AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT	1. CONTRACT ID CODE	PAGE OF PAGES 1 1

2. MODIFICATION NO.:	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	PROJECT NO. *(If applicable)*
0001	MAY 25, 2004	W81W3G-2035-7181	

6. ISSUED BY	CODE	CA31	7. ADMINISTERED BY:	CODE	E1P0100
Department of the Army Baltimore District, Corps of Engineers Contracting Division P.O. Box 1715 Baltimore MD 21203-1715			Contracting Division, Contracts Branch CENAB-CT-C 10 S. Howard ST. Room 7000 Baltimore, MD 21203-1715		

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State and ZIP Code)*	(x)	9A. AMENDMENT OF SOLICITATION NO.
	X	W912DR-04-S-0001
		9B. DATED *(SEE ITEM 11)* MAY 19, 2004
		10A. MODIFICATION OF CONTRACT/ ORDER NO.
		10B. DATED *(SEE ITEM 13)*

CODE	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers **is not extended**.

DATE OF RECEIPT OF PROPOSALS 4:00 PM, LOCAL TIME JUN 17, 2004

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:
(a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: *(Specify authority)* THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER No. ITEM 10A
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(such as changes in paying office, appropriation date, etc.)* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR43.103(b)
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: changes clause FAR 52.243.1
	D. OTHER *(Specify type of modification and authority)*

E. IMPORTANT: Contractor __ is not, __ is required to sign this document and return ____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organized by UCF section headings, including solicitation/contract subject matter where feasible.)*

RELOCATE ENVIRONMENTAL TESTING MISSION
ABERDEEN PROVING GROUND, MARYLAND

SPECIFICATIONS:

1) Project Table of Contents: Delete table of contents in its entirety as originally issued and substitute the attached revised table of contents, dated May 25, 2004

2) Sections 08800 and 09510: Immediately after these sections, insert the attached new Sections 08952 FIBERGLASS-SANDWICH-PANEL ASSEMBLIES and 09530 SPRAY-ON ACOUSTICAL TREATMENT, respectively.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect

15A. NAME AND TITLE OF SIGNER *(Type or print)*		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
15B. CONTRACTOR/OFFEROR _____ *(signature of person authorized to sign)*	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY _____ *(Signature of Contracting Officer)*	16C. DATE SIGNED

Project Table of Contents
Revised May 25, 2004

Division 16 - Electrical

-- End of Project Table of Contents --

SECTION 08952

FIBERGLASS-SANDWICH-PANEL ASSEMBLIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes assemblies incorporating fiberglass sandwich panels and aluminum frame systems as follows:

1. Wall assemblies.

B. Related Sections include the following:

1. Division 5 Section "Structural Steel" for steel framing that supports skin-system assemblies.
2. Division 7 Section "Building Insulation" for insulation materials field installed with assemblies.
3. Division 7 Section "Sheet Metal Flashing and Trim" for metal flashings installed at perimeters of assemblies.
4. Division 7 Section "Joint Sealants" for sealants installed at perimeters of assemblies.

1.3 PERFORMANCE REQUIREMENTS

A. Provide assemblies, including anchorage, capable of withstanding, without failure, the effects of the following:

1. Structural loads.
2. Thermal movements.
3. Movements of supporting structure.
4. Dimensional tolerances of building frame and other adjacent construction.

B. Failure includes the following:

1. Deflection exceeding specified limits.
2. Water leakage.
3. Thermal stresses transferred to building structure.
4. Noise or vibration created by wind and thermal and structural movements.
5. Loosening or weakening of fasteners, attachments, and other components.
6. Delamination of fiberglass-sandwich-panel faces from panel cores.

C. Structural Loads:

1. Wind Loads: As indicated by structural design data on Drawings.
2. Snow Loads: As indicated by structural design data on Drawings.
3. Seismic Loads: As indicated by earthquake design data on Drawings.
4. Load Combinations: Calculate according to the requirements of the International Building Code (IBC) 2000 Edition.

D. Deflection of Assemblies:

1. Vertical Assemblies: Limited to 1/45 of clear span for each assembly component.

E. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change (Range): 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

1.4 PERFORMANCE TESTING

A. Provide assemblies that comply with test-performance requirements indicated, as evidenced by reports of tests performed on manufacturer's standard assemblies by a qualified independent testing agency.

1. Engage a testing agency to perform preconstruction tests on laboratory mockups of assemblies.
2. Build laboratory mockups at testing agency facility using personnel, materials, and methods of construction that will be used at Project site.
3. Preconstruction Testing Sequence: Perform specified tests on laboratory mockups in the following order:

a. Structural-performance preloading (ASTM E 330).
b. Air infiltration (ASTM E 283).
c. Water penetration under static pressure (ASTM E 331).
d. Water penetration under dynamic pressure (AAMA 501.1).
e. Water penetration, wind-driven rain (ICBO ES AC07).
f. Structural performance at design load (ASTM E 330).
g. Structural performance at specified maximum test load (ASTM E 330).

B. Structural-Performance Test: ASTM E 330.

1. Performance at Design Load: When tested at positive and negative wind-load design pressures, assemblies do not evidence deflection exceeding specified limits.
2. Performance at Maximum Test Load: When tested at 150 percent of positive and negative wind-load design pressures, assemblies, including anchorage, do not evidence material failures,

structural distress, and permanent deformation of main supporting members exceeding 0.2 percent of span.
3. Test Durations: As required by design wind velocity but not less than 10 seconds.

C. Air-Infiltration Test: ASTM E 283.

1. Minimum Static-Air-Pressure Difference: 1.57 lbf/sq. ft. (75 Pa).
2. Maximum Air Leakage: 0.06 cfm/sq. ft. (0.30 L/s per sq. m).

D. Test for Water Penetration under Static Pressure: ASTM E 331.

1. Minimum Static-Air-Pressure Difference: 20 percent of positive wind-load design pressure, but not less than 10 lbf/sq. ft. (479 Pa).
2. Water Leakage: None.
3. Water Leakage: No uncontrolled water penetrating systems or appearing on systems' normally exposed interior surfaces from sources other than condensation. Water controlled by flashing and gutters that is drained to exterior and cannot damage adjacent materials or finishes is not considered water leakage.

1.5 SUBMITTALS

A. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for assemblies.

B. Shop Drawings: For assemblies. Include plans, elevations, sections, details, and attachments to other work.

C. Samples for Verification: For each type of exposed finish required, in manufacturer's standard sizes.

D. Fabrication Sample: Of each frame system intersection of assemblies, made from 12-inch (300-mm) lengths of full-size components and showing details of the following:

1. Joinery.
2. Anchorage.
3. Expansion provisions.
4. Fiberglass sandwich panels.
5. Flashing and drainage.

E. Field quality-control test reports.

F. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for assemblies.

G. Maintenance Data: For assemblies to include in maintenance manuals.

H. Warranties: Special warranties specified in this Section.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: Entity capable of assuming engineering responsibility, including preparation of Shop Drawings, and performing work of this Section and who is acceptable to manufacturer.

B. Manufacturer Qualifications: For fiberglass sandwich panels, a qualified manufacturer whose facilities, processes, and products are monitored by an independent, accredited quality-control agency for compliance with applicable requirements in ICBO ES AC04, "Sandwich Panels."

C. Product Options: Information on Drawings and in Specifications establishes requirements for assemblies' aesthetic effects and performance characteristics. Aesthetic effects are indicated by dimensions, arrangements, alignment, and profiles of components and assemblies as they relate to sightlines, to one another, and to adjoining construction. Performance characteristics are indicated by criteria subject to verification by one or more methods including testing conducted by an independent testing agency and in-service performance.

1. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If modifications are proposed, submit comprehensive explanatory data to Architect for review.

D. Welding: Qualify procedures and personnel according to AWS D1.2, "Structural Welding Code - Aluminum."

E. NFRC Certification: Provide fiberglass sandwich panels that are certified for U-factors indicated according to NFRC 100 and listed in its "National Fenestration Council Incorporated - Certified Products Directory."

F. Preinstallation Conference: Conduct conference at Project site to comply with requirements in Division 1 Section "Project Management and Coordination."

1.7 PROJECT CONDITIONS

A. Field Measurements: Indicate measurements on Shop Drawings.

1.8 WARRANTY

A. Special Assembly Warranty: Manufacturer's standard form in which manufacturer and Installer agree to repair or replace components of assemblies that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Structural failures including, but not limited to, excessive deflection.

b. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
c. Water leakage.

2. Warranty Period: Five years from date of Substantial Completion.

B. Special Fiberglass-Sandwich-Panel Warranty: Manufacturer's standard form in which manufacturer agrees to replace panels that exhibit defects in materials or workmanship.

1. Defects include, but are not limited to, the following:

a. Fiberbloom.
b. Delamination of coating, if any, from exterior face sheet.
c. Discoloration of exterior face sheet of more than 8.0 units Delta E when measured according ASTM D 2244.
d. Delamination of panel face sheets from panel cores.

2. Warranty Period: 10 years from date of Substantial Completion.

C. Special Aluminum-Finish Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components on which finishes fail within specified warranty period. Warranty does not include normal weathering.

1. Failures include, but are not limited to, checking, crazing, peeling, chalking, and fading of finishes.
2. Warranty Period: Ten years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

B. Basis-of-Design Product: The design for assemblies is based on Kalwall's 2 ¾" (70mm) Translucent Wall Systems. Subject to compliance with requirements, provide the named product or a comparable product by one of the following or an approved equal:

1. Kalwall Corporation.
2. Major Industries, Inc.
3. Skywall Translucent Systems; Vistawall Group (The).
4. Structures Unlimited, Inc.

2.2 ALUMINUM FRAME SYSTEMS

A. Aluminum: Alloy and temper recommended in writing by manufacturer for type of use and finish indicated.

1. Sheet and Plate: ASTM B 209 (ASTM B 209M).

2. Extruded Bars, Rods, Profiles, and Tubes: ASTM B 221 (ASTM B 221M).
3. Extruded Structural Pipe and Tubes: ASTM B 429.

B. Components: Manufacturer's standard extruded-aluminum members of thickness required and reinforced as required to support imposed loads.

C. Exposed Flashing and Closures: Manufacturer's standard aluminum components not less than 0.040 inch (1.016 mm).

D. Frame-System Gaskets: Manufacturer's standard.

E. Frame-System Sealants: As recommended in writing by manufacturer.

F. Anchors, Fasteners, and Accessories: Manufacturer's standard, corrosion-resistant, nonstaining, and nonbleeding; compatible with adjacent materials.

1. At closures, retaining caps, or battens, use ASTM A 193/A 193M, 300 series stainless-steel screws.
2. Where fasteners are subject to loosening or turning out from thermal and structural movements, wind loads, or vibration, use self-locking devices.
3. At movement joints, use slip-joint linings, spacers, and sleeves of material and type recommended in writing by manufacturer.

G. Frame System Fabrication:

1. Fabricate components before finishing.
2. Fabricate components that, when assembled, have the following characteristics:

a. Profiles that are sharp, straight, and free of defects or deformations.
b. Accurately fitted joints with ends coped or mitered.
c. Internal guttering systems or other means to drain water passing joints, condensation occurring within components, and moisture migrating within the assembly to exterior.

3. Fabricate sill closures with weep holes and for installation as continuous component.
4. Reinforce components as required to receive fastener threads.
5. Weld components in concealed locations to greatest extent possible to minimize distortion or discoloration of finish. Remove weld spatter and welding oxides from exposed surfaces by descaling or grinding.

2.3 FIBERGLASS SANDWICH PANELS

A. Panel Construction: Assembly of uniformly colored, translucent, thermoset, fiberglass-reinforced-polymer face sheets bonded to both sides of a grid core and complying with requirements applicable to panel materials in ICBO ES AC04, "Sandwich Panels."

1. Face-Sheet, Self-Ignition Temperature: 650 deg F (343 deg C) or more per ASTM D 1929.
2. Face-Sheet Burning Extent: 1 inch (25 mm) or less per ASTM D 635.
3. Face-Sheet, Smoke-Developed Index: 450 or less per ASTM E 84.
4. Interior Face-Sheet, Flame-Spread Index: Not more than 25 per ASTM E 84.

B. Panel Thickness: 2-3/4 inches (70 mm).

C. Panel U-Factor: Not more than 0.29 (1.65), measured in Btu/sq. ft. x h x deg F (W/sq. m x K) according to NFRC 100 or ASTM C 1363 using procedures described in ASTM C 1199 and ASTM E 1423.

D. Panel Strength Characteristics:

1. Maximum Panel Deflection: 3-1/2 inches (89 mm) when a 4-by-12-foot (1.2-by-3.6-m) panel is tested according to ASTM E 72 at 34 lbf/ sq. ft. (1.6 kPa), with a maximum 0.090-inch (2.3-mm) set deflection after 5 minutes.
2. Panel Support Strength: Capable of supporting, without failure, a 300-lbf (1334 N) concentrated load when applied to a 3-inch-(76-mm-) diameter disk according to ASTM E 661.

E. Grid Core: Mechanically interlocked extruded-aluminum I-beams, with a minimum flange width of 7/16 inch (11.1 mm).

1. Extruded Aluminum: ASTM B 221 (ASTM B 221M), in alloy and temper recommended in writing by manufacturer.
2. Grid Pattern: Inline rectangle, nominal 10 by 10 inches (305 by 610 mm).

F. Exterior Face Sheet:

1. Thickness: 0.070 inches (1.778 mm).
2. Color: White.
3. Color Stability: Not more than 3.0 units Delta E when measured according to ASTM D 2244 after outdoor weathering in southern Florida according to procedures in ASTM D 1435 with panels mounted facing south and as follows:
   a. Exposure Period: 60 months.
4. Erosion Protection: Manufacturer's standard.
5. Impact Resistance: No fracture or tear at impact of 60 ft. x lbf (81 J) by a 3-1/4-inch- (83-mm-) diameter, 5-lb (2.3-kg) free-falling ball according to test procedure in UL 972.

G. Interior Face Sheet:

1. Thickness: 0.045 inch (1.143 mm).
2. Color: White.

H. Fiberglass-Sandwich-Panel Adhesive: ASTM D 2559.

1. Compatible with facing and core materials.

2. Tensile and shear bond strength of aged adhesive ensures permanent adhesion of facings to cores, as evidenced by testing according to ASTM C 297 and ASTM D 1002 after accelerated aging procedures that comply with aging requirements for adhesives with high resistance to moisture in ICBO ES AC05, "Sandwich Panel Adhesives."

I. Panel Fabrication: Factory assemble and seal panels.

1. Laminate face sheets to grid core under a controlled process using heat and pressure to produce straight adhesive bonding lines that cover width of core members and that have sharp edges.

a. White spots indicating lack of bond at intersections of grid-core members are limited in number to 4 for every 40 sq. ft. (3.7 sq. m) of panel and limited in diameter to 3/64 inch (1.2 mm).

2. Fabricate with grid pattern that is symmetrical about centerlines of each panel.
3. Fabricate panel to allow condensation within panel to escape.
4. Reinforce panel corners.

2.4 ACCESSORY MATERIALS

A. Bituminous Paint: Cold-applied asphalt-mastic paint complying with SSPC-Paint 12 requirements except containing no asbestos, formulated for 30-mil (0.762-mm) thickness per coat.

2.5 ALUMINUM FINISHES

A. General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.

C. Class II, Clear Anodic Finish: AA-M12C22A31 (Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class II, clear coating 0.010 mm or thicker) complying with AAMA 611.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work.

1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. General:

1. Comply with manufacturer's written instructions.
2. Do not install damaged components.
3. Fit joints between aluminum components to produce hairline joints free of burrs and distortion.
4. Rigidly secure nonmovement joints.
5. Install anchors with separators and isolators to prevent metal corrosion and electrolytic deterioration and to prevent impeding movement of moving joints.
6. Weld aluminum components in concealed locations to minimize distortion or discoloration of finish. Protect glazing surfaces from welding.
7. Seal joints watertight, unless otherwise indicated.

B. Metal Protection: Where aluminum components will contact dissimilar materials, protect against galvanic action by painting contact surfaces with bituminous paint or by installing nonconductive spacers as recommended in writing by manufacturer for this purpose.

C. Install continuous aluminum sill closure with weatherproof expansion joints and locked and sealed or welded corners. Locate weep holes at rafters.

D. Install components to drain water passing joints, condensation occurring within aluminum members and panels, and moisture migrating within assembly to exterior.

E. Install components plumb and true in alignment with established lines and elevations.

F. Install insulation materials as specified in Division 7 Section "Building Insulation."

G. Erection Tolerances: Install assemblies to comply with the following maximum tolerances:

1. Alignment: Limit offset from true alignment to 1/32 inch (0.8 mm) where surfaces abut in line, edge to edge, at corners, or where a reveal or protruding element separates aligned surfaces by less than 3 inches (76 mm); otherwise, limit offset to 1/8 inch (3.2 mm).

2. Location and Plane: Limit variation from true location and plane to 1/8 inch in 12 feet (3.2 mm in 3.7 m); 1/2 inch (13 mm) over total length.

3.3 CLEANING

A. Clean panel system, both sides, after installation according to manufacturer's recommendations.

END OF SECTION 08952

SECTION 09530

SPRAY-ON ACOUSTICAL TREATMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

1. The work to be performed under this section shall include, but not limited to materials, equipment, labor, and services required to install the spayed cellulose fiber in accordance with these specifications and as indicated on the drawings.

1.3 QUALITY ASSURANCE

1. Manufacturer must be ISO 9002 Certified.

2. Manufacturer must subscribe to independent laboratory follow-up services of the Underwriters Laboratory and Factory Mutual. Each bag shall be labeled accordingly.

3. Applicator qualification: Must be licensed by manufacturer.

4. Contractor must use a total system, encompassing fiber and adhesive and tested in sprayed form by U.L. No substitution may be made.

5. Mock-up: A representative surface of not less than 50 square feet shall be sprayed and approved by the architect and / or owner prior to proceeding.

1.4 PERFORMANCE REQUIREMENTS

A. The product must meet or exceed the following specified requirement:

1. Sprayed material to meet all standards of performance according to ASTM C 1149-90 Type 1, self-supported spray applied cellulose thermal/acoustical insulation.

2. Tested by U.L. (UL 723, ASTM E 84).

   Frame spread 5

Smoke developed 0

3. ASTM C 523 Light reflectance of acoustical materials.

   Light Reflectivity / minimum 81

4. Minimum NRC Values per ASTM C 423 conducted by a NVLAP certified testing laboratory.

Inches	125HZ	250HZ	500 HZ	1000HZ	2000HZ	4000HZ	NRC
1.00	.10	.31	.88	1.19	1.29	1.53	.90

5. ASTM E 736 Field tested Cohesion/Adhesion of sprayed fire resistive materials; greater than 900 p.s.f.
6. ASTM E 761 Compressive strength is greater than 2900 p.s.f.

B. Comply with ASTM E-1042.

C. Non-corrosive per UMB-80.

D. Bond deflection per ASTM E-759: 6” Deflection in 10’ Span.

   -No spalling or delamination.

E. Cohesive Strength at time of application per Method WS-2000: >700 Grams

1.5 SUBMITTALS

A. Submit product data and manufacturer’s certificate that the product meets or exceeds specified requirements.

B. Manufacturer’s written certification that product contains no asbestos, fiberglass or other man-made mineral fibers.

C. A copy of manufacturer’s ISO 9002 Certification.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Materials shall be delivered in original, unopened containers bearing name of manufacturer, product identification, and reference to Underwriters Laboratory testing.

B. Store materials off ground, under cover, and away from damp surfaces and keep materials dry at all times.

C. Protect liquid adhesives from freezing.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. International Cellulose Corporation, Houston, Texas (800) 444-1252

2. ThermoCon, Monroe, LA (800) 854-1907

3. Manufacturer of a spray applied cellulose acoustical insulation that equals or exceeds the specified requirements and as approved by architect.

2.2 MATERIALS

A. The cellulose acoustical treatment should be manufactured from select grades of recycled paper stock carefully blended with additives to provide color stability and resistance to fire, corrosion, fungi and pests, giving an attractive noise reduction installation.

1. Complying to all applicable standards, this product should be produced under rigid quality controls based on ISO 9002.

B. Subject to compliance with requirements, provide one of the following products or an approved equal:
1. K-13 Spray-on-systems, manufactured by International Cellulose Co.
2. SonaSpray “fc” Acoustical Finish, manufactured by International Cellulose Co.
3. ThermoCon “TEX-CEIL” Acoustical Treatment, manufactured by ThermoCon .

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine surfaces and report unsatisfactory conditions in writing. Do not proceed until unsatisfactory conditions are corrected.

B. Surfaces to be sprayed shall be inspected prior to application to determine if cleaning/priming/sealing is required to insure bonding and/or prevent discoloration caused by substrate bleeding through. Prepare surface accordingly.

3.2 PREPARATION

A. Provide masking, drop cloths or other satisfactory coverings for materials/surfaces that are not to receive insulation to prevent damage from over-spray.

B. All surfaces must be free of dust, dirt, rust, oil, grease and scaling coatings. Porous surfaces such as concrete or plaster need to primed as required by manufacturer’s instructions.

C. Certain metal surfaces such as galvalume, must be cleaned with the appropriate cleaner or primed.

D. Any cleaning or priming shall be the responsibility of the installing contractor.

E. Coordinate installation of the sprayed cellulose fiber with the work of other trades.

3.3 RELATED WORK

1. All electrical, plumbing, and mechanical penetrations must be completed prior to application. Clips, hangers, supports, sleeves and other attachments to substrates are to be placed by other trades prior to application.

2. Ducts, piping, conduit and other equipment shall not be positioned until after application of sprayed insulation.

3.4 INSTALLATION

A. General: Installation, clean-up, and curing of sprayed applied insulation product shall be accomplished according to manufacturer's recommendations and common construction standards.

B. The acoustical treatment must be applied at temperature above 40° F (day and night) and must remain above 40° F for at least 72 hours after application to aid in the curing process. The temperature of the substrate must also remain above 40° F. The product cannot be applied if the above requirements cannot be met.

C. Thickness will be determined as the minimum thickness measured as per ASTM E-605 field test procedure.

1. The maximum recommended thickness is 1”.

D. The acoustical material shall be applied to an average thickness to achieve an NRC of 0.90 or greater.

E. Equipment, mixing and application shall be in accordance with manufacturer’s application instructions.

F. Provide natural or mechanical ventilation to properly cure the sprayed material.

G. Remove and dispose of over-spray.

3.5 CLEANING/PROTECTION

A. Clean all adjacent surfaces and restore all surfaces to pre-construction state.

B. Protect finished installation under provisions of Division 1.

END OF SECTION