

# Department of Transportation and Public Facilities

CENTRAL REGION – DIVISION OF DESIGN & CONSTRUCTION CONTRACTS SECTION

4111 AVIATION AVENUE P.O. BOX 196900 ANCHORAGE, AK 99519-6900 Main: 907.269.0400 Fax: 907.269.0425 TTY: 907.269.0473

Date: Apri

April 29, 2014

Project:

Kodiak Airport RSA Extension &

Kodiak Airport Devils Creek Culvert

Repair

Project No.:

AIP 3-02-0158-017-2014/53587 &

AIP 3-02-0158-01X-201X/57474

Addendum No. THREE

# TO ALL PLANHOLDERS:

The enclosed addendum amends the bidding documents for the above referenced Project.

Acknowledgment of this addendum is required on the Bid Proposal. Failure to do so may subject the bidder to disqualification.

Sincerely,

Sharon L. Smith, P.E.

Chief of Contracts

ADDENDUM TO THE CONTRACT DOCUMENTS	Page Number 1	No. of Pages 2
Addendum No. Three	Date Addendum Issued:	April 29, 2014
Issuing Office	Previous Addenda Issue	ď
Joel G. St. Aubin, P.E., Director, Design & Construction Central Region PO Box 196900, Anchorage, AK 99519-6900 Phone: 269-0400 Fax: 269-0425	One, dated April 21, 2 Two, dated April 28, 2	
Project: Kodiak Airport RSA Extension & Kodiak Airport Devils Creek Culvert Repair Project No.: AIP 3-02-0158-017-2014/53587 & AIP 3-02-0158-01X-201X/57474  Date and Hour of Bid Opening: May 2, 20 p.m., prevailing Anchorage time.		

#### NOTICE TO BIDDERS:

Bidders must acknowledge receipt of this addendum prior to the hour and date set for bid opening by one of the following methods:

(a) By acknowledging receipt of this addendum on the bid submitted.(b) By telegram or telefacsimile which includes a reference to the project and addendum number.

The bid documents require acknowledgment individually of all addenda to the drawings and/or specifications. This is a mandatory requirement and any bid received without acknowledgment of receipt of addenda may be classified as not being a responsive bid. If, by virtue of this addendum it is desired to modify a bid already submitted, such modification may be made by telegram or telefacsimile provided such a telegram or telefacsimile makes reference to this addendum and is received prior to the opening hour and date specified

The Contract Documents for the above project are amended as follows (All other terms and conditions remain unchanged):

#### NOTICE TO BIDDERS

- 1) Bidders are hereby notified that additional information to assist in preparing bids is now available for reviewing on the ADOT&PF advertising web site as follows:
  - a) Updated quantity calculations for Item P-511a

#### **PLANS**

Kodiak Airport RSA Extension

2) Sheets AD2, and AD3. Remove and replace with Attachment No. 1.

Kodiak Airport Devils Creek Culvert Repair

3) Sheet 4 Estimated Quantities and Estimating Factors. Remove and replace with Attachment No. 2.

## **PART 3 - FORMS**

4) Bid Schedule. Remove and replace with Attachment No. 3.

# PART 4 - CONTRACT PROVISIONS AND SPECIFICATIONS

- 5) **Section 80 Prosecution and Progress**. Remove pages 5 and 6 and replace with **Attachment No. 4**.
- 6) Item P-511 Microsilica Modified Concrete. Remove pages 7 and 8 and replace with Attachment No. 5.
- 7) **Appendix D Construction Safety and Phasing Plan**. Remove pages i and ii, 1 and 2, 9 through 14, and 35 through 41 and replace with **Attachment No. 6**.
- 8) Appendix D Construction Safety and Phasing Plan Appendix D.2 Phasing Drawings. Remove Drawings AD 1 through AD 4 and replace with Attachment No. 7.

END OF ADDENDUM

#### CONSTRUCTION SUMMARY:

WORK ASSOCIATED FOR THIS PHASE INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING:

- . IMPLEMENT SAFETY PLAN REQUIREMENTS INCLUDED IN THE SPCD.
- · IMPLEMENT BEST MANAGEMENT PRACTICES.
- . DEACTIVATE THE FAA GLIDE SLOPE AND REIL. (TO BE PERFORMED BY FAA).
- INSTALL TEMPORARY REIL.
- . INSTALL TEMPORARY THRESHOLD LIGHTS AS SHOWN OF THE PLANS.
- INSTALL TEMPORARY THRESHOLD BAR AND CHEVRONS AS SHOWN IN THE SAFETY PLAN DETAILS.
   COVER THRESHOLD AND RUNWAY 25 DESIGNATION NUMBER AS SHOWN IN THE SAFETY PLAN
- CONSTRUCT THE NEW EMBANKMENT FOR THE SAFETY AREA EXTENSION EAST OF THE EAST END
  OF RUNWAY 7/25 TO INCLUDE PLACING OF EMBANKMENT MATERIAL AND SHORE PROTECTION.
- REMOVE TEMPORARY LIGHTING AND MARKING FOLLOWING COMPLETION OF EMBANKMENTS.
- RESTORE REIL SYSTEMS TO ITS ORIGINAL LOCATION (TO BE PERFORMED BY THE FAA).
- RESTORE REIL SYSTEMS TO ITS ORIGINAL LOCATION (TO BE PERFORMED
   REACTIVATE GLIDESLOPE (TO BE PERFORMED BY THE FAA).

#### 2.AREAS CLOSED TO AIRCRAFT OPERATIONS

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THE THRESHOLD OF RUNWAY 25 WILL BE RELOCATED BY (533') TO THE WEST. THE FIRST (533') OF RUNWAY WILL BE CLOSED TO AIRCRAFT OPERATIONS.

#### 3. TAXI ROUTES

TAXI ROUTES WILL NOT BE AFFECTED DURING THIS PHASE AND NO TAXIWAY WILL BE CLOSED.

#### 4. ARFF ACCESS ROUTES

ARFF ACCESS ROUTES WILL NOT BE AFFECTED DURING THIS PHASE.

#### 5.CONSTRUCTION HAUL ROUTES

ROUTES ARE SHOWN ON THE PHASING PLANS AND SHALL BE GENERALLY AS FOLLOWS:

THE PRIMARY HAUL ROUTE SHALL BE FROM REZANOF DRIVE WEST, EXIT ON DRIVEWAY LOCATED NORTH OF DEVIL'S CREEK. ENTER AOA THROUGH SECURITY GATE AND PROCEED EAST ALONG SERVICE ROAD SOUTH OF TAXIWAYS D AND C. CROSS RUNWAY 18/36 AND 11/29 TO THE SERVICE ROAD EAST OF RUNWAY 18/36. ENTER PROJECT AREA.

#### 6. IMPACTS ON NAVAIDS

THE GLIDE SLOPE FOR RUNWAY 25 WILL BE DEACTIVATED DUE TO THE RELOCATION OF THE RUNWAY 25 THRESHOLD.

# RUNWAY 25 VASI WILL BE DENOTIVATED AND TEMPORARILY RELOCATED 500' TO THE WEST. NEW

THE REIL WILL BE DEACTIVATED AND TEMPORARILY RELOCATED BY 533 TO THE WEST. NEW TEMPORARY WIRING AND LIGHT BASES WILL BE INSTALLED.

EXISTING VASI AND REIL EQUIPMENT WILL BE UTILIZED.

#### 7.LIGHTING AND MARKING CHANGES

THE RUNWAY 25 THRESHOLD WILL BE RELOCATED BY 533 TO THE WEST. THE RUNWAY EDGE LIGHTS AND THRESHOLD LIGHTS FOR THE CLOSED END OF THE RUNWAY WILL BE DEACTIVATED. TEMPORARY THRESHOLD LIGHTS WILL BE INSTALLED AT THE RELOCATED THRESHOLD.

A TEMPORARY THRESHOLD BAR WILL BE PLACED AT THE NEW THRESHOLD WITH TEMPORARY CHEVRONS LEADING UP TO THE BAR.

THE RUNWAY THRESHOLD AND DESIGNATION NUMBERS WILL BE COVERED.

#### 8. AVAILABLE RUNWAY LENGTH

RUNWAY LENGTH WILL BE SHORTENED TO 7,000' FEET DURING THIS PHASE. SEE THE DECLARED DISTANCES INCLUDED AS FOLLOWS:

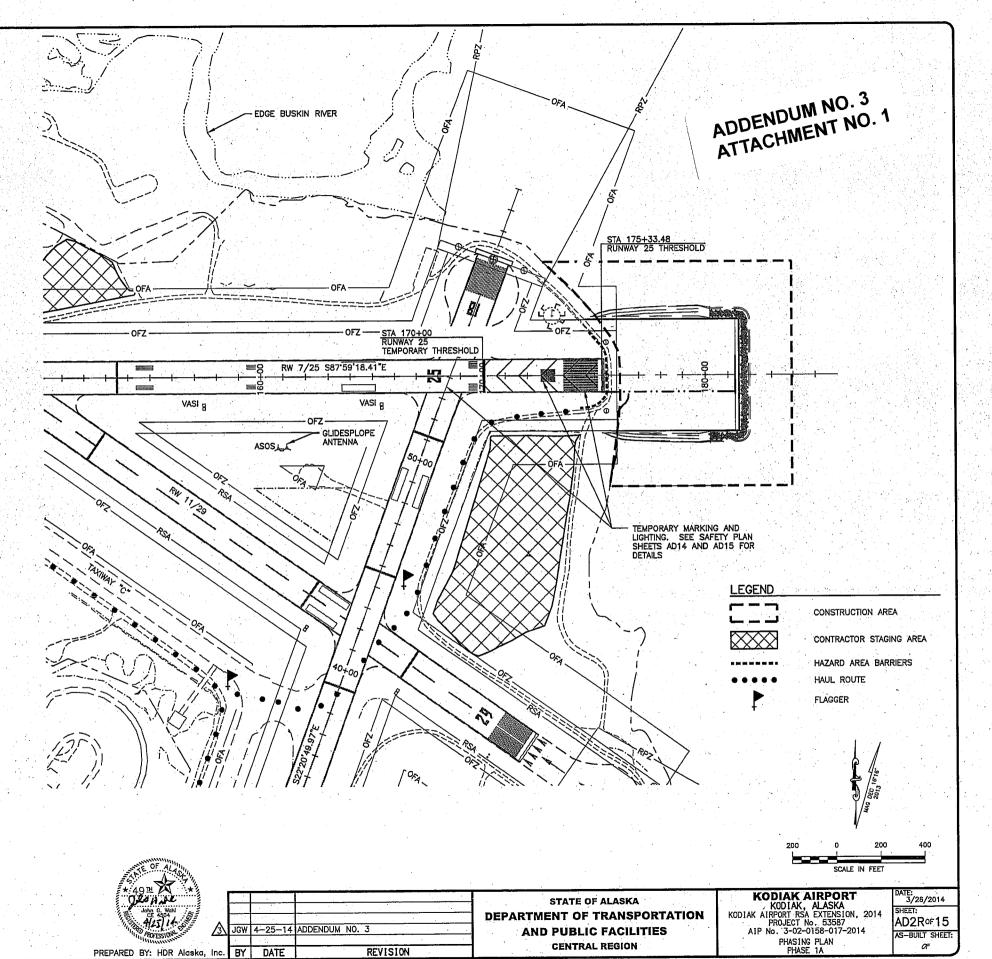
#### RUNWAY 7

ASDA = 7,000' TORA = 7,000' TODA = 7,000' LDA = 7,000'

**RUNWAY 25** 

ASDA = 6,000' TORA = 6,000' TODA = 6,000' LDA = 7,000'

THERE IS NO SAFETY AREA BEYOND THE ENDS OR PRIOR TO THE BEGINNING PF EACH RUNWAY.



PREPARED BY: HDR Alaska, Inc.

JGW 4-25-14 ADDENDUM NO. 3

REVISION

DATE

BY

3/26/2014

AD3Ror15

AS-BUILT SHEET:

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AIP No. 3-02-0158-017-2014

PHASING PLAN PHASE 1B

AND PUBLIC FACILITIES

**CENTRAL REGION** 

# **ESTIMATED QUANTITIES**

No.	ITEM	UNIT	QUANTITY
G-100a	MOBILIZATION AND DEMOBILIZATION	L.S.	ALL REQ'D
G-115a	WORKER MEALS AND LODGING, OR PER DIEM	L.S.	ALL REQ'D
G-130a	FIELD OFFICE	L.S.	ALL REQ'D
G-130b	FIELD LABORATORY	L.S.	ALL REQ'D
G-130j	ENGINEERING COMMUNICATION	c.s.	ALL REQ'D
G-135a	CONSTRUCTION SURVEYING BY THE CONTRACTOR	L.S.	ALL REQ'D
G-135b	EXTRA THREE PERSON SURVEYING PARTY	HOUR	20
G-200a	CONTRACTOR QUALITY CONTROL PROGRAM	L.S.	ALL REQ'D
G-300a	CPM SCHEDULING	L.S.	ALL REQ'D
G-700a	AIRPORT FLAGGER	c.s.	ALL REQ'D
P-152ae	DITCH LINING	TON	230
P-152i(2)	BORROW (<10% No. 200)	TON	1355
P-157a	EROSION, SEDIMENT, AND POLLUTION CONTROL ADMINISTRATION	L.S.	ALL REQ'D
P-157b	TEMPORARY EROSION, SEDIMENT, AND POLLUTION CONTROL	c.s.	ALL REQ'D
P-157f	WITHHOLDING	c.s.	ALL REQ'D
P-157g	SWPPP MANAGER	L.S.	ALL REQ'D
P-161b	RECYCLED ASPHALT PAVEMENT	C.Y.	30
P-164a	HYDRODEMOLITION	S.Y.	1600
P-164b	SCARIFICATION	S.Y.	700
P-165a(2)	REMOVAL OF STRUCTURES (DEVILS CREEK)	L.S.	ALL REQ'D
P-511a	MICROSILICA MODIFIED CONCRETE	TON	500 3
P-511b	EPOXY-BONDED EPOXY MORTAR	S.Y.	700
P-610g	STEEL REINFORCEMENT	L.F.	7000

# **ESTIMATING FACTORS**

# ITEM DESCRIPTION

# **ESTIMATING FACTOR**

HOT MIX ASPHALT

150 lb./cu.ft.

ASPHALT CEMENT

5.5%

CRUSHED AGGREGATE BASE COURSE

145 lb./cu.ft.

SUBBASE

142 lb./cu./ft.

DITCH LINING

130 lb./cu.ft.

ADDENDUM NO. 3 ATTACHMENT NO. 2



DJG 4-28-14 ADDENDUM NO. 3 DJG 4-17-14 ADDENDUM NO. 1 PREPARED BY: HDR Alaska, Inc. BY DATE

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION

KODIAK AIRPORT
KODIAK, ALASKA

DEWLS CREEK CULVERT REPAIR
PROJECT No. 57474
AIP No. 3-02-0158-01-201\_
ESTIMATED QUANTITIES
AND ESTIMATING FACTORS

ATE: 3/18/2014 SHEET: 4R OF 9 AS-BUILT SHEET:

# ADDENDUM NO. 3 ATTACHMENT NO. 3

State of Alaska
Department of Transportation
& Public Facilities
Central Region

# BID SCHEDULE

Kodiak Airport RSA Extension & Devils Creek Culvert Repair

AKSAS No.: 53587 & 57474

Federal No.: AIP 3-02-0158-017-2014 & AIP

3-02-0158-01X-201X

Bidders Please Note: Before preparing this Bid Schedule read carefully "Information to Bidders", Section 20 of the General Contract Provisions, and the following:

- 1) Bidder shall insert, as called for a unit price bid or a lump sum price bid in figures opposite each pay item for which an estimated quantity appears in the Bid Schedule. The estimated quantity of work for payment on a lump sum basis will be "all required" and as further specified in the contract specifications.
- 2) Wherever a contingent amount is shown for any item in the Bid Schedule, such amount shall govern and be included in the total amount bid.
- 3) Conditioned or qualified bids will be considered non-responsive.
- 4) The DBE Goal for this project is 3.1% of the Total Basic Bid. See specification item G-120 for details.

5) Award will be made on the basis of the total basic bid.

The bidder shall insert a price for each pay item listed below. Type or print legibly.

Item No.	Item Description	Unit	Quantity	Unit Bid Price	Amount Bid
D-701a (1)	PE Pipe, 18"	Linear Foot	50		
D-701a (2)	PE Pipe, 24 inch	Linear Foot	54		
G-100a	Mobilization and Demobilization	Lump Sum	All Req'd.	Lump Sum	
G-115a	Worker Meals and Lodging, or Per Diem	Lump Sum	All Req'd.	Lump Sum	!
G-130a	Field Office	Lump Sum	All Req'd.	Lump Sum	
G-130b	Field Laboratory	Lump Sum	All Req'd.	Lump Sum	
G-130g	Nuclear Testing Equipment Storage Shed	Each	1		
G-130h	Storage Container	Each	1		
G-130j	Engineering Communications	Contingent Sum	All Req'd.	Contingent Sum	13,000.00
G-131a	Engineering Transportation (Truck)	Each	6		
G-135a	Construction Surveying by the Contractor	Lump Sum	All Req'd.	Lump Sum	
G-135b	Extra Three Person Survey Party	Hour	. 70		
G-150a	Equipment Rental, Dozer (70hp minimum)	Hour	50		

Bid Schedule: Kodiak Airport RSA Extension & Devils Creek Culvert Repair
Project No.: AIP 3-02-0158-017-2014 & AIP 3-02-0158-01X-201X 53587 & 57474

4/29/2014 Page 1 c

Page 1 of 4

Bid Submitted By:\_\_\_\_\_

# State of Alaska Department of Transportation & Public Facilities Central Region

# BID SCHEDULE

Kodiak Airport RSA Extension & Devils Creek Culvert Repair

AKSAS No.: 53587 & 57474

Federal No.: AIP 3-02-0158-017-2014 & AIP

3-02-0158-01X-201X

Item No.	Item Description	Unit	Quantity	Unit Bid Price	Amount Bid
G-200a	Contractor Quality Control Program	Lump Sum	All Req'd.	Lump Sum	
G-300a	CPM Scheduling	Lump Sum	All Req'd.	Lump Sum	
G-700a	Airport Flagger	Contingent Sum	All Req'd.	Contingent Sum	190,000.00
G-710a	Highway Traffic Maintenance	Lump Sum	All Req'd.	Lump Sum	
G-710b	Highway Flagger	Contingent Sum	All Req'd.	Contingent Sum	75,000.00
G-710c	Highway Traffic Price Adjustment	Contingent Sum	All Req'd.	Contingent Sum	0.00
G-710d	Highway Traffic Control	Contingent Sum	All Req'd.	Contingent Sum	50,000.00
G-715c	Wildlife Monitoring	Contingent Sum	All Req'd.	Contingent Sum	250,000.00
L-100c (1)	High Intensity Runway Edge and Threshold Light, L-862 and L-862E	Each	21		
L-100c (2)	High Intensity Edge and Threshold Light Lens, L-862 and L-862E	Each	3		
L-100e	Taxiway Edge Light, L-861T	Each	22		
L-100h	Remove Runway and Taxiway Light	Each	41		
L-100n	Airport Sign, Type L-858	Each	4		
L-100r	Temporary Runway Lighting System	Lump Sum	All Req'd.	Lump Sum	
L-100ap	Spare Parts	Lump Sum	All Req'd.	Lump Sum	
L-107a	8-foot Lighted Wind Cone, in place	Each	1		
L-108a	Underground Cable, #8 AWG, Copper, 5 kV FAA Type ¿B¿ or Type "C" (as specified on plans), L-824	Linear Foot	3,250		
L-108c	#6 Bare Copper Ground Conductor	Linear Foot	2,850		
L-108g	Ground Rod	Each	5		
L-110a	2-inch Rigid Steel Conduit	Linear Foot	435		
L-110g	2-inch PE Conduit	Linear Foot	2,250		
L-135k	Foundation and Utilities for FAA Equipment	Lump Sum	All Req'd.	Lump Sum	

Bid Schedule: Kodiak Airport RSA Extension & Devils Creek Culvert Repair Project No.: AIP 3-02-0158-017-2014 & AIP 3-02-0158-01X-201X 53587 & 57474

# State of Alaska Department of Transportation & Public Facilities Central Region

# BID SCHEDULE

Kodiak Airport RSA Extension & Devils Creek Culvert Repair

AKSAS No.: 53587 & 57474

Federal No.: AIP 3-02-0158-017-2014 & AIP

3-02-0158-01X-201X

Item No.	Item Description	Unit	Quantity	Unit Bid Price	Amount Bid
P-151b	Clearing	Lump Sum	All Req'd.	Lump Sum	
P-152i (1)	Borrow (<6% No. 200)	Ton	507,500		
P-152i (2)	Borrow (<10% No. 200)	Ton	698,355		
P-152r	Subgrade Preparation	Square Yard	9,600		
P-152ae	Ditch Lining	Ton	230		***
P-152ak	Slope Lining	Ton	500		
P-154b	Subbase Course	Ton	73,500		
P-157a	Erosion, Sediment, and Pollution Control Administration	Lump Sum	All Req'd.	Lump Sum	
P-157b	Temporary Erosion, Sediment, and Pollution Control	Contingent Sum	All Req'd.	Contingent Sum	200,000.00
P-157f	Withholding	Contingent Sum	All Req'd.	Contingent Sum	0.00
P-157g	SWPPP Manager	Lump Sum	All Req'd.	Lump Sum	77
P-160a	Excavation of Pavement (AC)	Square Yard	3,580		
P-161b	Recycled Asphalt Pavement	Cubic Yard	4,630		
P-162a	Pavement Cold Planing	Square Yard	3,200		
P-164a	Hydrodemolition	Square Yard	1,600		
P-164b	Scarification	Square Yard	700		
P-165a (1)	Removal of Structures (RSA Extension)	Lump Sum	All Req'd.	Lump Sum	
P-165a (2)	Removal of Structures (Devils Creek Culvert Repair)	Lump Sum	All Req'd.	Lump Sum	
P-181a	Concrete Armor Unit (2.65 ton)	Each	2,400		
P-185a	Primary Armor Stone, PA-12000	Ton	84,500		
P-185b	Underlayer Stone, U-700	Ton	52,650		
P-189b	Gabions (Stainless Steel)	Cubic Yard	1,050		
P-209b	Crushed Aggregate Base Course	Ton	5,400		
P-401a	Hot Mix Asphalt Type II, Class	Ton	6,200		

Bid Schedule: Kodiak Airport RSA Extension & Devils Creek Culvert Repair Project No.: AIP 3-02-0158-017-2014 & AIP 3-02-0158-01X-201X 53587 & 57474

# State of Alaska Department of Transportation & Public Facilities Central Region

# BID SCHEDULE

Kodiak Airport RSA Extension & Devils Creek Culvert Repair

AKSAS No.: 53587 & 57474

Federal No.: AIP 3-02-0158-017-2014 & AIP

3-02-0158-01X-201X

Item No.	Item Description	Unit	Quantity	Unit Bid Price	Amount Bid
P-401b	Hot Mix Asphalt Price Adjustment	Contingent Sum	All Req'd.	Contingent Sum	31,000.00
P-401c	Asphalt Cement, PG 52-28	Ton	341		
P-511a	Microsilica Modified Concrete	Ton	500		
P-511b	Epoxy-Bonded Epoxy Mortar	Square Yard	700		
P-555a (1)	Install EMAS Bed (Runway 7)	Lump Sum	All Req'd.	Lump Sum	App -137
P-555a (2)	Install EMAS Bed (Runway 36)	Lump Sum	All Req'd.	Lump Sum	
P-556a	EMAS Snow Removal Equipment (Type 1)	Each	1		
P-603a	Tack Coat, STE-1	Ton	5		
P-610g	Steel Reinforcement	Linear Foot	7,000		
P-620c	Runway and Taxiway Painting	Lump Sum	All Req'd.	Lump Sum	
P-620f	Painted Marking Removal	Lump Sum	All Req'd.	Lump Sum	
P-621b	Saw-Cut Grooves	Lump Sum	All Req'd.	Lump Sum	,
P-640b	Segmented Circle (Panel-Type)	Lump Sum	All Req'd.	Lump Sum	
P-670b	Flasher Unit for Timber Barrier	Each	75		
P-670c	Flag	Each	75		
P-671c	Illuminated Runway Closure Marker	Each	2		
P-684a	Floating Silt Curtain	Linear Foot	4,100		
	Total			\$	

Bid Schedule: Kodiak Airport RSA Extension & Devils Creek Culvert Repair Project No.: AIP 3-02-0158-017-2014 & AIP 3-02-0158-01X-201X 53587 & 57474

# ADDENDUM NO. 3 ATTACHMENT NO. 4

G-710c
G-710d   HIGHWAY TRAFFIC CONTROL   C.S.   100%     G-715c   WILDLIFE MONITORING   C.S.   100%     L-100c(1)   HIGH INTENSITY RUNWAY EDGE   AND THRESHOLD LIGHT, L-862 and   L-862E     L-100c(2)   HIGH INTENSITY RUNWAY EDGE   AND THRESHOLD LIGHT LENS, L-862 AND L-862E     L-100e   TAXIWAY EDGE LIGHT, L-861T   EACH   22     L-100h   REMOVE RUNWAY AND TAXIWAY   EACH   41     L-100h   AIRPORT SIGN, Type L-858   EACH   4     L-100r   TEMPORARY RUNWAY LIGHTING   L.S.   100%     L-100ap   SPARE PARTS   L.S.   100%     L-107a   3-FOOT LIGHTED WIND CONE, IN   EACH   1     L-108a   UNDERGROUND CABLE #8 AWG.   L.F.   3250
L-100c(1)
AND THRESHOLD LIGHT, L-862 and L-862E
AND THRESHOLD LIGHT LENS, L-862 AND L-862E
L-100h         REMOVE RUNWAY AND TAXIWAY         EACH         41           L-100n         AIRPORT SIGN, Type L-858         EACH         4           L-100r         TEMPORARY RUNWAY LIGHTING SYSTEM         L.S.         100%           L-100ap         SPARE PARTS         L.S.         100%           L-107a         8-FOOT LIGHTED WIND CONE, IN PLACE         EACH         1           L-108a         UNDERGROUND CABLE #8 AWG, L.F.         3250
Light         EACH         4           L-100n         AIRPORT SIGN, Type L-858         EACH         4           L-100r         TEMPORARY RUNWAY LIGHTING SYSTEM         L.S.         100%           L-100ap         SPARE PARTS         L.S.         100%           L-107a         8-FOOT LIGHTED WIND CONE, IN PLACE         EACH         1           L-108a         UNDERGROUND CABLE #8 AWG, L.F.         3250
L-100r         TEMPORARY RUNWAY LIGHTING SYSTEM         L.S.         100%           L-100ap         SPARE PARTS         L.S.         100%           L-107a         8-FOOT LIGHTED WIND CONE, IN PLACE         EACH         1           L-108a         UNDERGROUND CABLE #8 AWG, L.F.         3250
L-100ap   SPARE PARTS   L.S.   100%
L-107a
PLACE
COPPER, 5KV FAA TYPE "C", L-824
L-108c # 6 BARE COPPER GROUND L.F 2850 CONDUCTOR
<u>L-108g</u> <u>GROUND ROD</u> <u>EACH</u> <u>5</u>
L-110a 2-INCH RIGID STEEL CONDUIT L.F. 435
<u>L-110g</u> <u>2-INCH PE CONDUIT</u> <u>L.F.</u> <u>2250</u>
L-135K FOUNDATION AND UTILITIES FOR L.S. 100% FAA EQUIPMENT
<u>P-151b</u> <u>CLEARING</u> <u>L.S.</u> <u>100%</u>
P-152ae         DITCH LINING         TON         230
P-152ak         SLOPE LINING         TON         500
P-152i(1) BORROW (<6% NO. 200) TON 507500
P-152i(2) BORROW (<10% NO. 200) TON 697000 1355
P-152r SUBGRADE PREPARATION S.Y. 9600
<u>P-154b</u> <u>SUBBASE COURSE</u> <u>TON</u> <u>73500</u>
P-157a ESCP ADMINISTRATION L.S. 75% 25%
P-157b TEMPORARY EROSION, SEDIMENT, C.S. 75% 25% AND POLLUTION CONTROL
P-157f WITHHOLDING C.S.

Kodiak Airport RSA Extension Project 53587/AIP 3-02-0158-017-2014 3/12 (DOT rev. 3/274/25/14) Kodiak Devils Creek Culvert Repair Project 57474/AIP 3-02-0158-01x-201x (HDR rev. 4/4528/14)

P-157g	SWPPP MANAGER	<u>L.S.</u>	<u>75%</u>	<u>25%</u>
P-160a	EXCAVATION OF PAVEMENT (AC)	<u>S.Y.</u>	3580	
P-161b	RECYCLED ASPHALT PAVEMENT	<u>C.Y.</u>	<u>4600</u>	<u>30</u>
P-162a	PAVEMENT COLD PLANING	<u>S.Y.</u>	3200	
<u>P-164a</u>	HYDRODEMOLITION	<u>S.Y.</u>		<u>1600</u>
P-164b	SCARIFICATION	<u>S.Y.</u>		700
P-165a(1)	REMOVAL OF STRUCTURES (RSA EXTENSION)	L.S.	100%	
P-165a(1)	REMOVAL OF STRUCTURES (DEVILS CREEK)	L.S.		100%
<u>P-181a</u>	CONCRETE ARMOR UNITS (2.65 TON)	<u>EACH</u>	2400	
P-185a	PRIMARY ARMOR STONE (PA-12000)	TON	<u>84500</u>	
P-185b	UNDERLAYER STONE (U-700)	TON	<u>52650</u>	
P189b	GABIONS (STAINLESS STEEL)	C.Y.	<u>1050</u>	
P-209b	CRUSHED AGGREGATE BASE COURSE	TON	<u>5400</u>	
P-401a	HOT MIXED ASPHALT, TYPE II, Class A	TON	<u>6200</u>	
P-401b	HOT MIXED ASPHALT PRICE ADJUSTMENT	C.S.	<u>100%</u>	
P-401c	ASPHALT CEMENT, PG 52-28	TON	<u>341</u>	
P-511a	MICROSILICA MODIFIED CONCRETE	Ton.		<u>500</u>
P-511b	EPOXY-BONDED EPOXY MORTAR	<u>S.Y.</u>	, , , <u>0</u> - 4 - 5 - 6	700
P-555a(1)	INSTALL EMAS BED (RUNWAY 7)	L.S.	<u>100%</u>	
P-555a(2)	INSTALL EMAS BED (RUNWAY 36)	L.S.	<u>100%</u>	
<u>P-556a</u>	EMAS SNOW REMOVAL EQUIPMENT (TYPE I)	<u>EACH</u>	1	
<u>P-603a</u>	TACK COAT, STE-1	TON	<u>5</u>	
P-610g	STEEL REINFORCEMENT	L.F.		7000
P-620c	RUNWAY AND TAXIWAY PAINTING	L.S.	<u>100%</u>	
P-620f	PAINTED MARKING REMOVAL	L.S.	<u>100%</u>	
P-621b	SAW CUT GROOVES	L.S.	100%	
<u>P-640a</u>	SEGMENTED CIRCLE (PANEL TYPE)	L.S.	100%	
P-670b	FLASHER UNIT FOR TIMBER BARRIER	<u>EACH</u>	<u>75</u>	Crook Culvert P

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**511-3.11 CURING CONCRETE.** After the surface is finished, immediately begin fogging with equipment specified in Subsection 511-3.05 and continue until wet burlap is applied. As the finishing operation progresses, immediately cover the concrete with a single layer of clean, wet burlap. Use burlap cloth that meets the requirements of AASHTO M 182, Class 4 and is no wider than 6 feet. The Engineer will determine if the burlap can be reused, based on its cleanliness and absorption ability.

Make sure the burlap is well drained and laid flat with no wrinkles on the deck surface. Place adjacent strips of burlap with a minimum overlap of 6 inches. Once the burlap is in place, apply a light fog mist of water. Immediately place a separate layer of white, reflective-type polyethylene sheeting over the wet burlap.

Wet cure the concrete by leaving the polyethylene sheeting and burlap in place for at least 72 hours, keeping the burlap wet.

After the polyethylene sheeting and burlap are removed and the concrete surface has dried, fill and seal all joints and visible cracks with a high-molecular-weight methacrylate (HMWM) resin. Use two applications of HMWM in cracks 1/16 inch and wider. Immediately after applying HMWM, coat the wetted surface with sand for an abrasive finish.

After meeting the curing requirements, use compressed air to accelerate deck-surface drying, crack identification, and sealing.

Do not permit traffic on the finished concrete until the specified curing time is satisfied and the concrete reaches a minimum compressive strength of 3000 psi. Determine compressive strength from informational test cylinders cured on site under temperature and moisture conditions similar to those of the concrete in the structure.

**511-3.12 PROTECTING CONCRETE.** Protect microsilica concrete when placing it in cold weather. Cold weather is defined as when the average daily air temperature for 3 consecutive days is less than 45 °F. The average daily air temperature is the average of the highest and lowest temperatures from midnight to midnight.

After placing MMC, maintain it at a temperature above 50 °F for at least 3 days.

If the air temperature drops below 35 °F while curing, place insulating blankets over the curing materials. Use insulating blankets 2 inches thick with tough, impermeable cover material.

When the deck temperature is lower than 45 °F, pour microsilica concrete only under the following conditions:

- 1. Use a concrete mixture between 55 °F and 75 °F at the time of placement.
- 2. If using heated water to obtain proper placement temperatures, add air-entraining agents after the last heated water.
- 3. Clear the deck of snow, ice, or frost.
- 4. Maintain the temperature of the deck receiving concrete at 35 °F, minimum.
- 5. Maintain the temperature of the rebar at 35 °F, minimum.
- 6. Cover placed concrete with burlap, plastic sheeting and insulated mats immediately after finishing of the surface. Keep the covering in place for 3 days. Monitor concrete temperature hourly for 3 days. Add 1 day to the covered time for any day in which the recorded surface temperature of the concrete is less than 50 °F.

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- 7. If heated enclosures are used, vent combustion heaters to the outside of the enclosure. Locate heaters and ducts to avoid overheating or drying areas of the concrete surface.
- 8. As an alternative to the requirements of step 6, monitor the slab's compressive strength. Use inplace, non-destructive testing. After 3 days, uncover the concrete, regardless of temperature, when the concrete reaches a compressive strength of 3000 psi.
- 9. If any freezing temperature is recorded during the first 24 hours that it is covered, promptly remove concrete.

To pour concrete when rain is predicted, observe the following conditions:

- Have materials on hand to cover the work in case of rain.
- Halt the pour and immediately cover all work when rain drops affect the slab finish.
- **511-3.13 CHECKING FOR BOND.** After the floor curing is complete, the Engineer will test the entire overlaid surface for the total bonding of the concrete to the floor according to ASTM D 4580, Measuring Delaminations in Concrete Bridge Decks by Sounding. Remove concrete from unbonded areas and replace it with MMC without extra compensation.
- **511-3.14 SURFACE REPAIR.** Where scarification under Item 164b is performed, the surface shall be repaired using epoxy-bonded epoxy mortar to restore the surface to its previous thickness. Apply mortar as specified by the manufacturer. Technique for application is optional but must provide a smooth and uniform surface matching the adjacent non-deteriorated areas.

#### **METHOD OF MEASUREMENT**

- 511-4.1 Microsilica modified concrete will be measured by the square yardton.
  - 511-4.2 Epoxy-bonded epoxy mortar will be measured by the square yard.

# BASIS OF PAYMENT

**511-5.1** Payment will be made at the contract-cubic yard or square yard price unit price per ton or square yard. This price provides full compensation for all labor equipment and materials to complete the item. All work required to divert Devils Creek and construct access ramps will not be paid directly, but will be considered subsidiary to Item P-511.

Payment will be made under:

Item P-511a Microsilica Modified Concrete – per square yardton
Item P-511b Epoxy-Bonded Epoxy Mortar – per square yard

# ADDENDUM NO. 3 ATTACHMENT NO. 6

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# **APPENDICES**

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# INTRODUCTION

The following is the Construction Safety and Phasing Plan (CSPP) to be used to prepare the Safety Plan Compliance Document (SPCD) for construction activity at Kodiak Airport.

The purpose of the plan is to present information needed for operation of the airport and construction so that there is a minimum of disruption to operations of air and ground traffic and so the construction project can be completed in a safe manner.

Work to be accomplished on this project includes the following:

- Extend the runway safety area for Runway 7 to the east by 600' and install an Engineered Material Arrestor System (EMAS) at the end of the safety area.
- Relocate the threshold of Runway 18 by 240' to the south to provide 240' of safety area prior to the threshold.
- Extend the Runway 18-36 embankment by 600' to the south.
- Relocate the threshold of Runway 36 by 240' to the south.
- Reconfigure the Runway 36, Taxiway A and Taxiway B intersections.
- Construct a 360' safety area prior to the relocated threshold of Runway 36.
- Install an EMAS at the north end of the safety area of Runway 36.
- Relocate the access road at the south end of the new Runway 18-36 safety area.
- Relocate the access road across the safety area of Runway 25.
- · Repair the Devil's Creek culvert.
- Remove the existing lighted wind cone and segmented circle.
- Install a new lighted wind cone and segmented circle.
- Change runway designation of Runway 7-25 to 8-26.
- Change runway designation of Runway 18-36 to 1-19.
- Change taxiway and location signs to agree with the new runway designation.

# (1) COORDINATION

The Kodiak Airport Runway Safety Area Extension project will require significant coordination efforts by the Contractor with the Department Of Transportation & Public Facilities Airport Manager, the Engineer, the U. S. Coast Guard and the various commercial airlines, air taxi's and Tenants operating at the Kodiak Airport (ADQ), including the Federal Aviation Administration (FAA) which operates a contract Air Traffic Control Tower (ATCT) at Kodiak and the Kenai Flight Service Station (FSS) and various visual and electronic NAVAIDs at the Kodiak Airport. Timely, ongoing and dedicated coordination efforts by the Contractor are essential to a safe and secure work environment that minimizes disruption to airport operation, safety, and security during the project.

The DOT&PF Airport Manager has primary responsibility for the Kodiak Airport's operation, safety and security. The Contractor's point of contact with the Airport Manager is through the Engineer. Any Contractor activity affecting an Aircraft Operations Area (AOA) of the airport is subject to advance authorization from the Airport Manager, through the Engineer, and all persons without exception are

subject to the Airport Manager's authority while on DOT&PF Airport Property. The Contractor shall develop a Safety Plan Compliance Document (SPCD) to compliment this Construction Safety and Phasing Plan (CSPP). The Contractor shall consult the Airport Manager, through the Engineer, while developing its SPCD.

Prior to any person (without exception) being granted access to operational areas of the Kodiak Airport, training stipulated by the Airport Manager is required. This training will cover topics such as safe and proper airport access, airport security, radio communication and vehicle operation as well as safety procedures or precautions specific to the Kodiak Airport. Part of this training may be provided by the Airport Manager but the Contractor will need to make inquiries and arrangements with the Airport Manager well in advance.

Coordination Through The Engineer: Whenever the project documents call for coordination, notification, contact or other interaction, any such activity shall be done by the Contractor; and it shall be done through, in the presence of, or with the written approval of the Engineer. Such activity could be with the DOT&PF Airport Manager, DOT&PF airport management, DOT&PF Maintenance and Operations, USCG Aircraft Rescue and Fire Fighting (ARFF) personnel, FAA Systems Operations Control Center (SOCC), Air Carriers, Airport Tenants, airport users, any local, state or federal agency, any private group or association, or members of the general public.

Lead time is required to coordinate any alteration to critical airport functions such as runway dimensional changes, partial and complete runway closures, taxiway and apron closures, Navaid deactivations and temporary outages, and de-energizing runway Visual Aids. The following lead times are required for the Contractor to initiate coordination efforts through the Engineer and provide schedule information:

Entity / Group / Agency / Organization	Lead Time	Critical Airport Function
DOT&PF Airport Manager*	14 days	AOA changes & Visual Aid outages
Airport Rescue and Fire Fighting (ARFF)*	14 days	AOA changes
FAA Systems Operations Control Center**	45 days	Navaid shutdowns
Airport Tenants / Users	45 days	AOA changes, Navaid & Visual Aid changes and outages
Air Carriers	45 days	AOA changes, Navaid & Visual Aid changes and outages

<sup>\*</sup>Any Airport safety or security issue, and all emergencies or accidents require immediate notification \*\*Reference CSPP Section 1c. Note that other coordination with FAA may require different lead times, such as e-filing of FAA form 7460-1 for certain equipment intended for use by the Contractor. See below section 9.e.

# (a) Pre-Construction Conferences

The Contractor shall attend the Pre-Construction Conference as required in the Contract Documents.

The Safety Plan Compliance Document shall be submitted at or prior to the Pre-Construction Conference.

- Mark safety area.
- Change runway designation numbers for Runway 7-25 to 8-26.
- Change existing taxiway and location signs to reflect the new runway designation.
- Remove temporary lighting and marking following completion.
- Restore runway lighting.
- Reactivate the FAA Glide Slope and REIL (to be performed by the FAA).

# (iii) Phase 2A - Runway 18-36 Safety Area Embankment Construction

Description: This phase will consist of placement of fill material and shore protection at the south end of Runway 18-36 for construction of the runway relocation and safety area extension of this runway.

**Duration:** Work is expected to begin by June 15, 2014 and be complete by December 31, 2014. No in-water work (below MHW) will be allowed between April 1 and July 31. The intent is to complete all embankment work during the 2014 construction season in preparation for Phase 2B which will be completed in 2015.

**Construction Summary:** Work associated with this phase is within the Phase 2A and 2B construction area depicted on the construction safety plans. This work includes, but is not limited to, the following:

- Construct the new embankment for the runway relocation and safety area extension south of the south end of Runway 18-36 to include placing of shore protection.
  - (iv) Phase 2B Runway 18-36 South Extension and Safety Area Surfacing and Paving

**Description:** This phase will consist of regrading of the embankment constructed during Phase 2A and place additional embankment material, as needed, to bring the surface up to grade. The shore protection will also be inspected and any repairs made. The 240' extension of the runway to the south will be constructed and paved. Taxiway A from Taxiway B to the new runway threshold will be constructed and paved. The blast pad will be constructed and paved. The service road that crosses the threshold of Runway 36 will be constructed and surfaced. The balance of the safety area will be surfaced. The new runway and taxiway lights will be installed but not energized. The foundation work and wiring for the REIL system will be installed.

**Duration:** This work is expected to begin no later than May 1, 2015 and be complete by July 31, 2015. No in-water work (below MHW) will be allowed between April 1 and July 31.

**Construction Summary:** Work associated with this phase is within the Phase 2A and 2B construction area depicted on the construction safety plans. This work includes, but is not limited to, the following:

- Regrade the runway extension and safety area, as needed.
- Install new runway and taxiway lighting for the Runway 36 threshold and for Taxiways A and B but do not activate.
- Surface and pave the runway, taxiways and blast pad as shown on the plans.
- Construct new service road as shown on the plans.

# (v) Phase 2C - Runway 18-36, Taxiway A and Taxiway B Remarking and EMAS

Description: This phase will relocate the thresholds of Runways 18 and 36 by 240' to the south. Existing runway striping will be removed as shown on the plans. The striping for Taxiway A and B will be removed. New striping will be applied for the relocated runway. The runway designation numbers for Runway 18-36 will be changed to Runway 1-19. The taxiway striping for Taxiways A and B will be applied to indicate the new configuration of these taxiways. The runway and taxiway lighting system will be modified to reflect the new runway and taxiway configuration. Existing taxiway and location signs will be changed to reflect change in runway designation. The VASI for Runway 36 will be refurbished and REIL system will be installed at its new location. The EMAS will be installed at the north end of the safety area. Taxiway C between Taxiway B and Runway 18-36 will be repaved. The existing lighted wind cone and segmented circle will be removed. A new lighted wind cone and segmented Circle will be installed.

**Duration:** This phase will commence immediately following completion of Phase 2B. This phase is expected to begin August 1, 2015 and be complete by November 30, 2015. This phase shall not begin until Phase 2B is complete. If approved by the engineer, this phase or some of its parts may be started earlier.

**Construction Summary:** Work associated with this phase is within the Phase 2B construction area depicted on the construction safety plans. This work includes, but is not limited to, the following:

- Deactivate runway and taxiway lights for the project area.
- Place illuminated runway closure markers over runway designation numbers during hours of temporary runway closure.
- Place Hazard Barriers as shown in the Safety Plan during hours of runway closure.
- Remove runway threshold and edge lights, and taxiway edge lights, as required.
- Install new threshold lights for the relocated threshold of Runway 18.
- Remove existing runway and taxiway striping as shown on the Marking Demolition Plan.
- Install EMAS at north end of the Runway 18-36 safety area.
- Mark Runway 1-19, Taxiway A and Taxiway B as shown on the plans.
- Change taxiway and location signs to agree with new runway designation.
- Install REIL system at its new locations (to be activated by FAA).
- Refurbish VASI (to be accomplished by FAA).
- Repave and mark Taxiway C between Taxiway B and Runway 18-36.
- Remove existing lighted wind cone and segmented circle.
- Install new lighted wind cone and segmented circle.
- Activate runway and taxiway lights.
- Remove closure markers, temporary REIL system and barriers.

## (vi) Phase 3 – Devils Creek Culvert Rehabilitation

**Description:** This phase will consist of rehabilitation of the existing twin-box Portland cement concrete (PCC) culvert located at approximately Station 15+00 of Runway 7-25. Work will consist of repair and repaving of the invert and walls of the interior of the culvert with new PCC. This phase will also include construction of a dike at the inlet end of the culvert.

**Duration:** This phase of work is currently not funded. It is expected to begin by May, 2015 and be complete in 2016.

**Construction Summary:** Work associated with this phase is within the Phase 3 construction area depicted on the construction safety plans. This work includes, but is not limited to, the following:

- Repair interior of PCC Box Culvert.
- Construct a dike around the entrance to the box culvert.

# (b) Safety Plan Drawings

Safety plan drawings are included in this CSPP and the plan set. The drawings are available in Autodesk format (\*.dwg) files, and as Adobe (\*.pdf) format, through the Engineer. Modify these drawings to fit your proposed means and methods to complete the project if needed, but no modification is allowed to change the phasing requirements. Submit your construction safety drawings with revisions, if any, along with a work schedule and SPCD for approval within 30 days of receiving NTP #1.

SPCD information can be found in advisory circular (AC) 150/5370-2 *Operational Safety on Airports During Construction*. The latest edition of this AC and most others can be obtained free of charge from the FAA on the internet.

http://www.faa.gov/airports/resources/advisory\_circulars/

# (3) AREAS AND OPERATIONS AFFECTED BY THE CONSTRUCTION ACTIVITY

#### (a) Identification of Affected Areas

Areas that are anticipated to be affected by the performance of work for each required phase of this project are shown on the construction safety drawings included in this CSPP and the plan set. If, at any time during this project, the Contractor becomes aware of any other areas that are or could be affected by the performance of work, the Contractor shall promptly revise the construction safety plan drawings to show them, update the SPCD and submit to the Engineer for approval. Work in any such other affected area is prohibited until written approval of the updated SPCD and revised construction safety drawings is received from the Engineer.

See Section 13, Special Conditions, for situations affecting the closures of runways and taxiways under emergency conditions.

# (i) Closing, or Partial Closing of Runways, Taxiways and Aprons

Phase 1A and 1B: The threshold of Runway 25 will be temporarily relocated by approximately 500'-533' to the west. The first 500'-533' of the runway will be closed to aircraft operations. For Runway 25, the landing distance available (LDA) will be 7,000'. The accelerate-stop distance (ASD), takeoff runway available (TORA) and takeoff distance available (TODA) will be 6,000'. For Runway 7, the LDA ASD, TORA and TODA will be 67,000'.

Work for this project will require haul across or adjacent to Runways 7-25, 11-29 and 18-36 to access the Runway 7-25 extension work area. Temporary closures, in coordination with the ATCT and Airport Manager through the Engineer, will be allowed to permit haul through these areas. The Contractor will be required to remain clear of the runways and safety areas to accommodate landing and departing aircraft. This will include removal of FOD from the runway surfaces in accordance with Section 7, Foreign Object Debris (FOD) Management.

Runway 7-25 will be closed for aircraft operations, except taxi, for remarking of the Runway 8 designation marker. Closures are expected to be of short duration. Closures will be coordinated with Airport Management and ATCT through the Engineer.

- Phase 2A and 2B: During these phases, Runway 18-36, Taxiway A and Taxiway B will be closed to all aircraft operations from 6:30 p.m. to 6:30 a.m. to allow for construction.
- Phase 2C: Runway 18-36 will be closed for aircraft operations during this phase. The segments
  of Taxiway A/B and C between Taxiway B and Runway 18-36 will also be closed to aircraft
  operations. The contractor should plan on allowing the USCG to tow aircraft through the
  construction area with prior notice.
- Phase 3: No closures are anticipated.

# (ii) Closing of ARFF Access Routes

No closing of ARFF routes is anticipated. The scope of construction for this project will not prevent ARFF access to any area of the airport, or surrounding properties. Movement of ARFF vehicles will be allowed through closed areas whenever physical conditions will accommodate them. Marking of access routes, open excavations and trenches must be maintained as detailed in sections 15, 16, and 18 below. Coordinate with ARFF personnel as discussed in section 9d.

# (iii) Closing of Access Routes Used by Airport and Airline Support Vehicles

No closing of these access routes is anticipated.

## (iv) Interruption of Utilities, Including Water Supplies for Firefighting

There is no anticipated interruption of utilities during this project.

The water supply line from USCG Base Kodiak to the sewerage treatment plant runs through the safety area in the area of Runway 36 covered by Phases 2A and 2B. Verify there are no water supply lines,

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communication lines, electrical lines, or other utility lines within the work limits. If located these lines must be protected from damage unless relocation of the utility line is required.

A 16 inch water line crosses the Devils Creek culvert in the area of taxiway F intended to receive culvert reinforcement. We are not anticipating any interruption in service for this water line.

# (v) Approach/Departure Surfaces Affected By Heights of Objects

The proposed work may include the use of tall equipment such as a crane or vertical drill rig on the closed runway. The use and movement of this equipment, if employed, will be subject to coordination with FAA (using form 7460-1) under section 9.e below, authorization by the Airport Manager and the issuance of a NOTAM. Anticipate e-filing of the form 7460-1 and 45 days review. For work areas marked on the attached Safety Plan Sheets, assumption of vehicles no higher than 15 feet at the east end of Runway 7-25 and increasing by 20:1 to the east was made. (See profile on Sheet AD1 of 9 of the Safety Plans.

See section 18.b.i below for additional restrictions regarding tall equipment.

# (vi)Staging Areas, and Haul Routes Near AOA

All staging areas and haul routes will be kept away from the AOA to the extent practicable. Haul routes that approach AOAs must be marked or flagged to prevent incursion into object free areas (OFAs) or other restricted areas during aircraft operations.

# (b) Mitigation of Effects

# (i) Temporary Changes to Runway and/or Taxi Operations

During Phases 2A and 2B, Runway 18-36 will be closed to aircraft operations from 6:30 p.m. to 6:30 a.m.

During Phases 2A and 2B work will occur within the safety Areas of Taxiway A and Taxiway B. Both taxiways will be closed to taxiing aircraft. This will restrict taxiing from USCG Base Kodiak to the airport and aircraft using Runway 36. The aircraft will be required to notify the Contractor through the ATCT or Engineer at least 30 minutes prior to a scheduled or unscheduled flight. The Contractor will be required to move personnel and equipment from the taxiway safety areas to allow passage of the aircraft.

# (4) PROTECTION OF NAVIGATION AIDS (NAVAIDS) AND VISUAL AIDS

# (a) NAVAIDS Required To Be Taken Out Of Service

The runway partial or full closures will require that the following NAVAIDs be taken out of service, and returned to service by the FAA:

Runway 25 Glide Slope – This instrument will be deactivated during Phases 1A and 1B. The Glide Slope will be returned to service after each phase.

# (b) Visual Aids

Runway lighting and visual aids will be affected by the project. FAA visual aids will be deactivated, relocated and returned to service by the FAA.

Runway 7-25 Lighting - During Phases 1A and 1B, the Runway 25 threshold will be relocated 500' to the west and the existing threshold and edge lights in this area will be deactivated. Temporary threshold lights will be installed.

Runway 18-36 Lighting - During Phases 2A and 2B, the runway lights will be deactivated from 6:30 p.m. to 6:30 p.m. During Phase 2C, the runway lights will be deactivated for the duration of the phase.

Runway 25 VASI - The VASI will remain in service.

Runway 25 REIL - The REIL will be deactivated during Phases 1A and 1B. The REIL will be returned to service after each phase.

Runway 25 REIL (temporary) – Temporary REIL lights will be installed at the relocated threshold.

Runway 36 REIL – The REIL will be deactivated during hours of temporary runway closure and will be deactivated for the duration of Phase 2C and relocated into its final position for the new Runway 36 threshold.

Runway 36 VASI – During hours of runway closure, the VASI will be deactivated.

## (i) Coordination with FAA and the Airport Manager

Conduct coordination with FAA for NAVAIDs and with the Airport Manager through the Engineer for visual aids as detailed under Section 1d above.

## (ii) Issuance of NOTAMs

NOTAMS will be issued as detailed in section 9.b below.

#### (iii) Protection of Underground Utilities Serving NAVAIDS and Visual Aids

Protect underground power supply as detailed in Section 11 below.

# (iv) Drawings of Affected NAVAIDs

See the construction safety drawings included in this CSPP and the plan set for location of affected NAVAIDS.

# (d) Water for Dust Control

Provide water for dust control as required, and as directed in accordance with Item G-710, Highway Traffic Maintenance. Dust, smoke, steam, or other airborne particulates caused by Contractor activities may be considered a safety violation as determined by the Airport Manager or Engineer.

# (14) RUNWAY AND TAXIWAY VISUAL AIDS. MARKING, LIGHTING, SIGNS, AND VISUAL NAVAIDS

# (a) General

See the attached construction safety drawings included in this CSPP and the plan set for locations and descriptions of markings, lighting, signs, and visual NAVAIDS. Runways will require relocation of NAVAIDS and runway lighting.

# (b) Markings

Temporary markings as shown on the construction safety drawings included in this CSPP and the plan set will be used during the temporary shortening of Runway 7-25. Markings on Runway 7-25 for Phase 1A will be reapplied prior to the beginning of Phase 1B. The runway threshold bar, threshold markers and designator numbers will be covered during each phase. Temporary runway designation numbers will be painted on the pavement during each phase.

Illuminated runway closure marking and lighted hazardous area barriers will be used during the daily temporary closure of Runway 18-36 during Phases 2A and 2B and for the full closure during Phase 2C.

# (c) Airport Lighting and Visual NAVAIDs

Airport lighting or visual aids (threshold lights, runway and taxiway edge lighting, and taxiway/runway signs) and visual NAVAIDs (REILS, VASI) for the closed Runways will be turned off, or otherwise covered or disabled during Runway closures. All visual aids and visual NAVAIDS on the Runway remaining open will remain operational. Some visual aids and NAVAIDS will be turned off, relocated or modified while runways are shortened during Phases 1A and 1B as shown in the attached drawings and in the plan set. All NAVAIDS are owned and maintained by the FAA. Airport lighting is owned and maintained by DOT&PF.

# (i) REILs

The Runway 25 REILs will be deactivated for Phases 1A and 1B. The REILs will be reactivated at their original location following each phase. Temporary REILs will be installed at the relocated threshold during each phase.

The Runway 36 REILs will be deactivated for runway closures during Phases 2A, 2B and 2C. Following Phase 1C, the REILs will be relocated to their new location for the new permanently relocated Runway 36 threshold.

## (ii) VASIs

The Runway 36 VASIs will be deactivated during the runway closures during Phases 2A, 2B and 2C.

# (iii) ILS, Localizer and Glide Slope

During Phases 1A and 1B, the Runway 25 Glide Slope will be deactivated due to the temporary relocation of the Runway 25 threshold. The Glide Slope may be reactivated after each phase.

# (iv) Runway Edge and Threshold Lighting

During Phases 1A and 1B, the threshold for Runway 25 will be temporarily relocated by approximately 500' to the west. The runway threshold lights and edge lights for the closed area of the runway will be deactivated. Temporary threshold lights will be placed at the relocated threshold. The white/yellow lenses will be adjusted to provide 2,000' of yellow indication for the end of Runway 7. Upon opening of the closed area of the runway following each phase, the original threshold and edge lights will be reinstalled.

There will be no changes to the edge and threshold lights during Phases 2A and 2B. The lights will be deactivated during the temporary closures. During Phase 2C, the runway lights will adjusted to conform to the new relocation of Runway 18-36 by 240' to the south.

# (v) Taxiway Edge Lighting

There will be no changes to the taxiway edge lights for Taxiways A and B during Phases 2A and 2B.

During Phase 2C, new taxiway lights will be installed to reflect the reconfiguration of the intersection of Taxiways A and B, and Runway 18-36.

#### (d) Signs

The taxiway guidance and location signs at the intersection of Taxiways A and B and current Runway 36 threshold will remain in place for Phases 2A and 2B. They will be relocated, modified or replaced during Phase 2C to agree with the new configuration for Taxiways A and B and for the permanently relocated threshold for Runway 36.

All taxiway guidance and location signs for Taxiways A, B, C, D, E and F will be updated to reflect the changes in the runway designation of Runway 7-25 to Runway 8-26 and of Runway 18-36 to 1-19 respectively.

# (15) MARKING AND SIGNS FOR ACCESS ROUTES

The Contractor shall include markings and signs for access and haul routes in the SPCD submittal. Pavement markings and signs for construction personnel will conform to AC 150/5340-18 and, to the

extent practicable, with the Federal Highway Administration *Manual on Uniform Traffic Control Devices* (MUTCD) and/or state highway specifications. Signs adjacent to areas used by aircraft must comply with the frangibility requirements of AC 150/5220-23, frangible connections, which may require modification to size and height guidance in the MUTCD.

# (16) HAZARD MARKING AND LIGHTING

# (a) Purpose

The purpose of hazard markings and lighting is to delineate the construction area from the AOAs. It also serves as a visual warning to pilots, and airport ground traffic, that to proceed past the markers could jeopardize safety of persons or equipment, including damage to aircraft or loss of life. Hazard marking and lighting must not itself become a hazard to the safe operation of aircraft. Hazard markings and lighting must be separated from active surfaces by a suitable distance usually defined by the OFA or OFZ, but depends on work location, type of aircraft expected to be operating, and other factors.

Hazard marking and lighting must also identify open manholes, small areas under repair, stockpiled material, waste areas, and areas subject to jet blast. Consider less obvious construction-related hazards and include markings to identify FAA, airport, and national weather service facilities cables and power lines, instrument landing system (ILS) critical areas; airport surfaces, such as RSA, OFA, and OFZ; and other sensitive areas for contractor personnel to avoid these areas.

# (b) Equipment

Proposed locations of hazard markings and lighting are shown on the construction safety drawings included in this CSPP and the plan set. Other locations or equipment may be proposed by the Contractor or required by the Department, depending on the Contractor's proposed schedule and sequencing of work within each specified Phase or the Contractors proposed means and methods. The Contractor shall include proposed equipment, including signs, markings, and lighting in the SPCD submittal.

#### (i) Spacing of Barricades

The spacing of barricades must be such that a breach is physically prevented, barring a deliberate act. For example, if barricades are intended to exclude vehicles, gaps between barricades must be smaller than the width of the excluded vehicles, generally 4 feet. Provision must be made for ARFF access if necessary. If barricades are intended to exclude pedestrians, they must be continuously linked. Continuous linking may be accomplished through the use of ropes, securely attached to prevent FOD.

## (ii) Maintenance

Maintain temporary markings and hazardous area barriers throughout each specified Phase. Repair damaged or non-functioning markings, barriers, and flashers immediately upon discovery or notification.

# (17) PROTECTION OF RUNWAY AND TAXIWAY SAFETY AREAS, OBJECT FREE AREAS, OBSTACLE FREE ZONES, AND APPROACH/DEPARTURE SURFACES

See the construction safety drawings included in this CSPP and the plan set for locations and limits of the following areas / zones.

Before beginning construction, coordinate with the Engineer to identify the RSA, OFZ, and the OFA for the active runway. The Engineer may require surveyed location of the RSA, OFZ, or OFA by the Contractor, as part of the construction surveying requirement. This will define a boundary for use of construction equipment during aircraft operations.

# (a) Runway Safety Area (RSA)

The RSA width for both Runway 7-25 and Runway 18-36 is 500' wide and centered on the respective Runway centerlines. There is no safety area beyond the ends or prior to the threshold of each runway.

No equipment, vehicles or personnel will be allowed within an RSA when the Runway is open to aircraft operations. All equipment, vehicles and personnel must vacate the RSA prior to opening the Runway to aircraft operations. No material stockpiles will be allowed at any time.

Work for this project will require haul across or adjacent to the three runways and safety areas to access the Runway 7-25 extension work area. Temporary closures, in coordination with the ATCT and Airport Manager through the Engineer, will be allowed to permit haul through these areas. The Contractor will be required to remain clear of the runway safety areas to accommodate landing and departing aircraft. This will include removal of FOD from the runway surfaces in accordance with Section 7, Foreign Object Debris (FOD) Management.

The RSA prior to the runway thresholds and beyond the ends for both Runways is currently 0'.

# (b) Runway Object Free Area (ROFA)

The ROFA width for both Runways is 800 feet, centered on the respective Runway centerline. When a runway is open to aircraft operations, construction, including excavations, may be permitted in the ROFA. However, equipment must be removed from the ROFA when not in use, and material should not be stockpiled in the ROFA if not necessary. Vehicles may not be parked in the ROFA. Stockpiling material in the OFA requires submittal of a 7460-1 form and justification provided to the appropriate FAA Airports Regional or District Office for approval. No equipment or vehicles are to be parked, or left unattended, in the ROFA at any time.

# (c) Taxiway Safety Area (TSA)

The Taxiway Safety Areas for all taxiway s is 171'. No work will be allowed within a TSA when the taxiway is open to aircraft operations. Taxiways closed for construction will not be subject to TSA standards, except that no stockpiling of material or parking of equipment or vehicles will be allowed within the TSA of a closed taxiway.

# (d) Taxiway Object Free Area (TOFA)

The Taxiway OFAs for Taxiways A, B, C and D are currently 259'. No work will be allowed within a TOFA when the taxiway is open to aircraft operations. During aircraft operations, equipment, vehicles, and personnel may temporarily occupy the TOFA. No equipment or vehicles are to be parked or left unattended in the active TOFA at any time.

# (e) Obstacle Free Zone (OFZ)

The OFZ width for both Runways is 400 feet, centered on the respective Runway centerline. In general, personnel, material, and/or equipment may not penetrate the OFZ while the Runway is open for aircraft operations. If a penetration to the OFZ is necessary, it may be possible to continue aircraft operations through operational restrictions. Coordinate with the FAA Airport Regional or District Office through the Engineer.

# (f) Runway Approach/Departure Surfaces

All personnel, materials, and/or equipment must remain clear of the applicable threshold siting surfaces (see AC 150/5300-13). Objects that do not penetrate these surfaces may still be obstructions to air navigation and may affect standard instrument approach procedures. Coordinate with the FAA Airport Regional or District Office through the Engineer.

The Runway Approach Surface for Runways 25 and 36 and the Departure Surface for Runways 7 and 18 will begin 200' from the temporarily relocated threshold and then rises at a 20:1 slope.

Obstruction removal work, construction equipment or disposal of material may penetrate the 20:1 surfaces defined in AC 150/5300-13. Any activity that would penetrate these surfaces shall be restricted unless otherwise coordinated with and approved by the FAA through the Engineer.

# (18) OTHER LIMITATIONS ON CONSTRUCTION

#### (a) Prohibitions

# (i) No Crossing of Active Runway

Crossing of the active Runway by Contractor or subcontractor personnel, vehicles, or equipment will not be allowed without prior authorization from the Airport Manager, through the Engineer.

Work for this project will require haul across or adjacent to the three runways and safety areas to access the Runway 7-25 extension work area. Temporary closures, in coordination with the ATCT and Airport Manager through the Engineer, will be allowed to permit haul through these areas. The Contractor will be required to remain clear of the runway safety areas to accommodate landing and departing aircraft. This will include removal of FOD from the runway surfaces in accordance with Section 7, Foreign Object Debris (FOD) Management.

# (ii) Airport Marking System

Use of light colored sand bags, or other materials that interfere with the airport marking system will not be allowed.

## (iii) Flare Pots

The use of flare pots on airport property is prohibited at any time.

## (b) Restrictions

# (i) Use of Tall Equipment

Use of tall equipment that must routinely operate more than 16 feet above ground level requires prior authorization of the Airport Manager and inclusion on form 7460-1 as specified under 14 CFR part 77 (See section 9e above). Use of tall equipment such as cranes, drill rigs, or similar will require obstruction lighting and use of orange and white flagging (see advisory circular (AC) 70/7460-1 Obstruction Marking and Lighting, paragraph 42g and subsequent guidance). Equipment must be lowered to be as close to ground level as practical when not actively employed, even when parked off of airport property.

# (ii) Use of Tools with Open Flames

Open-flame welding or torch cutting operations are permitted only with the approval of the Airport Manager and only when adequate fire safety precautions are in place.

# (iii) Open Trenches, Excavations, and Stockpiles

Prominently mark open trenches, excavations, and stockpiled materials at the construction site and light these obstacles during hours of restricted visibility and darkness. No open trenches are allowed in the RSA, TSA or TOFA when the Runway or taxiway is open. Trenches must be covered with approved material or backfilled. No material stockpiles are allowed in the RSA, TSA or TOFA when the Runway or taxiway is open or within the ASOS critical areas (see CSPP section 17). Constrain stockpiled material to prevent its movement as a result of forecasted wind conditions.

## (iv) Discovery of Contaminated Soils

If contaminated soils are encountered within the excavation area, stop work at the discovery location until the contamination is identified and the Engineer coordinates with the Alaska Department of Environmental Conservation (ADEC).

# (v) Barge Travel

Project related barge travel shall avoid areas with high densities of endangered or threatened species to the extent practicable, avoid sea lion rookeries and major haul out areas, and not ground in high-density kelp stands. The Cliff Point-Cliff Island-Zaimka Island area shall be avoided by barges hauling to the site during the winter. See these and other requirements contained in Appendix D.4, Permits.

# (vi) Construction Lighting

Limitations for construction lighting are contained in Appendix D.4, Permits.

