ADDENDUM NO. 1

June 21, 2002

Notice to All Bidders:

The attention of Bidders submitting proposals for the 103rd Air Control Squadron project indicated above is called to the following Addendum to the Plans and Specifications. The revisions set forth herein, whether of omission, addition or substitution, are to be included in and form a part of the Proposal submitted.

The number of this Addendum must be entered in the space provided on the Bid Form.

Changes to the Specifications:

TABLE OF CONTENTS

A. Add the following section title in sequence: "16721 – FIRE ALARM REPORTING SYSTEM" and insert section provided herewith in the body of the specifications.

SECTION 05500 – METAL FABRICATIONS

A. Change Paragraph 1.02A.10 to read as follows:

Steel Stairs with Concrete-Filled Treads: Interior stairs shall have shop-applied prime coating. Exterior stairs and interior stairs at radar pad shall have shop-applied galvanized and primed coating.

B. In Paragraph 1.02A, insert at the end a new item as follows: "11. Extruded Aluminum Canopies."

C. Insert Item 3 at Paragraph 1.03A, as follows:

Structural Performance of Stairs: Provide metal stairs capable of withstanding the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:

a. Uniform Load: 100 lbf/sq. ft. (4.79 kN/sq. m).
b. Concentrated Load: 300 lbf (1.33 kN) applied on an area of 4 sq. in. (2580 sq. mm).
c. Uniform and concentrated loads need not be assumed to act concurrently.
d. Stair Framing: Capable of withstanding stresses resulting from railing loads in addition to loads specified above.
e. Limit deflection of treads, platforms, and framing members to L/240 or ¼ inch (6.4 mm), whichever is less.

D. In Paragraph 1.04 B.6, insert "and structural calculations" after the words "provide shop drawings."

E. Add Item f to Paragraph 2.02 J.2 as follows: "Stringers shall be as required for design loads, but no less than channels MC 12x10.6."

F. In Paragraph 2.02 J.6, insert "at the radar pad and shop-applied primed coating at all interior stairs" after the words "Shop-applied galvanized and primed coating."

G. Add the following to Paragraph 2.03 as Item M:

Extruded Aluminum Canopies:

1. General: Assembly to be engineered and fabricated from anodized aluminum extrusions with understructure consisting of heli-arc welded one-piece rigid bents and deck structure of interlocking anodized aluminum extrusions, capable of sustaining severe icing, hail, hurricane winds and being walked on. Submit full calculations for approval certified by a registered engineer in the State of Connecticut.

2. Deck Screws: Type 18-8 stainless steel sealed with neoprene O-ring beneath stainless steel head.

3. Trim Rivets: Aluminum or stainless steel.

4. Bents: Anodized aluminum beams and columns heli-arc welded into rigid, one-piece units with column ends pierced to key grout to bend for maximum uplift protection.

5. Canopy Deck:

   a. Extruded, self-flashing aluminum deck 6063 alloy heat-treated to T-6 temper, sections interlocking into composite unit, spanning double bays for superior loading, staked into camber sufficient to offset deadload deflection and to provide positive drainage over spans.

   b. Provide staking to consist of abrupt local deformation of deck-lock metal with each stake having shear value in excess of 350 lbs.

6. Internal Drainage: Direct water flow from deck to beams and columns to discharge out weepholes at ground level.

7. Finish: 204-R1, standard satin anodized.

8. Product: Dittmer Architectural Aluminum Model Ditt-Deck, Mapes Industries Inc. Model Canopies, Peachtree Protective Covers Model Extruded Aluminum Covers, Perfection Architectural Systems Inc. Model Architectural Canopies.

SECTION 04200 – UNIT MASONRY

A. In Paragraph 2.01.B.3.h., change "match Contracting Officer's sample" to "470-479 Belden Brick or approved equal."

B. In Paragraph 2.01.C.5., change "selected by Contracting Officer" to "Renaissance Masonry Unit White Laurier Stone – 75% brown, 25 dark brown, or approved equal."

C. In Paragraph 2.01.C.6, after Renaissance Masonry Units, insert "and Laurier Building Stone as supplied by Consolidated Brick and Building Supplies, Inc. (800) 582-3133."

SECTION 08710 – DOOR HARDWARE

A. Insert the attached text of Specification Section 08710 – Door Hardware prior to Door and Hardware Schedule.

SECTION 13915 – FIRE-SUPPRESSION PIPING

A. Insert the following in Part 2:

2.17 PREACTION CABINET

A. Manufacturers:

1. FireFlex Systems Inc.
2. Viking
3. Grinnell
4. Or approved equal

B. Description: Supply and install a preaction cabinet containing all hydraulic and electrical components required for the control of a preaction system. The cabinet shall include the following:

1. Sturdy 14 gauge steel cabinet.
2. Rustproof coating, inside and outside, fire red, oven-baked polyester powder on phosphate base.
3. NEMA 12 construction
4. Individual access doors for the hydraulic and electrical section and the emergency release.

5. Viking Deluge Valve model E-1, complete with trim, or approved equal.
6. Viking Par-3 control panel, with batteries, or approved equal.
7. Automatic air compressor of sufficient capacity to fill the system in the prescribed time.
8. Electrical junction box for connection of detection system, auxiliary contacts and air compressor.
9. Gauges to indicate water supply pressure, priming water pressure and air pressure of the system.
10. Schedule 40 steel pipe header to be connected to supply water.
11. Schedule 40 steel pipe header to be connected to the drain.

C. All cabinet components shall be compatible and be listed or approved for this use.

D. The cabinet shall be pre-assembled, pre-wired and tested, as a TotalPac System, by FireFlex Systems Inc., or approved equal.

E. Supply and install a complete electrical detection system including: system tubing, wiring, detectors and signaling devices compatible with the preaction cabinet and the fire alarm system.

F. The detectors and the audible devices (24 vdc bell and horn) shall be compatible with the release control panel. The ionic and photoelectric detectors shall be System Sensor Model 1451 and 2451, with base No. B401B and a maximum of 15 detectors per zone. The bell and horn shall be installed adjacent to the preaction cabinet.

SECTION 16050 – BASIC ELECTRICAL MATERIALS AND METHODS

A. Insert in Part 2, Paragraph 2.21 Transient Voltage Surge Suppressors, as follows:

A. Surge Suppressor:

1. SPD shall be listed in accordance with UL 1449, Second Edition, to include Section 37.3, highest fault current category. SPD shall be UL 1283-listed.

2. SPD shall provide surge current diversion paths for all modes of protection; L-N, L-G, N-G in wye systems, and L-L, L-G in delta systems.

3. SPD shall be modular in design. SPD for service entrance application shall provide two modules per phase for redundant protection.

4. Each mode including N-G shall be fused with a UL-recognized 200k AIC surge-rated fuse and incorporate a thermal cutout device.

5. Audible diagnostic monitoring shall be by way audible alarm. This alarm shall activate upon a fault condition. An alarm on/off switch shall be provided to silence the alarm. An alarm push to test switch shall be provided.

6. If a dedicated breaker for the SPD is not provided, the SPD shall include an integral UL-recognized disconnect switch.

7. SPD shall meet or exceed the following criteria:

   a. Minimum surge current capability (single pulse rated) per phase shall be:

      1) Service entrance applications: 240kA per phase
      2) Distribution applications: 160kA per phase

   b. UL 1449 Listed Suppression Voltage Ratings for service entrance shall not exceed the following:

VOLTAGE	L-N	L-G	N-G	MCOV
208Y/120V	330	330	330	150V
480Y/277V	700	700	600	320V

   (With 400V and 700V internal disconnect switch, respectively.)

   c. UL 1449-listed suppression voltage ratings for distribution shall not exceed the following:

VOLTAGE	L-N	L-G	N-G	MCOV
208Y/120V	330	330	330	150V
480Y/277V	600	600	600	320V

   (With 400V and 700V internal disconnect switch, respectively.)

8. SPD shall have a minimum EMI/RFI filtering of –50dB at 100kHz with an insertion ratio of 50:1 using MIL-STD-220A methodology.

9. SPD shall be provided with one set of NO/NC dry contacts.

10. SPD shall have a warranty for a period of five years, incorporating unlimited replacements of suppressor parts if they are destroyed by transients during the warranty period.

11. Approved Vendors: Advanced Protection Technologies, Inc., Square D, and LEA.

SECTION 16720 – FIRE ALARM SYSTEM

A. Revise Paragraph 1.01A to read:

This Section of the specifications includes the furnishing, installation, and connection of a new microprocessor-based conventional fire alarm system required to form a complete coordinated system ready for operation. It shall include, but not be limited to, fire alarm control, alarm initiating devices, alarm notification appliances, auxiliary control devices, power supplies, graphic annunciator and wiring as shown on the drawings and specified herein. The basis-of-design system is Notifier, Manaco or equal.

B. Delete subparagraph 1.01C.

C. Add the following to Paragraph 1.02: "D. Section 16721 – Fire Alarm Reporting System, Radio Type."

D. In Paragraph 1.07B, insert the following reference in sequence: "No. 268A Smoke Detectors for Duct Applications."

E. In Paragraph 1.07B, delete "No. 228 Door Closers-Holders for Fire Protective Signaling Systems."

F. Add the following to the end of Paragraph 2.01D: "The Control Panel shall be provided with a minimum of six (6) spare zones."

G. In Paragraph 2.02A, revise Item 4 to read:

Wiring for 24 volt control, alarm notification, emergency communication and similar power-limited auxiliary functions shall not be run in the same conduit as initiating and signaling line circuits. Alarm and supervisory wiring shall be installed in separate conduits. All circuits shall be provided with transient suppression devices and the system shall be designed to permit simultaneous operation of all circuits without interference or loss of signals.

H. In Paragraph 2.02A, change Item 6 from "RGS" to "EMT".

I. In Paragraph 2.02A, add Item 7 to read:

Wiring shall be THHN of TFFN stranded with crimp on terminal ends affixed. All terminal ends shall be clearly marked and numbered as to appropriate terminal and device. All wiring shall be color-coded and fully identified and standard throughout the facility. Use of multi-conductor twisted pair or similar wiring is not permitted. The use of wire nuts in the fire alarm system is prohibited.

J. In Paragraph 2.03, change the designations of subparagraphs "A" through "K" to "B" through "L" respectively and insert new subparagraph A as follows:

Programmable Electronic Sounders:

1. Shall operate on 24 VDC nominal.

2. Shall be field-programmable without the use of special tools to provide slow whoop, continuous, or interrupted tones with an output sound level of at least 90 dBA measured at 10 feet from the device.

3. Shall be flush or surface-mounted as required.

K. In Paragraph 2.03A, revise Item 4 to read: "Strobe lights shall be flush wall-mounted in new construction wherever possible."

L. In Paragraph 2.03B, revise Item 4 to read: "Audio/visual combination devices shall be flush wall- or ceiling-mounted in new construction wherever possible."

M. Revise Paragraph 2.03C to read as follows:

Duct Smoke Detectors: Duct smoke detectors shall be a 24 VDC type with visual alarm and power indicators, and a reset switch. Each detector shall have properly sized air-sampling tubes. Duct smoke detectors shall be furnished under Division 16, installed under Division 15 and fire alarm wired under this Section. Associated remote test indicating stations shall be furnished, installed and fire alarm wired under this Section.

N. In Paragraph 2.03F, revise Item 3 to read: "Manual stations shall be flush wall-mounted in new wall construction wherever possible."

O. Revise title of Paragraph 2.03G to read: "Photoelectric Smoke Detector with Thermal Sensor" and add the following to the end of Item 1: "The detectors shall be equipped with an integral 135 deg. F (57 deg. C) fixed-temperature heat sensor."

P. Revise Paragraph 2.03I to read as follows:

Remote Annunciator: Provide a remote graphic annunciator where shown. This annunciator shall be semi-flush mounted and depict the architectural layout of the building showing corridors, stairwells and egress points, with red LED indicators of alarm on a per zone basis. The annunciator shall be reviewed and approved by the Contracting Officer and Fire Department prior to fabrication. Graphic annunciator shall incorporate a remote LCD Annunciator that provides an 80-character LCD display with message scrolling buttons, key-enabled common control switches for Acknowledge, Alarm Silence, Panel Silence, and Reset.

Q. Delete Paragraph 2.03J.

R. In Paragraph 2.03K, add new Item 3 as follows: "Batteries shall be of the sealed gel-cell maintenance-free type. Batteries shall be located upright, in the fire alarm control panel and not in a separate cabinet."

S. In Paragraph 3.03A, delete paragraphs 5, 6 and 7.

T. In Paragraph 3.03A, delete the word "intelligent" from Item 11.

U. In Paragraph 3.03A, delete the word "existing" from Item 12.

SECTION 16800 – SECURITY SYSTEMS

A. In Paragraph 1.01C, revise the last sentence to read: "Security system <u>shall be provided by Team AVS</u> or approved equal."

B. On Page 57, change the title of PART 3 to "ACCESS CONTROL SYSTEM."

C. In Paragraph 3.27, add new Item F, to read as follows: "Power Supply Unit – The power supply unit for door hardware and motion detectors shall be AlarmSaf Model # PS5 or approved equal. Power supply units shall be sized for voltages and power requirements as required for the specific devices."

D. In Paragraph 3.27, add new Item G, to read as follows: "Motion Detectors: Motion detectors shall be passive infrared type and shall meet the general requirements of the types listed.

1. Type "A" and "D" – Pulnix Model #PA-6810E or approved equal.
2. Type "B" – Pulnix Model #PA-470L or approved equal.
3. Type "C" – Pulnix Model #PA-450 or approved equal."

E. Delete Paragraphs 4.01C and 4.01D.

F. In Paragraph 4.01B, change "Guard Shack" to "Reception Desk."

<u>Changes to the Drawings:</u>

Drawing G002 – Abbreviations, Drawing List and Typical Symbols

A. Change "Protection" to "Suppression" in the titled of F101, F102 and F103.

B. Change the title of Drawing E002 to "Electrical Site – Demolition Plan."

C. Insert in sequence Drawing E004 "Telecommunications Single-Line Diagram" provided herewith.

Drawing C-6 – Utility Plan

A. Replace original Drawing C-6 with revised version issued herewith.

Drawing S001 – General Notes and Typical Details

A. In Article II, Design, Change Note 1 to read: "Design Floor and Stair Live Load."

B. In Article II, Design, correct spelling of Note 4, last line, first word, to read: "Equivalent."

C. In Article V, Concrete, change Note 2 to Read: "Unless otherwise indicated, all concrete shall be normal weight and shall have a 28-day compressive strength of 4,000 psi. Concrete fill on steel deck and stair pans shall contain 3/8" max. aggregate."

Drawing S002 – Typical Details

A. At "Typical Beam Pocket in New Masonry Wall" detail, change the bearing plate thickness from ½" to 1".

Drawing S101 – Lower Level/Foundation Plan

A. Insert a new grid line H.6 located 21'-10" to the west of line H and add a column and footing type F1 at grid line H.6/8.

B. Add a note to the four canopy columns and the new column at H.6/8: "See Section 8/S404 for Base Plate (Typical of 5)."

C. In the first line of the "Note" at the lower right corner of the sheet, change the eighth word to "are."

D. In the Column Footing Schedule, change the size of footing F2 to read 8'-0" x 8'-0" x 24" and its reinforcement to 6-#8 each way.

Drawing S201 – Upper Level Framing and Foundation Plan

A. Change the size of the beams along line 3 between lines H and G and the beam immediately to the south from W24x68 to W27x94 (66).

B. Change the sizes of the two beams immediately to the south of line 4 between lines H and G from W24x68 to W27x84 (66).

C. Change the size of the W18x35 beam located 8'-9" to the north of line 8 to W18x40 (36).

D. Change the size of the W24x55 girders located along line H from lines 3 to 4 and from lines 4 to 5 to W24x68 (25).

E. Change the number of shear connectors at the W24x55 beam located along line 8 between lines H and H.6 from 12 to 18. Delete the notation "shear wall" at this beam.

F. Change the size of the W24x68 beams located along lines 9, 10, 11, 12, 13, and 14 between lines H to G to W27x84 (66).

G. Add a column at grid line H.6.

H. Add a 3x3x1/4 steel angle diagonal brace at the canopy column along line H.6 located 12'-2" northward of line 8, similar to those shown along line J.

I. Change the section key shown near grid line H.6 from 5/S403 to 12/S401 and reverse the direction of the section key.

J. Delete the W14x30 beam located along line 7 from lines H to H.6, and extend the bolted angle to line H.

K. Add the following note to the end of the W24x55 beam bearing on CMU at grid line H/15: "Bearing Plate 1-1/8" x 8" x 12"."

Drawing S202 – Attic Framing Plan

A. Insert top-of-steel elevations for all wide-flange beams parallel to open-web joists to be the same as the joists' (el. 258'-3").

B. Delete open-web joists next to wall line 7, west of line H, and next to the wall along line 8, east and west of line H, and replace them with wall-mounted angles per Section 12/S401.

C. Add a short W8x10 beam between the two CMU walls at line 8.

D. Change the last word of the first line in the note located next to column line H/1 from "there" to "their".

E. Delete section mark 3/S402 located next to column line J/4.

F. Change the size of the beam at line 7 between lines G and H from W18x35 to W24x68. This beam's length of bearing on CMU shall be 12" on a 12" x 8" x 1" bearing plate.

G. Change the size of the beam at line 3 between lines G and H from W18x35 (44) to W21x44 (without shear studs or camber).

H. Change the notes at the top right-hand corner of the sheet as follows:

- In note 3, change the deck gage from 20 to 18.
- In notes 8 and 9, add "at lines G to J, U.N.O."

I. Change the amount of camber for the beam at line 5 between lines G and H from 0.8" to 0.5".

Drawing S203 – Roof Framing Plan

A. Delete section mark 10/S401 next to column A'/6.

B. Add section mark 12/S402 (sim.) at gables along line J.

C. At grid lines H/8 and near G.7/7, show the end of the beam bearing on top of the column or post.

D. Add a notation "coped" at W24x62 beam along line 7 and W24x55 along line 8.

E. Show a new column at H.6/8 (in line with HSS 12x8 beams).

F. Show 3x3x1/4 steel angle diagonal braces at canopy columns along line H.6, similar to those shown on Drawing S201 along line J.

G. Delete dimension mark 1'-4" at grid line J-8.

H. Change size of the post located at line 7 from HSS 3x3x1/4 to HSS 4x4x5/16 and show diagonal braces of 3x3x1/4 steel angles extending from the top of the post to the two adjacent beams to the south.

Drawing S301 - Column Schedule

A. Add an HSS 8x8x5/16 column H.6/8, extending from El. 229.08 to below the attic level. Indicate that the column is to receive welded shear studs at two sides; refer to Detail 8/S404 for its base plate, anchored by four ¾" anchor rods with 1'-6" embedment.

B. Delete the "Lower Level Steel" notation and change the upper level T.O.C. from El. 243.33 to El. 243.00. Change the notation "Upper Level Steel" to read "Attic Joists, T.O.S. El. 258.25."

C. Change sizes of all columns marked HSS 8x8x3/8 to HSS 8x8x1/2.

Drawing S404 – Sections and Details – Sheet 4

A. Change Sections 7 and 8 to indicate that shear studs are spaced 16" o.c. and note that there are 4, rather than 3, anchor rods at Section 8.

Drawing P001 – Plumbing – Legend and Schedules

A. Add to the Drain Schedule: "OED, Open-End Drain, manufactured by Jay R. Smith Mfg. or approved equal, Model #3821T, epoxy-coated cast iron, with 2646Y no-hub adapter; provide in mechanical room to receive discharge from main sprinkler drain. Install per Detail 12/P104."

B. Add to ES-1 Emergency Shower Unit in the Plumbing Fixture Schedule: "In addition to the Remote Alarm Flow Switch specified, provide each shower unit with a local flow switch activated alarm with flashing light, Model #02101000 as manufactured by Encon Safety Products, or approved equal."

Drawing P103 – Plumbing – Kitchen Plans and Schedules

A. In the Plumbing Equipment Schedule, for the Exterior Grease Interceptor, change Model No. "OGC-1000" to Model No. "OGC-3000" and change "1,000 gallon" to "3,000 gallon."

Drawing P105 – Building 18 Mobility Warehouse – Warehouse Addition Floor Plan

A. In Toilet Room W01, change electric point-of-use water heater designation from "EWH-2" to "EWH-1" and add the following note: "EWH-1 shall be an 8 KW, 208 volt, point-of-use electric water heater, Model No. E-80-FLLP as manufactured by Chronomite or

approved equal. The water heater shall be factory-preset to deliver a maximum 110° F water to the fixtures."

Drawing F101 – Fire Suppression – Lower Level Plan

A. This drawing is being reissued with a registered Fire Protection Engineer's stamp affixed and with the following changes included:

1. Hydrant Flow Test Data are now indicated. As recorded by the South Central Connecticut Regional Water Authority, a hydrant flow test was performed on 12/11/2000 on the 20" water main at the corner of Boston Post Road and Dogburn Street. The following results were recorded:

   Static Pressure: 72 psi
   Residual Pressure: 68 psi
   Residual Flow: 2045 gpm

   Refer to the Civil Drawings to determine the distance/location of the hydrant flow test from the proposed building site. For Bid purposes, the Fire Protection Contractor shall calculate a new estimated pressure and flow rate to be available through the new water mains for the proposed building. The Fire Protection Contractor shall perform a new hydrant flow test after the new hydrants and water mains are installed on the site and contractor shall hydraulically calculate and size all system piping based on that new hydrant flow test.

2. For clarification, Room Numbers have been added to the suppression system design criteria table.

3. The preaction valve supply fed from the Corridor 102 sprinkler (SP) main has been deleted and replaced by two preaction valve supply mains fed from the 4" fire main in Corridor 102 before the floor control valve assembly (FCVA) located in Stair A.

Drawing F102 – Fire Suppression – Upper Level Plan

A. This drawing is being reissued with a registered Fire Protection Engineer's stamp affixed and with the following changes included:

1. The preaction valve supply being fed from the Corridor 205 sprinkler (SP) main has been deleted and replaced by a preaction valve supply main rising up from the floor below adjacent to the preaction valve cabinet in LGKG Room 208.

Drawing F103 – Fire Suppression Details

A. This drawing is being reissued with a registered Fire Protection Engineer's stamp affixed and with the following changes included:

1. The following note has been added to Detail 4 – Inspectors Test Connection: "The Fire Protection Contractor shall provide an inspectors test connection at the most remote point of each sprinkler zone."

Drawings E001 through E602 (20 sheets)

A. All electrical drawings are being reissued as part of Addendum No. 1 with changes from the original set highlighted by "clouds."

End of Addendum No. 1