

INVITATION FOR BIDS
Acquire Snow Removal Equipment – 1 Rotary Plow (Blower)
Akron-Canton Airport

ONE (1) ALL-WHEEL DRIVE; ALL-WHEEL STEER; DUAL ENGINE CAB; FORWARD
CHASSIS WITH HIGH SPEED 4,500 TPH ROTARY PLOW (BLOWER)

Sealed bid proposals for **One (1) ALL-WHEEL DRIVE; ALL-WHEEL STEER; DUAL ENGINE CAB; FORWARD CHASSIS WITH HIGH SPEED 4,500 TPH ROTARY PLOW (BLOWER)** will be received by the AKRON-CANTON AIRPORT AUTHORITY in the Administrative Office, 4th Floor, Terminal Building, until 10:00 a.m. on **Tuesday, May 16, 2023**, at which time and place they will be publicly opened, read, and tabulated.

This bid is for **One (1) ALL-WHEEL DRIVE; ALL-WHEEL STEER; DUAL ENGINE CAB; FORWARD CHASSIS WITH HIGH SPEED 4,500 TPH ROTARY PLOW (BLOWER)**.

Copies of the specifications may be picked up, mailed or emailed electronically. Contact the Administrative Office at 330-499-4059 of the Akron-Canton Airport on or after **May 11, 2023**, between the hours of 8:00 a.m. to 5:00 p.m. Any questions or inquiries contact:

Jeff Rosette, Interim VP Airside Operations at 330-499-0431, or by email
jrosette@akroncantonairport.com

Jeff Moore, Field Maintenance Manager, at 330-499-4059, or by email at
jmoore@akroncantonairport.com.

Bids should be sealed in an envelope and addressed to the AKRON-CANTON AIRPORT AUTHORITY. The envelope MUST be plainly marked with "**One (1) ALL-WHEEL DRIVE; ALL-WHEEL STEER; DUAL ENGINE CAB; FORWARD CHASSIS WITH HIGH SPEED 4,500 TPH ROTARY PLOW (BLOWER)**".

The AKRON-CANTON REGIONAL AIRPORT AUTHORITY reserves the right to reject any, and all bids, accept the bid which is in the best interest of the Airport Authority, and hold all bids one hundred twenty (120) days before final action thereon, if found necessary.

AKRON-CANTON REGIONAL AIRPORT AUTHORITY

Renato Camacho
President & CEO

TO BE ADVERTISED ON:

Thursday, May 11, 2023
Monday, May 15, 2023

Technical Specification
for
**ONE (1) ALL-WHEEL DRIVE; ALL-WHEEL STEER; DUAL ENGINE CAB; FORWARD
CHASSIS WITH HIGH SPEED 4,500 TPH ROTARY PLOW (BLOWER)**

Akron-Canton Airport
North Canton, Ohio

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PROPOSAL

ONE (1) ALL-WHEEL DRIVE; ALL-WHEEL STEER; DUAL ENGINE CAB; FORWARD CHASSIS WITH HIGH ONE (1) ALL-WHEEL DRIVE; ALL-WHEEL STEER; DUAL ENGINE CAB; FORWARD CHASSIS WITH HIGH SPEED 4,500 TPH ROTARY PLOW (BLOWER)

**TO: Akron-Canton Regional Airport Authority
5400 Lauby Road NW
North Canton, Ohio 44720**

The undersigned, as bidder, hereby declares that he/she has examined and read the Contract Documents and Contract Specifications for the work and all addenda relative thereto furnished prior to the opening of bids; that he/she has satisfied himself/herself relative to the equipment to be delivered.

The bidder understands that the advertisement, located in the front of these Contract Documents, indicates the place, date and time of the proposal opening.

The bidder understands the equipment specifications for the bid listed on the proposal sheets are based on FAA Advisory Circular 150/5220-20A (Appendix 1, 2, 3, and 4), SAE ARP5943 and SAE ARP5539.

The bidder understands that proposal guaranty shall be in the form of a bid bond or certified check in the amount of five percent (5%) of this bid in accordance with the subsection titled BID GUARANTEE; the proposal guaranty shall become the property of the Owner in the event the Contract and bond(s) are not executed within the time above set forth, as liquidated damages for the delay and additional expense to the Owner caused thereby.

The bidder agrees that upon receipt of written notice of the acceptance of this proposal, bidder will execute the Contract attached within 15 days and deliver a Surety Bond or Bonds as required by the contract documents. The bidder further agrees to commence construction with an adequate work force, plant and equipment on the date stated in the written notice to proceed and will progress therewith to its completion within the time stated, and in accordance with this Contract and Specification. The bidder states that this proposal is based upon prevailing wages in Summit County, Ohio, and in no case are wages considered less than those predetermined by the State and Federal Departments of Labor, schedules of which are contained in the Contract Documents.

The bidder proposes and agrees, if this Proposal is accepted, to contract in the form of contract specified with the Akron-Canton Airport (Owner), to furnish **ONE (1) ALL-WHEEL DRIVE; ALL-WHEEL STEER; DUAL ENGINE CAB; FORWARD CHASSIS WITH HIGH SPEED 4,500 TPH ROTARY PLOW (BLOWER)**

in full and complete accordance with the shown, noted, described and reasonably intended requirements of the Contract Documents and Contract Specifications, to the full and entire satisfaction of the above said Owner.

BIDDER, IF AN INDIVIDUAL:

BY: _____
(Printed Name)

(Signature)

COMPANY NAME: _____

ADDRESS: _____

PHONE NO: _____

DATE: _____

BIDDER, IF A PARTNERSHIP (GIVE NAMES AND ADDRESSES OF EACH PARTNER):

BY: _____
(Printed Name)

(Signature)

COMPANY NAME: _____

ADDRESS:

PHONE NO: _____

DATE: _____

**PARTNER'S
NAME:** _____

**BUSINESS
ADDRESS:** _____

**PARTNER'S
NAME:** _____

**BUSINESS
ADDRESS:** _____

**PARTNER'S
NAME:** _____

**BUSINESS
ADDRESS:** _____

**PARTNER'S
NAME:** _____

**BUSINESS
ADDRESS:** _____

BIDDER, IF A CORPORATION:

BY: _____
(Printed Name & Title)

(Signature)

**CORPORATION
NAME:** _____

ADDRESS: _____

(SEAL)

**STATE OF CORPORATION
CHARTER:** _____

PHONE NO: _____

DATE: _____

**PRESIDENT'S
NAME:** _____

**BUSINESS
ADDRESS:** _____

**SECRETARY'S
NAME:** _____

**BUSINESS
ADDRESS:** _____

**TREASURER'S
NAME:** _____

**BUSINESS
ADDRESS:** _____

Bid Sheet

**ONE (1) ALL-WHEEL DRIVE; ALL-WHEEL STEER; DUAL ENGINE CAB; FORWARD
CHASSIS WITH HIGH SPEED 4,500 TPH ROTARY PLOW (BLOWER)**

Company Name

Model/Truck

Total Truck Price FOB Akron-Canton Airport

Total Bid Price

Delivery Date _____ (Not to exceed 300 days from date of award)

Authorized Signature _____

Title: _____

Date: _____

BID GUARANTEE

Accompanying this bid is a Bid Guarantee in the amount of _____ dollars (\$_____), which is in the amount of five percent (5%) of the total bid. The guarantee accompanying this bid is payable to the Akron-Canton Regional Airport Authority, which it is agreed, shall be retained by the Airport Authority as liquidated damages, should the contractor fail to enter into Contract as here to specified, within five (5) days after notification of contract award to the undersigned.

CONTRACT FORM

THIS AGREEMENT is dated as of the _____ day of _____ in the year 20____ by and between Akron-Canton Regional Airport Authority, an Ohio Authority, having an address at 5400 Lauby Road NW, North Canton, Ohio (hereinafter called Owner) and _____ having an address at _____ (hereinafter called Contractor).

Owner and Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

ARTICLE 1 - WORK

Contractor shall perform, construct and complete all Work as specified and indicated in the bid documents for **ONE (1) ALL-WHEEL DRIVE; ALL-WHEEL STEER; DUAL ENGINE CAB; FORWARD CHASSIS WITH HIGH SPEED 4,500 TPH ROTARY PLOW (BLOWER)**

ARTICLE 2 - CONTRACT TIMES

2.1 **Contract Time.** The Work shall be substantially complete within the Contract Time of 360 calendar days.

ARTICLE 3 - CONTRACT PRICE

3.1 The Owner will pay Contractor for completed Unit in accordance with the Contract Specification in the amount of \$_____, hereby identified as the Contract Price, as shown in the Contractor's Proposal.

ARTICLE 4 - PAYMENT PROCEDURES

4.1 **Final Payment:** Final payment will be made once the punch list items have been completed and all required manuals and submittals have been received by the Owner.

ARTICLE 5 - CONTRACTOR'S REPRESENTATIONS

In executing this Agreement, Contractor makes the following representations:

5.1 Contractor has examined and carefully studied the Contract including Addenda.

5.2 Contractor is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress, performance and furnishing of the Work.

ARTICLE 6 - CONTRACT

The Contract which comprises the entire Agreement between Owner and Contractor concerning the Work consists of the following:

- 6.1 The Proposal with discrepancies corrected.
- 6.2 This Contract Form.
- 6.3 The Contractor's Performance Bond and Payment Bond.
- 6.4 The Contractor's Certificates of Insurance.
- 6.5 The Notice of Award and Notice to Proceed.
- 6.6 The General Provisions and the Technical Specifications, which are a part of the Contract.
- 6.7 Addenda listed below:

<u>Addendum No.</u>	<u>Date</u>
_____	_____
_____	_____
_____	_____

- 6.8 There are no documents other than those listed above in this Article 6. The Contract may only be modified by Supplement Agreement.

ARTICLE 7 - MISCELLANEOUS

- 7.1 No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, monies that may become due and monies that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract.
- 7.2 Owner and Contractor each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, his partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract.
- 7.3 Any provision or part of the Contract held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner or Contractor, who agree that the Contract shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

IN WITNESS WHEREOF, Owner and Contractor have signed copies of this Agreement. This Agreement will be effective on the day and year first above written.

OWNER

(SEAL)

CONTRACTOR:

(Company Name)

(SEAL)

(Signature)

(Printed Name)

(Printed Title)

(ACKNOWLEDGMENT OF OFFICER OF OWNER)

STATE OF OHIO

COUNTY OF SUMMIT

} SS:

On the _____ day of _____ in the year 20____, before me, the undersigned, a Notary Public in and for said State, personally appeared, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Notary Public

(ACKNOWLEDGMENT OF CONTRACTOR, IF A CORPORATION)

STATE OF _____

COUNTY OF _____

} SS:

On the _____ day of _____ in the year 20____, before me, the undersigned, a Notary Public in and for said State, personally appeared

to me known, who, being by me duly sworn, did depose and say that he/she/they reside(s) at

that he/she/they is(are) the _____ of

the corporation described in and which executed the above instrument; and that he/she/they know(s) the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by authority of the board of directors of said corporation, and that he/she/they signed his/her/their name(s) thereto by like authority.

Notary Public

(ACKNOWLEDGMENT OF CONTRACTOR, IF OTHER THAN A CORPORATION)

STATE OF _____ }
COUNTY OF _____ } ss:

On the _____ day of _____ in the year 20____, before me, the undersigned, a Notary Public in and for said State, personally appeared

_____, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is(are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Notary Public

(CERTIFICATE OF OWNER'S ATTORNEY)

I, the undersigned, _____,
the duly authorized and acting legal representative of the Owner, do hereby certify as follows:

I have examined the foregoing Contract and surety bond and the manner of execution thereof, and I am of the opinion that each of the aforesaid Agreements has been duly executed by the proper parties thereto acting through their duly authorized representatives; that said representatives have full power and authority to execute said Agreements on behalf of the respective parties named therein; and that the foregoing Agreements constitute valid and legally binding obligations upon the parties executing the same in accordance with the terms, conditions, and provisions thereof.

Owner's Attorney

Date

ATTACHMENTS TO PROPOSAL

BIDDER and his/her surety, where appropriate, have completed and executed the attached documents which are identified below.

Non-Collusive Bidding Certificate

Resolution for Corporate Bidders

Buy American Certification

Certifications:

- Certification of Non-Segregated Facilities
- Debarment & Suspension Certification

Bidder's Statement of Previous Contracts Subject to EEO Clause

Certification for Receipt of Addenda

Statement of Surety's Intent

Disadvantaged Business Enterprise Requirements

NON-COLLUSIVE BIDDING CERTIFICATE

The Signer of this Bid declares:

- A. That he/she has carefully examined the annexed form of the Agreement and Contract.
- B. That each Bidder and each person signing on behalf of any Bidder certifies, and in the case of a joint Bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief:
 - 1. The prices in this Bid have been arrived at independently without collusion, consultation, communication or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other Bidder or with any competitor;
 - 2. Unless otherwise required by law, the prices which have been quoted in this Bid have not been knowingly disclosed by the Bidder, and will not knowingly be disclosed by the Bidder prior to opening, directly or indirectly, to any other Bidder or to any competitor; and
 - 3. No attempt has been made or will be made by the Bidder to induce any other person, partnership or corporation to submit or not to submit a Bid for the purpose of restricting competition.

I hereby affirm under the penalties of perjury that the foregoing statement is true.

Affix Seal
if Principal
is Corporation

BIDDER: _____
BY: _____
TITLE: _____

STATE OF OHIO)
SS:
COUNTY OF _____)

On the _____ day of _____, 20____, before me personally came _____

to me known, who, being by me duly sworn, did swear and affirm that he/she resides at _____

_____ ; that he/she is the _____
of the Bidder herein and signs the foregoing Non-Collusive Certification on behalf of such Bidder; that he/she executed the foregoing Non-Collusive Certification; and that, to the best of his knowledge and belief, the statement made in the foregoing Non- Collusive Certification is true.

NOTARY PUBLIC

MY COMMISSION EXPIRES: _____

(This form must be completed and submitted with the Proposal.)
RESOLUTION FOR CORPORATE BIDDERS

RESOLVED, that _____ be authorized
(Name of Officer)

to sign and submit the bid or proposal of this corporation for the following project:

ONE (1) ALL-WHEEL DRIVE; ALL-WHEEL STEER; DUAL ENGINE CAB; FORWARD CHASSIS WITH HIGH SPEED 4,500 TPH ROTARY PLOW (BLOWER)

and to include in such bid or proposal the certificate as to non-collusion required by Law as the act and deed of such corporation, and for any inaccuracies or misstatements in such certificate this corporate bidder shall be liable under penalties of perjury.

The foregoing is a true and correct copy of the resolution adopted by _____

_____ Corporation at a meeting of its Board of

Directors held on the _____ day of _____, 20_____.

(Secretary)

(Seal)

(This form must be completed and submitted with the Proposal.)

BUY AMERICAN CERTIFICATION

The contractor agrees to comply with 49 USC § 50101, which provides that Federal funds may not be obligated unless all steel and manufactured goods used in AIP-funded projects are produced in the United States, unless the FAA has issued a waiver for the product; the product is listed as an Excepted Article, Material Or Supply in Federal Acquisition Regulation subpart 25.108; or is included in the FAA Nationwide Buy American Waivers Issued list.

A bidder or offeror must submit the appropriate Buy America certification (below) with all bids or offers on AIP funded projects. Bids or offers that are not accompanied by a completed Buy America certification must be rejected as nonresponsive.

Type of Certification is based on Type of Project:

There are two types of Buy American certifications:

- For projects for a facility, the Certificate of Compliance Based on Total Facility (Terminal or Building Project) must be submitted.
- For all other projects, the Certificate of Compliance Based on Equipment and Materials Used on the Project (Non-building construction projects such as runway or roadway construction; or equipment acquisition projects) must be submitted.

* * * * *

Certificate of Buy American Compliance for Total Facility (Buildings such as Terminal, SRE, ARFF, etc.)

As a matter of bid responsiveness, the bidder or offeror must complete, sign, date, and submit this certification statement with their proposal. The bidder or offeror must indicate how they intend to comply with 49 USC § 50101 by selecting one of the following certification statements. These statements are mutually exclusive. Bidder must select one or the other (i.e. not both) by inserting a checkmark (✓) or the letter "X".

- ☐ Bidder or offeror hereby certifies that it will comply with 49 USC. 50101 by:
- a) Only installing steel and manufactured products produced in the United States; or
 - b) Installing manufactured products for which the FAA has issued a waiver as indicated by inclusion on the current FAA Nationwide Buy American Waivers Issued listing; or
 - c) Installing products listed as an Excepted Article, Material or Supply in Federal Acquisition Regulation Subpart 25.108.

By selecting this certification statement, the bidder or offeror agrees:

1. To provide to the Owner evidence that documents the source and origin of the steel and manufactured product.
2. To faithfully comply with providing US domestic products
3. To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.

☐ The bidder or offeror hereby certifies it cannot comply with the 100% Buy American Preferences of 49 USC § 50101(a) but may qualify for either a Type 3 or Type 4 waiver under 49 USC § 50101(b). By selecting this certification statement, the apparent bidder or offeror with the apparent low bid agrees:

- 1 To submit to the Owner within 15 calendar days of the bid opening, a formal waiver request and required documentation that support the type of waiver being requested.
- 2 That failure to submit the required documentation within the specified timeframe is cause for a non-responsive determination may result in rejection of the proposal.
- 3 To faithfully comply with providing US domestic products at or above the approved US domestic content percentage as approved by the FAA.
- 4 To furnish US domestic product for any waiver request that the FAA rejects.
- 5 To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.

Required Documentation

Type 3 Waiver - The cost of components and subcomponents produced in the United States is more than 60% of the cost of all components and subcomponents of the "facility." The required documentation for a Type 3 waiver is:

- a) Listing of all manufactured products that are not comprised of 100% US domestic content (Excludes products listed on the FAA Nationwide Buy American Waivers Issued listing and products excluded by Federal Acquisition Regulation Subpart 25.108; products of unknown origin must be considered as non-domestic products in their entirety.)
- b) Cost of non-domestic components and subcomponents, excluding labor costs associated with final assembly and installation at project location.
- c) Percentage of non-domestic component and subcomponent cost as compared to total "facility" component and subcomponent costs, excluding labor costs associated with final assembly and installation at project location.

Type 4 Waiver – Total cost of project using US domestic source product exceeds the total project cost using non-domestic product by 25%. The required documentation for a Type 4 waiver is:

- a) Detailed cost information for total project using US domestic product
- b) Detailed cost information for total project using non-domestic product

False Statements: Per 49 USC § 47126, this certification concerns a matter within the jurisdiction of the Federal Aviation Administration and the making of a false, fictitious or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code.

Date

Signature

Company Name

Title

Certificate of Buy American Compliance for Manufactured Products
(Non-building construction projects, equipment acquisition projects)

As a matter of bid responsiveness, the bidder or offeror must complete, sign, date, and submit this certification statement with their proposal. The bidder or offeror must indicate how they intend to comply with 49 USC § 50101 by selecting one on the following certification statements. These statements are mutually exclusive. Bidder must select one or the other (not both) by inserting a checkmark (✓) or the letter "X".

- ☐ Bidder or offeror hereby certifies that it will comply with 49 USC § 50101 by:
- a) Only installing steel and manufactured products produced in the United States, or;
 - b) Installing manufactured products for which the FAA has issued a waiver as indicated by inclusion on the current FAA Nationwide Buy American Waivers Issued listing, or;
 - c) Installing products listed as an Excepted Article, Material or Supply in Federal Acquisition Regulation Subpart 25.108.

By selecting this certification statement, the bidder or offeror agrees:

- 1. To provide to the Owner evidence that documents the source and origin of the steel and manufactured product.
- 2. To faithfully comply with providing US domestic product
- 3. To furnish US domestic product for any waiver request that the FAA rejects
- 4. To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.

- ☐ The bidder or offeror hereby certifies it cannot comply with the 100% Buy American Preferences of 49 USC § 50101(a) but may qualify for either a Type 3 or Type 4 waiver under 49 USC § 50101(b). By selecting this certification statement, the apparent bidder or offeror with the apparent low bid agrees:

- 1. To submit to the Owner within 15 calendar days of the bid opening, a formal waiver request and required documentation that support the type of waiver being requested.
- 2. That failure to submit the required documentation within the specified timeframe is cause for a non-responsive determination may result in rejection of the proposal.
- 3. To faithfully comply with providing US domestic products at or above the approved US domestic content percentage as approved by the FAA.
- 4. To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.

Required Documentation

Type 3 Waiver - The cost of the item components and subcomponents produced in the United States is more than 60% of the cost of all components and subcomponents of the "item". The required documentation for a type 3 waiver is:

- a) Listing of all product components and subcomponents that are not comprised of 100% US domestic content (Excludes products listed on the FAA Nationwide Buy American Waivers Issued listing and products excluded by Federal Acquisition Regulation Subpart 25.108; products of unknown origin must be considered as non-domestic products in their entirety.)
- b) Cost of non-domestic components and subcomponents, excluding labor costs associated with final assembly at place of manufacture.
- c) Percentage of non-domestic component and subcomponent cost as compared to total "item" component and subcomponent costs, excluding labor costs associated with final assembly at place of manufacture.

Type 4 Waiver – Total cost of project using US domestic source product exceeds the total project cost using non-domestic product by 25%. The required documentation for a type 4 of waiver is:

- a) Detailed cost information for total project using US domestic product
- b) Detailed cost information for total project using non-domestic product

False Statements: Per 49 USC § 47126, this certification concerns a matter within the jurisdiction of the Federal Aviation Administration and the making of a false, fictitious or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code.

Date

Signature

Company Name

Title

(These forms must be completed and submitted with the Proposal.)

CERTIFICATIONS

BIDDER'S NAME: _____

ADDRESS: _____

TELEPHONE NO.: _____ **FAX NO.** _____

IRS EMPLOYER IDENTIFICATION NUMBER: _____

NOTICE OF NONSEGREGATED FACILITIES REQUIREMENT

Notice to Prospective Federally Assisted Construction Contractors

1. A Certification of Non-Segregated Facilities shall be submitted prior to the award of a federally-assisted construction contract exceeding \$10,000 which is not exempt from the provisions of the Equal Opportunity Clause.
2. Contractors receiving federally-assisted construction contract awards exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause will be required to provide for the forwarding of the following notice to prospective subcontractors for supplies and construction contracts where the subcontracts exceed \$10,000 and are not exempt from the provisions of the Equal Opportunity Clause.
3. The penalty for making false statements in offers is prescribed in 18 U.S.C. § 1001.

Notice to Prospective Subcontractors of Requirements for Certification of Non-Segregated Facilities

1. A Certification of Non-Segregated Facilities shall be submitted prior to the award of a subcontract exceeding \$10,000, which is not exempt from the provisions of the Equal Opportunity Clause.
2. Contractors receiving subcontract awards exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause will be required to provide for the forwarding of this notice to prospective subcontractors for supplies and construction contracts where the subcontracts exceed \$10,000 and are not exempt from the provisions of the Equal Opportunity Clause.
3. The penalty for making false statements in offers is prescribed in 18 U.S.C. § 1001.

* * * * *

CERTIFICATION OF NON-SEGREGATED FACILITIES

The federally-assisted construction contractor certifies that she or he does not maintain or provide, for his employees, any segregated facilities at any of his establishments and that she or he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally-assisted construction contractor certifies that she or he will not maintain or provide, for his employees, segregated facilities at any of his establishments and that she or he will not permit his employees to perform their services at any location under his control where segregated facilities are maintained. The federally-assisted construction contractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract.

As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation and housing facilities provided for employees which are segregated by explicit directives or are, in fact, segregated on the basis of race, color, religion, or national origin because of habit, local custom, or any other reason. The federally-assisted construction contractor agrees that (except where she or he has obtained identical certifications from proposed subcontractors for specific time periods) she or he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause and that she or he will retain such certifications in his files.

* * * * *

CERTIFICATE REGARDING DEBARMENT AND SUSPENSION (BIDDER OR OFFEROR)

(Required for all contracts and subcontracts that exceed \$25,000.)

By submitting a bid/proposal under this solicitation, the bidder or offeror certifies that at the time the bidder or offeror submits its proposal that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

CERTIFICATION REGARDING DEBARMENT AND SUSPENSION (SUCCESSFUL BIDDER REGARDING LOWER TIER PARTICIPANTS)

The successful bidder, by administering each lower tier subcontract that exceeds \$25,000 as a "covered transaction", must verify each lower tier participant of a "covered transaction" under the project is not presently debarred or otherwise disqualified from participation in this federally assisted project. The successful bidder will accomplish this by:

1. Checking the System for Award Management at website: <http://www.sam.gov>
2. Collecting a certification statement similar to the Certificate Regarding Debarment and Suspension (Bidder or Offeror), above.
3. Inserting a clause or condition in the covered transaction with the lower tier contract

If the FAA later determines that a lower tier participant failed to tell a higher tier that it was excluded or disqualified at the time it entered the covered transaction, the FAA may pursue any available remedy, including suspension and debarment.

Printed Name & Title: _____

Signature: _____

Date: _____

(This certification must be completed and submitted with the Proposal.)

BIDDER'S STATEMENT OF PREVIOUS CONTRACTS SUBJECT TO EEO CLAUSE

The Bidder shall complete the following statement by checking the appropriate boxes.

The Bidder has ____ has not ____ participated in a previous contract subject to the Equal Opportunity Clause prescribed by Executive Order 11246, as amended, of September 24, 1965.

The Bidder has ____ has not ____ submitted all compliance reports in connection with any such contract due under the applicable filing requirements; and that representations indicating submission of required compliance reports signed by proposed subcontractors will be obtained prior to award of subcontracts.

If the Bidder has participated in a previous contract subject to the Equal Opportunity Clause and has not submitted compliance reports due under applicable filing requirements, the Bidder shall submit a compliance report on Standard Form 100, "Employee Information Report EEO-1", attached to this proposal.

CERTIFICATION FOR RECEIPT OF ADDENDA

Receipt of the following Addenda is acknowledged:

ADDENDUM NO.: _____

DATED: _____

ADDENDUM NO.: _____

DATED: _____

ADDENDUM NO.: _____

DATED: _____

(Firm or Corporation Making Bid)

(Signature of Authorized Person)

P.O. Address: _____

Dated: _____

(This form must be completed and submitted with the Proposal.)

STATEMENT OF SURETY'S INTENT

TO: Akron-Canton Regional Airport Authority

We have reviewed the bid of _____
(Contractor)

of _____
(Address)

for the _____,

project for which bids will be received on: _____
(Bid Opening Date)

and wish to advise that should this Bid of the Contractor be accepted and the Contract awarded to him, it is our present intention to become surety on the performance bond and labor and material bond required by the Contract.

Any arrangement for the bonds required by the Contract is a matter between the Contractor and ourselves and we assure no liability to you or third parties if for any reason we do not execute the requisite bonds.

We are duly authorized to do business in the State of Ohio.

ATTEST: _____

Surety's Authorized Signature(s)

(Corporate seal, if any. If no seal, write "No Seal" across this place and sign.)

ATTACH PROPOSAL GUARANTEE

ATTACH POWER OF ATTORNEY

**(This form must be complete and submitted with the Proposal.
Copies of this form may be filled out and attached to this page.)
DISADVANTAGED BUSINESS ENTERPRISE (DBE) STATEMENT**

The requirements of 49 CFR Part 26, Regulations of the U.S. Department of Transportation, apply to this contract. It is the policy of the Sponsor to practice nondiscrimination based on race, color, sex, or national origin in the award or performance of this contract. All firms qualifying under this solicitation are encouraged to submit proposals. Award of this contract will be conditioned upon satisfying the DBE requirements of this contract. These requirements apply to all bidders, including those who qualify as a DBE. A DBE contract goal of 5 percent has been established for this contract. The bidder shall make good faith efforts, as defined in Appendix A, 49 CFR Part 26, to meet the contract goal for DBE participation in the performance of this contract.

The Contractor's DBE Plan to the Owner shall be submitted with the bid. The Contractor's DBE Plan Form and DBE Letter Of Intent Form are provided after this page. The website for the Unified Certification Program directory in the state of Ohio is

<http://www.dot.state.oh.us/Divisions/ODI/SDBE/Pages/UCP.aspx>

CERTIFICATION OF BIDDER: The undersigned bidder will satisfy the DBE requirements of these specifications in the following manner (please check the appropriate space):

_____ The bidder is committed to meeting or exceeding the DBE utilization goal stated above on this contract.

_____ The bidder, if unable to meet the DBE utilization goal stated above, is committed to a minimum of _____% DBE utilization on this contract, and will submit documentation demonstrating good faith efforts.

SMALL BUSINESS PARTICIPATION: This Contract does not have a Small Business Element (SBE) set-aside.

Name of Bidder's Firm: _____

Street Address: _____

City: _____ State: _____ Zip: _____

Bidder's Status: DBE: ☐ Non-DBE: ☐ Age of Firm: _____

Annual Gross Receipts of Firm: _____

IRS Number: _____

Signature and Title

(This form must be completed and submitted with the Proposal.)

CONTRACTOR'S DBE PLAN

(Submit this form and attach one DBE Letter of Intent Form for each DBE subcontractor, supplier or manufacturer.)

Project Name/Location: _____

FAA AIP Project No: _____

Total Awarded Contract Amount: _____ \$

Name of Bidder's Firm: _____

Street Address: _____

City: _____ State: _____ Zip: _____

Printed name of signer: _____

Printed title of signer: _____

DBE UTILIZATION SUMMARY

	<u>DBE Contract Amount</u>	<u>DBE Value</u>	<u>Contract</u>
%			
DBE Prime Contractor	\$_____ x 1.00 = \$_____		_____%
DBE Subcontractors	\$_____ x 1.00 = \$_____		_____%
DBE Suppliers	\$_____ x 0.60 = \$_____		_____%
DBE Manufacturers	\$_____ x 1.00 = \$_____		_____%
* Total Proposed DBE Participation	\$_____		_____%
Established DBE Goal	\$_____		_____%

* If the total proposed DBE participation is less than the established DBE goal, Bidder must provide written documentation of the good faith efforts as required by 49 CFR Part 26.

Affirmation:

The undersigned hereby assures that the information included herein is true and correct, and that the DBE firm(s) listed on the attached DBE Letter of Intent Forms have agreed to perform a commercially useful function in the work items noted for each firm. The undersigned further understands that no changes to this plan may be made without prior approval from the Civil Rights Staff of the Federal Aviation Administration.

By: _____
(Signature of Bidder's representative) (Title)

DBE LETTER OF INTENT FORM

(Submit one form for each DBE subcontractor, supplier or manufacturer.)

Project Name/Location: _____

FAA AIP Project No: _____

Name of Bidder's Firm: _____

Street Address: _____

City: _____ State: _____ Zip: _____

Name of DBE firm: _____

Street Address: _____

City: _____ State: _____ Zip: _____

Contact Person: _____ Telephone: _____

Certifying Agency: _____ Expiration Date: _____

(DBE firm shall submit evidence, such as a photocopy, of their certification status)

Classification: ☐ Prime Contractor ☐ Subcontractor ☐ Joint Venture
☐ Manufacturer ☐ Supplier

SUMMARY OF WORK ITEMS

Work Item(s)	Description of Work Item	Estimated Quantity	Total Value

The bidder is committed to utilizing the above-named DBE firm for the work described above.
The estimated dollar value of this work is \$ _____.

Affirmation:

The above-named DBE firm affirms that it will perform the portion of the contract for the estimated dollar value as stated above.

By: _____
(Signature of DBE firm's representative) (Title)

If the bidder does not receive award of the prime contract, any and all representations in this

Letter of Intent and Affirmation shall be null and void.

***** FOR INSTRUCTIONAL USE ONLY *****

READ BEFORE COMPLETING YOUR DMA FORM

Forms not conforming to the specifications listed below or not submitted to the appropriate agency or office will not be processed.

- To complete this form, you will need a copy of the Terrorist Exclusion List for reference. The Terrorist Exclusion List can be found on the Ohio Homeland Security Web site at the following address:

<http://www.homelandsecurity.ohio.gov/dma/dma.asp>

- Be sure you have the correct DMA form. If you are applying for a state issued license, permit, certification or registration, the "State Issued License" DMA form must be completed (HLS 0036). If you are applying for employment with a government entity, the "Public Employment" DMA form must be completed (HLS 0037). If you are obtaining a contract to conduct business with or receive funding from a government entity, the "Government Business and Funding Contracts" DMA form must be completed (HLS 0038).
- Your DMA form is to be submitted to the issuing agency or entity. "Issuing agency or entity" means the government agency or office that has requested the form from you or the government agency or office to which you are applying for a license, employment or a business contract. For example, if you are seeking a business contract with the Ohio Department of Commerce's Division of Financial Institutions, then the form needs to be submitted to the Department of Commerce's Division of Financial Institutions. Do NOT send the form to the Ohio Department of Public Safety UNLESS you are seeking a license from or employment or business contract with one of its eight divisions listed below.
- Department of Public Safety Divisions:

Administration	Ohio Homeland Security*
Ohio Bureau of Motor Vehicles	Ohio Investigative Unit
Ohio Emergency Management Agency	Ohio Criminal Justice Services
Ohio Emergency Medical Services	Ohio State Highway Patrol
- * DO NOT SEND THE FORM TO OHIO HOMELAND SECURITY UNLESS OTHERWISE DIRECTED. FORMS SENT TO THE WRONG AGENCY OR ENTITY WILL NOT BE PROCESSED.

***** FOR INSTRUCTIONAL USE ONLY *****



STATE ISSUED LICENSE

In accordance with section 2909.32 (A)(2)(a) of the Ohio Revised Code

DECLARATION REGARDING MATERIAL ASSISTANCE/NON-ASSISTANCE TO A TERRORIST ORGANIZATION

This form serves as a declaration by an applicant for a license of material assistance/non assistance to an organization on the U.S. Department of State Terrorist Exclusion List ("TEL"). Please see the Ohio Homeland Security Division Web site for a copy of the TEL.

Any answer of "yes" to any question, or the failure to answer "no" to any question on this declaration shall serve as a disclosure that material assistance to an organization identified on the U.S. Department of State Terrorist Exclusion List has been provided. Failure to disclose the provision of material assistance to such an organization or knowingly making false statements regarding material assistance to such an organization is a felony of the fifth degree.

For the purposes of this declaration, "material support or resources" means currency, payment instruments, other financial securities, funds, transfer of funds, financial services, communications, lodging, training, safe houses, false documentation or identification, communications equipment, facilities, weapons, lethal substances, explosives, personnel, transportation, and other physical assets, except medicine or religious materials.

LAST NAME	FIRST NAME	MI	
HOME ADDRESS			
CITY	STATE	ZIP	COUNTY
HOME PHONE		WORK PHONE	

COMPLETE THIS SECTION ONLY IF YOU ARE A COMPANY, BUSINESS OR ORGANIZATION

BUSINESS/ORGANIZATION NAME		PHONE	
BUSINESS ADDRESS			
CITY	STATE	ZIP	COUNTY
BUSINESS/ORGANIZATION REPRESENTATIVE NAME		TITLE	

DECLARATION

In accordance with section 2909.32 (A)(2)(b) of the Ohio Revised Code

For each question, indicate either "yes" or "no" in the space provided. Responses must be truthful to the best of your knowledge.

1. Are you a member of an organization on the U.S. Department of State Terrorist Exclusion List? ☐ Yes ☐ No
2. Have you used any position of prominence you have with any country to persuade others to support an organization on the U.S. Department of State Terrorist Exclusion List? ☐ Yes ☐ No
3. Have you knowingly solicited funds or other things of value for an organization on the U.S. Department of State Terrorist Exclusion List? ☐ Yes ☐ No
4. Have you solicited any individual for membership on an organization on the U.S. Department of State Terrorist Exclusion List? ☐ Yes ☐ No
5. Have you committed an act that you know, or reasonably should have known, affords "material support or resources" to an organization on the U.S. Department of State Terrorist Exclusion List? ☐ Yes ☐ No
6. Have you hired or compensated a person you know to be a member of an organization on the U.S. Department of State Terrorist Exclusion List, or a person you knew to be engaged in planning, assisting, or carrying out an act of terrorism? ☐ Yes ☐ No

If an applicant's license is denied due to a positive indication on this form, the applicant may request the Ohio Department of Public Safety to review the denial. Please see the Ohio Homeland Security Web site for information on how to file a request for review.

CERTIFICATION

I hereby certify that the answers I have made to all of the questions on this declaration are true to the best of my knowledge. I understand that if this declaration is not completed in its entirety, it will not be processed and I will be automatically disqualified. I understand that I am responsible for the correctness of this declaration. I understand that failure to disclose the provision of material assistance to an organization identified on the U.S. Department of State Terrorist Exclusion List, or knowingly making false statements regarding material assistance to such an organization is a felony of the fifth degree. I understand that any answer of "yes" to any question, or the failure to answer "no" to any question on this declaration shall serve as a disclosure that material assistance to an organization identified on the U.S. Department of State Terrorist Exclusion List has been provided by myself or my organization. If I am signing this on behalf of a company, business or organization, I hereby acknowledge that I have the authority to make this certification on behalf of the company, business or organization referenced above.

APPLICANT SIGNATURE X	DATE
--------------------------	------

END OF CONTRACT FORM

SECTION – 200:

FEDERALLY REQUIRED CONTRACT PROVISIONS FOR AIRPORT IMPROVEMENT PROGRAM

Appendix A – CONTRACT PROVISIONS

A1 ACCESS TO RECORDS AND REPORTS

A1.1 SOURCE

2 CFR § 200.334
2 CFR § 200.337
FAA Order 5100.38

A1.2 APPLICABILITY

2 CFR § 200.334 requires a Sponsor to retain records pertinent to a Federal award for a period of three years from submission of final closure documents. 2 CFR § 200.337 establishes that Sponsors must provide Federal entities the right to access records pertinent to the Federal award. FAA policy extends these requirements to the Sponsor's contracts and subcontracts of AIP funded projects.

Contract Types – The Sponsor must include this provision in all contracts and subcontracts of AIP funded projects.

Use of Provision – No mandatory language provided. The following language is acceptable to the FAA with meeting the intent of this requirement. If the Sponsor prefers to use different language, the Sponsor's language must fully satisfy the requirements of 2 CFR §§ 200.334 and 200.337.

A1.3 MODEL CONTRACT CLAUSE

ACCESS TO RECORDS AND REPORTS

The Contractor must maintain an acceptable cost accounting system. The Contractor agrees to provide the Owner, the Federal Aviation Administration and the Comptroller General of the United States or any of their duly authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts and transcriptions. The Contractor agrees to maintain all books, records and reports required under this contract for a period of not less than three years after final payment is made and all pending matters are closed.

A2 AFFIRMATIVE ACTION REQUIREMENT

A2.1 SOURCE

41 CFR Part 60-4
Executive Order 11246

A2.2 APPLICABILITY

Minority Participation. Sponsors are required to set goals for minority participation in AIP funded projects exceeding \$10,000. The goals for minority participation derive from Economic Area (EA) and Standard Metropolitan Statistical Area (SMSA) as established in Volume 45 of the Federal Register dated 10/3/80. Page 65984 contains a table of all EAs and SMSAs and the associated minority participation goals.

To find the goals for minority participation, a Sponsor must either refer to the Federal Register Notice or to the Department of Labor online document, "[Participation Goals for Minorities and Females](#)". EAs and SMSAs span state boundaries. A Sponsor may have to refer to entries for adjacent states in order to locate the goal for the project location.

Female Participation. Executive Order 11246 has set a goal of 6.9% nationally for female participation for all construction projects. This value remains constant for all counties and states.

Contract Types –

Construction – The Sponsor must incorporate this notice in all solicitations for bids or requests for proposals for AIP funded construction work contracts and subcontracts that exceed \$10,000. Construction work means construction, rehabilitation, alteration, conversion, extension, demolition or repair of buildings, highways or other changes or improvements to real property, including facilities providing utility services. The term also includes the supervision, inspection and other onsite functions incidental to the actual construction.

Equipment – The Sponsor must incorporate this notice in any equipment project exceeding \$10,000 that involves installation of equipment onsite (e.g., electrical vault equipment). This provision does not apply to equipment acquisition projects where the manufacture of the equipment takes place offsite at a manufacturer's plant (e.g., firefighting and snow removal vehicles).

Professional Services – The Sponsor must incorporate this notice in any professional service agreement if the professional services agreement includes tasks that meet the definition of construction work [as defined by the U.S. Department of Labor (DOL)] and exceeds \$10,000. Examples include installation of monitoring systems (e.g., noise, environmental, etc.).

Property/Land – The Sponsor must incorporate this notice in any agreement associated with land acquisition if the agreement includes construction work (defined above) that exceeds \$10,000. Examples include demolition of structures or installation of boundary fencing.

Use of Provision – MANDATORY TEXT. The Sponsor must:

- (a) Incorporate the text of this provision in its solicitations without modification.
- (b) Incorporate the applicable minority participation goal and the covered area by geographic name.
- (c) Not simply insert a reference to the 1980 Federal Register Notice.

A2.3 MANDATORY SOLICITATION CLAUSE

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Timetables

Goals for minority participation for each trade: **[Sponsor must insert established goal]**

Goals for female participation in each trade: 6.9%

These goals are applicable to all of the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a) and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs (OFCCP) within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this notice and in the contract resulting from this solicitation, the "covered area" is **[Sponsor must insert state, county, and city]**.

A3 BREACH OF CONTRACT TERMS

A3.1 SOURCE

2 CFR Part 200, Appendix II(A)

A3.2 APPLICABILITY

This provision requires Sponsors to incorporate administrative, contractual or legal remedies in the event that a contractor violates or breaches contract terms. The Sponsor must also include appropriate sanctions and penalties.

Contract Types – This provision is required for all contracts that exceed the simplified acquisition threshold as stated in 2 CFR Part 200, Appendix II (A). This threshold is occasionally adjusted for inflation and is \$250,000.

Use of Provision – No mandatory language provided. The following language is acceptable to the FAA as meeting the intent of this requirement. If the Sponsor uses different language, the Sponsor's language must fully satisfy the requirements of 2 CFR Part 200. Select either "contractor" or "consultant" as applicable.

A3.3 MODEL CONTRACT CLAUSE

BREACH OF CONTRACT TERMS

Any violation or breach of terms of this contract on the part of the [Contractor | Consultant] or its subcontractors may result in the suspension or termination of this contract or such other action that may be necessary to enforce the rights of the parties of this agreement.

Owner will provide [Contractor | Consultant] written notice that describes the nature of the breach and corrective actions the [Contractor | Consultant] must undertake in order to avoid termination of the contract. Owner reserves the right to withhold payments to Contractor until such time the Contractor corrects the breach or the Owner elects to terminate the contract. The Owner's notice will identify a specific date by which the [Contractor | Consultant] must correct the breach. Owner may proceed with termination of the contract if the [Contractor | Consultant] fails to correct the breach by the deadline indicated in the Owner's notice.

The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder are in addition to, and not a limitation of, any duties, obligations, rights and remedies otherwise imposed or available by law.

A4 BUY AMERICAN PREFERENCE

A4.1 SOURCE

Title 49 USC § 50101

Executive Order 14005, *Ensuring the Future is Made in All of America by All of America's Workers*

Bipartisan Infrastructure Law (Pub. L. No. 117-58), Build America, Buy America (BABA)

A4.2 APPLICABILITY

The Buy American Preference incorporates statutory requirements and policies outlined in the in 49 USC § 50101, Executive Order 14005, and BABA.

Section 50101 of 49 USC requires that all steel and manufactured goods used on AIP projects be produced in the United States. This section also gives the FAA the ability to issue a waiver to a Sponsor to use non-domestic material on an AIP funded project subject to meeting certain conditions. A Sponsor may request that the FAA issue a waiver from the Buy American Preference requirements if the FAA finds that:

- 1) Applying the provision is not in the public interest.
- 2) The steel or manufactured goods are not available in sufficient quantity or quality in the United States.
- 3) The cost of components and subcomponents produced in the United States is more than 60 percent of the total components of a facility or equipment, and final assembly has taken place in the United States. Items that have an FAA standard specification item number (such as specific airport lighting equipment) are considered the equipment.
- 4) Applying this provision would increase the cost of the overall project by more than 25 percent.

Executive Order 14005 advances the Administration's priority to use terms and conditions of Federal financial assistance awards to maximize the use of goods, products, and materials produced in, and services offered in, the United States. The Order directs, to the extent appropriate and consistent with applicable law, agencies shall partner with the Hollings Manufacturing Extension Partnership (MEP) to conduct supplier scouting in order to identify American companies that are able to produce goods, products, and materials in the United States that meet Federal procurement needs, prior to consideration of using non-domestic products.

The Bipartisan Infrastructure Law, Build America, Buy America (BABA) Act strengthens Made in America Laws and bolsters America's industrial base, protects national security, and supports high-paying jobs. Under BABA, iron, steel and certain construction materials are required to be 100% produced in the United States.

Under the Bipartisan Infrastructure Law (Pub. L. No. 117-58) BABA three waivers are available for iron and steel, manufactured products, and construction materials when a Federal agency finds that –

- 1) Applying the domestic content procurement preference would be inconsistent with the public interest (a "public interest waiver");
- 2) Types of iron, steel, manufactured products, or construction materials are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality (a "nonavailability waiver"); or
- 3) The inclusion of iron, steel, manufactured products, or construction materials produced in the United States will increase the cost of the overall project by more than 25 percent (an "unreasonable cost waiver").

BABA defines construction materials, items that are or consists primarily of non-ferrous metals, plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables), glass (including optic glass), lumber or drywall.

Items that consist of two or more of the aforementioned materials that have been combined together through a manufacturing process, and items that include at least one of the listed materials combined with a material that is

not listed through a manufacturing process, should be treated as manufactured products, rather than as construction materials. For example, a plastic framed sliding window should be treated as a manufactured product while plate glass should be treated as a construction material.

The Buy America Preference requirements flow down from the Sponsor to first tier contractors, who are responsible for ensuring that lower tier contractors and subcontractors are also in compliance.

Note: The Buy American Preference does not apply to temporary equipment a contractor uses as a tool of its trade and which does not remain as part of the project.

Required Documentation

The FAA Buy American Requests. All applications (requests) for an FAA Buy American Preference Waiver includes, at minimum, a completed Content Percentage Worksheet and Final Assembly Questionnaire. Additional information may be requested from the applicant by the FAA. Airport Sponsors, consultants, construction contractors, or equipment manufacturers are responsible for completing and submitting waiver applications. The FAA is unable to make a determination on waiver requests with incomplete information. Sponsors must confirm with the bidder or offeror to assess the adequacy of the waiver request and associated information prior to forwarding a waiver request to the FAA for action. All FAA waivers forms are available from the FAA Buy American Requirements webpage.

Proprietary Confidentiality. Exemption 4 of the Freedom of Information Act protects "trade secrets and commercial or financial information obtained from a person [that is] privileged or confidential. Proprietary manufacturing and design information submitted to the Federal Aviation Administration for the purposes of receiving a Buy American Waiver shall not be disclosed outside the FAA. The FAA will provide a written notification to the Airport Sponsor, manufacturer(s), contractor(s) or supplier(s) when a waiver determination is complete.

Timing of Waiver Requests. Sponsors desiring a Type 2 waiver should submit their waiver request, with justification, *before* issuing a solicitation for bids or a request for proposal for a project.

The Sponsor must submit a Type 2, Type 3, or Type 4 waiver request *prior* to executing the contract. The FAA will generally not consider waiver requests after execution of the contract except where extraordinary and extenuating circumstances exist.

The Buy American Notice of Determination (NOD) Process. The FAA Reauthorization Act of 2018 requires that all approved waivers must be posted to the FAA's website and remain posted for public comment for 10 days, before becoming effective. All FAA waivers must complete the NOD process. Sponsors are encouraged to wait until approved waivers become effective before executing AIP projects.

Buy American Conformance Lists. The FAA Office of Airports maintains listings of projects and products that have received a waiver from the Buy American Preference requirements for project specific and nationwide use. Each of these conformance lists is available online at www.faa.gov/airports/aip/buy_american/. Products listed on the FAA Nationwide Buy American Conformance list do not require additional submittal of domestic content information. Nationwide waivers expire five years from the date issued, unless revoked earlier by the FAA.

Facility Waiver Requests. For construction of a facility, the Sponsor may submit the waiver request after bid opening, but prior to contract execution. Examples of facility construction include terminal buildings, terminal renovation, and snow removal equipment buildings.

Contract Types –

Construction and Equipment – The Sponsor must meet the Buy American Preference requirements of 49 USC § 50101 and BABA for all AIP funded projects that require materials that are or consists primarily of iron, steel or manufactured goods and construction materials.

Professional Services – Professional service agreements (PSAs) do not normally result in a deliverable that meets the definition of a manufactured product. However, the emergence of various project delivery methods has created situations where task deliverables under a PSA may include a manufactured product. If a PSA includes providing a manufactured good as a deliverable under the contract, the Sponsor must include the Buy American Preference provision in the agreement.

Property – Most land transactions do not involve acquiring a manufactured product. However, under certain circumstances, a property acquisition project could result in the installation of a manufactured product. For example, the installation of property fencing, gates, doors and locks, etc. represent manufactured products acquired under an AIP funded land project that must comply with Buy American Preferences.

Use of Provisions – No mandatory language provided. The following language is acceptable to the FAA and meets the intent of this requirement. If the Sponsor uses different language, the Sponsor’s revised language must fully comply with 49 USC § 50101 and BABA.

There are two types of FAA Buy American certifications. The Sponsor must incorporate the appropriate certifications of compliance with FAA Buy American Preference in the solicitation:

- **Construction Projects** involving the replacement, rehabilitation, reconstruction of airfield surfaces such as on runways, taxiways, taxilanes, aprons, roadways, parking lots, etc. – Insert the Certificate of compliance to FAA Buy American Preference based on Construction Projects.
- **Equipment and Buildings Projects** involving and including the acquisition of equipment such as snow removal equipment, navigational aids, wind cones, and the construction of buildings such as hangars, terminal development, lighting vaults, aircraft rescue & firefighting buildings, etc. - Insert the Certificate of Compliance with FAA Buy American Preference Based on Equipment/Building Projects.

A4.3 MODEL SOLICITATION CLAUSES

A4.3.1 Certification of Compliance with FAA Buy American Preference Statement

FAA BUY AMERICAN PREFERENCE

The Contractor certifies that its bid/offer is in compliance with 49 USC § 50101, BABA and other related Made in America Laws,¹ U.S. statutes, guidance, and FAA policies, which provide that Federal funds may not be obligated unless all iron, steel and manufactured goods used in AIP funded projects are produced in the United States, unless the Federal Aviation Administration has issued a waiver for the product; the product is listed as an Excepted Article, Material Or Supply in Federal Acquisition Regulation subpart 25.108; or is included in the FAA Nationwide Buy American Waivers Issued list.

The bidder or offeror must complete and submit the certification of compliance with FAA’s Buy American Preference, BABA and Made in America laws included herein with their bid or offer. The Airport Sponsor/Owner will reject as nonresponsive any bid or offer that does not include a completed certification of compliance with FAA’s Buy American Preference and BABA.

The bidder or offeror certifies that all constructions materials, defined to mean an article, material, or supply other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives that are or consist primarily of: non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables); glass (including optic glass); lumber; or drywall used in the project are manufactured in the U.S.

¹ Per Executive Order 14005 “Made in America Laws” means all statutes, regulations, rules, and Executive Orders relating to federal financial assistance awards or federal procurement, including those that refer to “Buy America” or “Buy American,” that require, or provide a preference for, the purchase or acquisition of goods, products, or materials produced in the United States, including iron, steel, and manufactured products offered in the United States.

A4.3.2 Certification of Compliance with FAA Buy American Preference – Construction Projects

As a matter of bid responsiveness, the bidder or offeror must complete, sign, date, and submit this certification statement with its proposal. The bidder or offeror must indicate how it intends to comply with 49 USC § 50101, BABA and other related Made in America Laws, U.S. statutes, guidance, and FAA policies, by selecting one of the following certification statements. These statements are mutually exclusive. Bidder must select one or the other (i.e., not both) by inserting a checkmark (✓) or the letter “X”.

- ☐ Bidder or offeror hereby certifies that it will comply with 49 USC § 50101, BABA and other related U.S. statutes, guidance, and policies of the FAA by:
- d) Only installing iron, steel and manufactured products produced in the United States;
 - e) Only installing construction materials defined as: an article, material, or supply – other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives that are or consist primarily of non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables); glass (including optic glass); lumber or drywall that have been manufactured in the United States.
 - f) Installing manufactured products for which the Federal Aviation Administration (FAA) has issued a waiver as indicated by inclusion on the current FAA Nationwide Buy American Waivers Issued listing; or
 - g) Installing products listed as an Excepted Article, Material or Supply in Federal Acquisition Regulation Subpart 25.108.

By selecting this certification statement, the bidder or offeror agrees:

- a) To provide to the Airport Sponsor or the FAA evidence that documents the source and origin of the iron, steel, and/or manufactured product.
 - b) To faithfully comply with providing U.S. domestic products.
 - c) To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.
 - d) Certify that all construction materials used in the project are manufactured in the U.S.
- ☐ The bidder or offeror hereby certifies it cannot comply with the 100 percent Buy American Preferences of 49 USC § 50101(a) but may qualify for a Type 3 or Type 4 waiver under 49 USC § 50101(b). By selecting this certification statement, the apparent bidder or offeror with the apparent low bid agrees:
- a) To submit to the Airport Sponsor or FAA within 15 calendar days of being selected as the responsive bidder, a formal waiver request and required documentation that supports the type of waiver being requested.
 - b) That failure to submit the required documentation within the specified timeframe is cause for a non-responsive determination that may result in rejection of the proposal.
 - c) To faithfully comply with providing U.S. domestic products at or above the approved U.S. domestic content percentage as approved by the FAA.

- d) To furnish U.S. domestic product for any waiver request that the FAA rejects.
- e) To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.

Required Documentation

Type 2 Waiver (Nonavailability) - The iron, steel, manufactured goods or construction materials or manufactured goods are not available in sufficient quantity or quality in the United States. The required documentation for the Nonavailability waiver is

- a) Completed Content Percentage Worksheet and Final Assembly Questionnaire
- b) Record of thorough market research, consideration where appropriate of qualifying alternate items, products, or materials including;
- c) A description of the market research activities and methods used to identify domestically manufactured items capable of satisfying the requirement, including the timing of the research and conclusions reached on the availability of sources.

Type 3 Waiver – The cost of components and subcomponents produced in the United States is more than 60 percent of the cost of all components and subcomponents of the “facility/project.” The required documentation for a Type 3 waiver is:

- d) Completed Content Percentage Worksheet and Final Assembly Questionnaire including;
- e) Listing of all manufactured products that are not comprised of 100 percent U.S. domestic content (excludes products listed on the FAA Nationwide Buy American Waivers Issued listing and products excluded by Federal Acquisition Regulation Subpart 25.108; products of unknown origin must be considered as non-domestic products in their entirety).
- f) Cost of non-domestic components and subcomponents, excluding labor costs associated with final assembly and installation at project location.
- g) Percentage of non-domestic component and subcomponent cost as compared to total “facility” component and subcomponent costs, excluding labor costs associated with final assembly and installation at project location.

Type 4 Waiver (Unreasonable Costs) - Applying this provision for iron, steel, manufactured goods or construction materials would increase the cost of the overall project by more than 25 percent. The required documentation for this waiver is:

- a) A completed Content Percentage Worksheet and Final Assembly Questionnaire from
- b) At minimum two comparable equal bids and/or offers;
- c) Receipt or record that demonstrates that supplier scouting called for in Executive Order 14005, indicates that no domestic source exists for the project and/or component;
- d) Completed waiver applications for each comparable bid and/or offer.

False Statements: Per 49 USC § 47126, this certification concerns a matter within the jurisdiction of the Federal Aviation Administration and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code.

Date

Signature

Company Name

Title

A4.3.3 Certification of Compliance with FAA Buy American Preference – Equipment/Building Projects

As a matter of bid responsiveness, the bidder or offeror must complete, sign, date, and submit this certification statement with their proposal. The bidder or offeror must indicate how they intend to comply with 49 USC § 50101, and other Made in America Laws, U.S. statutes, guidance, and FAA policies by selecting one on the following certification statements. These statements are mutually exclusive. Bidder must select one or the other (not both) by inserting a checkmark (✓) or the letter “X”.

- ☐ Bidder or offeror hereby certifies that it will comply with 49 USC § 50101, BABA and other related U.S. statutes, guidance, and policies of the FAA by:
- d) Only installing steel and manufactured products produced in the United States;
 - e) Only installing construction materials defined as: an article, material, or supply – other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives that are or consist primarily of non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables); glass (including optic glass); lumber or drywall that have been manufactured in the United States.
 - f) Installing manufactured products for which the Federal Aviation Administration (FAA) has issued a waiver as indicated by inclusion on the current FAA Nationwide Buy American Waivers Issued listing; or
 - g) Installing products listed as an Excepted Article, Material or Supply in Federal Acquisition Regulation Subpart 25.108.

By selecting this certification statement, the bidder or offeror agrees:

- a) To provide to the Airport Sponsor or FAA evidence that documents the source and origin of the steel and manufactured product.
 - b) To faithfully comply with providing U.S. domestic product.
 - c) To furnish U.S. domestic product for any waiver request that the FAA rejects.
 - d) To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.
- ☐ The bidder or offeror hereby certifies it cannot comply with the 100 percent Buy American Preferences of 49 USC § 50101(a) but may qualify for a Type 3 waiver under 49 USC § 50101(b). By selecting this certification statement, the apparent bidder or offeror with the apparent low bid agrees:
- a) To submit to the Airport Sponsor or FAA within 15 calendar days of being selected as the responsive bidder, a formal waiver request and required documentation that supports the type of waiver being requested.
 - b) That failure to submit the required documentation within the specified timeframe is cause for a non-responsive determination that may result in rejection of the proposal.
 - c) To faithfully comply with providing U.S. domestic products at or above the approved U.S. domestic content percentage as approved by the FAA.

- d) To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.

Required Documentation

Type 2 Waiver (Nonavailability) - The iron, steel, manufactured goods or construction materials are not available in sufficient quantity or quality in the United States. The required documentation for the Nonavailability waiver is:

- a) Completed Content Percentage Worksheet and Final Assembly Questionnaire
- b) Record of thorough market research, consideration where appropriate of qualifying alternate items, products, or materials including;
- c) A description of the market research activities and methods used to identify domestically manufactured items capable of satisfying the requirement, including the timing of the research and conclusions reached on the availability of sources.

Type 3 Waiver – The cost of the item components and subcomponents produced in the United States is more than 60 percent of the cost of all components and subcomponents of the “item”. The required documentation for a Type 3 waiver is:

- d) Completed Content Percentage Worksheet and Final Assembly Questionnaire including;
- e) Listing of all product components and subcomponents that are not comprised of 100 percent U.S. domestic content (Excludes products listed on the FAA Nationwide Buy American Waivers Issued listing and products excluded by Federal Acquisition Regulation Subpart 25.108 (products of unknown origin must be considered as non-domestic products in their entirety).
- f) Cost of non-domestic components and subcomponents, excluding labor costs associated with final assembly at place of manufacture.
- g) Percentage of non-domestic component and subcomponent cost as compared to total “item” component and subcomponent costs, excluding labor costs associated with final assembly at place of manufacture.

Type 4 Waiver (Unreasonable Costs) - Applying this provision for iron, steel, manufactured goods or construction materials, would increase the cost of the overall project by more than 25 percent. The required documentation for this waiver is:

- a) Completed Content Percentage Worksheet and Final Assembly Questionnaire from
- b) At minimum two comparable equal bidders and/or offerors;
- c) Receipt or record that demonstrates that supplier scouting called for in Executive Order 14005, indicates that no domestic source exists for the project and/or component;
- d) Completed waiver applications for each comparable bid and/or offer.

False Statements: Per 49 USC § 47126, this certification concerns a matter within the jurisdiction of the Federal Aviation Administration and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code.

Date

Signature

Company Name

Title

A5 CIVIL RIGHTS - GENERAL

A5.1 SOURCE

49 USC § 47123

A5.2 APPLICABILITY

There are two separate civil rights provisions that apply to projects:

1. FAA General Civil Rights Provision and,
2. Title VI provisions, which are addressed in Appendix A6.

Contract Types – The General Civil Rights Provisions found in 49 USC § 47123, derived from the Airport and Airway Improvement Act of 1982, Section 520, apply to all Sponsor contracts *regardless* of funding source.

Use of Provision – MANDATORY TEXT. Each contract must include two civil rights provisions. The first general clause must be included in all contracts, lease agreements, or transfer agreements. An additional specific provision must be included; the applicable text is based on whether the contract is a general contract or whether the contract is a lease or transfer agreement. The Sponsor must incorporate the text of the appropriate general clause and specific clause without modification into the contract, lease, or transfer agreement.

The required clauses for each type of contact are summarized in the table below:

Contract Clause	The Sponsor must include the contract clause in:	Clause Text is Included in Paragraph
Clause that is used for all contracts, lease agreements and transfer agreements	Every contract or agreement regardless of funding source.	A5.3.1
Clause that is used for general contract agreements	This applies to all contracts that do not involve property agreements. It applies to all contracts not covered by A5.3.3 regardless of funding source.	A5.3.2
Clause that is used for lease agreements and transfer agreements	This applies to all property agreements such leases of concession space in a terminal and leases where a physical portion of the airport is transferred for use. It applies to all contracts not covered by A5.3.2 regardless of funding source.	A5.3.3

A5.3 MANDATORY CONTRACT CLAUSES

A5.3.1 General Clause that is used for Contracts, Lease Agreements, and Transfer Agreements

GENERAL CIVIL RIGHTS PROVISIONS

In all its activities within the scope of its airport program, the Contractor agrees to comply with pertinent statutes, Executive Orders, and such rules as identified in Title VI List of Pertinent Nondiscrimination Acts and Authorities to ensure that no person shall, on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and

gender identity), age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

A5.3.2 Specific Clause that is used for General Contract Agreements

The above provision binds the Contractor and subcontractors from the bid solicitation period through the completion of the contract.

A5.3.3 Specific Clause that is used for Lease Agreements or Transfer Agreements

If the Contractor transfers its obligation to another, the transferee is obligated in the same manner as the Contractor.

The above provision obligates the Contractor for the period during which the property is owned, used or possessed by the Contractor and the airport remains obligated to the Federal Aviation Administration.

A6 CIVIL RIGHTS – TITLE VI ASSURANCE

A6.1 SOURCE

49 USC § 47123
FAA Order 1400.11

A6.2 APPLICABILITY

Title VI of the Civil Rights Act of 1964, as amended, (Title VI) prohibits discrimination on the grounds of race, color, or national origin under any program or activity receiving Federal financial assistance. Sponsors must include appropriate clauses from the Standard DOT Title VI Assurances in all contracts and solicitations.

The text of each individual clause comes from the U.S. Department of Transportation [Order DOT 1050.2](#), Standard Title VI Assurances and Nondiscrimination Provisions, effective April 24, 2013. These assurances require that the Recipient (the Sponsor) insert the appropriate clauses in the form provided by the DOT. Where the clause refers to the applicable activity, project, or program, it means the AIP project.

The clauses are as follows:

A6.2.1 Applicability of Title VI Solicitation Notice

Contract Clause	The Sponsor must include the contract clause in:	Clause Text is Included in Paragraph
Title VI Solicitation Notice – <ul style="list-style-type: none">Assurance 2 of the DOT Standard Title VI Assurances and Nondiscrimination ClausesAssurance 30(d) of the Airport Sponsors Assurances	1) All AIP funded solicitations for bids, requests for proposals, or any work subject to Title VI regulations; and 2) All Sponsor proposals for negotiated agreements regardless of funding source .	A6.3.1
Title VI Clauses for Compliance with Nondiscrimination Requirements <ul style="list-style-type: none">Assurance 3 of the DOT Standard Title VI Assurances and Nondiscrimination ClausesAssurance 30(e)(1) of the Airport Sponsor Assurances	Every contract or agreement (unless the Sponsor has determined, and the FAA concurs, that the contract or agreement is not subject to the Nondiscrimination Acts and Authorities, which is a rare occurrence). It has been determined that service contracts with utility companies that are not already subject to substantively identical nondiscrimination requirements must include this clause.	A6.4.2

Contract Clause	The Sponsor must include the contract clause in:	Clause Text is Included in Paragraph
<p>Title VI Required Clause for Property Interests Transferred from the United States</p> <ul style="list-style-type: none"> Assurance 4 of the DOT Standard Title VI Assurances and Nondiscrimination Clauses Assurance 30e.3 of the Airport Sponsor Assurances 	<p>As a covenant running with the land, in any deed from the United States effecting or recording a transfer of real property, structures, use, or improvements thereon or interest therein to a Sponsor.</p> <p>This is a rare occurrence, and it will be the responsibility of the United States government to include the clause in the contract.</p>	A6.4.3
<p>Title VI Required Clause for Transfer of Real Property Acquired or Improved Under the Activity, Facility or Program</p> <ul style="list-style-type: none"> Assurance 5 of the DOT Standard Title VI Assurances and Nondiscrimination Clauses Assurance 30(e)(4)(a) of the Airport Sponsor Assurances 	<p>As a covenant running with the land, in any future deeds, leases, licenses, permits, or similar instruments entered into by the Sponsor with other parties for all transfers of real property acquired or improved under Airport Improvement Program</p> <p>This applies to agreements such as leases where a physical portion of the airport is transferred for use, for example a fuel farm, apron space, or a parking facility. It applies to agreements not covered by A6.4.4.</p>	A6.4.4
<p>Clause for Construction/Use/Access to Real Property Acquired Under the Activity, Facility or Program</p> <ul style="list-style-type: none"> Assurance 6 of the DOT Standard Title VI Assurances and Nondiscrimination Clauses Assurance 30(e)(4)(b) of the Airport Sponsor Assurances 	<p>In any future (deeds, leases, licenses, permits, or similar instruments) entered into by the Sponsor with other parties for the construction or use of, or access to, space on, over, or under real property acquired or improved under Airport Improvement Program</p> <p>This applies to agreements such as leases of concession space in a terminal not covered by A6.4.3.</p>	A6.4.5

Contract Clause	The Sponsor must include the contract clause in:	Clause Text is Included in Paragraph
Title VI List of Pertinent Nondiscrimination Acts and Authorities <ul style="list-style-type: none"> Assurance 3 of the DOT Standard Title VI Assurances and Nondiscrimination Clauses Assurance 30(e)(2) of the Airport Sponsor Assurances 	Insert this list in every contract or agreement, unless the Sponsor has determined, and the FAA concurs, that the contract or agreement is not subject to the Nondiscrimination Acts and Authorities, which is a rare occurrence. This list can only be omitted if the FAA has determined that the contractor or company is already subject to substantively identical nondiscrimination requirements.	A6.4.1 List must be included in all applicable contracts.

A6.3 MANDATORY SOLICITATION CLAUSE

The Sponsor must include this clause in:

- 1) All AIP funded solicitations for bids, requests for proposals, or any work subject to Title VI regulations; and
- 2) All Sponsor proposals for negotiated agreements **regardless of funding source.**

A6.3.1 Title VI Solicitation Notice

Title VI Solicitation Notice:

The **(Name of Sponsor)**, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 USC §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders or offerors that it will affirmatively ensure that for any contract entered into pursuant to this advertisement, [select businesses, or disadvantaged business enterprises or airport concession disadvantaged business enterprises] will be afforded full and fair opportunity to submit bids in response to this invitation and no businesses will be discriminated against on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability in consideration for an award.

A6.4 MANDATORY CONTRACT CLAUSES

A6.4.1 Title VI List of Pertinent Nondiscrimination Acts and Authorities

Insert this list in every contract or agreement, unless the Sponsor has determined and the FAA concurs, that the contract or agreement is not subject to the Nondiscrimination Acts and Authorities. This list can be omitted if the FAA has determined that the contractor or company is already subject to nondiscrimination requirements, which is a rare occurrence.

Title VI List of Pertinent Nondiscrimination Acts and Authorities

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “Contractor”) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 USC § 2000d *et seq.*, 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination in Federally-Assisted programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964);
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 USC § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Section 504 of the Rehabilitation Act of 1973 (29 USC § 794 *et seq.*), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27 (Nondiscrimination on the Basis of Disability in Programs or Activities Receiving Federal Financial Assistance);
- The Age Discrimination Act of 1975, as amended (42 USC § 6101 *et seq.*) (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982 (49 USC § 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987 (PL 100-259) (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990 (42 USC § 12101, *et seq.*) (prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities) as implemented by U.S. Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration’s Nondiscrimination statute (49 USC § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations);
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs [70 Fed. Reg. 74087 (2005)];
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 USC § 1681, *et seq.*).

A6.4.2 Nondiscrimination Requirements/Title VI Clauses for Compliance

The Sponsor must include this contract clause in:

- 1) Every contract or agreement (unless the Sponsor has determined, and the FAA concurs, that the contract or agreement is not subject to the Nondiscrimination Acts and Authorities); and
- 2) Service contracts with utility companies that are not already subject to substantively identical nondiscrimination requirements.
- 3) Other types of contracts with utility companies involving property covered by A6.4.2, A6.4.3, or A6.4.4.

Compliance with Nondiscrimination Requirements:

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “Contractor”), agrees as follows:

1. **Compliance with Regulations:** The Contractor (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts and Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Nondiscrimination:** The Contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Contractor will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.
3. **Solicitations for Subcontracts, including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the Contractor of the contractor’s obligations under this contract and the Nondiscrimination Acts and Authorities on the grounds of race, color, or national origin.
4. **Information and Reports:** The Contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts and Authorities and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the Contractor will so certify to the Sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a Contractor’s noncompliance with the non-discrimination provisions of this contract, the Sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:
 - a. Withholding payments to the Contractor under the contract until the Contractor complies; and/or
 - b. Cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The Contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations, and directives issued pursuant thereto. The Contractor will take action with respect to any subcontract or procurement as the Sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the Contractor may request the Sponsor to enter into any litigation

to protect the interests of the Sponsor. In addition, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

A6.4.3 Title VI Clauses for Deeds Transferring United States Property

This is a rare occurrence, and it will be the responsibility of the United States government to include the clause in the contract. It will be included as a covenant running with the land, in any deed from the United States effecting or recording a transfer of real property, structures, use, or improvements thereon or interest therein to a Sponsor.

CLAUSES FOR DEEDS TRANSFERRING UNITED STATES PROPERTY

The following clauses will be included in deeds effecting or recording the transfer of real property, structures, or improvements thereon, or granting interest therein from the United States pursuant to the provisions of the Airport Improvement Program grant assurances:

NOW, THEREFORE, the Federal Aviation Administration as authorized by law and upon the condition that the (*Title of Sponsor*) will accept title to the lands and maintain the project constructed thereon in accordance with (*Name of Appropriate Legislative Authority*), for the (**Airport Improvement Program or other program for which land is transferred**), and the policies and procedures prescribed by the Federal Aviation Administration of the U.S. Department of Transportation in accordance and in compliance with all requirements imposed by Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation pertaining to and effectuating the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252; 42 USC §§ 2000d to 2000d-4), does hereby remise, release, quitclaim and convey unto the (*Title of Sponsor*) all the right, title and interest of the U.S. Department of Transportation/Federal Aviation Administration in and to said lands described in (*Exhibit A attached hereto or other exhibit describing the transferred property*) and made a part hereof.

(HABENDUM CLAUSE)

TO HAVE AND TO HOLD said lands and interests therein unto (*Title of Sponsor*) and its successors forever, subject, however, to the covenants, conditions, restrictions and reservations herein contained as follows, which will remain in effect for the period during which the real property or structures are used for a purpose for which Federal financial assistance is extended or for another purpose involving the provision of similar services or benefits and will be binding on the (*Title of Sponsor*), its successors and assigns.

The (*Title of Sponsor*), in consideration of the conveyance of said lands and interests in lands, does hereby covenant and agree as a covenant running with the land for itself, its successors and assigns, that (1) no person will on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination with regard to any facility located wholly or in part on, over, or under such lands hereby conveyed [,] [and]* (2) that the (*Title of Sponsor*) will use the lands and interests in lands and interests in lands so conveyed, in compliance with all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations and Acts may be amended[, and (3) that in the event of breach of any of the above-mentioned nondiscrimination conditions, the Department will have a right to enter or re-enter said lands and facilities on said land, and that above described land and facilities will thereon revert to and vest in and become the absolute property of the Federal Aviation Administration and its assigns as such interest existed prior to this instruction].*

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary in order to make clear the purpose of Title VI.)

A6.4.4 Title VI Clauses for Transfer of Real Property Acquired or Improved Under the Activity, Facility, or Program

This applies to agreements such as leases where a physical portion of the airport is transferred for use—for example a fuel farm, apron space, or a parking facility—and will be included as a covenant running with the land, in any future deeds, leases, licenses, permits, or similar instruments entered into by the Sponsor with other parties for all transfers of real property acquired or improved under the Airport Improvement Program.

CLAUSES FOR TRANSFER OF REAL PROPERTY ACQUIRED OR IMPROVED UNDER THE AIRPORT IMPROVEMENT PROGRAM

The following clauses will be included in deeds, licenses, leases, permits, or similar instruments entered into by the Sponsor pursuant to the provisions of the Airport Improvement Program grant assurances:

- A. The (grantee, lessee, permittee, etc. as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree [in the case of deeds and leases add “as a covenant running with the land”] that:
 1. In the event facilities are constructed, maintained, or otherwise operated on the property described in this (deed, license, lease, permit, etc.) for a purpose for which a Federal Aviation Administration activity, facility, or program is extended or for another purpose involving the provision of similar services or benefits, the (grantee,

licensee, lessee, permittee, etc.) will maintain and operate such facilities and services in compliance with all requirements imposed by the Nondiscrimination Acts and Regulations listed in the Title VI List of Pertinent Nondiscrimination Acts and Authorities (as may be amended) such that no person on the grounds of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.

- B. With respect to licenses, leases, permits, etc., in the event of breach of any of the above Nondiscrimination covenants, (*Title of Sponsor*) will have the right to terminate the (lease, license, permit, etc.) and to enter, re-enter, and repossess said lands and facilities thereon, and hold the same as if the (lease, license, permit, etc.) had never been made or issued.*
- C. With respect to a deed, in the event of breach of any of the above Nondiscrimination covenants, the (*Title of Sponsor*) will have the right to enter or re-enter the lands and facilities thereon, and the above-described lands and facilities will there upon revert to and vest in and become the absolute property of the (*Title of Sponsor*) and its assigns.*

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)

A6.4.5 Title VI Clauses for Construction/Use/Access to Real Property Acquired Under the Activity, Facility or Program

This applies to agreements such as leases of concession space in a terminal and any future deeds, leases, licenses, permits, or similar instruments entered into by the Sponsor with other parties for the construction or use of, or access to, space on, over, or under real property acquired or improved under the Airport Improvement Program.

CLAUSES FOR CONSTRUCTION/USE/ACCESS TO REAL PROPERTY ACQUIRED UNDER THE ACTIVITY, FACILITY OR PROGRAM

The following clauses will be included in deeds, licenses, permits, or similar instruments/agreements entered into by (*Title of Sponsor*) pursuant to the provisions of the Airport Improvement Program grant assurances.

- B. The (grantee, licensee, permittee, etc., as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree (in the case of deeds and leases add, “as a covenant running with the land”) that (1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, (3) that the (grantee, licensee, lessee, permittee, etc.) will use the premises in compliance with all other requirements imposed by or pursuant to the Title VI List of Pertinent Nondiscrimination Acts and Authorities.
- C. With respect to (licenses, leases, permits, etc.), in the event of breach of any of the above Non-discrimination covenants, (*Title of Sponsor*) will have the right to terminate the (license, permit, etc., as appropriate) and to enter or re-enter and repossess said land and the facilities thereon, and hold the same as if said (license, permit, etc., as appropriate) had never been made or issued.*

- D. With respect to deeds, in the event of breach of any of the above Non-discrimination covenants, (*Title of Sponsor*) will there upon revert to and vest in and become the absolute property of (*Title of Sponsor*) and its assigns.*

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)

A7 CLEAN AIR AND WATER POLLUTION CONTROL

A7.1 SOURCE

2 CFR Part 200, Appendix II(G)

42 USC § 7401, et seq

33 USC § 1251, et seq

A7.2 APPLICABILITY

Contract Types – This provision is required for all contracts and lower tier contracts that exceed \$150,000.

Use of Provision – No mandatory language provided. The following language is acceptable to the FAA and meets the intent of this requirement. If the Sponsor uses different language, the Sponsor's language must fully satisfy the requirements of Appendix II to 2 CFR § 200.

A7.3 MODEL CONTRACT CLAUSE

CLEAN AIR AND WATER POLLUTION CONTROL

Contractor agrees to comply with all applicable standards, orders, and regulations issued pursuant to the Clean Air Act (42 USC §§ 7401-7671q) and the Federal Water Pollution Control Act as amended (33 USC §§ 1251-1387). The Contractor agrees to report any violation to the Owner immediately upon discovery. The Owner assumes responsibility for notifying the Environmental Protection Agency (EPA) and the Federal Aviation Administration.

Contractor must include this requirement in all subcontracts that exceed \$150,000.

A8 CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS

A8.1 SOURCE

2 CFR Part 200, Appendix II(E)

2 CFR § 5.5(b)

40 USC § 3702

40 USC § 3704

A8.2 APPLICABILITY

Contract Work Hours and Safety Standards Act Requirements (CWHSSA) (40 USC §§ 3702 & 3704) requires contractors and subcontractors on covered contracts to pay laborers and mechanics employed in the performance of the contracts not less than one and one-half times their basic rate of pay for all hours worked over 40 in a workweek. CWHSSA prohibits unsanitary, hazardous, or dangerous working conditions on federally-assisted projects. The Wage and Hour Division (WHD) within the U.S. Department of Labor (DOL) enforces the compensation requirements of this Act, while DOL's Occupational Safety and Health Administration (OSHA) enforces the safety and health requirements.

Contract Types –

Construction – This provision applies to all contracts and lower tier contracts that exceed \$100,000, and employ laborers, mechanics, watchmen, and guards.

Equipment – This provision applies to any equipment project exceeding \$100,000 that involves installation of equipment onsite (e.g., electrical vault equipment). This provision does not apply to equipment acquisition projects where the manufacture of the equipment takes place offsite at the vendor plant (e.g., ARFF and SRE vehicles).

Professional Services – This provision applies to professional service agreements that exceed \$100,000 and employs laborers, mechanics, watchmen, and guards. This includes members of survey crews and exploratory drilling operations.

Property – While most land transactions do not involve employment of laborers, mechanics, watchmen, and guards, under certain circumstances, a property acquisition project could require such employment.

Examples include the installation of property fencing or testing for environmental contamination

Use of Provision – MANDATORY TEXT. Sponsors must incorporate this text without modification.

A8.3 MANDATORY CONTRACT CLAUSE

CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS

1. Overtime Requirements.

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic, including watchmen and guards, in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; Liability for Unpaid Wages; Liquidated Damages.

In the event of any violation of the clause set forth in paragraph (1) of this clause, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this clause, in the sum of \$29 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this clause.

3. Withholding for Unpaid Wages and Liquidated Damages.

The Federal Aviation Administration (FAA) or the Owner shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this clause.

4. Subcontractors.

The Contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs (1) through (4) and also a clause requiring the subcontractor to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this clause.

A9 COPELAND “ANTI-KICKBACK” ACT

A9.1 SOURCE

2 CFR Part 200, Appendix II(D)
29 CFR Parts 3 and 5

A9.2 APPLICABILITY and PURPOSE

The Copeland (Anti-Kickback) Act (18 USC § 874 and 40 USC § 3145) makes it unlawful to induce by force, intimidation, threat of dismissal from employment, or by any other manner, any person employed in the construction or repair of public buildings or public works, financed in whole or in part by the United States, to give up any part of the compensation to which that person is entitled under a contract of employment. The Copeland Act also requires each contractor and subcontractor to furnish weekly a statement of compliance with respect to the wages paid each employee during the preceding week.

Contract Types –

Construction – This provision applies to all construction contracts and subcontracts financed under the AIP that exceed \$2,000.

Equipment – This provision applies to all equipment installation projects (e.g., electrical vault improvements) financed under the AIP that exceed \$2,000. This provision does not apply to equipment acquisitions where the equipment is manufactured at the vendor’s plant (e.g., SRE and ARFF vehicles).

Professional Services –The emergence of different project delivery methods has created situations where Professional Service Agreements (PSAs) include tasks that meet the definition of construction, alteration, or repair as defined in 29 CFR Part 5. If such tasks result in work that qualifies as construction, alteration, or repair and it exceeds \$2,000, the PSA must incorporate the Copeland Anti-kickback provision.

Property –Ordinarily, land acquisition projects would not involve employment of laborers or mechanics and thus the Copeland Anti-Kickback provision would not apply. However, land projects that involve installation of boundary fencing and demolition of structures would involve laborers and mechanics. The Sponsor must include this provision if the land acquisition project involves employment of laborers or mechanics for a contract exceeding \$2,000.

Use of Provision – No mandatory language provided. The following language is acceptable to the FAA and meets the intent of this requirement. If the Sponsor uses different language, the Sponsor’s language must fully satisfy the requirements of 29 CFR Part 5.

A9.3 MODEL CONTRACT CLAUSE

COPELAND “ANTI-KICKBACK” ACT

Contractor must comply with the requirements of the Copeland “Anti-Kickback” Act (18 USC 874 and 40 USC 3145), as supplemented by Department of Labor regulation 29 CFR part 3. Contractor and subcontractors are prohibited from inducing, by any means, any person employed on the project to give up any part of the compensation to which the employee is entitled. The Contractor and each Subcontractor must submit to the Owner, a weekly statement on the wages paid to each employee performing on covered work during the prior week. Owner must report any violations of the Act to the Federal Aviation Administration.

A10 DAVIS-BACON REQUIREMENTS

A10.1 SOURCE

2 CFR Part 200, Appendix II(D)
29 CFR Part 5
49 USC § 47112(b)
40 USC §§ 3141-3144, 3146, and 3147

A10.2 APPLICABILITY

The Davis-Bacon Act (40 USC §§ 3141-3144, 3146, and 3147) ensures that laborers and mechanics employed under the contract receive pay no less than the locally prevailing wages and fringe benefits as determined by the Department of Labor.

Contract Types –

Construction – Incorporate into all construction contracts and subcontracts that exceed \$2,000 and include funding from the AIP.

Equipment – This provision applies to all equipment installation projects (e.g., electrical vault improvements) financed under the AIP that exceed \$ 2,000. This provision does not apply to equipment acquisitions where the equipment is manufactured at the vendor's plant (e.g., SRE and ARFF vehicles)

Professional Services – The emergence of different project delivery methods has created situations where Professional Service Agreements (PSAs) includes tasks that meet the definition of construction, alteration, or repair as defined in 29 CFR Part 5. If such tasks result in work that qualifies as construction, alteration, or repair and it exceeds \$2,000, the PSA must incorporate this clause.

Property – Ordinarily, land acquisition projects would not involve employment of laborers or mechanics and thus the provision would not apply. However, land projects that involve installation of boundary fencing and demolition of structures would involve laborers and mechanics. The Sponsor must include this provision if the land acquisition project involves employment of laborers or mechanics for a contract exceeding \$2,000.

Fencing Projects – Fencing projects that exceed \$2,000 must include this provision.

Use of Provision – MANDATORY TEXT. 29 CFR part 5 establishes specific language a Sponsor must use. The Sponsor may not make any modification to the standard language. A/E firms that employ laborers and mechanics on a task that meets the definition of construction, alteration, or repair are acting as a contractor. The Sponsor may not substitute the term "Contractor" for "Consultant" in such instances.

A10.3 MANDATORY CONTRACT CLAUSE

DAVIS-BACON REQUIREMENTS

1. Minimum Wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalent thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or

mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under (1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can easily be seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination;
- (2) The classification is utilized in the area by the construction industry; and
- (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the Contractor, the laborers, or mechanics to be employed in the classification, or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii) (B) or (C) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the

benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding. The Federal Aviation Administration or the Sponsor shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the Federal Aviation Administration may, after written notice to the Contractor, Sponsor, Applicant, or Owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and Basic Records.

(i) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 1(b)(2)(B) of the Davis-Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records that show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual costs incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Federal Aviation Administration if the agency is a party to the contract, but if the agency is not such a party, the Contractor will submit the payrolls to the applicant, Sponsor, or Owner, as the case may be, for transmission to the Federal Aviation Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under

29 CFR § 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker and shall provide them upon request to the Federal Aviation Administration if the agency is a party to the contract, but if the agency is not such a party, the Contractor will submit them to the applicant, Sponsor, or Owner, as the case may be, for transmission to the Federal Aviation Administration, the Contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, Sponsor, or Owner).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under 29 CFR § 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR § 5.5 (a)(3)(i), and that such information is correct and complete;

(2) That each laborer and mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The Contractor or subcontractor shall make the records required under paragraph (3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the Sponsor, the Federal Aviation Administration, or the Department of Labor and shall permit such representatives to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the Contractor, Sponsor, applicant, or Owner, take such action as may be necessary to cause the

suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR § 5.12.

4. Apprentices and Trainees.

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR § 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of

the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination that provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate that is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal Employment Opportunity. The utilization of apprentices, trainees, and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

5. Compliance with Copeland Act Requirements.

The Contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this contract.

6. Subcontracts.

The Contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR §§ 5.5(a)(1) through (10) and such other clauses as the Federal Aviation Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR § 5.5.

7. Contract Termination: Debarment.

A breach of the contract clauses in paragraph 1 through 10 of this section may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR § 5.12.

8. Compliance with Davis-Bacon and Related Act Requirements.

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes Concerning Labor Standards.

Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of Eligibility.

- (i) By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR § 5.12(a)(1).
- (ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR § 5.12(a)(1).
- (iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 USC § 1001.

A11 DEBARMENT AND SUSPENSION

A11.1 SOURCE

2 CFR Part 180 (Subpart B)
2 CFR Part 200, Appendix II(H)
2 CFR Part 1200
DOT Order 4200.5
Executive Orders 12549 and 12689

A11.2 APPLICABILITY

The Sponsor must verify that the firm or individual that it is entering into a contract with is not presently suspended, excluded, or debarred by any Federal department or agency from participating in federally-assisted projects. The Sponsor accomplishes this by:

- 1) Checking the System for Award Management (SAM.gov) to verify that the firm or individual is not listed in SAM.gov as being suspended, debarred, or excluded;
- 2) Collecting a certification from the firm or individual that it is not suspended, debarred, or excluded; and
- 3) Incorporating a clause in the contract that requires lower tier contracts to verify that no suspended, debarred, or excluded firm or individual is included in the project.

Contract Types – This requirement applies to *covered transactions*, which are defined in 2 CFR part 180 (Subpart B). AIP funded contracts are non-procurement transactions, as defined by 2 CFR § 180.970. Covered transactions include any AIP-funded contract, regardless of tier, that is awarded by a contractor, subcontractor, supplier, consultant, or its agent or representative in any transaction, if the amount of the contract is expected to equal or exceed \$25,000. This includes contracts associated with land acquisition projects.

Use of Provision – No mandatory language provided. The following language is acceptable to the FAA in meeting the intent of this requirement. If the Sponsor uses different language, the Sponsor's language must fully satisfy the requirements of 2 CFR part 180. For professional service agreements, Sponsor may substitute "bidder/offeree" with "consultant."

A11.3 MODEL BID/PROPOSAL CERTIFICATION CLAUSES

A11.3.1 Bidder or Offeror Certification

CERTIFICATION OF OFFEROR/BIDDER REGARDING DEBARMENT

By submitting a bid/proposal under this solicitation, the bidder or offeror certifies that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

A11.3.2 Lower Tier Contract Certification

CERTIFICATION OF LOWER TIER CONTRACTORS REGARDING DEBARMENT

The successful bidder, by administering each lower tier subcontract that exceeds \$25,000 as a "covered transaction", must confirm each lower tier participant of a "covered transaction" under the project is not presently debarred or otherwise disqualified from participation in this federally-assisted project. The successful bidder will accomplish this by:

1. Checking the System for Award Management at website: <http://www.sam.gov>.
2. Collecting a certification statement similar to the Certification of Offeror /Bidder Regarding Debarment, above.

3. Inserting a clause or condition in the covered transaction with the lower tier contract.

If the Federal Aviation Administration later determines that a lower tier participant failed to disclose to a higher tier participant that it was excluded or disqualified at the time it entered the covered transaction, the FAA may pursue any available remedies, including suspension and debarment of the non-compliant participant.

A12 DISADVANTAGED BUSINESS ENTERPRISE

A12.1 SOURCE

49 CFR Part 26

A12.2 APPLICABILITY

A Sponsor that anticipates awarding \$250,000 or more in AIP funded prime contracts in a federal fiscal year must have an approved Disadvantaged Business Enterprise (DBE) program on file with the FAA Office of Civil Rights (49 CFR § 26.21). The approved DBE program will identify a 3-year overall program goal that the Sponsor bases on the availability of ready, willing, and able DBEs relative to all businesses ready, willing, and able to participate on the project (49 CFR § 26.45).

Contract Types – Sponsors with a DBE program on file with the FAA must include the following provisions, if applicable:

- 1) Clause in all solicitations for proposals for which a contract goal has been established,
- 2) Clause in each prime contract, and
- 3) Clause in solicitations that are obtaining DBE participation through race/gender neutral means.

Use of Provision –

1. *Solicitations with a DBE Contract Goal* – No mandatory language provided. 49 CFR §26.53 requires a Sponsor's solicitation to address what a contractor must submit on proposed DBE participation. The language of A12.3.1 is acceptable to the FAA in meeting the intent of this requirement. If the Sponsor uses different language, the Sponsor's revised language must fully satisfy these requirements. The Sponsor may require the contractor's submittal on proposed DBE participation either at bid opening as a matter of responsiveness or within five days of bid opening as a matter of responsibility.
2. *Solicitations Relying on Race/Gender Neutral Means* – No mandatory language provided. The language of A12.3.2 is acceptable to the FAA in meeting the intent of this requirement. If the Sponsor uses different language, the Sponsor's revised language must fully satisfy requirements for a Sponsor that is not applying a project specific contract goal but is covered by a DBE program on file with the FAA.
3. *Assurance for Contracts Covered by DBE Program* – **MANDATORY TEXT PROVIDED.** Sponsors must incorporate this language if they have a DBE program on file with the FAA. This includes projects where DBE participation is obtained through race/gender neutral means (i.e., no DBE contract goal). Section 26.13 of 49 CFR establishes mandatory language for contractor assurance. The Sponsor must not modify the language. Part 26 of 49 CFR requires Sponsors ensure this clause also flows down into subcontracts (i.e., must be included verbatim in subcontracts).
4. *Prompt Payment for Contracts Covered by DBE Program* – No mandatory language provided. Section 26.29 of 49 CFR requires Sponsors to include a contract clause requiring prompt payment to subcontractors no later than thirty (30) days after the prime contractor receives payment from the Sponsor. The requirement applies to all

subcontractors, not just DBEs. The prompt payment language of A12.3.3 is acceptable to the FAA in meeting the intent of this requirement. If the Sponsor uses different language, such as a specific clause identified in the Sponsor's approved DBE program plan, the Sponsor's revised language must fully satisfy these requirements.

5. *Termination of DBE Subcontractors on Contracts with a DBE Contract Goal* - No mandatory language provided. Section 26.53 of 49 CFR prohibits unauthorized removal or replacement of DBE firms listed in response to a solicitation that had a DBE contract goal and sets forth the specific enforcement mechanism recipients must include in prime contracts. The language of A12.3.3 is acceptable to the FAA in meeting the intent of this requirement.
6. Sponsors that are not required to have a DBE program on file with the FAA are not required to include DBE provisions and clauses.

A12.3 REQUIRED PROVISIONS

A12.3.1 Solicitation Language (Solicitations that include a Contract Goal)

Bid Information Submitted as a matter of **responsiveness**:

The Owner's award of this contract is conditioned upon Bidder or Offeror satisfying the good faith effort requirements of 49 CFR § 26.53.

As a condition of responsiveness, the Bidder or Offeror must submit the following information with its proposal on the forms provided herein:

- (1) The names and addresses of Disadvantaged Business Enterprise (DBE) firms that will participate in the contract;
- (2) A description of the work that each DBE firm will perform;
- (3) The dollar amount of the participation of each DBE firm listed under (1);
- (4) Written statement from Bidder or Offeror that attests their commitment to use the DBE firm(s) listed under (1) to meet the Owner's project goal
- (5) Written confirmation from each listed DBE firm that it is participating in the contract in the kind and amount of work provided in the prime contractor's commitment; and
- (6) If Bidder or Offeror cannot meet the advertised project DBE goal, evidence of good faith efforts undertaken by the Bidder or Offeror as described in appendix A to 49 CFR part 26. The documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract.

Bid Information submitted as a matter of responsibility:

The Owner's award of this contract is conditioned upon Bidder or Offeror satisfying the good faith effort requirements of 49 CFR § 26.53.

As a condition of responsibility, every Bidder or Offeror must submit the following information on the forms provided herein within five days after bid opening.

- 1) The names and addresses of Disadvantaged Business Enterprise (DBE) firms that will participate in the contract;
- 2) A description of the work that each DBE firm will perform;
- 3) The dollar amount of the participation of each DBE firm listed under (1);
- 4) Written statement from Bidder or Offeror that attests their commitment to use the DBE firm(s) listed under (1) to meet the Owner's project goal;
- 5) Written confirmation from each listed DBE firm that it is participating in the contract in the kind and amount of work provided in the prime contractor's commitment; and
- 6) If Bidder or Offeror cannot meet the advertised project DBE goal, evidence of good faith efforts undertaken by the Bidder or Offeror as described in appendix A to 49 CFR part 26. The documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract.

A12.3.2 Solicitation Language (Race/Gender Neutral Means)

The requirements of 49 CFR part 26 apply to this contract. It is the policy of the [Insert Name of Owner] to practice nondiscrimination based on race, color, sex, or national origin in the award or performance of this contract. The Owner encourages participation by all firms qualifying under this solicitation regardless of business size or ownership.

A12.3.3 Prime Contracts (Contracts Covered by a DBE Program)

Contract Assurance (49 CFR § 26.13; mandatory text provided) –

The Contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- 1) Withholding monthly progress payments;
- 2) Assessing sanctions;
- 3) Liquidated damages; and/or
- 4) Disqualifying the Contractor from future bidding as non-responsible.

Prompt Payment (49 CFR § 26.29; acceptable/sample text provided) –

The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than [specify number of days, not to exceed 30] days from the receipt of each payment the prime contractor receives from [Name of recipient]. The prime contractor agrees further to return retainage payments to each subcontractor within [specify number of days, not to exceed 30] days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the [Name of Recipient]. This clause applies to both DBE and non-DBE subcontractors.

Termination of DBE Subcontracts (49 CFR § 26.53(f); acceptable/sample text provided) –

The prime contractor must not terminate a DBE subcontractor listed in response to [include Solicitation paragraph number where paragraph 12.3.1, Solicitation Language appears] (or an approved substitute DBE firm) without prior written consent of [Name of Recipient]. This includes, but is not limited to, instances in which the prime contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm.

The prime contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains written consent [Name of Recipient]. Unless [Name of Recipient] consent is provided, the prime contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

[Name of Recipient] may provide such written consent only if [Name of Recipient] agrees, for reasons stated in the concurrence document, that the prime contractor has good cause to terminate the DBE firm. For purposes of this paragraph, good cause includes the circumstances listed in 49 CFR §26.53.

Before transmitting to [Name of Recipient] its request to terminate and/or substitute a DBE subcontractor, the prime contractor must give notice in writing to the DBE subcontractor, with a copy to [Name of Recipient], of its intent to request to terminate and/or substitute, and the reason for the request.

The prime contractor must give the DBE five days to respond to the prime contractor's notice and advise [Name of Recipient] and the contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why [Name of Recipient] should not approve the prime contractor's action. If required in a particular case as a matter of public necessity (e.g., safety), [Name of Recipient] may provide a response period shorter than five days.

In addition to post-award terminations, the provisions of this section apply to preaward deletions of or substitutions for DBE firms put forward by offerors in negotiated procurements.

A13 DISTRACTED DRIVING

A13.1 SOURCE

Executive Order 13513
DOT Order 3902.10

A13.2 APPLICABILITY

The FAA encourages recipients of Federal grant funds to adopt and enforce safety policies that decrease crashes by distracted drivers, including policies to ban text messaging while driving when performing work related to a grant or subgrant.

Contract Types – Sponsors must insert this provision in all AIP funded contracts that exceed the micro-purchase threshold of 2 CFR § 200.320 (currently set at \$10,000).

Use of Provision – No mandatory text provided. The following language is acceptable to the FAA in meeting the intent of this requirement. If the Sponsor uses different language, the Sponsor’s revised language must fully satisfy these requirements.

A13.3 MODEL CONTRACT CLAUSE

TEXTING WHEN DRIVING

In accordance with Executive Order 13513, “Federal Leadership on Reducing Text Messaging While Driving”, (10/1/2009) and DOT Order 3902.10, “Text Messaging While Driving”, (12/30/2009), the Federal Aviation Administration encourages recipients of Federal grant funds to adopt and enforce safety policies that decrease crashes by distracted drivers, including policies to ban text messaging while driving when performing work related to a grant or subgrant.

In support of this initiative, the Owner encourages the Contractor to promote policies and initiatives for its employees and other work personnel that decrease crashes by distracted drivers, including policies that ban text messaging while driving motor vehicles while performing work activities associated with the project. The Contractor must include the substance of this clause in all sub-tier contracts exceeding \$10,000 that involve driving a motor vehicle in performance of work activities associated with the project.

A14 PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT

A14.1 SOURCE

2 CFR § 200, Appendix II(K)
2 CFR § 200.216

A14.2 APPLICABILITY

Sponsors and subgrant recipients are prohibited from using AIP grant funds to:

- a) Procure or obtain,
- b) Extend or renew a contract to procure or obtain, or
- c) Enter into a contract to procure or obtain certain covered telecommunications equipment.

These restrictions apply to telecommunication equipment, services, or systems that use covered telecommunications equipment or services as a substantial or essential component of any system or as critical technology as part of any system. Covered telecommunications equipment is equipment produced or provided by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of either).

Contract Types – The Sponsor must include this provision in all AIP funded contracts and lower-tier contracts.

Use of Provision – No mandatory text provided. The following language is acceptable to the FAA and meets the intent of this requirement. If the Sponsor uses different language, the Sponsor's revised language must fully satisfy these requirements. Sponsor may substitute "Contractor and subcontractor" with "Consultant and sub-consultant" for professional service agreements.

A14.3 MODEL CERTIFICATION CLAUSE

PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT

Contractor and Subcontractor agree to comply with mandatory standards and policies relating to use and procurement of certain telecommunications and video surveillance services or equipment in compliance with the National Defense Authorization Act [Public Law 115-232 § 889(f)(1)].

A15 DRUG FREE WORKPLACE REQUIREMENTS

A15.1 SOURCE

49 CFR Part 32

Drug-Free Workplace Act of 1988 (41 USC § 8101-8106, as amended)

A15.2 APPLICABILITY

The Drug-Free Workplace Act of 1988 requires some Federal contractors and *all* Federal grantees to agree that they will provide drug-free workplaces as a condition of receiving a contract or grant from a Federal agency. The Act does **not** apply to contractors, subcontractors, or subgrantees, although the Federal grantees workplace may be where the contractors, subcontractors, or subgrantees are working.

Contract Types – This provision applies to all AIP funded projects, but not to the contracts between the grantee (the Sponsor) and a contractor, subcontractors, suppliers, or subgrantees.

Use of Provision – No mandatory or recommended text provided because the requirements do not extend beyond the Sponsor level.

A15.3 CONTRACT CLAUSE

None.

A16 EQUAL EMPLOYMENT OPPORTUNITY (EEO)

A16.1 SOURCE

2 CFR Part 200, Appendix II(C)
41 CFR § 60-1.4
41 CFR § 60-4.3
Executive Order 11246

A16.2 APPLICABILITY

The purpose of this provision is to provide equal opportunity for all persons, without regard to race, color, religion, sex, or national origin who are employed or seeking employment with contractors performing under a federally-assisted construction contract. There are two provisions — a construction clause and a specification clause. The equal opportunity contract clause must be included in any contract or subcontract when the amount exceeds \$10,000. Once the equal opportunity clause is determined to be applicable, the contract or subcontract must include the clause for the remainder of the year, regardless of the amount or the contract.

Contract Types –

Construction – The Sponsor must incorporate contract and specification language in all construction contracts and subcontracts as required above.

Equipment – The Sponsor must incorporate contract and specification language into all equipment contracts as required above that involves installation of equipment onsite (e.g., electrical vault equipment). This provision does not apply to equipment acquisition projects where the manufacture of the equipment takes place offsite at the vendor plant (e.g., ARFF and SRE vehicles).

Professional Services – The Sponsor must include contract and specification language into all professional service agreements as required above.

Property – The Sponsor must include contract and specification language into all land acquisition projects that include work that qualifies as construction work as defined by 41 CFR part 60 as required above. An example is installation of boundary fencing.

Use of Provision – MANDATORY TEXT. 41 CFR § 60-1.4 provides the mandatory **contract** language. 41 CFR § 60-4.3 provides the mandatory **specification** language. The Sponsor must incorporate these clauses without modification.

A16.3 MANDATORY CONTRACT CLAUSE

A16.3.1 EEO Contract Clause

EQUAL OPPORTUNITY CLAUSE

During the performance of this contract, the Contractor agrees as follows:

(1) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff, or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

(4) The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided by the agency contracting officer, advising the labor union or workers' representative of the Contractor's commitments under this section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(5) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(6) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any such rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The Contractor will include the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions, including sanctions for noncompliance: *Provided*, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

A16.3.2 EEO Specification

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS

1. As used in these specifications:

- a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
- b. "Director" means Director, Office of Federal Contract Compliance Programs (OFCCP), U.S. Department of Labor, or any person to whom the Director delegates authority;
- c. "Employer identification number" means the Federal social security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941;
- d. "Minority" includes:
 - (1) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (2) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race);
 - (3) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (4) American Indian or Alaskan native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR part 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each contractor or subcontractor participating in an approved plan is individually required to comply with its obligations under the EEO clause and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other contractors or subcontractors toward a goal in an approved Plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through 7p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in a geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from

Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other onsite supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source, or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.

- f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions including specific review of these items with onsite supervisory personnel such as superintendents, general foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other contractors and subcontractors with whom the Contractor does or anticipates doing business.
- i. Direct its recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer, and vacation employment to minority and female youth both on the site and in other areas of a contractor's work force.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR part 60-3.
- l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel, for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- m. Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
- n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations, which assist in fulfilling one or more of their affirmative action obligations (7a through 7p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant may be asserted as fulfilling any one or more of its obligations under 7a through 7p of these specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, sexual orientation, gender identity, or national origin.

11. The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination, and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR part 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government, and to keep records. Records shall at least include for each employee, the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g. those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

A17 FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE)

A17.1 SOURCE

29 USC § 201, et seq
2 CFR § 200.430

A17.2 APPLICABILITY

The U.S. Department of Labor (DOL) Wage and Hour Division administers the Fair Labor Standards Act (FLSA). This act prescribes federal standards for basic minimum wage, overtime pay, record keeping, and child labor standards.

Contract Types – Per the Department of Labor, all employees of certain enterprises having workers engaged in interstate commerce; producing goods for interstate commerce; or handling, selling, or otherwise working on goods or materials that have been moved in or produced for such commerce by any person are covered by the FLSA.

All consultants, sub-consultants, contractors, and subcontractors employed under this federally assisted project must comply with the FLSA.

Professional Services – 29 CFR § 213 exempts employees in a bona fide executive, administrative or professional capacity. Because professional firms employ individuals that are not covered by this exemption, the Sponsor's agreement with a professional services firm must include the FLSA provision.

Use of Provision – No mandatory text provided. The following language is acceptable to the FAA and meets the intent of this requirement. If the Sponsor uses different language, the Sponsor's language must fully satisfy the requirements of 29 USC § 201, et seq. The Sponsor must select *contractor* or *consultant*, as appropriate for the contract.

A17.3 MODEL SOLICITATION CLAUSE

All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, et seq, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part-time workers.

The [*Contractor* | *Consultant*] has full responsibility to monitor compliance to the referenced statute or regulation. The [*Contractor* | *Consultant*] must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division.

A18 LOBBYING AND INFLUENCING FEDERAL EMPLOYEES

A18.1 SOURCE

31 USC § 1352 – Byrd Anti-Lobbying Amendment
2 CFR Part 200, Appendix II(I)
49 CFR Part 20, Appendix A

A18.2 APPLICABILITY

Consultants and contractors that apply or bid for an award of \$100,000 or more must certify that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or another award covered by 31 USC § 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award.

Contract Types – The Sponsor must incorporate this provision into all contracts exceeding \$100,000.

Use of Provision – **MANDATORY TEXT.** Appendix A to 49 CFR Part 20 prescribes language the Sponsor must use. The Sponsor must incorporate this provision without modification.

A18.3 MANDATORY CERTIFICATION CLAUSE

CERTIFICATION REGARDING LOBBYING

The Bidder or Offeror certifies by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the Bidder or Offeror, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, “Disclosure Form to Report Lobbying,” in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file

the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

A19 PROHIBITION OF SEGREGATED FACILITIES

A19.1 SOURCE

2 CFR Part 200, Appendix II(C)
41 CFR Part 60-1

A19.2 APPLICABILITY

The contractor must comply with the requirements of the EEO clause by ensuring that facilities they provide for employees are free of segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin. This clause must be included in all contracts that include the equal opportunity clause, regardless of the amount of the contract.

Contract Types – AIP Sponsors must incorporate the Prohibition of Segregated Facilities clause (41 CFR § 60-1.8) in any contract containing the Equal Employment Opportunity clause of 41 CFR § 60-1.4. This obligation flows down to subcontract and sub-tier purchase orders containing the Equal Employment Opportunity clause.

Construction – Construction work means construction, rehabilitation, alteration, conversion, extension, demolition or repair of buildings, highways, or other changes or improvements to real property, including facilities providing utility services. The term also includes the supervision, inspection, and other onsite functions incidental to the actual construction.

Equipment – On site installation of equipment such as airfield lighting control equipment meets the definition of construction and thus this provision would apply. This provision does not apply to equipment projects involving manufacture of the item at a vendor's manufacturing plant. An example would be the manufacture of a SRE or ARFF vehicle.

Professional Services – Professional services that include tasks that qualify as construction work as defined by 41 CFR part 60-1. Examples include the installation of noise monitoring equipment.

Property/Land – Land acquisition contracts that include tasks that qualify as construction work as defined by 41 CFR part 60-1. Examples include demolition of structures or installation of boundary fencing.

Use of Provision – No mandatory text provided. The following language is acceptable to the FAA and meets the intent of this requirement. If the Sponsor uses different language, the Sponsor's language must fully satisfy the requirements of 41 CFR Part 60-1.

A19.3 MODEL CONTRACT CLAUSE

PROHIBITION OF SEGREGATED FACILITIES

(a) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Employment Opportunity clause in this contract.

(b) "Segregated facilities," as used in this clause, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin because of

written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.

(c) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Employment Opportunity clause of this contract.

A20 OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970

A20.1 SOURCE

29 CFR Part 1910

A20.2 APPLICABILITY

Contract Types – All contracts and subcontracts must comply with the Occupational Safety and Health Act of 1970 (OSH). The U.S. Department of Labor Occupational Safety and Health Administration (OSHA) oversees the workplace health and safety standards wage provisions from OSH.

Use of Provision – No mandatory text provided. The following language is acceptable to the FAA and meets the intent of this requirement. If the Sponsor uses different language, the Sponsor's language must fully satisfy the requirements of 29 CFR Part 1910.

A20.3 MODEL CONTRACT CLAUSE

All contracts and subcontracts that result from this solicitation incorporate by reference the requirements of 29 CFR Part 1910 with the same force and effect as if given in full text. The employer must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. The employer retains full responsibility to monitor its compliance and their subcontractor's compliance with the applicable requirements of the Occupational Safety and Health Act of 1970 (29 CFR Part 1910). The employer must address any claims or disputes that pertain to a referenced requirement directly with the U.S. Department of Labor – Occupational Safety and Health Administration.

A21 PROCUREMENT OF RECOVERED MATERIALS

A21.1 SOURCE

2 CFR § 200.323

2 CFR Part 200, Appendix II(J)

40 CFR Part 247

42 USC § 6901, et seq (Resource Conservation and Recovery Act (RCRA))

A21.2 APPLICABILITY

Sponsors of AIP funded development and equipment projects must comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. Section 6002 emphasizes maximizing energy and resource recovery through use of affirmative procurement actions for recovered materials identified in the Environmental Protection Agency (EPA) guidelines codified at 40 CFR part 247. When acquiring items designated in the guidelines, the Sponsor must procure items that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition.

Contract Types – This provision applies to any contracts that include procurement of products designated in subpart B of 40 CFR part 247 where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired by the preceding fiscal year exceeded \$10,000.

Construction and Equipment – Include this provision in all construction and equipment projects.

Professional Services and Property – Include this provision if the agreement includes procurement of a product that exceeds \$10,000.

Use of Provision – No mandatory text provided. The following language is acceptable to the FAA and meets the intent of this requirement. If the Sponsor uses different language, the Sponsor's language must fully satisfy the requirements of 2 CFR Part 200.

A21.3 MODEL CONTRACT CLAUSE

PROCUREMENT OF RECOVERED MATERIALS

Contractor and subcontractor agree to comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, and the regulatory provisions of 40 CFR Part 247. In the performance of this contract and to the extent practicable, the Contractor and subcontractors are to use products containing the highest percentage of recovered materials for items designated by the Environmental Protection Agency (EPA) under 40 CFR Part 247 whenever:

- a) The contract requires procurement of \$10,000 or more of a designated item during the fiscal year; or
- b) The contractor has procured \$10,000 or more of a designated item using Federal funding during the previous fiscal year.

The list of EPA-designated items is available at www.epa.gov/smm/comprehensive-procurement-guidelines-construction-products.

Section 6002(c) establishes exceptions to the preference for recovery of EPA-designated products if the contractor can demonstrate the item is:

- a) Not reasonably available within a timeframe providing for compliance with the contract performance schedule;
- b) Fails to meet reasonable contract performance requirements; or
- c) Is only available at an unreasonable price.

A22 RIGHT TO INVENTIONS

A22.1 SOURCE

2 CFR Part 200, Appendix II(F)
37 CFR Part 401

A22.2 APPLICABILITY

Contract Types – This provision applies to all contracts and subcontracts with small business firms or nonprofit organizations that include performance of *experimental, developmental, or research work*. This clause is not applicable to construction, equipment, or professional service contracts unless the contract includes *experimental, developmental, or research work*.

Use of Provision – No mandatory text provided. The following language is acceptable to the FAA and meets the intent of this requirement. If the sponsor uses different language, the Sponsor's language must fully satisfy the requirements of 2 CFR Part 200, Appendix II.

A22.3 MODEL CONTRACT CLAUSE

RIGHTS TO INVENTIONS

Contracts or agreements that include the performance of experimental, developmental, or research work must provide for the rights of the Federal Government and the Owner in any resulting invention as established by 37 CFR part 401, Rights to Inventions Made by Non-profit Organizations and Small Business Firms under Government Grants, Contracts, and Cooperative Agreements. This contract incorporates by reference the patent and inventions rights as specified within 37 CFR § 401.14. Contractor must include this requirement in all sub-tier contracts involving experimental, developmental, or research work.

A23 SEISMIC SAFETY

A23.1 SOURCE

49 CFR Part 41

A23.2 APPLICABILITY

Contract Types – This provision applies to construction of new buildings and additions to existing buildings financed in whole or in part through the Airport Improvement Program.

Professional Services– Sponsor must incorporate this clause in any contract involved in the construction of new buildings or structural addition to existing buildings.

Construction – Sponsor must incorporate this clause in any contract involved in the construction of new buildings or structural addition to existing buildings.

Equipment – Sponsor must include the construction provision if the project involves construction or structural addition to a building such as an electrical vault project to accommodate or install equipment.

Land – This provision will not typically apply to a property/land project.

Use of Provision – No mandatory text provided. The following language is acceptable to the FAA and meets the intent of this requirement. If the Sponsor uses different language, the Sponsor’s language must fully satisfy the requirements of 49 CFR part 41.

A23.3 MODEL CONTRACT CLAUSE

A23.3.1 Professional Service Agreements for Design

SEISMIC SAFETY

In the performance of design services, the Consultant agrees to furnish a building design and associated construction specification that conform to a building code standard that provides a level of seismic safety substantially equivalent to standards as established by the National Earthquake Hazards Reduction Program (NEHRP). Local building codes that model their building code after the current version of the International Building Code (IBC) meet the NEHRP equivalency level for seismic safety. At the conclusion of the design services, the Consultant agrees to furnish the Owner a “certification of compliance” that attests conformance of the building design and the construction specifications with the seismic standards of NEHRP or an equivalent building code.

A23.3.2 Construction Contracts

SEISMIC SAFETY

The Contractor agrees to ensure that all work performed under this contract, including work performed by subcontractors, conforms to a building code standard that provides a level of seismic safety substantially equivalent to standards established by the National Earthquake Hazards Reduction Program (NEHRP). Local building codes that model their code after the current version of the International Building Code (IBC) meet the NEHRP equivalency level for seismic safety.

A24 TAX DELINQUENCY AND FELONY CONVICTIONS

A24.1 SOURCE

Section 8113 of the Consolidated Appropriations Act, 2022 (Public Law 117-103) and similar provisions in subsequent appropriations acts.

DOT Order 4200.6 – Appropriations Act Requirements for Procurement and Non-Procurement Regarding Tax Delinquency and Felony Convictions

A24.2 APPLICABILITY

The Sponsor must ensure that no funding goes to any contractor who:

- Has been convicted of a Federal felony within the last 24 months; or
- Has any outstanding tax liability for which all judicial and administrative remedies have lapsed or been exhausted.

Contract Types – This provision applies to all contracts funded in whole or part with AIP.

Use of Provision – No mandatory text provided. The following language is acceptable to the FAA and meets the intent of this requirement. If the Sponsor uses different language, the Sponsor's language must fully satisfy the requirements of DOT Order 4200.6.

A24.3 MODEL CERTIFICATION CLAUSE

CERTIFICATION OF OFFEROR/BIDDER REGARDING TAX DELINQUENCY AND FELONY CONVICTIONS

The applicant must complete the following two certification statements. The applicant must indicate its current status as it relates to tax delinquency and felony conviction by inserting a checkmark (✓) in the space following the applicable response. The applicant agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification in all lower tier subcontracts.

Certifications

- a) The applicant represents that it is (☐) is not (☐) a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.
- b) The applicant represents that it is (☐) is not (☐) a corporation that was convicted of a criminal violation under any Federal law within the preceding 24 months.

Note

If an applicant responds in the affirmative to either of the above representations, the applicant is ineligible to receive an award unless the Sponsor has received notification from the agency suspension and debarment official (SDO) that the SDO has considered suspension or debarment and determined that further action is not required to protect the Government's interests. The applicant therefore must provide information to the owner about its tax liability or conviction to the Owner, who will then notify the FAA Airports District Office, which will then notify the agency's SDO to facilitate completion of the required considerations before award decisions are made.

Term Definitions

Felony conviction: Felony conviction means a conviction within the preceding twenty four (24) months of a felony criminal violation under any Federal law and includes conviction of an offense defined in a section of the U.S. Code that specifically classifies the offense as a felony and conviction of an offense that is classified as a felony under 18 USC § 3559.

Tax Delinquency: A tax delinquency is any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

A25 TERMINATION OF CONTRACT

A25.1 SOURCE

2 CFR Part 200, Appendix II(B)
FAA Advisory Circular 150/5370-10, Section 80-09

A25.2 APPLICABILITY

Contract Types – All contracts and subcontracts in excess of \$10,000 must address *termination for cause* and *termination for convenience* by the Sponsor. The provision must address the manner (i.e., notice, opportunity to cure, and effective date) by which the Sponsor’s contract will be affected and the basis for settlement (e.g., incurred expenses, completed work, profit, etc.).

Use of Provision –

Termination for Convenience – No mandatory text provided. The Sponsor must include a clause for termination for convenience. The following language is acceptable to the FAA and meets the intent of this requirement. If the Sponsor uses different language, the Sponsor’s language must fully satisfy the requirements of Appendix II to 2 CFR § 200.

Termination for Cause – No mandatory text provided. The Sponsor must include a clause for termination for cause (includes default). The following language is acceptable to the FAA and meets the intent of this requirement. If the Sponsor uses different language, the Sponsor’s language must fully satisfy the requirements of 2 CFR Part 200, Appendix II.

Equipment, Professional Services, and Property – No mandatory text provided. The Sponsor may use their established clause language provided that it adequately addresses the intent of 2 CFR Part 200 Appendix II(B), which addresses termination for cause and for convenience.

A25.3 MODEL CONTRACT CLAUSES

A25.3.1 Termination for Convenience

TERMINATION FOR CONVENIENCE (CONSTRUCTION & EQUIPMENT CONTRACTS)

The Owner may terminate this contract in whole or in part at any time by providing written notice to the Contractor. Such action may be without cause and without prejudice to any other right or remedy of Owner. Upon receipt of a written notice of termination, except as explicitly directed by the Owner, the Contractor shall immediately proceed with the following obligations regardless of any delay in determining or adjusting amounts due under this clause:

1. Contractor must immediately discontinue work as specified in the written notice.
2. Terminate all subcontracts to the extent they relate to the work terminated under the notice.
3. Discontinue orders for materials and services except as directed by the written notice.
4. Deliver to the Owner all fabricated and partially fabricated parts, completed and partially completed work, supplies, equipment and materials acquired prior to termination of the work, and as directed in the written notice.
5. Complete performance of the work not terminated by the notice.
6. Take action as directed by the Owner to protect and preserve property and work related to this contract that Owner will take possession.

Owner agrees to pay Contractor for:

1. Completed and acceptable work executed in accordance with the contract documents prior to the effective date of termination;
2. Documented expenses sustained prior to the effective date of termination in performing work and furnishing labor, materials, or equipment as required by the contract documents in connection with uncompleted work;
3. Reasonable and substantiated claims, costs, and damages incurred in settlement of terminated contracts with Subcontractors and Suppliers; and
4. Reasonable and substantiated expenses to the Contractor directly attributable to Owner's termination action.

Owner will not pay Contractor for loss of anticipated profits or revenue or other economic loss arising out of or resulting from the Owner's termination action.

The rights and remedies this clause provides are in addition to any other rights and remedies provided by law or under this contract.

TERMINATION FOR CONVENIENCE (PROFESSIONAL SERVICES)

The Owner may, by written notice to the Consultant, terminate this Agreement for its convenience and without cause or default on the part of Consultant. Upon receipt of the notice of termination, except as explicitly directed by the Owner, the Contractor must immediately discontinue all services affected.

Upon termination of the Agreement, the Consultant must deliver to the Owner all data, surveys, models, drawings, specifications, reports, maps, photographs, estimates, summaries, and other documents and materials prepared by the Engineer under this contract, whether complete or partially complete.

Owner agrees to make just and equitable compensation to the Consultant for satisfactory work completed up through the date the Consultant receives the termination notice. Compensation will not include anticipated profit on non-performed services.

Owner further agrees to hold Consultant harmless for errors or omissions in documents that are incomplete as a result of the termination action under this clause.

A25.3.2 Termination for Default

TERMINATION FOR CAUSE (CONSTRUCTION)

Section 80-09 of FAA Advisory Circular 150/5370-10 establishes standard language for conditions, rights, and remedies associated with Owner termination of this contract for cause due to default of the Contractor.

TERMINATION FOR CAUSE (EQUIPMENT)

The Owner may, by written notice of default to the Contractor, terminate all or part of this Contract for cause if the Contractor:

1. Fails to begin the Work under the Contract within the time specified in the Notice- to-Proceed;
2. Fails to make adequate progress as to endanger performance of this Contract in accordance with its terms;
3. Fails to make delivery of the equipment within the time specified in the Contract, including any Owner approved extensions;
4. Fails to comply with material provisions of the Contract;

5. Submits certifications made under the Contract and as part of their proposal that include false or fraudulent statements; or
6. Becomes insolvent or declares bankruptcy.

If one or more of the stated events occur, the Owner will give notice in writing to the Contractor and Surety of its intent to terminate the contract for cause. At the Owner's discretion, the notice may allow the Contractor and Surety an opportunity to cure the breach or default.

If within [10] days of the receipt of notice, the Contractor or Surety fails to remedy the breach or default to the satisfaction of the Owner, the Owner has authority to acquire equipment by other procurement action. The Contractor will be liable to the Owner for any excess costs the Owner incurs for acquiring such similar equipment.

Payment for completed equipment delivered to and accepted by the Owner shall be at the Contract price. The Owner may withhold from amounts otherwise due the Contractor for such completed equipment, such sum as the Owner determines to be necessary to protect the Owner against loss because of Contractor default.

Owner will not terminate the Contractor's right to proceed with the work under this clause if the delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such acceptable causes include: acts of God, acts of the Owner, acts of another Contractor in the performance of a contract with the Owner, and severe weather events that substantially exceed normal conditions for the location.

If, after termination of the Contractor's right to proceed, the Owner determines that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the Owner issued the termination for the convenience the Owner.

The rights and remedies of the Owner in this clause are in addition to any other rights and remedies provided by law or under this contract.

TERMINATION FOR CAUSE (PROFESSIONAL SERVICES)

Either party may terminate this Agreement for cause if the other party fails to fulfill its obligations that are essential to the completion of the work per the terms and conditions of the Agreement. The party initiating the termination action must allow the breaching party an opportunity to dispute or cure the breach.

The terminating party must provide the breaching party [7] days advance written notice of its intent to terminate the Agreement. The notice must specify the nature and extent of the breach, the conditions necessary to cure the breach, and the effective date of the termination action. The rights and remedies in this clause are in addition to any other rights and remedies provided by law or under this agreement.

- a) **Termination by Owner:** The Owner may terminate this Agreement for cause in whole or in part, for the failure of the Consultant to:
 1. Perform the services within the time specified in this contract or by Owner approved extension;
 2. Make adequate progress so as to endanger satisfactory performance of the Project; or
 3. Fulfill the obligations of the Agreement that are essential to the completion of the Project.

Upon receipt of the notice of termination, the Consultant must immediately discontinue all services affected unless the notice directs otherwise. Upon termination of the Agreement, the Consultant must deliver to the

Owner all data, surveys, models, drawings, specifications, reports, maps, photographs, estimates, summaries, and other documents and materials prepared by the Engineer under this contract, whether complete or partially complete.

Owner agrees to make just and equitable compensation to the Consultant for satisfactory work completed up through the date the Consultant receives the termination notice. Compensation will not include anticipated profit on non-performed services.

Owner further agrees to hold Consultant harmless for errors or omissions in documents that are incomplete as a result of the termination action under this clause.

If, after finalization of the termination action, the Owner determines the Consultant was not in default of the Agreement, the rights and obligations of the parties shall be the same as if the Owner issued the termination for the convenience of the Owner.

b) **Termination by Consultant:** The Consultant may terminate this Agreement for cause in whole or in part, if the Owner:

1. Defaults on its obligations under this Agreement;
2. Fails to make payment to the Consultant in accordance with the terms of this Agreement;
3. Suspends the project for more than [180] days due to reasons beyond the control of the Consultant.

Upon receipt of a notice of termination from the Consultant, Owner agrees to cooperate with Consultant for the purpose of terminating the agreement or portion thereof, by mutual consent. If Owner and Consultant cannot reach mutual agreement on the termination settlement, the Consultant may, without prejudice to any rights and remedies it may have, proceed with terminating all or parts of this Agreement based upon the Owner's breach of the contract.

In the event of termination due to Owner breach, the Consultant is entitled to invoice Owner and to receive full payment for all services performed or furnished in accordance with this Agreement and all justified reimbursable expenses incurred by the Consultant through the effective date of termination action. Owner agrees to hold Consultant harmless for errors or omissions in documents that are incomplete as a result of the termination action under this clause.

A26 TRADE RESTRICTION CERTIFICATION

A26.1 SOURCE

49 USC § 50104

49 CFR Part 30

A26.2 APPLICABILITY

Unless waived by the Secretary of Transportation, Sponsors may not use AIP funds on a product or service from a foreign country included in the current list of countries that discriminate against U.S. firms as published by the Office of the United States Trade Representative (USTR).

Contract Types – The trade restriction certification and clause apply to all AIP funded projects.

Use of Provision – MANDATORY TEXT. 49 CFR Part 30 prescribes the language for this model clause. The Sponsor must include this certification language in all contracts and subcontracts without modification.

A26.3**MANDATORY SOLICITATION CLAUSE****TRADE RESTRICTION CERTIFICATION**

By submission of an offer, the Offeror certifies that with respect to this solicitation and any resultant contract, the Offeror –

- 1) is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms as published by the Office of the United States Trade Representative (USTR);
- 2) has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country included on the list of countries that discriminate against U.S. firms as published by the USTR; and
- 3) has not entered into any subcontract for any product to be used on the Federal project that is produced in a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18 USC § 1001.

The Offeror/Contractor must provide immediate written notice to the Owner if the Offeror/Contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The Contractor must require subcontractors provide immediate written notice to the Contractor if at any time it learns that its certification was erroneous by reason of changed circumstances.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR § 30.17, no contract shall be awarded to an Offeror or subcontractor:

- 1) who is owned or controlled by one or more citizens or nationals of a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR; or
- 2) whose subcontractors are owned or controlled by one or more citizens or nationals of a foreign country on such USTR list; or
- 3) who incorporates in the public works project any product of a foreign country on such USTR list.

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

The Offeror agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in all lower tier subcontracts. The Contractor may rely on the certification of a prospective subcontractor that it is not a firm from a foreign country included on the list of countries that discriminate against U.S. firms as published by USTR, unless the Offeror has knowledge that the certification is erroneous.

This certification is a material representation of fact upon which reliance was placed when making an award. If it is later determined that the Contractor or subcontractor knowingly rendered an erroneous

certification, the Federal Aviation Administration (FAA) may direct through the Owner cancellation of the contract or subcontract for default at no cost to the Owner or the FAA.

A27 VETERAN'S PREFERENCE

A27.1 SOURCE

49 USC § 47112(c)

A27.2 APPLICABILITY

Contract Types – This provision applies to all AIP funded projects that involve labor to carry out the project. This preference, which excludes executive, administrative, and supervisory positions, applies to covered veterans [as defined under § 47112(c)] only when they are readily available and qualified to accomplish the work required by the project.

Use of Provision – No mandatory text provided. The following language is acceptable to the FAA and meets the intent of this requirement. If the Sponsor uses different language, the Sponsor's language must fully satisfy the requirements of 49 USC § 47112.

A27.3 MODEL CONTRACT CLAUSE

VETERAN'S PREFERENCE

In the employment of labor (excluding executive, administrative, and supervisory positions), the Contractor and all sub-tier contractors must give preference to covered veterans as defined within Title 49 United States Code Section 47112. Covered veterans include Vietnam-era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns (as defined by 15 USC § 632) owned and controlled by disabled veterans. This preference only applies when there are covered veterans readily available and qualified to perform the work to which the employment relates.

A28 DOMESTIC PREFERENCES FOR PROCUREMENTS

A28.1 SOURCE

2 CFR § 200.322

2 CFR Part 200, Appendix II(L)

A28.2 APPLICABILITY

To the greatest extent “practicable,” Sponsors must provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the U.S., including, but not limited to iron, aluminum, steel, cement, or other manufactured products.

Contract Types – Must be included in all subawards, including all contracts and purchase orders for work or products under the grant.

Use of Provision – No mandatory text provided. The following language is acceptable to the FAA and meets the intent of this requirement. If the Sponsor uses different language, the Sponsor’s language must fully satisfy the requirements of 2 CFR § 200.322.

A28.3 MODEL CERTIFICATION CLAUSE

CERTIFICATION REGARDING DOMESTIC PREFERENCES FOR PROCUREMENTS

The Bidder or Offeror certifies by signing and submitting this bid or proposal that, to the greatest extent practicable, the Bidder or Offeror has provided a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including, but not limited to, iron, aluminum, steel, cement, and other manufactured products) in compliance with 2 CFR § 200.322.

TECHNICAL SPECIFICATIONS

SPECIFICATIONS FOR One (1) ALL-WHEEL DRIVE; ALL-WHEEL STEER; DUAL ENGINE CAB; FORWARD CHASSIS WITH HIGH SPEED 4,500 TPH ROTARY PLOW (BLOWER)

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1. SCOPE:

This SAE Aerospace Recommended Practice (ARP) covers requirements for a rotary plow with carrier vehicle primarily used to cast heavy concentrations of snow away from airport operational areas such as runways and taxiways. The term carrier vehicle represents the various self-propelled prime movers that provide the power necessary to move snow and ice control equipment during winter operations.

These specifications contemplate the furnishing and delivery of ONE (1) ALL-WHEEL DRIVE; ALL-WHEEL STEER; DUAL ENGINE CAB; FORWARD CHASSIS WITH HIGH ONE (1) ALL-WHEEL DRIVE; ALL-WHEEL STEER; DUAL ENGINE CAB; FORWARD CHASSIS WITH HIGH SPEED 4,500 TPH ROTARY PLOW (BLOWER) and indicate in general the type, size, and quantity desired.

This vehicle shall be all wheel drive all wheel steer and must be designed and manufactured in the United States, for the specific purpose of snow removal. The configuration shall be front mounted attachments and forward mounted cab design. This vehicle shall comply with all applicable FMCSR and FMVSS quality/safety standards, SAE ARP 5539 specifications, and requirements of the FAA Advisory Circular 150/5220-20A.

These specifications require the doing of all things necessary or proper for, or incidental to the furnishing of said unit. All items of design and equipment not listed in these specifications, but involved in carrying out their intent, are required to be furnished by the bidder, the same as if these items were specifically mentioned and described in these specifications.

2. REFERENCES:

2.1 Applicable Documents:

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of a conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

- 2.1.1 SAE Publications: Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Internet address: <http://www.sae.org>

SAE J931 Hydraulic Power Circuit Filtration

SAE J1503 Performance Test for Air-conditioned, Heated and Ventilated Off-Road Self-Propelled Work Machines

- 2.1.2 FAR and FAA Publications from FAA: Available from Federal Aviation Administration, 800 Independence Avenue, SW, Washington, DC 20591, Internet address: <http://www.faa.gov>

AC 150/5200-18 Buildings for Storage and Maintenance of Airport Snow and Ice Control Equipment and Materials

AC 150/5200-18C Airport Safety Self-Inspection

AC 150/5200-30D Airport Field Condition Assessments and Winter Operations

Safety AC 150/5210-5D Painting, Marking, and Lighting of Vehicles Used on an Airport AC 150/5220-20A Airport Snow and Ice Control Equipment

- 2.1.3 FMCSR Publications from FMCSA: Available from Federal Motor Carrier Safety Administration, 400 Seventh Street SW., Washington, DC, 20590; Internet address: <http://www.fmcsa.dot.gov> Title 49, Chapter III, Subchapter B-Federal Motor Carrier Safety Regulations (Title 49)

- 2.1.4 Federal Spec 297 D, Rustproofing of Commercial (Non-tactical) Vehicles

- 2.1.5 RTCA Publications: Available from Radio Technical Commission for Aeronautics Inc., 1828 L Street NW, Suite 805, Washington, DC 20036, Internet-
<http://www.rtca.org> RTCA document DO-186, "Minimum Performance Standards for Airborne Radio Communications Equipment Operating within the Radio Frequency Range 117.975 - 137.000

- 2.1.6 FMVSS Standards-latest edition

3. DEFINITIONS:

3.1 Axle Capacity:

The allowable load on an axle based on supportive engineering data and the best judgment of the manufacturer of the axle. Usually based on all the components in an axle system, tire-wheel-bearings-spindle, etc.

3.2 Axle Ratio:

The numerical ratio of the drive shaft speed to the speed of the axle. The numerical ratio equals the torque multiplication factor of the axle.

3.3 Axle, Dead:

A means of support for the wheels at each end that is non-driven.

3.4 Axle, Live:

A means of support for the wheels at each end that is driven.

3.5 Auger, Drum-cutter Type:

A structure used to disaggregate snow and transport it across the face of a snow blower. When used in a single stage blower, the drum cutter also casts the snow. The helical flights of a drum cutter are affixed to a relatively large diameter cylinder, or drum, that serves as or is attached to the center axis of the auger. Drum-cutters on Single Stage Snow-thrower Rotary Snowplows are also referred to as "Turbines". Drum cutter augers typically rotate on an axis perpendicular to the direction of travel.

3.6 Auger, Helical:

A structure designed to disaggregate and transport snow across the face of a snow blower, based on an open helix concept, the helix being mounted to the center axis of the auger, usually by some type of spoke arrangement. The center axis structure of a helical auger is relatively small in diameter when compared to the diameter of the helical ribbon. Helical augers typically rotate on an axis perpendicular to the direction of travel.

3.7 Auger, Screw Type:

A screw type structure designed to disaggregate and transport snow across the face of a snow blower, the flights of which are closed and connected directly to the center axis of the auger. Several parallel screw type augers are often used together.

3.8 Auger Drive:

The Auger Drive is the final mechanism(s) employed to rotate the Auger(s). An Auger Drive can be hydrostatic, hydraulic or mechanical, or a combination of hydrostatic and mechanical. Mechanical Auger Drives must be protected by the inclusion of slip

clutches or shear pins. Hydrostatic drives must be protected by the inclusion of pressure protection devices.

3.9 Cab:

An enclosed area on a vehicle designed and intended to hold and carry an operator.

3.10 Capacity Rating:

Also see Performance Rating. The Capacity Rating of a Rotary Snowplow is the maximum number of tons of snow a Rotary Snowplow can blow (see Snow-blowers) or throw (see Snow-throwers) a defined Casting Distance.

3.11 Carrier Vehicle:

The prime mover for a Rotary Snowplow.

3.12 Casting Distance:

The distance from the left to right center of a Rotary Snowplow to the center of the area of most concentrated snow cast observed during casting.

3.13 Center Drive Augers:

Augers driven by a gear box located more or less in the center position of the auger axis.

3.14 Certification:

a. Application approval - a confirmation and testimony in writing by a qualified expertise.

b. Performance - manufacturer must provide certified, credible testing results.

3.15 Curb Weight:

The weight of the carrier vehicle with all factory installed equipment and in the travel position, full fuel tank(s) and a nominal 180 pound operator.

3.16 Deluge System:

A means of providing fluid to windshield(s), window(s), mirror(s), and other surfaces to improve operational visibility from the cab. Deluge systems shall be controlled from the operator station in the cab.

3.17 Differential:

The gear assembly on the drive axle that permits one wheel to turn slower or faster than the other when negotiating a turn. The gear assembly in the transfer case that allows the front drive-shaft to turn slower or faster than the other when negotiating a turn.

3.18 Differential, Automatic Locking:

The gear assembly in the transfer case that allows the front drive-shaft to turn slower or faster than the rear prop-shaft when negotiating a turn while providing maximum driving torque to both the front and rear axles. The gear assembly on the drive axle that permits one wheel to turn slower or faster than the other when negotiating a turn while providing maximum driving torque to both wheels. Automatic locking differentials provide positive drive to both driven members while not requiring operator input or control.

3.19 Differential, Manual Locking (bevel gear):

The gear assembly on the drive axle that permits one wheel to turn slower or faster than the other when negotiating a turn but with provisions for the operator to fully lock and unlock the differential action from the cab. Bevel gears provide positive drive to both driven members.

3.20 Dimensions:

AE Centerline of rear axle/tandem to the end of frame.
BA Bumper to centerline of Front axle
BBC Bumper to back of Cab
CA Back of Cab to centerline of rear axle
CE Back of cab to end of the frame ($AE + CA = CE$)
FH Frame height from the ground to the top of frame
OAL Overall Length
WB Wheelbase

3.21 Drop Box:

A gear box (or chain box) that transmits power output to a driven implement.

3.22 Dual Engine Rotary Snowplow:

A Dual Engine Rotary Snowplow has two engines. One engine provides power to the Rotary Snowplow Head, and the other engine provides motive power.

3.23 Equipment, Auxiliary:

Any equipment, in addition to the basic chassis that is required for a piece of equipment/vehicle to perform its functions. For example, a winch would be auxiliary equipment for a tow truck.

3.24 Fan, Fan Blades:

See Impeller, Impeller Blades.

3.25 FMVSS:

An abbreviation for the Federal Motor Vehicle Safety Standard.

3.26 Front Discharge Rotary Snowplow:

A front discharge rotary snowplow locates the operator cabin to the rear of the rotary snowplow head. This provides for the snow to discharge in front of the operator.

3.27 Front/Rear Axle Disconnect:

A mechanism designed to engage and disengage torque to the axle.

3.28 Fuel Capacity, Maximum:

The maximum actual volume of fluid able to fit into on-board tanks.

3.29 Fuel Capacity, Useable:

The maximum amount of fluid able to be drawn from an on-board tank with the vehicle and tank stationary and in the fixed, operating position.

3.30 GAWR:

Abbreviation for Gross Axle Weight Rating. The rating of the lowest rated member as defined by the component manufacturer(s) from the following components: tires, suspension, hubs/wheels, rims, bearings, beam and brakes.

3.31 Gear Ratio:

The ratio of the speed of the input to a gear to the speed of the output from the gear. For a pair of gears, the ratio is found by dividing the number of teeth on the driven gear by the number of teeth on the driving gear.

3.32 Geared Speed:

The theoretical vehicle speed based on maximum governed engine RPM, transmission gear ratio(s), driving axle ratio, and tire size.

3.33 Gears, Single and Multiple Reduction:

Single reduction gearing refers to one speed reduction through the gearing component. Multiple reduction refers to more than one step of speed reduction through the gearing component.

3.34 Gradeability:

The percent grade that a vehicle will negotiate.

3.35 GVWR:

Abbreviation for Gross Vehicle Weight Rating. The sum of the Gross Axle Weight Ratings (GAWR).

3.36 HID Light:

Acronym for High Intensity Discharge light. Light created by electric arc, not a filament in a light bulb.

3.37 High Speed:

A High Speed Rotary Snowplow must be designed to perform at its maximum Capacity Rating while operating at a forward speed of at least 25 mph.

3.38 Hitch:

A device to couple/uncouple a working head or appliance to its carrier vehicle. A hitch may be provided with dedicated units to improve maneuverability, entry and exit through narrow doors, and/or improved maintainability.

3.39 Horsepower, Gross Brake (or actual delivered horsepower):

A measure of the rate at which engine power is produced. The time rate of doing work, as measured by a Pony brake or dynamometer. In other words, the amount of work done by a certain torque being exerted over a definite space of time. Brake horsepower is expressed as the torque in pound feet times the number of revolutions per minute divided by the constant 5252.

$$\text{Brake HP} = \frac{\text{torque} \times \text{engine rpm}}{5252} \quad (\text{Eq. 1})$$

3.40 Horsepower, Gross:

The brake HP determined under conditions defined by dynamometer test of the stripped engine, that is, the brake horsepower of the engine with only those accessories and attachments necessary to the functioning of the engine during test.

3.41 Horsepower, Net:

The brake horsepower delivered to the clutch, or its equivalent, with all accessories and attachments function (including exhaust pipe, muffler and tail pipe) which are standard or regular equipment on the engine as installed in the particular chassis. Gross horsepower less the parasitic loads.

3.42 Impeller:

A Rotary Snow blower Impeller (sometimes called a fan) is a rotating device with blades or fan blades. Normally, the device is disc shaped, with the disc rotating on an axis that is parallel to the direction of travel.

3.43 Impeller Blades:

The impeller blades (or fan blades) are located proud on the forward face of the impeller disc, shaped to produce a centrifugal pumping action of drawing snow into a low pressure area, and discharging snow from a high pressure area, these areas produced as a result of blade shapes and impeller rotation.

3.44 Impeller Drive:

The Impeller Drive is the final mechanism(s) employed to rotate the Impeller. An impeller can be hydrostatic, hydraulic or mechanical, or a combination. Mechanical impeller drives must be protected by the inclusion of slip clutches or shear pins. Hydrostatic drives must be protected by the inclusion of pressure protection devices and/or shear pins.

3.45 Impeller Housing:

The Impeller Housing, also sometimes called a volute or fan housing assembly, is the shallow cylindrically shaped assembly that houses an impeller.

3.46 Loading Chute:

See Spot Casting Chute.

3.47 Maximum Tire Load Rating:

The load rating at the maximum permissible inflation pressure for that tire.

3.48 Maximum Loaded Vehicle Weight:

The sum of curb weight, passengers, and cargo; equal to the Gross Vehicle Weight (GVW).

3.49 Maximum Permissible Inflation Pressure:

The maximum cold inflation pressure to which a tire may be inflated.

3.50 Maximum Speed:

The speed attainable by accelerating at maximum rate from a standing start for 1 mile.

3.51 Maximum Starting Grade:

The percent grade on which a vehicle is able to start from a complete stop.

3.52 Maximum Sustained Vehicle Speed:

Highest speed a vehicle can maintain under full load conditions on level ground.

3.53 Monocoque Construction:

A light weight type of construction where the sides of the vehicle bear a substantial part of the load in shear.

3.54 NHTSA:

An abbreviation for the National Highway Traffic Safety Administration.

3.55 New and Current Production Components:

New, unused and free of all defects and imperfections that could affect the serviceability of the finished product. Component with a manufacture date no older than 1 year prior to bid proposal.

3.56 New and of Current Production Unit, as in total unit (Chassis and attachments):

Unit whose manufacture (assembly of) started no earlier than the award date of the contract.

3.57 Payload:

The actual weight of the useful cargo carried by a vehicle.

3.58 Percent of Grade:

The figure used in computing the power requirements of a truck. Usually taken at the steepest grade a truck will be required to climb on its route. Percent of grade is determined by dividing the height of a hill by its length.

3.59 Performance Rating:

Also see Capacity Rating. The Performance Rating of a Rotary Snowplow is the minimum number of tons of snow a Rotary Snowplow can blow (see Snowblowers) or throw (see Snow-throwers) a defined Casting distance. Manufacturers must provide certified credible testing results.

3.60 Ply Rating:

A unit of measurement used in tire construction to denote strength of tires.

3.61 Power Divider:

Usually a small auxiliary gear box or chain driven device to allow distribution of drive shaft power to several different mechanical devices mounted on the same truck.

3.62 Power Take-off (PTO):

A mechanical device used to transmit engine power to auxiliary equipment. Power take-offs can be mounted on either a main or auxiliary transmission. Front-mounted and flywheel-mounted power take-offs are also used in various applications.

3.63 Power Train:

All the components that handle the engine power from the truck engine to the driving wheels.
This includes transmissions, drive shafts, as well as differentials and driving axles.

3.64 Pusher Axle:

A non-driven (dead) axle installed forward of the driven axle(s) to increase the permissible gross weight, and consequently, the payload.

3.65 Rear Discharge Rotary Snowplow:

A rear Discharge Rotary Snowplow locates the operator cabin over the Rotary Snowplow Head, and forward of the snow casting mechanism. This provides for the snow to be cast from behind, or to the rear, of the operator.

3.66 Reflectors:

Glass or plastic prism lenses which reflect light.

3.67 Resisting Bending Moment (RBM):

A calculation used to compare frames of different section modulus and of different material. It is the product of the section modulus times the yield strength of the frame material. The formula expression is:

$$\text{RBM} = \text{Section Modulus} \times \text{Yield Strength} \quad (\text{Eq. 2})$$

It is readily apparent from the above formula that the yield strength of a frame is as important as the section modulus. The RBM should, therefore, be taken into account whenever frames of unlike material and section modulus are being compared.

3.68 Ribbon:

The relatively narrow flights that are formed into the helix portion of any helical auger.

3.69 Road Rolling Resistance:

Sum of the forces at the area of contact between a vehicle's tires and road surface acting against the direction of movement.

3.70 Roadside:

The left side of the vehicle when viewed from the rear. Opposite side from curbside.

3.71 Rolling Radius:

Height measured from the center of the axle to the ground.

3.72 Rotary Snowplow Head:

The Rotary Snowplow Head is the main Rotary Snowplow housing incorporating the auger, the impeller and impeller housing (if any), and the balance of the fabricated assembly.

3.73 Serial Number:

A number issued to a vehicle or to a component of a vehicle for identification purposes. See Vehicle Identification Number (VIN).

3.74 Set-back Front Axle:

The front steering axle is normally as close to the front of the vehicle as the design and wheel and tire size permit. When the front axle is purposely located farther toward the rear it is referred to as being "set back." Center line of front axle to front of front bumper is normally from 28 to 37 inches on regular models and 48 inches or more on set-back front axle models.

3.75 Self-Contained Mountable Rotary Snowplow:

Self-contained is any type of Rotary Snowplow that is quick mountable, usually to the front, of a loader, truck, or other prime mover or chassis, that contains its own power source and all accessory equipment within one mountable/demountable package.

3.76 Self-Propelled Rotary Snowplow:

A rotary snow plow that is permanently mounted to a full time dedicated mobile chassis or prime mover that is used for no purposes other than snow blowing.

3.77 Shipping Weight:

The dry weight of a complete truck with all standard equipment including grease and oil but without any fuel or coolant.

3.78 Side Drive Augers:

Augers driven by a gear box, chain, hydraulic or hydrostatic motor from the left, right, or both sides are Side Drive Augers.

3.79 Single Engine Rotary Snowplow:

Snowplow with a single engine that provides both the power to the Rotary Snowplow and the motive power.

3.80 Single Stage Snowblower Rotary Snowplows:

A Single Stage Snowblower Rotary Snowplow uses one or more rotating impellers to both disaggregate and cast the snow. Typically all components handling the snow in a Single Stage Snowblower Rotary Snowplow operate at the same speed and/or have the same axis of rotation. The axis of rotation is generally parallel to the vehicle's direction of travel.

3.81 Single Stage Snow-thrower Rotary Snowplows:

A Single Stage Snow-thrower Rotary Snowplow uses a single assembly to disaggregate, transport, and cast the snow. Typically, all components handling the snow in a Single Stage Snow-thrower Rotary Snowplow operate at the same

speed and/or have the same axis of rotation. The axis of rotation is generally perpendicular to the vehicle's direction of travel.

3.82 Snow Casting Chute:

The Snow Casting Chute is part of, or attached to, the Impeller assembly and/or the Rotary Snowplow Head assembly where the snow is discharged or cast. The Snow Casting Chute may or may not be attached to a Spot Casting Chute (see def). The Snow Casting Chute may be adjustable to allow for operator control of where snow will be thrown through a vertical arc, or it may be fixed to direct snow only in one direction. Also see Spot Casting Chute.

3.83 Split Package Mountable Rotary Snowplow:

A Split Package Rotary Snowplow is designed for quick mounting of an unpowered Rotary Snowplow Head to the front of a Carrier Vehicle while the power source for the Snowplow is mounted in a different location on or behind the Carrier Vehicle. The remotely located engine drives the Snowplow through extended hydraulic, hydrostatic or mechanical drive systems.

3.84 Spot Casting Chute:

The Spot Casting Chute attaches to the Rotary Snowplow Head in a manner that it can receive the snow being discharged from the Rotary Snowplow Snow Casting Chute. A spot casting chute enables the operator to place the cast snow at various distances from the blower and/or cast the snow at various horizontal angles from the blower. In the simplest configuration, snow is directed through a chute. In an adjustable chute, provisions are made to enable the operator to direct the cast snow through the chute, or to bypass the snow around the chute as the operator may require. A Spot Casting Chute is also often called a truck loading chute.

3.85 Spring Capacity:

The allowable load that can be supported by the spring(s).

3.86 Steering, All Wheel:

Any system that augments the steering action of a chassis, providing for power or power assisted steering controlled by the operator in the cab, on all wheels of the vehicle.

3.87 Steering, Power:

Also commonly referred to as "hydraulic steering". A Steering system that uses hydraulic pressure to control a steering axle without a direct mechanical (controlling) link between the operator's controls and the steering axle. A backup system must be provided to maintain steering at all times.

3.88 Steering, Power Assisted:

Steering gear or mechanism with a direct mechanical (controlling) connection to a steering axle that has provisions for part of the force required for operation to be provided by air, hydraulic, or other means, not including mechanical leverage (longer handles).

3.89 Stopping Distance:

The distance traveled by a vehicle from the point of application of force to the brake control to the point at which the vehicle reaches a full stop.

3.90 Structural Member:

A part of a vehicle designed primarily to support the load of a vehicle in operation.

3.91 Suction Line:

A tubular connection between a reservoir or tank and the inlet of a pump.

3.92 Synchronized Transmission:

A type of manual truck transmission with built in devices to automatically match the rotating speeds of the transmission gears.

3.93 Tag Axle:

A non-driven (dead) axle installed behind the drive axle(s) to increase the permissible gross weight, and consequently, the payload. Also termed "trailing axle."

3.94 Tandem Axle:

Two axles mounted as a group. In a dual-drive tandem, both axles have driven mechanisms and are connected to the engine power unit.

3.95 Tare Weight:

The total weight of an empty vehicle in a condition ready to receive payload.

3.96 Third Party:

A disinterested party professionally qualified to observe, understand, and/or record test data other than the manufacturer that is acceptable to the purchaser.

3.97 Tilt Cab:

A cab that pivots forward to gain access to the engine or other major component.

3.98 Tire Clearance:

Space between tires and the nearest part of the body or under-construction.

3.99 Tire Loaded Radius:

The distance from the center of the wheel to the road with tire loaded to rated capacity. Static radius applies when vehicle is at rest. Rolling radius applies for a vehicle in motion. Rolling radius is usually slightly greater than the static radius.

3.100 Torque Converter:

A hydraulic drive which transmits power with the ability to change torque.

3.101 Tractive Effort:

The maximum force developed by a vehicle power train at contact between the driven wheels and road surface with 100% traction.

3.102 Transfer Case:

Split power gear box transmitting drive to the front and rear axles.

3.103 Transmission:

Selective gearbox providing various combinations of gear ratios.

3.104 Transmission, Automatic:

A type of transmission designed to self-select and change gear ratios based on vehicle and engine speed.

3.105 Transmission, Hydrostatic:

A type of transmission that provides gear reduction between the engine and drive wheels that uses fluid under pressure to transmit power and torque rather than mechanical components.

3.106 Transmission, Manual:

A type of transmission that can function only with periodic mechanical input from an operator to select the gear reduction or drive ratio used in the transmission, and a mechanism (clutch) to disengage the power from the engine to the transmission during the mechanical shift input from the operator.

3.107 Transmission, Powershift:

A type of transmission that can function only with periodic input from an operator to select the gear reduction or drive ratio in use in the transmission. Powershift transmissions include a device that allows the change of drive ratios or gears by means of an internal device that does not require operator action to interrupt power from the engine while changing the gear or drive ratio.

- 3.108 Tread; Wheel Track:
(a) The distance between the centers of tires on the same axle at the points where contact the road surface. Duals are measured from the center of dual wheels.
(b) That portion of a tire that comes into contact with the road. They
(c) The pattern of the surface of the tire that comes in contact with the road.
- 3.109 Truck Loading Chute: See
Spot Casting Chute.
- 3.110 Trunnion:
(a) The axis, pivot point, or center point between axles.
(b) The axis or pivot point of power transmission in a steerable drive axle where the turning member joins the non-turning member of the axle.
- 3.111 Turbine:
See auger, drum cutter type.
- 3.112 Turning Radius:
One half the diameter of a circle described by the center line of the outside front tire while a vehicle maneuvers through a 360° turn.
a. wall to wall
b. curb to curb
- 3.113 Two-Speed Axle:
A driving axle arrangement whereby the driver can select one of two ratios.
- 3.114 Two Stage Snowblower Rotary Snowplows:
A two stage snowblower rotary snowplow uses one or more auger(s) or drum(s) in its first stage to disaggregate snow and transport snow to the ingress area of the second stage, (impeller or fan), from which the snow is cast. Two Stage Snowblower Rotary Snowplows have at least two distinct assemblies to disaggregate and to cast the snow. The two stages must vary from each other in terms of speed, and/or axis of rotation.
- 3.115 Vehicle Identification Number (VIN):
A number issued to a vehicle for identification purposes. Format and code of a VIN is prescribed by law to identify manufacturer, configuration, and date of production.
- 3.116 Volute:
See Impeller.

4. TECHNICAL REQUIREMENTS:

4.1 General Description:

The components that make up a complete rotary plow unit are based on the number of stages necessary to perform the functions of disaggregating (snow gathering) and casting snow. Based on knowledge of local conditions and snow removal requirements, the Authority may specify either a single stage or a two-stage style of snow blower.

4.2 Single Stage Rotary: Not Applicable

4.3 Two-Stage Rotary: Required by the Authority

4.3.1 Rotary-Head Box: Fabrication shall be of heavy gauge welded alloy steel designed for the type of expected service using best engineering practices. The rotary-head box shall have provisions for vehicle mounts, shoe or caster brackets, scraper blades, drive lines, controls, augers, and impeller bearing mounts and other mechanical hardware. A scraper blade shall be fitted to the lower leading edge of the box which shall be removable and made of high carbon steel or polyurethane. The blade shall run the entire width of the box.

4.3.2 Input Auger: The auger(s) shall have a minimum of two bearing supports. The ribbon blades shall be easily replaceable and made of high tensile steel. They shall be bolted or otherwise attached to the auger shaft and balanced to reduce vibration using best engineering practices.

4.3.3 Input Auger (Solid): The solid auger shall have multiple cutter blades mounted on the auger drive shaft. Input auger shall be designed to feed snow to the discharge impeller to be cast away from the vehicle. The solid auger drive shaft(s) shall be balanced and supported by bearings, one at each end of the auger shaft (some designs may be configured differently).

4.3.4 Discharge Impeller System: The impeller capacity shall be at least equal to the capacity of the input auger(s). The impeller blades shall be made of high tensile steel using best engineering practices and be balanced to reduce vibration and shock damage.

4.3.5 Operation of the Rotary System: The operation of turbines shall be by hydraulic, hydrostatic, or mechanical means with the speed controlled by a single operator in the vehicle cab. Power shall be transmitted to these systems via mechanisms located on either side of or in the middle of the rotary head box. To ensure efficient snow flow where an auger and impeller share the same drive shaft there shall be a reduction gear system between the two to provide a proper meshing of impeller speed and auger speed.

4.3.6 Snow Casting Assembly: The snow casting assembly shall consist of a casting chute(s) that

can be directionally controlled, an impeller(s), and a control system. The casting chute(s) shall be able to rotate in either a vertical or horizontal plane, or both, as required by the purchaser. Both are required by the Authority. Casting distances shall range from zero to the maximum cast distance of 150 feet. The snow casting chute(s) shall be designed and positioned on the carrier vehicle so as to provide maximum operator

visibility. Chutes shall be controllable by a single operator from within the vehicle cab.

- 4.3.7 Rotary Head Assembly: The rotary head assembly shall be equipped with a device that is capable of raising it a minimum of 8 inches (20 cm) from the pavement. The locking device shall be activated through the use of conveniently located controls in the vehicle cab. The drive system shall not bind, rub, or vibrate excessively when the assembly is being moved. When the vehicle is traveling, the assembly shall have a means to be locked in the raised position.
- 4.3.8 Drive Protection System: All auger and impeller assemblies shall be protected against sudden stops or damage that may be caused from foreign objects. Protection may be in the form of automatic clutches, release overrides, and/or shear fasteners. Consideration shall be given to the location of protection devices to minimize the requirement to remove snow in order to gain access to and reset or replace the protection device.
- 4.3.9 Blower Head Drive Train: Drive shafts, universal joints and other mechanical components of the drive train shall continue to provide power to the head assembly under normal operating conditions through the operating range of the blower head without physical damage.
- 4.4 Minimum Performance Requirements (to be specified by the purchaser):
 - a. Anticipated Uses and/or Features of Rotary Plow: Anticipated to be used to cast heavy concentrations of plowed snow away from movement & non-movement areas, such as runways, taxiways and ramp areas.
 - b. Capacity (tons/hour): 4,500 tons per hour-See Appendix A
 - c. Casting Distance (ft or m @ Snow weight of 25 lb/ft³ or kg/m³) zero to the maximum of 150ft.
 - d. Required Speed of Operation (mph or km/h) 25mph
 - e. Turning Radius
 - (i) wall to wall-75 foot for taxiways and small intersections.
 - (ii) curb to curb-75 foot for taxiways and small intersections.
 - f. Unique Problems (if any)

- 4.5 Optional Equipment:

See Appendix B.

4.6 Carrier Vehicle Description:

The term carrier vehicle represents the various self-propelled prime movers that provide the power necessary to move snow and ice control equipment during winter operations. The design of the vehicle chassis shall be based on an all-wheel drive all-wheel steer concept for optimized performance and safety. Vehicle selection is determined by the purchaser for the mission to be performed and the capacity of the selected equipment. Although these units may not be designed as over-the-road highway vehicles, the following Federal Motor Vehicle Safety Standards shall apply as though they were an on-highway vehicle:

FMVSS 101 Controls & Displays

FMVSS 102 Transmission Shift Lever Sequence, Starter Interlock & Transmission Braking Effect

FMVSS 103 Windshield Defrosting & Defogging Systems
FMVSS 104 Windshield Wiping & Washing Systems
FMVSS 105 Hydraulic & Electric Brake Systems

FMVSS 106 Brake Hoses

FMVSS 108 Lamps, Reflective Devices, & Associated Equipment

FMVSS 111 Rearview Mirrors

FMVSS 113 Hood Latch Systems FMVSS

116 Motor Vehicle Brake Fluids FMVSS

119 New Pneumatic Tires

FMVSS 120 Tire Selection & Rims for Vehicles Other Than Passenger cars

FMVSS 121 Air Brake Systems

FMVSS 124 Accelerator Control Systems

FMVSS 201 Occupant Protection in Interior Impacts

FMVSS 205 Glazing Materials

FMVSS 206 Door Locks & Door Retention Components

FMVSS 207 Seating Systems

FMVSS 208 Occupant Crash Protection

FMVSS 209 Seat Belt Assemblies

FMVSS 210 Seat Belt Assembly Anchorages

FMVSS 302 Flammability of Interior Materials

- a. Special Purpose Vehicles: Special purpose vehicles are customized specifically to meet special airport operator needs such as high-volume and/or extra wide swath clearing operations.

- 4.6.1 Materials: Materials used on a carrier vehicle shall conform to the specifications listed in the appropriate sections of Title 49, Chapter III, and Federal Motor Carrier Safety Regulations. When not specifically listed, materials shall be of the best

quality available for their intended commercial use. Component parts shall be new, unused, of current production to the satisfaction of the purchaser. They shall be free of all defects and imperfections that could affect the serviceability of the finished product.

4.6.2 Design: Equipment shall be developed in accordance with the best engineering practices available. This includes the incorporation of ergonomic designs specifically directed at the vehicle's cab environment. Vehicle design shall include current state-of-the-art procedures that consider improved cab visibility, communications systems, interior lighting and the mitigation of noise and vibration. Design and installation of equipment shall permit easy accessibility for maintenance and service. All vehicle stress points shall be designed to distribute and dissipate shock forces.

4.6.3 Construction: Vehicle construction shall provide maximum protection against structural member failures. Equipment shall withstand the cold, moisture, strains, jars, vibration, and other conditions that are likely to be encountered during operation. All components and assemblies shall be free of hazardous protrusions, sharp edges, cracks, or other elements that might cause injury to personnel or damage to equipment. Location of all oil, hydraulic, and air lines and electrical wiring shall be in protected positions properly attached to the frame or body structure. Wherever these lines pass through apertures they shall be protected with looms or grommets except where a through-frame connector is necessary.

4.7 Chassis:

The design of the vehicle chassis shall be based on an all-wheel drive all-wheel steer concept for optimized performance and safety. It shall have power assisted steering and a transmission with suitable load and speed ranges to accommodate normal operating conditions. Vehicles shall have heavy duty tow hooks, tow eyes, or other suitable tow connections attached to the rear of the vehicle. The tow hooks, eyes, or other suitable tow connections shall be attached to the frame or structure of the vehicle, and provide adequate strength to allow lifting and/or pulling the vehicle for emergency recovery situations. A pintle hook, rated at not less than the GVWR shall be permanently attached to the rear frame structure capable of towing a vehicle. All installed parts and accessories necessary for the safe operation of the vehicle shall conform to applicable provisions of Title 49.

4.7.1 Structural Members: The frame shall be made of either pressed or structural steel shape and reinforced as required to prevent distortion under maximum load conditions. All frames and stiffeners shall be treated with a corrosion inhibitor and shall be primed and painted before assembly.

4.7.2 Dimensions and Clearances: Carrier vehicles with snow removal attachments shall have the following overall dimensions:

a. Minimum Ground Clearance: The minimum ground clearance of a vehicle chassis shall be 8 inches (20 cm).

b. Maximum Overall Height: Change Maximum Overall Height to read: The maximum overall height of a vehicle including discharge chutes, lights,

and exhaust stacks (with rain cap up if so equipped) shall not exceed 13 feet (4.0 m) unless otherwise specified by the customer. A placard shall be installed in the vehicle cab stating the Maximum overall height. If practical, the placard should be located at the top of the windshield as nearly over the steering wheel as possible to be immediately visible to the operator when looking upwards.

- c. Maximum Overall Width: The overall width of a vehicle including rotary plow head shall be a maximum of 20 foot taking into consideration gates and doors to equipment shops at the airport.
- d. Maximum Overall Length: Maximum vehicular length shall be 40 foot taking into consideration shop areas and maneuverability expected of the vehicle during operation.

4.7.3 Weight Distribution: The gross vehicle weight of the vehicle shall be distributed over its axles in accordance with best engineering practices. The center of gravity shall be kept as low as possible under maximum load conditions. While it is loaded the vehicle shall be capable of resting on a 20% transverse grade without danger of overturning. A copy of the calculated weight distribution shall be provided to the customer prior to construction, and the produced vehicle shall not deviate from the calculated weight distribution by more than 5% on any axle, or for the gross weight as determined by weighing the unit at a public certified SC

4.8 Engines:

Engine and vehicle manufacturers shall provide an application approval, at the time of vehicle delivery that states the engines are suitable for use in the vehicle as configured and that the installation is approved by the engine manufacturer. The carrier vehicle and auxiliary engine shall be of internal combustion type. Unless specified, the diesel engines shall be designed and tuned for operation using ASTM D 2 diesel fuel. Anti-freeze, crankcase and gear oils, greases, automatic transmission fluid, and hydraulic oils shall be as per current SAE, API, or ASTM specifications and not proprietary products. It shall be able to meet the performance characteristics specified herein on commercial grade fuel. Dual engine vehicles shall use a common fuel and are required for safety precautions to clear the equipment from active runways and taxiways. The carrier vehicle engine shall develop sufficient torque and a minimum of 450 horsepower to meet its normal operational requirements without exceeding the no-load speed at the peak of its certified gross brake horsepower curve. The auxiliary engine shall develop sufficient torque and a minimum of 700 horsepower to meet its normal operational requirements without exceeding the no-load speed at the peak of its certified gross brake horsepower curve. Engine noise and vibration shall be reduced in the vehicle cab by use of best engineering practices and machine layout. Idle time limiters or other automatic shutdown devices designed to limit emissions, conserve fuel, or enhance operating costs must be permanently disabled if such devices could leave a unit disabled on a taxiway or runway. Permanently disabled means the disabling must be done in such a manner so as not to be easily or accidentally re-activated.

- 4.8.1 Cooling System: The engine cooling system shall be based on either a liquid or forced air design. Internal temperatures of liquid cooled engines shall be controlled by a by-pass thermostat that regulates the flow of engine coolant. Drain cocks shall be installed at the lowest point of the cooling system and at other points necessary to completely drain the system. A sight glass or other device is required in all liquid cooling systems to allow the operator to determine that there is sufficient fluid for normal and safe operation without the need to open the system.
- 4.8.2 Coolant Temperatures: The design and installation of the system shall assure that coolant temperatures shall remain within the engine manufacturer's operational specification (both high and low) when properly maintained and operated in ambient temperatures during snow removal operations. In areas which frequently experience temperatures below 20°, cooling system heaters, oil pan heaters, lubricating oil heaters, battery and block heaters, and cold start aides required unless otherwise specified.
- 4.8.3 Fuel System: The fuel system shall comply with Title 49 and include all components necessary for a complete operational system.
- 4.8.4 Fuel Tank(s) and Lines: Useable fuel capacity should be not less than a calculated value of: $(\text{total maximum brake horsepower for all engines}) \times (0.055 \text{ gals/hr/bhp}) \times (\text{desired operating hours}) \times (0.8 \text{ for an 60\% load factor})$. Normal operating hours should be twelve to properly match the 12 hour staffing shifts. If dual tanks are used, the supply system shall be designed to ensure an uninterrupted flow of fuel to the engine(s) without input by the operator, and to allow shutoff of each tank should the crossover lines of either tank be damaged. Dual tanks shall also have adequately sized crossover lines to allow refilling both tanks from one location. Fuel lines shall be securely fastened in place, installed to prevent chafing or strain and protected by grommets where lines project through metal apertures. Each fuel tank is to be equipped with an accessible bronze or brass drain plug or a quick drain. A properly rated fuel water separator with integral heater shall be installed in an accessible location near the tank. If the engine requires a boost pump to assure adequate fuel flow to the engine, a pressure operated switch with in-cab warning light shall be furnished to warn the operator of low boost pump pressure. The boost pump should be installed to shut off when the engine is turned off, or to have an emergency shutoff switch or circuit breaker located near the light to allow the operator to shut off the boost pump in the event of fuel leakage downstream of the boost pump.
- 4.8.5 Fuel Filler Pipe: The fuel filler pipe(s) shall be located outside of the vehicle cab in an area accessible for refueling from the ground. A light chain shall be attached near its opening and to the filler cap to prevent loss of the cap. The filler neck shall include a screen to prevent the entry of foreign objects into the tank. The fuel filler cap shall be painted a color appropriate for the type of fuel, and a permanent label shall be affixed as close as practical to the fill neck(s), in an area visible to the person refueling the vehicle, stating the appropriate fuel and capacity of the tank(s). A label shall also be installed in the cab near the fuel gauge indicating which side of the vehicle must be positioned towards the fuel pumps (e.g., Fuel Fill).

- 4.8.6 Air Cleaner: The air cleaner shall be of a two-stage design. The first stage incorporates a pre-cleaner while the second consists of a dry type replaceable paper filter. A restriction indicator is required in the cab for each engine air intake system. The connection between the air cleaner outlet(s) and the engine intake(s) shall be waterproof and dust tight. The air cleaner intake shall be positioned in a manner to discourage the ingestion of snow and other contaminants, e.g. within the hood cavity.
- 4.8.7 Exhaust System and Muffler: The engine shall be equipped with an efficient and safe exhaust system including mufflers. Its location shall minimize noise and exhaust gases entering the vehicle cab under all operating conditions. Further noise reduction by noise suppression materials, such as muffler insulation, is encouraged. Horizontal portions of exhaust systems shall be protected, whenever possible, from corrosive agents and fuel spills. Mufflers and exhaust components positioned in or near normal operator work areas shall include appropriate guards to minimize the burn risk to airport personnel. Exhaust systems shall be positioned on the vehicle in a manner to minimize contact with slush and snow. Muffler(s) are to be made of aluminum, aluminized steel, stainless steel, or materials coated with ceramics. Devices shall be installed to prevent snow and slush from entering vertical exhaust stacks. Customers may specify the location and direction of exhaust system discharge when appropriate for storage building ventilation systems or other operational needs.
- 4.8.8 Governor: Engine speed shall be regulated by a governor set to provide the maximum operating speed recommended by the engine, driveline, and power train manufacturers.
- 4.8.9 Lubrication: An engine's lubricating system shall be equipped with standard production fittings and accessories. Engine oil filter(s) shall be engine manufacturers approved design and able to accept commercial replacement elements. All engine(s) shall receive lubrication prior to delivery with lubricants designated for use under ambient temperature conditions at the point of delivery. The unit(s) shall have remote drains for oils and coolants that are positioned for easy accessibility. These shall be tagged to identify the proper lubricants and their temperature ranges.
- 4.8.10 An automatic engine protection system to prevent engine damage due to low engine pressure, high coolant temperature, or low coolant level is required. A provision for the emergency movement of the unit from a runway or taxiway must be provided.

4.8.11 Accessibility:

- a. Component Location: Engine and chassis components shall be positioned to allow easy access for inspection and maintenance purposes. Components that historically present maintenance problems or those that have the potential to cause operational problems should particularly be located in unobstructed areas. Locks, controls and fasteners shall be designed to prevent over-torquing. Fluid capacities that must be checked during a pre-trip inspection, such as hydraulic oil level(s), windshield washer fluid level, and diesel fuel level shall be visually observable or otherwise capable of being checked without the need for tools, and without requiring work stands, portable ladders, or other equipment to check the service levels. To the extent practical lighting in these areas shall be adequate to perform the checks without the need for flashlights or other portable lighting.
- b. Cover Plates: Cover plates shall be equipped with either quick-disconnect fastenings or hinges.

4.9 Drive Train:

- 4.9.1 Transmission: Transmission and vehicle manufacturers shall provide an application approval, at the time of vehicle delivery that states the transmission is suitable for use in the vehicle as configured and that the installation is approved by the transmission manufacturer. The transmission shall operate smoothly and efficiently and be capable of transmitting the maximum gross torque generated by the engine to the drive wheels through all gear reductions. Safety interlocks to prevent starting the engine unless the transmission is in neutral, or, the clutch is disengaged, shall be installed. Drive trains shall be in conformance with SAE requirements and shall be designed to minimize the number of joints. The purchaser shall specify the type(s) of transmission(s) that are acceptable. They may be either manual or automatic as follows:
 - a. Automatic: Automatic or non-manual transmissions are either automatic power shift, standard power shift, or fully automatic. Designs utilizing torque converters shall have a suitable torque ratio for the expected load ranges. The torque converter shall not operate at less than 70% efficiency. The gear or range selector shall have forward, neutral and reverse positions clearly identified. Required by the Authority
- 4.9.2 Transfer Case: The vehicle and transfer case manufacturers shall provide an application approval at the time of vehicle delivery that states the transfer case is suitable for use in the vehicle, as configured. Transfer case assemblies shall provide positive drive to the front and rear axle(s) and may be of optional single or multi-speed design. Three proven alternatives are the manual front axle disconnect type, the center differential with manual or automatic lockout type, or an overriding clutch type. The Authority requires the center differential with manual or automatic lockout type. The transfer case may be a separate unit mounted independently or integrated with the transmission.
- 4.9.3 Axles: The axle and vehicle manufacturers shall provide an application approval at the time of vehicle delivery that states the front and rear axles are suitable for use in the vehicle, as configured. The axle manufacturer's published rating shall at the least

be equal to the load imposed at ground level when the vehicle and/or each component is in its maximum load configuration (i.e., rotary plow up and rotary plow down; and/or a material body, if any, loaded to its cubic rated volume). Each non-steering axle shall be equipped with a retarding type device to ensure a torque transfer to each wheel having traction. When appropriate, manual lockout controls shall be located in the vehicle cab. The torque capacity of each axle and differential shall be at least 10% in excess of the maximum torque that the axle may experience under any GVW operating condition. The power transmitting shaft on each steering axle shall incorporate steering joints that do not produce objectionable steering characteristics while the vehicle is operating on uneven surfaces. Two proven designs are single reduction with all gear reduction taking place in the central housing of the axle, and planetary, in which a second speed reduction takes place beyond the axle's center housing.

4.10 Brake System:

Vehicle service and emergency braking systems shall meet Title 49 requirements for vehicles of similar design. These systems, whether air, hydraulic, or of another design, shall be complete with all necessary equipment to safely control, stop and hold a fully equipped vehicle under all normal operating conditions. Both systems shall be readily accessible for external adjustment. Anti-lock brakes may be specified for improved safety on the airport operational areas.

4.11 Steering Mechanism:

The vehicle shall have a steering mechanism that is operated from the driver's seat. During normal operations, the mechanism shall be capable of controlling the vehicle with all equipment operating. Steering equipped with power assistance shall revert to manual operation in the event of power assist system failure, or be equipped with a dual power steering system that operates in a fail-safe manner so that the failure of one system will not lead to a loss of steering. The design of the steering mechanism should, in the event of a power assist failure, be capable of safely maneuvering the vehicle off the primary operational areas of the airport and to a park position from the maximum design speed allowed on the airport. All wheel steering may substantially increase the handling ability of the vehicle and, therefore, its productivity. All wheel steering is required. Controls will have the capability for front wheel steer, rear steer, crab steer, and coordinated steer.

4.12 Suspension System:

Vehicles shall be equipped with a current production model suspension system having a minimum rated capacity equal to the GVW of the carrier vehicle. When required, front and rear axles shall have auxiliary suspension springs. Manufacturer's capacity ratings may not be arbitrarily raised to conform to the requirements of this specification. The suspension system shall exhibit no permanent set after the load is removed.

4.13 Wheels, Rims, Tires, and Tubes:

- a. Wheels, rim and tire ratings shall conform to The Tire and Rim Association's published recommendations.
- b. Tires. Each tire shall have a rated carrying capacity at least equal to the loads imposed on them in the maximum load configuration (i.e., rotary plow up and rotary plow down). Tires on each individual axle shall be of the same size. Tires between axles may vary due to loads, configurations, and engineered gearing sets. In such cases, care must be taken and all components must be viewed as a system that provides an acceptable speed match between driven axles. Tires shall have an aggressive tire tread. Tires (and tubes when applicable) shall meet the first line commercial grade requirements for the speed and type of service required. The front and rear tread widths shall not vary by more than 4%.
- c. Spare Rim/Tire. Spare rims and tires are required for both the carrier vehicle and blower attachment (casters). If one size and configuration of tire and wheel cannot be immediately interchanged to all positions on the vehicle, one spare rim and tire for each distinct configuration is required.

4.14 Hydraulic System:

The hydraulic system shall consist of appropriate rams, pumps, piping, fittings, valves, controls, fluid reservoirs, filters, coolers, and other parts essential to its full operation. The system shall be capable of hydraulically positioning equipment through the entire range of its design limits. It shall be capable of operating all controls simultaneously without a noticeable reduction in power response. All hydraulic controls shall be located in the vehicle cab. The equipment manufacturer shall avoid high pressure hydraulic lines within the cab by means of remote cable or electric over hydraulic controls whenever possible. If a high-pressure line must be located within the cab, it shall be properly shielded to protect the operator to the satisfaction of the purchaser. The system shall be ruggedly constructed and able to withstand all loads imposed on it without relying on the use of mechanical locks. Adequate cooling must be included to maintain acceptable hydraulic oil temperatures throughout expected vehicle operational ranges. Filters within the hydraulic system shall conform to SAE J931.

- 4.14.1 Pump(s) and Power Takeoff: The pump(s) shall be ruggedly constructed and powered by the engine through a power takeoff. It shall have sufficient capacity to operate the hydraulic equipment specified herein under all operating conditions and speeds. Belt driven pumps should be avoided whenever possible.
- 4.14.2 Lines and Fittings: Only commercial quality hydraulic lines, hoses, and fittings that are capable of withstanding system working pressures under load are acceptable. Hydraulic hoses shall have a bursting pressure of three times their rated working pressure. The use of fittings, joints, and connections shall be kept to a minimum. Where local climatic conditions require, the purchaser should consider requiring arctic type hoses with temperature ratings appropriate for the location. Test gauge connection fittings shall be provided at all suitable points throughout system for maintenance and troubleshooting. All hydraulic system components are to be shielded from engine exhaust heat, and heat shields shall be installed on the engine exhaust system to divert any possible leakage from the hydraulic system. Hoses shall be

installed inside steel tubing wherever necessary to deflect the flow of fluid from exhaust and electrical system components in the event of hose rupture or leakage.

4.14.3 Fluid Tank: The hydraulic fluid tank shall have a filler neck consisting of a strainer, drain plug, shutoff valve, air vent and baffles. Its capacity shall exceed the volume of oil required for the operation of any combination of attachments by 50%. A sight glass or other device shall be provided to allow the operator to verify that fluid level is sufficient for safe operation without the necessity of opening the system. An oil level warning device shall be provided in the cab for all hydraulic systems. A label shall be installed as close as practical to the filler neck indicating the proper fluid for servicing the hydraulic system, and the capacity of the tank.

4.14.4 System Winterization: Hydraulic systems shall be designed and operated in accordance with the requirements specified in ARP1247. The hydraulic system shall meet the same low temperature requirements as the engine coolant system. Where appropriate properly sized shutoff valves shall be installed on each side of all filters to facilitate filter changing with minimal fluid loss. If filters are installed in compartments or other areas where fluid collection is possible, drain holes will be installed to allow fluid drainage during servicing.

4.15 Electrical System:

The electrical system shall be negatively grounded and installed in accordance with current state-of-the-art practices and appropriate Federal requirements. All vehicle wiring shall be in accordance with SAE J1292. All vehicle body electrical equipment, components, and wiring shall meet the requirements set forth in ARP1247. All parts of the electrical system shall be waterproof, easily accessible, securely mounted, and protected against extreme temperatures, physical damage, snow, oil, and corrosion. All electrical circuit wiring shall be made of stranded conductors with a capacity exceeding the anticipated maximum circuit loading. Insulation of electrical wiring shall be equal to the recommended standards established for insulation materials by the Society of Automotive Engineers (SAE). All electrical circuit wires shall be identified by color or number along their entire length. The wiring codes shall match information to be provided in the supporting service manuals.

4.15.1 All vehicle components and systems shall operate without being affected by interference damage or disruption including detrimental effects or interference to on-board computer modules from either vehicle generated noise, or stray EMF or RMF fields encountered from any airport operations. EMF and RMF noise sources that may be generated by the vehicle, especially if such noise is detrimental to aircraft, Air Traffic Control, or air navigation equipment, shall be shielded.

4.15.2 Power Supply: The carrier vehicle shall be equipped with self-regulating electric alternators having an output capacity that exceeds the anticipated electrical load. The minimum idle output of the alternator shall be 20% greater than that required by the vehicle with the engine operating at idle, heater and defroster set at low fan setting, parking and/or marker lights on, communication radio(s) on, windshield wipers operating, and either hazard flashers or Vehicle Safety Identification Lights on. The minimum output of the alternator when operating at governed engine speed shall be 20% greater than that required by the vehicle in its operating mode with the heater and defroster set to maximum settings, headlights and marker/taillights on, communication radio(s) on, windshield wipers at maximum setting, and the Vehicle Safety Identification Lights operating. An electrical load analysis worksheet shall be

provided to the customer prior to construction showing the electrical loads during the above-described conditions.

4.15.3 Batteries shall be securely mounted and adequately protected against physical injury, water, chemicals and exhaust heat. They shall be properly sized based on vehicle manufacturer recommendations and be readily accessible for change out and for other purposes. Enclosed battery compartments shall have adequate ventilation. Battery capacity (cranking amps, voltage, reserve power, continuous/deep cycle demand) shall be compatible with the size of the engine and the anticipated electrical load expected under normal operating conditions. An on-board self-regulating battery charger is required by the Authority.

4.15.4 Starting Device: The vehicle shall have an electrical starter that shall not introduce a voltage drop sufficient to adversely affect the ignition system. It shall be equipped with an overload protection device if such device is available from the manufacturer of the starter. The airport sponsor shall specify the type(s) of electrical systems that are acceptable.

a. 12 volt electrical and starting-Required by the Authority

4.15.5 Ignition System: Under extreme weather conditions a block heater or other heating device should be considered for improved ignition. A high idle control for efficient engine warm up and stand by operations shall be provided. High idle switches or throttle controls shall be designed to operate only when the transmission is in neutral.

4.15.6 Backup Alarm: All vehicles that have limited rear view visibility and/or have a GVWR of 26,000 pounds, shall be equipped with a backup alarm installed at the rear of the vehicle. The backup alarm shall be activated whenever the transmission is placed in reverse. The backup alarm shall be a SAE J994, Type B vehicle backup alarm. Backup alarms may be specified by the customer for other vehicles.

4.15.7 Horn: The vehicle shall be equipped with an air horn to allow the operator to provide an audible warning in an emergency.

4.16 Lighting System:

The lighting system, including reflectors, markers identification and clearance lights, shall conform to FMVSS 108 as though the vehicle were an on-highway vehicle. Customers may specify an all-LED sealed wiring lighting system for reduced maintenance costs and improved lighting system reliability. In addition, task-oriented lights, and other lighting shall be furnished to help the operator identify the overall width, and when practical to project a beam or light pattern on the ground in front of the blower to assist the operator in determining those areas to be cleared and to provide adequate illumination for the operator and service personal when the unit is on darkened aeronautical areas.

a. Headlights: The carrier vehicle shall be equipped with two or more sealed-beam quartz-halogen or high energy discharge type headlights with upper and lower driving beams and a foot or hand-controlled switch for beam selection. If snow removal attachments obstruct forward illumination of these lights an auxiliary set of comparable lights

shall be provided to overcome the obstruction. A control to select the secondary lights shall be provided in the operator cab.

- b. Backup Lights: There shall be at least two backup lights installed at the rear of and at either side of the vehicle that will automatically be activated when the vehicle is shifted into reverse gear.
- c. Vehicle Safety Identification Lights: The vehicle shall have a minimum of one revolving yellow beacon or flashing strobe mounted on its uppermost part (see FAA AC 150/5210-5D, Painting, Marking and Lighting of Vehicles on an Airport). The light emitted from the beacon should not reflect off rearview mirrors and into the operator's eyes.

4.17 Operator's Cab:

- 4.16.1 General: Carrier vehicle cabs shall be made of either metal or fiberglass construction and be of conventional, cab forward, or cab-over design. They shall be fully enclosed accommodating a single operator plus assistant/trainee (full cab). A definite separation shall exist between the engine and operator's compartment. All non-glass surfaces, such as the floor, sides, and roof of the cab, shall have insulation to reduce exterior noise. The maximum interior cab noise measured at the operator's seat shall not exceed 85 dBA under the following conditions: windows closed, heater and defrost systems at maximum operation, and carrier vehicle and equipment engines operating at maximum rated capacity. Manufacturers of the equipment are encouraged to improve upon the specified noise level. To the extent possible, the interior of the cab shall be ergonomically designed providing the operator with a pleasant working atmosphere that is devoid of the stark conditions normally associated with older equipment. All cabs shall provide at least two different routes of egress to allow the operator to exit the cab in the event of rollover or overturn.
- 4.16.2 Communications Equipment: Each transceiver shall be equipped with its own microphone, antenna and remote speaker. One (1) permanently mounted VHF radio used to communicate with air traffic control facilities shall satisfy the criteria set forth in section 3 of Radio Technical Commission for Aeronautics document DO-186, "Minimum Performance Standards for Airborne Radio Communications Equipment Operating Within the Radio Frequency Range 117.975 to 137.000 MHz.," dated January 20, 1984. This document may be examined at any Federal Aviation Administration Regional Office. One (1) permanently mounted UHF FM narrow-band mobile radio capable of Radio Frequency Range of 450-470 MHz.
- 4.16.3 Fire Extinguisher(s): The vehicle cab shall have at least one 2A-10BC interior mounted fire extinguisher that is readily accessible to the operator. Vehicles equipped with fuel tank(s), hydraulic oil tank(s), or any flammable liquid tank(s) that have a total combined volume of 200 gallons or more of flammable liquid shall be equipped with one 20 B:C: Purple K type fire extinguisher installed on the vehicle or equipment at a place readily accessible from the ground.
- 4.16.4 Operator Seat: The vehicle cab shall provide an operator seat that can easily be adjusted up and down, fore and aft, a minimum of 3 inches (7.6 cm) in each direction.

The seat should also be capable of reducing the effect of vehicle vibration by featuring air-cushion shock absorbing seat systems, or systems of comparable design. All vehicle seats shall have three-point (minimum) seat belts, certified by the vehicle manufacturer to have been tested and in conformance with FMVSS requirements. Seats shall be fully upholstered with a good quality fabric or plastic material.

- 4.16.5 Windows and Windshield: Unless otherwise specified an electrically heated windshield shall be provided. The vehicle cab shall maximize the use of glass, including the placement of panels if possible in the lower sections of door panels, to increase the operator's view of operational areas and ground surfaces. All installed glass shall be laminated, safety rated, and conform to all FMVSS requirements. The Authority requires tinted glass. The location and size of the windshield shall minimize visual obstructions to the operator. The windshield shall be designed to avoid snow build up and be equipped with one or more variable speed intermittent operating wipers (standard or wet arm). The windshield wiper system shall be capable of sweeping a clear view for all occupants up and be equipped with at least one variable speed automatically operating wiper (standard or wet) that is capable of sweeping a clear view for all occupants. The windshield washer reservoir shall have a capacity of at least 1½ gallons (5.6 liters). Fluid applicators shall be located to provide at least 75% coverage of the windshield. The cab shall be equipped with sun visors. Windshields and other glass surfaces in the vehicle cab used in the operation of the vehicle and/or to view pavement surfaces, including rear windows if installed, shall be cleared by means of a defroster system that is part of the cab's heating system. The standard circulating air type defroster shall be complimented by electrical type heating systems for glass areas.
- 4.16.6 Exterior Rearview Mirrors: Two electrically heated exterior rear view mirrors of the extension arm type shall be mounted one on each side of the vehicle cab. Rear view mirrors are to be powered and remotely controlled each mirror shall have an area of not less than 100 in² (650 cm²).
- 4.16.7 Heater: The carrier vehicle cab shall have a heating system that is capable of maintaining a minimum interior temperature of 65 °F (18 °C) at an ambient outside temperature of -20 °F (-29 °C). Heat output shall be controllable from within the cab by a selector switch that is conveniently located to the operator. Under all conditions of heating and ventilation, the temperatures measured in the operator's immediate environment should be uniform within 9 °F (5 °C) (see SAE J1503).
- 4.16.8 Ventilation: Ventilator/heater fan shall have blower capacity equal to one cab volume per minute. Cab ventilator intakes should be screened and positioned in such a manner to minimize the entry of snow.
- 4.16.9 Hour Meters: Every engine permanently attached to a carrier vehicle shall be equipped with an hour meter that registers engine operation time from 0 to 9999 hours. Hour meters shall be prominently displayed so that they can be easily read by an operator or service personnel. The hour meters shall be of direct read design and shall only register when the engine is running.
- 4.16.10 Instrumentation: The cab shall display an instrument panel equipped with rocker and/or toggle switches and controls (instruments) that are friendly to operators wearing bulky winter clothing. Toggle switches, where used, shall have a minimum length of 1½ inches (4 cm). Frequently used instruments shall be located in direct line-of-sight and within forearm reach of a medium sized person sitting in the operator's position. All instruments shall be clearly identified with labels that indicate their function. Instruments

should display urgency-of-action lights, i.e., green for normal operation, amber for warning, and red for emergency. Instruments shall be illuminated by background lighting regulated by dimmer switches capable of providing infinitely variable lighting intensities. Circuit breakers shall be grouped for easy access and convenience. Typical instruments that report and track major functions of a carrier vehicle and mounted equipment are as follows:

A. Engine:

1. Voltmeter
2. Lubricating Oil Pressure Gauge(s)
3. Coolant Temperature Gauge(s)
4. Tachometer(s) including hour meter(s)
5. Starting Controls (including auxiliary cold start controls)
6. Hydraulic Oil Pressure and Temperature Gauge if applicable
7. Transmission

B. Vehicle Chassis:

1. Brake-air Pressure Gauges if applicable
2. Low-air Pressure Warning, visual and audible type if applicable
3. Light Switches and Headlight Beam Indicator
4. Speedometer with Recording Odometer
5. Fuel Quantity Gauge(s)
6. Equipment Controls

4.18 Sheet Metal Components:

- 4.18.1 General: The carrier vehicle & auxiliary engines, as well as its mechanical components, shall be protected wherever possible from snow, rain and other winter elements. Body and engine enclosures may be fabricated from aluminum, fiberglass, and/or steel. Self-tapping bolts are unacceptable in the construction of these enclosures.
- a. Steps: Four-way safety tread, open design steps are required to ascend and descend high profile carrier vehicles. These steps, together with assist handles, shall provide for constant three-point contact and shall be of ample size to ensure safe and easy access for persons wearing bulky winter clothing.
 - b. Walkway: A four-way safety tread, open design walkway shall be provided, as necessary, for access.

- c. Handrails: Handrails shall be provided as required at all steps, walkways, and workstations. They shall be made of corrosion-resistant materials or otherwise treated to prevent corrosion.
- d. Fenders: All carrier vehicles shall be equipped with fenders and when determined by the operator, non-sail mud flaps to prevent wheels from throwing snow and other debris.
- e. Drains: Plugged or free flowing drains shall be provided at all body and compartment locations where standing water can collect. Free flowing drains shall not drain onto sensitive mechanical or electrical components or on areas anticipated to be occupied by personnel during normal operations.
- f. Doors: Doors shall be equipped with a positive closing mechanism and, where appropriate, a locking mechanism. Top hinged compartment doors shall be held in the open position by a support arm(s).
- g. Gutters: The vehicle cab shall be equipped with gutters, located above the entrance doors, of sufficient length to span the door width and provide runoff protection to occupants either entering or exiting the cab.

4.19 Painting, Marking, and Lighting of Vehicles:

- 4.19.1 Painting and Marking: The vehicle shall be painted Chrome-Yellow in accordance with color tolerance charts that have been made available for FAA regional airport inspectors and key potential users in the aviation safety equipment industry (see AC 150/5210-5D).
- 4.19.2 Preparation and Finish: The carrier vehicle and all mounted and towed equipment shall be cleaned first, then treated with a corrosion inhibitor, primed, puttied, sanded, and finally painted. The paint shall consist of not less than two coats of Chrome-Yellow polyurethane enamel, acrylic enamel, acrylic urethane, or similar high durability, long life paint as required by the purchaser, applied to produce full hiding.
- 4.19.3 Quality: The finished paint shall be free of "fisheye," "orange peel," chips, runs, or other imperfections that detract from the equipment's corrosion resistance and appearance.

4.20 Miscellaneous:

- 4.20.1 Plastic Plates: Plastic plates are acceptable only in locations that are not exposed to the elements and subject to weathering or excessive heat.
- 4.20.2 Information: Plates shall identify make, model, serial number, and any other relevant data.
- 4.20.3 Technical Publications: The manufacturer shall furnish two complete sets of manuals. One set of manuals shall consist of an Operator's manual, Parts Manual, and Maintenance and Service Manual.

- 4.20.4 Operator's Manual: The operator's manual includes lubrication charts and instructions.
- 4.20.5 Parts Manual: The parts manual identifies and lists all parts, components, and sub-assemblies used in the fabrication of the carrier vehicle and mounted equipment.
- 4.20.6 Maintenance and Service Manual: A maintenance and service manual provides guidance to non-specialists performing routine services. The manual should also describe in detail with appropriate schematics the overhaul and major maintenance procedures required to maintain and repair the vehicle. The maintenance manuals shall include complete schematics of the electrical, air, and hydraulic systems as applicable. Number codes on wires and hoses as found on the vehicle shall match those provided in the maintenance manual schematics.
- 4.20.7 Accessories and Tools: The carrier vehicle shall be equipped with tire tools, a jack, shear pins, and specialized tools needed for equipment operation. They shall be kept either in a secure and readily accessible enclosure that is permanently affixed to the vehicle.
- 4.20.8 Lug wrench and any other special tire tool required to change a flat tire.
- 4.20.9 Jack: A jack specifically adapted to the carrier vehicle and of adequate capacity to be capable of raising it to a position where a flat tire can be changed.
- 4.20.10 Shear Pins: A minimum of six pins shall be provided in support of each shear pin located on the carrier vehicle and its auxiliary equipment.
- 4.20.11 Specialized Tools: Specialized tools required for routine servicing of the carrier vehicle and its auxiliary equipment.
- 4.21 Delivery:
 - 4.21.1 Shipment: The vendor (seller) is responsible for the safe and timely delivery of the vehicle and its accessories, spare parts, and tools to the agreed place of delivery.
 - 4.21.2 Marking: Carrier vehicles shall be marked for shipment in accordance with instructions agreed to by the purchaser.
 - 4.21.3 Instruction and Training: The manufacturer shall, at no additional cost, furnish a qualified factory trained representative to fully install, start-up, and test the unit as well as provide training to the operators and maintenance people. Training shall be performed by factory trained and authorized technician. The training shall be performed

at the customer's site and shall be 8 hours for operators training and an additional 8 hours for mechanics training (mechanics shall attend the operating training first). The purpose of this training is to review safe and effective procedures for use and maintenance of the machine, review and test all systems, assure the full function of the machine. Training will be in small groups – both classroom and hands on training is required.

- 4.21.4 Prototypes and Experience: The airport requires this specified piece of equipment in order to maintain the airfield during large and small snow events. It will be a central and critical element in the fleet and in the effort to accomplish the airport's published snow plan. Experience in building machines of this nature is mandatory as is a track record of recent manufacture and in-service record for machines comparable and similar to that specified. Therefore, location and contact lists are required in the bid package to enable the airport to contact at least 1 entity that have taken delivery of similar equipment from the bidder within the last 5 years. Bids received without including such location and contact list will be deemed non-responsive and will not be considered.
- 4.21.5 Warranty: The bidder shall warrant the complete assembled vehicle for a minimum of two (2) years following the Authority's acceptance of the vehicle as to the specified capacities and performance, and to be free from all defects in design, material and workmanship. All labor, transportation cost and defective parts shall be replaced free of cost.

The engines shall be warranted for a minimum of two (2) years and the automatic transmission shall be covered for a minimum period of two (2) years following the Authority's acceptance of the vehicles.

The Bidder shall furnish with the bid, all standard manufacturers' warranty policy pertaining to the vehicles bid.

The Bidder shall include with its bid a warranty statement that will include the following as a minimum:

- a. Duration of warranty period of vehicle, engine, transmission etc.
- b. Warranty procedure
- c. Disclaimers
- d. All component manufacturer warranties, which exceed the two (2) year basic vehicle warranty, shall also be included in the bid.

Upon notice, the manufacturer or factory-authorized dealer shall promptly replace or repair all defective or damaged items according to the guarantee stated in this specification. All charges and or/expenses occurred in the delivery, installation or return of parts under the guarantee provisions of this specification shall be the sole responsibility of the manufacturer/ factory-authorized dealer.

PREPARED UNDER THE JURISDICTION OF SAE
COMMITTEE G-15, AIRPORT SNOW AND ICE CONTROL
EQUIPMENT

TABLE 1 - Snow Field - Uniform Snow

[illegible]

Note: Use for testing in Snowfield That Exceeds Blower Head Width

COMMENTS:

APPENDIX A PERFORMANCE TESTING

1. Objective:

The objective of this procedure is to determine the tonnage capacity and snow casting ability of a rotary snow blower. Potential suppliers of rotary plow equipment in response to requirements based on this SAE Document shall conduct capacity tests based on this procedure. Testing is not required on the production unit prior to delivery, but shall be conducted on a prototype or vehicle of similar configuration with similar components and design to that being offered.¹

2. Criteria:

The snow removal unit with blower attached shall make at least three snow removal passes in a windrow or snow field not less than 18 inches deep. In each pass, the snow removal unit shall clear a path not less than 500 feet long by the full width of blower head, or along the length of a constructed wind row.

Snow depth and density shall be determined in at least five intermediate locations evenly spaced along the path and an average value calculated. Whenever possible, density shall be determined from a vertical section of the snow depth.

The time required to complete each pass shall be measured by a stop watch. The volume of the snow removed shall be determined by the procedure contained in this appendix.

Measurement of snow shall be the appropriate measurement method described herein. The snow removal rate shall be calculated by means of the formula below. The cast distance shall be measured to determine the casting ability of the vehicle by methods described below. A wind speed greater than 5 mph shall be considered unacceptable for testing cast distance and cast distance testing shall be rescheduled.

There shall be no adjustment to calculated capacity based on shear strength of the snow.

In capacity testing for a unit deemed to be a "high speed" unit, the size of the wind row or depth of the snow field must be limited to allow the vehicle to reach its intended capacity at the required speed (greater than or equal to 25 mph). The maximum size must be calculated backwards from the required speed of the vehicle and density of the snow. For accuracy and applicability, high speed testing should be conducted with a constructed windrow only, designed to simulate actual conditions expected.

¹ Examples of components and designs whose change can materially affect blower capacity include, but are not limited to, such items as impeller and ribbon dimensions, impeller and ribbon gear ratios, design, and drive systems, engine horse power, engine torque, and variations in parasitic loads required of the blower engine.

Procedure:

Equipment required:

200 ft measuring tape

Stopwatch

Soil conservation coring tools, 12 inch for horizontal samples, and of sufficient length for vertical

samples as test conditions may require. NOTE: Density sample accuracy increases as the

inside diameter of the sampling tubes increases.

Large aluminum or plastic spatula

Accurate scale

Wind speed indicator

Marker cones or bright and dark colored spray paint

A. Snow Field Test

Prior to each test run the wind speed shall be measured. A wind speed greater than 5 mph shall be considered unacceptable and testing shall be rescheduled.

A snow field can be an undisturbed field of snow, or snow can be moved, wind rowed and shaped to the desired configuration depth. For a snow field test, snow depth must be a minimum of 18 inches but less than the intake height of the blower. For its entire length, the snow field must be wider than the blower head and of a consistent depth to help assure accuracy of the testing

The snow field shall be a minimum of 700 feet long and clearly marked every 100 feet. The test shall be conducted through at least 500 feet of the course. Approximately 100 feet is required at the beginning of the test field to allow the operator to adjust the speed and operation of the vehicle to the conditions. Sufficient additional snow is required at the end of the test field to assure accurate timing through the entire 500 foot test length.

The vehicle shall make a snow removing pass through the entire length of the prepared site. The time required to make the complete 500 foot pass shall be measured and recorded. A minimum of three such tests shall be conducted.

During the test, the cast distance from the centerline of the snow removal unit's path to the center of mass within the perimeter of the cast pattern shall be measured and recorded. At a minimum, this measurement shall be marked at each 100 foot interval. Because the momentum of cast snow tends to slide it further away from the blower's path, care shall be taken to mark the landing point of the center of the mass and not its final position.



FIGURE A1 - Measuring the Rotary Plow's Width and Depth

Pass When Employing the Field Testing Method

After the blower's test pass, measurement of the blown path is made.

The overall width of the blower's path shall be measured. This should be consistent for the entire test track.

Depth of snow is determined on both sides of the blown path. Depth measurements shall be taken at each 100 foot interval on both sides of the blower's path. Depth shall be determined by tape measure from the pavement surface to the surface of the snow on both sides of the blower's path. The measured depths shall be recorded.

The residue left after the blower passes shall be measured at each measurement site, recorded, and subtracted from the measured depth.

NOTE: It is recommended that the depth measurement be taken from the snow surface to the pavement and a separate measurement of the residue be gathered and recorded. The ability to adjust a blower to an acceptable and/or desirable level of residue is a critical factor in snow blower evaluation and should receive attention and visibility.

Snow density measurements shall be taken at a minimum of five evenly spaced intermediate locations along the test site on both sides of the blower's path, including the beginning and end of the marked course. Density measurements must be taken at each individual snowfield run immediately after the snow blowing run is complete.

Density samples shall be obtained by taking a vertical sample from the snow surface to the pavement. Snow density samples shall be taken with a soil conservation service coring tool or similar device. The volumetric capacity of the coring tool must be known and the empty coring tool(s) must be accurately weighed.



FIGURE A2 - Using the Coring Tool When Field Testing

The 24 inch coring tool shall be forcefully inserted through the snow to the pavement surface directly alongside the blown path.

If snow depth is less than the length of the coring tool, make sure the tool's bottom end rests on the pavement surface and remains there throughout this activity. Snow from around the tube is shoveled away from two sides. The third side must remain undisturbed to allow an accurate

tape measurement to assess the actual volume of snow contained within the coring tool.

A flat aluminum spatula or similar tool shall be slipped between the pavement surface and the bottom of the coring tool. The coring tool and its contents of snow are moved on the spatula away from the original location and placed on a scale. Extraneous snow shall be removed from the outside of the tool and the scale's surface, and an accurate weight of the tool and its contents is taken and recorded.

If the snow field is greater than the length of the coring tool, three density core samples should be taken horizontally from each side of the test pass at each sample location. Using the 12 inch coring tool, take one sample approximately 8 inches from the pavement surface, one at mid depth, and one approximately 8 inches below the snow surface. For accuracy of data, care shall be taken to assure all snow within the sample be included in the calculation. Conversely, care shall also be taken to assure no additional snow is packed into the coring tool. These samples are then averaged to provide a relatively accurate density for the snow field.



FIGURE A3 - Weighing the Snow

The average density shall also be calculated. The average density shall fall in the within the range of 15 to 40 pounds per cubic foot for the test to be considered valid.

The capacity of the machine is determined mathematically from the data gathered using the formulas provided in the appendix.

B. Constructed Windrow Test

Snow shall be moved and wind rowed by machinery to construct a sample windrow. The depth of the wind row along its entire length at its peak shall be no less than 18 inches but no greater than the height of the blower's intake. The width at the pavement surface shall be more than half the width, but less than the full width of the blower's intake. For ease and accuracy of the test, care shall be taken to make the wind row's size and shape as consistent as possible throughout the test length. The ideal wind row for the test is triangular in cross section as it is easier to measure.

The length of the windrow shall be 700 feet minimum, clearly marked every 100 feet. The test shall be conducted through 500 feet of the course. Approximately 100 feet is required on the front end of the test field to allow the operator to adjust the speed and operation of the vehicle to

the conditions. Sufficient additional snow is required at the end of the test field to assure accurate timing through an entire 500 foot test length.

The size and profile of the windrow is measured and recorded before the capacity runs.

A tape measure and portable gantry are required to gather this dimensional data. The gantry is moved along and positioned astride the wind row at each marked 100 foot interval. Measurements are taken from the known height of the gantry to the surface of the wind row. At a minimum, the apex of the wind row as well as the outer edges of the wind row shall be measured to determine the width at the base. The profile of the windrow is recorded.



FIGURE A4 - Measuring the Windrow Using a Gantry When Employing the Constructed Windrow

The density of the snow shall be measured and recorded. Density measurements shall be made at a minimum of five points evenly spaced along the length of the wind row, including the beginning and end of the marked course. Density measurements must be taken for each windrow constructed immediately prior to the snow blowing run.

Snow density samples shall be taken with a soil conservation service coring tool. The volumetric capacity of the coring tool must be known and the empty coring tool(s) must be accurately weighed.



FIGURE A5 - Using the Coring Tool on Constructed Windrow

A coring tool shall be forcefully inserted through the snow to the pavement surface at a point in the windrow that is over 12 inches deep.

With snow depth less than the length of the coring tool, make sure the tool's bottom end rests on the pavement surface and remains there throughout this activity. Snow from around the tube is shoveled away from two sides. The third side must remain undisturbed to allow an accurate tape measurement to assess the actual volume of snow contained within the coring tool.

A flat aluminum spatula or similar tool shall be slipped between the pavement surface and the bottom of the coring tool. The coring tool and its contents of snow are moved on the spatula away from the original location and placed on a scale. Extraneous snow shall be removed from the outside of the tool and the scale's surface, and an accurate weight of the tool and its contents is taken and recorded.

The average density shall also be calculated. The average density shall fall in the within the range of 15 to 40 pounds per cubic foot for the test to be considered valid.

During the test, the cast distance from the centerline of the snow removal unit's path to the center of mass within the perimeter of the cast pattern shall be measured and recorded. At a minimum, this measurement shall be marked at each 100 foot interval. Because the momentum of cast snow tends to slide it further away from the blower's path, care shall be taken to mark the landing point of the center of the mass and not its final position.



FIGURE A6 - Measuring Residue Width of Constructed Windrow

When the run is complete, the residue and spillage remaining after the blower passes shall be measured at each measurement site, recorded, and subtracted from the measured amount.

NOTE: It is recommended that the depth measurement be taken from the snow surface to the pavement and a separate measurement of the residue be gathered and recorded. The ability to adjust a blower to an acceptable and/or desirable level of residue is a critical factor in snow blower evaluation and should receive attention and visibility.

The capacity of the machine is determined mathematically from the data gathered using the formulas provided in this appendix.



FIGURE A7 - Measuring Residue Depth of Constructed Windrow

Calculations

The capacity of the snow blower shall be calculated using the following formula:

$$Q = A \times L \times D \times 1.8/t$$

Where Q = capacity in tons per hour

A = average cross-sectional area of the windrow in square feet

L = length of test run in

ft D = average density of the

snow in lb/cu ft

t = time of test run measured in seconds

And 1.8 = a constant (3600 seconds per hr/2000 lb per ton).

The capacity of the snow blower is determined by calculating each of the capacity runs (no less than three) and finding the average capacity per run.

APPENDIX B OPTIONS

Options: Required by the Authority

Engine-Jacket Water Heater: Recirculating type with thermostatic control and weatherproof receptacle plug (minimum - 1500 watts).

Engine Oil Pan Heater: 300 watts.

Additional Door Handles: Handles shall be installed on lower part of vehicle cab door. Auxiliary Cab Heater and Circulating Fans

Cab air conditioning system

Windows:

- a) Grooved Windshield
- b) Extra Window in Lower Part of Cab Doors
- c) Sliding Rear Windows
- d) Tinted Windshield and Windows
- e) Reverse Slope Windshield
- f) Liquid deluge system for side windows, windshield, and rear view mirror with 20 gallon minimum capacity and easy accessible fill
- g) Side Window Wipers

Seats:

- a) Bostrom "T" Seat (or equivalent for driver and passenger sides)
- b) Heated Driver Seat
- c) Arm Rests for Operator Seat
- d) Air Suspension Seat

Cab Insulation Upgrade (to reduce exterior noise below 85 dBa)

Air Horn

Clock

Additional Lighting:

- a) Auxiliary Cab Dome Light
- b) Roof Mounted Lights
- c) Door Lights
- d) High Intensity Strobe Beacon
- e) HID Lights

Special Starting Systems:

- a) Dual Battery System
- b) Ether Cold Starting System

Permanently Installed Battery Charger:

- a) Maintenance Charging (0 to 10 amp capacity)
- b) Automatic cutoff
- c) Connection
 - i. Weather resistant and chassis mounted
 - ii. Adaptable to 110 volt electrical outlet
 - iii. Heavy duty
 - iv. 20 amp capacity

Engine Cooling:

- a. Oversize Radiator
- b. Radiator Shutters (if compatible with engine design)

Automatic Engine Shutdown: An automatic engine shutdown system, equipped with an override switch to prevent engine damage due to low engine oil pressure, high coolant temperature or low coolant level.

All Wheel Steering: For all-wheel steering systems, the rear drive-steer axle shall be controlled in the cab. All wheel steering shall provide for infinite discreet point positioning of the steered wheel(s) throughout the designed steering limits of the components.

Silicone Hoses

Voltage Converter

Rear Counterweight

Back up Camera

Removable Spot Casting and Loading Chute

Additional Corrosion Prevention: If additional corrosion preventatives are being considered, they should conform to Federal Specification 297 D, Rustproofing of Commercial (Non-tactical) Vehicles.

Centralized Automatic Lubrication System: To provide automatic and periodic lubrication, a system shall be designed to utilize lubricants of Grades NLGI 00 or NLGI 000, or other lubricant that may be deemed appropriate by the vehicle and blower manufacturer, and to lubricate all points requiring periodic greasing, except those where rotation or other dynamic considerations preclude automatic lubrication. The system shall include a pump, grease reservoir, control module, and distribution lines and fittings, properly installed. The system shall be designed to select and adjust the rate of lubricant application for each lubrication point, and failure at any lubricant point, either through blockage or loss of pressure, shall not affect other lubrication points. Grease reservoir level shall be directly observable, or if not directly observable shall include a low grease level warning light to illuminate at about 25% of reservoir capacity to indicate servicing is needed.

APPENDIX C
OPERATIONAL
NEEDS DETAIL
SHEET

ARP5539 Airport Rotary Snow Plow Operational Needs Detail Sheet

The following site and operational information is critical to assure that the rotary snow Plow manufacturer understands the exact nature of the machine that the customer needs to meet operational needs. Customers should complete this sheet to the best of their ability providing information that is as complete and accurate as possible.

Part I Operating Conditions

The unit must be capable of operating at temperatures as low as -20°F to as high as 104°F. The unit must be capable of cold soaked starting at temperatures as low as -20°F to as high as 104°F.

The unit will be stored:

- ☐ Outside at temperatures as low as °F
- ☐ Outside, at temperatures as low as °F while connected to electric power for heaters, battery chargers, etc.

Power Available is Volts AC/DC Amps Hertz

- ☐ Indoors, in an unheated building at temperatures as low as °F
- ☒ Indoors, in a building heated to 60°F

The unit will be used to remove snow and ice from:

- ☒ Runways
- ☒ Taxiways
- ☒ Ramp & Gate Areas
- ☐ Roadways
- ☐ Parking Lots
- ☒ Piles into Trucks for removal
- ☐ Other Purposes (describe):__

The unit will transit (transit is defined as self-powered movement with the rotary plow installed and the unit fully operational):

- ☒ Aeronautical areas only
- ☐ Public roads and highways

If the unit must be moved off site for repair or maintenance which method will you use?

- ☐ Unit will be driven with rotary plow installed to repair facility
- ☐ Unit will be driven with rotary plow removed to repair facility
- ☒ Unit will be towed or flatbed trucked to repair facility

Axle and Vehicle weight limits must comply with:

- ☒ Airport runway taxiway and ramp limits only
- ☐ State and local highway load limits (specify):
- ☐ Local bridge limits (specify):
- Other local weight restrictions (specify):

Restrictive conditions relative to length width or height:

- ☐ Overall length is not restricted
- ☒ Max overall length with rotary plow installed must not exceed 40 ft
- ☐ Max overall length with rotary plow removed must not exceed ft

- ☐ Overall width is not restricted

- ☒ Max overall width with rotary plow installed must not exceed 20 ft
- ☐ Max overall width with rotary plow removed must not exceed ___ ft
- ☒ Minimum clearing width must be not less than 8 ft
- ☐ Overall height is not restricted
- ☒ Max overall height with rotary plow & chute installed must not exceed 13 ft
- ☐ Max overall width with rotary plow & chute removed must not exceed ft

Part II Operational Requirements

Rotary Plow Certified Performance Requirements

Minimum snow blowing capacity
4,500 tons/hour

Minimum cast distance 150 ft

Minimum transport speed 25 mph

Operating Speed ☐ low speed (less than 25 mph)

☒ high speed (specify speed) 30 mph

Snow Density ☒ 20 - 40 lb/cu ft (std)

☐ (other) lb/cu ft

Snow shear strength ☐ 250 ☐ 250 – 500 ☐ 500 –

600 Maximum turning radius 75 ft (wall to wall)

Site specific requirements:

Operation on fuel other than ASTM D 2 (specify): Diesel

Increased/Decreased fuel capacity (specify) 12 hours of operation

Engine exhaust discharge location (specify):

External power connector
type & location (specify):

☐ Connector type NEMA)

☐ Connector location

☐ Special

head lift requirements for local conditions: inches minimum

☒ Spot casting chute

☒ Ice breaking teeth on auger ribbons

☐ Other (specify)

End of Technical Specifications

PERFORMANCE AND TESTING

The manufacture shall be responsible for conducting tests to ensure that its snow and ice control equipment meets the operational and performance equipment it advertises. Certified records of these compliance tests, outlined in AC 150/5220-20A; Chapter 8, shall be submitted by the manufacture in the bid package. Equipment tests shall be conducted on standard production models and not on specially constructed prototypes.

In accordance the Advisory Circular (above), the manufacturer shall certify that its equipment meets the advertised operational and performance specifications. At the Authority's option, additional tests to verify the manufacturer's claims may be required upon delivery.

APPENDIX A - PRICE PROPOSAL FORM

Base Unit Cost					
Vehicle Unit Quantity	Description		Delivery Days after receipt of signed Contract	Base Price Per Unit	Total Cost
1	To construct, provide and deliver: One (1) All-Wheel Drive; All-Wheel Steer; Dual Engine Cab Forward Chassis with High Speed 4,500 TPH Rotary Plow (Blower) (CAK Snow Equipment) as specified including all travel, inspections, testing and training requirements, manuals, tools and other requirements necessary for the execution and completion of the work as described in the contract documents. In addition, the base price shall include a standard two (2) year warranty for all vehicle components including transmission, engine and chassis.				

APPENDIX A - PRICE PROPOSAL

The Authority is seeking alternate pricing for the following options:				
Vehicle Unit Quantity	Description	Delivery Days after receipt of signed Contract	Base Price Per Unit	Total Cost
1	Additional Three (3) Year Base Vehicle Warranty for All-Wheel Drive; All-Wheel Steer; Dual Engine Cab Forward Chassis with High Speed 4,500 TPH Blower			
1	Additional Three (3) Year Chassis, Engine, and transmission Warranty for All-Wheel Drive; All-Wheel Steer; Dual Engine Cab Forward Chassis with High Speed 4,500 TPH Blowers			
1	Auxiliary Cab Heater & Circulating Fans Cab Air Conditioning System			
1	Windows: Grooved Windshield; Extra Window in Lower Part of Cab Doors; Sliding Rear Windows; Reverse Slope Windshield; Liquid Deluge System for side windows, windshield and rear view mirror with 20 gallon minimum capacity and easy accessible fill.; Side Window Wipers			
1	Seats: Bostrom "T" Seat (or equivalent for driver and passenger sides); Heated driver seat; Arm rests for operator seat; Air suspension seat			
1	Clock			
1	Additional Lighting: Auxiliary Cab Dome Light; Roof Mounted Lights; Door Lights; High Intensity Strobe Beacon; HID Lights			
1	Engine Cooling – Oversize Radiator; Radiator Shutters (if compatible with engine design)			

Bidder may recommended alternate pricing for required, desired or recommended options for operation and maintenance of the for All-Wheel Drive; All-Wheel Steer; Dual Engine Cab Forward Chassis with High Speed 4,500 TPH Blowers

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APPENDIX A - PRICE PROPOSAL FORM

The engine must meet or exceed the current EPA standards for ultra-low Sulfur Diesel Fuel. Any limitations of alternative fuel and recommended volume percentage of Blends Bio-Diesel fuel that will not void parts and workmanship warranties shall be listed below for All-Wheel Drive; All-Wheel Steer; Dual Engine Cab Forward Chassis with High Speed 4,500 TPH Blowers.

Alternate Fuels	Recommended Volume Percentages

Company Name: _____

Name/Title of Authorized Official: _____

Signature of Authorized Official: _____

Date of Signature: _____