



Issue Date: September 14, 2026

ATTN: Vendors

RE: **Project Name:** BAAF 47431 Hangar 4 Roof and Envelope Project
 Project Number: 02A7026004
 Project Location: JBER, Alaska

Addendum # Nine
(9)

*******Mandatory Return Addendum*******

This addendum forms a part of the contract documents and modifies the original drawings and/or specifications for the subject work. In case of conflicts between this addendum and previously issued documents, this addendum shall take precedence.

Please see the following Questions and Answers:

1. Q: In order to supply the correct door assemblies, we will need to know the PSI/MSEC value (pounds per square inch / millisecond)?

A: There are no blast rating requirements for the windows/doors on Hangars 1, 4 and 6. Due to the location on the installation, they fall within the stand off rules for a controlled perimeter (installation fence) and thus do not have specific blast rating requirements.

The windows should follow standard commercial glazing requirements as outlined in UFC 4-010-01 Section B-3.1.1 & Table B-3 (Pages B-11 – B-13).

When using the table and UFC for thickness calculations, the Applicable Explosive weight is I, and the applicable level of protection is Low.

2. Q: **Bid Alternate 1 windows.** The alternate replaces all windows and Addendum No. 3 directs bidders to the UFC for window specifications. Neither states whether the units arrive factory-finished or whether the new frames are field painted, and the base bid separately requires exterior painting. We are asking which, and whether that cost sits in the alternate or the base bid.

A: There are no blast rating requirements for the windows/doors on Hangars 1, 4 and 6. Due to the location on the installation, they fall within the stand off rules for a controlled perimeter (installation fence) and thus do not have specific blast rating requirements.

The windows should follow standard commercial glazing requirements as outlined in UFC 4-010-01 Section B-3.1.1 & Table B-3 (Pages B-11 – B-13).

When using the table and UFC for thickness calculations, the Applicable Explosive weight is I, and the applicable level of protection is Low.

3. Q: **Bid Alternate 2, leaves or leaves and frames.** The alternate replaces all doors with hardware matching existing. Addendum No. 3 confirmed the alternate covers swinging man doors only and that the man doors within the hangar door remain in place, but no document states whether the existing frames are replaced. That distinction changes the hollow metal package, the blast basis at the opening, and whether new frames require finishing.

A: There are no blast rating requirements for the windows/doors on Hangars 1, 4 and 6. Due to the location on the installation, they fall within the stand off rules for a controlled perimeter (installation fence) and thus do not have specific blast rating requirements.

The windows should follow standard commercial glazing requirements as outlined in UFC 4-010-01 Section B-3.1.1 & Table B-3 (Pages B-11 – B-13).

When using the table and UFC for thickness calculations, the Applicable Explosive weight is I, and the applicable level of protection is Low.

4. Q: **Blast design parameters.** A blast-rated door and window manufacturer requires standoff distance and explosive weight to produce a quotation; it supplies the other two inputs as standard values. Addendum No. 6 Questions 1 and 2 asked for exactly those two values and both were answered "UFC 4-010-01 contains all information regarding standards." We have reviewed that edition. Standoff distance and applicable explosive weight are facility- and site-specific values established by the Government for a given project and are not values a bidder can read out of the UFC. The item is written as a three-way election so the Department can confirm conventional construction, state the values, or state what all bidders are to assume.

A: There are no blast rating requirements for the windows/doors on Hangars 1, 4 and 6. Due to the location on the installation, they fall within the stand off rules for a controlled perimeter (installation fence) and thus do not have specific blast rating requirements.

The windows should follow standard commercial glazing requirements as outlined in UFC 4-010-01 Section B-3.1.1 & Table B-3 (Pages B-11 – B-13).

When using the table and UFC for thickness calculations, the Applicable Explosive weight is I, and the applicable level of protection is Low.

Table B-3. Laminated Glass Thickness Selection for Insulating Glass Unit (IGU) Windows

Applicable Level of Protection	Applicable Explosive Weight	Nominal Laminated Glass Thickness w/ PVB Interlayer Requirements ⁽¹⁾			
		At Conventional Construction Standoff Distance ⁽²⁾		Between Conventional Construction and Minimum Standoff Distances ⁽²⁾	
		Glass Thickness ⁽³⁾	Minimum Interlayer Thickness ⁽⁴⁾	Glass Thickness ⁽³⁾	Interlayer Thickness ⁽⁴⁾
Low	I	6mm (1/4")	0.75mm (0.030")	6mm (1/4")	1.50mm (0.060")
	II				
Very Low	I	F2248 ₄₅ /E130 ⁽⁵⁾	0.75mm (0.030")	Refer to DoD Security Engineering Facilities Design Manual	
	II	6mm (1/4")	0.75mm (0.030")	Not Applicable ⁽⁶⁾	

5. Q: The ITB lists a requirement to paint the decking per UFC 3-110-03. Upon our review of the UFC, it appears that this requirement is connected to the use of phenolic foam and its corrosive action when wet. It seems unlikely that there has been phenolic foam installed on this roof. Can you please verify if phenolic foam has been installed on this roof? If it has not been installed, can this requirement be removed?

A: At this time it is unknown if foam was used in the construction of this roof. UFC 3-11-03 Published July 2, 2026 and changed July 17, 2026 Has the latest information regarding requirements.

MARCH 3, 2026

Change Summary for UFC 3-110-03 Roofing

High-Level Overview

The old file, "UFC 3-110-03_2012_c5_CURRENT.pdf," contains 127 pages, while the new file, "UFC 3-110-03_Roofing_REFORM.pdf," contains 33 pages. The document underwent a significant rewrite and condensation, evidenced by the reduction in page count and a total of 290 tracked changes, primarily consisting of text replacements and deletions.

Deleted Chapters and Appendices

- Chapter 7, "ROOF SYSTEMS OPERATIONS AND MAINTENANCE"
- Appendix C, "GLOSSARY, ACRONYMS AND ABBREVIATIONS"
- Appendix D, "WARRANTIES"
- Appendix E, "QUALITY ASSURANCE CONSIDERATIONS"
- Appendix F, "OTHER RESOURCES"
- Appendix G, "DECISION CRITERIA FOR INSTALLATION OF VEGETATIVE GREEN ROOFS AT CONUS INSTALLATIONS BASED ON COST"

Deleted and Modified Tables & Figures

Deleted Items:

The following tables and figures were deleted from the document:

- FIGURE B-1. COMMON METAL ROOF PANEL PROFILES AND CLIPS
- FIGURE B-2. BULB SEAM ZIP RIB
- FIGURE G-1. TYPICAL GREEN ROOF COMPONENTS
- FIGURE G-2. GREEN ROOF INSTALLATION DECISION TREE
- TABLE 2-1. LOW-SLOPE ROOFING CONSTRUCTION DETAIL LIMITATIONS
- TABLE 3-1. STEEP-SLOPE ROOFING CONSTRUCTION DETAIL LIMITATIONS
- TABLE 5-1. HYDROKINETIC METAL ROOFING CONSTRUCTION DETAIL LIMITATIONS

Renumbered Items:

- The old "TABLE 1-1. RELATIONSHIP WITH NRCA MANUAL" was renumbered to "Table 2-1" in the new document.
- The old "TABLE 6-1. ALLOWABLE RECOVER OVER EXISTING ROOFING" was renumbered to "Table 7-1" and its content was significantly modified.

Detailed Change Matrix

Section/Context	Change Type	Summary of Change
Title Page	MODIFICATION	The title was changed from "UFC 3-110-03 1 May 2012 Change 5, 12 June 2020" to "UFC 3-110-03 10 June 2025 DRAFT" and marked "PRE-DECISIONAL; NOT FOR PUBLIC RELEASE".
Record of Changes	DELETION	The detailed "Record of Changes" table summarizing changes 1 through 5 was deleted.
Foreword	DELETION	The "NEW DOCUMENT SUMMARY SHEET" was deleted.

Section/Context	Change Type	Summary of Change
Foreword	MODIFICATION	The list of authorizing signatories was updated.
1-1 PURPOSE AND SCOPE	MODIFICATION	Section was retitled to "1-1 REISSUES AND CANCELS" and content was updated to state "This UFC replaces and cancels UFC 3-110-03, Roofing, dated 1 May 2012, with Changes 1 through 5."
1-3 APPLICABILITY	MODIFICATION	Section rewritten to state it "follows the same applicability as UFC 1-200-01, APPLICABILITY except for family housing requirements that may differ."
1-5 CYBERSECURITY	ADDITION	A new section on Cybersecurity was added, requiring facility-related control systems to be planned and designed in accordance with UFC 4-010-06.
Chapter 2 (Old TOC)	DELETION	The Table of Contents for Chapter 2 was heavily revised, deleting specific subsections on various membrane types (BUR, EPDM, etc.).
2-1 SYSTEM DESIGN	MODIFICATION	The introductory text was simplified, and "TABLE 1-1" was replaced with "Table 2-1".
2-2.1 LCCA	ADDITION	A new requirement for Life Cycle Cost Assessments (LCCA) for building envelope systems was added.
2-3.5 Fall Hazards	MODIFICATION	The section was rewritten to reference Army EM 385-1-1 and specific standards for the Air Force (IBC 1015.7, ANSI/ASSP Z359, etc.).
2-3.6 Vegetative Roofing Systems	DELETION	The entire section providing guidance on vegetative roofing systems was deleted.
2-3.9 Photovoltaic Systems	MODIFICATION	The section was rewritten with new, specific design requirements, such as requiring "not less than 6" clearance between the roof surface and the PV support structure."
2-3.11 Warranty Requirements	MODIFICATION	Warranty requirements were updated, now specifying a "minimum duration of 20 years."
3-2.1 Positive Drainage	MODIFICATION	The rule on retrofit drains was changed from "not permitted" to "discouraged" and may be used with Government approval.
3-2.5 Hail	MODIFICATION	The reference for hail resistance design was updated from "IBC-2009 Paragraph 1504.7" to "IBC- Paragraph 1504.8".

Section/Context	Change Type	Summary of Change
3-3.2 Deck Types	ADDITION	Prohibitions were added for several roof deck types: Lightweight Insulating Concrete, Poured Gypsum, Precast Gypsum, and Thermosetting Fills.
3-4.2.4 Phenolic Foam Board	MODIFICATION	The use of phenolic foam board is now explicitly "prohibited in new construction," and any found in existing assemblies "must be removed."
3-5.1.1 Paper-faced Gypsum	ADDITION	A new prohibition was added: "The use of paper-faced gypsum board as a cover board is prohibited."
Low-Slope Details	ADDITION	A new prohibition was added: "Do not use pitch (or pourable sealer) pans."
4-5 TILE ROOFING	ADDITION	A new requirement was added: "Use tile for reroofing projects to match existing when required on projects included on the National Register of Historic Places."
4-7 OTHER STEEP-SLOPE ROOFING	ADDITION	A new prohibition was added: "Do not use wood roofing materials."
4-8 Construction Details	DELETION	A detailed limitations table (formerly Table 2-1/3-1) specifying actions for individual NRCA details was removed and replaced with summarized text guidance.
5-1.2 Sheet Metal Gauge	MODIFICATION	The minimum thickness for pre-finished aluminum flashing was changed from 0.050 in. to 0.032 in.
6-2.2.2 HVAC Equipment	ADDITION	A new section was added, stating that "Large and heavy roof-mounted HVAC equipment is prohibited on metal roof systems."
Table 7-1	MODIFICATION	The "Allowable Recover over Existing Roofing" table was significantly modified with new rules. For example, recovering over an existing Asphalt Shingle roof with new Asphalt Shingles now requires batten strips.
7-2 MREC	ADDITION	A new prohibition was added: "Acrylic MREC is prohibited."
7-6 SPF	ADDITION	A new requirement was added: "SPF is not allowed on DoD facilities where the facility has more than 10 years life expectancy."

Changes That May Need Review by Safety, AT/FP or Fire Protection

Section	Description of Change	Impacted Area(s)	Potential Impact
1-5 CYBERSECURITY	A new section was added requiring facility-related control systems to be planned and designed in accordance with UFC 4-010-06.	AT/FP, Fire Protection	The design and planning of control systems, which could include Fire Alarm Control Panels (FACP) or access control systems, are now governed by a new standard.
2-3.5 Fall Hazards	The section was rewritten to reference Army EM 385-1-1 and specific standards for the Air Force (IBC 1015.7, ANSI/ASSP Z359, etc.).	Safety	The governing standards and requirements for fall protection have been changed, which may alter design or procedural requirements for working at heights.
2-3.6 Vegetative Roofing Systems	The entire section providing guidance on vegetative roofing systems was deleted.	Fire Protection, Safety	All previous guidance related to the fire resistance, structural load, and drainage of vegetative roof systems has been removed from the document.
2-3.9 Photovoltaic Systems	The section was rewritten with new design requirements, including a minimum clearance of "not less than 6" between the roof surface and the PV support structure.	Safety, Fire Protection	New clearance and design requirements for rooftop PV systems may affect fire-fighting access, structural loads, and electrical safety protocols.
3-3.2 Deck Types	Prohibitions were added for several roof deck types: Lightweight Insulating Concrete, Poured Gypsum, Precast Gypsum, and Thermosetting Fills.	Safety, Fire Protection	The use of specific materials for roof decks is now prohibited, which may affect the structural integrity and fire-resistance rating of the roof assembly.
3-4.2.4 Phenolic Foam Board	The use of phenolic foam board is now explicitly "prohibited in new construction," and any found in existing assemblies "must be removed."	Fire Protection, Safety	A specific insulation material is now prohibited and must be removed if discovered, potentially due to its performance characteristics related to fire or material degradation.

Section	Description of Change	Impacted Area(s)	Potential Impact
3-5.1.1 Paper-faced Gypsum	A new prohibition was added: "The use of paper-faced gypsum board as a cover board is prohibited."	Fire Protection	A specific cover board material is now prohibited, which may affect the fire performance and moisture resistance of the roof assembly.
4-7 OTHER STEEP-SLOPE ROOFING	A new prohibition was added: "Do not use wood roofing materials."	Fire Protection	The use of wood roofing materials is now prohibited, which affects the fire-resistance characteristics of the building's exterior.
5-1.2 Sheet Metal Gauge	The minimum thickness for pre-finished aluminum flashing was changed from 0.050 in. to 0.032 in.	Safety	The required thickness for a building envelope component has been altered, which may have implications for the material's durability and resistance to deterioration.
6-2.2.2 HVAC Equipment	A new section was added, stating that "Large and heavy roof-mounted HVAC equipment is prohibited on metal roof systems."	Safety, AT/FP	A new prohibition on the location of heavy equipment may affect the structural load calculations for the roof and the bracing of overhead equipment.
7-2 MREC	A new prohibition was added: "Acrylic MREC is prohibited."	Safety	The use of a specific roof coating type is now prohibited, which may relate to the material's life-cycle durability or environmental characteristics.
7-6 SPF	A new requirement was added: "SPF is not allowed on DoD facilities where the facility has more than 10 years life expectancy."	Fire Protection, Safety	The use of Spray Polyurethane Foam (SPF) is now restricted based on the facility's life expectancy, which may impact decisions related to the material's fire properties and long-term structural integrity.

END

Contractor signature: _____

Print: _____

Company: _____

Email: _____

Please contact me if you have any questions.

Sincerely

Jim Manco

Building Management Specialist

907-428-7170

End of Addendum