TWEED-NEW HAVEN REGIONAL AIRPORT

AIRPORT RESCUE & FIRE FIGHTING VEHICLE
BID DOCUMENTS

Contents

LEGAL NOTICE - INVITATION FOR BIDS	1
INFORMATION FOR BIDDERS	2
1. FORM AND SUBMISSION OF PROPOSALS	2
2. PAPERS ACCOMPANYING PROPOSALS	3
NON-COLLUSION AFFIDAVIT OF PRIME BIDDER/PROPOSER	5
CURRENT WORK FORCE FORM	9
STATEMENT OF BIDDER'S QUALIFICATIONS	10
BID FORM	12
CERTIFICATE OF AUTHORITY, IF BIDDER	14
IS A CORPORATION	14
ACKNOWLEDGMENT OF BIDDER,	15
IF A CORPORATION	15
ACKNOWLEDGMENT OF BIDDER,	16
IF A PARTNERSHIP	16
ACKNOWLEDGMENT OF BIDDER,	17
IF AN INDIVIDUAL	17
STATEMENT ACCOMPANYING PROPOSAL	18
BID BOND	19
ACKNOWLEDGMENT OF PRINCIPAL,	21
IF A CORPORATION	21
ACKNOWLEDGMENT OF PRINCIPAL,	22
IF A PARTNERSHIP	22
ACKNOWLEDGMENT OF PRINCIPAL,	23
IF AN INDIVIDUAL	23
BUY AMERICAN CERTIFICATION	24
Certification of Compliance with FAA Buy American Preference – Equipment/Building Projects	24
CERTIFICATION OF OFFERER/BIDDER REGARDING TAX DELINQUENCY AND FELONY CONVICTIONS	27
3. QUALIFICATION INFORMATION	28
4. ACCEPTANCE OR REJECTION OF PROPOSAL	29
5. RETURN OF CERTIFIED CHECKS	29
6. QUESTIONS BY BIDDERS	30
CHAPTER I – GENERAL PROVISIONS	31
1. DEFINITIONS	31
2. GENERAL AGREEMENT	32
3. ACCESS TO RECORDS	33
4 STATE and LOCAL SALES TAX EXEMPTION	33

5. SEPARATE PERFORMANCE & PAYMENT BONDS	33
FORMAT FOR PERFORMANCE BOND	35
FORMAT FOR PAYMENT BOND	36
ACKNOWLEDGMENT OF PRINCIPAL,	40
IF A CORPORATION	40
ACKNOWLEDGMENT OF PRINCIPAL,	41
IF A PARTNERSHIP	41
ACKNOWLEDGMENT OF PRINCIPAL,	42
IF AN INDIVIDUAL	42
CHAPTER 2 – COMPENSATION & PAYMENTS	43
6. PAYMENTS	43
7. WITHHOLDING OF PAYMENTS	44
CHAPTER 3 PROVISIONS RELATING TO TIME	46
8. TIME FOR COMPLETION & DAMAGES FOR DELAY	46
9. EXTENSIONS OF TIME	46
CHAPTER 4 – CONDUCT OF CONTRACT	48
9. CIVIL RIGHTS ACT OF 1964. Title VI - NON-DISCRIMINATION REQUIREMENTS	48
11. NOTICE REQUIREMENTS	50
12. FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE)	52
13. EQUAL EMPLOYMENT OPPORTUNITY	52
14. DISADVANTAGED BUSINESS ENTERPRISES	58
15. INSURANCE	59
16. EXTRA WORK ORDERS	61
17. TITLE TO MATERIALS	61
18. ASSIGNMENTS & SUBCONTRACTS	62
19. CLAIMS OF THIRD PERSONS	62
CHAPTER 5 – MISCELLANEOUS	63
20. SUBMISSION TO JURISDICTION	63
21. PROVISIONS OF LAW DEEMED INSERTED	63
22. INVALID CLAUSES	63
23. NON LIABILITY OF TWEED-NEW HAVEN AIRPORT AUTHORITY REPRESENTATIVES	64
24. SERVICE OF NOTICE ON THE CONTRACTOR	64
25. MODIFICATION OF CONTRACT	64
26. PROCUREMENT OF RECOVERED MATERIALS	64
27. TEXTING WHEN DRIVING	65
28. PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT	Г.65
29. ENERGY CONSERVATION REQUIREMENTS	65

30.	CLEAN AIR AND WATER POLLUTION CONTROL	66
31.	CERTIFICATION OF OFFERER/BIDDER REGARDING DEBARMENT	66
E	Bidder or Offeror Certification	66
l	Lower Tier Contract Certification	66
32.	CERTIFICATION REGARDING LOBBYING	66
33.	TRADE RESTRICTION CERTIFICATION	67
34.	VETERAN'S PREFERENCE	68
35.	RIGHTS TO INVENTIONS	68
36.	OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970	69
CHAP	TER 6 – RIGHTS & REMEDIES	70
37.	BREACH OF CONTRACT	70
38.	TERMINATION FOR CONVENIENCE	70
	TERMINATION FOR CAUSE	
40.	NO ESTOPPEL OR WAIVER	72
	CERTIFICATION REGARDING DOMESTIC PREFERENCES FOR PROCUREMENT	
42.	PROHIBITION OF SEGREGATED FACILITIES	723
Chapt	ter 7 – AIRCRAFT RESCUE AND FIRE FIGHTING (ARFF) VEHICLE TECHNICAL SPECIFICATIONS	74
1.	SCOPE	74
2.	CLASSIFICATION	74
3.	VEHICLE CONFORMANCE/PERFORMANCE CHARACTERISTICS	74
4.	REGULATORY REQUIREMENTS	98
5.	PRODUCT CONFORMANCE PROVISIONS.	98
٦	Table 1. Vehicle Test Data	100
6.	PACKAGING.	101
7.	TRAINING	102
8.	REFERENCED DOCUMENTS	102

LEGAL NOTICE - INVITATION FOR BIDS

TWEED-NEW HAVEN AIRPORT AUTHOIRITY TWEED-NEW HAVEN REGIONAL AIRPORT

EQUIPMENT ACQUISITION

Specifications and Bid Documents for an Aircraft Rescue and Fire Fighting (ARFF) vehicle to be purchased by the Tweed-New Haven Airport Authority for Tweed-New Haven Regional Airport, are expected to be available for examination at the offices of the Airport Manager, Tweed-New Haven Regional Airport, Administration Building 155 Burr Street, New Haven, Connecticut 06512 on Thursday March 28, 2024.

Interested parties may obtain copies of the bid proposal package by emailing Felipe Suriel at fsuriel@avports.com or by visiting the Tweed-New Haven Regional Airport website at https://flytweed.com/about-airport/doing-business-with-tweed/ on Thursday March 28, 2024.

Sealed bids will be received at the above address until 2:00 p.m. on Friday April 12, 2024. They will then be opened and read. Awards will not be made to any bidder whose name appears on a debarred list from performing contracts for the Federal Government, the State of Connecticut or any agency of the foregoing.

The proposed contract is under and subject to Executive Order 11246 of September 24, 1965, and to the Equal Opportunity Clause.

The Tweed-New Haven Airport Authority, 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, 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.

The requirements of 49 CFR Part 26, Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs, apply to this contract. The Tweed-New Haven Airport Authority encourages participation by all firms qualifying under this solicitation regardless of business size or ownership.

The Contractor certifies that its bid/offer is in compliance with 49 USC § 50101, BABA and other related Made in America Laws, 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.

INFORMATION FOR BIDDERS

1. FORM AND SUBMISSION OF PROPOSALS

The Tweed-New Haven Airport Authority hereinafter called the "Authority", invites proposals in the annexed form. Specifications and contract documents for an Aircraft Rescue and Fire Fighting (ARFF) vehicle to be purchased by the Tweed-New Haven Airport Authority for Tweed-New Haven Regional Airport, are expected to be available for examination at the offices of the Airport Manager, Tweed-New Haven Regional Airport, Administration Building 155 Burr Street, New Haven, Connecticut 06512, or on the Tweed-New Haven Regional website at www.flytweed.com on Thursday March 28, 2024.

Sealed bids will be received at the above office until 2:00 P.M. on Friday April 12, 2024. They will then be opened and read. Each proposal must be contained in an envelope addressed to the Tweed-New Haven Airport Authority, which shall be sealed and conspicuously endorsed with the bidder's name and the name of this Contract. Awards will not be made to any Bidder whose name appears on a debarred list from performing contracts for the Federal Government, the State of Connecticut, or any agency of the foregoing.

Work included in this project includes the following: Furnishing of an ARFF Vehicle.

The proposal must be submitted on the form bound herewith and must give all the information required. The proposal must be signed, and the acknowledgment taken on the appropriate form following the proposal.

No effort is made to emphasize any particular provision of the Contract, but bidders must familiarize themselves with every provision and its effect.

The proposed contract is under and subject to Executive Order 11246 of September 24, 1965, and to the Equal Opportunity Clause.

The Bidder must supply all the information required by the bid form.

The Tweed-New Haven Airport Authority, 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, 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.

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

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.

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.

2. PAPERS ACCOMPANYING PROPOSALS

Each Proposal must be accompanied by the following papers, which, unless otherwise indicated, should be enclosed with the Proposal:

(a) Acknowledgment of receipt of all Addenda shall be listed below by the Bidder. One copy of
each addendum, if any, issued during the bidding period shall be initialed and attached to the
Proposal, but any Proposal submitted without such addendum initialed and attached will
nevertheless be construed as though such addendum has been initialed and attached.

Addendum	No.	
Addendum	No.	

(b) If the bidder is a corporation: (1) a statement of the names and residences of its officers, which may be on the page following the Proposal; and (2) a copy of its Certificate of Incorporation, with a written declaration signed by the secretary of the corporation, with the corporate seal affixed thereto, that the copy furnished is a true copy of the Certificate of Incorporation as of the date of the opening of the Proposals.

If the bidder is a partnership, a statement of the names and residences of its members, indicating which are general and which are special partners, which may be on the page following the Proposal.

If the bidder is an individual, a statement of his/her residence, which may be on the page following the Proposal.

(c) Either the Bid Bond (in the amount of 5% of the total Contract Price for the Base Bid), bound herewith, duly executed by the bidder as principal and by one or more surety companies duly authorized to carry on the business of suretyship in the state in which the airport is located, whose names appear on the current list of the Treasury Department of the United States as acceptable

as sureties upon federal contracts; or, in lieu of a Bid Bond, a certified check, payable to the order of the Tweed-New Haven Airport Authority, in the same amount appearing in the Bid Bond form, which check shall be delivered as part of the proposal, to Tweed-New Haven Regional Airport, Administration Building, 155 Burr Street, New Haven, Connecticut 06512 who will give a proper receipt therefor.

- (d) A balance sheet showing the net worth of the bidder as of a date not earlier than forty-five days prior to the date of the opening of the Proposals; or in lieu thereof, a balance sheet showing the net worth of the bidder as of a date not earlier than the end of the preceding fiscal year, together with a statement in writing, signed by a duly authorized representative of the bidder, that the current status is at least as good as that shown on the balance sheet submitted. The balance sheet or statement shall also note the name and address of the bidder's chief bank with the name of the bank representative handling his/her account.
- (e) Specifications and blueprints on the vehicle the bidder proposes to furnish, including photographs of similar vehicles.
- (f) The Form of Proposal bound herewith with the bidder's price inserted in the Proposal Form. The amounts must be given both in figures and in writing and, in the case of discrepancy, the writing shall control.
- (g) Non-Collusion Affidavit.
- (h) Equal Employment Opportunity Form.
- (i) Current Work Force Form.
- (j) Statement of Bidder's Qualifications.
- (k) Buy American Certification.
- (I) Certification Regarding Tax Delinquency and Felony Convictions.

NON-COLLUSION AFFIDAVIT OF PRIME BIDDER/PROPOSER

(including notification of outstanding financial and other obligations to the City of New Haven or the Town of East Haven)

	,
Sta	ate of, County of
	, being first duly sworn, deposes and says that:
	(Name of Person)
1.	He is (owner, partner, officer, representative, or agent) of (circle one) (Name of Contractor)
	Bidder/Proposer that has submitted the attached bid/proposal.
2.	He is fully informed respecting the preparation and contents of the attached Bid/Proposal and of all pertinent circumstances respecting such Bid/Proposal;
3.	Such Bid/Proposal is genuine and is not collusive or sham Bid/Proposal;
4.	Neither the said Bidder/Proposer nor any of its officers, partners, owners, agents, representative, employees, or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other bidder/proposer, firm or person to submit a collusive or sham Bid/Proposal in connection with the Contract for which the attached Bid/Proposal has been submitted or to refrain from bidding/proposing in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other bidder/proposer, firm or person to fix the price or prices in the attached Bid/Proposal or of any other bidder, or to fix any overhead, profit or cost element of the Bid/Proposal prices or the bid/proposal price of any other bidder/proposer, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the Authority or any person interested in the proposed Contract;
5.	The price or prices quoted in the attached Bid/Proposal are fair and proper and are not tainted by any collusion, conspiracy, connivance, unlawful agreement on the part of the Bidder/Proposer or any of its agents, representatives, owners, employees, or parties in interest, including this affiant; and
6.	Check One:
	That neither this Bidder/Proposer, nor any owner, partner, officer, representative, agent affiliate of this Bidder/Proposer, has outstanding financial, contractual, or other obligations to e Authority, nor are they a party to any entity which has any such obligations.
an	This bidder/proposer has outstanding obligations to the Authority (List all obligations below d indicate the nature of the obligation and the parties involved.)

- 7. Neither this Bidder/Proposer nor any owner, partner, officer, representative, agent or affiliate of this Bidder/Proposer, has failed to file a list of taxable personal property with the City of New Haven or the Town of East Haven as required by state law.
- 8. Listing of owners, partners, officers, representatives, agents and/or affiliates

Name	Title	Affiliated Company (if none, state NONE)	Title
1			
2			
3			
4			
5			
6			
7			

Use additional sheet if necessary (Must be on company letterhead and notarized).

	(Signed)	
	(Title)	
Subscribed and sworn to before me this	day of	, 2024
(Title)		
My commission expires	, 20	

THIS FORM MUST BE NOTARIZED

EQUAL EMPLOYMENT OPPORTUNITY

During the performance of this Contract the Contractor agrees as follows:

- a. To comply with all provisions of Executive Orders 11246 and 11575, Connecticut Fair Employment Practice Act, and Chapter 12 ½ of the Code of Ordinances of the City of New Haven, including all standards and regulations which are promulgated by the government authorities who administer such acts and requirements and ail standards and regulations are incorporated herein by reference.
- b. Not to discriminate against any employee or applicant for employment because of race, color, religion, age, sex, physical disability 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 race, color, religion, sex, age or national origin and physical handicap. 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.
- c. To post, in conspicuous places available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.
- d. To state, in all solicitations or advertisements for employees placed by or on behalf of the contract, that all qualified applicants will receive consideration for employment without regard to race, color, religion sex aye, physical disability, or national origin,
- e. To send to each labor union or representative of workers with whom he has a collective bargaining agreement, or other contract or understanding, a notice advising the labor union or worker's representative of the contractor's commitments under the equal opportunity clause of the City of New Haven, and shall post copies of the notice in conspicuous places available to employees and applicants for employment. The contractor shall register all workers in the skilled trades, who are below the journeyman level, with the Apprentice Training Division of the Connecticut State Labor Department.
- f. To utilize labor department and city sponsored manpower programs as course of recruitment and to notify the contract compliance unit and such programs of all lob vacancies.
- g. To take affirmative action to negotiate with qualified minority contractors for any work that may be proposed for subletting or for any additional services, supplies or work which may be required as a result of this contract.
- h. To cooperate with city departments in implementing required contract obligations for increasing the utilization of minority business enterprises.
- i. To furnish all information and reports required by the Authority pursuant to section 12 % -1.1, 12 % -19 through 12 % -33 and 12 % -48 through 12 % -52 and to permit access to its hooks, records and accounts by the contracting agency, the contract compliance officer, and the Secretary of Labor for purposes of investigation to ascertain compliance with the program.
- j. If such contractor employs three or more employees to refrain n from paying such employees, membership dues and related expenses for clubs that restrict membership or use of their facilities on the basis of race, color, sex, religion, national origin or ancestry.
- k. To take such action, with respect to any subcontractor, as the city may direct as a means of enforcing the provisions of sub-paragraphs (a) through (n) herein, including penalties and sanctions for noncompliance provided however that, in the event the contractor becomes involve in or is threatened with litigation as a result of such direction by the city, the city will intervene in such litigation to effectuate the city's equal employment opportunity program in the case of contracts funded directly or indirectly, in whole or in part under one or more

federal assistance programs the contractor or the city may ask the United States to enter into such litigation to protect the interest of the United States.

- I. To file, along with its subcontractors, if any, compliance reports with the city in form and to the extent prescribed in the contract by the contract compliance director of the City of New Haven. Compliance reports filed at such times as directed shall contain information as to the employment practices, policies, programs and statistics of the contractor and his subcontractors or vendor.
- m. To include the provisions of sub-paragraphs(a) through (n) of this equal opportunity clause in every subcontract or purchase order so that said provisions will be binding upon each such subcontractor or vendor,
- n. That a finding, as hereinafter provide, of a refusal by the contractor, or subcontractor, to comply with any portion of this program as herein stated and described, may subject the offending party to any or all of the following penalties:
 - 1. Withholding of all future payment under the involved public contract to the contractor in violation until it is determined that the contractor, or subcontractor is in compliance with the provisions of the contract.
 - 2. Refusal of all future bids for any public contract with the Authority until such time as the contractor, or subcontractor, is in compliance with the provisions of the contract.
 - 3. Cancellation of the public contract.
 - 4. Recover of specified monetary penalties; and
 - 5. In case of substantial or material violation, or the threat of substantial or material violation of the compliance procedure ores may be provided for by contract, appropriate equitable or legal proceedings may be brought to enforce these provisions against contractors, subcontractors or other organizations, individuals or groups who directly or indirectly are not in compliance with the policy as herein outlined. (Ordinance 12-5-77).

IN WITNESS HEREOF on the the contractor has caused this Agreement to	
WITNESS:	CONTRACTOR:
	Name of Contractor
	Signature of Authorized Individual
	Title of Authorized Individual

CURRENT WORK FORCE FORM

BIDDER:				[DATE:	·						
ADDRESS:		(CITY/STATE:					ZIP CODE:				
			MALE						FEMALE			
JC	OB CATEGORIES	W	AA	HA	Н	0	W	AA	HA	Н	0	TOTAL
	Full-time											
Officia	ls & Managers											
Profes	sionals											
Techni	icians											
Sales V	Workers											
Officia	ls & Clerical											
Craftsr	men (Skilled)											
Opera	tives (Semi-Skilled)											
Labore	ers (Unskilled)											
Service	e Workers											
	Part-time											
	ss than 20 hr./wk.)											
	ls & Managers											
	sionals											
Techni												
	Norkers											
	ls & Clerical											
	men (Skilled)											
	tives (Semi-Skilled)											
	ers (Unskilled)											
	e Workers											
TOTAL	-											
Are vo	u a disadvantaged	l busine	ess ent	erpri	ise?		,	Yes:			No:	
Are you a disadvantaged business enterprise? Are you a woman's business enterprise?								No:				
Does your company have an affirmative action		tion nla	n2	,	Yes: No: Yes: No:							
KEY	our company nav	c all all	illillativ	ve ac	cion pia	11:		163			NO	
W	White (Caucasia	an)	ŀ	1	Handic	anned						
AA	African America			O	Other	~ppcu						
AA HA			`	_	Other							
пА	Hispanic Americ	Jall										

STATEMENT OF BIDDER'S QUALIFICATIONS

(To be submitted by the Bidder with the Bid)

All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on separate attached sheets. The Bidder may submit any additional information he desires.

Name of Bidder:
Bidder's Tax Identification Number:
Permanent Main Office Address:
When Organized:
If a Corporation, Where Incorporated:
How many years have you been engaged in the manufacture of snow removal equipment under your present firm or trade name:
Have you ever failed to complete any work awarded to you? If so, where and why?
Have you ever defaulted on a contract? If so, where and why?
List the three most recent similar contracts completed by you, stating approximate grocost for each, and the month and the year completed. Provide name and telephone number for contact person for each contract.

11.	Will you upon request, fill out a detailed financial statement and furnish any other information that may be required by the Tweed-New haven Airport Authority?							
12.	The undersigned hereby authorize furnish any information requested verification of the recitals comprisi	by the Twee	d-New Haven Airport Auth	nority in				
Date	d at	this	day of	<u>,</u> 2024				
		-	(Name of Bidder)					
		Ву:						
		Title:						
State	of							
Coun	ty of							
			, being first sworn, d	eposes and				
says	that		, G	•				
he is:								
of								
and t	hat the answers to the foregoing que	estions and a	ll statements therein are t	rue and correct				
Subs	cribed and sworn to before me this _	da	ay of	, 2024				
	Notary Public	M [,]	v commission expires:	. 20				

				Dat	:e:				
	BID	FORM							
In accordance with the specificati	ions, the unde	rsigned	agre	es to p	rovide	an Aiı	rcraft R	escue	and
Fire Fighting (ARFF) Vehicle	described	in the	Bid	Docu	ments	at a	a total	price	of
						_ (\$).
The vehicle shall be delivered to	o Tweed-New	/ Haver	Reg	gional <i>I</i>	Airport	, 155	Burr S	treet, I	New
Haven, CT 06512 within 360 days	s of the Autho	rity's "N	otice	to Prod	ceed".				
The Authority reserves the right t basis of this bid.	o reject all bio	ds and/c	or to a	award r	nore t	han or	ne cont	ract on	the
The information in this bid form is undersigned. It is submitted with)
Telephone Number	-			Nar	ne of (Contra	ictor		
Witness (Signature)	-		S	Signatui	re of A	uthoriz	zed pei	son	
Name of Witness	_					Title			_
State of	, County	of						On	this
day of				_, 2024	, befo	re me	perso	nally ca	ame
	•							that h	
corporation described above that	Of			inatrur				, inatrun	the
corporation described above, that		`						instrun	nent
is duly submitted on behalf of							·		
					Not	ary Pu	ıbic		
	My	commi	ssion	expire		•		, 2	20
Attached are the Vehicle specific									

The delivery date of this equipment shall not exceed 360 days from issuance by the Authority of a "Notice to Proceed".

This offer shall be irrevocable for one hundred eighty (180) days after the date on which the Authority opens this Proposal.

To induce the acceptance of this Proposal, the undersigned hereby makes each and every representation and warranty made by the Contractor in said Form of Contract. Moreover, as a condition to receipt and consideration by the Authority of the Proposal whether or not it is accepted, the undersigned agrees that all information of any nature whatsoever, regardless of the form of the communication, received from the undersigned (including its officers, agents or employees) by the Authority, and it's directors, officers, agents, or employees; and notwithstanding any statement therein to the contrary, has not been given in confidence and may be used or disclosed by or on behalf of the Authority without liability of any kind except as may arise under letters patent of the undersigned, if any.

The attached Information for Bidders, all papers required by it and submitted in connection herewith at any time, said Form of Contract, and all papers made part therefore by its terms are made part of this Proposal.

The undersigned hereby designates the following as his/her office (**):				
The telephone number of the undersigned is:				
Dated,,2024.				
(Signature of individual or name of corporation or partnership)				
(Signature of agent, partner or corporate officer)				
BY (*)				
(*)If Proposal is signed by an officer or agent, give title and address.				
(Acknowledgment of signature to be taken on proper form on following pages)				

CERTIFICATE OF AUTHORITY, IF BIDDER IS A CORPORATION

I, the undersigned, as Secretary of the corporation submitting the foregoing	
Proposal, hereby certify that under and pursuant to the by-laws and resolutions of sai	id
corporation, each officer who has signed said Proposal on behalf of the corporation s	60
fully and completely authorized to do so.	

(Seal)

Notary Public

ACKNOWLEDGMENT OF BIDDER, IF A CORPORATION

State of	,]	
] SS:	
County of	,]	
On this	day of	, 20, before me personally came and
appeared		_, to me known, who, being duly sworn, did
dispose and say th	at he/she resides at _	, that
he/she is the	of	, the corporation
described in and w	hich executed the fore	egoing instrument; that he/she knows the seal of
said corporation; th	nat one of the seals af	fixed by order of the directors and said
corporation; and th	at he/she signed his/h	ner name thereto by like order.
(Seal)		
		Notary Public

ACKNOWLEDGMENT OF BIDDER, IF A PARTNERSHIP

State of	,]		
] SS:		
County of	,]		
On this	day of	, 20	, before me personally came and
appeared		, to me known a	and known to me to be one of the
members of the firm	of		
described in and wh	o executed the f	oregoing instrum	ent and he/she acknowledged to
me that he/she exec	uted the same as	s and for the act a	nd deed of said firm.
(Seal)			
		Notary F	Public

ACKNOWLEDGMENT OF BIDDER, IF AN INDIVIDUAL

State of,]		
]	SS:		
County of	.]		
On this	day of	, 20	, before me personally came and
appeared		_, to me known a	and known to me to be the person
described in and who	o executed the for	egoing instrume	ent and acknowledged to me that
he/she executed the	same.		
(Seal)			
•		Notary F	Public

STATEMENT ACCOMPANYING PROPOSAL

Name	Title	Residence (*)
lame and Reside	ences of Partners, If Bidder is a Partnership:	
Name	General or Limited Partner	Residence (*)
	Bidder's Residence, If an Individual (*)	
Name		Residence (*)
lf Bidder is a Cor	poration, Annex Copy of Certificate of Incorp ary.	oration Certified by

(*) Give Street Number of Residence. Do not give business address.

BID BOND

KNOW ALL PEOPLE BY THESE PRESENTS, that we, the undersigned (*) Principal;
(*)
and (+)
and (-)
as surety, are hereby held and firmly bound unto the Tweed-New Haven Airport Authority
(hereinafter referred to as the "Authority"), in the penal sum of
Dollars, (\$) for the payment of which, well and truly to be made, we hereby
jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.
Signed this day of, 2024.
The conditions of the above obligation is such that whereas the above named principal has submitted to the Authority a certain Proposal, bound herewith and hereby made a part hereof, to perform the obligations of the Contractor under a contract in writing, known as Contract "Acquisition of a High Speed Rotary Snow Blower, ", now therefore: (a) If said Proposal shall not be accepted, or (b) If said Proposal shall be accepted and the Authority does not require the principal to furnish a Performance and Payment Bond, or (c) If said Proposal shall be accepted and the Authority requires the principal to furnish Performance and Payment Bond and either the principal furnishes Performance and Payment Bonds satisfactory to the Authority, in accordance with the requirements of said Proposal or the Authority does not terminate the Contract as provided therein on account of the failure to furnish such a bond,
(+) Insert name of surety
(*) Insert bidder's name. If a corporation, give the state of incorporation using the phrase
"a corporation organized under the laws of the State of"
If a partnership, give full names of partners, using also, the phrase, "co-partners
doing business under the firm name of"
If an individual using a trade name, give individual name, using also the phrase, "an
individual doing business under the trade name of" Then this obligation shall be void, otherwise the same shall remain on full force and effect;

it being expressly understood and agreed that the liability of the surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The surety, for value received, hereby stipulates and agrees that the obligations of said surety and its bond shall be in no way impaired or affected by any extensions of the times within which the Authority, may receive or accept such Proposal or within which the principal may furnish a Performance and Payment Bond or by any waiver by the Authority of any of the requirements of said Proposal; and said surety does hereby waive notice of any such extensions or waivers.

IN WITNESS WHEREOF, the principal and surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

(Seal)	
	Principal
(Seal)	By(*)
(Seal)	By(+)

(*) If bond is signed by an officer or agent, give title; if signed by a corporation, affix corporate seal.

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of,]	
] SS :	
County of,]	
On this day of, 20, bef	*
and say to me that he/she resides at	
of, the corporation desc	cribed in and which executed the
foregoing instrument; that he/she knows the sea	l of said corporation; that one of the
seals affixed by order of the directors and said c	orporation; and that he/she signed
his/her name thereto by like order.	
(Caal)	
(Seal)	Notary Public
	,

ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP

State of	,]			
] SS :			
County of	,]			
On	this day of	, 20, befo	ore me personally came a	nd appeared
, to me kno	own and known to me	to be one of the r	members of the firm of	
, described	d in and who executed	the foregoing in	strument and he/she ackr	nowledged to
me that he	e/she executed the san	ne as and for the	act and deed of said firm.	
(Seal)				
(Ocai)			Notary Public	

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of	<u>,</u>]				
] SS:				
County of	,]				
On this _			 :	personally ca	me and appeared
described in and	who executed	the foregoir	ng instrumen	nt and he/she a	cknowledged to
me that he/she e	xecuted the sar	ne.			
(Seal)					
			Not	ary Public	

BUY AMERICAN CERTIFICATION

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,² 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.

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 (\checkmark) or the letter "X".

Bidder or offeror hereby certifies that it will comply with 49 USC § 50101, BABA and other related U.S	S.
tatutes, guidance, and policies of the FAA by:	

- a) Only installing steel and manufactured products produced in the United States;
- b) 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.

² 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.

- 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
- d) 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 that 60 percent of the cost of all components and subcomponents of the "item". The required documentation for a Type 3 waiver is:

- a) Completed Content Percentage Worksheet and Final Assembly Questionnaire including;
- b) 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).

- c) Cost of non-domestic components and subcomponents, excluding labor costs associated with final assembly at place of manufacture.
- d) 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		

CERTIFICATION OF OFFERER/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 (\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

- 1) 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.
- 2) The applicant represents that it is () is not () 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 U.S.C. § 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.

Name	Date

3. QUALIFICATION INFORMATION

At any time after opening Proposals, the Authority may give oral or written notice to one or more bidders to furnish the Authority with information relating to his/her qualifications to perform the Work, including the following, which information shall be furnished within three days thereafter:

- (1) A detailed list of the materials and equipment which the bidder proposes to use, indicating which portions he/she already possesses.
- (2) A detailed list of material suppliers and subcontractors, together with such information as the Authority may require regarding the terms and condition under which such materials and labor are expected to be furnished.
- (3) A statement of work which the bidder has on hand, including work on which a bid has been submitted, showing the dollar value, nature, size, location, degree of completion, expected time of completion and any other information pertaining to such work which the Authority may require.
- (4) Detailed information relating to work which the bidder has completed for others, including without limitation personal and corporate references, sufficient to enable the Authority to determine the Contractor's financial responsibility, experience and capacity to perform the Work.
- (5) Information to supplement that shown in the balance sheet required to be submitted with the Proposal.
- (6) A detailed list of proposed DBE firm participation including name, address, certification numbers, description of work to be performed and the dollar amounts of such work. The DBE firms are to meet the requirements set forth in these contract documents.

The giving of such notice to a bidder shall not be construed as an acceptance of his/her Proposal.

4. ACCEPTANCE OR REJECTION OF PROPOSAL

Within one hundred eighty (180) days after the opening of the Proposals, the Authority will accept one of the Proposals, if it accepts any. The acceptance of a Proposal will be given only by mailing to or delivering at the office designated in the Proposal a notice in writing specifically indicating acceptance signed by an authorized representative on behalf of the Authority. No other act of the Authority, its directors, officers, agents, or employees shall constitute acceptance of a Proposal. Such notice will state whether the Authority requires the bidder to furnish Performance and Payment Bonds. Rejection of a Proposal will be only by either (a) notice in writing specifically stating that the Proposal is rejected, signed by an authorized representative on behalf of the Authority and mailed to, or delivered at, the office designated in the Proposal or (b) omission of the Authority to accept a Proposal within 180 days after the opening of Proposals. No other act of the Authority, its directors, officers, agents, or employees shall constitute rejection of a Proposal, including any counter offer or other act of Authority, its directors, officers, agents or employees.

The Authority reserves the unqualified right, in its sole and absolute discretion, to reject all Proposals or to accept that Proposal, if any, which in its judgment will under all the circumstances best serve the public interest and to waive defects in any Proposal.

In the event that the apparent low bidder defaults upon the Contract by failing to furnish the qualification information, within seven (7) days of the opening of proposals as noted in Item 3, and the Authority terminates the Contract, the Authority reserves the option to accept the Proposal of any other bidder within one hundred eighty (180) days after the opening of Proposals, in which case such acceptance shall have the same effect as to such other bidder as though he were the originally successful bidder.

5. RETURN OF CERTIFIED CHECKS

Within ten days after the opening of the Proposals, the Authority will return all certified checks deposited by bidders, except those deposited by the bidder to be selected by the Authority, which will be returned within three days after the Proposal is accepted by the Authority, or within three days after satisfactory Performance and Payment Bonds are furnished to the Authority or if all Proposals are rejected, not later than three days after such rejection. The return of a bidder's check shall not, however, be deemed to be a rejection of his/her Proposal.

6. QUESTIONS BY BIDDERS

Questions by prospective bidders concerning the Contract may be addressed to the Airport Manager, (203) 466-8833, who, however, is authorized only to direct the attention of prospective bidders to various portions of the Contract so that they may read and interpret such portions for themselves. Neither he/she nor any other employee of the Authority is authorized to give interpretations of any portion of the Contract or is to give information as to the requirements of the Contract in addition to that contained in the Contract. Interpretations of the Contract or additional information as to its requirements, where necessary, shall be communicated to bidders only by written addendum issued over the name of the Airport Manager which addendum shall be considered part of this Contract. Accordingly, nothing contained herein and no representation, statement or promise, oral or in writing, of the Authority, its directors, officers, agents or employees shall impair or limit the effect of the warranties of the Contractor contained elsewhere in this Contract.

CHAPTER I - GENERAL PROVISIONS

1. DEFINITIONS

To avoid undue repetition, the following terms whenever they occur in this Form for Contract or any of the other papers forming a part of the Contract shall be construed as follows:

"Airport Manager" shall mean the Airport Manager of Tweed-New Haven Regional Airport for the time being, or his successor in duties for the purpose of this Contract, acting personally or through his authorized representative.

"Authority" shall mean the Tweed-New Haven Airport Authority.

"Contract" shall mean, in addition to this Form of Contract, the Information for Bidders, the Proposal, the Authority's acceptance, the Specifications and the Contract Documents (including written addenda issued over the name of the Airport Manager all of which are made part hereof as though herein set forth in full. The entire agreement between the parties shall consist only of the Contract as so defined.

The term "days" or "calendar days" in reference to a period of time shall mean consecutive calendar days, Saturday, Sundays and holidays, included.

"Engineer" and/or "Resident Engineer" shall mean the Resident Engineer from the Staff of the Airport Manager.

"Executive Director" shall mean the Executive Director, Tweed-New Haven Airport Authority for the time being, or his successor in duties for the purpose of this Contract acting personally or through his authorized representative.

No persons other than those specifically identified above shall be deemed a representative of the Executive Director, or the Airport Manager, or of the Engineer except to the extent specifically authorized in an express notice to the Contractor signed by the Executive Director. Further, no person shall be deemed a successor in duties of either the Executive Director or Airport Manager, unless the Contractor is so notified in a writing signed by the Chief Executive Officer.

"FAA" shall mean the Federal Aviation Administration.

"Inspector" shall mean any representative of the Engineer designated by him as Inspector and acting within the scope of the particular authority vested in him.

"Notice" shall mean a written notice.

"Subcontractor" shall mean anyone who performs work (other than or in addition to the furnishing of materials or equipment), directly or indirectly for or on behalf of the Contractor (and whether or not in privity of contract with the Contractor), but shall not include any person who furnishes merely his own personal labor or his own personal services.

"Supplier" shall mean anyone who furnishes materials or equipment (including temporary or consumable materials) to the Contractor or any subcontractor for use in the performance of work.

"Supplier" or "subcontractor", however, shall exclude the Contractor or any subsidiary or parent of the Contractor or any person, firm or corporation which has a substantial interest in the Contractor or in which the Contractor has a substantial interest; provided, however, that for the purposes of the clause hereof entitled "Assignments and Subcontracts" the exclusion in this paragraph shall not apply to any one but the Contractor himself.

"Work" shall mean all equipment, plant, labor, materials (including materials and equipment, if any furnished by the Authority) and other facilities and all other things necessary or proper for or incidental to the furnishing and delivery of an ARFF Vehicle to Tweed-New Haven Regional Airport and "Performance of Work" and words of similar import shall mean the furnishing of such facilities and the doing of such things as set forth in the Specifications.

"Work required by the Bid Documents and Specifications in their present form" or words of similar import shall include all Work required by the Specifications in their present form (whether or not mentioned in the Specifications), and all work involved in or incidental to the accomplishment of the results intended by the Specifications and Bid Documents in their present form (whether or not mentioned therein or shown thereon).

Whenever they refer to the Work or its performance, "directed", "required", "permitted", "ordered", "designated", "prescribed" and words of similar import shall mean directed, required, permitted, ordered, designated or prescribed by the Engineer; and "approves", "acceptance", "satisfactory" and words of similar import shall mean approved by or acceptable or satisfactory to the Engineer; and "necessary", "reasonable", "proper", "correct", and words of similar import shall mean necessary, reasonable, proper or correct in the judgment of the Engineer.

Whenever including: "such as" or words of similar import are used, the specific things thereafter enumerated shall not limit the generality of the things preceding such words.

2. GENERAL AGREEMENT

The Contractor agrees to furnish and deliver an ARFF Vehicle to Tweed-New Haven Regional Airport in strict accordance with the Bid Documents and specifications and any future changes therein, and the Contractor further agrees to assume and perform all other duties and obligations imposed upon him/her by this Contract.

The Authority agrees to pay to the Contractor and the Contractor agrees to accept from the Authority, in full consideration for the performance by the Contractor of his/her duties and obligations under this contract, compensation based on the prices bid, subject only to the express provisions of this Contract specifically setting forth actual, defined additions to or deductions from such compensation.

The enumeration in this Form of Contract and in the Specifications of particular things to be furnished or done at the Contractor's expense, or without cost or expense to the Authority, or without additional compensation to the Contractor shall not be deemed to imply that only things of a nature similar to those enumerated shall be so furnished and done, but the Contractor shall perform all work required, without other compensation than that specifically provided, whatsoever changes may be made on the Bid Documents and specifications, whatsoever work may be required in addition to that required by the Bid

Documents and Specifications in their present form, and whatsoever obstacles or unforeseen conditions may arise or be encountered.

3. ACCESS TO RECORDS

The Contractor must maintain an acceptable cost accounting system. The Contractor agrees to provide the Authority, 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.

4. STATE and LOCAL SALES TAX EXEMPTION

The Contractor's attention is directed to Section 12-412 of the State Statues of State of Connecticut. All tangible personal property which will become an integral component of a structure, building or real property of the State of Connecticut, or any of its political sub-divisions is exempt from State and Local retail sales tax and compensating use tax.

Bidders' proposals shall exclude dollar amounts for the payments of State and Local retail sales tax and compensating use Tax, for tangible personal property defined above.

5. SEPARATE PERFORMANCE & PAYMENT BONDS

At the time of accepting the Contractor's Proposal, the Contractor shall furnish separate Performance and Payment Bonds for the faithful performance of all obligations imposed upon him/her by the Contract and for the payment of all lawful claims of subcontractors, suppliers and workers arising out of the performance of the Contract. Such bonds shall be in the form bound herewith entitled, "Performance Bond" and "Payment Bond"; each bond shall be in a penal sum equal to the Estimated Total Contract Price and such bonds shall be signed by one or more sureties* satisfactory to the Authority. The bonds may be executed on a separate copy of such form not physically attached to this Contract booklet. In any case, both the form of bonds bound herewith, and any unattached executed copy thereof shall form a part of this Form of Contract as though herein set forth in full.

At any time after the opening of Proposals, the Authority may give notices to one or more bidders to advise the Authority as to the names of their proposed sureties* and the amount for which each surety would be individually liable. Within forty-eight hours thereafter each bidder so notified shall so advise the Authority. The giving of such notice to a bidder shall not be construed as an acceptance of his/her Proposal, and omission to give such notice shall not be construed as an election by the Authority not to require such bonds.

The Contractor shall furnish and deliver such bonds to the Authority within seven days after receipt by him/her of the acceptance of his/her Proposal, and the sureties thereon shall be as proposed by him/her,

provided, that if the Authority has therefore given notice to him/her that his/her proposed sureties or any of them are not satisfactory, the bonds shall be executed by other sureties satisfactory to the Authority.

Sureties must be corporations (commonly known as "surety companies"), authorized to do business as sureties in the State of Connecticut, whose names appear on the current list of the Treasury Department of the United States in effect at the time of submission of the Performance and Payment Bonds to the Authority as acceptable sureties to the Treasury Department. In addition, the aggregate underwriting limitations on any one risk, as set forth in the aforementioned list of the Treasury Department of the sureties, shall equal or exceed the penal sum of the Performance and Payment Bonds.

In the event of a default by the Contractor in his/her obligation to furnish satisfactory bonds within seven days after he/she receives an acceptance of his/her Proposal, such default shall entitle the Authority in its discretion to terminate this Contract at any time within fourteen days after acceptance of the Proposal, without any liability on the part of the Authority. Inasmuch as the damages to the Authority resulting from a termination by it upon the failure of the Contractor to furnish satisfactory bonds will include items whose accurate amount will be difficult or impossible to compute, such damages shall be liquidated in the sum of the following amounts:

- (a) The excess, if any, of the Estimated Total Contract Price in the Proposal finally accepted over the Proposal of the Contractor; and
- (b) The expense of such new advertisement of the Contract, if any, as may be deemed necessary by the Authority;
- (c) The sum of \$250.00 for each day after the receipt by the Contractor of the acceptance of his Proposal that the performance of the Contract is not completed by reasons of the failure of the Contractor to furnish the required bonds.

In the recovery of the damages above specified, the Authority may proceed against the sum represented by the certified check deposited with it or against the Bid Bond and take such other action as it may deem best in the public interest.

If the Contractor furnishes bonds in accordance with the requirements of the Authority under this numbered clause, the Authority shall reimburse the Contractor for the net amount actually paid by him/her to the surety or sureties as the premium on such bond. The cost of said bonds shall be included in the Contractors bid price.

If at any time the Authority shall be or become dissatisfied with any surety then upon any bond furnished in accordance with the requirements of the Authority, or if for any other reason such bond shall cease to be adequate security to Authority, the Contractor shall, within five days after notice from the Authority so to do, substitute a new bond in such form and sum and signed by such other sureties as may be necessary in the opinion of the Authority to constitute adequate security.

FORMAT FOR PERFORMANCE BOND

KNOW ALL PEOPLE BY THESE PRESENTS that we, the undersigned (*)

as principal; and (**)			
as sureties, are hereby held a the penal sum of:	nd firmly bound unto Tv	veed-New Haven Airpo	rt Authority ir
	Dollars and	Cents (\$), for the
payment of which, well and ourselves, our heirs, represent Each surety, however, if there penal sum.	truly to be made, we tatives, executors, adm	e hereby jointly and s inistrators, successors	severally bind and assigns.
Name of Surety			
Signed, this da	ay of 20		
(*) Insert Contractor's name. I	f a corporation, give the	e state of incorporation	, using also
the	ized under the lowe of t	ha Stata of	"
phrase "a corporation organi If a partnership, give full name			•
business under the firm name	•	",	9
(**) Insert names and limits of Performance and Payment Bo of sureties. If space is insuffic	onds" for information re	garding number and q	ualifications

left blank if there is only one surety.

FORMAT FOR PAYMENT BOND

KNOW ALL PEOPLE	BY THESE PRESEN	TS that we, the	undersigned (*)	
as principal; and (**)	ı			
as sureties, are here the penal sum of:	by held and firmly bo	ound unto Twe	ed-New Haven Airp	port Authority in
	Dollars	and	Cents (\$), for the
•	well and truly to b representatives, exe	•		•
Each surety, however penal sum.	er, if there is more tha	n one, shall be	jointly and severa	lly liable for said
	Nam	ne of Surety		
Signed, this	day of	20	-	
• 1	's name. If a corporat	. •	-	
	ration organized und			
	e full names of partne firm name of		nrase "co-partners	s aoing
entitled "Separate Pand qualifications of	d limits of sureties, if erformance and Payn f sureties. If space is	nent Bonds" fo insufficient, ac	or information rega dd rider. This spac	ording number

The condition of the above obligation is that.

WHEREAS, the above named principal has entered into a Contract in writing with the Authority, a copy of which is hereby made a part of this bond as though herein set forth in full and which is designated Contract "______".

WHEREAS, the Authority has required this bond for the faithful performance of all obligations imposed by said Contract and also for the payment of all lawful claims of suppliers, subcontractors and workers arising out of said contract;

NOW, if the said principal shall well and faithfully do and perform the things agreed by him/her to be done and performed according to the terms and true intent and meaning of said Contract and if all lawful claims of suppliers, subcontractors and workers arising out of the performance of said Contract are paid, then this obligation shall be void, otherwise the same shall remain in full force and effect; it being expressly understood and agreed that, provided the sureties shall comply with the provisions hereof, the aggregate liability of all sureties for any and all claims hereunder shall in no event exceed the penal amount of this obligation as hereinbefore stated.

This undertaking is for the benefit of the Authority and all suppliers, subcontractors, and workers having lawful claims arising out of the performance of said Contract, and all such suppliers, subcontractors and workers (as well as the Authority itself) shall have a direct right of action upon this bond; but the rights and equities of such suppliers, subcontractors and workers shall be subject and subordinate to those of the Authority.

The sureties, for value received, hereby stipulate and agree that the obligations of said sureties and their bond shall be in no way impaired or affected by any extensions of time, modification, omission, addition or change on or to the said Contract or the work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provision or condition thereof (whether precedent or subsequent), or by any assignment, subletting or other transfer thereof or of any part thereof or of any work to be performed or any moneys due or to become due thereunder; and said sureties do hereby waive notice of any and all of such extensions, modification, omissions, additions, changes, payments, waivers, assignments, subcontractors and transfers, and hereby expressly stipulate and agree that any and all things done and omitted to be done

by and in relation to assignees, subcontractors and other transferees shall have the same effect as to said sureties as though done by or in relation to said principal.

The sureties shall give the Executive Director, Tweed-New Haven Airport Authority the following notices:

- (a) Written notice of an intent to pay any claim of a subcontractor, supplier or worker hereunder;
- (b) Written notice within five days of the institution of an action by a subcontractor, supplier or worker hereunder.

The sureties shall not pay the claim of any subcontractor, supplier or worker hereunder until the expiration of thirty days after receipt by said Executive Director of notices under either subparagraph (a) or (b) above, describing the claim to be paid.

IN WITNESS WHEREOF, The principal and the sureties have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

(Seal)		
		Principal
(Seal)	By (*)_	
		Surety
(Seal)	By (**)	

^(*) If bond is signed by an officer or agent, give title; if signed by a corporation, affix corporate seal.

^(**) Add signatures of additional sureties, if any.

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of	,]		
] SS:		
County of	,]		
On this	day of	, 20	, before me personally came
and appeared		to me know	vn, who being by me duly sworn,
did depose and say th	at he/she resides	s at	
, that he/she is the		of,	which executed
the foregoing instrum	ent; that he/she k	knows the seal of	f said corporation; that one of the
seals affixed to said in	nstrument is sucl	n seal; that it was	s so affixed by order of the
directors of said corpo	oration, and that	he/she signed hi	s name thereto by like order.
(Seal)			

AFFIX ACKNOWLEDGMENT AND JUSTIFICATION OF SURETY

ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP

State of	,]	
] SS:	
County of	,]	
On this	day of	, 20, before me personally came and
appeared		to me known, and known to me to be one of the
members of the firm	of	
described in and wh	o executed the f	oregoing instrument and he/she acknowledged to
me that he/she exec	uted the same as	s and for the act and deed of said firm.
(Seal)		

AFFIX ACKNOWLEDGMENT AND JUSTIFICATION OF SURETY

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of	,]			
] SS:			
County of	,]			
On this	_ day of	, 20	, before me personally came and	
appeared		, to me k	known and known to me to be the perso	n
described in and w	ho executed the	foregoing in	nstrument and he/she acknowledged to	
me that he/she exe	cuted the same.			
(Seal)				

AFFIX ACKNOWLEDGMENT AND JUSTIFICATION OF SURETY

CHAPTER 2 – COMPENSATION & PAYMENTS

6. PAYMENTS

After delivery of the vehicle and upon completion of any required training, the Contractor shall furnish the following to the Authority:

- (a) The Final Payment Application showing the final quantities of such Work performed and cost of the work in accordance with the prices specified in the Contractor's proposal.
- (b) A notarized Final Requisition Affidavit stating that the Contractor "certifies that there are no known mechanics or suppliers liens outstanding at the date of this Final Requisition Affidavit, that all due and payable bills with respect to the work have been paid, that there is no known basis for filing of any mechanics or suppliers liens on the Work, and that waivers from all subcontractors and suppliers have been obtained in such form as to constitute an effective waiver of lien under the laws of the State of Connecticut."
- (c) Notarized copies of all waivers of liens received under the above subparagraph (b) of this section.

Within thirty days after receipt of all documents provided for in subparagraphs (a), (b) and (c) of this numbered clause, the Authority shall pay to the Contractor by check the amount stated in said Final Payment Application, less all other payments and advances whatsoever to or for the account of the Contractor. All prior estimates and payments shall be subject to correction in this final payment, which is throughout this Contract called the Final Payment.

The acceptance by the Contractor, or by anyone claiming by or through him/her, of Final Payment shall be and shall operate as a release to the Authority of all claims and all liability to the Contractor for all things done or furnished in connection with the Contract and for every act and neglect of the Authority, its directors, agents and employees relating to or arising out of the Contract and claims based on claims of third persons, excepting only his/her claims for reimbursement for certain items as hereinbefore provided. No payment, however, final or otherwise, shall operate to release the Contractor or his/her sureties from any obligations in connection with this Contract or the Performance or Payment Bonds.

The Contractor's agreement as provided in the immediately preceding paragraph above shall be deemed to be based upon the consideration forming part of this Contract as a whole and not to be gratuitous; but

in any event even if deemed gratuitous and without consideration, such agreement as provided in the immediately preceding paragraph above shall nevertheless be effective. Such release shall include all claims, whether or not in litigation and even though still under consideration by the Authority.

Such release shall be effective notwithstanding and purported reservation of right by the Contractor to preserve such claim. The acceptance of any check designated as "Final Payment" or bearing any similar designation shall be conclusively presumed to demonstrate the intent of the Contractor that such payment was intended to be accepted as final, with the consequences provided in this numbered clause, notwithstanding any purported reservation of rights.

The Contractor agrees that he/she shall not be entitled to, and hereby waives any right he/she might otherwise have to, and shall not seek any judgment whether under this Contract or otherwise for any such Final Payment or for an amount equivalent thereto or based thereon, or for any part thereof, if such judgment would have the effect of varying, setting aside, disregarding or making inapplicable the terms of this numbered clause or have the effect in any way of entitling the Contractor to accept such Final Payment or an amount equivalent thereto or based thereon or for any part thereof other than in the same fashion as a voluntary acceptance of a Final Payment subject to all the terms of this Contract including this numbered clause, unless and until the Contractor should obtain a judgment on any claim arising out of or in connection with this Contract (including a claim based on breach of contract) for an amount not included in said Final Payment. In any case in which interest is allowable on the amount of the Final Payment, such interest shall be at the rate of 4% per annum for the period, if any, in which such interest is due.

7. WITHHOLDING OF PAYMENTS

If (1) the Contractor fails to perform any of his/her obligations under this Contract or any other agreement between the Authority and the Contractor (including his/her obligation to the Authority to pay any claim lawfully made against him/her by any supplier, subcontractor or worker or other third person which arises out of or in connection with the performance of this Contract or any other agreement with the Authority) or (2) any claim (just or unjust) which arises out of or in connection with this Contract or any other agreement with the Authority and the Contractor is made against the Authority or (3) any party under this Contract or any other agreement between the Authority and the Contractor fails to pay any claims lawfully made against him/her by any supplier, subcontractor, worker or other third person which arises out of or in connection with this Contract or any other agreement with the Authority and the Contractor or if in the opinion of the Airport Manger any of the aforesaid contingencies is likely to arise, then the Authority shall

have the right, in its discretion, to withhold out of any payment (final or otherwise and even though such payment has already been certified as due) such sums as the Airport Manager may deem ample to protect it against delay or loss or to assure the payment of just claims of third persons, and to apply such sums in such manner as the Airport Manager as authorized by the Executive Director may deem proper to secure such protection or satisfy such claims. All sums so applied shall be deducted from the Contractor's compensation. Omission by the Authority to withhold out of any payment, shall not be deemed to indicate that the Authority does not intend to exercise its right with respect to such contingency. Neither the above provisions for rights of the Authority to withhold and apply monies nor any exercise or attempted exercise of, or omission to exercise, such rights by the Authority shall create any obligation of any kind to such suppliers, subcontractors, workers or other third person.

Until actual payment to the Contractor, his/her right to any amount to be paid under this Contract (even though such amount has already been certified due) shall be subordinate to the rights of the Authority under this numbered clause.

If, however, the payment of any amount due the Contractor shall be improperly delayed by the fault of the Authority, Authority shall pay the Contractor interest thereon at the rate of four percent (4%) per annum for the period of delay, it being agreed that such interest shall be in lieu of any in liquidation of any damages to the Contractor because of such delay.

CHAPTER 3 PROVISIONS RELATING TO TIME

8. TIME FOR COMPLETION & DAMAGES FOR DELAY

The Contractor shall complete the performance of all work under this Contract as follows:

All work specified in these specifications and Contract Documents is to be completed within three hundred and sixty (360) days after receipt of the Notice to Proceed from the Authority.

The Contractor shall not commence the performance of the work until receipt from the Authority of a Notice to Proceed which will be issued upon compliance with the following:

(a) If Performance and Payment Bonds are required, the date of receipt by him/her of notice from the Authority that the Performance and Payment Bonds furnished by him/her are satisfactory.

The time for completion shall not be extended on account of the time required to furnish the documents referred to in subparagraph (a) above, but the Authority shall give notice to the Contractor within five days after receipt of the Performance and Payment Bonds as to whether or not such bonds are satisfactory.

The Contractor's obligation for the performance and completion of the work within the time or times provided for in this Contract are of the essence of this Contract. The Contractor guarantees that he/she can and will complete the performance of the work within the time hereinbefore stipulated or within the time extended in accordance with the clause hereof entitled "Extensions of Time". Inasmuch as the damage and loss to the Authority which will result from delay in completing the performance of the Work within the time herein stipulated will include items of loss whose amount will be incapable or very difficult of accurate estimation, the damages to the Authority for each calendar day by which the Contractor does not complete performance of the Work within the times above stipulated, or within such time or times as extended in accordance with the clause hereof entitled "Extensions of Time", shall be liquidated in the sum of the following amounts:

(a) Five Hundred Dollars (\$500.00) per day for each day by which the Contractor shall fail to complete the performance of the work in accordance with the above paragraphs.

9. EXTENSIONS OF TIME

The time above provided for completion of any part of the Work shall be extended (subject, however, to the provisions of this numbered clause) only if in the opinion of the Airport Manager, the Contractor is necessarily delayed in completing such part by such time solely directly by a cause which meets all the following conditions:

- 1. Such cause is beyond the Contractor's control and rises without his/her fault;
- 2. Such cause comes into existence after the opening of Proposals on this Contract and neither was nor could have been anticipated by investigation before such opening.

In any event, even though a cause of delay meets all the above conditions, an extension shall be granted only to the extent that (i) the performance of the work is actually and necessarily delayed and (ii) the effect of such cause cannot be anticipated and avoided or mitigated by the exercise of all reasonable precautions, efforts and measures (including planning, scheduling and rescheduling), whether before or after the occurrence of the cause of delay which would not have affected the performance of the Work were it not for the fault of the Contractor or for other delay for which the Contractor is not entitled to an extension of time.

Any references herein to the Contractor shall be deemed to include subcontractors and suppliers, whether or not in privity of contract with the Contractor, and employees and others performing any part of the Work, and all foregoing shall be considered as agents of the Contractor.

The period of any extension of time shall be that necessary to make up the time actually lost, subject to the provisions of this numbered clause, and shall be only for the portion of the work actually delayed. The Airport Manager may defer all or part of his/her decision on an extension and any extension may be rescinded or shortened if it subsequently is found that the delays can be overcome or reduced by the exercise of reasonable precautions, efforts and measures.

As a condition precedent to an extension of time, the Contractor shall give written notice to the Airport Manager within 48 hours after the time when he/she knows or should know of any cause which might under any circumstances result in delay for which he/she claims or may claim an extension of time (including those causes which the Authority is responsible for or has knowledge of), specifically stating that an extension is or may be claimed, identifying such cause and describing, as fully as practicable at the time, the nature and expected duration of the delay and its effects on the various portions of the Contract. Since the possible necessity for an extension of time may materially alter the scheduling, plans and other actions of the Authority, and since, with sufficient opportunity, Authority might if it so elects attempt to mitigate the effect of a delay for which an extension of time might be claimed, and since merely oral notice may cause disputes as to the existence or substance thereof, the giving of written notice as above required shall be of the essence of the Contractor's obligations and failure of the Contractor to give written notice as above required shall be conclusive waiver of an extension of time.

It shall in all cases be presumed that no extension, or further extension, of time is due unless the Contractor shall affirmatively demonstrate to the satisfaction of the Airport Manager that it is. To this end the Contractor shall maintain adequate records supporting any claim for an extension of time, and in the absence of such records, the foregoing presumption shall be deemed conclusive.

CHAPTER 4 – CONDUCT OF CONTRACT

10. CIVIL RIGHTS ACT OF 1964. Title VI - NON-DISCRIMINATION REQUIREMENTS

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.

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:

- 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, or national origin 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.

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;
- 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 § 471, Section 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987 (PL 100-209) (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, subrecipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990, which 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 (42 USC §§ 12131 12189) 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, which 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. at 74087 to 74100);
- 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).

11. NOTICE REQUIREMENTS

No claim against the Authority shall be made or asserted in any action or proceeding at law or in equity, and the Contractor shall not be entitled to allowance for such claim, unless the Contractor shall have complied with all requirements relating to the giving of written notice and of information with respect to such claims as provided in this numbered clause. The failure of the Contractor to give written notice and information as to any claim shall be conclusively deemed to be a waiver by the Contractor of such claim, such written notice and information being conditions precedent to such claim. As used herein, "claim" shall include any claim arising out of, under, or in connection with, or in any way related to or on account of, this Contract (including claims in the nature of breach of Contract or fraud or misrepresentation before or subsequent to acceptance of the Contractor's Proposal, and claims of a type which are barred by the provisions of this Contract) for damages, payment or compensation of any nature or for extension of any time for performance of any part of this Contract.

The requirements as to the giving of written notice and information with respect to claims shall be as follows:

- 1. In the case of any claims for Extra Work, extensions of time for completion, or any other matter for which requirements are set forth elsewhere in this Contract as to notice and information, such requirements shall apply.
- 2. In the case of all other types of claim, notice shall have been given to the Airport Manager, personally, as soon as practicable, and in any case, within 48 hours, after occurrence of the act,

omission, or other circumstances upon which the claim is or will be based, stating as fully practicable at the time all information relating thereto. Such information shall be supplemented with any further information as soon as practicable after it becomes or should become known to the Contractor including daily records showing all costs which the Contractor may be incurring or all other circumstances which will affect any claim to be made, which records shall be submitted to the Airport Manager, personally.

The above requirements for notices and information are for the purpose of enabling the Authority to avoid waste of funds by affording it promptly the opportunity to cancel or revise any order, change its plans, mitigate or remedy the effects of circumstances giving rise to a claim or take such other action as may seem desirable and to verify any claimed expense or circumstances as they occur, and the requirements herein for such notice and information are essential to this Contract and are in addition to any notice statute with respect to suits against the Authority.

The above referred to notices and information are required whether or not the Authority is aware of the existence of any circumstances which might constitute a basis for a claim and whether or not the Authority has indicated it will consider a claim.

No act, or statement of any kind shall be regarded as waiver of any of the provisions of this numbered clause or may be relied upon as such waiver by a written statement signed by the Executive Director, expressly stating that a waiver is intended as to any particular provision of this numbered clause, and more particularly no discussion, negotiations, consideration, correspondence, or request for information with respect to a claim by any director, officer, employee or agent of the Authority shall be construed as a waiver of any provision of this numbered clause or as authority or apparent authority to effect such a waiver.

Since merely oral notice or information may cause disputes as to the existence or substance thereof, and since notice, even if written, to other than the Authority representative above designated to receive it may not be sufficient to come to the attention of the representative of the Authority with the knowledge and responsibility of dealing with the situation, only notice and information complying with the express provisions of this numbered clause shall be deemed to fulfill the Contractor's obligation under this Contract.

12. FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE)

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

13. EQUAL EMPLOYMENT OPPORTUNITY

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 identify, 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.

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 shall 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 area 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 non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees shall be employed by the Contractor during the training period and the Contractor shall have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees shall 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 therefore 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 female 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 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 workforce.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR part 60-3.
- I. 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 non-segregated 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 groups 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, if the 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, 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 number, 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).

14. DISADVANTAGED BUSINESS ENTERPRISES

<u>Information Submitted as a matter of bidder responsiveness:</u>

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 bid 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; and
- 5) If Bidder or Offeror cannot meet the advertised project **DBE goal of 14.69** %, evidence of good faith efforts undertaken by the Bidder or Offeror as described in appendix A to 49 CFR part 26.

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.

The requirements of 49 CFR part 26 apply to this contract. It is the policy of the Tweed New Haven Airport Authority 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.

Contract Assurance (§ 26.13) -

The Contractor 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 Department of Transportation-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 Owner 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 (§26.29) — The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than 15 days from the receipt of each payment the prime contractor receives from the Authority. The prime contractor agrees further to return retainage payments to each subcontractor within 15 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 Authority. This clause applies to both DBE and non-DBE subcontractors.

15. INSURANCE

The contractor shall carry or require that there be carried Workers' Compensation and Employer's Liability insurance for all its employees and those of its subcontractors engaged in work at the site. Worker' Compensation insurance shall be in compliance with the Connecticut Workers' Compensation Law and the Employer's Liability limit shall not be less than the following:

Bodily Injury by Accident, each Accident - \$1,000,000 Bodily Injury by Disease, each Employee - \$1,000,000 Bodily Injury by Disease, Policy Limit - \$1,000,000

Contractor shall certify that it and its subcontractors are not in arrears t the State of Connecticut Second

Injury Fund.

The contactor shall carry or require, during the life of the Contract, that there be carried Aviation and Commercial General Liability Insurance with the following limits:

General Aggregate - \$5,000,000

Products/Completed Operations Aggregate - \$5,000,000

Personal/Advertising Injury Aggregate - \$5,000,000

Each Occurrence Limit - \$5,000,000

Coverage can be provided through an individual policy and umbrella policy.

Coverage shall be on an occurrence form and apply to bodily injury and property damage for operations (including explosion, collapse and underground coverage), independent contractors, product and completed operations.

All Commercial General Liability Policies must be primary and non-contributory with a waiver of subrogation included on behalf of Tweed-New Haven Airport Authority, Avports LLC, the City of New Haven, and the Town of East Haven.

The contractor shall carry, during the life of the Contract, Commercial Automobile Liability and Property Damage Insurance covering all owned, leased, hired and non-owned automobiles, trucks and trailers with coverage no less broad than that of the ISO Commercial Business Auto Policy with limits not less than \$1,000,000 combined single limit each accident for bodily injury, and property damage. Coverage shall apply to both on and away from the project Site.

The contractor shall provide certificates of insurance showing coverage by an insurance carrier authorized by the State of Connecticut to write insurance in the State. Said certificate shall contain the following endorsement:

"The Tweed-New Haven Airport Authority, Avports LLC, the City of New Haven, and the Town of East Haven shall be named as additional insured parties to the extent their interests may appear. The additional insured provision does not apply to Workers' Compensation coverage."

16. EXTRA WORK ORDERS

No Extra Work shall be performed except pursuant to written orders of the Airport Manager as authorized by the Executive Director, expressly and unmistakably indicating his intention to treat the Work described therein as Extra work: and, the Airport Manager as authorized by the Executive Director, shall have the authority to order any item of Extra Work, if the cost thereof to the Authority together with the cost of Extra Work previously ordered and not expressly authorized as aforesaid will not be in the aggregate in excess of 10% of the Contract Price.

In the absence of such an order signed by the Airport Manager if the Engineer shall direct, order or require any work, whether orally or in writing, which the Contractor deems to be Extra Work, the Contractor shall nevertheless comply therewith, but shall within twenty-four hours give written notice thereof to the Airport Manager and the Engineer, stating why he deems it to be Extra Work, and shall moreover furnish to the Engineer time slips and memoranda as required by the clause hereof entitled "Compensation for Extra Work".

Said notice, time slips and memoranda are for the purpose of affording to the Airport Manager an opportunity to verify the Contractor's claim at the time and (if he desires so to do) to cancel promptly such order, direction or requirement of the Engineer, of affording to the Engineer an opportunity of keeping an accurate record of the materials, labor and other items involved, and generally of affording to the Authority an opportunity to take such action as it may deem desirable in light of the Contractor's claims. Accordingly, the failure of the Contractor to serve such notice or to furnish such time slips and memoranda shall be deemed to be a conclusive and binding determination on his/her part that the direction, order or requirement of the Engineer does not involve the performance of Extra Work, and shall be deemed to be a waiver by the Contractor of all claims for additional compensation or damages by reason thereof, such written notice, time slips and memoranda being a condition precedent to such claims.

17. TITLE TO MATERIALS

All materials shall be and become the property of the Authority upon being delivered to Tweed-New Haven Regional Airport.

The Contractor shall promptly furnish to the Authority such bills of sale and other instruments as may be required by it, properly executed, acknowledged and delivered, assuring title to such materials, free of

encumbrances and shall mark or otherwise identify all such materials as the property of the Tweed-New Haven Airport Authority.

18. ASSIGNMENTS & SUBCONTRACTS

Any assignment or other transfer by the Contractor of this Contract or any part hereof or any monies due or to become due hereunder without the express consent in writing of the Authority, shall be null and void. The Contractor may subcontract portions of the Work to such persons as the Authority may, from time to time expressly approve in writing. Approval of the subcontract may be conditioned on (among other things) the furnishing, without expense to the Authority, of a surety bond guaranteeing payment by the subcontractor of claims or suppliers, subcontractors, workers and other third persons arising out of the subcontractor's performance of any part of the work.

No consent to any assignment or other transfer, and no approval of any subcontractor, shall under any circumstances operate to relieve the Contractor of any of his/her obligations. As between the Authority and the Contractor, all assignees, subcontractors, and other transferees shall for all purposes be deemed to be agents of the Contractor. Moreover, all subcontracts and all approvals of subcontracts, regardless of their form, shall be deemed to be conditioned upon performance by the subcontractor in accordance with this Contract; and if any subcontractor shall fail to perform the subcontract to the satisfaction of the Authority, Authority shall have the absolute right to rescind his/her approval forthwith and to require the performance of the Contract by the Contractor personally or through other approved subcontractors.

19. CLAIMS OF THIRD PERSONS

The Contractor undertakes to pay all claims lawfully made against him/her by subcontractors, suppliers and workers, and all claims lawfully made against him/her by other third persons arising out of or in connection with or because of the performance of this Contract and to cause all subcontractors to pay such claims lawfully made against them.

CHAPTER 5 – MISCELLANEOUS

20. SUBMISSION TO JURISDICTION

The Contractor hereby irrevocably submits himself/herself to the jurisdiction of the Courts of the State of Connecticut in regard to any controversy arising out of, connected with, or in any way concerning the Proposal and this Contract. The Contractor agrees that service of process on the Contractor in relation to such jurisdiction may be made, at the option of the Authority, either by registered or certified mail addressed to his/her office as provided for in the clause No. 22 hereof entitled "Service of Notices on the Contractor", by registered or certified mail addressed to any office actually maintained by the Contractor or by actual personal delivery to the Contractor if the Contractor by an individual, to any partner of the Contractor by a partnership or to an officer, director or managing or general agent if the Contractor be a corporation.

Such service shall be deemed to be sufficient when jurisdiction would not lie because of the lack of basis to serve process in the matter otherwise provided by law. In any case, however, process may be served as stated above whether or not it might otherwise have been served in a different manner.

21. PROVISIONS OF LAW DEEMED INSERTED

Each and every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted herein and the Contract shall be read and enforced as though it were included therein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party, the Contract shall forthwith be physically amended to make such insertion.

22. INVALID CLAUSES

If any provision of this Contract shall be such to destroy its mutuality or to render it invalid or illegal, then, if it shall not appear to have been so material that without it the Contract would not have been made by the parties, it shall not be deemed to form part thereof but the balance of the Contract shall remain in full force and effect, provided such remainder would then be equitable to both parties.

23. NON LIABILITY OF TWEED-NEW HAVEN AIRPORT AUTHORITY REPRESENTATIVES.

Neither the Authority, nor any director, officer, agent, or employee thereof shall be charged personally by the Contractor with any liability or held liable to him/her under any term or provision of this Contract, or because of its execution or attempted execution, or because of any breach hereof.

24. SERVICE OF NOTICE ON THE CONTRACTOR

Whenever provision is made in this Contract for the giving of any notice to the Contractor, its deposit in any post office or post office box, enclosed in a postpaid wrapper addressed to the Contractor at his/her office, or its delivery to his/her office, shall be sufficient service thereof as of the date of such deposit or delivery, except to the extent, if any, otherwise provided in the clause entitled "Submission to Jurisdiction". Until notified otherwise, the Contractor's office will be that stated in his Proposal. Notices may also be served personally upon the Contractor; or if the Contractor be a partnership, upon any partner; or if a corporation, upon any officer, director, or managing or general agent.

25. MODIFICATION OF CONTRACT

No change in or modification, termination to discharge of this Contract, in any form whatsoever, shall be valid or enforceable unless it is in writing and signed by the party to be charged therewith or his/her duly authorized representative, provided, however, that any change in or modification, termination or discharged of this Contract expressly provided for in this Contract shall be as so provided.

26. 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:

1) The contract requires procurement of \$10,000 or more of a designated item during the fiscal year; or

2) 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.

27. 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 Authority 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.

28. 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)].

29. ENERGY CONSERVATION REQUIREMENTS

Contractor and Subcontractor agree to comply with mandatory standards and policies relating to energy efficiency as contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 USC 6201et seq).

30. 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 § 740-7671q) and the Federal Water Pollution Control Act as amended (33 USC § 1251-1387). The Contractor agrees to report any violation to the Authority 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 exceeds \$150,000.

31. CERTIFICATION OF OFFERER/BIDDER REGARDING DEBARMENT

Bidder or Offeror Certification

CERTIFICATION OF OFFERER/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.

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 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:

- Checking the System for Award Management at website: http://www.sam.gov.
- 2. Collecting a certification statement similar to the Certification of Offerer /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.

32. 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.

33. TRADE RESTRICTION CERTIFICATION

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

- 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 Section 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:

- 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.

34. 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.

35. 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 subtier contracts involving experimental, developmental, or research work.

36. OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970

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 (20 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.

CHAPTER 6 – RIGHTS & REMEDIES

37. BREACH OF CONTRACT

Any violation or breach of terms of this contract on the part of the Contractor 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.

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

38. TERMINATION FOR CONVENIENCE

The Authority 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 Authority. Upon receipt of a written notice of termination, except as explicitly directed by the Authority, 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 Authority 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 Authority to protect and preserve property and work related to this contract that the Authority will take possession.

The Authority 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.

The Authority will not pay Contractor for loss of anticipated profits or revenue or other economic loss arising out of or resulting from the Authority'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.

39. TERMINATION FOR CAUSE

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

- 1. Fails to commence 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 Authority 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 Authority will give notice in writing to the Contractor and Surety of its intent to terminate the contract for cause. At the Authority's discretion, the notice may allow the Contractor and Surety an opportunity to cure the breach or default.

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

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

Authority 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 Authority, acts of another Contractor in the performance of a contract with the Authority, and severe weather events that substantially exceed normal conditions for the location.

[Type here]

If, after termination of the Contractor's right to proceed, the Authority 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 Authority issued the termination for the convenience the Authority.

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

40. NO ESTOPPEL OR WAIVER

The Authority shall not be precluded or estopped by any acceptance, certificate or payment, final or otherwise, made or given by it, or any officer, agent or employee thereof, from showing at any time the true amount and character of Work performed, or from showing that any such acceptance, certificate or payment is incorrect or was improperly made; and the Authority shall not be precluded or estopped, notwithstanding any such acceptance, certificate or payment, from recovering from the Contractor any damages which it may sustain by reason of any failure on his/her part to comply strictly with this Contract, any moneys which may be paid to him/her or for his/her account in excess of those to which he/she is lawfully entitled.

Neither the acceptance of the Work or any part thereof, nor any payment therefore, nor any order or certificate of any officer, agent or employee of the Authority, nor any permission of direction to continue with the performance by the Authority of any of the Contractor's duties or obligations, nor any aid lent to the Contractor by the Authority in his/her performance of such duties or obligations, nor any other thing done or omitted to be done by the Authority, its directors, officers, agents or employees shall be deemed to be a waiver of any provision of this Contract or of any rights or remedies to which the Authority may be entitled because of any breach thereof. No cancellation rescission or annulment hereof, in whole or as to any part of the work, because of any breach hereof, shall be deemed a waiver of any money damages to which the Authority may be entitled because of such breach. Moreover, no waiver by the Authority of any breach of this Contract shall be deemed to be a waiver of any other subsequent breach.

41. CERTIFICATION REGARDING DOMESTIC PREFERENCES FOR PROCUREMENT

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.

42. 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 restrooms 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.

Chapter 7 – AIRCRAFT RESCUE AND FIRE FIGHTING (ARFF) VEHICLE TECHNICAL SPECIFICATIONS

1. SCOPE. This Procurement Specification (PS) covers a commercially produced diesel engine driven ARFF vehicle for an <u>Index C</u> airport. It includes a 1500 gallon water/Aqueous Film Forming Foam (AFFF) fire suppression system:

450 lb potassium-based dry chemical only.

The ARFF vehicle is intended to carry rescue and fire fighting equipment for the purpose of rescuing aircraft passengers, preventing aircraft fire loss, and combating fires in aircraft.

2. CLASSIFICATION. The ARFF vehicle(s) covered by this PS are classified in accordance with Part 139, Certification and Operations: Land Airports Serving Certain AirCarriers, Section 315, Aircraft Rescue and Firefighting: Index Determination; Section317, Aircraft Rescue and Firefighting: Equipment and Agents; and Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5220-10, Guide Specification for Aircraft Rescue and Fire Fighting (ARFF) Vehicles, as follows:

	Airport Index	Vehicle Class	Minimum Rated Capacities (gallons/liters)
ſ	Index C	4	1500 gallon (5678 liter) water/AFFF solution

- 3. VEHICLE CONFORMANCE/PERFORMANCE CHARACTERISTICS. The ARFF vehicle will be in accordance with the applicable requirements of National Fire ProtectionAssociation (NFPA) 414, Standard for Aircraft Rescue and Fire Fighting Vehicles (2007 Edition), and AC 150/5220-10, Guide Specification for Aircraft Rescue and Fire Fighting (ARFF) Vehicles.
- 3.1 General Administration Requirements.
- 3.1.1 <u>Manuals</u>: Technical manuals will consist of operator, service, and parts manuals. All manuals are required to be provided in hardcopy and in digital format on CDs when requested.
- 3.1.1.1 <u>Technical manuals</u>. The overall format for the manuals will be commercial. Each technical manual will have a title page. Line art will be used to the maximum extent possible for illustrations and parts lists. One complete set of engine and transmission parts, service and operator's manuals will be packed with each vehicle.
 - a. The contractor will provide digitized manuals in CD format when requested in addition to or in place of printed paper copies.
 - b. The contractor will provide two complete sets of hardcopy manuals and / or CDswhen requested.

- 3.1.1.1.1 Operator's manual. The operator's manual will include all information required for the safe and efficient operation of the vehicle, including fire extinguishing systems, equipment, and any special attachments or auxiliary support equipment. As a minimum, the operator's manual will include the following:
 - a. The location and function of all controls and instruments will be illustrated and functionally described.
 - b. Safety information that is consistent with the safety standards established by the Occupational Safety and Health Administration (OSHA) and NFPA.
 - c. All operational and inspection checks and adjustments in preparation for placing the vehicle into service upon receipt from the manufacturer.
 - d. Tie down procedures for transport on a low-boy trailer.
 - e. Warranty information and the period of the warranty coverage for the complete vehicle and for any component warranty that exceeds the warranty of the complete vehicle. Addresses and telephone numbers will be provided for all warranty providers.
 - f. General description and necessary step-by-step instructions for the operation of the vehicle and its fire extinguishing system(s) and auxiliary equipment.
 - g. A description of the post-operational procedures (draining, flushing, re-servicing, et cetera).
 - h. Daily maintenance inspection checklists that the operator is expected to perform, including basic troubleshooting procedures.
 - i. Disabled vehicle towing procedures.
 - j. Procedures and equipment required for changing a tire.
 - k. Schedules (hours, miles, time periods) for required preventative maintenance and required periodic maintenance.
 - 1. Line art drawing of the vehicle, including panoramic views (front, rear, left, and right sides) showing basic dimensions and weights (total vehicle and individual axle weight for the unloaded and fully loaded vehicle). For the purposes of this AC, "unloaded" is defined as a lack of agent, occupants and compartment load, and "loaded" is defined as including agent, occupants and compartment load.
- 3.1.1.1.2 <u>Service manual</u>. The service manual will identify all special tools and test equipment required to perform servicing, inspection, and testing. The manual will cover troubleshooting and maintenance as well as minor and major repair procedures. The text will contain performance specifications, tolerances, and fluid capacities; current, voltage, and resistance data; test procedures; and illustrations and exploded views as may be required

[Type here]

to permit proper maintenance by qualified vehicle mechanics. The manual will contain an alphabetical subject index as well as a table of contents. The service manual will contain at least the following, where applicable:

- a. Fire fighting system schematic(s).
- b. Hydraulic schematic.
- c. Pneumatic schematic.
- d. Electrical schematic.
- e. Winterization schematic.
- f. Fuel schematic.
- g. Schedules for required preventative maintenance and required periodic maintenance.
- h. Lubrication locations, procedures, and intervals for parts of the vehicle and equipment that require lubrication.
- 3.1.1.1.3 Parts identification manual. The parts manual will include illustrations or exploded views (as needed) to identify properly all parts, assemblies, subassemblies, and special equipment. All components of assemblies shown in illustrations or exploded views will be identified by reference numbers that correspond to the reference numbers in the parts lists. All purchased parts will be cross-referenced with the original equipment manufacturer's (OEM) name and part number. The parts identification manual will provide the description and quantity of each item used for each vehicle. The size, thread dimensions, torque specifications, and special characteristics will be provided for all nonstandard nuts, bolts, screws, washers, grease fittings, and similar items. The manual will contain a numerical index. The parts manual will contain a list of all of the component vendor names, addresses, and telephone numbers referenced in the parts list.

3.1.2 Painting, plating, and corrosion control.

- 3.1.2.1 <u>Finish</u>. Exterior surfaces will be prepared, primed, and painted in accordance with all of the paint manufacturer's instructions and recommendations. Vehicles will be painted and marked in accordance with AC 150/5210-5, Painting, Marking, and Lighting of Vehicles Used on an Airport. The interior finish of all compartments will be based on the manufacturer's standard production practice. This may include painting, texturing, coating or machine swirling as determined by the manufacturer. All bright metal and anodized parts, such as mirrors, horns, light bezels, tread plates, and roll-up compartment doors, will not be painted. All other surfaces capable of being painted must be in the appropriate yellow-green color.
- 3.1.2.2 <u>Dissimilar metals</u>. Dissimilar metals, as defined in MIL-STD-889, Dissimilar Metals, will not be in contact with each other. Metal plating or metal spraying of dissimilar base metals to provide electromotively compatible abutting surfaces is acceptable. The use of

dissimilar metals separated by suitable insulating material is permitted, except in systems where bridging of insulation materials by an electrically conductive fluid can occur.

- 3.1.2.3 <u>Protection against deterioration</u>. Materials that deteriorate when exposed to sunlight, weather, or operational conditions normally encountered during service will not be used or will have a means of protection against such deterioration that does not prevent compliance with performance requirements. Protective coatings that chip, crack, or scale with age or extremes of climatic conditions or when exposed to heat will not be used.
- 3.1.2.4 <u>Reflective stripes</u>. A minimum eight (8) inch horizontal band of high gloss white paint or white reflective tape (Retroreflective, ASTM-D 4956-09, *Standard Specification for Retroreflective Sheeting for Traffic Control*, TYPE III & above) must be applied around the vehicle's surface.
- 3.1.2.5 <u>Lettering</u>. The manufacturer will apply the airport's 'Name' and 'Insignia' (if available) in a contrasting color or by decal on both sides of the vehicle in long radius elliptical arches above and below the lettering center line. The size of the lettering will be a minimum of 2½-inches to a maximum of 6-inches. Reflective lettering is allowed if the material is the same as that which is used for the reflective stripe (as specified in AC 150/5210-5).
- 3.1.3 <u>Vehicle identification plate</u>. A permanently marked identification plate will be securely mounted at the driver's compartment. The identification plate will contain the following information:
 - a. NOMENCLATURE
 - b. MANUFACTURER'S MAKE AND MODEL
 - c. MANUFACTURER'S SERIAL NUMBER
 - d. VEHICLE CURB WEIGHT: kg (pounds)
 - e. PAYLOAD, MAXIMUM: kg (pounds)
 - f. GROSS VEHICLE WEIGHT (GVW): kg (pounds)
 - g. FUEL CAPACITY AND TYPE: gals (gallons)
 - h. DATE OF DELIVERY (month and year)
 - i. WARRANTY (months and km (miles))
 - i. CONTRACT NUMBER
 - k. PAINT COLOR AND NUMBER

A second permanently marked information data plate will be securely mounted on the interior of the driver's compartment. The plate will contain the information required by NFPA 414, Standard for Aircraft Rescue and Fire Fighting Vehicles (2007 Edition), Section 1.3.5 Vehicle

Information Data Plate. A single plate that combines or contains the information required forboth plates is acceptable.

3.1.4 <u>Environmental conditions</u>.

- 3.1.4.1 Vehicle operation and storage temperature conditions will vary with geographical location. Thus, the locality temperature range can go from -40° to 110°F. Refer to NFPA 414 for vehicle winterization criteria.
- 3.1.4.2 Extreme temperature range. The vehicle will be capable of satisfactory storage and operation in temperatures ranging from -40° to 110°F. The vehicle will be equipped with a cab, chassis, and agent winterization system, permitting operation at -40°F. The winterization system will not detract from the performance of the vehicle or the firefighting system in ambient temperatures up to 110°F. The vehicle chassis winterization system will maintain the engine coolant, lubricants, fuel, and electrical systems operational at ambient temperatures of -40°F. Thevehicle agent winterization system will provide sufficient insulation and heating capacity, by means of hot circulating liquids and/or forced air heat exchangers, to permit satisfactory operation of the vehicle and firefighting systems for a 2-hour period at ambient temperatures as low as -40° F with the vehicle fully operational and the engine running. At the end of this 2-hour period, the vehicle will be capable of successfully discharging its agents. All compartments not winterized will be marked as such on the interior of the compartment. The marking will state that the compartment is not winterized and cannot be used for the storage of items capable of freezing.

3.1.5 <u>Reduction of potential foreign object damage</u>. All loose metal parts, such as pins, will be securely attached to the vehicle with wire ropes or chains. Removable exterior access panels, if provided, will be attached with captive fasteners.

3.1.6 Vehicle Mobility.

- 3.1.6.1 Operating terrain. The vehicle will be capable of operating safely on paved roads, graded gravel roads, cross country terrain, and sandy soil environments. Cross country terrain consists of open fields, broken ground, and uneven terrain. An off-road, high-mobility suspension system resulting in no more than $0.5~G_{rms}$ acceleration at the driver's seat of the vehicle when traversing an 8-inch (20 cm) diameter half round at 35 mph (56 kph) must be provided. The suspension design by which the manufacturer meets the suspension performance requirements is at the manufacturer's discretion.
- 3.1.6.2 <u>Gradeability</u>. The fully loaded vehicle will be able to ascend any paved slope up to and including 50-percent.
- 3.1.6.3 <u>Side slope stability</u>. The fully loaded vehicle will be stable on a 30° side slope when tested in accordance with NFPA 414.

- 3.1.6.4 <u>Cornering stability</u>. The fully loaded vehicle will be stable in accordance with NFPA 414 when tested in accordance with NFPA 414.
- 3.2 Weights and dimensions.
- 3.2.1 <u>Overall dimensions</u>. The maximum dimensions listed below are desirable to ensure vehicles can be accommodated in existing fire stations. Likewise, the overall dimensions should be held to a minimum that is consistent with the best operational performance of the vehicle and the design concepts needed to achieve this performance and to provide maximum maneuverability in accordance with NFPA 414.

Vehicle Capacity	1500
/Dimensions	Gallon
Length (inches/cm)	433/1100
Width (inches/cm, excluding mirrors)	124/315
Height (inches/cm)	154/391

NOTE: For Airport Operator Validation: Consult AC 150/5210-15, Aircraft Rescue and Fire Fighting Station Building Design, Appendix A, to ensure vehicles measurements do not exceed existing airport fire station dimensions.

VEHICLE MEASUREMENT VALIDATION			
Not applicable.			
11			
ADO/FAA Approval: O			

- 3.2.2 <u>Angles of approach and departure</u>. The fully loaded vehicle will have angles of approach and departure of not less than 30°.
- 3.2.3 <u>Field of vision</u>. The vehicle will have a field of vision in accordance with NFPA 414.
- 3.2.3.1 <u>Mirrors</u>. Combination flat and convex outside rearview mirrors will be installed on each side of the cab. The flat mirrors will be of the motorized remote control type, providing not less than 60° horizontal rotational viewing range. The flat mirrors will also have electrically heated heads. Mirror remote and heating controls will be located on the instrument panel within reach of the seated driver. To provide the driver a clear view of the area ahead of the vehicle and to eliminate potential blind spots, a rectangular mirror will be installed on the lower corner of each side of the windshield, having a minimum area of 35 square inches.

The vehicle will have a back-up (rear-view) camera with a display monitor mounted above the driver in the cab. Cameras and monitors that are designed to replace the function of the side-view mirrors are not an approved option in this specification.

- 3.3 Chassis and vehicle components.
- 3.3.1 <u>Engine</u>. The vehicle will have a turbocharged diesel engine that is certified to comply with the Environmental Protection Agency (EPA) and state laws for off-highway emission requirements at the time of manufacture. The engine and transmission must operate efficiently and without detrimental effect to any drive train components when lubricated with standard, commercially available lubricants according to the recommendations of the engine and transmission manufacturers.
- 3.3.1.1 <u>Acceleration</u>. The fully loaded vehicle will accelerate from 0 to 50 miles per hour (mph) on a level paved road within: 25 seconds.
- 3.3.1.2 <u>Maximum speed</u>. The fully loaded vehicle will attain a minimum top speed of 70 mph on a level, paved road.
- 3.3.1.3 <u>Pump and roll on a 40-percent grade</u>. The fully loaded vehicle will be capable of pump and roll operations on a paved, dry, 40-percent grade in accordance with NFPA 414.
- 3.3.1.4 <u>Altitude</u>. Where justified, the vehicle, including the pumping system, will be designed for operation at 2,000 feet above sea level.

JUSTIFICATION			
4 D O / D 4 A A A A A A A A A A A A A A A A A A			
ADO/FAA Approval: O			

- 3.3.2 <u>Engine cooling system</u>. The engine cooling system will be in accordance with NFPA 414. A label will be installed near the engine coolant reservoir reading "Engine Coolant Fill."
- 3.3.3 Fuel system. The fuel system will be in accordance with NFPA 414.
- 3.3.3.1 <u>Fuel priming pump</u>. The vehicle will be equipped with an electric or pneumatic fuel pump in addition to the mechanical fuel pump. The electric/pneumatic pump will be used as a priming pump capable of re-priming the engines fuel system.
- 3.3.3.2 <u>Fuel tank</u>. The vehicle will have one or two fuel tanks with a minimum usable capacity in accordance with NFPA 414, as amended by NFPA 414. Each tank will have a fill opening of 3 inches minimum, readily accessible to personnel standing on the ground anddesigned to prevent fuel splash while refueling. Each tank will be located and mounted so as to provide maximum protection from damage, exhaust heat, and ground fires. If more than one tank is furnished, means will be provided to assure equalized fuel level in both tanks. An

overturn fuel valve will be provided for each tank to prevent spillage in the event of a rollover. Each fuel tank must be prominently labeled "Diesel Fuel Only".

- 3.3.4 <u>Exhaust system</u>. The exhaust system will be in accordance with NFPA 414. The exhaust system will be constructed of high grade rust resistant materials and protected from damage resulting from travel over rough terrain. The muffler(s) will be constructed of aluminized steel or stainless steel. Exhaust system outlet(s) will be directed upward or to the rear, away from personnel accessing equipment compartments and the engine air intake, and will not be directed toward the ground.
- 3.3.5 <u>Transmission</u>. A fully automatic transmission will be provided. The transmission will bein accordance with NFPA 414.
- 3.3.6 <u>Driveline</u>. The vehicle driveline will be in accordance with NFPA 414. If the driveline is equipped with a differential locking control, a warning/caution label will be placed in view of the driver indicating the proper differential locking/un-locking procedures. The operator's manual will also include a similar warning/caution. All moving parts requiring routine lubrication must have a means of providing for such lubrication. There must be no pressure lubrication fittings where their normal use would damage grease seals or other parts.
- 3.3.7 <u>Axle capacity</u>. Each axle will have a rated capacity, as established by the axle manufacturer, in accordance with NFPA 414.
- 3.3.8 <u>Suspension</u>. The suspension system will be in accordance with NFPA 414 and AC 150/5220-10, Guide Specification for Aircraft Rescue and Fire Fighting (ARFF) Vehicles.
- 3.3.9 <u>Tires and wheels</u>. Tires and wheels will be in accordance with NFPA 414. The vehicle will be equipped with single tires and wheels at all wheel positions. The vehicle will be equipped with tubeless steel belted radial tires with non-directional on/off-road type tread mounted on disc wheel assemblies. Tire and wheel assemblies will be identical at all positions. Tires and wheels will be certified by the manufacturer for not less than 25 miles of continuous operation at 60 mph at the normal operational inflation pressure. A spare tire and wheelassembly will be provided; however, the spare tire and wheel assembly are not required to be mounted on the vehicle. Tires will be new. Retreads, recaps, or re-grooved tires will not be permitted.

Tire bead locks, where justified, may be installed on all tires and rims.

	JUSTIFICATION
ADO/FAA Approval: O	_

- 3.3.10 <u>Towing connections</u>. The vehicle will be equipped with towing connections in accordance with NFPA 414. The vehicle will be designed for flat towing; the capability to lift and tow the vehicle is not required. The tow connections may intrude into the 30 degree approach angle.
- 3.3.11 <u>Brake system</u>. The vehicle will be equipped with a multi-channel all-wheel antilock brake system with at least one channel for each axle. The brakes will be automatic, self- adjusting and fully air-actuated. Brakes will be in accordance with CFR 49 CFR 393.40 through 393.42(b)), 393.43, and 393.43 through 393.52. The braking system, complete with all necessary components will include:
 - a. Air compressor having a capacity of not less than 16 standard cubic feet per minute (SCFM).
 - b. Air storage reservoir(s), each tank equipped with drain (bleed) valves, and with safety and check valves between the compressor and the reservoir tank.
 - c. Automatic moisture ejector on each air storage reservoir. Manual air tank drains are acceptable if they are labeled, are centrally located in one compartment and are accessible by an individual standing at the side of the vehicle.
 - d. Automatic slack adjusters on cam brakes or internal self-adjusting brakes on wedge brakes on all axles.
 - e. Spring set parking brakes.

All components of the braking system will be installed in such a manner as to provide adequate road clearance when traveling over uneven or rough terrain, including objects liable to strike and cause damage to the brake system components. No part of the braking system will extend below the bottom of wheel rims, to ensure, in case of a flat tire, that the weight of the vehicle will be supported by the rim and the flat tire and not be imposed on any component of the braking system. Slack adjusters and air chambers will be located above the bottom edge of the axle carrier.

- 3.3.11.1 <u>Air dryer</u>. A replaceable cartridge desiccant air dryer will be installed in the air brake system. The dryer will have the capability of removing not less than 95 percent of the moisture in the air being dried. The dryer will have a filter to screen out oil and solid contaminants. The dryer will have an automatic self-cleaning cycle and a thermostatically controlled heater to prevent icing of the purge valve.
- 3.3.11.2 <u>Compressed air shoreline or vehicle-mounted auxiliary air compressor</u>. A flush mounted, check valved, auto-eject compressed air shoreline connection will be provided tomaintain brake system pressure while the vehicle is not running. The shoreline will be flush mounted (not to extend outside the body line), located on the exterior of the vehicle, either on the left side rear corner of the cab, or at the rear of the vehicle. In lieu of a compressed air shoreline connection, the vehicle may be equipped with a 110 volt shoreline connected vehicle mounted auxiliary air compressor. In lieu of a compressed air shoreline connection, the vehicle may be equipped with an electrical shoreline connected vehicle mounted auxiliary air compressor.

- 3.3.12 <u>Steering</u>. The vehicle will be equipped with power steering. Rear-wheel steering technology is not an approved vehicle option.
- 3.3.12.1 <u>Steering effort</u>. The steering system performance will be in accordance with NFPA 414.
- 3.3.12.2 <u>Turning diameter</u>. The fully loaded vehicle will have a wall to wall turning diameter of less than three times the overall length of the vehicle in both directions in accordance with NFPA 414.
- 3.3.13 <u>License plate bracket</u>. A lighted license plate bracket will be provided at the left rear and left front of the vehicle. The location of the left front bracket will be placed so as not to interfere with the operation of fire fighting systems.
- 3.4 <u>Cab</u>. The vehicle will have a fully enclosed two door cab of materials which arecorrosion resistant, such as aluminum, stainless steel, or glass reinforced polyester construction. Steps and handrails will be provided for all crew doors, and at least one grab handle will be provided for each crew member, located inside the cab for use while the vehicle is in motion. The lowermost step(s) will be no more than 22 inches above level ground when the vehicle is fully loaded. A tilt and telescoping steering column will be provided.
- 3.4.1 <u>Windshield and windows</u>. The windshield and windows will be of tinted safety glass. Each door window will be capable of being opened far enough to facilitate emergency occupant escape in the event of a vehicle accident. The vehicle windows will have an electric control system.
- 3.4.2 <u>Cab interior sound level</u>. The maximum cab interior sound level will be in accordance with NFPA 414.
- 3.4.3 <u>Instruments and controls</u>. All instruments and controls will be illuminated and designed to prevent or produce windshield glare. Gauges will be provided for oil pressure, coolant temperature, and automatic transmission temperature. In addition to the instruments and controlsrequired by NFPA 414, the following will be provided within convenient reach of the seated driver:
 - a. Master warning light control switch,
 - b. Work light switch(es), and
 - c. Compartment "Door Open" warning light and intermittent alarm that sounds when a compartment door is open and the parking brakes are released or the transmission isin any position other than neutral.
- 3.4.4 <u>Windshield deluge system</u>. The vehicle will be equipped with a powered windshield deluge system. The deluge system will be supplied from the agent water tank and will have an independent pumping system. The deluge system activation switch will be located within reach of the seated driver and turret operator.

- 3.4.5 <u>Forward Looking Infrared (FLIR)</u>. A forward looking infrared (FLIR) camera and in-cab monitor, meeting the requirements of NFPA 414, will be provided. In addition, the FLIR monitor described in NFPA 414 will have a minimum dimension of 10 in (25 cm) (measured diagonally) and be located in a position where it is visible to both the seated driver and turret operator.
- 3.4.6 <u>Climate control system</u>. The offeror/contractor's standard heater/defroster and air conditioning system will be provided. The climate control system will induct at least 60 cubic feet per minute of fresh air into the cab. Cab mounted components will be protected from inadvertent damage by personnel.
- 3.4.7 <u>Seats</u>. The driver seat will be adjustable fore and aft and for height. The turret operator's seat, located to the right front of the driver's seat, will be a fixed (non-suspension) type. Each seat will be provided with a Type 3 seat belt assembly (i.e., 3-point retractable restraint) in accordance with CFR 49 CFR 571.209. Seat belts must be of sufficient length to accommodate crew members in full Personal Protective Equipment (PPE).
- 3.4.7.1. <u>Seat Options</u>. Two types of seat options are allowed in the vehicle. A standard seat contains a hard/fixed back. For these seats, a remote-mounted bracket designed to store a Self–Contained Breathing Apparatus (SCBA) will be provided. The remote-mounted bracket forthe driver and turret operator (at a minimum) must be placed inside the cab. The brackets for seat positions #3 and #4 may be placed outside of the cab if necessary. An SCBA seat, on the other hand, contains an opening which can accommodate someone wearing an SCBA. The chart below represents the user's stated preference for the vehicle seating configuration.

Position	Standard	SCBA-Seat	N/A
Driver	X		
Turret	X		
# 3			X
# 4			X

JUSTIFICATION			
Not Applicable.			
ADO/FAA Approval: O			

- 3.4.8 <u>Windshield wipers and washer</u>. The vehicle will be equipped with electrically powered windshield wipers. The wiper arms and blades will be of sufficient length to clear the windshield area described by SAE J198, Windshield Wiper Systems Trucks. Individual wiper controls will include a minimum of two speed settings and an intermittent setting. The wiper blades will automatically return to a park position, out of the line of vision. The vehicle will be equipped with a powered windshield washer system, including an electric fluid pump, a minimum one gallon fluid container, washer nozzles mounted to the wiper arms (wet arms), anda momentary switch.
- 3.4.9 <u>Warning signs</u>. Signs that state "Occupants must be seated and wearing a seat belt when apparatus is in motion" will be provided in locations that are visible from each seated position in accordance with NFPA 414."
- 3.4.10 <u>Lateral accelerometer and/or stability control system</u>. The vehicle will be equipped with a lateral accelerometer and/or an electronic stability control system in accordance with NFPA 414.
- 3.4.11 Monitoring and Data Acquisition System (MADAS). The vehicle will be equipped with aMADAS as prescribed by NFPA 414.
- 3.5 Body, compartments, and equipment mounting.
- 3.5.1 Body. The vehicle will have a corrosion-resistant body.
- 3.5.2 <u>Compartments</u>. The vehicle body will have lighted compartments in accordance with NFPA 414 with a minimum of 10 cubic feet of enclosed storage space.
- 3.5.2.1 Compartment doors. Storage compartments will have clear anodized aluminum, counterbalanced, non-locking, roll-up or single hinged doors as determined by the manufacturer. Door latch handles on roll-up doors will be full-width bar type. Door straps will be provided to assist in closing the compartment doors when the rolled up or hinged door height exceeds six feetabove the ground.

- 3.5.2.2 <u>Scuffplates</u>. Replaceable scuffplates will be provided at each compartment threshold to prevent body damage from sliding equipment in and out of the compartments. The scuffplates will be securely attached to the compartment threshold but will be easily replaceable in the event of damage.
- 3.5.2.3 <u>Drip rails</u>. Drip rails will be provided over each compartment door.
- 3.5.2.4 <u>Shelves</u>. An adjustable and removable compartment shelf will be provided for every 18 inches of each vertical storage compartment door opening. Shelving adjustments will require no more than common hand tools, and will not require disassembly of fasteners. Shelves will support a minimum of 200 pounds without permanent deformation. Each shelf will be accessible to crew members standing on the ground or using a pull out and tip-down configuration. Each shelf will have drain holes located so as to allow for drainage of any water from the stowed equipment.
- 3.5.2.5 <u>Drainage mats.</u> Each compartment floor and shelf will be covered with a removable black mat designed to allow for drainage of any water from the stowed equipment.
- 3.5.3 <u>SCBA storage tubes</u>. A single compartment or tubes for storage of four SCBA bottles will be provided. If tubes are provided, two will be installed on each side of the vehicle. The tubes will be of sufficient size to accommodate the procuring agencies SCBA cylinders.
- 3.5.4 <u>Ladder, handrails, and walkways</u>. Ladder, stepping, standing, and walking surfaces will be in accordance with NFPA 414. Handrails will be provided in accordance with NFPA 414. The lowermost step(s) or ladder rungs will be no more than 22 inches (56 cm) above level ground when the vehicle is fully loaded. The lowermost steps may extend below the angle of approach or departure or ground clearance limits if they are designed to swing clear. The tread of the bottom steps must be at least 8 inches (20 cm) in width and succeeding steps at least 16 inches (40 cm) in width. The full width of all steps must have at least 6 inches (15 cm) of unobstructed toe room or depth when measured from, and perpendicular to, the front edge of the weight-bearing surface of the step.
- 3.5.5 <u>Ancillary equipment</u>. Ancillary equipment listed in NFPA 414 A.4.2.1 (1)-(17) is not covered by this Procurement Specification in accordance with AC 150/5220-10, Guide Specification for Aircraft Rescue and Fire Fighting (ARFF) Vehicles. Ancillary equipment is funded separately by other sources.

NOTE: Equipment funding will be obtained as a separate contract under the provisions of AC150/5210-14, Aircraft Rescue and Fire Fighting Equipment, Tools, and Clothing.

3.6 Agent system.

- 3.6.1 <u>Agent (fire) pump</u>. The vehicle will be equipped with a centrifugal pump capable of providing the performance specified herein as prescribed by NFPA 414.
- 3.6.1.1 <u>Agent system piping</u>. All piping, couplings, and valves and associated components that come into contact with the agent will be in accordance with NFPA 414.

- 3.6.1.2 <u>Tank to pump connection</u>. A check valve and shutoff valve will be provided in each tank to pump line.
- 3.6.1.3 <u>Piping, couplings, and valves</u>. All agent system piping will conform to NFPA 414 criteria.
- 3.6.1.4 <u>Overheat protection</u>. The agent system will be equipped with an overheat protection system in accordance with NFPA 414. Overheat protection is not required on vehicles utilizing a pre-mixed pressurized foam system.
- 3.6.1.5 <u>Pressure relief valves</u>. The agent system will be equipped with pressure relief valves in accordance with NFPA 414.
- 3.6.1.6 <u>Drains</u>. The agent system will be equipped with a drainage system in accordance with NFPA 414.
- 3.6.2 <u>Water tank</u>. The vehicle will have a water tank with a manufacturer certified minimum capacity of at least 1500 gallons.
- 3.6.2.1 <u>Water tank construction</u>. The water tank will be constructed of passivated stainless steel, polypropylene, or Glass Reinforced Polyester (GRP) construction. All materials used will be capable of storing water, foam concentrate, and water/AFFF solutions.
- 3.6.2.2 <u>Water tank overhead fill cover and drain</u>. The water tank will be equipped with a 20 inch fill tower. The tower will be designed to allow for video inspection of the water tank interior. The water tank will incorporate a drainage system in accordance with NFPA 414.
- 3.6.2.3 <u>Water tank overflow system and venting</u>. The water tank will incorporate a venting system to relieve pressure on the tank during fill and discharge operations at maximum flow rates. It will have an overflow system to relieve excess fluid in the event of tank overfill. Drainage from the vent and overflow system will not flow over body panels or other vehicle components and will not be in the track of any of the tires. Tank vent hoses will be of the non-collapsible type.
- 3.6.2.4 <u>Water tank top fill opening</u>. A top fill opening of not less than 8 inches internal diameter with a readily removable ¼-inch mesh strainer will be provided. The fill opening may be incorporated as part of the manhole cover, and will be sized to accommodate a 2½-inch fill hose.
- 3.6.2.5 <u>Water tank fill connections</u>. The water tank will incorporate National Hose thread connections and will be in accordance with NFPA 414. If the vehicle is fitted with the "structural fire fighting capability option," the additional requirements listed in paragraph 3.6.8 must be incorporated.

- 3.6.3 <u>Foam system.</u> (**NOTE**: *The requirements of section 3.6.3 do not apply to pre-mixed pressurized foam systems.*)
- 3.6.3.1 <u>Foam concentrate tank</u>. The foam concentrate tank(s) will have a manufacturer certified working capacity sufficient for two tanks of water at the maximum tolerance specified in NFPA 412, Standard for Evaluating Aircraft Rescue and Fire-Fighting Foam Equipment for 3 to 6 percent foam concentrate (i.e., 7.0-percent).
- 3.6.3.1.1 <u>Foam tank construction</u>. The foam tank will be constructed of passivated stainless steel, polypropylene, or GRP construction. All materials used will be capable of storing foam concentrate.
- 3.6.3.1.2 <u>Foam tank drain</u>. The foam tank will incorporate a drain and drain valve. The valve will be on the left side of the vehicle and controlled by a crew member standing on the ground. The drain line will have a minimum 1½-inch I.D. The foam tank drain outlet will be located so that the contents of the tank can be drained into 5-gallon cans and 55-gallon drums.
- 3.6.3.1.3 Foam tank top fill trough. The foam tank will incorporate a top fill trough mounted in the top of the tank readily accessible to at least two crew members on top of the vehicle. The top fill trough will incorporate a cover, latch, and sealed so as to prevent spillage under any operating condition. The top fill trough will be designed to allow two standard 5- gallon foam concentrate containers to be emptied simultaneously. The top fill trough neck will extend sufficiently close to the bottom of the tank to reduce foaming to a minimum during thefill operation. The top fill trough will incorporate readily removable, rigidly constructed 10 mesh stainless steel, brass or polyethylene strainers. All components in and around the top fill trough will be constructed of materials that resist all forms of deterioration that could be caused by the foam concentrate or water.
- 3.6.3.2 Foam tank fill connections. The foam tank will incorporate a 1.5-inch National Hose thread female hose connection on both sides of the vehicle to permit filling by an external transfer hose at flow rates up to 25-gpm. The connections will be provided with chained-on long handled plugs or rocker lug plugs. The top of the connections will be no higher than 48 inches above the ground and readily accessible. The fill lines will incorporate check valves and readily removable, rigidly constructed 1/4-inch mesh strainers. All components in the foam tank fill system will be constructed of materials that resist all forms of deterioration that could be caused by the foam concentrate or water.
- 3.6.3.2.1 <u>Foam tank vent and overflow system</u>. The foam tank will incorporate a vent system to relieve pressure on the tank during fill and discharge operations at maximum flow rates and an overflow system to relieve excess liquid in the event of tank overfill. Drainage from the vent and overflow system will not flow over body panels or other vehicle components and will not be in front of or behind any of the tires. Tank vent hoses will be of the non-collapsible type.
- 3.6.3.3 <u>Foam transfer pump</u>. A foam transfer pump will be provided and mounted in a compartment on the vehicle. The pump will be capable of transferring and drawing foam liquid concentrate at adjustable flow rates up to 25-gpm directly through the pump and loading

connections (see 3.6.3.2). All materials and components that come in contact with the foam will be compatible with the foam concentrate. The pump and its plumbing will have provisions for flushing with water from the water tank. A suitable length of hose with appropriate connections will be provided for filling the foam tank from an external foam storage container.

- 3.6.3.4 <u>Foam flushing system</u>. The foam concentrate system will be designed in accordance with NFPA 414 so that the system can be readily flushed with clear water.
- 3.6.3.5 <u>Foam concentrate piping</u>. All metallic surfaces of the piping and associated components that come into contact with the foam concentrate will be of brass, bronze, or passivated stainless steel. The foam concentrate piping will be in accordance with NFPA 414.
- 3.6.4 <u>Foam proportioning system</u>. The vehicle will have a foam proportioning system for Aqueous Film-Forming Foam (AFFF) (whether 3- or 6-percent foam concentrate) in accordance with NFPA 414. If a fixed orifice plate system is used, a plate will be provided for each percentage foam concentrate; the additional plate will be securely mounted in a protected location on the vehicle. A fire vehicle mechanic will be able to interchange the plates using common hand tools.
- 3.6.5 <u>Foam Testing System.</u> The vehicle must have piping, internal modification, cart, trailer, or other equipment needed to support NFPA 412 input-based testing.

source of agent delivery, as specified below:
3.6.5.1 Roof turret. The roof turret will be mounted near the front of the roof of the vehicle. It will have a non-air-aspirating, constant flow, variable stream nozzle with dual flow rates for foamor water rated as specified in NFPA 414. The discharge pattern will be infinitely variable from straight stream to fully dispersed. The roof turret will be power operated; power controls will be positioned for use by the driver and the crew member seated to the right of the driver. The type of nozzle or turret drain will be per the manufacturer's recommendation.

3.6.6 <u>Primary vehicle turret</u>. The vehicle will be equipped with a standard roof-mounted turret, high reach extendable turret, and/or high flow bumper mounted turret to serve as the primary

3.6.7 <u>Bumper turret</u> . The vehicle will be equipped with a joystick controlled, constant flow, non-air-aspirating, variable stream type: <u>fixed mount high volume dual rate (minimum 375/750 GPM) bumper turret.</u> The bumper turret will be capable of discharging at a minimum flow rates of foam or water as specified by the user, with a pattern infinitely variable from straight stream to fully dispersed. The bumper turret will be capable of automatic oscillation, with the range of oscillation adjustable up to 90° each side of center (left and right) with vertical travel capabilities of +45°/-20° meeting section 4.20.2 in NFPA 414.
3.6.8 Preconnected handline(s). Two 200 foot, 1¾-inch pre-connected woven jacket handline(s), with a 1½-inch control valve and a pistol grip nozzle, will be located on (or accessible from) left side of the vehicle. A safety system will be provided to prevent charging of the hose until the hose has been fully deployed. The handline(s) and nozzle(s) willbe in accordance with NFPA 414, and will allow for a minimum of 95 gpm at 100 psi nozzle pressure. A control for charging the handline will be provided for operation by both the driver and the turret operator.
3.6.7.1 In addition, the vehicle will be equipped with the following handline: 100 feet of twinned 1-inch dry chemical/foam-water hose on a reel.

- 3.6.8. Structural fire fighting capability. The vehicle will be equipped with an agent system structural control panel, on the left side of the vehicle, operable while standing on the ground. Structural panel activation will be interlocked to operate only with the vehicle parking brakes set and the transmission in neutral position. Controls and instruments will be grouped by function. The control panel will be hinged oraccessible from the rear for maintenance. Instruments will be lighted for night operation.
- 3.6.8.1 The structural panel will include, as a minimum, the following:
 - a. Panel activation switch, including the panel lights.
 - b. Engine tachometer.
 - c. Engine oil pressure gauge with low pressure warning light.
 - d. Engine coolant temperature gauge with high temperature warning light.
- e. A liquid filled gauge, or digital indicator for pump suction, -30 inches Hg vacuum to 600 psi.
 - f. A liquid filled gauge, or digital indicator for pump pressure, 0 to 600 psi.
- g. An adjustable pump pressure using either an electronic pressure governor or manualcontrol with a relief valve will be provided.
 - h. Foam or water selection.
- i. Water and foam tank liquid level indicators, located adjacent to the water and foam tank fills.
- 3.6.8.2 The structural fire fighting capability will also require installation of the following items:
 - a. A priming pump and control (for drafting using the large intake connection).
 - b. Water tank isolation valve.
- c. Discharge connections. Two 2½-inch discharge connections with male National Hose threads will be provided. One 2½-inch discharge will be provided on each side of the vehicle. Each connection will be equipped with a cap, a quarter-turn control valve, a bleeder valve, and a pressure gauge. Each connection will be rated at 250-gpm minimum.
- d. Intake connections. The vehicle will be equipped with one valved 4½-inch intake connection on the left side. The vehicle will be equipped with one valved 2½-inch intake connection on theleft side adjacent to the 4½-inch intake connection with both having either a 30° or 45° turn-down fitting. The 4½-inch intake connection will have male National Hose threads, a quarter-turn control valve, a bleeder valve, a strainer, and a cap. The 2½-inch intake connection will have rocker lug female National Hose threads, a quarter-turn control valve, a bleeder valve, a strainer, and a plug. The vehicle will be capable of filling its water tank by pumping from a draft, a hydrant, or a nurse truck through either of the intake connections without the use of a hose from a discharge connection to a tank fill connection.

3.6.9 Primary turret discharge nozzle. The vehicle will be equipped with a combination dry chemical/ AFFF nozzle of the entrainment type on the primary turret mounted on the cab roof.
3.7 Dry chemical agent system. The vehicle will be equipped with a 450 lb minimum capacitypotassium bicarbonate dry chemical auxiliary agent system. The propellant gas cylinder will bereplaceable within fifteen minutes by two crew members standing on the ground and be equipped with a cylinder replacement hoisting system. The propellant gas cylinder will be secured to withstand off-road operations. A pressure indicator will be visible to any person opening the tank fill cap. Blow-down piping will be directed beneath the vehicle. The dry chemical agent tank will include lifting rings and will have a nameplate indicating, as a minimum, the following: a. Extinguishing agent. b. Capacity. c. Weight full. d. Weight empty. e. Operating pressure. f. Hydrostatic test date. g. Type of agent required for re-servicing.
3.7.1 Not applicable. 3.7.2 Dry chemical hose reel. A hose reel, equipped with at least 100 feet of dry chemical hose, will be mounted in a compartment. Handline agent and purge controls will be mounted in or adjacent to the compartment. All electrical components will be sealed against entry of water. Thehose reel will have both electric and manual rewind provisions. The manual rewind handle will be bracket mounted and stored in
the compartment. A quick acting control will be provided to activate the handline from the cab of the vehicle.

8.8 Not applicable.	

- 3.9 <u>Electrical systems and warning devices</u>. The vehicle will have a 12-volt or 24-volt electrical and starting system in accordance with NFPA 414.
- 3.9.1 <u>Alternator</u>. An appropriate charging system, in accordance with NFPA 414, will be provided. The minimum continuous electrical load will include operation of the air conditioning system.
- 3.9.2 <u>Batteries</u>. Batteries will be of the maintenance-free type; addition of water will not be required during normal service life. The battery cover and vent system will be designed to prevent electrolyte loss during service and to keep the top of the battery free from electrolyte.
- 3.9.2.1 <u>Battery compartment</u>. The batteries will be enclosed in a weatherproof enclosure, cover, or compartment and be readily accessible.
- 3.9.3 <u>Battery charger or conditioner</u>. The vehicle will have a DC taper type battery charger or an automatic battery conditioner, or voltage monitoring system, providing a minimum 12 amp output. The charger/conditioner will be permanently mounted on the vehicle in a properly ventilated, accessible location. The charger/conditioner will be powered from the electrical shoreline receptacle (see 3.10.1). A charging indicator will be installed next to the receptacle. When a battery conditioner is provided, the conditioner will monitor the battery state of charge and, as necessary, automatically charge or maintain the batteries without gassing, depleting fluid level, overheating, or overcharging. A slave receptacle will be provided at the rear or on either side of the vehicle cab. Battery jump studs may be installed on the exterior of the battery box in lieu of a slave receptacle.
- 3.9.4 <u>Electromagnetic interference</u>. The vehicle electrical system will be in accordance with SAE J551-2 for electromagnetic interference.
- 3.9.5 Work lighting.
- 3.9.5.1 <u>Cab interior lights</u>. Cab interior light levels will be sufficient for reading maps or manuals. At least one red and one white cab interior dome light will be provided.
- 3.9.5.2 Compartment lights. White lighting sufficient to provide an average minimum illumination of 1.0 footcandle will be provided in each compartment greater than 4.0 cubic feet and having an opening greater than 144 square inches. Where a shelf is provided, this illumination will be provided both above and below the shelf. All compartments will be provided with weatherproof lights that are switched to automatically illuminate whencompartment doors are opened and the vehicle master switch is in the 'on' position. Light switches will be of the magnetic (non-mechanical) type.
- 3.9.5.3 <u>Ladder, step, walkway, and area lights</u>. Non-glare white or amber lighting will be provided at ladders and access steps where personnel work or climb during night operations. In addition, ground lighting will be provided. Ground lights will be activated when the parking brake is set in accordance with AC 150/5220-10, Guide Specification for Aircraft Rescue and Fire Fighting (ARFF) Vehicles. These area lights will be controlled with three-way switches on the cab instrument panel and near the light sources. The switch located in the cab will be a

master switch	and must be	turned on be	efore auxiliary	switches near	the light sources	areoperational.
			- · - · - · - · · · · · · · · · · · · ·			

3.9.5.4 Spot/Floodlights. Two spot/floodlights will be attached at the end of the primaryturret or at the end of the HRET assembly. The lights will illuminate the area covered by the turret. Both lights will be controlled from switches in the cab.

3.9.5.5 Flood Lights. Two fixed floodlights will be provided. One light will be

mounted on the left and right sides of the vehicle.

Both lights will be mounted on extension tubes and controlled from switches in the cab and manually raised. To prevent these lights from accidental damage, the cab will be equipped with avisual warning signal to alert the driver if the lights are inadvertently left in the "up" position.

3.9.5.6 Scene Lights. A total of six high mounted floodlights will be provided to illuminate the work areas around the vehicle. Two lights will be mounted on the front and two will be mounted on each side of the vehicle. The lights will be powered by the vehicle alternatordriven system or auxiliary generator, and the lights in the front will be controlled from switches in the cab. LED lights will be used.

3.9.6 Audible warning devices.

- 3.9.6.1 Siren. The vehicle will be equipped with an electronic siren system. The amplifier unit will include volume control and selection of "Radio," "PA," "Manual," "Yelp," "Wail," and "Hi-Lo" (European) modes, and a magnetic noise canceling microphone. The amplifier, microphone, and controls will be within reach of the driver and the turret operator. Siren activating foot switches will be located in front of the driver and the turret operator. The siren speaker will be rated at 100 watts minimum and will be located in a guarded position aslow and as far forward on the vehicle as practical.
- 3.9.6.2 <u>Horn</u>. Dual forward facing air horns will be installed in protected locations near the front of the vehicle. Air horn activating foot switches will be located in front of the driver and the turret operator.
- 3.9.7 <u>Emergency warning lights</u>. All emergency warning lights must meet the requirements of AC 150/5210-5. Where applicable, <u>LED</u> lights will be used as the primary light type. Lighting units will be installed on the top front, sides, and rear of the vehicle to provide 360° visibility. A switch will be provided on the instrument panel to control all of the top, side, front and rear emergency warning lights. A switch will also be provided on the instrument panel to disable all lower emergency warning lights when desired. All lighting systems will meet NFPA 414 emergency lighting criteria.
- 3.9.7.1 <u>Emergency warning light color</u>. All emergency warning lights will meet the requirements of AC 150/5210-5.
- 3.9.7.2 <u>Headlight flashing system</u>. A high beam, alternating/flashing, headlight system will be provided. The headlight flasher will be separately switched from the warning light panel.All emergency warning lights will meet the requirements of AC 150/5210-5.

3.9.8 Radio circuit. The vehicle will have three separate 30 amp circuits with breakers and connections provided in a space adjacent to the driver and turret operator for installation ofradios and other communications equipment after the vehicle has been delivered. To facilitate the installation of the communications equipment the manufacturer will provide three antennas pre-installed on top of the cab. Radios are an airport responsibility and not part of this specification.

3.9.9 Power receptacles.

- 3.9.9.1 <u>Primary power receptacles</u>. The vehicle will have two duplex 15-amp 110-volt power receptacles, one installed adjacent to the cab door on each side of the vehicle. Each duplex receptacle will include one straight blade and one twist-lock connection. These outlets will be powered by the generator.
- 3.9.9.2 <u>Auxiliary power receptacles</u>. The vehicle will have 2-12-volt auxiliary power receptacles mounted adjacent to the driver and crew member positions, preferably in the instrument panel.

3.9.9.3 Cable reel. The vehicle will be equipped with an electrical cable reel, located within a compartment. The reel will be equipped with 200 feet of 20 amp, 600 volt, 90°C insulated electrical cable. The electrical cable will be equipped with a rubber ball stop to prevent cable pullthrough during rewinding operations. A four-way roller guide will be provided on the cable reel to prevent chafing of cable insulation. The cable reel will have an electric rewind motor with provisions for manual rewind in the event of motor failure; the manual rewind handle will be securely stored near the cable reel. A portable weatherproof duplex outlet box, with built-in circuit breakers and twist-lock receptacles, will be provided for on the cable end. The cable reel will be powered by the auxiliary generator.

- 3.9.10 <u>Auxiliary generator</u>. A minimum 10 kilowatt (kW) (continuous rating), 120/240-volt, 60 hertz, diesel, hydraulic, or split shaft Power Takeoff (PTO)-driven generator will be provided.
- 3.10 Line voltage electrical system.
- 3.10.1 <u>Electrical shoreline connection</u>. The battery charger/conditioner will be powered from a covered, polarized, insulated, labeled, recessed (flush mounted), male, 110 volt AC auto-eject receptacle. The connection will be located on the exterior of the vehicle at the rear or on either side of the cab. A weatherproof charge meter will be installed next to the receptacle. A 15 amp rated, 110-120 volt, AC straight blade (non twist-lock) connector will be provided.

3.11 Air systems.

- 3.11.1 Air hose reel. An air hose reel will be provided in an enclosed compartment on the vehicle. The hose reel will be equipped with 200 feet of 3/8-inch I.D. hoseline. A 3/8 inch National Pipe Taper (NPT) fitting and female style quick disconnect will be connected to the end of the hoseline. A four-way roller guide will be provided for the hose reel to prevent hose chafingand kinking. The hoseline will be equipped with a rubber ball stop to prevent hose pull through on roller guides during rewinding operations. The hose reel will have an electric rewind motor and provisions for manual rewind in the event of motor failure; the manual rewind handle will be securely stored near the hose reel. A pressure protected air supply from the chassis air system will be connected to the hose reel. The air supply lines will be routed with minimum bends and located or guarded from damage from the carried equipment.
- 3.12 Quality of Workmanship. The vehicle, including all parts and accessories, will befabricated in a thoroughly workmanlike manner. Particular attention will be given to freedom from blemishes, burrs, defects, and sharp edges; accuracy of dimensions, radii of fillets, and marking of parts and assemblies; thoroughness of welding, brazing, soldering, riveting, and painting; alignment of parts; tightness of fasteners; et cetera. The vehicle will be thoroughly cleaned of all foreign matter.

4. REGULATORY REQUIREMENTS.

- 4.1 <u>Recoverable Materials</u>. The contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with Title 48: Federal Acquisition RegulationsSystem, Part 2823—Environment, Conservation, Occupational Safety, and Drug-free Workplace, Subpart 2823.4 Use of Recovered Material, 403 Policy and 404 Procedures.
- 4.2 <u>Green Procurement Program</u>. Green Procurement Program (GPP) is a mandatory federal acquisition program that focuses on the purchase and use of environmentally preferable products and services. GPP requirements apply to all acquisitions using appropriated funds, including services and new requirements. FAR 23.404(b) applies and states the GPP requires 100% of EPA designated product purchase that are included in the Comprehensive Procurement Guidelines list that contains recovered materials, unless the item cannot be acquired:
 - a. competitively within a reasonable timeframe;
 - b. meet appropriate performance standards, or
 - c. at a reasonable price.

The prime contractor is responsible for ensuring that all subcontractors comply with this requirement. Information on the GPP can be found at: http://www.acquisition.gov/far/current/html/Subpart%2023_4.html.

PRODUCT CONFORMANCE PROVISIONS.

5.1 <u>Classification of inspections</u>. The inspection requirements specified herein are classified as follows:

- a. Performance inspection (see 5.2).
- b. Conformance inspection (see 5.3).
- 5.2 <u>Performance inspection</u>. The vehicle will be subjected to the examinations and tests described in 5.6.3.1 through 5.6.3.5 (if applicable). The contractor will provide or arrange for all test equipment, personnel, schedule, and facilities.
- 5.3 <u>Conformance inspection</u>. The vehicle will be subjected to the examinations and tests described in 5.6.3.1 through 5.6.3.5 (if applicable). The contractor will provide or arrange for all test equipment, personnel, and facilities.
- 5.4 <u>Product conformance</u>. The products provided will meet the performance characteristics of this PS, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and be the same product offered for sale in the commercial marketplace. The purchaser reserves the right to require proof of such conformance.
- 5.5 <u>Technical proposal</u>. The offeror/contractor will provide an itemized technical proposal that describes how the proposed model complies with each characteristic of this PS; a paragraph by paragraph response to the characteristics section of this PS will be provided. The offeror/contractor will provide two copies of their commercial descriptive catalogs with their offer as supporting reference to the itemized technical proposal. The offeror/contractor will identify all modifications made to their commercial model in order to comply with the requirements herein. The vehicle furnished will comply with the "commercial item" definition of FAR 2.101 as of the date of award. The purchaser reserves the right to require the offeror/contractor to prove that their product complies with the referenced commerciality requirements and each conformance/performance characteristics of this PS.

5.6 <u>Inspection requirements</u>.

- 5.6.1 <u>General inspection requirements</u>. Apparatus used in conjunction with the inspections specified herein will be laboratory precision type, calibrated at proper intervals to ensure laboratory accuracy.
- 5.6.2 <u>Test rejection criteria</u>. Throughout all tests specified herein, the vehicle will be closely observed for the following conditions, which will be cause for rejection:
 - a. Failure to conform to design or performance requirements specified herein or in the contractor's technical proposal.
 - b. Any spillage or leakage of any liquid, including fuel, coolant, lubricant, or hydraulic fluid, under any condition, except as allowed herein.
 - c. Structural failure of any component, including permanent deformation, or evidence of impending failure.
 - d. Evidence of excessive wear.
 - e. Interference between the vehicle components or between the vehicle, the ground, andall required obstacles, with the exception of normal contact by the tires.

- f. Misalignment of components.
- g. Evidence of undesirable roadability characteristics, including instability in handling during cornering, braking, and while traversing all required terrain.
- h. Conditions that present a safety hazard to personnel during operation, servicing, ormaintenance.
- i. Overheating of the engine, transmission, or any other vehicle component.
- j. Evidence of corrosion.
- k. Failure of the fire fighting system and sub-systems.

5.6.3 <u>Detailed inspection requirements</u>.

5.6.3.1 <u>Examination of product.</u> All component manufacturers' certifications, as well as the prototype and production/operational vehicle testing outlined in Table 1, will be examined to verify compliance with the requirements herein. Attention will be given to materials, workmanship, dimensions, surface finishes, protective coatings and sealants and their application, welding, fastening, and markings. Proper operation of vehicle functions will be verified as defined by NFPA 414, Acceptance Criteria chapter. A copy of the vehicle manufacturer's certifications will be provided with each vehicle in accordance with NFPA 414. The airport may accept a manufacturer or third party certification for any/all prototype and production/operational vehicle testing performed prior to delivery which proves that the vehicle meets the performance parameters of NFPA 414.

Table 1. Vehicle Test Data

NFPA 414	Test
paragraph	
Production Vehicle Operational Tests (NFPA 414 - Section 6.4)	
(6.4.1)	Vehicle Testing, Side Slope
(6.4.2)	Weight / Weight Distribution
(6.4.3)	Acceleration. NOTE: With the modification that the instrumentation must be a GPS-based electronic data collection system.
(6.4.4)	Top Speed
(6.4.5)	Brake Operational Test
(6.4.6)	Air System / Air Compressor Test
(6.4.7)	Agent Discharge Pumping Test
(6.4.8)	Dual Pumping System Test (As Applicable)
(6.4.9)	Pump and Maneuver Test
(6.4.10)	Hydrostatic Pressure Test
(6.4.11)	Foam Concentration Test
(6.4.12)	Primary Turret Flow Rate Test
(6.4.13)	Piercing/Penetration Nozzle Testing (As Applicable)
Prototype Vehicle Tests (NFPA 414 – Section 6.3)	
(6.3.1)	Rated Water and Foam Tank Capacity Test
(6.3.2)	Cornering Stability. NOTE: With the modification that the evasive maneuver / double-lane change test must be conducted at 35 mph (56 kph).

NFPA 414	Test
paragraph	
(6.3.3)	Vehicle Dimensions
(6.3.4)	Driver Vision Measurement
(6.3.5)	Pump and Roll on a 40 Percent Grade
(6.3.6)	Electrical Charging System
(6.3.7)	Radio Suppression
(6.3.8)	Gradability Test
(6.3.9)	Body and Chassis Flexibility Test
(6.3.10)	Service/Emergency Brake Test
(6.3.11)	Service/Emergency Brake Grade Holding Test
(6.3.12)	Steering Control Test
(6.3.13)	Vehicle Clearance Circle Test
(6.3.14)	Agent Pump(s)/Tank Vent Discharge Test
(6.3.15)	Water Tank Fill and Overflow Test
(6.3.16)	Flushing System Test
(6.3.17)	Primary Turret Flow Rate Test
(6.3.18)	Primary Turret Pattern Test
(6.3.19)	Primary Turret Control Force Measurement
(6.3.20)	Primary Turret Articulation Test
(6.3.21)	Handline Nozzle Flow Rate Test
(6.3.22)	Handline Nozzle Pattern Test
(6.3.23)	Ground Sweep/Bumper Turret Flow Rate Test
(6.3.24)	Ground Sweep/Bumper Turret Pattern Control Test
(6.3.25)	Undertruck Nozzle Test
(6.3.26)	Foam Concentration/Foam Quality Test
(6.3.27)	Warning Siren Test
(6.3.28)	Propellant Gas
(6.3.29)	Pressure Regulation
(6.3.30)	AFFF Premix Piping and Valves
(6.3.31)	Pressurized Agent Purging and Venting
(6.3.32)	Complementary Agent Handline Flow Rate and Range
(6.3.33)	Dry Chemical Turret Flow Rate and Range
(6.3.34)	Cab Interior Noise Test

6. PACKAGING.

- 6.1 Preservation, packing, and marking will be as specified in the Procurement Specification, contract or delivery order.
- 6.2 The vehicle must be delivered with full operational quantities of lubricants, brake and hydraulic fluids, and cooling system fluid all of which must be suitable for use in the temperature range expected at the airport.
- 6.3 The vehicle must be delivered with one complete load of firefighting agents and propellants. One complete load is defined as all of the agents and propellants necessary for the

vehicle to be fully operational. One load would include, at a minimum: one fill of a foam tank; one fill of a dry chemical tank (if applicable); one fill of a halogenated tank (if applicable); one spare nitrogen cylinder for a dry chemical system (if applicable); and one spare argon cylinderfor a halogenated system (if applicable). Agents and propellants for required testing or training are not included. For the initial training period, water should be used in place of other extinguishing agents. The manufacturer may pre-ship agents and propellants to a receiving airport to reduce overall procurement costs.

6.4. The vehicle manufacturer must provide initial adjustments to the vehicle for operational readiness and mount any ancillary appliances purchased through the vehicle manufacturer as part of the vehicle.

7. TRAINING.

- 7.1 Upon delivery of the vehicle to the airport, the manufacturer must, at no additional cost, provide the services of a qualified technician for five consecutive days (or up to 8 days for an high reach extendable turret) for training. This is considered sufficient time for the purchaser to adjust shift work schedules to get maximum employee attendance to training sessions at some point during the training period. During this time sufficient repetitive learning opportunities must be provided by the manufacturer to allow various shifts to complete the training requirements.
- 7.2 The technician must provide thorough instruction in the use, operation, maintenance and testing of the vehicle. This setup must include operator training for the primary operators, which will give them sufficient knowledge to train other personnel in the functional use of all firefighting and vehicle operating systems. Prior to leaving the vehicle, the technician should reviewthe maintenance instructions with the purchaser's personnel to acquaint them with maintenance procedures as well as how to obtain support service for the vehicle.
- 7.3 Training must include written operating instructions, electronic training aids (videos/power point), or other graphics that depict the step-by-step operation of the vehicle. Written instructions must include materials that can be used to train subsequent new operators.

8. REFERENCED DOCUMENTS.

8.1 Source of documents.

- 8.1.1 The CFR may be obtained from the Superintendent of Documents, U.S. GovernmentPrinting Office, Washington DC 20402.
 - Title 14, Code of Federal Regulations (CFR), Part 139, Certification of Airports (14 CFRPart 139)

 Section 139.315 Aircraft Rescue and Firefighting: Index Determination. Section
 139.317 Aircraft Rescue and Firefighting: Equipment and Agents. Section 139.319

 Aircraft Rescue and Firefighting: Operational Requirements.
 - Title 49; Code of Federal Regulations (CFR), Part 393: Parts and Accessories Necessaryfor Safe Operation: Subpart C—Brakes.
 - Title 49; Code of Federal Regulations (CFR), Part 571, Motor Carrier Vehicle SafetyStandards, Part 209, Standard No. 209; Seat Belt Assemblies
- 8.1.2 SAE documents may be obtained from SAE, Inc., 400 Commonwealth Drive, Warrendale PA 15096.

8.1.3 <u>National Fire Protection Association (NFPA)</u>: NFPA documents may be obtained from NFPA, Batterymarch Park, Quincy MA 02269-9101.

NFPA 412, Standard for Evaluating Aircraft Rescue and Fire-Fighting Foam Equipment(2009 Edition)

NFPA 414, Standard for Aircraft Rescue and Fire Fighting Vehicles (2007 Edition)NFPA 1901, Standard for Automotive Fire Apparatus (2009 Edition)

8.1.4 <u>Federal Aviation Administration (FAA)</u>: FAA ACs may be obtained from the FAA website: http://www.faa.gov/regulations policies/advisory circulars/

AC 150/5220-10, Guide Specification for Aircraft Rescue and Fire Fighting (ARFF)Vehicles AC 150/5210-5, Painting, Marking, and Lighting of Vehicles Used on an Airport

FAA Orders, Specifications, and Drawings may be obtained from: Federal Aviation Administration, ATO-W CM-NAS Documentation, Control Center, 800 Independence Avenue, SW, Washington, DC 20591. Telephone: (202) 548-5256, FAX: (202) 548-5501 and website: http://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/techops/atc_facilities/cm/cm_documentation/