raven Engineering Inc. (REI) sincerely appreciates the opportunity to propose on this project!

Experience and Qualifications: To summarize qualifications and experience, REI has a history of seven successful completed-on-budget underground utility projects for the City of Wasilla from 1996 to the present. REI is the City's prime consultant for the on-going Garden Terrace Water Main Extension Project, a major City project to bring municipal water to Garden Terrace Estates Subdivision. Additional information on REI qualifications and experience is available on request.

Background: The proposed Abby Boulevard Water Main Extension would constitute the third phase of the Garden Terrace Water Main Extension Project. Current status of the first two phases of the overall project is summarized below:

- Construction of the first phase of the project, "Old Matanuska Road and Garden Terrace Water Lines and PRV Buildings", is nearly complete. The Old Matanuska Road PRV building, located just southeasterly of the intersection with Seward-Meridian Road, is currently connected to the City water main system, and is operational (except for adjustment of PRV settings). The Garden Terrace PRV building, located on the westerly side of Abby Boulevard near the northerly entrance to Garden Terrace Subdivision from Fairview Loop Road, is currently connected to the Garden Terrace Estates water system (but isolated from the operational system by a closed valve), and requires bore flushing, disinfection, adjustment of PRV settings, and ADEC "Approval to Operate" before it can be considered operational.
- Design of the second phase of the project, which includes construction of the actual water main connecting the Old Matanuska Road and Garden Terrace PRV buildings as well as related work, is complete except for AKDOTPF utility permitting. AKDOTPF utility permitting is expected to be completed shortly.

Need for the Abby Boulevard Water Main Extension: This project is needed for the following reasons:

- The existing 6" and 8" water main system on Abby Boulevard is inadequate for providing sufficient fire flows to Garden Terrace Estates.
- The City of Wasilla has an agreement to assume ownership and operation of the water system for the Ranch Subdivision, which is located just south of Garden Terrace Estates. The Ranch Subdivision water system is currently supplying water to Garden Terrace Estates. The proposed 12" Abby Boulevard water main will provide a hydraulically adequate link to connect the City system (after completion of the water main from the Old Matanuska Road PRV building to Garden Terrace PRV building) to the Ranch Subdivision system. The existing Ranch Subdivision wells will provide redundancy of water supply to both Garden Terrace Estates and the Ranch Subdivision, and will reduce water demand from the core City of Wasilla system to Garden Terrace Estates and the Ranch Subdivision.
- The 12" Abby Boulevard water main will also reduce the possibility of damaging water hammer surges in Garden Terrace Estates during fire flow events, because less fire water will need to flow from the core City water system to Garden Terrace Estates. City water is pumped downhill to Garden Terrace Estates and is therefore more susceptible to pressure surges than the water supplied from the Ranch Subdivision wells.

Proposed Project Overview: The Abby Boulevard Water Main Extension would include installation of a new 12" water main from an existing piping stub-out at the Garden Terrace PRV building, extending southerly along Abby Boulevard for about 1,000 feet, and tying in to the existing 12" Ranch Subdivision water main near the intersection of Abby Boulevard and Brome Avenue. The following tie-ins would be made between the new 12" main and the existing 6" and 8" main on Abby Boulevard:

- An 8" tie-in at the intersection of Abby Boulevard and Lupine Way.
- A 6" tie-in at the intersection of Abby Boulevard and Timothy Lane.
- A 6" tie-in at the intersection of Abby Boulevard and Brome Avenue.

Four new double pumper fire hydrants would be provided, one each at the intersections of Abbey Boulevard with Lupine Way, Rhubarb Circle, Timothy Lane, and Brome Avenue.

Abby Boulevard would be restored by repaving, with essentially the same "footprint" and finished cross-section as existing pavement.

Proposed REI Scope of Services: REI has previously provided geotechnical exploration and mapping services of Garden Terrace Estates as part of the Garden Terrace Water Main Project in 2005 and 2006. This data would be used for design of the Abbey Boulevard Water Main Extension.

Design and related services provided by REI as part of this proposal would include:

- Completion of a brief field survey to collect any missing data from 2005-2006 mapping work or any pertinent new data.
- Preparation of a digital terrain model (TIN) for the project corridor.
- Preparation of plans including: one cover sheet, one general information sheet, one survey and project limits sheet, one water line plan and profile sheet, one water main trench section and detail sheet, one street restoration plan and profile sheet, and one street restoration typical section and detail sheet.
- Preparation of a Project Manual including bidding, contract award, and EEO information and forms, prevailing wage rates, technical specifications, special provisions, and appendixes.
- Obtaining an ADEC "Approval to Construct" and a Matanuska-Susitna Borough Utility Permit for the project.
- Preparation of a cost estimate for the project.

Frequent reviews and consultations would be conducted with City Public Works personnel, as is customary on all REI projects. Final deliverables would include one set of sealed and signed 24"x36" vellum drawings and one unbound Project Manual.

REI sub-consultants would include Bull Moose Surveying for field surveying, and Kinney Engineering of Anchorage for assistance in TIN preparation.

Design services for existing water service replacement on private property adjacent to Abby Boulevard would be provided by GR Brown Engineering Services under an existing contract.

Exclusions: Please note that the following items are excluded from this proposal:

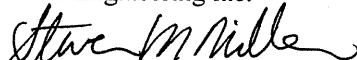
- Professional design services not specifically listed in the previous section.
- Bidding and construction administration services.
- Agency review and/or permit fees.
- Costs for reproduction and binding of bid documents (plans and project manuals).
- Advertising costs for bid solicitation.

Fees: A fee proposal spreadsheet is attached.

Thank you for the opportunity to propose on this project!

Sincerely,

Raven Engineering Inc.



Steven M. Miller, PE
President

RAVEN ENGINEERING INC. FEE ESTIMATE
 ABBY BOULEVARD WATER MAIN EXTENSION DESIGN

TASK	RAVEN ENGINEERING					SUB-CONSULTANTS	TASK TOTALS
	PROJECT MANAGER/ CIVIL ENGINEER		EXPENSES				
	RATE \$	75.00					
	HOURS	FEES					
FIELD SURVEY & DATA GATHERING	16	\$ 1,200	\$ 25	\$ 2,640	\$	2,640	\$ 3,865
TIN PREPARATION	16	\$ 1,200	\$ 150	\$ 1,936	\$	1,936	\$ 3,286
CONTRACT DRAWINGS							
COVER SHEET	4	\$ 300	\$ 25	\$ -	\$	-	\$ 325
GENERAL INFORMATION SHEET	8	\$ 600	\$ 25	\$ -	\$	-	\$ 625
SURVEY & PROJECT LIMIT SHEET	8	\$ 600	\$ 25	\$ -	\$	-	\$ 625
WATER MAIN PLAN & PROFILE SHEET	40	\$ 3,000	\$ 50	\$ -	\$	-	\$ 3,050
WATER MAIN DETAIL SHEET	40	\$ 3,000	\$ 50	\$ -	\$	-	\$ 3,050
STREET RESTORATION PLAN & PROFILE SHEET	40	\$ 3,000	\$ 50	\$ -	\$	-	\$ 3,050
STREET RESTORATION DETAIL SHEET	24	\$ 1,800	\$ 50	\$ -	\$	-	\$ 1,850
PROJECT MANUAL							
BIDDING, CONTRACT AWARD, & RELATED SECTIONS	24	\$ 1,800	\$ 25	\$ -	\$	-	\$ 1,825
SPECIFICATIONS, SPECIAL PROVISIONS, & APPENDICIES	40	\$ 3,000	\$ 25	\$ -	\$	-	\$ 3,025
PERMITS & APPROVALS							
ADEC APPROVAL TO CONSTRUCT	24	\$ 1,800	\$ 25	\$ -	\$	-	\$ 1,825
MSB UTILITY PERMIT	24	\$ 1,800	\$ 25	\$ -	\$	-	\$ 1,825
COST ESTIMATE	4	\$ 300	\$ 25	\$ -	\$	-	\$ 325
TOTAL		\$ 23,400	\$ 575	\$ 4,576	\$	4,576	\$ 28,551



Action taken	Approved	Denied
Other:	1/24/05	
Verified by:	<i>[Signature]</i>	

WASILLA CITY COUNCIL ACTION MEMORANDUM

AM No. 05-02

TITLE: CONTRACT AWARD TO RAVEN ENGINEERING INC. IN THE AMOUNT OF \$90,000 FOR THE GARDEN TERRACE WATER MAIN EXTENSION DESIGN SERVICES

Agenda of: January 24, 2005
 Originator: Public Works Director

Date: January 14, 2005

Route to:	Department	Signature/Date
	Police	
	Recreational and Cultural Services Library, Museum	
X	Public Works Planning	<i>[Signature]</i> 1/14/05
X	Finance *signature required	<i>[Signature]</i>
X	Clerk	<i>[Signature]</i>

REVIEWED BY MAYOR DIANNE M. KELLER:

[Signature: Dianne M. Keller]

FISCAL IMPACT: yes \$90,000 or no Funds Available yes no
 Account name/number: 320-4369-436.45-25 (Ordinance Serial No. 05-07)

SUMMARY STATEMENT: This contract was advertised in November 2004 through a request for proposal process that sought the "best qualified" firm for the project. Eight proposals were received and evaluated. Raven Engineering Inc. was selected by the evaluation team as best qualified for this project.

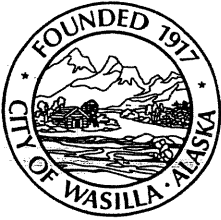
This contract is scheduled to begin upon council award and run through the construction of the project. Construction engineering services will be presented separately for council approval along with the construction contract in June 2005. Construction is scheduled from July to November 2005. The construction budget for this project is \$2 million using state and federal grants.

This project is intended to provide water service 1-mile outside the city limits to an existing community water system with 50 homes that is running out of drinking water and has water that is corrosive to copper piping causing copper levels to increase in the water supply. This water system is within the City's water utility service area approved by the State of Alaska Regulatory Commission.

This project is addressing the single greatest documented public health problem related to water and sewer systems within the city limits or outside the city limits that can be reached by the utility. The ADEC Municipal Matching Grant for this project (\$1,025,000) would not have been eligible for any other subdivisions this year.

The Regulatory Commission of Alaska provides the legal authority for the utility to operate and it has an expectation for municipal water systems to tie-in and operate community water systems in their service area. The utility is planning on tying in Mission Hills and Lacy Lane community water systems in the future.

STAFF RECOMMENDED ACTION: Council is requested to authorize the contract award to Raven Engineering Inc. in the amount of \$90,000 for the Garden Terrace Water Main Extension Design Services.



	Approved	Denied
Action taken	1/23/06	
Other:		
Verified by:	<i>[Signature]</i>	

WASILLA CITY COUNCIL ACTION MEMORANDUM

AM No. 06-07

TITLE: CONTRACT AMENDMENT TO RAVEN ENGINEERING, INC. IN THE AMOUNT OF \$75,000 FOR THE GARDEN TERRACE WATER MAIN PROJECT

Agenda of: January 23, 2005
 Originator: Public Works Director

Date: January 16, 2006

Route to:	Department	Signature/Date
	Police	
	Recreational and Cultural Services Library, Museum	
X	Public Works Planning	<i>[Signature]</i> 1/16/06
X	Finance *signature required	<i>[Signature]</i> 1/16/06
X	Clerk	<i>[Signature]</i>

REVIEWED BY MAYOR DIANNE M. KELLER:

[Signature: Dianne M. Keller]

FISCAL IMPACT: yes \$75,000 or no
 Account name/number: 320-4369-436.45-35

Funds Available yes no
 Garden Terrace ADEC Grant

Attachments: Sample contract

SUMMARY STATEMENT: Raven Engineering was awarded this project as a result of a Request For Proposal (RFP) the City issued in November 2004. Council awarded the initial contract in 2005 in the amount of \$90,000 to design the water main extension with one underground Pressure Reducing Valve (PRV) vault and to use existing rights-of-way for the pipeline route. The contract extension is requested to complete the project design with additional scope added to the project.

Early in the design process, Raven Engineering determined that a substantial construction savings could be obtained by avoiding the existing rights-of-way and having to re-pave portions of Old Matanuska Road and Fairview Loop. Raven has since worked with property owners along the route to obtain easements outside of the

right-of-way and away from the pavement. This effort expended a significant amount of design funding that will save money on the overall project.

Raven Engineering was also requested to conduct a hydraulic analysis of the Richmond Hills Booster Station that was not included in the original scope. The Richmond Hills booster station provides water pressure to all services east of the Cottonwood Creek Plaza. The analysis was needed to determine what long-term limitations might be needed on pipeline extensions east along the Parks Highway.

Lastly, a single underground PRV vault was originally specified for the project to ensure excessive pressure does not develop to users downhill from the booster station. Further analysis has determined that two PRV structures will be needed along the route to step down pressure. In addition, the savings expected from not having to rebuild the paved roads discussed above, allows for the underground PRV vaults to be designed as above ground buildings. Above ground facilities are safer for the utility to operate, but does require additional engineering and architectural services vs. an underground vault.

In summary, the contract amendment is needed for engineering scope that was added to the project for an improved route that avoids the disruption pavement, a hydraulic analysis of the Richmond Hills Booster Station, and for the design of two PRV buildings.

STAFF RECOMMENDED ACTION: Council is requested to authorize the contract amendment to Raven Engineering, Inc. in the amount of \$75,000 for the Garden Terrace Water Main Project.



	Approved	Denied
Date Action Taken:	8/28/06	
Other:		
Verified by:	<i>Romita</i>	

WASILLA CITY COUNCIL ACTION MEMORANDUM

AM No. 06-47

TITLE: CONTRACT AMENDMENT TO RAVEN ENGINEERING IN THE AMOUNT OF \$72,000 FOR GARDEN TERRACE CONSTRUCTION ENGINEERING SERVICES

Agenda of: August 28, 2006
 Originator: Public Works Director

Date: August 17, 2006

Route to:	Department	Signature/Date
	Police Chief Youth Court, Dispatch, Code Compliance	
	Culture and Recreation Services Director Library, Museum, Sports Complex	
X	Public Works & Recreation Facility Maintenance Director	<i>[Signature]</i> 8/17/06
X	Finance, Risk Management & MIS Director Purchasing	<i>[Signature]</i>
X	Deputy Administrator Planning, Economic Development, Human Resources	<i>[Signature]</i> 8/18/06
X	City Clerk	<i>Romita</i>

REVIEWED BY MAYOR DIANNE M. KELLER: *Dianne M. Keller*

FISCAL IMPACT: yes \$72,000 or no Funds Available yes no

Account name/number:

Garden Terrace Water-State(50%)	320-4369-436.45-35	\$36,000
Garden Terrace Water-Fed(43%)	320-4369-436.45-36	\$30,960
Garden Terrace Water-City(7%)	320-4369-436.45-37 ²⁵	\$5,040

Attachments: CIP Budget Sheet

SUMMARY STATEMENT: On July 24, 2006, City Council authorized a construction contract to Alaska Road Boring in the amount of \$1,433,296 for the next phase of the Garden Terrace Water Main extension project, which consists of two pressure reducing valve buildings. This construction is expected to begin in September 2006. AM 06-47 amends the Raven Engineering design contract to provide the necessary engineering oversight during construction. Engineering oversight is estimated at 5 percent of the construction contract amount on a time and materials basis.

ACTION: Authorize the Mayor to execute contract amendment with Raven Engineering in the amount of \$72,000 for construction engineering services.



	Approved	Denied
Date Action Taken:	5/14/07	
Other:		
Verified by:	Romix	

WASILLA CITY COUNCIL ACTION MEMORANDUM

AM No. 07-23

TITLE: CONTRACT AMENDMENT TO RAVEN ENGINEERING IN THE AMOUNT OF \$37,934 FOR THE GARDEN TERRACE WATER MAIN EXTENSION ENGINEERING SERVICES.

Agenda of: May 14, 2007
 Originator: Public Works Director

Date: May 2, 2007

Route to:	Department	Signature/Date
	Police Chief Youth Court, Dispatch, Code Compliance	
	Culture and Recreation Services Director Library, Museum, Sports Complex	
X	Public Works & Recreation Facility Maintenance Director	<i>[Signature]</i> 5/2/07
X	Finance, Risk Management & MIS Director Purchasing	<i>[Signature]</i> Susan E. Colligan 5-7-07
X	Deputy Administrator Planning, Economic Development, Human Resources	<i>[Signature]</i> J. Gault 05-02-07
X	City Clerk	<i>[Signature]</i> Romix

REVIEWED BY MAYOR DIANNE M. KELLER: *[Signature]* Dianne M. Keller 5/8/07

FISCAL IMPACT: yes \$37,934 or no Funds Available yes no

Account name/number: Garden Terrace-City/ 320-4369-436.45-25 \$2,656
 Garden Terrace-State/ 320-4369-436.45-35 \$18,967
 Garden Terrace-Fed/ 320-4369-436.45-36 \$16,311

Attachments: Contract Amendment Cost Breakdown

SUMMARY STATEMENT: The City Council has authorized \$165,000 to Raven Engineering to date for engineering design services for this project through AM 05-02 in January 2005 and AM 06-07 in January 2006. The City Council has also authorized \$72,000 for construction administration and inspection to Raven Engineering for this project through AM 06-47. Phase 1 of the project is under construction and nearing completion that consists of two Pressure Reducing Valve (PRV) buildings and associated yard piping. Phase 2 design is also nearing completion that consists of approximately 1.4 miles of main line piping between the PRV buildings.

The proposed contract amendment provides for \$12,000 to complete the Phase 2 design and \$25,934 to complete Phase 1 construction administration and inspection.

The Phase 1 project construction cost is \$1,433,296 and the Phase 2 construction cost is estimated at \$2.5 million. The combined project cost is estimated at \$3.9 million. Typically, engineering design costs range from 7 to 9 percent of the construction cost that equals \$273,000 to \$351,000 in this case. With the proposed amendment added, the total design contract will be \$177,000 or approximately 5 percent of the construction estimate.

Typically, construction administration and inspection cost range from 9 to 12 percent of the construction cost that equals \$128,996 to \$171,995 for Phase 1 of the project. With the proposed amendment added, the total construction administration and inspection contract for Phase 1 will be \$100,934 or approximately 7 percent of the construction cost for Phase 1.

ACTION: Authorize the Mayor to execute a contract amendment with Raven Engineering in the amount of \$37,934 for Garden Terrace Water Main Extension Engineering Services.