

**City of Palmer  
Action Memorandum No. 16-059**

**Subject:** Authorizing the City Manager to Amend the Professional Services Agreement with HDL Engineering Consultants in an Amount Not to Exceed \$64,145 for Design and Engineering Services for the Sherrod Area Water & Street Improvements Project Phase Four Additional Extension.

**Agenda of: August 9, 2016**

**Council Action: Approved**

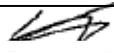
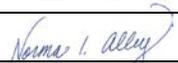
**Originator Information:**

**Originator:** Chris Nall, Director of Public Works  
**Date:** 7/28/2016 **Requested agenda date:** 8/9/2016

**Department Information  $\checkmark$ :**

Route to:	Department Director:	Signature:	Date:
	Community Development		
X	Finance		7/28/16
	Fire Department		
	Police Department		
X	Public Works		7/28/2016

**Approved for presentation by:**

	Signature:	Remarks:
City Manager		
City Attorney		
City Clerk		

**Certification of Funds:**

Total amount of funds listed in this legislation: \$ 64,145.00

This legislation ( $\checkmark$ ):

- Has no fiscal impact       Creates a positive impact in the amount of: \$ \_\_\_\_\_  
 Creates a negative impact in the amount of: \$ 64,145.00

Funds are ( $\checkmark$ ):

- Budgeted      Line item(s): 24-20-08-6225 ADEC Grant #67118  
 Not budgeted      Affected line item(s): 24-02-08-6225 City Match Loan 671251

General fund unassigned balance (after requested budget modification): \$ \_\_\_\_\_

Enterprise unrestricted net position (after requested budget modification): \$ \_\_\_\_\_

Director of Finance Signature: 

**Attachment(s):**

- HDL Engineering Consultant's Amendment Request

**Summary statement:** Sherrod Area Water & Street Improvements Phase 4 was awarded to Dirtworks, Incorporated on June 28<sup>th</sup>, 2016 via A.M. 16-048. Dirtworks' bid was less than the City and Engineer anticipated which allowed for the potential of additional construction in the project area.

This Action Memorandum authorizes Amendment No. 11 to the Professional Services Agreement between the City and HDL Engineering Consultants to provide additional design and engineering services for water main replacement project on N. Bonanza Street between E Beaver and E Caribou Avenue.

In reference to PMC 3.21.230, Governmental and Proprietary Procurements, HDL's experience in preparing the engineering and design plans for the multi-year water main replacement project, as well as their experience in construction administration, give HDL experience and knowledge of this project which reasonably limits the source of these design and engineering phase services to HDL.

**Administration recommendation:** Authorize Action Memorandum 16-059.

July 27, 2016

Chris Nall, Public Works Director  
City of Palmer  
231 West Evergreen Avenue  
Palmer, AK 99645

RE: Amendment for Additional Engineering Services  
Sherrod Area Water and Street Improvements – Phase 4 Bonanza St. CO

Dear Mr. Nall:

HDL Engineering Consultants (HDL) is pleased to present this amendment proposal for additional engineering services to support a change order to add Bonanza Street water and street improvements to Dirtworks' contract for the Sherrod Area Water and Street Improvements, Phase 4 project.

*Contract Background.* Our original 2012 contract was for a 65% Plan, Specifications, and Estimate (PS&E) package for the Sherrod Area Water and Street Improvements project, to replace steel water main and upgrade both paved and unpaved roads in the northeast portion of the City. The project was broken into several phases and the overall scope of the project was modified several times. Previously authorized amendments to the contract are:

- In June 2013, HDL received Amendment 1 to complete Phase 1 final design of water system improvements for portions of East Auklet Avenue and Dolphin Avenue under Task 5 with the remaining budget from our original fee proposal;
- In August 2013, HDL received Amendment 2 to provide Phase 1 construction administration and inspection services for an amount not-to-exceed \$97,610;
- In April 2014, HDL received Amendment 3 to complete Phase 2 design services for water, storm, and street improvements along portions of East Auklet Avenue, East Dolphin Avenue, North Gulkana Street, North Chugach Street and at the school district administration building for an amount not-to-exceed \$80,835. These services included environmental permitting, final design, public involvement and LID assistance, and bidding assistance;
- In May 2014, HDL received Amendment 4 to provide Phase 2 construction administration and inspection services for an amount not-to-exceed \$165,885;
- In October 2014, HDL received Amendment 5 for out-of-scope services related to Phase 2, in the amount of \$14,840;
- In December 2014, HDL received Amendment 6 to complete Phase 3 design services for water, storm, and street improvements on West Auklet Avenue, East Caribou Avenue, and North Gulkana Street for an amount not-to-exceed \$102,530. These services also included environmental permitting and bidding assistance;

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GEOTECHNICAL  
ENGINEERING  
  
TRANSPORTATION  
ENGINEERING  
  
ENVIRONMENTAL  
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& MAPPING  
  
CONSTRUCTION  
ADMINISTRATION  
  
MATERIAL  
TESTING  
  
RIGHT-OF-WAY  
SERVICES

- In June 2015, HDL received Amendment 7 to provide Phase 3 construction administration and inspection services for an amount not-to-exceed \$212,878;
- In February 2016, HDL submitted an amendment request and on April 5, 2016 HDL received Amendment 9 for \$14,720 to provide additional Phase 3 construction administration and inspection services incurred due to additional full-time inspection required to match the Contractor's schedule.
- On March 14, 2016, HDL received a direct purchase order of \$15,000 for preliminary work associated with Phase 4 of the project;
- On April 4, 2016 HDL received Amendment 8 to provide complete design services for Phase 4 water and street improvements to East and West Beaver Avenue, and Bailey/Chugach Streets between Beaver and Caribou Avenue for an amount not to exceed \$250,000. These services included additional surveying, 65% and Final design, public involvement, permitting, and bid-phase services;
- On June 2, 2016 HDL received Amendment 10 to provide Phase 4 construction administration and inspection services for an amount not-to-exceed \$192,390;

Scope of Improvements. In late June 2016, bids were opened for construction of the Sherrod Water and Street Improvements, Phase 4 project. An extremely competitive bidding environment resulted in a sizeable surplus in grant funds remaining even after a construction contingency was set aside. The City wishes to spend the remaining grant funds to design improvements on Bonanza Street, between Beaver and Caribou Avenues, and to construct a portion of the additional work through a Change Order to the Phase 4 construction contractor, Dirtworks, Inc.

We anticipate this additional design work will be limited to replacement of existing 6-inch cast iron water pipe with new ductile iron pipe, including removal and replacement of the existing, paved street and curb and gutter. We do not anticipate changing road grades as drainage at current elevations is sufficient. Further, this project will not include sidewalk, handicap accessibility improvements, upgrading street lighting, or modifications to the storm drain system.

Amendment Request. We hereby request an amendment to our existing contract to provide professional services required for a) design of the needed improvements; b) additional construction phase services to negotiate a scope of work and price with the Contractor, and provide inspection of the additional work. Our scope of services will follow the existing contract's task structure and is detailed below.

## SCOPE OF ADDITIONAL SERVICES

### Task 2 – Surveying

We will perform a design survey of the project area. We will utilize our existing survey control network to the greatest extent possible, and add additional control where needed. We will research existing record plats, federal surveys, State of Alaska right-of-way (ROW) mapping, and any recorded easements. With this record data, we will search for existing record monuments to establish the road ROW. Our experience in this area has revealed that some lots have been combined or modified by document (rather than by plat) and lots may not be accurately shown on Mat-Su Borough mapping. Our research will identify these

areas early in the survey and we will do additional research to confirm the property boundaries where they impact design. We do not anticipate establishing or refurbishing any property corners, re-platting existing lots or rights-of-way, or extensive title research, however, our survey department is very familiar with platting requirements and can provide these services if requested.

Topographic data will be gathered by taking cross sections every 50 feet for the width of the ROW plus 20 feet beyond on each side. Planimetric data for all surface improvements and utilities within these limits will be gathered. Large improvements and significant drainage features outside these limits that may impact design will also be located. Because existing drainage patterns are sufficient, and houses are all located above the existing road grade, we do not anticipate needing to gather finished floor elevations of adjacent structures.

We will meet with each utility agency within the project area to coordinate utility locates and gather as-built data. We assume that City staff will locate the buried water, sewer and storm drain utilities and expose any buried manholes and valve boxes, as well as locate street light utilities. We will as-built invert elevations of existing sewer and storm drain pipes at manholes and catch basins and will measure depths to valves on water mains. We will also inventory the existing street signs. With the field survey complete, we will reduce all data, create a Triangulated Irregular Network (TIN) surface model, and deliver the final design survey mapping to our in-house designers.

### **Task 3 – Environmental Review and Permits**

Categorical Exclusion. We will consult with the Alaska Department of Environmental Conservation (ADEC) to determine if the additional scope is covered under the Categorical Exclusion (CE) granted during design of Phase 4 improvements. If a new CE is required, additional effort will be required which may necessitate a contract amendment.

Permits. We will submit plans for the water main to ADEC to keep them informed of the change to the original scope of work. We do not anticipate a need for a separate ADEC Approval to Construct or a separation distance waiver for water/storm/sewer crossings.

### **Task 5 – Final Design**

Final Construction Plans. Due to the immediate need for a completed design package, and the relative straightforwardness of the project, we will forego progress submittals and jump straight to the 100%, construction ready, document phase. We will generate demolition plans, plan and profile drawings for the water and street improvements, develop a typical section for Bonanza Street, and update the summary tables for the project; working closely with Public Works staff throughout the design process.

Construction Cost Estimate. We will perform a detailed material take-off from the plans developed to generate an estimate of probable costs for construction of the Bonanza Street improvements. We will use Dirtworks' bid-prices as the basis of our estimate, however, due to the short time-frame required for construction of this project we anticipate Dirtworks will want to re-negotiate some prices to reflect overtime labor rates required to complete the work.

Deliverables. The final deliverables for this task will be construction plans, stamped and signed by a registered professional engineer in the State of Alaska and an engineer's construction cost estimate. We will provide deliverables in hard copy and on CD in Adobe PDF® format. No additional special provisions are anticipated.

### **Task 8 – Additional Construction Phase Services (Phase 4)**

Change Order Negotiation. We will meet with Dirtworks and the City to determine how much of the designed improvements may be constructed with the remaining grant funds, within the ever shortening 2016 construction season. We will work to negotiate the price to perform the work on behalf of the City, and develop a change order to Dirtworks' contract to add in the negotiated scope.

Construction Administration, Inspection, & Quality Assurance Testing. HDL will provide additional full-time construction administration, inspection, and QA testing for the proposed improvements. We anticipate that Dirtworks will need an additional 2 weeks of construction time to finish the additional scope. HDL will provide these additional services based on the scope of work presented in our fee proposal submitted to the City and approved under Amendment 10 to our contract.

### **BASIC ASSUMPTIONS**

The following basic assumptions were used to prepare this estimate:

1. We do not anticipate updating a design study report, or performing utility coordination for this project. Based on survey performed for the original Phase 4 project, the only utility is natural gas, located on the east side of the existing road.
2. No public involvement will be performed.
3. Our scope of work does not include a geotechnical investigation.
4. There will be no landscaping component to the project, except to topsoil and seed the disturbed areas.
5. The City will pay permit review fees directly.
6. Design and construction of natural gas, power, telephone and cable television utility relocations, if necessary, are not included and will be provided by the utility companies.
7. Traffic Control Plans are not included in our scope of services, but will be required of the construction contractor.
8. Design of a temporary water system is not included in our scope of services, but will be required of the construction contractor.
9. A Storm Water Pollution Prevention Plan is not included in our scope of services, but will be required of the construction contractor.

SCHEDULE

HDL has already begun performing work under this scope with budget from the previously approved Amendment 10 for Phase 4 construction phase services. We understand the importance of completing the design quickly to allow for construction during the summer of 2016 and we will work diligently toward completion of design and change order negotiation. Dirtworks' current construction schedule dictates that they will be done with Bailey Avenue and West Beaver Street by late August. It is our intent to have a scope of work and price negotiated with them prior to that date to allow for a seamless transition to work on the east side of Alaska Street. Therefore, we will work towards completion of design by August 5, and award of the Change Order by August 19.

FEE

We propose to provide the aforementioned services on a time and expenses basis at our published hourly labor rates and a discounted 5% mark-up of subcontracts and reimbursable expenses for a fee not to exceed **\$64,145** as detailed on the attached worksheet. Please note that time for non-professionals include a portion of their hours at overtime rates to account for our additional payroll costs due to the fast-track schedule.

We appreciate the opportunity to provide this proposal and look forward to assisting the City with this important project. If you have any questions, please contact me at 746-5230.

Sincerely,

HDL Engineering Consultants, LLC



David Lundin, P.E.  
Principal/Civil & Environmental Engineer

attach: Fee Worksheet dated July 27, 2016, 2 pages

cc: Chris Bowman, P.E., HDL  
Greg Wickham, City of Palmer

## FEE PROPOSAL WORKSHEET

### *Engineering Services for*

#### Sherrod Area Water and Street Improvements - Phase 4, Bonanza St. Amendment

<u>TASK</u>	<u>ACTIVITY</u>	<u>QTY</u>	<u>RATE</u>	<u>HDL LABOR*</u>	<u>REIMBURSABLE EXPENSES</u>	<u>SUB- CONTRACTS</u>	<u>SUBTOTAL</u>	<u>TOTAL</u>
<b>2.0</b>	<b><i>Surveying</i></b>							<b>\$17,290</b>
2.1	<u>Research</u>						\$980	
	Surveying Manager (PLS)	4 hrs	@ \$145	\$580				
	Surveying Technician	4 hrs	@ \$100	\$400				
2.2	<u>Survey Field Work</u>						\$11,730	
	Surveying Manager (PLS)	6 hrs	@ \$145	\$870				
	1-person Survey Crew	40 hrs	@ \$150	\$6,000				
	2-person Survey Crew	16 hrs	@ \$210	\$3,360				
	Surveying Technician	8 hrs	@ \$125	\$1,000				
	Reimbursable Expense	1 budget	@ \$500		\$500			
2.3	<u>Topographic Drawing</u>						\$4,580	
	Surveying Manager (PLS)	4 hrs	@ \$145	\$580				
	Surveying Technician	32 hrs	@ \$125	\$4,000				
<b>3.0</b>	<b><i>Environmental Review &amp; Permits</i></b>							<b>\$1,270</b>
3.1	<u>Categorical Exclusion Review</u>						\$650	
	Environmental Manager	2 hrs	@ \$155	\$310				
	Environmental Specialist	4 hrs	@ \$85	\$340				
3.2	<u>ADEC Coordination</u>						\$620	
	Civil Engineer	2 hrs	@ \$130	\$260				
	Engineering Assistant	4 hrs	@ \$90	\$360				

## FEE PROPOSAL WORKSHEET

### Engineering Services for

#### Sherrod Area Water and Street Improvements - Phase 4, Bonanza St. Amendment

TASK	ACTIVITY	QTY	RATE	HDL LABOR*	REIMBURSABLE EXPENSES	SUB- CONTRACTS	SUBTOTAL	TOTAL
<b>5.0</b>	<b><i>Final Design</i></b>							<b>\$24,000</b>
5.1	<u>Management/Coordination/Quality Assurance</u>						\$2,720	
	Principal Civil Engineer	16 hrs	@ \$170	\$2,720				
5.2	<u>Final Construction Plans</u>						\$15,560	
	Civil Engineer	32 hrs	@ \$130	\$4,160				
	Engineering Assistant	80 hrs	@ \$90	\$7,200				
	Designer/Drafter	40 hrs	@ \$105	\$4,200				
5.3	<u>Construction Cost Estimate</u>						\$5,720	
	Civil Engineer	8 hrs	@ \$130	\$1,040				
	Engineering Assistant	24 hrs	@ \$90	\$2,160				
	Designer/Drafter	24 hrs	@ \$105	\$2,520				
<b>8.0</b>	<b><i>Additional Construction Phase Services</i></b>							<b>\$21,560</b>
8.1	<u>Change Order Negotiation</u>						\$2,440	
	Principal Civil Engineer	4 hrs	@ \$170	\$680				
	Civil Engineer	8 hrs	@ \$130	\$1,040				
	Engineering Assistant	8 hrs	@ \$90	\$720				
8.2	<u>Construction Administration - Office (2 weeks)</u>						\$6,160	
	Principal Civil Engineer (4 hrs/wk)	8 hrs	@ \$170	\$1,360				
	Project Manager/Engineer (16 hrs/wk)	32 hrs	@ \$130	\$4,160				
	Clerical (2 hr/wk)	4 hrs	@ \$70	\$280				
	Vehicle (1/2 day rate)	9 days	@ \$40	\$360				
8.3	<u>Inspection Services (2 weeks)</u>						\$12,960	
	Inspector (40 hrs/wk straight time)	80 hrs	@ \$90	\$7,200				
	Inspector (20 hrs/wk overtime)	40 hrs	@ \$120	\$4,800				
	Vehicle (1 day rate)	12 days	@ \$80	\$960				
<b>Subtotal</b>				<b>\$63,620</b>	<b>\$500</b>	<b>\$0</b>		<b>\$64,120</b>
Markup**					\$25	\$0		\$25
<b>Total Fee</b>				<b>\$63,620</b>	<b>\$525</b>	<b>\$0</b>		<b>\$64,145</b>
*also includes those expenses charged without a markup								
**5% for subcontracts, 5% for reimbursable expenses								