

ADDENDUM NO. 1

PROJECT: ST. JOHN THE BAPTIST PARISH
GOVERNMENT COMPLEX

Date of Addendum: April 28, 2016

Mandatory Pre-Bid Date: April 29, 2016, 10:00 a.m.

Bid Date May 17, 2016, 2:45 p.m.

This Addendum shall be considered part of the Contract Documents for the same above mentioned project as though it had been issued at the same time and incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original Contract Documents, this Addendum shall govern and take precedence.

GENERAL

1. The location to the mandatory pre-bid has been changed to:

Operations Room of the Emergency Operations Center
1801 W. Airline Highway
LaPlace, LA 70068

The date and time remain the same: Friday, April 29, 2016 at 10:00 a.m.

SPECIFICATIONS

1. Section 07 5216 Styrene-Butadiene-Styrene (SBS) Modified Bituminous Membrane Roofing – Remove and replace with the attached.

ELECTRICAL – Creative Engineering Group

1. Reference Electrical Drawing Sheet E.9.0
 - a. Addition of Panel AC2. Refer to attached sketch ESK-1.

RFI's

Question: On Sheet S1.3, there are tubes called out as 12 x 4 and 10 x 5. What is the wall thickness of these tubes?

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Answer: HSS12x4x3/8 & HSS10x5x3/8

Question: On Sheet S1.2 between Column Line 1 and 2.5 and B and B.5 – What is the joist size?

Answer: 18K10

Question: One Sheet S1.2 between Column Line 1 and 2.5 and A and A.5 – What is the joist size?

Answer: 18K9 and similar for Column Lines 8-9 and A-B.1

**SECTION 07 5216 - STYRENE-BUTADIENE-STYRENE (SBS) MODIFIED
BITUMINOUS MEMBRANE ROOFING**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Styrene-butadiene-styrene (SBS) modified bituminous membrane roofing.
- B. Section includes the installation of insulation strips in ribs of acoustical roof deck. Insulation strips are furnished under Division 05 Section "Steel Decking."
- C. Related Sections:
 - 1. Division 07 Section "Thermal Insulation" for insulation beneath the roof deck.
 - 2. Division 07 Section "Joint Sealants" for joint sealants, joint fillers, and joint preparation.
 - 3. Division 15 Section "Storm Drainage Piping Specialties" for roof drains.

1.3 DEFINITIONS

- A. Roofing Terminology: See ASTM D 1079 and glossary of NRCA's "The NRCA Roofing and Waterproofing Manual" for definition of terms related to roofing work in this Section.

1.4 PERFORMANCE REQUIREMENTS

- A. General Performance: Installed membrane roofing and base flashings shall withstand specified uplift pressures, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Membrane roofing and base flashings shall remain watertight.
- B. Material Compatibility: Provide roofing materials that are compatible with one another under conditions of service and application required, as demonstrated by membrane roofing manufacturer based on testing and field experience.
- C. Roofing System Design: Provide membrane roofing system that is identical to systems that have been successfully tested by a qualified testing and inspecting agency to resist uplift pressure calculated according to ASCE/SEI 7.
 - 1. Corner Uplift Pressure: 123.4.
 - 2. Perimeter Uplift Pressure: 96.8.

3. Field-of-Roof Uplift Pressure: 75.5.

1.5 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: For roofing system. Include plans, elevations, sections, details, and attachments to other work.
 1. Base flashings and membrane terminations.
 2. Crickets, saddles, and tapered edge strips, including slopes.
 3. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.
- C. Warranties: Sample of special warranties.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A qualified manufacturer that is UL listed for membrane roofing system identical to that used for this Project.
- B. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by membrane roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.
- C. Source Limitations: Obtain components including for membrane roofing system from same manufacturer as membrane roofing or approved by membrane roofing manufacturer.
- D. Exterior Fire-Test Exposure: ASTM E 108, Class A; for application and roof slopes indicated, as determined by testing identical membrane roofing materials by a qualified testing agency. Materials shall be identified with appropriate markings of applicable testing agency.
- E. Fire-Resistance Ratings: Where indicated, provide fire-resistance-rated roof assemblies identical to those of assemblies tested for fire resistance per ASTM E 119 by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
- F. Preinstallation Roofing Conference: Conduct conference at Project site.
 1. Meet with Owner, Architect, Owner's insurer if applicable, testing and inspecting agency representative, roofing Installer, roofing system manufacturer's representative, deck Installer, and installers whose work interfaces with or affects roofing, including installers of roof accessories and roof-mounted equipment.
 2. Review methods and procedures related to roofing installation, including manufacturer's written instructions.
 3. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.

4. Examine deck substrate conditions and finishes for compliance with requirements, including flatness and fastening.
5. Review structural loading limitations of roof deck during and after roofing.
6. Review base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect roofing system.
7. Review governing regulations and requirements for insurance and certificates if applicable.
8. Review temporary protection requirements for roofing system during and after installation.
9. Review roof observation and repair procedures after roofing installation.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, approval or listing agency markings, and directions for storing and mixing with other components.
- B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.
 1. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.
- C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.
- D. Handle and store roofing materials and place equipment in a manner to avoid permanent deflection of deck.

1.8 PROJECT CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

1.9 WARRANTY

- A. Special Warranty: Manufacturer's standard or customized form, without monetary limitation, in which manufacturer agrees to repair or replace components of membrane roofing system that fail in materials or workmanship within specified warranty period.

1. Special warranty includes membrane roofing, base flashings, fasteners, lightweight insulation system (Section 07 2200), and other components of membrane roofing system.
2. Warranty Period: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SBS-MODIFIED ASPHALT-SHEET MATERIALS

- A. SBS-Modified Bituminous Membrane Roofing:
 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. GAF Materials Corporation.
 - b. Siplast, Inc.
 - c. Durbigum.
- B. Roofing Membrane Sheet: ASTM D 6164, Grade S, Type I or II, SBS-modified asphalt sheet (reinforced with polyester fabric) ASTM D 6163, Grade G, Type I or II (reinforced glass fiber); smooth surfaced; suitable for application method specified.
- C. Granule-Surface Roofing Membrane Cap Sheet: ASTM D 6164, Grade G, Type I or II, SBS-modified asphalt sheet (reinforced with polyester fabric) ASTM D 6163, Grade G, Type I or II, SBS-modified asphalt sheet (reinforced with glass fibers) ASTM D 6162, Grade G, Type I or II, SBS-modified asphalt sheet (reinforced with a combination of polyester fabric and glass fibers); granular surfaced; suitable for application method specified, and as follows:
 1. Granule Color: Gray.

2.2 BASE-SHEET MATERIALS

- A. Base Sheet: ASTM D 4601, Type II, SBS-modified, asphalt-impregnated and -coated sheet, with glass-fiber-reinforcing mat, dusted with fine mineral surfacing on both sides.
 1. Weight: 75 lb/100 sq. ft., minimum.

2.3 BASE-PLY SHEET MATERIALS

- A. Glass-Fiber Base-Ply Sheet: ASTM D 2178, Type IV, asphalt-impregnated, glass-fiber felt.

2.4 BASE FLASHING SHEET MATERIALS

- A. Backer Sheet: ASTM D 6164, Grade G, Type I or II, SBS-modified bitumen asphalt sheet (reinforced with polyester fabric) ASTM D 6163, Grade G, Type I or II, SBS-modified bitumen asphalt sheet (reinforced with glass fibers), self adhered application.

- B. Metal-Foil-Surfaced Flashing Sheet: ASTM D 6298, metal-foil surfaced SBS-modified asphalt sheet (reinforced with glass fibers); suitable for application method specified, and as follows:
 - 1. Foil Surfacing: Aluminum.

2.5 AUXILIARY ROOFING MEMBRANE MATERIALS

- A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with roofing membrane.
 - 1. Liquid-type auxiliary materials shall comply with VOC limits of authorities having jurisdiction.
- B. Asphalt Primer: ASTM D 41.
- C. Roofing Asphalt: ASTM D 312, Type III or IV as recommended by roofing system manufacturer for application.
- D. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required by roofing system manufacturer for application.
- E. Mastic Sealant: Polyisobutylene, plain or modified bitumen; nonhardening, nonmigrating, nonskinning, and nondrying.
- F. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening roofing membrane components to substrate; tested by manufacturer for required pullout strength, and acceptable to roofing system manufacturer.
- G. Metal Flashing Sheet: As specified in Division 07 Section "Sheet Metal Flashing and Trim."
- H. Roofing Granules: Ceramic-coated roofing granules, No. 11 screen size with 100 percent passing No. 8 sieve and 98 percent of mass retained on No. 40 sieve, color to match roofing membrane.
- I. Miscellaneous Accessories: Provide those recommended by roofing system manufacturer.

2.6 WALKWAYS

- A. Walkway Pads: Polymer-modified, reconstituted rubber pads with slip-resisting textured surface, manufactured as a traffic pad for foot traffic and acceptable to roofing system manufacturer, 3/4 inch thick, minimum.
 - 1. Pad Size: 2'x3'.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with the following requirements and other conditions affecting performance of roofing system:
1. Verify that roof openings and penetrations are in place and curbs are set and braced and that roof drain bodies are securely clamped in place.
 2. Verify that wood cants, blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.
 3. Verify that surface plane flatness and fastening of steel roof deck complies with requirements in Division 05 Section "Steel Decking."
 4. Verify that minimum concrete drying period recommended by roofing system manufacturer has passed.
 5. Verify that concrete substrate is visibly dry and free of moisture. Test for capillary moisture by plastic sheet method according to ASTM D 4263.
 - a. Test for moisture by pouring 1 pint of hot roofing asphalt on deck at start of each day's work and at start of each roof area or plane. Do not proceed with roofing work if test sample foams or can be easily and cleanly stripped after cooling.
 6. Verify that concrete-curing compounds that will impair adhesion of roofing components to roof deck have been removed.
 7. Verify that deck is securely fastened with no projecting fasteners and with no adjacent units in excess of 1/16 inch out of plane relative to adjoining deck.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation according to roofing system manufacturer's written instructions. Remove sharp projections.
- B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place or when rain is forecast.
- F. Substrate Preparation – Lightweight Insulating Concrete Surface: Prior to application of the modified bitumen base ply, thermally activate the surface treatment pellets embedded into the lightweight insulating concrete system. Apply direct torch heat to the lightweight insulating concrete surface using a hand torch or torch wagon. The surface treatment pellets will turn glossy black when exposed to torch heat and flow outward from the embedment depression. When the liquefied outflow of the pellets is approximately 1/4 inch in diameter, the surface is properly prepared. The surface treatment cannot be properly activated simultaneously with torch heat used to apply the base ply. Surface preparation must be accomplished as a separate step.

- C. Install insulation strips in ribs of acoustical roof decks according to acoustical roof deck manufacturer's written instructions.

3.3 ROOFING MEMBRANE INSTALLATION, GENERAL

- A. Install roofing membrane system according to roofing system manufacturer's written instructions and applicable recommendations in ARMA/NRCA's "Quality Control Guidelines for the Application of Polymer Modified Bitumen Roofing."
- B. Install roofing membrane system according to roofing system manufacturer's written instructions and applicable recommendations in ARMA/NRCA's "Quality Control Guidelines for the Application of Polymer Modified Bitumen Roofing" and as follows:
 - 1. Deck Type: N (nailable).
 - 2. Adhering Method: T (torched).
 - 3. Base Sheet: One.
 - 4. Number of Glass-Fiber Base-Ply Sheets: one.
 - 5. Number of SBS-Modified Asphalt Sheets: one.
 - 6. Surfacing Type: M (mineral-granule-surfaced cap sheet).
- C. Start installation of roofing membrane in presence of roofing system manufacturer's technical personnel.
- D. Where roof slope exceeds 1/2 inch per 12 inches, install roofing membrane sheets parallel with slope.
- E. Cooperate with testing agencies engaged or required to perform services for installing roofing system.
- F. Coordinate installation of roofing system so insulation and other components of the roofing membrane system not permanently exposed are not subjected to precipitation or left uncovered at the end of the workday or when rain is forecast.
 - 1. At end of each day's work, provide tie-offs to cover exposed roofing membrane sheets and insulation with a course of coated felt set in roofing cement or hot roofing asphalt, with joints and edges sealed.
 - 2. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system.
 - 3. Remove and discard temporary seals before beginning work on adjoining roofing.
- G. Substrate-Joint Penetrations: Prevent roofing asphalt and adhesives from penetrating substrate joints, entering building, or damaging roofing system components or adjacent building construction.

3.4 BASE-SHEET INSTALLATION

- A. Install lapped base-sheet course, extending sheet over and terminating beyond cants. Attach base sheet as follows:
 - 1. Mechanically fasten to substrate.

3.5 BASE-PLY SHEET INSTALLATION

- A. Install glass-fiber base-ply sheets according to roofing system manufacturer's written instructions starting at low point of roofing system. Align glass-fiber base-ply sheets without stretching. Extend sheets over and terminate beyond cants.
 - 1. Shingle side laps of glass-fiber base-ply sheets uniformly to ensure that required number of glass-fiber base-ply sheets covers substrate at any point. Shingle in direction to shed water.

3.6 SBS-MODIFIED BITUMINOUS MEMBRANE INSTALLATION

- A. Install modified bituminous roofing membrane sheet and cap sheet according to roofing manufacturer's written instructions, starting at low point of roofing system. Extend roofing membrane sheets over and terminate beyond cants, installing as follows:
 - 1. Torch apply to substrate.
 - 2. Unroll roofing membrane sheets and allow them to relax for minimum time period required by manufacturer.
- B. Laps: Accurately align roofing membrane sheets, without stretching, and maintain uniform side and end laps. Stagger end laps. Completely bond and seal laps, leaving no voids.
 - 1. Repair tears and voids in laps and lapped seams not completely sealed.
 - 2. Apply roofing granules to cover exuded bead at laps while bead is hot.
- C. Install roofing membrane sheets so side and end laps shed water.

3.7 FLASHING AND STRIPPING INSTALLATION

- A. Install base flashing over cant strips and other sloped and vertical surfaces, at roof edges, and at penetrations through roof; secure to substrates according to roofing system manufacturer's written instructions, and as follows:
 - 1. Prime substrates with asphalt primer if required by roofing system manufacturer.
 - 2. Backer Sheet Application: Adhere backer sheet to substrate in a solid mopping of hot roofing asphalt.
 - 3. Flashing Sheet Application: Torch apply flashing sheet to substrate.
- B. Extend base flashing up walls or parapets a minimum of 8 inches above roofing membrane and 4 inches onto field of roofing membrane.
- C. Mechanically fasten top of base flashing securely at terminations and perimeter of roofing.

- D. Install roofing membrane cap-sheet stripping where metal flanges and edgings are set on membrane roofing according to roofing system manufacturer's written instructions.
- E. Roof Drains: Set 30-by-30-inch- square metal flashing in bed of asphalt roofing cement on completed roofing membrane. Cover metal flashing with roofing membrane cap-sheet stripping and extend a minimum of 4 inches beyond edge of metal flashing onto field of roofing membrane. Clamp roofing membrane, metal flashing, and stripping into roof-drain clamping ring.
 - 1. Install stripping according to roofing system manufacturer's written instructions.

3.8 WALKWAY INSTALLATION

- A. Walkway Pads: Install walkway pads using units of size indicated or, if not indicated, of manufacturer's standard size according to walkway pad manufacturer's written instructions.
 - 1. Set walkway pads in cold-applied adhesive.
 - 2. Set walkway pads in additional pour coat of hot roofing asphalt after aggregate surfacing of modified bituminous roofing membrane.

END OF SECTION 07 5216

PANEL SCHEDULE

PANEL AC2
 LOCATION _____
 VOLTAGE 480/277, 3Ø, 4W, WYE
 208/120V, 3Ø, 4W, WYE
 240/120V, 3Ø, 4W, DELTA W/3Ø "STINGER"
 600 AMP FACTORY MAIN CIRCUIT BREAKER
 SHUNT TRIP MAIN CB
 MAIN LUGS ONLY
 UL LISTED FEED-THRU LUGS
 MAIN FUSIBLE SWITCH, FURNISH FUSES
 < 600A, CLASS RK5
 > 600A, CLASS L

NEUTRAL 100% 200%
 MOUNTING SURFACE FLUSH
 ENCLOSURE NEMA 1 NEMA 3R
 FEED LOCKABLE COVER
 BRANCHES TOP
 BOTTOM
 BOLT-ON, PANELBOARD CONSTR.
 STAB-IN, PANELBOARD CONSTR.
 FUSIBLE SWITCHES, FURNISH ALL
 FUSES, RK5

PANEL HAS FRONT ACCESS ONLY
 ALL COPPER BUSSING

FURNISH GROUND BAR KIT
 ALSO FURNISH ADDITIONAL ISOLATED GROUND BAR KIT
 SERVICE ENTRANCE LABEL
 PANEL NAME/PLATE, 2"x4" ENGRAVED LAMINATED PLASTIC
 USE 1/4" LETTERING FOR PANEL NAME, 1 LINE
 USE 1/8" LETTERING FOR VOLTS/AMPS, WHERE
 FED FROM, MO./YR. INSTALLED, 4 LINES

BLACK FIELD, WHITE LETTERS
 RED FIELD, WHITE LETTERS

AIC RATING: 35,000
 FULLY RATED
 SERIES RATED

CKT. NO.	# OF POLES	TRIP AMPS	LOAD DESCRIPTION	VOLT-AMPS			LOAD CODE	LOAD CODE	VOLT-AMPS			LOAD DESCRIPTION	TRIP AMPS	# OF POLES	CKT. NO.
				A	B	C			A	B	C				
1	3	110	RTU-3	26604	26604	26604	A	A	6000	3000	3000	VAV 4-4	30	1	2
3	-	-	-	26604	26604	26604	A	A	3000	3000	3000	VAV 4-6	20	1	4
5	-	-	-	15796	15796	15796	A	A	3000	3000	3000	VAV 4-7	20	1	6
7	3	70	RTU-4	15796	15796	15796	A	A	3000	5000	6000	VAV 4-9	20	1	8
9	-	-	-	15796	15796	15796	A	A	4000	4000	4000	VAV 4-3	30	1	10
11	-	-	-	15796	15796	15796	A	A	4000	3000	3000	VAV 4-1	20	1	12
13	3	70	RTU-5	15796	15796	15796	A	A	4000	3000	3000	VAV 4-5	20	1	14
15	-	-	-	15796	15796	15796	A	A	3000	3000	3000	VAV 4-8	20	1	16
17	-	-	-	2333	2333	2333	A	A	3000	3000	3000	VAV 4-10	20	1	18
19	3	20	VAV 4-2	2333	2333	2333	A	A	3000	3000	3000	VAV 5-2	20	1	20
21	-	-	-	3333	3333	3333	A	A	4000	4000	4000	VAV 5-4	20	1	22
23	-	-	-	3333	3333	3333	A	A	4000	4000	4000	VAV 5-3	20	1	24
25	3	20	VAV 5-1	3333	3333	3333	A	A	4000	4000	4000	VAV 5-6	20	1	26
27	-	-	-	8000	8000	8000	A	A	4000	4000	4000	VAV 5-5	20	1	28
29	-	-	-	8000	8000	8000	A	A	4000	4000	4000	VAV 5-7	20	1	30
31	3	40	WH-5	8000	8000	8000	M	M	2000	3000	4000	VAV 5-8	20	1	32
33	-	-	-	8000	8000	8000	M	M	4000	4000	4000	VAV 5-9	20	1	34
35	-	-	-	8000	8000	8000	M	M	4000	4000	4000	VAV 5-10	20	1	36
37	3	50	TVSS	0	0	0	M	M	SPARE	SPARE	SPARE	SPARE	20	1	38
39	-	-	-	0	0	0	M	M	SPARE	SPARE	SPARE	SPARE	20	1	40
41	-	-	-	0	0	0	M	M	SPARE	SPARE	SPARE	SPARE	30	1	42
TRIP AMPS = FUSE SIZE				71862	71862	71862			22000	21000	23000				
IF FUSIBLE SWITCHES				93862	92862	94862			93862	92862	94862				
REMARKS:				SUBTOTAL ODD SIDE			SUBTOTAL EVEN SIDE								
				TOTAL VA			TOTAL VA								
				281586			281586								

* A/C @ 125% & HEAT @ 125% LARGEST LOAD OF A/C OR HEAT IS USED IN CALCULATIONS EXCEPT IN THE CASE OF HEAT PUMPS IN WHICH BOTH LOADS ARE USED.

AC = 32198VA = ; HEAT = 0 VA x 1.25 = 0 VA *
 AHU = 0 VA x 1.25 = 0 VA
 RECEPTACLE LOAD = 321983 VA
 KITCHEN LOAD = 0 VA
 MISC. LOAD = 24000 VA
 TOTAL LOAD = 345983 VA
 TOTAL AMPS = 416



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ST. JOHN THE BAPTIST PARISH
 GOVERNMENT COMPLEX
 sketch description
 PANEL AC2 ADDITION

project number	0843	date	04.13.2016	drawing number	ESK-1
file name	MU1401-15_E9.0	issued for	PANEL SCHEDULE	this drawing modifies:	E.9.0