

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES  
SOUTHCOST REGION  
MAINTENANCE & OPERATIONS



SPECIFICATIONS AND QUOTE DOCUMENTS

PROJECT: Igiugig Airport Maintenance

CONTRACT NO.: 17-25SC-1-013

Up to date and additional information is available on the web at (<http://dot.alaska.gov>). Under the Section called "Find it Fast!," select **DOT&PF Public Notices.** Look through the section called "Procurement" for the Invitation to Quotes

AS-ADVERTISED DATE: July 06, 2016

## **TABLE OF CONTENTS**

1. <u>Special Notice to Bidders</u>	(1 Page)	(goldenrod)
2. <u>Invitation for Quotes</u>	(3 Pages)	(goldenrod)
3. <u>Bid Notices</u>		(green)
Required Documents	(1 Page)	
4. <u>Forms</u>		
<i>Bid Forms</i>		(salmon)
Quote Submittal	(1 Page)	
Non-Collusion Affidavit	(1 Page)	
Offeror's Questionnaire	(2 Pages)	
Alaska Veteran's Preference Affidavit	(1 Page)	
<i>Subcontractor List</i>	(2 Pages)	(yellow)
<i>Award Forms</i>		(yellow)
Construction Contract	(2 Pages)	
5. <u>Contract Provisions and Specifications</u>		(white)
Contract Technical Specifications <u>Non-Certificated</u>	(18 Pages)	
Attachment A		
Airport Marking Standards for Unpaved Airports	(3 Pages)	
Diagrams for Airport Marking Standards	(4 Pages)	

**SPECIAL NOTICE  
TO  
BIDDERS**

- 1.) This contract allows for a contract price increase for each annual renewal period. The Contractor must request price adjustments, in writing, 30 days prior to the renewal date. For specific information, please see the Contract Technical Specifications, page 17, item G entitled "**Consumer Price Index (CPI)**".
- 2.) The bidder shall [MUST] have a valid Alaska business license at the time the contract is awarded. To qualify as an Alaska bidder under AS 36.30.321, a bidder shall have a valid Alaska business license at the time designated in the invitation for quotes for quote opening. Bidders are required to submit evidence of a valid Alaska Business License in accordance with AS 43.70.020 and 12 AAC 12.020 and subcontractors IAW AS 36.30.115. The NAICS code for the Alaska Business License shall reflect the Line of Business and business activity code for Transportation and Warehousing as the line of business and Support Activities for Air Transportation, Other Airport Operations as the business activity. **The NAICS code currently is 488190.**
- 3.) No bid bond, payment bond or performance bond are required.
- 4.) As reference, please check the following websites:
  - Alaska Community Database – Community Information Summaries to view information about the community, climate & etc. The website is <http://commerce.alaska.gov/cra/DCRAExternal/community>
  - Alaska Snowfall Normals for 1981-2010 -  
<http://www.arcgis.com/apps/HeaderFooter/main/index.html?appid=7a9f2bc6fb984bea857897e301d00f37>
  - Comparative Data for the Western States – Weather averages located at the website  
<http://www.wrcc.dri.edu/COMPARATIVE.html> &  
<http://www.wrcc.dri.edu/summary/climsmak.html>

(Rev. 9/14 - M&O)





STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

INVITATION FOR QUOTES FOR  
A SMALL PROCUREMENT  
(CONSTRUCTION RELATED)

[per AS 36.30.320(a)]

Project Name & No.: <u>Igiugig Airport Maintenance:</u> <u>17-25SC-1-013</u>		Procurement Agency and Address: <u>State of Alaska, DOT&amp;PF</u> <u>6860 Glacier Highway, Juneau, AK 99801, or</u> <u>P.O. Box 112506 Juneau, AK 9999811-2506</u>	
Location: <u>Igiugig Airport, Alaska</u>			
Procurement Officer: <u>[Signature]</u>		Date of Issuance: <u>July 06, 2016</u>	
<b>DESCRIPTION OF WORK, REQUIRED COMPLETION DATE, LISTING OF ATTACHMENT:</b> Furnish all labor, tools, local supervision and perform routine summer and winter maintenance of the airport facility including preventative maintenance on Alaska Department of Transportation and Public Facilities owned maintenance equipment, building structures and roadways located on airport property unless otherwise designated in accordance with the contract documents. The State may opt to offer renewal of this contract for <u>Five (5)</u> additional one (1) year periods. This is a <input type="checkbox"/> Federal-Aid <input checked="" type="checkbox"/> State Funded contract. The completion date for this work is <u>June 30, 2017</u> . The Project cost estimate is: <input type="checkbox"/> under \$10,000 <input checked="" type="checkbox"/> \$10,000 - \$50,000 <input type="checkbox"/> \$50,001 - \$100,000 <input type="checkbox"/> \$100,001 - \$200,000 <sup>1,2</sup> 1. Quotes in excess of \$200,000 will be deemed non-responsive. 2. <u>Any project in excess of \$100,000 must be bonded.</u> Davis-Bacon Wages (Title 36.05): are <input type="checkbox"/> are not <input checked="" type="checkbox"/> required on this project. The following insurance coverages are required: <input checked="" type="checkbox"/> Workers Comp <input checked="" type="checkbox"/> General Liability <input checked="" type="checkbox"/> Automobile <b>Bonding Requirements:</b> <u>Any project in excess of \$100,000 must be bonded.</u> The undersigned proposes to furnish Payment Bond in the amount of 50% and Performance Bond in the amount of 50% (of the contract), as surety conditioned for the full, complete and faithful performance of this contract. (See Bid Bond Sheet 25D-14, Payment Bond SPC-005 and Performance Bond SPC-006 forms.) Quotes for furnishing all labor, equipment and materials and performing all work for the above Project are invited. To be eligible for consideration, quotes must be received before <u>1:00 pm</u> local time on the <u>15</u> day of <u>July, 2016</u> . Late quotes cannot be accepted. Disadvantaged Business Enterprises (DBE's) may submit quotes and will not be discriminated against on the grounds of race, color, national origin or sex in consideration for an Award which results from this invitation. Any errors, omissions, or questions pertaining to solicitation procedures or Project requirements, requests for additional documents, or inquiries pertaining to site conditions or scheduled visits must be made to: Name: <u>Marcus Zimmerman</u> at: <u>6860 Glacier Highway, Juneau, AK 99801</u> Title: <u>M &amp; O Specialist</u> , Telephone: <u>(907) 465-1717</u> ; Fax: <u>(907) 465-2021</u> Applicable provisions of AS 36.30 and 2 AAC 12 govern this solicitation.			
<b>SUBMITTAL OF QUOTES:</b> Quotes for this Project must be submitted in the manner noted below. All Offerors must familiarize themselves with the <i>Instructions to Offerors</i> , page 2 of this form, prior to submitting their quote. <input type="checkbox"/> - VERBAL QUOTES SHALL BE GIVEN TO _____ AT THE ABOVE NOTED TELEPHONE NUMBER, PRIOR TO THE STATED DEADLINE. (See above Bonding Requirements.) <input checked="" type="checkbox"/> - WRITTEN QUOTES, INCLUDING AMENDMENTS OR WITHDRAWALS, MUST BE RECEIVED PRIOR TO THE ABOVE NOTED DEADLINE. QUOTES MUST BE SUBMITTED ON FORM SPC-002, QUOTE SUBMITTAL, ATTACHED. (See above Bonding Requirements.) Written quotes may be submitted by Fax, hand delivered, or mailed in a sealed envelope. Confidentiality is only assured for sealed quotes. Mailed quotes must allow time for delivery and the envelope must be marked as follows: <b>Quote for Project:</b> Name: <u>Igiugig Airport Maintenance</u> Number: <u>17-25SC-1-013</u> Attn: <u>Jeff Jenkins, Contracts Officer</u> Fax: <u>907-465-4238</u> Email: <u>jeff.jenkins@alaska.gov</u> <b>Procurement Agency Address:</b> <u>State of Alaska, DOT &amp; PF</u> <u>6860 Glacier Highway</u> <u>Juneau, AK 99801</u> Quote amendments or withdrawals must be made in writing to the individual of the Procurement Agency receiving the quotes, and must be received prior to the time for quote submittal.			



STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

INVITATION FOR QUOTES FOR  
A SMALL PROCUREMENT  
(CONSTRUCTION RELATED)

INSTRUCTIONS TO OFFERORS

The State of Alaska desires that all Offerors submitting quotes on construction contracts are given a fair and equal opportunity to compete. Offerors are required to follow these instructions:

**REVIEW THE PROJECT DOCUMENTS:** Most construction Projects in excess of \$1,000 will have some type of written documentation prepared expressly for the Work. If you are asked to submit a quote and no written information has been provided, you should ask the procurement Agency for written documentation. If the scope of services have been described to you verbally, and you are selected for Contract Award, you must ensure that the information of the services to be performed (scope of work) is put in writing prior to accepting the Contract. When providing a Quote, carefully review and consider all materials related to the solicitation and work of the contract. **By submitting a quote the Offeror warrants that they are familiar with the Project requirements, have visited or otherwise examined the site, and are aware of the conditions to be encountered.** Offeror's can verify the contents and completeness of their quote documents by contacting the procurement Agency individual named on the front of this form.

**SUBMITTING THE QUOTE:** The Quote must be submitted in one of the following formats as called for in the Invitation:

1. **ORALLY** - if a verbal quote is solicited, the Offeror must provide, in addition to their quote amount and mailing address -- (1) their valid Alaska Business License number, (2) if applicable, a valid Contractor's Registration number, (3) their status as an Alaskan Bidder (Offeror), (4) their intended use of Alaskan products, (5) the carrier's name and policy number for their Workers' Comp Insurance (or a statement of sole proprietorship, if applicable), and (6) the Employer (Tax) Identification Number or Social Security Number. The Procurement Agency will enter this information on the quote schedule.

2. **WRITTEN** - if a written quote is solicited, the Offeror must complete, in ink or typewritten, the *Small Procurement Quote Submittal*, Form SPC-002. Failure to acknowledge receipt of addenda or to execute the form correctly and completely may disqualify the quote.

**NOTE:** The Department of Labor requires an Offeror to be licensed and registered for the required type of work prior to submitting a quote. If the procurement Agency determines the Offeror is improperly registered or licensed, their quote may be deemed nonresponsive.

**SUBCONTRACTOR LISTING:** Subcontractors intended to be utilized on this contract must be listed in the response to the solicitation. Work shall not be awarded to any subcontractor without prior approval from the procurement Agency. Subcontractors may be added or removed only as approved by the procurement Agency.

**DETERMINATION OF THE LOWEST RESPONSIBLE QUOTE AND CONTRACT AWARD:** Following receipt and determination of all **responsive** oral, written or sealed quotes, the procurement Agency will compare the quotes and determine the lowest Offeror. If the procurement Agency discovers a discrepancy between the unit price amount and the extended amount; the unit price amount will prevail. Conditioned quotes, unless expressly requested, will not be considered. When the quote schedule is composed of a basic amount with alternates, the procurement Agency will base its determination of the low quote and the amount of the Contract Award solely upon those quotes, basic and alternates, that are priced within the extent of available construction funds. Alternates will be considered for Award in the order listed, except that if the order of Offerors is not affected, the Award may include any combination of funded alternates, or none, as may be in the best interest of the procurement Agency.

When determining the lowest quote, the procurement Agency will also give a 5% Alaska Offeror's preference and an appropriate Alaska Products preference to quotes designating the applicability of a preference. To qualify for the Offeror's preference (per AS 36.30.170) the Offeror **must** (1) hold a current Alaska Business License, (2) submit the quote under the name appearing on the license, (3) have staffed and maintained a place of business within Alaska for the previous six months and (4) be incorporated or qualified to do business under the laws of the State. In addition, if the Offeror is a partnership or joint venture, all parties must meet the criteria to be eligible for the preference. A booklet fully describing the Alaska Preferences (Bidder, Offeror, Product, Disabilities, Veteran) program is available at <http://doa.alaska.gov/dgs/pdf/pref2.pdf>. A detailed description of the Alaska Products Preference Program is available at <http://www.commerce.state.ak.us/ded/dev/prodpref/prodpref.htm>.

The procurement Agency will make a determination of **responsibility** as required by 2 AAC 12.500. If the lowest Offeror is declared responsible, the procurement Agency will execute the *Notice of Award / Notice to Proceed*, Form SPC-003, and send it to the Offeror for acknowledgement. If the lowest Offeror is found to be nonresponsive, this process will be repeated with the second lowest Offeror -- and so on until the lowest responsive and responsible Offeror is determined.

**NOTICE OF AWARD AND PROTEST:** A written notice will be provided on all Awards exceeding \$ 25,000 (2 AAC 12.400(h)). All protests must be filed with the Commissioner of the procurement Agency (or designee) and copied to the Procurement Officer. Protest procedures are described in AS 36.30.560 and 2 AAC 12.695. The extent of the protest remedy is limited to quote preparation costs (AS 36.30.585).

### **3. INDEMNITY AND INSURANCE – The following insurance is required for all construction contracts:**

#### **Article 1. Indemnification**

The Contractor shall indemnify, hold harmless, and defend the contracting agency from and against any claim of, or liability for error, omission or negligent act 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 and the following 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.

#### **Article 2. Insurance**

Without limiting Contractor's indemnification, it is agreed that Contractor shall purchase at its own expense and maintain in force at all times during the performance of services under this agreement 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 state shall be entitled to coverage to the extent of such higher limits. Certificates of Insurance must be furnished to the Contracting Officer prior to beginning work and must provide for a notice of cancellation, nonrenewal, or material change of conditions in accordance with policy provisions. Failure to furnish satisfactory evidence of insurance or lapse of the policy is a material breach of this contract and shall be grounds for termination of the Contractor's services. All insurance policies shall comply with, and be issued by insurers licensed to transact the business of insurance under AS 21.

**2.1 Workers' Compensation Insurance:** The Contractor shall provide and maintain, for all employees engaged in work under this contract, coverage as required by AS 23.30.045, and; where applicable, any other statutory obligations including but not limited to Federal U.S.L. & H. and Jones Act requirements. The policy must waive subrogation against the State.

**2.2 Commercial General Liability Insurance:** to include an aviation endorsement of not less than \$1,000,000 bodily injury and property damage per accident or occurrence.

**2.3 Commercial Automobile Liability Insurance:** covering all vehicles used by the Contractor in the performance of services under this agreement with combined single limits not less than \$1,000,000 bodily injury and property damage per accident or occurrence.

**2.4 Personal Automobile Liability Insurance:** The Contractor shall provide a copy of personal automobile liability with minimum coverage limits of \$300,000 combined single limit per occurrence.

## REQUIRED DOCUMENTS

### Required for Quote

**Quotes will not be considered** if the following documents are not completely filled out/signed and submitted at the time of bidding.

1. **Quote Submittal** - Bidder must sign form.
2. **Non-Collusion Affidavit** - Bidder must sign form.
3. **Offeror's Questionnaire**
4. **Alaska Veteran's Preference Affidavit** – If claiming, Bidder must sign form.
5. **Alaska Business License** – (AS 36.30.110) - **To qualify as an Alaska bidder under AS 36.30.321, a bidder shall have a valid Alaska business license at the time of quote opening.** (License information; contact State of Alaska, Department of Commerce, Community and Economic Development)  
(<http://www.commerce.state.ak.us/occ/home.htm>)

### Required After Notice of Apparent Low Bidder

The apparent low bidder is required to complete and submit the following document within 5 working days after receipt of written notification.

1. **Subcontractor List** – AS 36.30.115

### Required for Award

**In order to be awarded the contract**, the successful bidder must completely fill out and submit the following documents within the time specified in the intent to award letter:

1. **Construction Contract**
2. **Certificate of Insurance** - In accordance with Contract Technical Specifications Section (IX)
3. **Experience Submittal** - In accordance with Contract Technical Specifications Section (II)
4. **Equipment Operation Test** - In accordance with Contract Technical Specifications Section (II)
5. **Alaska Business License** – (AS 36.30.110) - (License information; contact State of Alaska, Department of Commerce, Community and Economic Development)  
(<http://www.commerce.state.ak.us/occ/home.htm>)





**STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES**

**SMALL PROCUREMENT QUOTE SUBMITTAL  
(CONSTRUCTION RELATED)**

[per AS 36.30.320(a)]

Project Name & No. <u>Igiugig Airport Maintenance</u>		Procurement Agency and Address:											
<u>17-25SC-1-013</u>		<u>State of Alaska, DOT&amp;PF</u>											
Location: <u>Igiugig Airport, Alaska</u>		<u>6860 Glacier Highway, Juneau, AK 99801, or</u> <u>P.O. Box 112506 Juneau, AK 9999811-2506</u>											
Procurement Officer:		Date of Issuance: July 06, 2016											
Michael J. Coffey, Southcoast Region Director		Bid is Due: July 15, 2016 at 2:00pm											
<p><b>QUOTE:</b> Offerors must read all attachments to this schedule. Offeror is required to bid on all items. For the scope of work and all other requirements see the "Invitation for Quotes for A Small Procurement" dated <b>July 06, 2016</b>. The annual prices bid by the Contractor referenced below shall be inclusive of one full 12 month State of Alaska Fiscal Year period. Any contract duration which does not contain 12 full months of the State of Alaska's Fiscal Year shall be prorated beginning the Date of Award and paid accordingly with this contract and technical specifications.</p> <p><b>The work as described in the IFQ shall be performed for:</b></p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">ITEM</th> <th style="text-align: left;">DESCRIPTION</th> <th style="text-align: left;">UNIT BID PRICE</th> <th style="text-align: left;">ESTIMATED QUANTITY</th> <th style="text-align: left;">BASIC BID AMOUNT</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;">1.0</td> <td style="vertical-align: top;">Airport Maintenance</td> <td style="vertical-align: top;">\$ _____ Per Year</td> <td style="vertical-align: top;">1</td> <td style="vertical-align: top;">\$ _____</td> </tr> </tbody> </table> <p>I have reviewed the bid documents, with addenda _____, and understand the scope of services and conditions required for Project number <u>17-25SC-1-013</u>. I agree to furnish all necessary labor, materials, and equipment for the above amount(s). The Work shall be accomplished in a professional manner acceptable to the Procurement Officer.</p> <p>Contractor _____ Email Address _____</p> <p>Authorized Signature _____ Title _____</p> <p>Address _____</p> <p>Business License # _____ EIN or SSN _____ Phone # _____</p> <p>Offeror is Claiming:    <input type="checkbox"/> Alaska Bidder's Preference                      <input type="checkbox"/> Alaska Products Pref. (worksheet)    <input type="checkbox"/> Alaska Veteran Preference                                      (SPC-007)</p> <p>.....</p> <p style="text-align: right;">Procurement Officer: _____</p> <p style="text-align: right;">Date of Receipt of Bid: _____</p>				ITEM	DESCRIPTION	UNIT BID PRICE	ESTIMATED QUANTITY	BASIC BID AMOUNT	1.0	Airport Maintenance	\$ _____ Per Year	1	\$ _____
ITEM	DESCRIPTION	UNIT BID PRICE	ESTIMATED QUANTITY	BASIC BID AMOUNT									
1.0	Airport Maintenance	\$ _____ Per Year	1	\$ _____									

**Offeror to Complete this Portion**

# NON-COLLUSION AFFIDAVIT

UNITED STATES OF AMERICA               )  
  ) ss  
STATE OF ALASKA                             )

I, \_\_\_\_\_, of \_\_\_\_\_  
(Name) (Name of Firm, if any)

being duly sworn, do depose and state:

That I, or the firm, association or corporation of which I am a member, a bidder on the contract to be awarded by the Department of Transportation and Public Facilities of the State of Alaska for the services of that certain contract designated as Project (Contract) Number 17-25SC-1-013 located at Iguigig Airport in the State of Alaska, have not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with such contract.

(Signature)

Date: \_\_\_\_\_

**Note: Must accompany Quote Submittal.**



**STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES**

**SMALL PROCUREMENT  
(CONSTRUCTION RELATED)  
OFFEROR'S QUESTIONNAIRE**

Project Number: 17-25SC-1-013

Project Name: Igiugig Airport Maintenance

Project Location: Igiugig Airport, Alaska

**A. FINANCIAL**

1. Have you ever failed to complete a contract due to insufficient resources?  
Yes ☐ No ☐ If yes, explain: \_\_\_\_\_  
\_\_\_\_\_
2. Describe any arrangements you would make to finance this work: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**B. EQUIPMENT**

1. Describe the equipment you have available and would use for this project.

ITEM	QUAN.	MAKE	MODEL	SIZE/ CAPACITY	PRESENT MARKET VALUE

2. What percent of the total value of this contract would you subcontract? \_\_\_\_\_
3. Would you purchase any equipment for use on this project: Yes ☐ No ☐  
If yes, describe type, quantity, and approximate cost: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
4. Would you rent any equipment for this work? Yes ☐ No ☐  
If yes, describe type, quantity, and approximate cost: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
5. Is your proposal based on firm offers for all materials for this project? Yes ☐ No ☐  
If no, please explain: \_\_\_\_\_  
\_\_\_\_\_

### C. EXPERIENCE

1. Have you had previous construction contracts or subcontracts with the State of Alaska?  
Yes ☐ No ☐  
  
Describe the most recent or current contract, its completion date, and scope of work:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. List, as an attachment to this questionnaire, other construction projects you have completed; the dates of completion, scope of work, and total contract amount for each project completed in the past 12 months.

I hereby certify that the above statements are true and complete.

\_\_\_\_\_  
Name of Respondent

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name and Title of Person Signing



STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

## ALASKA VETERAN'S PREFERENCE AFFIDAVIT

In response to the Invitation to Bid for:

Project Name and Number: Igiugig Airport Maintenance; 17-25SC-1-013.

I certify under penalty of perjury that \_\_\_\_\_  
(Name) qualifies for the Alaska Veteran's Preference under the following conditions:

- (a) If a bidder qualifies under AS 36.30.170(b) as an Alaska bidder and is a qualifying entity, a five percent bid preference shall be applied to the bid price (preference may not exceed \$5,000). In this subsection, "qualifying entity" means a:
- (1) Sole proprietorship owned by an Alaska Veteran;
  - (2) Partnership under AS 32.06 or AS 32.11 if a majority of the members are Alaska Veteran's;
  - (3) Limited liability company organized under AS 10.50 if a majority of the individuals are Alaska Veterans.
  - (4) Corporation that is wholly owned by individuals and a majority of the individuals are Alaska veterans.
- (b) To qualify for a preference under this section, a bidder must add value by the bidder itself actually performing, controlling, managing and supervising a significant part of the services provided, or the bidder must have sold supplies of the general nature solicited to other state agencies, governments, or the general public.
- (c) In this section, "Alaska Veteran" means an individual who is a:
- (1) Resident of this state; and
  - (2) Veteran; means an individual who:
    - (A) Served in the:
      - (i) Armed Forces of the United States, including a reserve unit of the United States armed forces; or
      - (ii) Alaska Territorial Guard, the Alaska Army National Guard, the Alaska Air National Guard, or the Alaska Naval Militia; and
    - (B) Was separated from the service under a condition that was not dishonorable.

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Date





STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

## SUBCONTRACTOR LIST

### Igiugig Airport Maintenance; 17-25SC-1-013

#### Project Name and Number

The apparent low bidder shall complete this form and submit it so as to be received by the Contracting Officer prior to the close of business on the fifth working day after receipt of written notice from the Department.

Failure to submit this form with all required information by the due date will result in the bidder being declared nonresponsive and may result in the forfeiture of the Bid Security.

Scope of work must be clearly defined. If an item of work is to be performed by more than one firm, indicate the portion or percent of work to be done by each.

**Check as applicable:** ☐ All Work on the above-referenced project will be accomplished without subcontracts greater than ½ of 1% of the contract amount.

or

☐ Subcontractor List is as follows:

#### LIST FIRST TIER SUBCONTRACTORS ONLY

FIRM NAME, ADDRESS, PHONE NO.	AK BUSINESS LICENSE NO., CONTRACTOR'S REGISTRATION NO.	SCOPE OF WORK TO BE PERFORMED

#### CONTINUE SUBCONTRACTOR INFORMATION ON REVERSE

**For projects with federal-aid funding, I hereby certify Alaska Business Licenses and Contractor registrations will be valid for all subcontractors prior to award of the subcontract. For projects without federal-aid funding (State funding only), I hereby certify the listed Alaska Business licenses and Contractor's registrations were valid at the time bids were opened for this project.**

\_\_\_\_\_  
Signature of Authorized Company Representative

\_\_\_\_\_  
Title

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Company Address (Street or PO Box, City, State, Zip)

\_\_\_\_\_  
Date

( )

\_\_\_\_\_  
Phone Number

[illegible]





STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

## CONSTRUCTION CONTRACT

**Igiugig Airport Maintenance; 17-25SC-1-013**

Project Name and Number

This CONTRACT, between the STATE OF ALASKA, DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES, herein called the Department, acting by and through its Contracting Officer, and

Company Name

Company Address (Street or PO Box, City, State, Zip)

a/an ☐ Individual ☐ Partnership ☐ Joint Venture ☐ Sole Proprietorship ☐ Corporation incorporated under the laws of the State of \_\_\_\_\_, its successors and assigns, herein called the Contractor, is effective the date of the signature of the Contracting Officer on this document.

WITNESSETH: That the Contractor, for and in consideration of the payment or payments herein specified and agreed to by the Department, hereby covenants and agrees to furnish and deliver all the materials and to do and perform all the work and labor required in the construction of the above-referenced project at the prices bid by the Contractor for the respective estimated quantities aggregating approximately the sum of

\_\_\_\_\_ Dollars  
(\$ \_\_\_\_\_), and such other items as are mentioned in the original Bid, which Bid and prices named, together with the Contract Documents are made a part of this Contract and accepted as such.

It is distinctly understood and agreed that no claim for additional work or materials, done or furnished by the Contractor and not specifically herein provided for, will be allowed by the Department, nor shall the Contractor do any work or furnish any material not covered by this Contract, unless such work is ordered in writing by the Department. In no event shall the Department be liable for any materials furnished or used, or for any work or labor done, unless the materials, work, or labor are required by the Contract or on written order furnished by the Department. Any such work or materials which may be done or furnished by the Contractor without written order first being given shall be at the Contractor's own risk, cost, and expense and the Contractor hereby covenants and agrees to make no claim for compensation for work or materials done or furnished without such written order.

The Contractor further covenants and agrees that all materials shall be furnished and delivered and all labor shall be done and performed, in every respect, to the satisfaction of the Department, on or before: **June 30, 2017** or within **N/A** calendar days. It is expressly understood and agreed that in case of the failure on the part of the Contractor, for any reason, except with the written consent of the Department, to complete the furnishing and delivery of materials and the doing and performance of the work before the aforesaid date, the Department shall have the right to deduct from any money due or which may become due the Contractor, or if no money shall be due, the Department shall have the right to recover \_\_\_\_\_ dollars (\$ \_\_\_\_\_) per day for each calendar day elapsing between the time stipulated for the completion and the actual date of completion in accordance with the terms hereof; such deduction to be made, or sum to be recovered, not as a penalty but as liquidated damages.

The bonds given by the Contractor in the sum of \$\_\_\_\_\_ Payment Bond, and \$\_\_\_\_\_ Performance Bond, to secure the proper compliance with the terms and provisions of this Contract, are submitted herewith and made a part hereof.

IN WITNESS WHEREOF, the parties hereto have executed this Contract and hereby agree to its terms and conditions.

---

## CONTRACTOR

---

Company Name

---

Signature of Authorized Company Representative

---

Typed Name and Title

---

Date

(Corporate Seal)

---

## STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

---

Signature of Contracting Officer

---

Typed Name

---

Date

**SECTION 30**

**AWARD AND EXECUTION OF CONTRACT**

**30-01 CONSIDERATION OF BIDS.** *Add the following:*

In determination of the low bidder for state funded projects, bidder preferences will be given as follows:

- a. **ALASKA BIDDER PREFERENCE:** A 5% bidder preference will be given to Alaskan bidders as required under AS 36.30.170(b). "Alaska bidder" means a person who:
  - (1) Holds a current Alaska business license;
  - (2) Submits a bid for goods, services, or construction under the name as appearing on the person's current Alaska business license;
  - (3) Has maintained a place of business within the state staffed by the bidder or an employee of the bidder for a period of six months immediately preceding the date of the bid;
  - (4) Is incorporated or qualified to do business under the laws of the state, is a sole proprietorship and the proprietor is a resident of the state or is a partnership, and all partners are residents of the state; or is a limited liability company organized under AS 10.50 and all members are residents of the state and
  - (5) If a joint venture, is composed entirely of ventures that qualify under (1) through (4), above.
- b. **ALASKA VETERAN'S PREFERENCE:** If a bidder qualifies as an Alaska bidder and is a qualifying entity, an Alaska Veteran's Preference of 5% shall be applied to the bid price. The preference may not exceed \$5,000 (AS 36.30.175). A "qualifying entity" means a:
  - (1) Sole proprietorship owned by an Alaska veteran; or,
  - (2) Partnership under AS 32.06 or AS 32.11 if a majority of the partners are Alaska veterans; or,
  - (3) Limited liability company organized under AS 10.50 if a majority of the members are Alaska veterans; or
  - (4) Corporation that is wholly owned by individuals and a majority of the individuals are Alaska veterans.

A preference under this section is in addition to any other preference for which the bidder qualifies.

To qualify for this preference, the bidder must add value by the bidder itself actually performing, controlling, managing and supervising a significant part of the services provided or the bidder must have sold supplies of the general nature solicited to other state agencies, governments, or the general public.

An Alaska veteran is a resident of Alaska who:

- (1) served in the Armed forces of the United States, including a reserve unit of the United States armed forces; or the Alaska Territorial Guard, the Alaska Army National Guard, the Alaska Air National Guard, or the Alaska Navel Militia; and
- (2) was separated from service under a condition that was not dishonorable.



The bidder shall provide an Alaska Veteran's Preference Affidavit on Form 25D-17, certifying they qualify as an Alaska bidder eligible for Alaska Veteran's preference according to AS 36.30.

- c. **ALASKA PRODUCT PREFERENCE:** Except for timber, lumber and manufactured lumber products used in the construction project under AS 36.30.322(b), an Alaska products preference will be given as required under AS 36.30.326 - 36.30.332 when the bidder designates the use of Alaska products.

The bidder shall complete the Alaska Products Preference Worksheet, according to the worksheet instructions, and submit the completed worksheet with their bid.

If the successful bidder/contractor proposes to use an Alaska product and does not do so, a penalty will be assessed against the successful bidder/contractor in an amount equal to the product preference percentage granted to the successful bidder/contractor plus one percent multiplied by the total declared value of the Alaska products proposed but not used.

Each Alaska product declared on the Alaska Product Preference Worksheet must have an "Approval" date on the Alaska Product Preference Program List, that is on or before the bid opening date for this contract, and that does not expire before the bid opening date for this



**CENTRAL REGION MAINTENANCE & OPERATIONS**  
**AIRPORT MAINTENANCE**  
**CONTRACT TECHNICAL SPECIFICATIONS**  
**Igiugig Airport Maintenance; 17-25SC-1-013**

**(I) SCOPE OF WORK**

Work shall consist of routine summer and winter maintenance of the **Igiugig Airport** facility which including preventative maintenance on Alaska Department of Transportation and Public Facilities owned maintenance equipment, building structures, and roadways located on airport property unless otherwise designated.

During the course of this agreement and in accord with the terms of this contract, the Contractor will coordinate with and take direction from the Department representative or his/her designee for the area as identified in the letter of "Notice to Proceed". This is an integrated contract between the Department and the Contractor. All other agreements, whether oral or written, are merged into this contract. This contract may only be amended in writing. This contract is severable, if one provision of this contract is found to be unenforceable; it shall not relieve the Contractor from performing all other provisions of this Contract.

**A. Contract Work Area:**

All state runways, taxiways, aprons, safety areas, state access roads, lighting systems, wind cones and State buildings at **Igiugig Airport**. It is the Contractor's responsibility to contact the airport manager to clarify the work area boundaries.

**B. Contract Terms and Conditions:**

(1) The Contractor shall provide the services required under the terms of this maintenance contract from **July 01, 2016** through **June 30, 2017**.

(2) This contract may be renewed for up to Five (5) additional one-year periods by mutual written agreement between the Contractor and the Department.

(3) The Contractor shall ensure a valid Alaska Business License with the appropriate Line of Business and business activity code is in effect at all times during the terms and any renewed periods of this maintenance contract for himself and any subcontractors.

(4) All work shall be in accordance with the current revision of the Standard Specifications for Airport Construction and the Contract Technical Specifications.

(5) If the contractor has not previously established a vendor number with the State of Alaska, the Contractor shall complete the Request for Taxpayer ID# and Information; Substitute Form W-9 currently located at [http://doa.alaska.gov/dof/forms/resource/sub\\_form\\_w9.pdf](http://doa.alaska.gov/dof/forms/resource/sub_form_w9.pdf) and fax the completed form to 907-269-0831 before payment can be processed. Delay in submitting the form will delay payment until the form has been completed.

**C. Work Period:**

It is the intent of this Contract that the Contractor performs all duties necessary to maintain and operate the **Iguigig Airport** during the term of this Contract. The airport shall be kept open 7 days a week, 365 days per year unless an emergency or routine maintenance prevents the airport from being open. To the greatest extent practical, the Contractor is to provide that level of performance which will insure the safe movement and convenient use of the airport by the public.

**D. Equipment:**

The Contractor shall contact the Airport Manager or District Superintendent and inquire about the use of existing Department equipment, at this location, that is available for the Contractor's use to perform the required airport maintenance. All State furnished equipment shall be used for the sole purposes of performing this contract in accordance with the contract work areas identified in paragraph (I)A above. The Contractor shall place signs approved by the Airport Manager on the Snow Removal Equipment Building (SREB) and State equipment stating "Only persons authorized by AK DOT shall operate State Equipment". It shall be the Contractor's responsibility to provide all the equipment necessary to perform maintenance in accordance with this contract whether it is supplied by the Department or the Contractor.

**(II) CONTRACTOR AND EMPLOYEE QUALIFICATION:**

The Contractor, subcontractors, and all employees shall be capable and experienced in the operation of heavy equipment and have some type of aviation background. This experience can either be work experience at an airport and/or a pilot's license. The Contractor shall submit a list of qualified personnel who will be operating the equipment. The Department reserves the option to conduct an equipment operation test of any person operating the State equipment prior to award in order to determine competency. The Department reserves the right to require the removal of any worker from the work area whom it deems incompetent, insubordinate, or otherwise objectionable.

**(III) REPRESENTATIVE:**

The Contractor or a competent representative will be available to the job site at all times during the period of the contract. A competent representative must be empowered to act for the Contractor and must be fluent in both written and spoken English to adequately perform the contracted services. The Contractor shall furnish and update as appropriate a telephone number of dependable means by which the Contractor or his authorized representative can be contacted within a reasonable length of time in order to respond to an unusual condition or accident at the airport. If the Contractor has a representative to perform daily maintenance, the Contractor (principal officer) must personally perform one on-site inspection every two-(2) weeks from **November 1 to April 30** and monthly inspections for the remainder of the year. Failure to do so may result in the termination of the contract. When the Contractor absents himself from his normal place of business, so as to make himself unavailable to the Department, the Contractor shall, prior to absenting himself, provide the Department representative with the business and/or personal telephone numbers of a competent person who has full authority to act for the Contractor in the conduct of this contract.

**(IV) DEFECTIVE WORK (DAMAGE AND PROTECTION):**

Deficiencies in the work observed during inspection of the facility by the Department will be brought to the Contractors attention by written notification. The Contractor shall, at its own expense, immediately



remedy and correct any defect in its work when the defect is brought to the Contractor's attention, whether by written notice from the Department or otherwise. If the Contractor fails to correct a deficiency within the time set forth by the Department representative, the Department may terminate the contract and/or obtain the contract services from other sources and hold the Contractor responsible for any excess costs occasioned thereby, and may deduct these costs from any payments due the Contractor. If the Department determines the Contractor has presented a hazardous situation that could result in injury to the public and/or Department employees, the Department may immediately correct the deficiency at the Contractor's expense, using either Department employees or a private contractor, and may deduct the costs incurred from moneys owed the Contractor.

**(V) CONTRACTOR RESPONSIBILITIES:**

**A Work Outline:**

The Contractor shall be responsible for the services described below unless the Department representative modifies the scope of work through written direction.

The Contractor shall make a reasonable attempt to contact the Airport Manager at least once weekly to report current conditions and status. This may be done via email, telephone or fax.

**B Daily Inspection Services:**

The Contractor shall conduct daily inspections of the airport. The Contractor shall keep a written list noting items that need repair, cleaning, or replacement. The list will be used for reference when the Contractor performs maintenance in accord with the terms of this contract. It should also be used as a reference when the Contractor notifies the Department representative of problems or conditions beyond the Contractor's capability to control. The Contractor shall conduct daily inspections of the airport and roadway(s) and note the following on a written list.

- (1) Operation of lighting systems and/or reflective cones, broken or burned out or missing equipment. If **four** lights in a row or **eight** lights total are inoperative and cannot be replaced and/or repaired the Contractor will notify the Department representative in order to enable the representative to issue a Notice to Airman (NOTAM) to the appropriate Automated Flight Service Station (AFSS) placing the airport lighting system out of service.
- (2) General condition of the runway surface, parking apron, taxiway, roads, windsock (s), threshold markers, and drainage. During the inspection, particular emphasis should be given to potholes, the windsock(s) and the debris on or near these areas and/or structures. All deficiencies shall be repaired and/or removed as required.
- (3) Contractor must be familiar with the location of all usable aircraft tie downs provided by the State. This will allow the Contractor to make these tie downs available for a reasonably coordinated request.
- (4) The Contractor shall report discrepancies requiring state maintenance support to the Department representative as soon as possible.

**C     Trash Removal:**

Once each month, during the summer season and twice during the winter months, the Contractor shall collect and remove all trash/debris from the airport and roadway property (only that property not under the control of a lessee (tenant)) and dump it at the nearest local sanitary landfill approved for disposal of garbage. The Contractor shall not allow trash to accumulate on State property or in State owned facilities and buildings.

The Contractor shall participate with any type of local community recycling program and dispose of materials accordingly.

**D     Tools and Miscellaneous Supplies:**

The Contractor shall be responsible for furnishing and maintaining all hand tools and related safety equipment necessary for performance of this contract. The Contractor shall also furnish the following supplies: hand cleaner, paper towels, plastic liners for trash and any other minor supply items necessary for day-to-day compliance with this contract. The Department shall furnish supply items and tools listed within Section (VI) C. All items that are the responsibility of the Contractor shall be included in the overall contract cost.

**E     Supply and Equipment Storage:**

Department owned storage space may be made available to the Contractor for storage of only State owned equipment, materials, and supplies used in the performance of this contract only. Items other than those owned by the State shall not be stored in the equipment storage building without **written** consent of the Department representative. The Contractor shall maintain all building spaces in a neat and orderly manner at all times.

All State owned equipment shall be kept inside of the Snow Removal Equipment Building (SREB) at all times when not in use; no other equipment shall be permitted or allowed inside the SREB without written consent from the Department representative. Prior to parking inside the SREB, all equipment shall be cleared of excess snow and debris.

If the maintenance equipment at the airport is State owned, the Department reserves the right during the life of the contract to add and/or delete equipment, as it deems necessary to be in the Department's best interest.

If the airport has a heated equipment storage building or SREB, the Department shall fill the fuel storage tanks once a year with the required heating fuel. This will normally be accomplished at the beginning of each contract year unless otherwise specified by the Airport Manager. If the Contractor requires additional fuel, the Contractor shall notify the Department Representative. To conserve energy and fuel, thermostat settings shall be kept between 40 and 50 degrees to keep the equipment at operating condition level. The Contractor shall maintain the storage space in a neat and orderly manner at all times. If equipment is not in use for extended periods, heaters shall be turned off to conserve fuel. If the SREB is equipped with a thermostat and a timer relay, the Contractor shall not alter the thermostat, timer or circuit in any way without prior written approval from the Department Representative.

The Contractor shall not use the electrical equipment room for storage. Storage of

equipment, supplies, tools and etc inside the electrical equipment room is prohibited.

**F      Notice to and relations with the Public**

The Contractor shall post in a readily visible and conspicuous location, outside of the airport maintenance facility or at the local Post Office, the name of the individual representing the Contractor. This notice shall include telephone number(s), and/or physical location(s) where the representative may be contacted for the reporting of complaints or requests for information. This notice shall be maintained during the term of the contract.

**G      Maintenance Functions:**

G1. The Contractor will provide assistance to State employees dispatched to the airport for maintenance. The support will include but is not limited to:

- (a) Assist with troubleshooting problems prior to and upon arrival.
- (b) Assist state employees with local arrangements and equipment as necessary to perform maintenance work.

G2. The Contractor will perform minor building maintenance as necessary to ensure the safety and operation of the building and State property. The minor maintenance may include but is not limited to:

- (a) Overhead/Bi-fold door adjustments;
- (b) Personnel door adjustment;
- (c) Furnace filter replacement;
- (d) Change light bulbs;
- (e) Replacement of door weather-stripping;
- (f) Fuel system inspections including tank sticking and water detecting

The Contractor shall provide the following:

**(1)      FALL AND WINTER MAINTENANCE**

**(a)      Airport:**

- (i) The Contractor shall begin snow control efforts at a time no later than when two (2) inches of snow or (1/2) inch of slush have accumulated on runway or taxiway surfaces. In all cases, the Contractor shall begin snow removal efforts with sufficient time to allow completion of normal snow removal on the runway, taxiway and apron surfaces before the first scheduled air carrier flight departure or arrival. Snow drifts and berms will not be allowed to develop on the airport's aircraft movement areas (inside the edge lights or cones) unless the storm is so severe that reasonable efforts to remove snow are unsuccessful, at which time, snow removal operations may cease until the storm subsides to the point where snow removal efforts are effective. If such a condition develops, the Contractor will contact the Department representative.

Note: The Department representative may require the Contractor to issue **NOTAMS** directly to the FAA's Flight Service Station (FSS), under certain circumstances.

(ii) Runway(s) and taxiway(s) shall be plowed free of loose snow full width and length. Snow must be plowed until it is a minimum of twenty (20) feet and/or clearing the Runway Safety Area outside the edges of the runway(s). Snow banks will be placed off the edges and not on the threshold/ends of the runway(s).

(iii) Apron(s) will be plowed free of loose snow. Snow control on apron(s) will begin after the runway(s) and taxiway(s) have been plowed.

(iv) Once runway, taxiway and apron snow control has begun, snow **and** ice will be removed to the greatest extent reasonably possible. If ice cannot be removed or scarified enough to provide a reasonably safe surface for aircraft, the Contractor shall notify the Department's Representative.

(v) Loose snow must be removed from the threshold markers, runway lights, and/or reflectors using caution to avoid damaging or destroying these fixtures. Snow/frost will be cleaned from lights, signs, and threshold markers daily as necessary.

(vi) After snow control efforts are completed, all equipment will be returned to the SREB or moved clear of areas where aircraft operate to a point distant enough not to create a hazard to operating aircraft.

(vii) When present, slush shall be removed from the runway unless the surface is soft enough for the equipment to cause rutting. During spring break up or periods of heavy rain; runway, taxiway and apron shoulders, and adjacent ditches will be cleared to assist drainage.

(viii) The December 18, 2000, "Airport Marking Standards for Unpaved Airports" is included as Attachment "A" to this contract. The Contractor shall assure all cone markers, visibility enhancers and etc are positioned on the airport in accordance with these standards.

(ix) Airport Visual Aids shall be maintained in good working order. These include wind cones and poles, segmented circles, lighting systems, obstruction lights, rotating beacons and beacon towers.

(b) **Roadways:**

(i) Snow plowing operations will begin on roads only after airport snow control efforts have been completed.

Snow control on roads need not begin until **four (4) inches** of loose snow has accumulated on the surface. Once roadway snow control has begun, snow and ice will be removed to the greatest extent reasonably

possible.

(ii) During spring break up and periods of heavy rain, road shoulders and ditches will be graded and any debris removed to assist drainage.

(iii) If provided by the Department, culvert thaw wires will be activated by the Contractor when surface ice appears in drainage ditches and be deactivated by the Contractor when spring thaw has begun. The Contractor will notify the Department representative before activating any thaw wires.

(2) **SPRING AND SUMMER MAINTENANCE**

(a) **Airport:**

(i) All areas on the airport where aircraft operate, except private leasehold property, will be maintained clear of rocks two (2) inches or more in diameter and any foreign objects. These areas will be maintained free of holes or depressions that exceed 3 inches in depth that may affect directional control of an aircraft. Should potholes, ruts, etc. develop, they will be smoothed out as soon as possible. Aircraft Movement Area Surfaces shall be graded, free of rutting and potholes.

(ii) Once each summer, or as determined by the Department representative, all brush and weeds will be cut around the runway, taxiway lighting, threshold markers and SREB to ground level. The Contractor shall conduct minor brush cutting one hundred (100) feet beyond the edges of the runway and one thousand (1,000) feet beyond the thresholds/ends, unless these dimensions encroach upon other than airport property, in which case, cutting will terminate at the property line.

(iii) Once during the spring and once during the fall, the Contractor will assist the Department representative with full length and width grading of gravel surfaces. This shall be done to maintain smooth and consistently level surfaces in aircraft maneuvering areas.

(iv) During seasonal break up the runway will be inspected daily. Should potholes, ruts, or similar surface features develop, they shall be backfilled and compacted with similar or like kind runway surface material. Movement Area Surfaces shall be graded, free of rutting and potholes.

(v) The Contractor shall exercise a proactive vegetation management program and shall include brush and vegetation cut away from the lighting systems and other Airport Visual Aids on airport property.

(b) **Drainage Ditches - Culverts:**

All drainage ditches and culverts will be cleared of any debris that might obstruct drainage. The Contractor will notify the Department representative if during routine inspection, a collapsed, blocked or otherwise obstructed culvert is discovered which is beyond the

Contractor's ability to repair.

(c) **Roads:**

(i) Roadways will be maintained in a smoothly graded state over the entire width of the existing road surface. Roadways shall be sloped from the center to each side in order to allow water to drain from the road.

(ii) The roadway surface will be kept free of rocks three (3) inches or more in diameter.

(iii) All brush or trees must be maintained cut to ground level for a minimum distance of eight (8) feet from the edge of the traveled roadway surface.

(iv) Equipment shall not be driven outside the road limits allowed in this section for clearing purposes without proper coordination with the Department Representative for permitting purposes.

(d) **Signs, Lights, Markers, & Reflectors:**

The Department is responsible for the initial placement of windsocks, threshold markers, runway lights, reflectors, and signs. The Contractor will be responsible for replacing any damaged, missing, or burnt out items of this type in accordance with Item P-660 and Attachment A. Light lens MUST be replaced with the same color and style as the original.

The Contractor will request from the Department representative any materials necessary to repair or replace these items. The Department will provide these materials unless the damage is due to negligence on part of the Contractor. In event these items are damaged by the Contractor negligence, the Contractor will replace these items at his sole expense.

During the Contractor's routine inspections, any of these items needing repair will be marked on the inspection list.

(e) **Maintenance of State Equipment:**

Only persons authorized by the Department representative shall operate State furnished equipment. The Contractor shall assure all State furnished equipment is used only for airport and road maintenance associated with this contract. The Contractor will comply with the following:

(i) Check coolant, hydraulic system, battery, air filter gauge and oil levels before starting equipment to be certain that all are in the recommended operating range.

(ii) The equipment will be greased a minimum of once per week when being used. Transmission and final drives must be checked at this time. Check and/or replace oil and oil filters at factory recommended intervals. Used

oil and oil filters shall be stored in suitable leak-proof containers within the equipment storage building. No material shall be dumped within or outside the building. The Department will be responsible for disposal of these materials.

- (iii) All crawler tractor frames (swing frames), must be cleaned of all debris after each use.
- (iv) Cutting edges will be changed whenever they are worn to within 1/4 inch of the moldboard.
- (v) The fan belt and alternator belt should be tight for proper cooling and battery charging. Should batteries become discharged they will be protected from freezing.
- (vi) State Equipment Fleet winterizes equipment; however, in the event SEF does not winterized the equipment the Contractor shall ensure before freezing weather begins, equipment must be filled with an antifreeze mixture that assures protection to at least minus 50 degrees Fahrenheit. At this time, a check of the radiator and all hoses for leaks and loose hose clamps should be made. Used antifreeze shall be collected and stored in suitable leak-proof containers. No waste material shall be dumped within or outside the building. Inspect and test cranking and charging systems and all assessor heaters.
- (vii) Air cleaners must be checked and cleaned after or during each operation if conditions are severe. Otherwise, on heavy equipment, check every sixteen- (16) hours of use.
- (viii) All vertical exhaust pipes (stacks) must be protected with rain caps or kept covered when the equipment is not being operated.
- (ix) If there are any problems with Department owned equipment that the Contractor is unable to repair, the Contractor will advise the Department representative immediately. For example: If the cutting edges of a blade are worn, after notification, replacement edges will be sent to the Contractor who will replace the worn edges. If the Contractor is unable, for any reason, to perform work of this type the Department representative should be notified.
- (x) The Contractor shall provide all hand tools for performing routine equipment maintenance on Department supplied equipment. During non-routine maintenance such as an engine replacement, Department crews with appropriate tools will be sent to the site to accomplish the work.
- (xi) During the term of this contract, the Department may add, delete, or substitute items of equipment. However, all such changes will be reasonable and not add to the Contractor's maintenance burden.
- (xii) The Department shall furnish all necessary fuel, oil, other lubricants,

antifreeze and associated filters for use on all Department supplied equipment. The Contractor is responsible for these items when Contractor furnished equipment is required and/or used in accord with the terms of this contract.

**H      Runway Conditions and Closure Procedures:**

Before beginning snow removal the Contractor shall contact the Department airport representative or Automated Flight Service Station (AFSS) to issue a Notice to Airman (NOTAM). When the work is completed, the NOTAM shall be canceled by contacting the Department Representative or the AFSS.

Before entering the runway, the Contractor shall make a “blind” radio transmission on the appropriate Common Traffic Advisory Frequency (CTAF) to announce his intentions. For example: “Beaver Traffic, State Maintenance Grader is on the runway removing snow.” After completing his work operation on the runway, he will make a subsequent “blind” notice of his departure.

If at any time the Contractor determines that the runway is unsafe for use by aircraft, he shall contact the Department airport representative or Automated Flight Service Station (AFSS) by the quickest means possible to inform them of the unsafe condition(s).

If it is necessary to close the runway due to unsafe conditions, climatic conditions, or work in progress, the Contractor is to contact the Department airport representative or Automated Flight Service Station (AFSS).

**I      Accident at the Airport:**

If there is an aircraft accident, vehicular accident, any other accident or incident on the airport, the Department representative must be notified as soon as possible.

- (1) In the event a major accident occurs where serious injuries, or fatalities are involved, the Contractor will attempt to rope off the immediate area of the accident in an effort to keep unauthorized persons away. The Contractor will attempt to prevent persons from entering the accident area, except for law enforcement officers, local rescue and medical personnel, National Transportation and Safety Board (NTSB) representatives, State Division of Risk Management, and DOT/PF representatives.
- (2) The Contractor shall provide as much information as possible to the Department representative concerning the accident. It is imperative that the weather and runway conditions be noted at the time of the accident. Photographs shall be taken of the aircraft accident, the surrounding area, and any scattered pieces of wreckage. Pictures shall be taken from eight (8) different directions, to provide a perspective of the accident from all viewpoints.
- (3) The Contractor shall follow reporting procedures as identified in the Accident Procedures as identified at [http://www.dot.alaska.gov/sef/forms/Accident\\_Procedures.pdf](http://www.dot.alaska.gov/sef/forms/Accident_Procedures.pdf) and/or attached.



The Department representative will assist the Contractor in completing any DOT/PF furnished accident report forms.

**J      Storing and Ordering Supplies:**

The Contractor is responsible for assuring all supplies and parts are stored properly labeled and stocked in a safe and practical manner. This includes new and used fuels, oils and lubricants, and replacement parts. The Contractor shall notify the Department representative when parts and supplies are required, in a manner to assure timely procurement and delivery.

If a spill of any petroleum products including oils, fuels, lubricants, or solvents occurs on State property, the Contractor is responsible for assessing and containment of the spill and immediately notifying the Alaska Department of Environmental Conservation at (907) 269-3063 in Anchorage during normal business hours and (800) 478-9300 outside normal business hours in accordance with AS 46.03.755 and 18 AAC 75 Article 3 and the Alaska Department of Transportation representative. The Contractor shall cordon off any spill site, photograph the area, and prepare a written statement of the event as soon after the event as practicable.

In the event the Contractor or Contractor's Representative causes a spill of fuel or other contaminates, the Contractor is responsible for reporting, containing, and cleanup of the spill. All costs associated with the cleanup of the spill, and any remediation that results from the spill shall be at no additional cost to the Department.

**K      Electricity:**

Where Department furnished electricity is not available, the Contractor will be responsible for providing electrical power for pre-heating State equipment during winter months.

The Contractor shall be responsible for the judicious use of electricity whether it is Department or Contractor furnished at the airport SREB(s). Lights will remain off outside of the standard operating times for the airport unless there is an emergency.

**L      Vandalism:**

The Contractor will, to the best of its ability, protect any State assigned equipment from damage or vandalism and promptly inform the Department representative and local law enforcement of any such occurrence.

**M      Traffic Flow:**

The Contractor will perform the required services to assure a minimum amount of interference with aircraft or vehicle operations.

**N      Use of Station Materials:**

The Contractor will be responsible for the judicious use of State supplied materials, supplies, and parts shipped to the station.

O **Other Employment:**

The Contractor, if an individual, shall perform this work as an independent Contractor. If the independent Contractor has other employment, they shall submit in writing that this other employment shall not interfere and/or distract from performing work on this contract.

P **Taxes:**

The Contractor shall pay any federal, state, or local taxes incurred by it during performance of this contract.

Q **Assignment of Contract Responsibilities:**

The Contractor shall not subcontract this contract without the prior approval of the Department Representative. The Contractor shall be responsible for all aspects of this contract.

R **Other Equipment Used or Leased by Contractor:**

Unless authorized in advance by the Department, if the Contractor leases any equipment from third parties for the performance of this contract, the Contractor will be solely responsible for reimbursement of any expense or liability associated with the rental agreement.

S **Work performed by the Contractor Beyond Scope of Contract:**

Any additional services performed by the Contractor, which require additional compensation, must be approved in writing by the Department, and signed by the Department representative prior to commencement of any work.

T **Training**

The Contractor and any approved subcontractor shall be responsible for attending all Airport training when notified of such training by the Department representative. When training occurs away from the airport, all travel expenses will be paid by the Department.

U **State Assets**

It shall be the Contractor's responsibility to protect all State assets.

(VI) **DEPARTMENT RESPONSIBILITIES:**

A **Department Representative:**

The Department will assign a representative who will be available, during reasonable time periods, in order to provide coordination and direction to the Contractor concerning matters related to the terms and conditions of this contract.

B **NOTAMs:**

Notice to Airmen (NOTAMs), are advisory messages distributed to airport users by the FAA regarding airport conditions that may be hazardous. NOTAMs must be issued by the airport operator. When advised by the Contractor of hazardous conditions, the Department representative will endeavor to issue a NOTAM describing the condition. However, due to the remote nature of the Airport, lack of continual monitoring and unreliable communication facilities, it is often difficult to assure that NOTAMs are published for all conditions. Therefore, the Department will assure that a notice is continually published within the "Supplement Alaska" which advises pilots to use caution when operating into the Airport due to the frequent lack of surveillance for airport hazards. Pilots will also be advised to provide their own airport condition inspections before operating at the airport.

**NOTE:** The Department representative may require the Contractor to issue NOTAMs directly to the FAA Flight Service Station (FSS), under certain circumstances.

**C     State Provided Materials:**

Unless otherwise required to be supplied by the Contractor under Section (V) D "Contractor Responsibilities," the Department will provide all parts, materials, and items needed for the Contractor's use when performing work under the terms of this contract. This includes all necessary fuel, oil, other lubricants, antifreeze and associated filters for use on all State supplied equipment.

**D     Storage:**

If available, State owned storage space may be made available to the Contractor for storage of equipment, materials, and supplies used in the performance of this contract.

**E     Work beyond the Contractor's Capabilities:**

The Department will be responsible for repair and maintenance of items beyond the Contractor's scope of ability as specified under "Contractor Responsibilities."

**F     Accident Reporting:**

The Department representative will assist the Contractor in completing any State furnished Accident Report Form, if an accident should occur on the Airport.

**G     Non-Routine Maintenance on Heavy Equipment:**

During non-routine maintenance, such as an engine replacement, Department crews with appropriate tools will be sent to the site to accomplish the work. The Contractor shall provide tools for performing routine equipment maintenance on State supplied equipment.

**H     Adding or Substituting Items of Heavy Equipment:**

During the term of this contract, the Department may add, delete, or substitute items of equipment. However, all such changes will be reasonable and not add to the Contractor's maintenance burden.

**(VII) EXCLUSION:**

- A Work stipulated in this contract is not required on State land that is leased to another party. When such areas are under the control of a lessee, the lessee is responsible for maintaining all aircraft maneuvering surfaces on the leased property.
- B No work is required for the repair of radio operated electrical devices, with the exception of fuse replacement, circuit breaker resetting, and bulb replacement.

**(VIII) INDEMNIFICATION (loss, damage, and insurance)**

- A. The Contractor shall indemnify, hold harmless, and defend the contracting agency from and against any claim of, or liability for error, omission or negligent act 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 and the following 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.
- B Without limiting Contractor's indemnification, it is agreed that Contractor shall purchase at its own expense and maintain in force at all times during the performance of services under this agreement the policies of insurance listed in Section (IX) of this contract. 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 state shall be entitled to coverage to the extent of such higher limits. Certificates of Insurance must be furnished to the Contracting Officer prior to beginning work and must provide for notice of cancellation, nonrenewal or material change of conditions in accordance with policy provisions. Failure to furnish satisfactory evidence of insurance or lapse of the policy is a material breach of this contract and shall be grounds for termination of the Contractor's services. All insurance policies shall comply with, and be issued by insurers licensed to transact the business of insurance under AS 21.

**(IX) INSURANCE REQUIREMENTS**

The Contractor shall provide evidence of insurance with a carrier or carriers satisfactory to the Department covering injury to persons and/or property suffered by the State of Alaska or a third party, as a result of operations under this contract by the Contractor or by any subcontractor. This coverage will also provide protection against injuries to all employees of the Contractor and the employees of any subcontractor engaged in work under this contract. The delivery to the Department of a written notice is required before cancellation of any coverage or reduction in any limits of liability in accordance with policy provisions.

The Contractor shall maintain in force at all times, during the performance of work under this contract, the following policies of insurance. All insurance policies shall comply with, and be issued by insurers licensed to transact the business of insurance under AS 21. Failure to maintain the specified insurance may, at the

option of the Contracting Officer, be deemed as breach of contract. Where specified limits and coverages are shown, it is understood that they shall be the minimum acceptable. Additional insurance requirements specific to this contract are contained in the Invitation for Quotes, when applicable.

- A. Workers' Compensation Insurance: The Contractor shall provide and maintain, for all employees engaged in work under this contract, coverage as required by AS 23.30.045, and; where applicable, any other statutory obligations including but not limited to Federal U.S.L. & H. and Jones Act requirements. The policy must waive subrogation against the State. If the contractor does not have any employees, then the contractor shall provide a written statement as such.
- B. Commercial Automobile Liability Insurance: covering all vehicles used by the Contractor in the performance of services under this agreement with combined single limits not less than \$1,000,000 bodily injury and property damage per accident or occurrence. If the contractor will not utilize any vehicles personal or contractor owned vehicles in the performance of their contract responsibilities, then the contractor shall provide a written statement as such.
- C. Personal Automobile Liability Insurance: The Contractor shall provide a copy of personal automobile liability with minimum coverage limits of \$300,000 combined single limit per occurrence. If the Contractor will not utilize personal automobiles or travels to and from work on a snowmobile, ATV, bicycle or walks, then the contractor shall provide a written statement as such.

The Department of Transportation and Public Facilities shall be named as an additional insured for all automobile liability coverages. All of the above insurance coverages shall be considered to be primary and non-contributory to any other insurance carried by the State of Alaska, whether through self-insurance or otherwise.

In addition to providing the above coverage, the Contractor shall, in any contract or agreement with subcontractors performing work, require that all indemnities and waivers of subrogation it obtains, and that any stipulation to be named as an additional insured it obtains, also be extended to waive rights of subrogation against the State of Alaska and to add the State of Alaska as additional named indemnitee and as additional insured.

Evidence of Contractor's ability to obtain insurance shall be furnished to the Department prior to award. Evidence of Insurance shall be furnished to the Department prior to issuance of a Notice to Proceed. Such evidence, executed by the carrier's representative and issued to the Department, shall consist of a certificate of insurance or the policy declaration page with required endorsements attached thereto which denote the type, amount, class of operations covered, effective (and retroactive) dates, and dates of expiration. Acceptance by the Department of deficient evidence does not constitute a waiver of contract requirements.

When a certificate of insurance is furnished, it shall contain the following statement:

"This is to certify that the policies described herein comply with all aspects of the insurance requirements of **(Project Name and Number)**."

**(X) TERMINATION**

- A The Department may terminate the contract by giving seven (7) days notice to the Contractor if:
- (1) The Contractor fails to comply with the terms of this contract. In this event, the Contractor shall forfeit the performance bond, if required.
  - (2) The Contractor fails to begin work under this contract within the time specified in the contract documents.
  - (3) The Contractor fails to conduct the on-site inspections as defined in this contract.
  - (4) The Contractor performs this work in an unsuitable manner or discontinues the prosecution of said work as defined in this contract.
  - (5) The Contractor performs this work in an unsafe manner placing any parties involved in this contract at risk.
  - (6) The Contractor makes an assignment for the benefit of creditors without the consent of the Contracting Officer.
  - (7) The Contractor fails to attend training courses as directed by the Department unless specifically excused by the Department airport representative.
  - (8) The Contractor disregards Regulatory Requirement of any public body having jurisdiction at Airport location.
  - (9) The Contractor allows any assessed final judgment to stand unsatisfied for a period of 60 days.
  - (10) The Contractor utilizes any State furnished equipment, materials, facilities and etc for any reason other than for the sole purposes of performing this contract in accordance with the contract work areas identified in paragraph (l)A above.
- B The Department may terminate this contract by providing seven (7) days notice, at any given time, if funding for the contract, as allocated by the Alaska Legislature, is insufficient for continuation of the contract. This contract is contingent upon funding of the Department's Operating Budget.
- C The Contractor may terminate the contract by giving thirty (30) days written notice to the Department representative, with no penalty or forfeiture of performance bond, if one is required.
- D The Contractor will forfeit the performance bond, if required, if the Contractor ceases providing the services required in accord with the terms of this contract, unless the Contractor has provided the Department with a written thirty (30) days termination notice and continued to perform the required services during the thirty (30) day period.
- E The Department may terminate the contract in whole or in part for the convenience of the state.

- F If there is any damage, waste, theft and etc. by the contractor or knowingly allows such activities, the contract may be immediately terminated by the Department. Examples are, but not limited to, damage beyond normal wear and tear to any structure or infrastructure, unauthorized consumption/use of any utility such as electricity or fuel, any type of damage of navigational aids and lights, and etc.

#### (XI) PAYMENTS

- A If a Contractor uses a subcontractor or employee to perform the work or a portion of the work required under this contract, the subcontractor or employee must receive payment from the Contractor at least monthly. In the event the Contractor fails to pay the subcontractor or employee within seven days following receipt of the quarterly payment from the Department, the Department reserves the right to withhold any payment from the Contractor until such time the subcontractor or employee is paid.
- B The Department reserves the right to withhold payment for contractual services of the Contractor and/or all subcontractors or employees who fail to attend all required training.
- C Payments to the Contractor by the Department for services provided under the terms of this contract will be based on quarterly statements submitted by the Contractor to the Department representative. The statement will be due no later than the tenth (10) calendar day of each month following the close of the quarter. Quarter's end September 30, December 31, March 31 and June 30.
- D Hour meter readings for each piece of equipment shall be included with each quarterly statement.
- E The Department reserves the right to withhold payment of contractual services from the Contractor and/or all subcontractors or employees who perform any unauthorized alterations to State property or equipment in order to pay for repairs to reinstate to the original condition.
- F The annual prices bid by the Contractor referenced on the Quote Submittal shall be inclusive of one full 12 month State of Alaska Fiscal Year period. Any contract duration which does not contain 12 full months of the State of Alaska's Fiscal Year shall be prorated beginning the Date of Award and paid accordingly with this contract and technical specifications.
- G **Consumer Price Index (CPI):** Contract prices for service will remain firm through 6/30/2017. This contract allows for a contract price adjustment for each annual renewal period.

Contractors must request price adjustments, in writing, 30 days prior to the renewal date. If a contractor fails to request a CPI price adjustment 30 days prior, the adjustment will be effective the next quarter after the State receives their written request. Quarterly effective dates would be October 1, January 1 & April 1.

Price adjustments will be made in accordance with the percentage change in the U.S. Department of Labor Consumer Price Index (CPI-U) for All Urban Consumers, All Items, Anchorage Area.

The price adjustment rate will be determined by comparing the percentage difference between the CPI in effect for the base year six month average (July through December 2013); and July through December six month average as indicated in the First Adjustment Comparison below. The percentage difference between those two CPI issues will be the price adjustment rate. Further calculations for the Second and future adjustment comparisons are indicated below. No retroactive contract price adjustments will be allowed.

The CPI price adjustment for this contract would be based on:

Contract Renewal Date:	Each June 30 <sup>th</sup> , beginning in 2015
CPI Base Index Date Range:	July through December 2013
First Adjustment Comparison:	July through December 2013 and July through December 2014
Second Adjustment Comparison:	July through December 2014 and July through December 2015

- H     **Direct Deposit:** If the contractor has not previously established direct deposit for payments with the State of Alaska, the contractor's shall complete the Electronic Payment Agreement, currently located at [http://doa.alaska.gov/dof/forms/resource/EDI\\_agreement.pdf](http://doa.alaska.gov/dof/forms/resource/EDI_agreement.pdf) and either mail or fax the completed form to the address or fax number as indicated.
- I     Payment will be made in accordance with AS 37.05.285 (a)(2).



## ATTACHMENT A

### AIRPORT MARKING STANDARDS FOR UNPAVED AIRPORTS

**December 18, 2000**

The following standards for runway markers will be used by Department of Transportation and Public Facilities (DOT&PF) staff in the design, construction, and maintenance of unpaved airports. These standards will be implemented when designing new airport improvement projects and maintaining all existing DOT&PF unpaved airports, as adequate funding allows. Ultimately, all DOT&PF unpaved airports will be marked according to standards described below and shown in Figures 660-1 through 660-4. These standards have been reviewed and found acceptable by the FAA and supersede previous standards dated October 9, 1986. The standards begin with definitions of runway and runway safety area because the placement of markers depends on the designation of the boundaries of these areas.

**Runway:** A defined rectangular maneuvering area on an airport prepared and maintained for the landing or takeoff operations of aircraft. The runway is the only portion of an airport that should be used for aircraft landings and takeoffs. The runway is distinct and should be distinguished from other surfaces such as taxiways or safety areas and maintained accordingly. The dimensions of a runway are defined in the Airport Layout Plan (ALP) or, where an ALP does not exist, is outdated or is incorrect, the dimensions should be determined after consultation with the FAA. After a runway's length and width are established, these dimensions must be published in the Airport/Facility Directory (Supplement Alaska) and the Airport Master Record (Form 5010). Subsequent changes to the runway length or width also must be promptly noted in these publications. Guideline criteria used for determining runway dimensions on the different classes of airports may be found in FAA Advisory Circular No. 150/5300-13.

**Runway Safety Area:** Defined as a surface surrounding the runway that has been prepared for reducing the risk of damage to airplanes in the event of an undershoot, overshoot or excursion from the runway. A rectangular area centered on the runway centerline which includes the runway (and stop way, if present) and runway shoulders. Safety areas are not intended for normal aircraft operations but enhance the safety for airplanes that undershoot, overrun, or veer off the runway. It provides accessibility for fire fighting and rescue equipment during such incidents. The safety area is cleared, drained, graded, may be turfed and must not have any potentially hazardous ruts, depressions, humps or other surface variations. Safety areas are designed and maintained to support the movement of any aircraft allowed to use the airport without causing substantial damage. If a safety area cannot be maintained to this standard, the unusual and hazardous condition must be NOTAM'd or the dimensions of the safety area must be reduced to include only the area that can be maintained free of conditions that might cause substantial damage to an aircraft. On airports that provide snow removal services, the FAA regulations and advisory circulars require that snow be removed from safety areas only to the extent that aircraft on the runway does not make contact with snow banks. However, it is advisable to maintain the safety areas off the thresholds clear of significantly large snow banks and assure that all lights or markers are visible.

Guideline criteria used for determining safety area dimensions on the different classes of airports may be found in FAA Advisory Circular No. 150/5300-13. As is often the case in Alaska, it sometimes is impractical to construct an airport in accordance with these particular standards. In those instances, the FAA will work with airport operators on a case-by-case basis in order to establish alternative dimensions.

#### **Runway Threshold Marking**

##### Unlighted Runways

**Threshold cone markers.** On unlighted runways, use reflective cone markers to mark the runway

threshold. Place three (3) cone markers on each side of a threshold, for a total of six (6) markers on each end (figure 660-1). Place the markers in a line perpendicular to the extended runway centerline and between 2 feet and 10 feet from the designated runway threshold. Place the innermost threshold cone marker in line with the runway edge markers. Space the remaining threshold cone markers evenly at 10-foot intervals outbound from the runway (figure 660-1). Use markers that do not exceed 30 inches in height. Use reflective cone markers with 180-degree green and 180-degree red reflective bands. Position the markers so that only the red color is visible from the runway side, and only green is visible from the approach path. Use a reflective band made of high intensity sheeting of sufficient width to meet FAA specifications for reflective markers (AC 150/5345-39D for reflectivity specifications).

## Lighted Runways

**Threshold lights.** Identify runway threshold by lighting:

- a. on a runway used exclusively for visual operations use six (6) lights on each end (three on each side)
- b. on an instrumented runway, use eight (8) lights on each end whenever there is any likelihood that a navigation aid and commissioned approach may be placed in service at the airport.

Place threshold lights in a line perpendicular to the extended runway centerline and between 2 feet and 10 feet from the designated runway threshold. Place the innermost runway threshold light in line with the runway edge lights, and space the remaining lights evenly at 10-foot intervals outbound from the runway (figure 660-1). Use threshold lights with green and red split lenses. Position the lights so that only the red color is visible from the runway side, and only green is visible from the approach path.

**Threshold cone markers.** On lighted runways, use reflective cone markers in conjunction with lights to identify the runway threshold. Place a reflective cone marker over the top of each light so the light protrudes from the top of the cone marker (figures 660-1, 660-2 & 660-3). Use reflective cone markers with 180-degree green and 180-degree red reflective bands. Position the markers so that only the red color is visible from the runway side, and only green is visible from the approach path. Use a reflective band made of high intensity sheeting of sufficient width to meet FAA specifications for reflective markers (AC 150/5345-39D for reflectivity specifications).

## Lighted and Unlighted Runways

**Reflective threshold markers:** Mark the ends of lighted and unlighted runways with reflective threshold markers. Use five (5) markers on each side of a threshold, for a total of ten (10) markers on each end (figures 660-1 & 660-2). Place the markers perpendicular to the runway centerline and space them at 1.7-foot intervals between the first two runway threshold cone markers (or cone markers with lights) (figures 660-1 & 660-2). Use markers consisting of flexible posts, not to exceed 30 inches in height, covered by reflectivity enhancers. Use orange markers with a 180-degree green band toward the approach path and a 180-degree red reflective band toward the runway (figure 660-1). Use reflective bands made of high intensity sheeting of sufficient width to meet FAA specifications for reflective markers (AC 150/5345-39D for reflectivity specifications).

## **Runway Edge Marking**

### Unlighted Runways

*Reflective edge markers.* Cones, flexible posts, wands or other frangible markers are a visual substitute for lights. Position them similarly to runway edge lights (AC 150/5340-30E). Line each side of the runway with a row of reflective edge markers. Place each row of edge markers parallel to the centerline and from 2 feet to 10 feet outside the edge of the designated runway. Use equidistant longitudinal spacing not to exceed 200 feet, in accordance with AC 150/5340-30E. Place markers from one edge row directly across from the markers on the opposite edge row. The area between the edge of the designated runway and the markers must support an aircraft's weight without causing damage to the aircraft. If the area between the markers and the edge of the designated runway cannot support an aircraft, place the markers on the edge of the designated runway. Use markers that are frangible and are not less than 14 inches nor more than 30 inches in height (figure 660-4). Use white reflective bands made of high intensity sheeting of sufficient width to meet FAA specifications for reflective markers (AC 150/5345-39D for reflectivity specifications).

#### Lighted Runways

*Combination reflective edge markers and lights.* Where runway lights are in place, install markers, as detailed in the previous section, either on the light (figure 660-3) or slightly outboard (figure 660-4). Use reflective bands that match the color of the runway lights (yellow/white) as appropriate. Install runway lights as per AC 150/5340-30E.

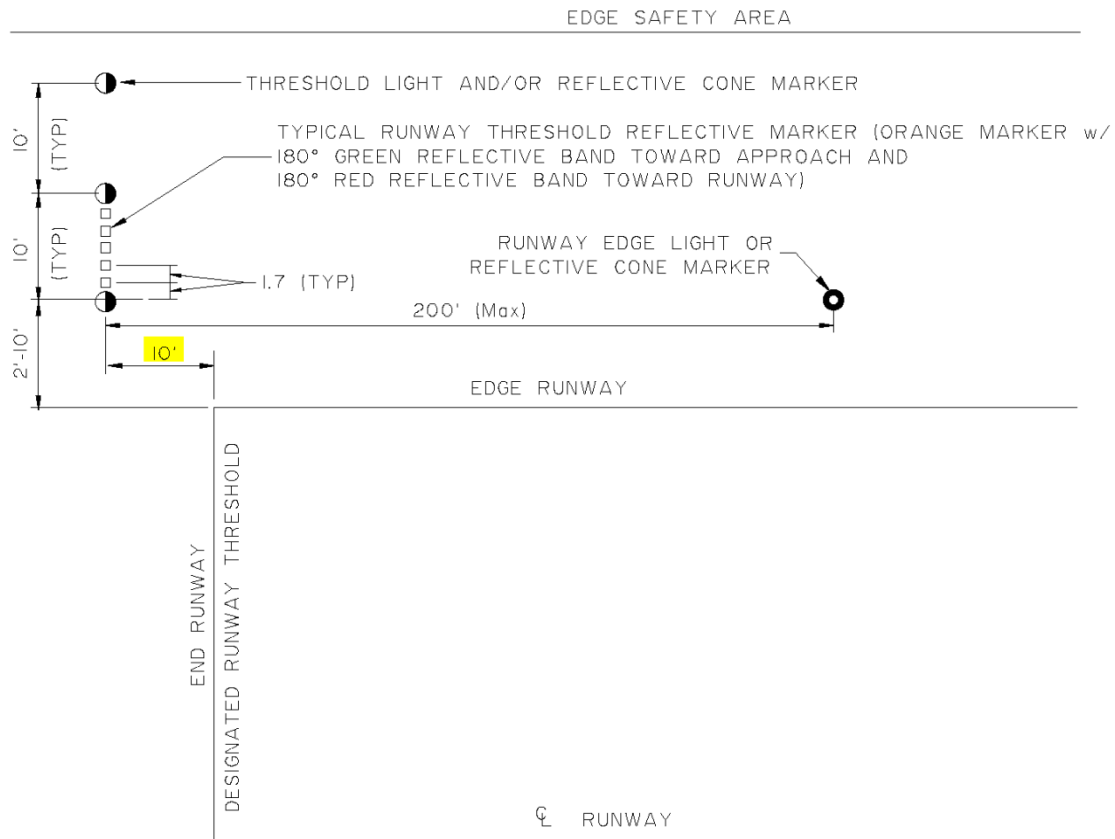
#### **Taxiway Edge Marking**

##### Unlighted Taxiways

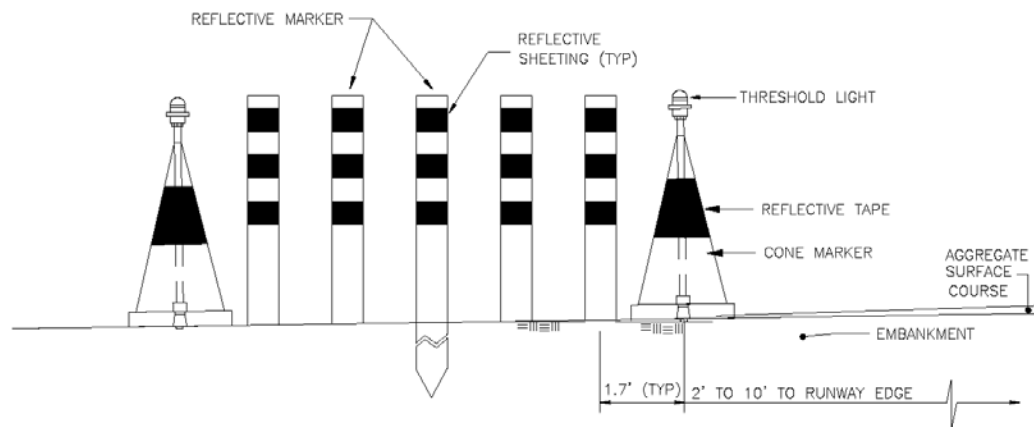
*Reflective edge markers.* Cones, flexible posts, wands, or other frangible markers are a visual substitute for lights. Position them similarly to taxiway edge lights (AC 150/5340-30E). Line each side of the taxiway with a row of reflective edge markers. Place each row of edge markers parallel to the centerline and from 2 feet to 10 feet outside the edge of the designated taxiway. Use equidistant longitudinal spacing not to exceed 200 feet, in accordance with AC 150/5340-30E. The longitudinal spacing of the markers is influenced by the physical layout of the taxiway. The area between the edge of the designated taxiway and the markers must support an aircraft's weight without causing damage to the aircraft. If the area between the markers and the edge of the designated taxiway cannot support an aircraft, place the markers on the edge of the designated taxiway. Use markers that are frangible and are not less than 14 inches nor more than 30 inches in height (figure 660-4). Use blue reflective bands made of high intensity sheeting of sufficient width to meet FAA specifications for reflective markers (AC 150/5345-39D for reflectivity specifications).

##### Lighted Taxiways

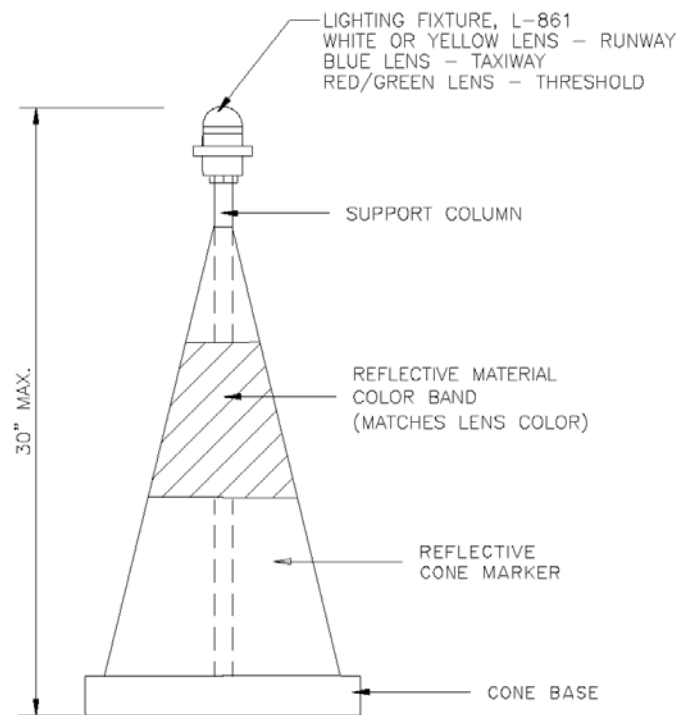
*Combination reflective markers and lights.* Where taxiway lights are in place, install markers, as detailed in the previous section, either on the light (figure 660-3) or slightly outboard (figure 660-4). Install taxiway lights as per AC 150-5340-30E.



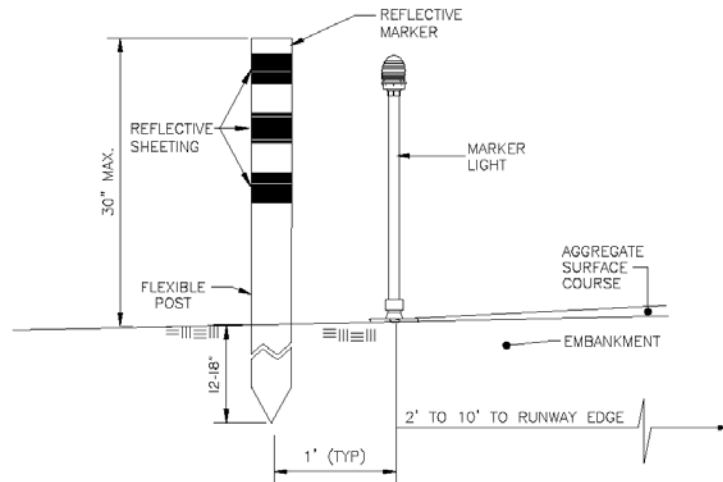
**Figure 660-1**  
**Typical Threshold Detail**  
**No Scale**



**Figure 660-2**  
**Threshold Reflective Marker Details**  
**No Scale**



**Figure 660-3**  
**Reflective Cone Marker with Light**  
**No Scale**



**Figure 660-4**  
**Example Detail for Runway/Taxiway Edge Reflective Marker**  
**No Scale**