PROJECT TITLE: Five Mile Creek, Chitina Stream Gaging  

RFP #: 21039  

PROJECT SITE (City, Village, etc.) Chitina, Alaska  

AGENCY CONTACT: Michele Hope, Sr. Contracting Officer  
Phone: (907) 771-3036  Fax: (907) 771-3044  

ESTIMATED AMOUNT OF PROPOSED CONTRACT: $30,000 to $75,000 for two years  

REQUIRED SERVICES: are described in the enclosure consisting of two pages, dated October 1, 2020.  

REQUIREMENTS FOR PROPOSING: Offerors interested in responding to this request must meet the following minimum requirements. Except as noted, the Offerors may meet these requirements through the use of qualified individuals of the Offeror or subcontractors:  
- Three years experience in stream gaging installation, monitoring, maintenance, and development of rating curves, preferably in Alaska streams prone to freezing  

TENTATIVE SOLICITATION SCHEDULE:  
The schedule of events set out herein represents the Authority’s best estimate of the schedule that will be followed.  
Proposals due October 13, 2020  
Intent to Award Issued October 16, 2020  
Finalize Scope of Work and Contract Execution October 21, 2020  
It is the intent of the Agency to award the work after 5 days per 3 AAC 109.330.  

Note: Offerors shall carefully review this solicitation for defects and questionable or objectionable material. Comments concerning defects and objectionable material must be made in writing and received by the purchasing authority before proposal due date. This will allow issuance of any necessary addenda. It will also help prevent the opening of a defective solicitation and exposure of Offeror’s proposals upon which award could not be made. Protests based upon any omission, error, or the content of the solicitation will be disallowed if not made in writing before the proposal due date.  

PERIOD OF PERFORMANCE: Begin: October 22, 2020  
End: September 30, 2021 with the option to renew for 1 additional year.  

PROPOSAL FORMAT  
Written proposals to provide the required services shall consist of the enclosed “Part B - Proposal Form”, completed as indicated, plus a letter not to exceed ten (8.5” x 11”) pages. If a Price Estimate is required, the page limit does not include the Price Estimate. Proposals that exceed the page limit may be disqualified. Proposals may be faxed, emailed, or hand delivered to the Contracting Agency.
PRICE AND METHOD OF PAYMENT

☐ A Price Estimate is NOT required with your proposal. The selected Offeror shall submit a Price Estimate within one business day following a request from the Contracting Agency.
☒ A Price Estimate is required with your proposal.

A Price Estimate shall include all tasks to perform the contract and be prepared in the format shown below. Note that a Price Estimate is not a bid. It is a negotiable offer. A Fixed Price contract is desirable; however, a Cost Reimbursement contract may result if a Fixed Price cannot be negotiated.

<table>
<thead>
<tr>
<th>PRICE ESTIMATE FORMAT (if required per above)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. * Direct Costs of Direct Labor (DCDL). Provide a table with the following columns (Names required only for key staff and persons &quot;in-responsible-charge&quot;):</td>
</tr>
<tr>
<td>Job Classification</td>
</tr>
<tr>
<td>IDC Rate: ____%</td>
</tr>
<tr>
<td>2. * Indirect Costs (IDC).</td>
</tr>
<tr>
<td>3. Subcontracts. List each, the amount for each and attach an estimate in this format for each.</td>
</tr>
<tr>
<td>Total Subcontracts $</td>
</tr>
<tr>
<td>4. Expenses. (Equipment, transportation, food and lodging, reproduction, etc. - if not included in Indirect Costs.) Amounts shall be based on actual cost to the Offeror, without any profit or other markup. Provide a table with the following columns:</td>
</tr>
<tr>
<td>Item</td>
</tr>
<tr>
<td>Total Cost $</td>
</tr>
<tr>
<td>6. * Proposed Fee. List a proposed amount (not a percentage) for profit.</td>
</tr>
<tr>
<td>Fee $</td>
</tr>
<tr>
<td>Total Price $</td>
</tr>
</tbody>
</table>

* Sole proprietorships and small firms that do not maintain an accounting system that separately identifies costs for "payroll" benefits and overhead, for routine allocation of such costs to jobs, may omit items 2, 5, & 6 if the Rates ($/hr) in Item 1 are proposed as Billing Rates (DCDL + IDC + FEE). Firms that routinely allocate Indirect Costs to projects may not use Billing Rates for this estimate.

SUBMITTAL DEADLINE AND LOCATION

DATE: 10/13/20 PREVAILING TIME: 2:00 PM
FAX: (907) 771-3044
OR Email: MHOPE@AIDEA.ORG

Hand deliver proposal directly to following location, and person, if named; or fax to a number above; or email to the email address above:

Alaska Energy Authority
Attn: Michele Hope
813 West Northern Lights
Anchorage, AK 99503

When submitting proposals, please make sure to identify the project title and the RFP number on the outer envelope of the submittal package

Late proposals will not be considered. Offerors are responsible to assure timely delivery and receipt. Any addendum issued less than 24 hours prior to a Deadline will extend that Deadline by a minimum of an additional 24 hours. The Contracting Agency shall not be responsible for any communication equipment failures or congestion and will not extend the deadline for any proposals not received in their entirety prior to the deadline. Except for hand delivered proposals, confirmation of receipt by telephone or other means four hours or less prior to deadline will not be provided. (An out-of-town/state Offeror may electronically transmit their proposal to a local personal representative who may reproduce a copy of it and deliver it "in person" to the submittal location prior to the deadline.)
Organization of Submittal

Submissions should be prepared and organized in a clear and concise manner, and must include all information required by this IRFP. Headers, titles, or tabs should be used to identify required information. The submittal shall include an introductory letter indicating the Consultant’s interest in offering these services to the Authority and highlighting its qualifications to perform this engagement. Also include the availability of the company to complete the project. Include company name, authorized contact person, address and telephone number.

BASIS OF SELECTION

This solicitation does not guarantee that a contract will be awarded. All proposals may be summarily rejected. Our intent, however, is to select a Contractor based on the following criteria:

1) Project Understanding, Methodology and Work Plan (40 percent)
   Provide a description of Consultant’s Alaska experience in stream gaging installation, monitoring, maintenance, and development of rating curves. Identify staff to perform work and their experience. State staff experience with three or more streams in Alaska, preferably small streams. Provide client name and contact information for each project.

2) Personnel & Firm Qualifications, Experience (30 percent)
   This includes a demonstrated understanding of the objective, scope and purpose of the contract, with a specific explanation of how the consultant proposes to achieve the Authority’s goal. Address where the gage may be installed and why, how data is to be collected, data issues, and if gage is not installed at potential intake location how data will be adjusted to give estimated flows at intake. Provide schedule to install gage to obtain data prior to freeze-up and frequency of trips to download data, measure stage and discharge, and maintain gage. Innovative suggestions that may increase the value of the Consultant to the Authority will be considered. The approach should also address how communications to the Authority shall be maintained.

3) Price Estimate (30 percent).
   Price Estimate is for the first year of the contract. Contractor rate increases for second year must be requested 30 days prior to contract expiration date and will be negotiated for no more than 3%.

Proposals will be evaluated per attached Evaluation Guidelines.

END OF PART A
Executive Summary

On behalf of Chitina Electric Inc. (CEI), the Alaska Energy Authority (AEA or the Authority) is seeking proposals from qualified professionals (“Consultant”) to install and maintain a stream gage on Fivemile Creek, located in Chitina, AK. There will be subsequent solicitations for completing the design and construction of an approximately 250-kW run-of-river hydroelectric project on Fivemile Creek, with an intake located at approximately river mile (RM) 2.22 as seen on the attached project layout (Attachment 1). The preferred gage location is to be installed at or above the Edgerton Highway at a suitable site with good access to provide quality data collection. A qualified consultant is to measure continuous discharge, establish discharge-stage relationship, and develop an annual rating curve and hydrograph of daily discharge for Fivemile Creek. Land above the highway right of way is owned by the Chitina Native Corporation and they will provide access for installing and accessing the gage on their property. It is the Authority’s goal for a gage to be installed as soon as possible to start collecting data prior to freeze up.

Background

Fivemile Creek is a minor creek that drains a north-west facing mountainous basin located in the northerly periphery of the Chugach Mountains north of the Gulf of Alaska. The total basin measures 15.38 square miles in area (Attachment 1). The basin’s westerly divide consists of several mountain summits and interconnecting saddles and ridges at 4,500 to 5,500 foot elevation. The upper third of the basin is alpine tundra, and the lower two thirds are vegetated by mature spruce/alder forest. The creek exits the mountains onto the Copper River valley floor, traverses its roughly-half-mile long alluvial fan and discharges to the Copper River at 600 foot elevation.

The local climate is transitioning from maritime characteristics along the gulf coast (wet and moderately cool) to the continental characteristics of the Copper River Basin (dry with extreme seasonal temperatures) with greater emphasis on interior continental characteristics and common incursions of more moderate weather from the gulf coast. Mean annual precipitation across the basin ranges from 15 to 40 inches and mean minimum January temperature varies across the basin from minus 4 to minus 8°F.

There has been limited data collection and hydrology analysis. Historical flow data (Attachment 2) and stage correction (Attachment 3) memos are attached.

Deliverables:

Installation of a stream gage and equipment to measure continuous discharge at a suitable location in Fivemile Creek by November 2020, prior to freeze-up.

Within a week of each site visit the consultant shall provide a 2-page or so trip report of gage and stream observations with photo documentation and an excel file containing stage and discharge data in cubic feet per second by date. The initial trip report shall include location of installation(s) on a map, GPS coordinates, and photographs of installation and stream conditions.

The consultant shall produce an annual report and deliver all data electronically. The report shall include a table of monthly average, maximum, and minimum flows, a rating curve for the gage site and an estimated rating curve for the intake location if gaged at a different location, and a plot of daily average flows (gage and intake) by date.
Attachment 1

Fivemile Creek Hydroelectric Project Location and Layout

NOTES:
1. Contours are 25-ft interval, based on Lidar survey.
MEMORANDUM
DATE: February 28, 2020 (Revision 2 – June 30, 2020)
TO: David Brailey, Project File
FROM: Joel Groves, PE Polarconsult Project Manager
SUBJECT: Hydrology Memo for Five Mile Creek Hydroelectric Project - Chitina, Alaska

REVISION 2
Prior memo versions have been revised to:
1. Address CEI and AEA review comments.

1.0 INTRODUCTION AND BACKGROUND
Chitna Electric, Inc. (CEI) is developing a hydroelectric project at Five Mile Creek approximately five miles north of the community of Chitina, Alaska. As part of the development process, CEI conducted a hydrology study from 2008 to 2010 to characterize the resource potential at Five Mile and guide project design. CEI’s consultants previously developed 65-percent design plans and completed partial permitting efforts for the project (CRW 2012, CRW 2014). CEI retained Polarconsult Alaska, Inc. (Polarconsult) in 2019 to advance design and permitting for the hydro project. Polarconsult had previously been involved in the project through 2010, and contributed to the original hydrology study.

Review of currently available information found no published record of the original primary hydrology data at Five Mile.1 The existing published hydrology analysis (Clifton 2011) includes a 14-month period of record at Five Mile and record extension to a basin with significantly different characteristics (Gulkana River, USGS gauge #15200280). The Clifton analysis acknowledged significant limitations these factors impose on hydrology study conclusions.

To address these limitations and support project design and permitting, Polarconsult reviewed the available data resources listed in Table 1 to provide a summary of primary hydrology data at Five Mile and additional data analysis to supplement prior findings.

Table 1: Available Data Resources

| CRW Conceptual Design Report and relevant Clifton Lab appendices (CRW 2012, CRW 2014) |
| Polarconsult file archives (Polarconsult 2019) |
| AEA SharePoint File Server (AEA 2019) |
| Personal files provided by Daniel Hertrich (Hertrich 2019) |

Polarconsult’s review identified an additional six months of data (March through August 2010) for the upper weir gauging station that was not used in the prior analysis. This memo documents prior analysis and provides current analysis of all available data.

2.0 SUMMARY OF FINDINGS
Review identified additional upper weir stage data from March 2, 2010 to August 20, 2010 that was not included in prior analyses. These data are used to develop updated rating curves for the upper gauging station and updated hydrograph based on all available data for the site.

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1 ‘Primary’ hydrology data includes information such as the stage record, documentation of stage record adjustments, direct flow measurements, manual stage measurements, and related information that is typically documented so the quality of the hydrology study results can be evaluated by interested parties.
These data were analyzed to develop the following information for project design and permitting:

1. Correlation and record extension to characterize long term Five Mile Creek hydrology. Analysis of regional gauges by Brailey Hydrologic concluded that there are no suitable record extension candidates for Five Mile Creek. Regional hydrology and meteorological records were reviewed to conclude that the 2008 – 2010 hydrology record at Five Mile Creek is expected to be reasonably representative of resource hydrology.

2. Flood frequency analysis to provide guidance for design flood for project works.

3. Resultant record characterizes Five Mile Creek hydrology with two seasons of quantitative winter flow data (January to May, 2008 and December to May, 2009 - 10), one season of estimated quantitative summer flow data (May to August, 2010), and two seasons of qualitative non-winter flow data (visual observations, May to October, 2017 and 2019).

3.0 HYDROLOGY DATA

3.1 Creek and Basin Description

Five Mile Creek is a minor creek that drains a north-west facing mountainous basin located in the northerly periphery of the Chugach Mountains north of the Gulf of Alaska. The total basin measures 15.38 square miles in area (Figure 1). The basin’s westerly divide consists of several mountain summits and interconnecting saddles and ridges at 4,500 to 5,500 foot elevation. The upper 1/3rd of the basin is alpine tundra, and the lower 2/3rds are vegetated by mature spruce/alder forest. The creek exits the mountains onto the Copper River valley floor, traverses its roughly-half-mile long alluvial fan and discharges to the Copper River at 600 foot elevation.

The local climate is transitioning from maritime characteristics along the gulf coast (wet and moderately cool) to the continental characteristics of the Copper River Basin (dry with extreme seasonal temperatures) with greater emphasis on interior continental characteristics and common incursions of more moderate weather from the gulf coast. Mean annual precipitation across the basin ranges from 15 to 40 inches and mean minimum January temperature varies across the basin from minus 4 to minus 8°F (USGS 2003).

Figure 1: Project Location and Vicinity Map

3.2 Available Hydrology Data

Two gauging stations were established at Five Mile Creek for this project. No prior gauging efforts on this creek are known. Table 2 summarizes available hydrology data for both sites, and Table 3 summarizes available stage and flow measurements.
Table 2: Summary of Hydrology Data for Five Mile Creek

<table>
<thead>
<tr>
<th>Location</th>
<th>Basin Area (sq.mi.)</th>
<th>Elevation (feet)</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Period of Record Begin Date</th>
<th>End Date</th>
<th>Number of Records (days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Five Mile Creek</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower Weir</td>
<td>13.58</td>
<td>660</td>
<td>61°34'55&quot;</td>
<td>144°26'19&quot;</td>
<td>1/7/2008</td>
<td>5/1/2008</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>May to Oct. 2017, 2019</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Five Mile Creek</td>
<td>12.11</td>
<td>1570</td>
<td>61°34'42&quot;</td>
<td>144°28'57&quot;</td>
<td>8/28/2009</td>
<td>8/20/2010</td>
<td>357</td>
</tr>
<tr>
<td>Upper Weir</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gulkana River</td>
<td>1,760</td>
<td>1,852</td>
<td>62°31'15&quot;</td>
<td>145°31'51&quot;</td>
<td>10/1/1972</td>
<td>12/10/2019</td>
<td>7,197</td>
</tr>
</tbody>
</table>

1. Basin areas interpreted from LiDAR and/or other published topographic data. The basin area for the lower gauging station may vary as some divides proximate to the Edgerton Highway are ambiguous.
2. Approximate elevation. Interpreted from project LiDAR data.
3. The lower gauge was manually read during the indicated period of record. The upper gauge was fitted with a data logger recording at a 15-minute interval.
4. Periodic visual observations at the culvert outlet to assess flow by Mr. Finnesand. Mr. Finnesand performed field work for the 2008-2010 winter flow measurement study and characterized summer flows as being comparable to winter flow (occurrences in 2017) or well above winter flow and project design flow (consistent through 2019 season) (Finnesand 2019).

3.2.1 Lower Weir Gauging Station

The lower weir gauging station consists of a standard Cipolletti weir constructed of plywood that can be bolted to the outlet of the culvert that passes beneath the Edgerton Highway (Photographs 1 to 4). This weir is described in Figure 2. This weir is only suitable for measuring low flows as the pressure on the weir during common high flows would expectedly destroy it. The weir was installed in the late winter of 2007-08 and 2009-10. This station was never fitted with a data logger, rather CEI personnel manually measured water stage in the pool behind the weir about twice a month during the late winter season. No concurrent flow measurements are known to exist at the lower weir gauging station. All 2008 to 2010 flow data was calculated from the station’s rating curve (equation 1). The weir hardware is still in good condition (Finnesand 2019).

3.2.2 Upper Gauging Station

The upper gauging station consists of a plywood weir that was constructed across Five Mile Creek at river mile (RM) 2.27 on August 28, 2009 (Photograph 5). The weir formed a small pool in the creek into which a pressure transducer (PT) was installed. A data logger recorded stage data at 15-minute intervals. No temperature data was logged at this site. The weir was destroyed sometime between site visits on March 9, 2010 and August 20, 2010. Review of stage data suggests the weir most likely failed during high flows on May 27, 2010. The broken weir remains in place (Photographs 6, 7, and 8).

Stage data from this station exists for the period August 28, 2009 to August 20, 2010. AEA personnel visited the gauge to perform maintenance on March 23, 2016 (AEA 2016), but no stage data download is known to exist from this site visit. Site photographs indicate the data logger was missing on October 14, 2018 (BPE 2018, Photograph 7). The fate of the logger hardware (and any on-board data) is unknown. The type of logger used had a large memory, and could provide a useful additional hydrology record if ever recovered.
### Table 3: Five Mile Creek Flow and Stage Measurements

<table>
<thead>
<tr>
<th>Local Date/Time</th>
<th>Party</th>
<th>Measured Flow (cfs)</th>
<th>Measured OSS Stage (feet)</th>
<th>Concurrent PT Reading (feet)</th>
<th>Method / Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Five Mile Creek at Upper Weir Gauging Station</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8/28/2009 19:00</td>
<td>Hertrich</td>
<td>17.3</td>
<td>2.1</td>
<td>2.01</td>
<td>CV-MM</td>
</tr>
<tr>
<td>3/9/2010</td>
<td>CEI</td>
<td>NM</td>
<td>1.22</td>
<td>1.14</td>
<td></td>
</tr>
<tr>
<td>8/20/2010 10:00</td>
<td>Paulus</td>
<td>12.9</td>
<td>1.07</td>
<td>1.06</td>
<td>CV-MM</td>
</tr>
<tr>
<td>3/23/2016 11:00</td>
<td>AEA</td>
<td>2.55</td>
<td>NM</td>
<td>2.8</td>
<td>Tracer</td>
</tr>
<tr>
<td><strong>Five Mile Creek at Lower Weir Gauging Station</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/7/2008</td>
<td>CEI</td>
<td>2.4</td>
<td>0.44</td>
<td>-</td>
<td>Weir</td>
</tr>
<tr>
<td>2/6/2008</td>
<td>CEI</td>
<td>2.3</td>
<td>0.42</td>
<td>-</td>
<td>Weir</td>
</tr>
<tr>
<td>2/20/2008</td>
<td>CEI</td>
<td>2.1</td>
<td>0.40</td>
<td>-</td>
<td>Weir</td>
</tr>
<tr>
<td>3/5/2008</td>
<td>CEI</td>
<td>1.9</td>
<td>0.38</td>
<td>-</td>
<td>Weir</td>
</tr>
<tr>
<td>3/31/2008</td>
<td>CEI</td>
<td>1.6</td>
<td>0.33</td>
<td>-</td>
<td>Weir</td>
</tr>
<tr>
<td>4/14/2008</td>
<td>CEI</td>
<td>1.3</td>
<td>0.29</td>
<td>-</td>
<td>Weir</td>
</tr>
<tr>
<td>4/24/2008</td>
<td>CEI</td>
<td>1.6</td>
<td>0.33</td>
<td>-</td>
<td>Weir</td>
</tr>
<tr>
<td>5/1/2008</td>
<td>CEI</td>
<td>2.3</td>
<td>0.42</td>
<td>-</td>
<td>Weir</td>
</tr>
<tr>
<td>12/4/2009</td>
<td>CEI</td>
<td>3.8</td>
<td>0.58</td>
<td>1.41</td>
<td>Weir</td>
</tr>
<tr>
<td>12/31/2009</td>
<td>CEI</td>
<td>3.2</td>
<td>0.52</td>
<td>1.30</td>
<td>Weir</td>
</tr>
<tr>
<td>2/3/2010</td>
<td>CEI</td>
<td>2.4</td>
<td>0.44</td>
<td>1.25</td>
<td>Weir</td>
</tr>
<tr>
<td>2/25/2010</td>
<td>CEI</td>
<td>2.1</td>
<td>0.40</td>
<td>1.24</td>
<td>Weir</td>
</tr>
<tr>
<td>3/25/2010</td>
<td>CEI</td>
<td>1.9</td>
<td>0.38</td>
<td>1.11</td>
<td>Weir</td>
</tr>
<tr>
<td>4/13/2010</td>
<td>CEI</td>
<td>1.8</td>
<td>0.35</td>
<td>1.08</td>
<td>Weir</td>
</tr>
<tr>
<td>5/1/2010</td>
<td>CEI</td>
<td>2.3</td>
<td>0.42</td>
<td>1.11</td>
<td>Weir</td>
</tr>
<tr>
<td>5/12/2010</td>
<td>CEI</td>
<td>3.6</td>
<td>0.56</td>
<td>1.30</td>
<td>Weir</td>
</tr>
<tr>
<td>8/20/2010 14:00</td>
<td>Paulus</td>
<td>11.9</td>
<td>-</td>
<td>1.06</td>
<td>CV-MM</td>
</tr>
</tbody>
</table>

### Acronyms
- CEI: Chitina Electric, Inc. personnel.
- cfs: cubic feet per second
- NM: not measured.
- OSS: outside staff. The physical staff board installed at the gauging station.
- PT: pressure transducer.
- Tracer: ‘Sudden dose’ tracer method using a fluorescent dye tracer (Hudson 2005).
- Weir: Flow is calculated based on a weir equation (equation 1, see report narrative). Stage is reported as the water depth measured from the weir sill up to the water surface elevation upstream of the weir nappe.

### Notes
1. All lower gauging station flow data are calculated from manual stage readings and weir equation.
2. All PT data is for the upper weir gauging station. Concurrent upper weir data is reported with lower weir data. The time of stage readings at the lower weir was not recorded. Upper weir PT readings are representative for the day. Days with PT reading fluctuations of more than 0.05 feet are noted. All data are unadjusted.
3. Water depth measured from the weir crest down to the water surface elevation upstream of the weir nappe. Converted to OSS stage based on documented weir crest elevation of 2.14’ in OSS datum (Polarconsult 2009a).
4. Average of two concurrent measurements is reported. The coefficient of variance between the two measurements is less than 10% unless indicated otherwise.
5. Upper weir PT reading fluctuated from 1.10 to 1.16 on this date.
6. Upper weir PT reading fluctuated from 1.30 to 1.45 on this date.
Figure 2: Five Mile Creek Lower Weir Installation (Polarconsult 2007)
4.0 HYDROLOGY ANALYSIS

4.1 Station Rating Curves

4.1.1 Lower Weir Gauging Station

The rating curve for the lower weir gauging station (Equation 1) is based on the Cipolletti weir equation and indicated weir dimensions. Figure 3 shows the stage-discharge curve.

Equation 1, Lower Weir Rating Curve: \[ Q_{LW} = 8.42 \times H^{1.5} \]

Where:
- \( Q_{LW} \) = flow at lower weir in cubic feet per second
- \( H \) = water depth above the lower weir sill in feet.
- Valid for \( H \) from 0 to 1.0.

Figure 3: Lower Weir Gauging Station Rating Curve

4.1.2 Upper Weir Gauging Station

Review of prior reports and data indicate only a preliminary weir rating curve was prepared for the upper gauging station. This curve was based on one flow measurement, standard weir equations and the upper weir geometry. Equation 2 is this preliminary curve.

Equation 2, Upper Weir Preliminary Rating Curve (for reference only):

\[ Q_{UW} = (0.479 + (0.033 \times H)) \times (8.03) \times (50.5/12) \times H^{1.5} \]

Where:
- \( Q_{UW} \) = flow at upper weir in cubic feet per second
- \( H \) = water depth above the upper weir sill in feet.

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2 The rating equation on Figure 2 is incorrect. Equation 1 reflects the indicated weir geometry and the Cipolletti equation, and is consistent with prior reported hydrology data (Polarconsult 2008 at Table 2, Page 8).
All available hydrology data was reviewed and a final rating curve developed for the upper weir station. Equation 3 is the final curve for the upper gauging station. Figure 4 shows available stage and flow data, the preliminary rating curve, and the final rating curve #1 for this station.

**Equation 3, Upper Weir Rating Curve #1:**

For $H < 2.05$: $Q_{UW} = 1.6 + 15.5 \left( H - 1.00 \right)^{1.75}$

For $H > 2.05$: $Q_{UW} = 1.6 + 15.5 \left( H - 1.00 \right)^{1.75} + 3.33 \times 20 \times \left( H - 2.05 \right)^{1.5}$

Where: $Q_{UW}$ = flow at upper weir in cubic feet per second  
$H$ = water depth above the pressure transducer in feet (adjusted).  
Valid for $H$ from 0 to 2.5.  

**Figure 4: Upper Weir Gauging Station Rating Curve #1**

Equation 3 is valid prior to the assumed weir failure on May 27, 2010. Equation 4 is the estimated rating curve after the failure. The Equation 4 rating curve is based on the data in Table 4, and is shown in Figure 5. This curve is based on the following assumptions:

- The site’s stream bed section geometry, including the weir debris, remained stable from May 27, 2010 through August 20, 2010.

- The pressure transducer installation was not affected by the weir failure or other events.

- The calculated flow at the time of weir failure (65 cfs) is reasonably accurate. This flow is more than 400% of the highest flow measurement used to develop rating curve #1 (eqn 3).
Available data suggests these assumptions are reasonable, but flow calculated from this stage record may be significantly incorrect. Appropriate caution is warranted in use of these data.

**Equation 4, Upper Weir Rating Curve #2: \( Q_{\text{UW}} = 1.5 + 17.8 \, (H-1.32)^{2.9} \)**

Where:
- \( Q_{\text{UW}} \) = flow at upper weir in cubic feet per second
- \( H \) = water depth above the pressure transducer in feet (adjusted).

Valid for \( H \) from 0 to 2.0.


**Figure 5: Upper Weir Gauging Station Rating Curve #2**

**Table 4: Flow and Stage Measurements Used for Upper Weir Rating Curve #2**

<table>
<thead>
<tr>
<th>Local Date/Time</th>
<th>Party</th>
<th>Measured Flow (cfs)</th>
<th>PT Stage Reading (feet, adj.)</th>
<th>Method / Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Five Mile Creek at Upper Weir Gauging Station</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Point of zero flow -</td>
<td>0</td>
<td>1.12</td>
<td>Note 1</td>
<td></td>
</tr>
<tr>
<td>5/27/2010 19:00</td>
<td>-</td>
<td>65</td>
<td>2.87</td>
<td>Note 2</td>
</tr>
<tr>
<td>8/20/2010 14:00</td>
<td>Paulus</td>
<td>12.9</td>
<td>2.18</td>
<td>CV-MM ³</td>
</tr>
</tbody>
</table>

**Acronyms:**
cfs: cubic feet per second  

**Notes:**
1. Point of zero flow is estimated from available site information.
2. Flow is estimated from calculated flow prior to weir failure.
3. Average of two concurrent measurements is reported. The coefficient of variance between the two measurements is less than 10% unless indicated otherwise.
4.2 Station Hydrographs

Adjusted stage data for the lower weir and upper weir gauging stations are presented on Figure 6. Upper station stage data is adjusted for ice effects and datum shifts per Brailey 2020.

Figure 7 presents measured flow adjusted to the upper gauging station and calculated flow based on the adjusted stage record (Figure 6) and rating curve equations (equations 3 and 4).

5.0 CONCLUSIONS

Based on review of available data:

1. Available data indicates the 2009-2010 hydrograph based on the upper gauging station period of record is representative of a typical year for Five Mile Creek and is appropriate to use for project design and economic analysis.

2. Available data cannot provide quantitative estimates of expected variability in year-to-year resource hydrology or resultant project performance.

3. Site-specific hydrology data is insufficient to generate customized flood frequency estimates. Estimates from published regional regression methods, with consideration of site-specific information, including the demonstrated long-term adequacy of the Edgerton Highway culvert at Five Mile Creek installed in 1969, are recommended for design.
Weather data is for Kenny Lake (National Climate Data Center Station #USC00504567).
Figure 7: Upper and Lower Weir Gauging Station Hydrographs, 2008 – 2010

- Measured Flow, Upper Gauge
- Calculated Flow, Lower Gauge (scaled to Upper Gauge)
- Calc Q Final (Eqns 3,4)
- Calc Q Final (Eqns 3,4)
- Daily Precipitation (McCarthy)
7.0 REFERENCES


CRW 2014. CRW Engineering Group, LLC. *Chitina, Alaska. Five Mile Creek Hydroelectric Project. 65% Design Drawings (31 sheets)*. August 2014. Anchorage, AK.


Polarconsult 2009b. Polarconsult Alaska, Inc. E-mail from Daniel Hertrich to Alan Fetters of AEA conveying interim weir equation for upper weir station. October 28, 2009. Anchorage, AK.


NCDC 2020. National Climatic Data Center. Daily weather data retrieved on February 27, 2020 for period of record at the following stations:

Chitina, AK (#USC00501824), Kenny Lake, AK (#USC00504567), May Creek, AK (#USC0042M015), McCarthy, AK (#USC00505757) [https://www.ncdc.noaa.gov/cdo-web/datatools/findstation](https://www.ncdc.noaa.gov/cdo-web/datatools/findstation)
8.0 PHOTOGRAPHS


Photograph 2. Lower weir installed at culvert outlet. CEI, January 9, 2008.


Dear Joel:

Per your request, Brailey Hydrologic reviewed stage data for a stream gaging station at the 1570-foot elevation on Five Mile Creek near Chitina, Alaska. The gaging station consisted of a plywood weir and associated equipment described by Polarconsult (2020). The purpose of the review was to determine whether streamflows computed using the Five Mile Creek data could be correlated with other streams in the Copper River basin to develop an extended streamflow record suitable for project economic analyses and design flood estimates. Polarconsult summarized the available hydrologic data and developed equations for computing streamflow using stage data from the Five Mile Creek gage (Polarconsult 2020). Because the raw stage data were affected by ice and flood damage to the weir, stage corrections are required for streamflow computations. The following sections address stage corrections, streamflow record extension, and flood frequency analyses.

**Stage Corrections.** Stage corrections were performed using Aquarius Workstation, a software program for computing streamflows from pressure transducer data. Normally, transducer data is corrected using manual measurements of stream stage. In this case, manual measurements are limited to August 28, 2009, March 9, 2010, and August 20, 2010. Review of the transducer data indicates that stage was affected by ice from October 30, 2009 through about May 8, 2010, and that weir failure caused a ~1-foot drop in water level May 27, 2010. Aquarius Workstation was used to correct these changes as shown on Figure 1. However, because of the lack of manual measurements to confirm these corrections, the corrected stage data should be considered estimated.

**Streamflow Record Extension.** The estimated stage and discharge data for Five Mile Creek were compared against other streams in the Copper River basin with concurrent gage data. As shown on Figure 2, USGS operated three gages in the Copper River basin during 2009-2010, and the Alaska Pacific River Forecast Center (APRFC) operated three gages. Additional APRFC gages on the Copper and Gakona Rivers are not shown due to similarity...
Figure 1. Five Mile Creek Raw and Corrected Stage Data

Figure 2. Copper Basin Gages and Weather Stations Active in 2009-2010
with USGS gage data for the Copper and Gulkana Rivers. Whereas USGS stage data are recorded at 15-minute intervals and are converted into streamflows using rigorous data processing protocols, APRFC data are limited to hourly or daily stage recordings that lack corresponding flow computations. As a result, APRFC’s recordings fail to capture the peak and average daily flows available for most USGS gages. Although ice precludes winter flow computations for both USGS and APRFC gages, USGS developed estimated winter flows for two of the three Copper basin USGS gages. Winter stage data is not available for APRFC gages, an important time period for evaluation of small hydroelectric systems.

Estimated flows on Five Mile Creek are compared against flows at Copper basin USGS gages on Figure 3. The Five Mile Creek flows were computed using stage-discharge relations developed by Polarconsult (2020). As shown on Figure 3, the USGS gages lack the spring breakup peak that dominates summer 2010 flows on Five Mile Creek, and the prominent October 2009 rainfall peak on Five Mile Creek is much diminished at the USGS gages. These differences suggest a poor correlation between Five Mile Creek and the USGS gages, indicating that these streams are not good candidates for streamflow record extension.

Figure 3. Estimated Flows on Five Mile Creek vs. Copper Basin USGS Gages

Corrected stage levels at the Five Mile Creek gage are compared against the measured stage at Copper basin APRFC gages on Figure 4. Although the Tonsina River shows the closest correspondence in stage, the 2009-2010 Tonsina measurements are limited to daily
Figure 4. Corrected Stage on Five Mile Creek vs. Copper Basin APRFC Gages

recordings at 12 pm Alaska Daylight Time (AKDT). A time lag is evident between Five Mile Creek and the Tonsina River, and the stage correspondence between the streams is inconsistent. Considering that additional error would be introduced from the Tonsina stage-discharge relation (which is imprecise), that daily recordings at 12 pm AKDT fail to capture annual peak flows, and that winter flows are not available for the Tonsina River, streamflow record extension using the Tonsina River is not recommended. Instead, computed 2009-2010 streamflows probably represent the best available estimate of the mean annual hydrograph for Five Mile Creek. The available Copper basin precipitation data suggest that 2009 and 2010 were relatively normal years, although 2010 annual precipitation at Glenallen was anomalously high (Figure 5).

Chitina Electric, Inc. personnel report that 2018 summer flows at Five Mile Creek were unusually low, qualitatively similar to typical winter flows at the highway culvert. Review of regional precipitation data (Figure 6) does not indicate unusually low precipitation for that season.

Flood Frequency Analysis. For streams with less than 10 years of systematic gage record, USGS recommends the use of regional regression equations to estimate the magnitude of low-frequency floods (Curran et al. 2016). In some cases, shorter periods of record can be extended by correlation with hydrologically similar streams. As shown above, however,
Figure 5. Copper Basin Annual Precipitation, 2005-2015

Figure 6. Copper Basin Monthly Precipitation, 2009-2019
none of the available Copper basin stream gage records are good candidates for extending the Five Mile Creek record.

Using procedures outlined in Curran et al. (2016), estimated flood frequencies for Five Mile Creek are provided on Table 1. These results were computed using the basin area upstream of the Edgerton Highway as determined by Polarconsult (2020) and an estimated annual precipitation of 30 inches. The annual precipitation estimate is based on average precipitation maps developed from the Parameter-Elevation Regressions on Independent Slopes Model (PRISM) developed by Oregon State University. The current set of PRISM maps is based on precipitation data from 1981 through 2010.

Table 1. Five Mile Creek Flood Frequency Estimates

<table>
<thead>
<tr>
<th>Annual Exceedance Probability</th>
<th>Return Period, years</th>
<th>Flood Estimate, ft³/s</th>
<th>90% Prediction Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Lower Limit</td>
</tr>
<tr>
<td>0.5</td>
<td>2</td>
<td>271</td>
<td>94.8</td>
</tr>
<tr>
<td>0.2</td>
<td>5</td>
<td>443</td>
<td>158</td>
</tr>
<tr>
<td>0.1</td>
<td>10</td>
<td>574</td>
<td>205</td>
</tr>
<tr>
<td>0.04</td>
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<td>751</td>
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<tr>
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<td>50</td>
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<td>304</td>
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<tr>
<td>0.01</td>
<td>100</td>
<td>1,030</td>
<td>347</td>
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<tr>
<td>0.005</td>
<td>200</td>
<td>1,180</td>
<td>384</td>
</tr>
<tr>
<td>0.002</td>
<td>500</td>
<td>1,390</td>
<td>429</td>
</tr>
</tbody>
</table>

Thank you for the opportunity to provide these services. Please call should you have any questions.

Sincerely,

David E. Brailey
Brailey Hydrologic

References Cited:

SMALL PROCUREMENT DOCUMENTS
PART B - PROPOSAL FORM

THIS COMPLETED FORM MUST BE THE FIRST PAGE. NO OTHER COVER SHALL BE USED.

Project Title: Fivemile Creek, Chitina Stream Gaging
RFP No.: 21039

PROPOSAL REQUIREMENTS

Proposals shall demonstrate comprehension of the objectives and services for the proposed contract; include a brief overview of what will be done; and show a sequence and schedule for each important task. Assumptions made in formulation of the proposal and the support expected from the Contracting Agency shall be defined. The key individuals who will perform services shall be named (including all who would be “in responsible charge” (Ref: AS 08.48) for Architecture, Engineering and/or Land Surveying with their Alaska registration number). Include a brief -- about one paragraph -- statement for each person named which describes experience directly related to the service(s) they will perform. Proposed subcontracts, if any, shall be explained. Resources -- support personnel, facilities, equipment, etc. -- current and projected workload could be summarized. Any unique qualifications or knowledge of the project, project area, or services to be provided, should be identified.

ALASKA STATUTORY PREFERENCE

☐ are  ☐ are not applicable to this contract.
If applicable, check the preference that you (Offeror) claim. Denali Commission Funding – Alaska Preference
☐ Alaska Bidder

PROPOSAL

The undersigned has reviewed Part A - RFP of these documents, understands the instructions, terms, conditions, and requirements contained therein and in the attached documents, and proposes to provide the required services described in Part A in accordance with the attached letter which constitutes our proposal to complete the project.

By my initials below, I certify that the Offeror and all Subcontractors identified in the Proposal shall comply with all requirements for the following items as explained in the Standard Provisions Booklet:

[ ] Alaska Licenses and Registrations.
[ ] Insurance, including Workers’ Compensation, Comprehensive or Commercial General Liability, and Comprehensive Automobile Liability.
[ ] Professional Liability Insurance as follows:
☐ As available.
☒ Minimum of $300,000.

I further certify that I am a duly authorized representative of the Offeror; that this Proposal accurately represents capabilities of the Offeror and Subcontractors identified for providing the services indicated. I understand that these Certifications are material representations of fact upon which reliance will be placed if this contract is awarded and that failure to comply with these Certifications is a fraudulent act. The Contracting Agency is hereby authorized to request any entity identified in this proposal to furnish information deemed necessary to verify the reputation and capabilities of the Offeror and Subcontractors. This proposal is valid for at least ninety days.

__________________________________________
Signature and Date

Name ....................... :
Title ......................... :
Offeror (Firm) ........... :
Street or PO Box ...... :
City, State, Zip ......... :
Telephone - Voice.... :
Telephone - Fax....... :

Federal Tax Identification No..... :
Type of Firm (Check one of the following):
☐ Individual  ☐ Partnership
☐ Corporation in state of...... :
☐ Other (specify)............... :

END OF PART B
EVALUATION INSTRUCTIONS FOR COMMITTEE

1. Do not wait until the last day before the Committee meeting to do your evaluations. Selection of the best Offeror is important to the Agency, the Offeror, and the credibility of the process. It demands your reasonable effort.

2. Review the RFP Package and any addenda. Note any revised or non-standard criteria. Ensure you have an understanding of what responses must contain and any issues they must address.

3. There shall be no discussion of proposals among Evaluators prior to the Evaluation Committee Meeting. If questions arise during your evaluation, consult with your Contracting Officer, who will resolve them and inform the other Evaluators of the issues as may be appropriate.

4. Do NOT contact any references until after the committee meeting to discuss proposals and then only if necessary regarding the top scored Offeror(s) and as a committee.

5. Preview each proposal to gain an overview of what they all contain. If there appears to be a potential conflict of interest in performing the evaluation duties, immediately bring this to the attention of the Committee Chairperson.

6. Copies of the offerors' proposals have been given to you as work copies. You are encouraged to mark comments on them or separate sheets regarding good or poor points of Offerors' responses. Remember to be professional in the language you use. No individual, formal statement of your evaluation will be required; however, such notes will remind you of the issues when the Committee discusses the proposals and also if you are called upon to discuss your evaluation with specific Offerors after the evaluation process is completed. These copies should be maintained by you until about a month following contract award - or resolution of any award protest - then they should be destroyed.

7. Read and evaluate all of the Offeror's responses to a single criterion; then proceed to another criterion until all are evaluated. Preferably you should rotate the order of Offerors when evaluating each criterion. Focus on what the text of each criterion description calls for, not just the title. Evaluate each response only for its applicability to the specific criterion for which it is given.

8. Base your ratings on what you read - not on any personal knowledge you may have concerning an Offeror. At this phase of the evaluation process, experience and other credentials described in proposals should be considered authentic. Any questions regarding the authenticity of statements in proposals, the relevance of referenced projects, how well they were accomplished, and your independent knowledge should be addressed when the committee meets to discuss the proposals.

9. EVALUATOR RATING SHEET

* Do not factor, average, assign point values, rate, or score proposals in any manner different than that explained below (except as may be clearly described in the RFP Package).

* Enter signature and date where indicated (plus other information if not already done).

* Rate your evaluation of each response to Criteria #1-6 and enter those ratings in the applicable blocks on the Evaluator Rating Sheet. Use the full range of ratings ("0" and "1 - 5") for each criterion which are scored by individual evaluators. Consider each criterion as if it were the only criterion for selection. For each criterion, you shall rate only one Offeror's response "5" which means it is the best response - even if all responses to the criterion are of lesser quality than expected. (Any inadequacies should be addressed during contract negotiations.) Other Offeror's responses should be rated (ranked) in descending order of 4, 3, 2, 1. If a criterion response clearly misses the intent or otherwise fails to adequately address the criterion, it should be rated "0". Of course, identical ratings of less than "5" will occur when the number of Offerors exceed five.

Ratings are relative. Your responsibility is to distinguish among responses to each criterion. Thus if there are only five Offerors, all or several Offerors should generally not receive the same rating for a criterion, e.g. "3", even if it may be difficult to make such decisions.

10. Provide copies of your completed Rating Sheets to the Committee Chairperson prior to the Committee Meeting.
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Article Number and Title
A1 Definitions
A2 Information and Services from Others
A3 Hold Harmless
A4 Insurance
A5 Occupational Safety and Health
A6 Equal Employment Opportunity
A7 Payments to the CONTRACTOR
A8 Changes
A9 Audits and Records
A10 CONTRACTING AGENCY Inspections
A11 Termination or Suspension
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A14 Proselytizing
A15 Covenant against Contingent Fees
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A19 Subcontractors Successors and Assigns
A20 Claims and Disputes
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A22 Taxes
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ARTICLE A1
DEFINITIONS

A1.1 Additional or Extra Services - Services, work products or actions required of the CONTRACTOR above and beyond provisions of the Agreement.

A1.2 Agreement – This Professional Services Agreement and its appendices that outline the terms and conditions regarding Contractor’s services during the authorized period of performance.

A1.3 Amendment - A written change to this Agreement.

A1.4 Change - A revision in services, complexity, character, or duration of the services or provisions of this Agreement.

A1.5 Executive Director – Executive Director of the Alaska Energy Authority (AEA).

A1.6 CONTRACTING AGENCY – Alaska Energy Authority (AEA).

A1.7 Procurement Officer - The individual or a duly appointed successor designated as the official representative to administer contracts for the CONTRACTING AGENCY.

A1.8 CONTRACTOR - The firm (person or any business combination) providing services.

A1.9 Contractor’s Manager - The CONTRACTOR’s representative in responsible charge of the project(s) and directly answerable for the required services.
A1.10 Project Manager – CONTRACTING AGENCY’s representative and the CONTRACTOR’s primary point of contract with the CONTRACTING AGENCY.

A1.11 Funding Agency - An agency of a Federal, State, Political subdivision, or Local Government which furnishes funds for the CONTRACTOR's compensation under this Agreement and which may have established regulations and requirements binding upon the CONTRACTING AGENCY and the CONTRACTOR.

A1.12 Notice to Proceed (NTP) - Written authorization from the CONTRACTING AGENCY to the CONTRACTOR to provide all or specified services in accordance with an existing Agreement.

A1.13 Statement of Services - Services and work products required of the CONTRACTOR by this Agreement.

A1.14 Subcontractor - CONTRACTOR engaged to provide a portion of the services by subcontract with the firm which is a party to this Agreement.

ARTICLE A2
INFORMATION AND SERVICES FROM OTHERS

A2.1 The CONTRACTING AGENCY may, at its election or in response to a request from the CONTRACTOR, furnish information or services from other contractors. If, in the CONTRACTOR's opinion, such information or services is inadequate, the CONTRACTOR must notify the CONTRACTING AGENCY of the specific service or material deemed inadequate and the extent of the inadequacy prior to use in the performance of this Agreement. The CONTRACTING AGENCY will then evaluate and resolve the matter in writing. Unless so notified by the CONTRACTOR, the CONTRACTING AGENCY may assume the information or services provided are adequate.

ARTICLE A3
HOLD HARMLESS

A3.1 See Appendix D, “Indemnification and Insurance”.

ARTICLE A4
INSURANCE

A4.1 See Appendix D, “Indemnification and Insurance”.

ARTICLE A5
OCUPATIONAL SAFETY AND HEALTH

A5.1 The CONTRACTOR and its Subcontractors shall observe and comply with the Federal Occupational Safety and Health act of 1970 and with all safety and health standards promulgated by the Secretary of Labor under authority thereof and with all State of Alaska Occupational Safety and Health Laws and regulations.

ARTICLE A6
EQUAL EMPLOYMENT OPPORTUNITY

A6.1 The CONTRACTOR shall comply with the following applicable laws and directives and regulations of the CONTRACTING AGENCY which effectuate them; all of which are incorporated herein by reference:

Title VI of Federal Civil Rights Act of 1964;
Federal Executive Order 11625 (Equal Employment Opportunity);
Title 41, Code of Federal Regulations, Part 60 (Equal Employment Opportunity);
Title 49 Code of Federal Regulations, Part 21 (Discrimination);
Title 49, Code of Federal Regulations, Part 26 (Minority Business Enterprises);
Office of Management and Budget (OMB) circular 102, Attachment O (Procurement Standards);
Alaska Statute (AS) 18.80.200-300 (Discrimination).
A6.2 The CONTRACTOR may not discriminate against any employee or applicant for employment because of race, religion, color, national origin, age, physical disability, sex, or marital status, change in marital status, pregnancy or parenthood when the reasonable demands of the position do not require distinction on such basis. The CONTRACTOR shall take affirmative action to insure that applicants are employed and that employees are treated during employment without regard to their race, religion, color, national origin, age, physical disability, sex, or marital status. This action must include, but need not be limited to, the following: employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training including apprenticeship. The CONTRACTOR shall post in conspicuous places, available employees and applicants for employment, notices setting out the provisions of this paragraph.

A6.3 The CONTRACTOR shall state, in all solicitations or advertisements for employees to work in performance of this Agreement, that it is an equal opportunity employer and that all qualified applicants will receive consideration for employment without regard to race, religion, color, national origin, age, physical disability, sex, or marital status.

A6.4 The CONTRACTOR shall send to each labor union or representative or workers with which the CONTRACTOR has a collective bargaining Agreement or other contract or understanding a notice advising the labor union or workers' representative of the CONTRACTOR's commitments under this article and post copies of the notice in conspicuous places available to all employees and applicants for employment.

A6.5 In the event the CONTRACTOR subcontracts any part of the services to be performed under this Agreement, the CONTRACTOR agrees to make good faith efforts to utilize Disadvantaged Business Enterprises, to affirmatively solicit their interest, capability and prices and to furnish documentation of the results of all such direct contacts on forms provided by or acceptable to the CONTRACTING AGENCY.

A6.6 The CONTRACTOR shall make, keep and preserve such records necessary to determine compliance with equal employment opportunity obligations and shall furnish required information and reports. All records must be retained and made available in accordance with Article A9, Audits and Records.

A6.7 The CONTRACTOR shall include the provisions of this article in every contract, and shall require the inclusion of these provisions in every contract entered into by any of its Subcontractors, so that these provisions will be binding upon each Subcontractor.

ARTICLE A7
PAYMENTS TO THE CONTRACTOR

A7.1 Payments shall be based on approved CONTRACTOR's invoices submitted in accordance with this article and the provisions of Appendix C. The sum of payments shall not exceed allowable compensation stated in Notice(s) to Proceed and no payments shall be made in excess of the maximum allowable total for this Agreement.

A7.2 The CONTRACTING AGENCY will exert every effort to obtain required Funding Agency approvals and to issue authorizations in a timely manner. CONTRACTOR shall not perform any services without a Notice to Proceed. Accordingly, the CONTRACTING AGENCY will not pay the CONTRACTOR for services or associated reimbursable costs performed outside those which are authorized by a Notice to Proceed.

A7.3 CONTRACTOR's invoices shall be submitted when services are completed or monthly, for months during which services are performed, as applicable, in a format provided by or acceptable to the CONTRACTING AGENCY.

A7.4 In the event items on an invoice are disputed, payment on those items will be held until the dispute is resolved. Undisputed items will not be held with the disputed items.

A7.5 The CONTRACTOR shall submit a final invoice and required documentation within 90 days after final acceptance of services by the CONTRACTING AGENCY. The CONTRACTING AGENCY will not be held liable for payment of invoices submitted after this time unless prior written approval has been given by the Procurement Officer. Total payment of all Subcontractors and satisfactory compliance with Article A22, Taxes, are conditions precedent to final payment.

ARTICLE A8
CHANGES

A8.1 Changes (including "Supplemental Agreements") in the period of performance, general conditions, statement of services, or other provisions established by this Agreement may be made by written Amendment only. If such changes cause an increase or a decrease in the CONTRACTOR's cost, an equitable adjustment shall be made and specified in the Amendment. The CONTRACTOR shall not perform any additional or extra services prior to receiving a fully executed copy of an Amendment and a Notice to Proceed, except as the CONTRACTOR may be directed under the provisions of Article A20, Claims and Disputes.
A8.2 If at any time the CONTRACTING AGENCY through its authorized representatives, either verbally or in writing, requests or issues instructions for Additional or Extra Services or otherwise directs actions which conflict with any provision of this Agreement, the CONTRACTOR shall, within 30 days of receipt and prior to pursuing such instructions, so notify the CONTRACTING AGENCY in writing, and to the extent possible, describe the services and estimated cost of any Additional or Extra Services. The CONTRACTING AGENCY will then evaluate and, if appropriate, negotiate an Amendment. Unless so notified by the CONTRACTOR, the CONTRACTING AGENCY will conclude such instructions have not changed any provisions of this Agreement nor require additional compensation. No additional payments shall be made to the CONTRACTOR without such notice.

**ARTICLE A9**

**AUDITS AND RECORDS**

A9.1 The CONTRACTOR shall maintain records of performances, communications, documents, correspondence and costs pertinent to this Agreement and the Funding or CONTRACTING AGENCY's authorized representatives shall have the right to examine such records and accounting procedures and practices.

A9.2 The Funding or CONTRACTING AGENCY's authorized representatives shall have the right to examine all books, records, documents and other data of the CONTRACTOR related to the negotiation, pricing and performance of this Agreement and any modification or change for the purpose of evaluating the accuracy, completeness and currency of the data submitted. The right of examination shall extend to all documents necessary to permit adequate evaluation of the data, computations and projections used.

A9.3 The materials described in this article shall be made available at a business office of the CONTRACTOR at all reasonable times for inspection, audit or reproduction, for a minimum of 3 years from the date of any resulting final settlement.

A9.3.1 If this Agreement is completely or partially terminated, records relating to the services terminated shall be made available for a minimum of 3 years from the date of any termination or resulting final settlement, whichever is later.

A9.3.2 Records which relate to appeals under Article A20, Claims and Disputes, or litigation or the settlement of Claims arising out of the performance of this Agreement shall be made available until such appeals, litigation or Claims have been concluded.*

**ARTICLE A10**

**CONTRACTING AGENCY INSPECTIONS**

A10.1 The CONTRACTING AGENCY has the right to inspect, in the manner and at reasonable times it considers appropriate during the period of this Agreement, all facilities and activities of the CONTRACTOR as may be engaged in the performance of this Agreement.

**ARTICLE A11**

**TERMINATION OR SUSPENSION**

A11.1 This Agreement may be terminated by either party upon 10 days written notice if the other party fails substantially to perform in accordance with its terms through no fault of the party initiating the termination (default termination). If the CONTRACTING AGENCY terminates this Agreement, the CONTRACTING AGENCY will pay the CONTRACTOR a sum equal to the percentage of work completed that can be substantiated in whole or in part either by the CONTRACTOR to the satisfaction of the CONTRACTING AGENCY or by the CONTRACTING AGENCY. If the CONTRACTING AGENCY becomes aware of any non-conformance with this Agreement by the CONTRACTOR, the CONTRACTING AGENCY will give prompt written notice thereof to the CONTRACTOR. Should the CONTRACTOR's services remain in non-conformance, the percentage of total compensation attributable to the nonconforming work may be withheld.

A11.2 The CONTRACTING AGENCY may at any time terminate (convenience termination) or suspend this Agreement for its needs or convenience. In the event of a convenience termination, or suspension for more than 3 months, the CONTRACTOR will be compensated for authorized services and authorized expenditures performed to the date of receipt of written notice of termination or suspension plus reasonable expenses. No fee or other compensation for the uncompleted portion of the services will be paid except for already incurred indirect costs which the CONTRACTOR can establish and which would have been compensated for over the life of this Agreement, but because of the termination or suspension would have to be absorbed by the CONTRACTOR without further compensation.

A11.3 If federal funds support this Agreement, settlement for default or convenience termination must be approved by the Funding Agency.

A11.4 In the event of termination or suspension, the CONTRACTOR shall deliver all work products, reports, estimates, schedules and other documents and data prepared pursuant to this Agreement to the CONTRACTING AGENCY.
ARTICLE A12
OFFICIALS NOT TO BENEFIT

A12.1 No member of or delegate to Congress, United States Commissioner or other officials of the Federal, State, Political subdivision or Local Government shall be admitted to any share or part of this Agreement or any benefit to arise therefrom.

ARTICLE A13
INDEPENDENT CONTRACTOR

A13.1 The CONTRACTOR and its agents and employees shall act in an independent capacity and not as officers or agents of the CONTRACTING AGENCY in the performance of this Agreement except that the CONTRACTOR may function as the CONTRACTING AGENCY's agent as may be specifically set forth in this Agreement.

A13.2 Any and all employees of the CONTRACTOR, while engaged in the performance of any work or services required by the CONTRACTOR under this Agreement, shall be considered employees of the CONTRACTOR only and not of the CONTRACTING AGENCY and any and all Claims that may or might arise under the Worker's Compensation Act on behalf of said employees, while so engaged and any and all Claims made by a third party as a consequence of any negligent act or omission on the part of the CONTRACTOR's employees, while so engaged on any of the services to be rendered herein, shall be the sole obligation and responsibility of the CONTRACTOR.

A13.3 This Agreement will be declared null and void should the CONTRACTING AGENCY determine that by Internal Revenue Service definitions the CONTRACTOR is an employee of the CONTRACTING AGENCY.

ARTICLE A14
PROSELYTIZING

A14.1 The CONTRACTOR agrees that it will not engage on a full or part time basis, during the period of this Agreement, any person or persons who are or have been employed by the CONTRACTING AGENCY during the period of this Agreement or during the 90 days immediately preceding the date of this Agreement except those who have been regularly retired or approved in writing by the CONTRACTING AGENCY.

ARTICLE A15
COVENANT AGAINST CONTINGENT FEES

A15.1 The CONTRACTOR shall comply with the Copeland "Anti-Kickback" Act (18 USC 874) as supplemented in Federal Department of Labor regulations (29 CFR, part 3), which are incorporated by reference and made a part of this Agreement.

A15.2 The CONTRACTOR warrants that it has not employed or retained any organization or person, other than a bona fide employee, to solicit or secure this Agreement and that it has not paid or agreed to pay any organization or person, other than a bona fide employee, any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, the CONTRACTING AGENCY has the right to annul this Agreement without liability or, in its discretion, to deduct from the allowable compensation the full amount of such commission, percentage, brokerage or contingent fee.

A15.3 The CONTRACTING AGENCY warrants that the CONTRACTOR or the CONTRACTOR's representative has not been required, directly or indirectly as an express or implied condition in obtaining or carrying out this Agreement, to employ or retain, or agree to employ or retain, any organization or person or to make a contribution, donation or consideration of any kind.

ARTICLE A16
PRECEDENCE OF DOCUMENTS

A16.1 Components of this Agreement shall stand and prevail in the following order: Agreement over General Conditions; General Conditions over Statement of Services: Statement of Services over Basis of Compensation; Basis of Compensation over any appendices beyond Appendix C.

A16.2 If a "Request for Proposal" (RFP) and/or a proposal are appended to this Agreement, the components described in paragraph A16.1 shall stand and prevail over the proposal and the proposal over the RFP.

ARTICLE A17
ENDORSEMENT ON DOCUMENTS

A17.1 Endorsements and professional seals, if applicable, must be included on all final drawings, specifications, cost estimates and reports prepared by the CONTRACTOR. Preliminary copies of such documents submitted for review must have seals affixed without endorsement (signature).
ARTICLE A18
OWNERSHIP OF WORK PRODUCTS

A18.1 Work products produced under this Agreement, except items which have pre-existing copyrights, are the property of the CONTRACTING AGENCY. Payments to the CONTRACTOR for services hereunder include full compensation for all work products produced by the CONTRACTOR and its Subcontractors and the CONTRACTING AGENCY shall have royalty free non-exclusive and irrevocable right to reproduce, publish, or otherwise use, and to authorize others to use, such work products.

A18.2 Should the CONTRACTING AGENCY elect to reuse work products provided under this Agreement for other than the original project and/or purpose, the CONTRACTING AGENCY will indemnify the CONTRACTOR and its Subcontractors against any responsibilities or liabilities arising from such reuse. Additionally, any reuse of design drawings or specifications provided under this Agreement must be limited to conceptual or preliminary use for adaptation and the original CONTRACTOR's or Subcontractor's signature, professional seals and dates removed. Such reuse of drawings and specifications, which require professional seals and dates removed, will be signed, sealed and dated by the professional who is in direct supervisory control and responsible for all adaptation.

ARTICLE A19
SUBCONTRACTORS, SUCCESSORS AND ASSIGNS

A19.1 The CONTRACTING AGENCY must concur in the selection of any person or firm that may be engaged in performance of this Agreement to provide negotiable professional or technical services, products, etc., (vs. commodity items available to the general public in stores at market prices).

A19.2 If this Agreement includes named firms or individuals, then such firms or individuals shall be employed for the designated services, unless the Agreement is changed by Amendments.

A19.3 The CONTRACTOR shall not assign, sublet or transfer any interest in this Agreement without the prior written consent of the Procurement Officer.

A19.4 The CONTRACTOR binds itself, its partners, its Subcontractors, assignees and legal representatives to this Agreement and to the successors, assignees and legal representatives of the CONTRACTING AGENCY with respect to all covenants of this Agreement.

A19.5 The CONTRACTOR shall include provisions appropriate to effectuate the purposes of this Appendix A in all subcontracts executed to perform services under this Agreement which may exceed a cost of $25,000.

ARTICLE A20
CLAIMS AND DISPUTES

A20.1 If the CONTRACTOR becomes aware of any act or occurrence which may form the basis of a Claim by the CONTRACTOR for additional compensation or an extension of time for performance, or if any dispute arises regarding a question of fact or interpretation of this Agreement, the CONTRACTOR shall immediately inform the Procurement Officer. If the matter cannot be resolved within 7 days, the CONTRACTOR shall, within the next 14 days, submit an "Intent to Claim" in writing to the Procurement Officer.

A20.1.1 If the CONTRACTOR believes additional compensation is warranted, the CONTRACTOR shall immediately begin to keep and maintain complete, accurate and specific daily records concerning every detail of the potential Claim including actual costs incurred. The CONTRACTOR shall give the CONTRACTING AGENCY access to any such record and, when so requested, shall forthwith furnish the CONTRACTING AGENCY copies thereof.

A20.1.2 The Claim, if not resolved, shall be presented to the Procurement Officer, in writing, within 60 days following receipt of the "Intent to Claim". Receipt of the Claim will be acknowledged in writing by the Procurement Officer.

A20.1.3 The CONTRACTOR agrees that unless these written notices are provided, the CONTRACTOR will have no entitlement to additional time or compensation for such act, event or condition. The CONTRACTOR shall in any case continue diligent performance under this Agreement.

A20.2 The Claim shall specifically include the following:

A20.2.1 The act, event or condition giving rise to the Claim.

A20.2.2 The provisions of the Agreement which apply to the Claim and under which relief is provided.

A20.2.3 The item or items of project work affected and how they are affected.

A20.2.4 The specific relief requested, including Contract Time if applicable, and the basis upon which it was calculated.
A20.3 The Claim, in order to be valid, must not only show that the CONTRACTOR suffered damages or delay but that those conditions were actually a result of the act, event or condition complained of and that the Agreement provides entitlement to relief to the CONTRACTOR for such act, event, or condition.

A20.3.1 The Procurement Officer reserves the right to make written requests to the CONTRACTOR at any time for additional information which the CONTRACTOR may possess relative to the Claim. The CONTRACTOR agrees to provide the Procurement Officer such additional information within 30 days of receipt of such a request. Failure to furnish such additional information may be regarded as a waiver of the Claim.

A20.3.2 If the Claim is not resolved by Agreement within 90 days of its receipt, the Procurement Officer will issue a written decision to the CONTRACTOR.

A20.3.3 The CONTRACTOR shall certify that the Claim is made in good faith, that the supporting cost and pricing data are accurate and complete to the best of the CONTRACTOR's knowledge and belief, and that the amount requested accurately reflects the adjustment to the Agreement for which the CONTRACTOR believes the CONTRACTING AGENCY is liable.

A20.4 The CONTRACTOR will be furnished a written signed copy of the Procurement Officer's decision within 90 days, unless additional information is requested by the Procurement Officer. The Procurement Officer's decision is final unless, within 14 days of receipt of the decision, the CONTRACTOR delivers a written Notice of Appeal to the Executive Director.

A20.5 Procedures for appeals and hearings are covered under 3 AAC 109.920.

ARTICLE A21
EXTENT OF AGREEMENT

A21.1 This Agreement including appendices represents the entire and integrated Agreement between the CONTRACTING AGENCY and the CONTRACTOR and supersedes all prior negotiations, representations or Agreements, written or oral.

A21.2 Nothing contained herein may be deemed to create any contractual relationship between the CONTRACTING AGENCY and any Subcontractors or material suppliers; nor may anything contained herein be deemed to give any third party Claim or right of action against the CONTRACTING AGENCY or the CONTRACTOR which does not otherwise exist without this Agreement.

A21.3 This Agreement may be changed only by written Amendment executed by both the CONTRACTING AGENCY and the CONTRACTOR.

A21.4 All communications that affect this Agreement must be made or confirmed in writing and must be sent to the addresses designated in this Agreement.

A21.5 The CONTRACTOR on receiving final payment will execute a release, if required, in full of all Claims against the CONTRACTING AGENCY arising out of or by reason of the services and work products furnished and under this Agreement.

ARTICLE A22
TAXES

A22.1 As a condition of performance of this Agreement, the CONTRACTOR shall pay all Federal, State and Local taxes incurred by the CONTRACTOR and shall require their payment by any Subcontractor or any other persons in the performance of this Agreement.

ARTICLE A23
GOVERNING LAW

A23.1 This Agreement is governed by the laws of the State of Alaska and Federal and Local Laws and Ordinances applicable to the work performed. The CONTRACTOR shall be cognizant and shall at all times observe and comply with such laws which in any manner affect those engaged or employed in the performance, or which in any way affects the manner of performance, of this Agreement.

ARTICLE A24
FEDERAL AID CERTIFICATION
(For Agreements exceeding $100,000)

A24.1 The CONTRACTOR certifies, by executing this Agreement, to the best of his or her knowledge and belief, that:
A24.1.1 No federal appropriated funds have been paid or will be paid, by or on behalf of the CONTRACTOR, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative Agreement, and at the extension, continuation, renewal, Amendment, or modification of any Federal contract, grant, loan, or cooperative Agreement.

A24.1.2 If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress in connection with this Federal contract, grant, loan, or cooperative Agreement, the undersigned shall complete and submit Standard Form LLL, Disclosure of Lobbying Activities, in accordance with its instructions. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

A24.2 This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code.

A24.3 The CONTRACTOR also agrees by executing this Agreement that the CONTRACTOR shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such subrecipients shall certify and disclose accordingly.

ARTICLE A25
TRADE RESTRICTIONS

The contractor or subcontractor, by submission of an offer and/or execution of a contract, certifies that it:

a. is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms published by the Office of the United States Trade Representative (USTR);

b. Has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country on said list, or is owned or controlled directly or indirectly by one or more citizens or nationals of a foreign country on said list;

c. Has not procured any product nor subcontracted for the supply of any product for use on the project that is produced in a foreign country on said list.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no contract shall be awarded to a contractor or subcontractor who is unable to certify to the above. If the contractor knowingly procures or subcontracts for the supply of any product or service of a foreign country on said list for use on the project, the Federal Aviation Administration may direct through the Sponsor cancellation of the contract at no cost to the Government.

Further, the contractor agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in each contract and in all lower tier subcontracts. The contractor may rely on the certification of a prospective subcontractor unless it has knowledge that the certification is erroneous.

The contractor shall provide immediate written notice to the sponsor if the contractor learns that its certification or that of a subcontractor was erroneous when submitted by reason of changed circumstances.

This certification is a material representation of fact upon which reliance was placed when making the award. If it is later determined that the contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration may direct through the Sponsor cancellation of the contract or subcontract for default at no cost to the Government.

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of a contractor is not required to exceed that which is normally posed by a prudent person in the ordinary course of business dealings.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.
ARTICLE A26
SUSPENSION AND DEBARMET

The bidder/offeror certifies, by submission of this proposal or acceptance of this contract, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency. It further agrees by submitting this proposal that it will include this clause without modification in all lower tier transactions, solicitations, proposals, contracts, and subcontracts. Where the bidder/offeror/contractor or any lower tier participant is unable to certify to this statement, it shall attach an explanation to this solicitation/proposal.

ARTICLE A27
ADDITIONAL PROVISIONS

(Any deletion or modification of Articles A1 through A26 shall be approved "as to form" by the CONTRACTING AGENCY’s legal section.)

A27.1 DELAY DAMAGES:

Unless CONTRACTOR notifies the Authority in writing or email no less than TEN (10) calendar days in advance of a deliverable deadline that the deliverable may be delayed, delay damages may be incurred by the CONTRACTOR for each calendar day that the CONTRACTOR does not meet the deliverable deadlines in the current approved project schedule. The project schedule may be modified at any time as agreed upon in writing or email by the CONTRACTOR and the Project Manager. In no case shall the agreed upon schedule end date exceed the end date of the current Notice to Proceed (NTP) without first amending the NTP.

The Authority has the discretion to waive, increase, or decrease the delay damage amounts listed below per NTP. The Delay Damages per day per NTP chart below is the intended standard for this contract. The Authority will inform the CONTRACTOR if there is changes to the delay damages per day per NTP rate when the Authority requests a proposal from the CONTRACTOR. If the Delay Damage per day per NTP has been waived or modified it will only pertain to that proposal, that NTP.

Delay Damages

<table>
<thead>
<tr>
<th>Days Late</th>
<th>Delay Damages per Day per NTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 7 days</td>
<td>NTP $ amount * 1/8% up to a maximum of $50.00</td>
</tr>
<tr>
<td>8 to 14 days</td>
<td>NTP $ amount * 1/4% up to a maximum of $100.00</td>
</tr>
<tr>
<td>15 to 21 days</td>
<td>NTP $ amount * 1/2% up to a maximum of $200.00</td>
</tr>
<tr>
<td>21 days plus</td>
<td>NTP $ amount * 3/4% up to a maximum of $300.00</td>
</tr>
<tr>
<td></td>
<td>* Not to Exceed (NTE) $5,000.00 per NTP</td>
</tr>
</tbody>
</table>

These are delay damages and not penalties. These charges shall reimburse the Authority for additional expenses incurred due to CONTRACTOR’S failure to complete the work within the time specified. Allowing the CONTRACTOR to continue and finish the work or any part of it after the scheduled date has passed does not waive the Authority’s rights to collect delay damages. Delay damages collection shall be in the form of payment withheld from the associated NTP. If no money is due the CONTRACTOR, the Authority may recover these sums from the CONTRACTOR. The NTP scope of work, schedule, and budget shall not be changed as the result of the collection of delay damages by the Authority. Notwithstanding anything to the contrary herein, CONTRACTOR shall incur no delay damages if the delay is caused to any extent by the Authority or by events or parties outside of CONTRACTOR’S reasonable control.

If the Authority exercises Article A11.2 to terminate or suspend for convenience an NTP, then the Authority must provide Contractor written notice of such intent no less than fourteen (14) calendar days in advance or else delay damages shall be due to CONTRACTOR from Authority.

A27.2 EXTENSION DUE TO DELAYS:

The right of the CONTRACTOR to proceed shall not be terminated nor the CONTRACTOR charged with delay damages or actual damages because of delays to the schedule or completion of the Work due to unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, including, but not restricted to the following: acts of God
or of the public enemy, acts of the AUTHORITY in its contractual capacity, acts of another contractor in the performance of a contract with the AUTHORITY, floods, fires, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather, acts or restraints of governmental authorities affecting the project or directly or indirectly prohibiting or restricting the furnishing or use of materials or labor required; inability to secure labor because of priority, allocation or other regulations of any governmental authorities, and delays of Subcontractors (not a responsible charge of the CONTRACTOR). Any delay other than one of the specifically mentioned occurrences above, does not of itself justify a time extension, provided that the CONTRACTOR shall within twenty four (24) hours from the beginning of any such delay (unless the Contracting Officer shall grant a further period of the time prior to the date of final settlement of the Contract), notify the Project Manager in writing of the cause of delay. The Contracting Officer shall ascertain the facts and the extent of the delay and extend the time for completing the Work when the findings of fact justify such an extension.
C1. Payments will be made on approved invoices submitted for months during which costs are incurred. Except for Fixed Price(s) and Fixed Fees, compensation shall be cost-based on actual costs to the Contractor for providing services. Provisions for Audit are contained in Appendix A.

C2. EXCEPT WHEN PAYMENT IS BY FIXED PRICE, PRIME CONTRACTOR'S LABOR AND ASSOCIATED INDIRECT COST SHALL BE INVOICED TO THE CONTRACTING AGENCY WITHIN 45 DAYS OF PERFORMANCE. SUBCONTRACTORS' LABOR AND ASSOCIATED INDIRECT COST SHALL BE INVOICED TO THE CONTRACTING AGENCY WITHIN 60 DAYS OF PERFORMANCE. ALL OF THE CONTRACTOR'S AND SUBCONTRACTORS' OTHER DIRECT COSTS (EXPENSES) SHALL BE INVOICED TO THE CONTRACTING AGENCY WITHIN 90 DAYS OF BEING INCURRED. CHARGES SUBMITTED AFTER THE ABOVE STATED TIMES WILL, AT THE CONTRACTING AGENCY'S DISCRETION, NOT BE PAID.

C3. Price proposals and Notices-to-Proceed (NTPs) for this Agreement must conform to the Labor Rates, Indirect Cost Rate(s), Unit Prices, Fee/Profit Arrangements, Estimated Costs, and Price Caps contained in the Exhibits attached to this Appendix C.

C4. Payments are limited to the amount(s) cited in each Notice-to-Proceed (NTP) issued for this Agreement. The Contractor expressly has no right to any payment in excess of each NTP amount.

C5. Final payment to the Contractor may be withheld until a Release from Agreement, on a form prescribed by the Contracting Agency, is executed by the Contractor.

C6. Payments for this Agreement and any Amendment, including Costs and Fee, will be adjusted to exclude any significant sums by which the Contracting Agency finds that payments are increased because the cost or pricing data furnished by the Contractor or prospective Contractor is inaccurate, incomplete, or not current on the date of the Agreement or subsequent submittal date of pricing data.

C7. The following terminology and explanations are applicable to this Agreement; any inconsistencies appearing in this Agreement must be resolved in accordance with the terminology in paragraphs C7.1-C7.6 and C8.

C7.1 Direct Costs of Direct Labor - Base salary and/or wages paid to employees charged directly to this Agreement exclusive of Fringe Benefits or other Indirect Costs and Fees (including profit).

C7.2 Other Direct Costs (“Expenses”) - PRE-APPROVED unit priced items, actual costs for specific subcontracts identified in this Agreement, and actual costs for the following:

- Transportation (economy rate/air-coach);
- Food and lodging (Generally, not to exceed agency per diem rates);
- Incidental travel expenses; and
  - If not recovered in the Indirect Cost Rate - the following:
    - Equipment & computer use at PRE-APPROVED rates;
    - Specific materials and supplies; and
    - Other PRE-APPROVED direct expenses.

Each Expense is limited to reasonable costs which do not exceed that which would be incurred by an ordinarily prudent person in the conduct of competent business.

C7.3 Indirect Costs - Allowable expenses that, because of their incurrence for common or joint cost objectives, must be allocated to this Agreement using a specified Indirect Cost Rate. A cost objective is a function, organizational subdivision, contract, project or work unit for which cost data is accumulated under the Contractor's accounting system. Generally, the Contracting Agency requires Indirect Costs to be segregated into the following categories: Fringe Benefits, Overhead (General & Administrative Expenses - including Indirect Labor), and Allocated Home Office Overhead (if applicable).

C7.3.1 Fringe Benefits - Costs for items such as:

- Vacation time, holidays and authorized leave;
- Group and Worker's Compensation Insurance;
- Deferred Compensation/Retirement plans;
- Social Security and Unemployment Taxes; and
- Group Medical plan and Life Insurance Premiums.

C7.3.2 Overhead - Costs for items such as the following, if they are not included in Direct Costs:

- Indirect Labor (Supervisory, Administrative, etc., base salary or wages);
- Recruiting expenses, travel, food and lodging;
- Rent, heat, power, light and janitorial services;
- Office supplies, reproduction costs, communications;
- Upkeep and depreciation of equipment and computers;
- Rentals of equipment and computers; and,
- Business Insurance premiums not billed to clients.

C7.3.3 Allocated Home Office Overhead (if applicable) - Costs for management, supervisory, and administrative functions which benefit separate unit operations.

C7.3.4 Indirect Cost Rate – An established percentage of incurred expenses for Direct Costs of Direct Labor which is used as a basis of compensation for Indirect Costs. Fees or Profit are not included in the Indirect Cost Rate.
C7.4.1 If this Agreement wholly or partially allocates Indirect Costs on other than a Direct Labor dollar basis, a description of the Indirect Cost pools or service centers used, and the Indirect Cost Rates(s) and base(s), shall be attached in an Exhibit to this Appendix C; otherwise, such an allocation shall not be allowed for this contract.

C7.4.2 Indirect Cost Rates may be fixed or provisional and will be established for the duration of the Agreement, fiscal year, or other time period.

C7.4.3 Provisional Indirect Cost Rates or "Fixed/Provisional" Rates require a Contracting Agency approved audit of accounting records after each of the Contractor's or Subcontractor's fiscal years during which they perform work under the Agreement.

C7.5 Non-allowable Costs - Payments for the following items and certain other costs defined in 48 CFR Part 31 and related regulations are not allowable. Such costs shall not be included as billable Direct or Indirect Costs or in the calculation of the Indirect Cost Rate.

- Interest and other financial costs
- Contributions and donations
- Federal income taxes & tax return preparation fees
- Deferred state income taxes
- Bad debts
- Fines and penalties
- Entertainment, social club memberships, etc.
- Goodwill
- Provisions for contingencies
- Losses on other contracts and related legal fees
- Legal fees, etc., related to contract claims

C7.6 Fee - Profit plus any costs not allocable to this contract. The amount of Fee may be fixed or variable, depending on the method of payment used. Non allocable costs shall not be considered by the Contracting Agency when negotiating Fee.

C8. Markup of any costs as compensation for administration, management or handling, etc., is prohibited. Costs of such efforts are included within the elements of Direct Labor and/or Indirect Labor. Compensation for any risk associated with incurring costs is included within Fee (Profit).

C9. The following Exhibits complete this Appendix C (Components of Appendix C - Compensation, shall stand and prevail in the following order: Exhibit C-1, Exhibit C-2, et al, in the order of their number):

Edit the following choices to delete the inappropriate choice and then delete this instruction.

Choice #1, for a Fixed Price Contract of any amount or a Cost Reimbursement Contract <$250k, exhibits shall include the following:

- Exhibit C-1 Method(s) of Payment
- Exhibit C-2 NTP & Invoice Summary

OR

Choice #2, for a Cost Reimbursement Contract >$250k, exhibits shall include the following:

- Exhibit C-1 Method(s) of Payment
- Exhibit C-2 Cost Reimbursement Price Estimate
- Exhibit C-3 Cost Reimbursement NTP & Billing Summary
- Exhibit C-4 Cost Reimbursement Billing Detail Form
COMPENSATION
APPENDIX C EXHIBIT C-1, METHOD(S) OF PAYMENT

1. Payments will be made in accordance with Article A7 (Basic Agreement), Articles C1 - C9 (Appendix C), the following, and the applicable discussions of Methods of Payment presented below.

| CONTRACTOR & SUBCONTRACTORS | TO: (FIRM) | METHOD | ESTIMATED OF PAYMENT | ESTIMATED COST | FEE | PRICE |

Note: If a Method of Payment is "Fixed Price", then the amount listed under "Estimated Price" is the Fixed Price.

2. **FIXED PRICE(S)** payments will be a single lump sum payment equal to the Fixed Price upon acceptable completion of this Agreement, or progress payments not to exceed the Fixed Price.

3. **FIXED PRICE(S) PLUS EXPENSES** payments will be as follows:
   3.1 Payments of the **FIXED PRICE** will be a single lump sum payment equal to the Fixed Price upon acceptable completion of services, or progress payments not to exceed the Fixed Price(s).
   3.2 Payments for Other Direct Costs **(EXPENSES)** will be made for actual substantiated costs not to exceed the total specified amount for expenses that are directly chargeable to and necessary for performance of the services assuming they are not recovered through the Indirect Cost Rate.

4. **COST PLUS FIXED FEE** payments will be made according to the following:
   4.1 Payments for **DIRECT COST OF DIRECT LABOR** will be equivalent to the number of hours expended by each job classification multiplied by the applicable Direct Labor Rate. Job Classifications, Labor Hours and Direct Hourly Rates are estimated for this contract. Work shall be performed by the lowest paid qualified personnel. Further, when performing work for which they are over qualified, individuals will charge time at rates equivalent to skill levels commensurate with the work they perform. Contract payments will be based on the actual Direct Labor Rates paid to employees in any direct labor job classification who work on the contract, except that no Direct Hourly Rate shall exceed $ ______ PER HOUR except for the following individuals whose rates are capped (fixed) as listed below for the duration of this Agreement:

   | FIRM | JOB CLASSIFICATION | PERSON'S NAME | DIRECT RATE ($/HR) |

   4.2 Payments for **INDIRECT COSTS** shall be equivalent to the amounts for Direct Cost of Direct Labor multiplied by the following applicable **INDIRECT COST RATES (IDCR)**:

   | CONTRACTOR/ SUBCONTRACTOR | IDCR TYPE | IDCR (%) |

   4.2.1 IDCR with "F" is Fixed for the duration of this Agreement.
   4.2.2 IDCR with "F/P" is Fixed until a new rate is provided and added by amendment.
   4.2.3 Revisions to any IDCR may be implemented only by a contract Amendment. Further, adjustment of any payments made based on Provisional IDCRs will not be done without a contract Amendment that fully explains the amount of the adjustments.
4.3 Payments for OTHER DIRECT COSTS (Expenses) will be made for actual substantiated costs which are directly chargeable to and necessary for performance of services assuming they are not recovered through the Indirect Cost Rate. "Markup" of Other Direct Costs is prohibited (reference paragraph C8).

4.4 If not defined elsewhere in this Appendix C, progress payments for a firm’s (Contractor or any Subcontractor) FIXED FEE will be equivalent to the ratio of the firm's Direct Cost of Direct Labor to date, divided by the firm's total estimated Direct Cost of Direct Labor, multiplied by the total amount of the firm's Fixed Fee. The Fee amount for each firm participating in this Agreement was determined as follows:

5. TIME AND EXPENSES payments will be made according to the following:

5.1 Payments for TIME will be equivalent to the number of hours expended by each job classification multiplied by the applicable Billing Rate. Work will be performed by personnel with the lowest reasonable skill levels and hourly rates. Further, when performing work for which they are over qualified, individuals will charge time at rates equivalent to skill levels commensurate with the work they perform.

5.1.1 BILLING RATES for persons who work on this contract shall be the sum of the person’s actual Direct Labor Rate plus an allowance for Indirect Cost at the then current Agency approved Indirect Cost Rate for the person’s employer (firm) plus a fee (profit) of ten percent; e.g.: $25 + (1.50 x $25) + (.10 x [$25+(1.50 x $25)]) = $68.75, however, not to exceed $   PER HOUR except for the following individuals whose rates are capped (fixed) as listed below for the duration of this Agreement.

<table>
<thead>
<tr>
<th>FIRM</th>
<th>JOB CLASSIFICATION</th>
<th>PERSON’S NAME</th>
<th>BILLING RATE ($/HR)</th>
</tr>
</thead>
</table>

5.1.2 BILLING RATES are negotiated hourly labor rates which include compensation for all Costs (Direct Cost of Direct Labor and all Indirect Costs) plus Fee, except for allowable direct Expenses.

5.1.3 Time & Expenses Overtime shall be calculated at 1.5 times the base labor rate (DL & IDC R) and then the profit factor added.

5.2 Payments for Other Direct Costs (EXPENSES) will be made for actual substantiated costs that are directly chargeable to and necessary for performance of services assuming they are not recovered through the Indirect Cost Rate. "Markup" of Expenses is prohibited (reference paragraph C8).

6. SPECIAL CONSIDERATIONS:

6.1 Travelers are permitted actual costs, or an allowance, for lodging (as negotiated and detailed below) and an allowance for meal and incidental expenses (M&IE). Refer to AAM 60.250 for policies regarding travel.

6.2 Employees shall be considered in travel status from the time an authorized trip begins until it ends. An authorized trip is a trip approved in accordance with a NTP issued under the contract. The duty station of the employee is the city, town, or village, or within a 50-mile radius thereof, where the employee spends the majority of their working time.

6.3 M&IE allowances shall be limited to the State rate of $60.00 per day. The duration of the trip must be more than 12 hours in order for the traveler to be eligible for M & IE allowances. Additionally the traveler must be in travel status at least three consecutive hours during a meal period to be entitled to the M&IE for that meal.

6.4 If paying actuals for Lodging, Lodging shall be at the hotel’s “government” rate (when applicable) and for single occupancy, not to exceed $300.00 per day. Lodging receipts are required.
INDEMNIFICATION AND INSURANCE
Appendix D in Professional Services Agreements

CONTRACTOR shall include the provisions of this form in all subcontracts which exceed $25,000 and shall ensure Subcontractor's compliance with such provisions.

ARTICLE D1
INDEMNIFICATION

D1.1 The CONTRACTOR shall indemnify, hold harmless, and defend the CONTRACTING AGENCY from and against any claim of, or liability for negligent acts, errors or omissions of the CONTRACTOR under this Agreement. The CONTRACTOR shall not be required to indemnify the CONTRACTING AGENCY for a claim of, or liability for, the independent negligence of the CONTRACTING AGENCY. If there is a claim of, or liability for, the joint negligent error or omission of the CONTRACTOR and the independent negligence of the CONTRACTING AGENCY, the indemnification and hold harmless obligation shall be apportioned on a comparative fault basis. “CONTRACTOR" and "CONTRACTING AGENCY", as used within this article, include the employees, agents and other contractors who are directly responsible, respectively, to each. The term "Independent Negligence" is negligence other than in the CONTRACTING AGENCY's selection, administration, monitoring, or controlling of the CONTRACTOR and in approving or accepting the CONTRACTOR's Work.

D1.2 The CONTRACTOR shall exercise that degree of skill, care and judgment commensurate with the professional standards for the services of a similar nature. When such standards are in dispute, they shall be established by a panel of three qualified, impartial professionals objectively selected and appointed by the Appeals Officer.

D1.3 The CONTRACTOR shall correct, through re-performance at its expense, any services which are deficient or defective because of the CONTRACTOR's failure to perform said services in accordance with professional standards, provided the CONTRACTING AGENCY has notified the CONTRACTOR in writing within a reasonable time, not to exceed 60 days, of the discovery of any such deficiency during the performance of the services and within 12 months of the date of final payment under this Agreement.

ARTICLE D2
INSURANCE

D2.1 Without limiting the CONTRACTOR's indemnification, it is agreed that CONTRACTOR shall purchase at its own expense and maintain in force at all times for the duration of this Agreement, plus one year following the date of final payment, the following policies of insurance. Where specific limits are shown, it is understood that they shall be the minimum acceptable limits. If the CONTRACTOR's policy contains higher limits, the CONTRACTING AGENCY shall be entitled to coverage to the extent of such higher limits. Certificates of insurance must be furnished to the CONTRACTING AGENCY and incorporated into this Agreement with copies attached to this document. Certificates must provide for the CONTRACTING AGENCY to receive notice of any policy cancellation or reduction per AS 21.36 Sections 210-310. Failure to furnish certificates of insurance or lapse of the policy is a material breach and grounds for termination of the CONTRACTOR's services and may preclude other Agreements between the CONTRACTOR and the CONTRACTING AGENCY.

D2.1.1 Worker's Compensation Insurance: The CONTRACTOR shall provide and maintain, for all employees engaged in work under this Agreement, coverage as required by AS 23.30.045, and; where applicable, any other statutory obligations including but not limited to Federal USL&H and Jones Act requirements. The policy(s) must waive subrogation against the State of Alaska.

D2.1.2 Commercial General Liability Insurance: Such policy shall have minimum coverage limits of $300,000 combined single limit per occurrence, covering all business premises and operations used by the Contractor in the performance of services under this agreement. The policy shall be written on an "occurrence" form and shall not be written as a "claims-made" form unless specifically reviewed and agreed to by the CONTRACTING AGENCY.

D2.1.3 Comprehensive Automobile Liability Insurance: Such policy shall have minimum coverage of $300,000 combined single limit per occurrence covering all vehicles used by the Contractor in the performance of services under this agreement.

D2.1.4 Professional Liability (E&O) Insurance: Covering all negligent errors or omissions, and negligent acts, which the CONTRACTOR, Subcontractor or anyone directly or indirectly employed by them, make in the performance of this Agreement which result in financial loss to the State of Alaska. Limits required are per the following schedule:
ARTICLE D3
MODIFICATION OF INSURANCE REQUIREMENTS
(Article D3 is completed only when some of the standard insurance coverages are not applicable.)

CONTRACTOR RELATED MODIFICATIONS

D3.1  □ Workers Compensation Insurance is not required because the CONTRACTOR is an Independent Contractor, Sole Proprietor or Self-Employed Person having no employees in any sense of AS 23.30.045.

D3.2  □ Comprehensive or Commercial General Liability Insurance is not required because the general public and clients do not have any business access to a place of business or home office maintained by the CONTRACTOR.

D3.3  □ Comprehensive Automobile Liability Insurance is not required because only public transportation, or a rented passenger vehicle with business use insurance, will be used to accomplish requirements of this Agreement.

PROJECT RELATED MODIFICATIONS FOR E&O COVERAGE

When services may apply to fire, life safety or structural aspects and/or wherever the services should safeguard life, limb, health or property, Professional Liability Insurance shall be required.
(E&O Coverage may be waived only if it was specifically not required within the solicitation for proposals.)

D3.4  □ Professional Liability (E&O) Insurance is not required because: 1) the CONTRACTING AGENCY's use of the services or Work products obtained from the CONTRACTOR will not result in significant exposure to any third party claims for loss or damage; and 2), the CONTRACTOR services will not apply to any construction, alteration, demolition, repair or direct use of any highway, airport, harbor, building or other structure.

D3.5  □ Professional Liability (E&O) Insurance is not required because this Agreement is for one of the following applicable (checked) services for which E&O coverage is not needed:

☐ Right-of-Way Fee Appraisals
☐ Photogrammetric Mapping Services
☐ Architectural/Engineering review of Construction Bid Documents wherein design responsibility clearly remains with the designer of record.

OTHER BASIS FOR MODIFICATIONS
(Requires written concurrence from Division of Risk Management)

D3.6  □ Attached Exhibit D-1 identifies and provides justification for insurance modifications.

Above checked modifications of the insurance requirements specified in Article D2 are hereby approved:

CONTRACTING OFFICER  Signature: ___________________________  Date: ____________
Name: ___________________________
Title: ___________________________
CERTIFICATION OF COMPLIANCE
APPENDIX E

ALASKA LICENSES/REGISTRATIONS AND INSURANCE

Contractor and all Subcontractors shall comply with the following applicable requirements of Alaska Statutes:

1. For Procurements over $100,000, Alaska Business License (Form 08-070 issued under AS 43.70) must be obtained prior to award of a contract; and not later than five days after a Notice of Intent to Award for all Subcontractors.

2. Certificate of Registration for each individual to be in "responsible charge" (AS 08.48.341(14)) for Architecture, Engineering or Land Surveying (Form 08-2407 issued under AS 08.48.211) issued prior to submittal of proposal. Associates, consultants, or specialists under the supervision of a registered individual in "responsible charge" are exempt from registration requirements (AS 08.48.331).

3. Certificate of Incorporation (Alaska firms) or Certificate of Authorization for Foreign Firm ("Out-of-State" firms). All corporations, regardless of type of services provided, must have one of the certificates (AS 10.06.218 and other sections of Title 10.06 - Alaska Corporations Code).

4. Current Board of Director's Resolution for incorporated Contractors and incorporated Subcontractors for Architecture, Engineering or Land Surveying (reference AS 08.48.241) which names the person(s) designated in "responsible charge" for each discipline. Such persons shall be licensed in Alaska and shall participate as project staff in the Contract/Subcontracts.

5. Corporations, limited liability companies, and limited liability partnerships shall have a valid Certificate of Authorization under 08.48.241 prior to award.

6. All partners in a Partnership to provide Architectural, Engineering, or Land Surveying must be legally registered in Alaska prior to submittal of proposal for at least one of those disciplines (AS 08.48.251) which the Partnership offers.

7. Joint Ventures, regardless of type of services provided, must be licensed/registered in the legal name of the Joint Venture as used in this proposal (AS 43.70.020 and 43.70.110(4)).

Contractor will ensure that it and all Subcontractors have insurance coverage to effectuate the requirements of Appendix D, "Indemnification and Insurance", DOT&PF Form 25A269, as prepared for this Agreement.

I certify that I am a duly authorized representative of the Contractor and that the above requirements for Alaska Licenses, Registrations and Insurance will be complied with in full. This certification is a material representation of fact upon which reliance will be placed if the proposed contract is awarded.

Signature ____________________________ Date ____________

Name ........ : 
Title .......... : 

[For information about licensing, Offerors may contact the Alaska Department of Commerce and Economic Development, Division of Occupational Licensing at P.O. Box 110806, Juneau, AK 99811-0806, or at Telephone (907) 465-2550, or at Internet address: http://www.dced.state.ak.us/occ/home.htm.]
**CONTRACT AWARD & NOTICE TO PROCEED**

You have been awarded this Agreement in accordance with Parts A, B & C of these documents and the following correspondence:

From ..........: Alaska Energy Authority  
To...............:  
Subject.....: Scope of Services & Schedule

This Agreement incorporates by reference the Small Procurement Standard Provisions Booklet dated March 2014. If you do not have a copy of the Standard Provisions Booklet, obtain one from the Contracting Agency. You are authorized to proceed with performance of this contract immediately and are required to complete it not later than: **September 30, 2021 (with the Agency’s option to renew for one additional year)**.

The Agency Manager for this Contract is: XXXX XXXX, Project Manager.  
Telephone-(Voice): 907.771.xxxx  
Fax: 907.771.3044

Compensation for this Contract shall be by the method(s) and not exceed the authorized amount(s) shown in the Invoice Summary (below):

---

**INVOICE SUMMARY**

This Invoice is for [ ] Progress OR [ ] Final Payment.  
**Sequential Invoice Number for this Contract is: [ ]**.

* Each firm may be compensated for this Contract by only one of the following Methods of Payment (as explained in the Standard Provisions Booklet):  
  - Fixed Price (FP) .................Amounts entered in Columns "c" and "g" only  
  - Cost Plus Fixed Fee (CPFF) ....... Columns "c", "d", "e", "f" and "g"  
  - Time and Expenses (T&E) ......... Columns "c", "e" and "g" only

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**PAYMENT**

**CONTRACTOR'S PAYMENT REQUEST:**

Signature  
Name:  
Date:  
(Contractor's Project Manager)

**PAYMENT APPROVED:** Based upon the payment recommendation and certification, I hereby approve payment.

Signature  
Name:  
Date:  
(Contractor's Project Manager)
INSTRUCTIONS FOR AGENCY ISSUE AND CONTRACTOR BILLING

1. Agency Contract Manager - The Small Procurement Documents are organized for only one Notice-to-Proceed (NTP) to be issued with the Contract Award for all services to be provided so that accounting procedures do not become unnecessarily burdensome and costly (i.e., the Contractor is required to establish only one cost account for this contract). Also, this document (Pact C - Contract Award, Notice to Proceed & Invoice Summary) must be issued and signed by the Contracting Officer. All items with a text form field must be complete at the time this document is issued. Other items are completed by the Contractor with each billing.

2. Contractor - If this Contract Award & NTP is unacceptable, notify the Contracting Agency immediately. If acceptable, acknowledge by signature where indicated on page 1 on a copy of this document and return the signed copy within ten days after your receipt. Retain the unmarked, as issued, document to be used for reproduction and billing.

3. Contractor - Submit Invoices to the Agency Contract Manager named on page one of this document. Contractor may use the firm's invoice forms; however the Contractor must also provide a copy of page one of this form as the FACE PAGE of each invoice submitted and with the following entries under "Invoice Summary" and "Contractor's Payment Request" accurately completed:
   
a) Indicate if the Invoice is for Progress or Final Payment and enter the Sequential Invoice Number for this Contract.

b) In each column (c, d, e, f & g) where there is an Authorized Amount, show amounts for: Prior APPROVED Payments; THIS INVOICE; Prior Payments plus this Invoice; and Balance of Authorized Amounts.

   Note  "Prior APPROVED Payments" amounts might not equal the total of all prior invoices if some items were disallowed or adjustments were made. If a prior billing has not been acknowledged with any payment, or a different amount from the billing was paid without any notification of the reason(s), Contractor may attach a request for an explanation and remedial action.

4. Contractor - Sign and date under "CONTRACTOR'S PAYMENT REQUEST" thereby attesting to the following:

   "By signature hereunder, the Contractor certifies entries to be true and correct for the services performed to date under or by virtue of said Contract and in accordance with 3 AAC 190. The Contractor further certifies that all applicable Federal, State and Local taxes incurred by the Contractor in the performance of the services have been paid and that all Subcontractors engaged by the Contractor for the services included in any invoice shall be fully compensated by the Contractor for such services."

5. Contractor - Substantiate all charges on each invoice, other than for Fixed Prices or Fixed Fees, by attaching a summary of hours expended and hourly labor rate per employee; summary of units completed; subcontractor invoices; expense receipts, etc.; or other proof of expenditures.

6. Contractor - Prime Contractor’s Labor and Indirect Cost shall be billed to the Contracting Agency within 45 days of performance. Subcontractors’ Labor and Indirect Cost shall be billed to the Contracting Agency within 60 days of performance. All of the Contractor’s and Subcontractors’ Other Direct Costs (Expenses) shall be billed to the Contracting Agency within 90 days of being incurred. Charges submitted after the above stated times will, at the Contracting Agency’s discretion, not be paid.

7. Contractor - When this Contract is approximately 75% complete, the Contractor shall determine if the Authorized Amount(s) might be exceeded; and, if so, shall provide an estimate of cost to complete. The Contracting Agency will determine after discussion with the Contractor if additional cost is reasonable and does not include costs that should be absorbed by the Contractor. If additional cost is validated, a negotiated Amendment will be executed which either (1) reduces the scope of services/work products required commensurate with the Authorized Amount(s), or (2) increases the Authorized Amount(s) to that required for completion of the original contract.

8. Amendments - if required - will be issued per Article A8 of Appendix A, General Conditions.

END OF PART C