



ST. TAMMANY PARISH
SCHOOL BOARD

ABNEY ELEMENTARY,
CLASSROOM WING & GYM
REROOFING
SLIDELL, LOUISIANA



DAMMON ENGINEERING, INC.
554 OLD SPANISH TRAIL
SLIDELL, LOUISIANA 70458

JULY 2012

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SECTION IA – REQUEST FOR QUOTATIONS

Separate sealed quotes will be received by the St. Tammany Parish School Board at the St. Tammany Parish School Board C.J. Schoen Administrative Complex, Reception Desk, 321 N. Theard, Covington, Louisiana 70433 for **Abney Elementary, Classroom Wing & Gym Reroofing, STPSB Project No. 1112** on the _____ day of _____, at 2:00 p.m. (Time shall be established by the PBS clock at the Reception Desk at the above referenced address), at which time and place quotes will be publicly opened and read aloud.

Complete Quoting Documents may be obtained from the architect, Dammon Engineering, Inc., 554 Old Spanish Trail, Slidell, LA 70458, (985) 649-5832, upon payment of a deposit of \$40.00 for each set of documents.

All quotes must be accompanied by quote security equal to five percent (5%) of the sum of the base quote and all alternates, and must be in the form of a certified check, cashier's check or bid bond.

The Successful Quoter will be required to furnish a performance and payment bond, each in an amount equal to 100% of the contract amount.

No quote may be withdrawn except as provided for by law.

Quoters must meet the requirements of the State of Louisiana Contractor's Licensing Law, Louisiana Revised Statute 37:2150.1 through 2164, as amended.

Preference may be given to materials, supplies and provisions produced, manufactured or grown in Louisiana in accordance with law.

The Owner reserves the right, in accordance with law, to reject any and all quotes.

A pre-quote conference will be held on the _____ day of _____ at _____ a.m. at the project site, Abney Elementary, 825 Kostmayer, Slidell, LA 70458. Quoters are strongly urged to attend and participate in the conference.

END OF SECTION IA

SECTION IC -PAYMENT OF TAXES

The Bidder is responsible for the payment of all applicable sales, use or other taxes relating to any materials or services to which such taxes are imposed arising from its Bid or the Contract.

END OF SECTION IC

SECTION ID - QUOTE PROPOSAL FORM

PROJECT NO. 1112

This form, or a duplicate thereof, which is the proposal, is to be completed, signed, and delivered to the St. Tammany Parish School Board at the time and date specified, together with any other required documents, to include but not limited to the bid security documents.

Date: _____

TO: St. Tammany Parish School Board (Owner)
321 N. Theard St.
Covington, Louisiana 70433

QUOTE FOR: Abney Elementary, Classroom Wing & Gym Reroofing

THE QUOTER: (Name and Address as on Contractor's License)

_____ acknowledges receipt of the following:

ADDENDA: No. _____ Dated: _____ No. _____ Dated: _____

QUOTE SECURITY: attached is a [] Bid Bond; or, a [] Cashier's Check; or a Certified Check. The amount of the Bid Bond or Cashier's Check or Certified Check should be in the amount of 5% of the total quote, as found on Quote Proposal Form.

The Bid Security becomes the property of the Owner in the event the Agreement and Bonds are not executed within the time set forth as an agreed upon amount of liquidated damages for the delay and additional work caused thereby and not as a penalty.

THE BIDDER: hereby declares that he: a) has carefully examined the Documents, b) has a clear understanding of the Documents, c) has not received, relied on, or based on his bid on any verbal instructions contrary to the Documents or any addenda, d) has personally inspected and is familiar with the project site, e) is vested with authority to bind the Quoter and sign the Quote proposal on behalf of the Quoter, and f) hereby proposes to provide all labor, materials, tools, appliances, equipment and facilities as he is required to perform, including payment of all applicable taxes for the construction and completion of the Work, in a workmanlike manner, all in accordance with the Contract Documents.

QUOTE: For all work required by the Contract Documents, the lump sum of _____

_____ Dollars (\$ _____).

COMPLETION TIME: The Quoter hereby agrees to commence work under the Agreement and Bonds on a date specified in a written "Notice to Proceed" by the Architect and to substantially complete the Work included in this proposal within Thirty (30) calendar days of the date of the written "Notice to Proceed".

LIQUIDATED DAMAGES:

The Quoter hereby also agrees to pay Liquidated Damages in the amount of Five Hundred Dollars (\$500.00) for each consecutive calendar day which the Work is not complete, beginning with the first day beyond the completion time stated above. Said sum shall in no event be construed to be a penalty; but only as damages fixed and agreed upon in advance.

AWARD AND EXECUTION OF CONTRACT:

The Owner shall incur no obligation to the Contractor until the Contract between Owner and Contractor is duly executed. If the Quoter is notified of the acceptance of the Quote, he agrees to execute a contract for the Work accepted, in the standard contract form currently used by the Owner, a copy of which is bound to the Contract Documents. Quoter further agrees to submit the required bonds within five (5) days after notice from the Owner or Architect that the instrument is ready for Successful Quoter signature.

REJECTION:

The Owner reserves the right to reject any or all quotes for cause or in accordance with law.

WITHDRAWAL:

The Quoter agrees that this Quote may not be withdrawn except in accordance with law.

LICENSE CERTIFICATION:

The Quoter certifies that he meets all licensing requirements of the State of Louisiana and as required by law, including under Louisiana Revised Statute. 37:2150.1 through 2164.

PREFERENCE:

A preference in favor of Louisiana quoters may be applied by Owner in accordance with Louisiana Revised Statute. 38:2225 as amended.

ALLOWANCE:

Bidder is to include an allowance for 10% replacement of tectum deck at Building "A" or light weight insulating concrete at Building "B." Any unused portion will be refunded to the owner at the end of the project in the form of a credit change order. Within 15 days of award of contract, the contractor shall submit a per square foot cost for additional insulation board and a per square foot cost in the event of a credit, including all backup, to be approved by Saint Tammany Parish School Board.

LOUISIANA CONTRACTOR'S LICENSE #: _____

The undersigned, through its authorized representative, respectfully submits this proposal,

Name of Contractor

Signature

By: _____
Name and Title

Address

City, State, Zip

Telephone Number

Fax Number

email address

Employer's Registration Number Under Social
Security Acts and/or Internal Revenue Service
Employer Identification Number

REQUIRED ATTACHMENTS:

- 1) Bid Security

ENVELOPE: Mark envelope containing quote, as follows:

<p>“QUOTE FOR _____ DATE _____”</p> <p>To be delivered by 2:00 P.M.</p> <p>Quoter _____</p> <p>My Louisiana License No. is _____.</p>

IF THE QUOTE ENVELOPE DOES NOT CONTAIN THE ABOVE INFORMATION LEGIBLY PRINTED ON THE OUTSIDE OF THE ENVELOPE, THE QUOTE MAY BE AUTOMATICALLY REJECTED, RETURNED TO THE BIDDER UNOPENED AND MARKED “REJECTED”, AND NOT BE READ ALOUD.

SECTION IIA - AGREEMENT

SAMPLE

**AGREEMENT BETWEEN
ST. TAMMANY PARISH SCHOOL BOARD
AND**

**STATE OF LOUISIANA
PARISH OF ST. TAMMANY
CITY OF COVINGTON**

AN AGREEMENT made and entered into this ____ day of _____, 2____, by and between:

ST. TAMMANY PARISH SCHOOL BOARD, located at 321 N. Theard, Covington, LA 70433 herein represented by _____, its Superintendent, duly authorized, hereinafter called "Owner", and

_____, located at _____, a corporation organized and created under the laws of the State of _____, herein represented by _____, its _____, duly authorized by a resolution of the Board of Directors of said corporation, adopted at a meeting held on _____, a certified copy of which is annexed hereto for reference, hereinafter called "Contractor."

The said Contractor, has agreed, and does by these presents agree, for the consideration mentioned and contained herein, to furnish all labor and materials, tools, equipment, supplies, utilities, charged fees, permits and all other construction accessories and services required to build, construct and complete in a thorough and workmanlike manner: _____, in strict accordance with the Contract Documents prepared by _____ for St. Tammany Parish School Board.

The Owner will pay and the Contractor will accept in full consideration for the performance of the contract, the sum of _____ DOLLARS (\$ _____), which sum includes all taxes and represents the Base Bid plus Alternates ____ and subject to additions and deductions as provided in the Contract Documents.

The said Contract Documents, including by way of example and not of limitation, the Drawings, dated _____, Addenda number ____, dated _____, the Specifications, dated _____, the Advertisement for Bids, Instructions to Bidders, Contractor's Bid Proposal Form, General Conditions, Supplementary Conditions, Special Conditions, and any Addenda thereto, which impose duties and obligations upon appearers herein. For these purposes, all of the provisions contained in the aforementioned Contract Documents are contained herein by reference with the same force and effect as though said Contract Documents were herein set out in full. An enumeration of the Contract Documents is as follows:

Contractor agrees to complete fully all work included in this Agreement within _____(____) consecutive calendar days from the date of Notice to Proceed as issued by the Architect, subject to adjustments of the Contract Time as provided in the Contract Documents. Contractor shall be assessed Liquidated Damages, in the sum of _____ Dollars (\$ _____) for each consecutive calendar day which the Work is not complete beginning with the first day beyond the completion time stated above. Said sum shall in no event be construed to be a penalty; but only as damages fixed and agreed upon in advance.

Contractor agrees to do and perform each and every one of the obligations contained in and, in conformity with, the said Contract Documents.

In accordance with Louisiana Revised Statute 23:1061(A), the parties hereby agree that Owner is entitled to and does hereby adopt a statutory employment relationship with any person(s) employed by or under Contractor, including but not limited to all subcontractor or materialmen or supplier employees. Contractor and Owner do hereby acknowledge that the work performed by Contractor is an integral part of or essential to the ability of Owner to carry out

SECTION IIA - AGREEMENT

its constitutional and statutory duties to provide educational services. Contractor agrees to provide workers= compensation insurance coverage as provided for in the Contract Documents and Supplementary Conditions and holds Owner harmless and indemnifies Owner in the event of any workers= compensation claim is asserted against Owner for any persons defined herein.

In consideration of the faithful and complete performance by the Contractor of all and singular the obligations by Contractor herein assumed, the ST. TAMMANY PARISH SCHOOL BOARD hereby agrees to pay unto the said Contractor, its successors, legal representatives and assigns, at the times and in the manner set forth in the specifications above referred to, the price for the work to be done under this contract, in accordance with the proposal of said Contractor, duly accepted by Owner.

Contractor by signing this contract consents and yields to the jurisdiction of the Twenty-Second District Court for the Parish of St. Tammany, Louisiana, and does formally waive any plea of lack of jurisdiction, on account of its residence elsewhere, in the event of a law suit filed under this contract or the bonds furnished for and on behalf of the Contractor at the time of the execution of this Agreement.

Contractor has separately furnished a performance bond and a labor and materials payment bond issued by _____, this date to the Owner which bonds are furnished in accordance with the requirements of the Contract Documents and for recording in the Office of the Recorder of Mortgages in the Parish of St. Tammany.

THIS AGREEMENT is entered into as of the date first written above and is executed in at least four originals.

WITNESSES

ST. TAMMANY PARISH SCHOOL BOARD

By: _____
(Name)
Superintendent

WITNESSES

(CONTRACTOR)

By: _____
(NAME)
(Title)

SECTION IIC - LABOR AND MATERIALS PAYMENT BOND

**SAMPLE
LABOR AND MATERIALS PAYMENT BOND**

KNOW ALL MEN BY THESE PRESENTS that (insert full name and address or legal title of Contractor) ; as Principal, hereinafter called Contractor, and (insert full name and address or legal title of Surety), a corporation duly organized under the laws of the State of _____, and authorized to do business in the state of Louisiana, as Surety, hereinafter called Surety, are held and firmly bound unto **ST. TAMMANY PARISH SCHOOL BOARD, 321 N. Theard, Covington, Louisiana 70433**, as Obligee, hereinafter called Owner, in the amount of _____ Dollars (\$ _____) for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Contractor has by written Agreement dated _____, _____, entered into a Contract with Owner for (insert full name, address and description of project), in accordance with the Drawings and Specifications prepared by (insert full name and address or legal title of Architect), which Contract and Contract Documents referred to therein are and by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION of this obligation is such that, if the said Contractor shall well and faithfully and shall promptly pay all claimants as provided by law in LA R.S. 38:2242 and pay all wages of laborers, workmen, or mechanics, to be employed by Contractor for all work done or labor performed, or who may be employed by any sub-contractor; and shall promptly pay all furnishers of material supplied to Contractor, or by or to sub-contractors, and used in the construction, erection, alteration, installation, or repair called for by the aforesaid Contract; and shall promptly pay for all materials or supplies furnished to said Contractor, or by or to any sub-contractor, for use in machines used by the Contractor, or any sub-contractor, in the construction, erection, alteration, installation, or repair of the work specified in the aforesaid Contract; and shall fully secure and protect the **ST. TAMMANY PARISH SCHOOL BOARD**, its legal successor and representative, from all liability in the premises, and from all loss or expense of any kind, incurred by the Owner, including all costs of court and all attorney's fees made necessary or arising from the failure, refusal or neglect of the Contractor to comply with the obligations assumed by Contractor; and, likewise, shall deliver all such work to the said **ST. TAMMANY PARISH SCHOOL BOARD** free from all claims, liens and expenses, then this bond shall become null and void, otherwise, it shall remain in full force and effect.

Contractor and Surety do, by act of signing the Contract and this Bond, consent and yield to the jurisdiction of the Twenty-Second District Court for the Parish of St. Tammany, Louisiana, and do formally waive any plea of lack of jurisdiction, on account of their residence elsewhere, in the event of any legal proceeding under the Contract or this Bond.

This is a statutory bond furnished pursuant to the provisions of Louisiana Revised Statute 38:2241 *et seq.* as amended or revised.

Signed and Sealed this _____ day of _____, _____.

(SEAL)
PRINCIPAL (CONTRACTOR)

(SEAL)
SURETY

SECTION IID - NON-COLLUSION AFFIDAVIT

**SAMPLE
NON-COLLUSION AFFIDAVIT**

STATE OF _____

PARISH/COUNTY OF _____

PROJECT NO. _____

NAME _____

LOCATION _____

AFFIDAVIT

BEFORE ME, the undersigned authority, duly commissioned and qualified within and for the state and parish aforesaid, personally came and appeared (name) representing (company) who, being by me first duly sworn deposed and said that he has read and signed this affidavit and does hereby agree under oath to comply with all provisions herein as follows and with the provisions of Louisiana Revised Statute 38:2224, as amended:

(1) That affiant and his firm employed no person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract for the above-referenced project with the St. Tammany Parish School Board under which he will, if awarded the contract, receive or have received payment, other than persons regularly employed by the affiant whose services in connection with the construction, alteration or demolition of the public building or project or in securing the public contract were in the regular course of their duties for affiant; and

(2) That no part of the contract price to be received or received by affiant or his firm was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the contract, other than the payment of their normal compensation to persons regularly employed by the affiant whose services in connection with the construction of the public building or project were in the regular course of their duties for affiant.

Bidder or representative to sign and type name below signature.

Affiant

SWORN TO AND SUBSCRIBED BEFORE ME THIS _____ day of _____, 2____.

NOTARY PUBLIC

SECTION IIIB - SUPPLEMENTARY CONDITIONS

SUPPLEMENTARY CONDITIONS OF THE CONTRACT FOR CONSTRUCTION
ST. TAMMANY PARISH SCHOOL BOARD

The General Conditions of the Contract for Construction, AIA Document A201, 1997 Edition, Articles 1 through 14 inclusive, is a part of this Contract, and is incorporated as fully as if herein set forth. For brevity, AIA Document A201 is also referred to in the Contract Documents as the "General Conditions".

Printed copies of AIA Document A201 can be purchased from the local chapters of the American Institute of Architects, or from the American Institute of Architects, 1735 Massachusetts Avenue, N.W., Washington D.C. 2006.

The following supplements modify, change, delete from or add to the "General Conditions of the Contract for Construction", AIA Document A201, Fifteenth Edition, 1997. Where any portion of the General Conditions is modified or deleted by these Supplementary Conditions, the unaltered portions of the General Conditions shall remain in effect.

ARTICLE 1 - GENERAL PROVISIONS

1.1 BASIC DEFINITIONS

- 1.1.1 Delete the last sentence of Subparagraph 1.1.1. Add the following sentence: "The Contract Documents shall include the Bidding Documents as listed in the Instructions to Bidders and any modifications made thereto by addenda. The Contract Documents shall also include the required Completion Time set out in the Instructions to Bidders, and the Contractor agrees to the Liquidated Damages set out in the Instructions to Bidders for failure to complete the work timely in accordance with the Contract Documents."
- 1.1.2 In the fourth sentence, after the word "Sub-subcontractor" add the word "or" then delete the words "between the Owner and Architect or (4)". Also, at the end of this Subparagraph, Add the following sentence: "Notwithstanding the foregoing, the Owner shall be considered a third party beneficiary of any contract or agreement between the Contractor and a Subcontractor."
- 1.1.5 After the word "Documents" and before the word "showing", add the words "wherever located and whenever issued".

Add the following Subparagraphs 1.1.8 through 1.1.12:

1.1.8 CORRECTION PERIOD

The period of time in which the contractor shall, in accordance with Article 12, correct work failing to conform to the Contract Documents or if it is rejected, remove it and replace it with Work conforming to the Contract Documents.

1.1.9 APPROVED

When the words "approved", "satisfactory", "proper", or "as directed" are used, approval by the Architect shall be understood.

1.1.10 ADDENDA

Addenda are written or graphic instruments issued prior to the date of the opening of the bids and which modify or interpret the Bidding Documents, including the Drawings and Specifications, by additions, deletions, clarifications or corrections.

1.1.11 KNOWLEDGE

The terms "knowledge", "recognize" and "discover", their respective derivatives and similar terms in the Contract Documents, as used in reference to the Contractor, shall be interpreted to mean that which the Contractor knows or should know, recognizes or should recognize and discovers or should discover in exercising the care, skill and diligence required by the Contract Documents.

1.1.12 PERSISTENTLY

The phrase "persistently fails" and other similar expressions, as used in reference to the Contractor shall be interpreted to mean any combination of acts or omissions which cause the Owner or the Architect to reasonably conclude that the Contractor will not complete the Work within the Contract Time, for the Contract Sum, or in substantial compliance with the requirements of the Contract Documents.

1.2 EXECUTION OF CONTRACT DOCUMENTS

1.2.1 Add the following to Subparagraph 1.2.1:

The Owner may record a duplicate original of the Agreement and Bonds with the Clerk of Court for the Parish of St. Tammany.

SECTION IIIB - SUPPLEMENTARY CONDITIONS

1.2.2 Add the following to Subparagraph 1.2.2:

The Contractor and each subcontractor shall evaluate and satisfy themselves as to the conditions and limitations under which the Work is to be performed, including, without limitation (1) the location, condition, layout and nature of the Project site and surrounding areas, (2) generally prevailing climatic conditions, (3) anticipated labor supply and costs, (4) availability and cost of materials, tools and equipment, (5) Owner's continued occupation and use of existing buildings throughout the school year, and (6) other similar issues. The Owner assumes no responsibility or liability for the physical condition or safety of the project site or any improvements located on the project site. The Contractor shall be solely responsible for providing a safe place for the performance of the Work. The Owner shall not be required to make any adjustment in either the Contract Sum or Contract Time in connection with any failure by the Contractor or any subcontractor to comply with the requirements of this Subparagraph 1.2.2.

Add the following Subparagraphs to 1.2:

- 1.2.4 Any reference to standards (such as ASTM - American Society for Testing and Materials), shall mean the latest edition of such standards published prior to the date of the Specifications, in accordance with the abbreviation referred to in the Technical Provisions. Where such a reference is made, the applicable standard is hereby made a part of the Specification which refers to it to the same extent as if written out in that specification in full
- 1.2.5 In the event of a conflict or discrepancy between scaled dimensions and given dimensions, given dimensions shall take precedence over scaled dimensions. Although the Drawings are drawn to scale, as indicated, and dimensions are given, in the case of remodeling or reconstruction work, or in fitting work to existing conditions, the Contractor shall work to measurements of existing construction.
- 1.2.6 In the event the Contractor, who has declared to the Owner that he has read, reviewed and familiarized himself with the Contract Documents and work site, has any question or believes a discrepancy exists between the Contract Documents and the Drawings, or has any question concerning any provision in the Contract Documents or Drawings, the Contractor is obligated to bring the question or discrepancy to the attention of the Owner and Architect prior to commencement of any work.
- 1.2.7 Should the Contractor fail to request interpretations of questionable items in the Contract Documents prior to executing the Work, neither the Owner nor the Architect will thereafter entertain any claim for additional costs or time.
- 1.2.8 Where a discrepancy or inconsistency appears to exist between any of the Contract Documents regarding quantity or quality, or both, of labor and materials to be furnished for the Work, the greater quantity or higher quality shall govern and will be presumed to be included in the Contract Sum. When a general term conflicts with a more specific term, the more specific term governs.
- 1.2.9 Where a given material is indicated on any of the Drawings, it is intended that such material be used throughout the length and height of walls, partitions, spandrels, panels, windows, lights, or in the assembly detail in which it occurs, for other similar locations throughout the building or Project, unless another material is indicated.
- 1.2.10 All manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with the manufacturer's written or printed directions and instructions unless otherwise indicated in the Contract Documents.
- 1.2.11 Test boring or soils test information, if made accessible to the Contractor, is not warranted by the Owner as an accurate or approximate indication of sub-surface conditions, and no claims for extra cost or extension of time resulting from reliance by the Contractor on such information shall be allowed.

1.6 OWNERSHIP AND USE OF ARCHITECT'S DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS

1.6.1 Add to Subparagraph 1.6.1 the following:

The Drawings, Specifications and other documents prepared by the architect and copies thereof furnished to the Contractor, are for use solely with respect to this Project.

In the fifth sentence, between the words "use" and "solely", add the words "of the Contractor".

Add the following sentence: "The limitation provided for herein shall in no way affect the Owner's right to use the Drawings, Specifications and other documents as provided for by law or as specified by Owner."

SECTION IIIB - SUPPLEMENTARY CONDITIONS

ARTICLE 2 - OWNER

2.1 DEFINITION

Delete Subparagraph 2.1.1.
Delete Subparagraph 2.1.2.

2.2 INFORMATION AND SERVICES REQUIRED OF THE OWNER

Delete Subparagraph 2.2.1.

2.2.3 Delete the word “shall” and substitute the word “may”, and delete the last sentence and substitute the following:

The Contractor shall exercise proper precautions relating to the safe performance of the work.

2.2.5 Delete Subparagraph 2.2.5 and substitute the following:

The Contractor will be furnished, free of charge, up to ten (10) copies of the Drawings and Project Manual. Any additional copies will be furnished at the cost of reproduction, postage and handling.

2.4.1 Delete the entire section and add the following:

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a seven (7) day period after receipt of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such deficiencies. In such case an appropriate Change Order shall be issued deducting from payments then or thereafter due the Contractor the reasonable cost of additional services made necessary by such default, neglect or failure. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner.

ARTICLE 3 - CONTRACTOR

3.2 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

3.2.1 In the last sentence, change the word “promptly” to the words “immediately”.

3.2.3 Delete the last sentence of Subparagraph 3.2.3.

Add the following subparagraphs to Article 3.2:

3.2.4 The exactness of grades, elevations, dimensions, or locations given on any drawings issued by the Architect, or the work installed by other contractors, is not guaranteed by the Architect or the Owner.

3.2.5 The Contractor shall satisfy itself as to the accuracy of all grades, elevations, dimensions and locations. In all cases of interconnection of its Work with existing or other work, the Contractor shall verify at the site all dimensions relating to such existing or other work. Any errors due to the Contractor’s failure to so verify all such grades, elevations, dimensions or locations shall be promptly corrected by the Contractor without any additional cost to the Owner.

3.2.6 The mechanical and electrical drawings are diagrammatic only, and are not intended to show the exact physical locations or configurations of work. Such work shall be installed to clear all obstructions, permit proper clearances for the work of other trades, and present an orderly appearance where exposed. Exact locations of fixtures and outlets, and of all other devices visible in finished spaces, shall be obtained from the Architect before the work is roughed in; work installed without such information from the Architect shall be relocated at the Contractor’s expense.

3.3 SUPERVISION AND CONSTRUCTION PROCEDURES

3.3.1 After the second sentence, Delete all words to the end of subparagraph 3.3.1.

3.3.2 Delete subparagraph 3.3.2 and the new subparagraph 3.3.2 shall read:

The Contractor and its surety shall be responsible to the Owner for acts and omissions of the Contractor’s employees, Subcontractors and their agents and employees, and any entity or other persons or entities performing portions of the Work for or on behalf of the Contractor or any of its Subcontractors.

SECTION IIIB - SUPPLEMENTARY CONDITIONS

Add the following Subparagraphs 3.3.4, 3.3.5, 3.3.6 and 3.3.7 to 3.3:

- 3.3.4 The Contractor is the coordinator and expediter of the total construction process and all of its parts, in accordance with the Contract Documents. The Contractor shall provide sufficient supervisory staff in the field to enable efficient and expeditious handling of all matters. There shall be a Project Manager assigned by the Contractor in its home office, as well as in the field.
- 3.3.5 The Contractor shall take all precautions necessary to prevent loss or damage caused by vandalism, theft, burglary, pilferage, or unexplained disappearance of property of the Owner, whether or not forming part of the Work, located within those areas of the Project to which the Contractor has access. The Contractor shall have full responsibility for the security of such property of the Owner for any such loss, damage, or injury, except such as may be directly caused by agents or employees of the Owner.
- 3.3.6 The Contractor shall retain a competent registered professional engineer or registered land surveyor, acceptable to the Owner and Architect, who shall establish the exterior lines and required elevations of all buildings and structures to be erected on the site and shall establish sufficient lines and grades for the construction of associated work including, but not limited to, roads, utilities, and site grading. The engineer or land surveyor shall certify the actual location of the constructed facilities in relation to property lines, building lines, easements, and other restrictive boundaries.
- 3.3.7 The Contractor shall establish the building grades, lines, levels, column, wall and partition lines required by the various subcontractors in laying out their work.

3.4 LABOR AND MATERIALS

Add the following sentence to the end of Subparagraph 3.4.1:

- 3.4.1 The word “provide” including derivatives shall mean to properly fabricate, complete, transport, deliver, install, erect, construct, test and furnish all labor, materials, equipment, apparatus, appurtenance, and all items and expenses necessary to properly complete the work in accordance with the terms of the Contract Documents and specifications, and ready for operation or use under the terms of the Specifications.

- 3.4.2 Delete the words “with a change order” and substitute “with the procedures outlined herein.”

Add the following Subparagraphs 3.4.2.1 through 3.4.2.7 after Subparagraph 3.4.2:

- 3.4.2.1 The Contractor may furnish equal brand products or equipment other than those specified in the Contract Documents, provided the Contractor submits for prior approval a particular product other than a product specified in the Contract Documents no later than ten (10) calendar days prior to the date for the opening of the bids and the Architect issues an addendum providing approval of the product or equipment submitted. The name of a certain brand, make, manufacturer or definite specification is to denote the quality standard of the article desired; sets forth the general style, type, character; and is regarded merely as a standard. However, a Contractor must furnish the certain brand or particular brand set forth in the Contract Documents or a product approved prior to the bid opening.
- 3.4.2.2 The term “or approved equal” is not necessarily limited to the physical or technical properties of the product or material but encompasses the finish, color, texture and other pertinent qualities in like regard. Failure to satisfy in any one respect may result in rejection of substitute products.
- 3.4.2.3 If, after execution of the Contract and prior to submittal of applicable shop drawings, the Contractor desires to submit an alternate product in lieu of what has been specified or shown in the Contract Documents, the Contractor may do so in writing and set forth the following:
 - 3.4.2.3.1 Reasons the substitution is necessary to include a full explanation of the proposed substitution and submittal of all supporting data including technical information, catalogue cuts, warranties, test results, installation, instructions, operating procedures, and other like information necessary for complete evaluation of the substitution.
 - 3.4.2.3.2 The adjustment, if any, in the time of completion of the Contract and the construction schedule in the event a substitution is acceptable.
 - 3.4.2.3.3 An affidavit stating that the Contractor accepts the warranty and correction obligations in connection with the proposed substitution as if originally specified by the Architect.
- 3.4.2.4 Proposals for substitutions shall be submitted in triplicate to the Architect in sufficient time to allow the Architect no less than ten (10) working days for review. No substitutions will be considered or allowed without the Contractor’s submittal of complete substantiating data and information as stated herein.

SECTION IIIB - SUPPLEMENTARY CONDITIONS

- 3.4.2.5 Substitutions or alternates submitted in accordance with Subparagraph above may be rejected without explanation and will be considered only under one or more of the following conditions:
 - 3.4.2.5.1 Required for compliance with interpretation of code requirements or insurance regulations then existing;
 - 3.4.2.5.2 Unavailability of specified products, through no fault of the Contractor;
 - 3.4.2.5.3 Subsequent information discloses inability of specified products to perform properly or to fit in designated space; or
 - 3.4.2.5.4 Manufacturers/fabricator refuses to certify or guarantee performance of specified product as required.
- 3.4.2.6 Any additional cost, or any loss or damage arising from the substitution of any product, material or equipment for those originally specified, including costs of changes of all other work affected by the substitution, shall be borne by the Contractor, notwithstanding approval or acceptance of such substitution by the Owner or the Architect, unless such substitution was made at the written request or direction of the Owner or the Architect.
- 3.4.2.7 The Contractor shall only employ labor on the Project or in connection with the Work capable of working harmoniously with all trades, crafts and any other individuals associated with the Project. The Contractor shall also use its best efforts to minimize the likelihood of any strike, work stoppage or any other labor disturbance.

3.5 WARRANTY

- 3.5.1 After the word “quality”, add “free of lead, asbestos, and other toxic material.”

Add the following Subparagraphs 3.5.2 through 3.5.3 to 3.5:

- 3.5.2 Any warranty provided in paragraph 3.5.1 shall be in addition to and not in limitation of any other warranty required by the Contract Documents or otherwise prescribed by law.
- 3.5.3 The Contractor shall secure any and all written warranties or guarantees referred to in respective Specifications Sections. As a condition precedent to its right of final payment, Contractor shall deliver to the Architect for review and transmittal to Owner two copies of all manufacturer’s warranties or guarantees, operational manuals and instructions, service contracts and other warranties or guarantees as required. The Contractor shall require each Subcontractor to execute a satisfactory written warranty or guarantee in which the Contractor and the Owner are named as beneficiaries.

3.7 PERMITS, FEES AND NOTICES

Delete Subparagraph 3.7.1 and add in its place the following:

- 3.7.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit and other permits and governmental fees, licenses and inspections necessary for the proper execution and completion of the Work. In addition, the Contractor shall secure certificates of inspection, use, occupancy, permits and licenses with all such certifications to be delivered when the Contractor considers the Work substantially complete under paragraph 9.8 hereof in order to allow the Owner to accept the Project upon substantial completion as provided for in Louisiana Revised Statute 38:2241.1.
- 3.7.3 Change the word “promptly” to read “at once”.

Add the following phrase to the end of the first sentence in Subparagraph 3.7.3:

“unless such laws, statutes, ordinances, building codes, rules and regulations bear upon the performance of the Work”

- 3.7.4 Change the word “appropriate” to “full”. Add the following phrase at the end of the last sentence in Subparagraph 3.7.4 after the word correction and any damages sustained by the Owner”.
- 3.9 Add the following sentence at the end of Paragraph 3.9.1.

“Any personnel change to the Superintendent or Project Manager must be reviewed and approved by the Owner. Resume’s and references of the proposed new Superintendent or Project Manager must be submitted to the Owner. If the Superintendent or Project Manager is not performing his or her responsibilities properly, then, at the request of the Owner, the Contractor shall replace the Superintendent or Project Manager.”

3.10 CONTRACTOR’S CONSTRUCTION SCHEDULES

Delete Subparagraph 3.10.1 and in its place substitute the following:

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3.10.1 The Contractor shall prepare and submit within ten (10) working days of the date of the Notice to Proceed, for the Owner's and Architect's information, a Construction Schedule. Unless otherwise specified, the Construction Schedule shall be a detailed precedence-style critical path method (CPM) or other format satisfactory to the Owner and Architect which shall also:

- (1) Provide a graphic representation of all activities and events that will occur during the performance of the Work; and
- (2) Identify each phase of construction and occupancy; and
- (3) Set forth dates that are critical in ensuring the timely and orderly completion of the Work in accordance with the requirements of the Contract Documents. If not accepted, the Construction Schedule shall be promptly revised by the Contractor in accordance with the recommendation of the Owner or Architect and resubmitted for acceptance. The Contractor shall monitor the progress of the Work for conformance with the requirements of the Construction Schedule and shall promptly advise the Owner and Architect of any delays or potential delays. In addition, the Contractor shall provide an updated Construction Schedule to reflect actual conditions with each Application for Payment or if requested by either the Owner or the Architect. In the event the progress report indicates any delays, the Contractor shall take corrective measures necessary to expedite the progress of the construction, including, without limitation, (1) working additional shifts or overtime, (2) supplying additional manpower, equipment and facilities, and (3) other similar measures. Any such measures are solely for the purpose of ensuring the Contractor's compliance with the Contract Time allowed by the Contract Documents. The Contractor shall not be entitled to any adjustment in the Contract Sum in connection with such measures. In no event shall any progress report constitute an adjustment in the Contract Time or the Contract Sum unless such an adjustment is agreed to by the Owner and authorized pursuant to a written Change Order.
- (4) The schedule shall be cost loaded to coordinate with the Schedule of Values if requested by the Owner.
- (5) For projects with a contract sum greater than \$3,000,000.00, the Contractor shall include with the schedule, for the Owner's and Architect's information, a network analysis to identify those tasks which are on the critical path, i.e. where any delay in the completion of these tasks will lengthen the project timescale, unless action is taken.
- (6) Any revision or update to the schedule will be subject to the written approval of the Owner.

3.10.3 Change the words, "perform the Work in general accordance with" to read "conform to".

Add Subparagraph 3.10.4:

3.10.4 The Owner shall have the right to direct a postponement or rescheduling of any date or time for the performance of any part of the Work that may interfere with the operation of the Owner's premises. The Contractor shall, upon the Owner's request, reschedule any portion of the Work affecting the Owner's operation of the premises during the hours when the premises are not in operation.

3.11 DOCUMENTS AND SAMPLES AT THE SITE

3.11.1 In the last sentence, after the word "Work", add the words "and prior to final payment. These as-built documents shall also be provided in AutoCAD readable format"

3.12 SHOP DRAWINGS PRODUCT DATA AND SAMPLES

3.12.7 Delete Subparagraph 3.12.7.

3.12.9 Delete the last sentence.

3.12.10 Delete Subparagraph 3.12.10 and in its place substitute the following:

3.12.10 When professional certification of performance criteria of materials, systems, or equipment is required by the Contract Documents, the Contractor shall provide the person or party providing the certification with full information on the relevant performance requirements and on the materials, systems, or equipment that are expected to operate or be utilized at the Project site. The certification shall be based upon performance under the operating conditions generally prevailing or expected at the Project site. The Architect shall be entitled to rely upon the accuracy and completeness of such certificates.

Add the following Subparagraphs to 3.12:

3.12.11 All shop drawings for any architectural, structural, mechanical or electrical work must be submitted to and approved by the Architect. The Contractor represents and warrants that all shop drawings shall be prepared by persons and entities possessing the expertise and experience in the trade for which the shop drawing is prepared and, if required by the Architect or applicable law,

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by a licensed engineer. Any shop drawing that indicates insufficient study of drawings and specifications, illegible portions, or gross errors, will be rejected outright and Owner will require that the Contractor resubmit such drawing in a manner consistent with the information contained in the Contract Documents. Such rejections, if any, shall not constitute a reason for granting Contractor additional time to perform the work involved.

3.12.12 Faxed copies of shop drawings will not be accepted.

3.13 USE OF SITE

Delete Subparagraph 3.13.1 and substitute the following:

3.13.1 The right of possession of the premises and the improvements made thereon by the Contractor shall remain at all times the property of the Owner. The Contractor's right to entry and use thereof arises solely from the permission granted by the Owner under the Contract Documents. The Contractor shall confine its apparatus, the storage of materials and the operations of its workmen to limits indicated by law, ordinances, the work limit line and staging area as shown on Site Plan, and areas made available by the Owner, and shall not unreasonably encumber the premises with its materials or equipment. Only materials and equipment which are to be used directly in the Work shall be brought and stored on the Project site by the Contractor. Protection of construction materials and equipment stored at the Project site from weather, theft, damage and all other causes is solely the responsibility of the Contractor.

Add the following Subparagraphs 3.13.2 through 3.13.5 to 3.13:

3.13.2 The Contractor and any entity for whom the Contractor is responsible shall not erect any sign on the Project site without the prior written consent of the Owner, which consent may be withheld in the sole discretion of the Owner.

3.13.3 Contractor shall ensure that the Work, at all times, is performed in the manner that affords reasonable access, both vehicular and pedestrian, to the site of the Work and all adjacent areas. All public areas adjacent to the site of the Work shall be free from all debris, building materials, and equipment likely to cause hazardous conditions. Contractor shall use its best efforts to not interfere with the occupancy of (1) any area and buildings adjacent to the site of the Work or (2) the building in the event of partial occupancy.

3.13.4 Without the prior written approval of the Owner, the Contractor shall not permit any workers to use any existing facilities at the Project site, including, without limitation, lavatories, toilets, entrances and parking areas other than those designated by the Owner.

3.13.5 The Contractor shall repair at its own expense any damage from operations under its supervision or direction caused to Owner's property and facilities on the site and access routes thereto.

3.15 CLEANING UP

3.15.2 Delete Subparagraph 3.15.2 and substitute the following:

The Contractor shall clean up the project site and work performed as provided in the Contract Documents.

3.17 ROYALTIES AND PATENTS

Delete Subparagraph 3.17.1 and in its place add the following:

The Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation of the Work of any invention, design, process, product or device which is the subject of patent rights, trademarks, copy rights, trade secrets or proprietary information held by others. Contractor shall indemnify and hold harmless Owner and Architect and anyone directly or indirectly employed or contracted by either of them from and against all claims, damages, losses and expenses, including attorneys' fees and court and arbitration costs, arising out of any infringement of patent rights, trademarks, copy rights, trade secrets or proprietary information incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product or device and shall defend all such claims in connection with any alleged infringement of such rights. This indemnification obligation is not limited to but in addition to the insurance obligations of the performance bond required in connection with this Agreement. For an asbestos or lead abatement project, the provisions of this Subparagraph will apply concerning any process for the removal of asbestos or lead containing materials.

3.18 INDEMNIFICATION

Add Subparagraph 3.18.3 to 3.18.

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3.18.3 The obligations of the Contractor under this Paragraph 3.18 shall not extend to the liability of the Architect, the Architect’s consultants, and agents and employees of any of them arising out of (1) the preparation or approval of maps, drawings, opinions, reports, surveys, Change Orders, designs or specifications, or (2) the giving of or the failure to give directions or instructions by the Architect, the Architect’s consultants, and agents and employees of any of them provided such giving or failure to give is the primary cause of the injury or damage.

ARTICLE 4 - ADMINISTRATION OF THE CONTRACT

4.1 ARCHITECT

Delete Subparagraph 4.1.1 and substitute the following:

4.1.1 “The term Architect, when used in the Contract Documents, shall mean the prime Designer (Architect, Engineer, or Landscape Architect), or his authorized representative, lawfully licensed to practice architecture, engineering or landscape architecture in the State of Louisiana, identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number.”

Delete Subparagraphs 4.1.2 and 4.1.3.

4.2 ARCHITECT’S ADMINISTRATION OF THE CONTRACT

4.2.2 In the last sentence, delete the words “except as provided in Section 3.3.1”.

4.2.5 Between the words “Architect’s” and “evaluations”, add the words “observations of the progress of the work and”.

4.2.10 Add the following sentence to the end of Subsection 4.2.10:
“There will be no restriction of the Owner having a Representative.”

4.2.11 In the last sentence, after the number “15”, add the word “calendar”.

4.3 CLAIMS AND DISPUTES

4.3.2 Delete Subparagraph 4.3.2 and substitute the following:

Time Limits on Claims. Claims by the Contractor must be made within twenty-one (21) calendar days after occurrence of the event giving rise to such Claim; provided, however, that Contractor shall use its best efforts to furnish the Architect and the Owner, as expeditiously as possible, with notice of any Claim including, and without limitation, those in connection with concealed or unknown conditions, once such Claim is recognized and shall cooperate with the Architect and the Owner and shall make every effort to mitigate the alleged or potential damages, delay or other adverse consequences arising out of the condition which is the cause of such Claim. Claims must be made by written notice. An additional Claim made after the initial Claim has been implemented by Change Order will not be considered unless submitted in a timely manner. Any notice of claim must clearly identify the alleged cause and the nature of the claim to include data and information then available to the claimant which will facilitate proper verification and evaluation of the claim.

4.3.3 In Subparagraph 4.3.3, delete the words Aor as provided in Section 9.7.1 and Article 14”.

4.3.4 In the first sentence, change the word “promptly” to “immediately”. And add the word “working” between the number “21” and the word “days”.

In the fourth sentence, change the number “21” to “10”.

In the last sentence, delete the words “If the conditions encountered are materially different, the Contract Sum and Contract Time shall be equitably adjusted, but”.

Add the following language to Subparagraph 4.3.4:

No adjustment in the Contract Time or Contract Sum shall be permitted, however, in connection with a concealed or unknown condition which does not differ materially from those conditions disclosed or which reasonably should have been disclosed by the Contractor’s (1) prior inspections, tests, reviews and preconstruction services for the Project, or (2) inspections, tests, reviews and preconstruction services which the Contractor had the opportunity to make or should have performed in connection with the Project.

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Add the following language to Subparagraph 4.3.6:

No change in the Work, whether by way of alteration or addition to the Work, shall be the basis of an addition to the Contract Sum or a change in the Contract Time unless and until such alteration or addition has been authorized by a Change Order executed and issued in accordance with and in strict compliance with the requirements of the Contract Documents.

Any claim by the Contractor for increased cost for delay shall be asserted in accordance with the delays provided in Subparagraph 4.3.2 unless the time is extended in writing by the Owner. No course of conduct or dealings between the parties, nor express or implied acceptance of alterations or additions to the Work, and no claim that the Owner has been unjustly enriched by any alteration or addition to the Work, shall be the basis for any claim to an increase in the Contract Sum or change in the Contract Time. No claim for additional cost shall be allowed due to a problem with the performance or non-performance of a subcontractor.

No claim shall be valid unless so made.

Delete Subparagraph 4.3.7.2 and substitute the following:

If adverse weather conditions are the basis for a claim for additional time, the Contractor shall document that weather conditions had an adverse effect on the scheduled construction. An increase in the contract time due to weather shall not be cause for an increase in the contract sum.

Add the following Subparagraphs 4.3.7.3 through 4.3.7.5:

The following are considered reasonably anticipated days of adverse weather on a monthly basis:

January	11 days	May	5 days	September	4 days
February	10 days	June	6 days	October	3 days
March	8 days	July	6 days	November	5 days
April	7 days	August	5 days	December	8 days

The Contractor shall ask for total adverse weather days. The Contractor’s request shall be considered only for days over the allowable number of days stated above. Note: Contract is on a calendar day basis.

4.3.7.4 If the Contractor wishes to make Claim for an increase in the Contract Time, written notice as provided herein shall be given to the Architect and Owner. No claim for additional time shall be allowed due to a problem with the performance or non-performance of a subcontractor.

4.3.7.5 No Claim for additional time made for whatever cause will be approved unless and until the Contractor demonstrates to the satisfaction of the Owner that the Completion Time for the Work has itself been adversely affected by the actions, events, or circumstances cited in the claim. The mere fact that some portion of the Work may be affected is not sufficient to establish an entitlement to an extension to the Contract Time. The baseline against which any such Claim for additional time will be judged will be the Approved Project Schedule, updated and revised as required by the Contract Documents.

4.3.8 Change the words “within a reasonable time not exceeding 21 days” to “at once, but not more than 3 working days”.

4.4 RESOLUTION OF CLAIMS AND DISPUTES

Delete Subparagraph 4.4.1 and substitute the following:

4.4.1 Decision of Architect. Claims, including those alleging an error or omission by the Architect, shall be referred initially to the Architect for action as provided in Paragraph 4.4 if the Claimant recognizes the Claim prior to the date of final payment. A decision by the Architect, as provided in Subparagraph 4.4.4, shall be required as a condition precedent to litigation of a Claim between the Contractor and Owner as to all such matters arising prior to the date final payment is due, regardless of (1) whether such matters relate to execution and progress of the Work or (2) the extent to which the Work has been completed. The decision by the Architect in response to a Claim shall not be a condition precedent to arbitration or litigation in the event (1) the position of Architect is vacant, (2) the Architect has not received evidence or has failed to render a decision within agreed time limits, (3) the Architect has failed to take action required under Subparagraph 4.4.4 within 30 days after the Claim is made, (4) 45 days have passed after the Claim has been referred to the Architect or (5) the Claim relates to a mechanic’s lien.

Delete Subparagraph 4.4.2 and substitute the following:

4.4.2 The Architect will review Claims and take one or more of the following preliminary actions within ten days of receipt of a Claim: (1) request additional supporting data from the Claimant, (2) submit a schedule to the parties indicating when the Architect

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expects to take action, (3) reject the Claim in whole or in part, stating reasons for rejection, or (5) suggest a compromise. An Architect's failure to take any such action shall not be used as a basis for liability on the part of the Owner, and shall not be considered as a basis for approval of any such Claim.

Delete Subparagraph 4.4.3 and substitute the following:

4.4.3 If a Claim has been resolved, the Architect will prepare or obtain appropriate documentation.

Delete Subparagraph 4.4.4 and substitute the following:

4.4.4 If a Claim has not been resolved, the party making the Claim shall, within ten days after the Architect's preliminary response, take one or more of the following actions: (1) submit additional supporting data requested by the architect, (2) modify the initial Claim or (3) notify the Architect that the initial Claim stands.

Delete Subparagraph 4.4.5 and substitute the following:

4.4.5 If a Claim has not been resolved after consideration of the foregoing and if further evidence presented by the parties or requested by the Architect, the Architect will notify the parties in writing that the Architect's decision will be made within seven days, which decision shall be final and binding on the parties, but subject to litigation. Upon expiration of such time period, the Architect will render to the parties the Architect's written decision relative to the Claim, including any change in the Contract Sum or Contract Time of both. If there is a surety and there appears to be a possibility of a Contractor's default, the Architect may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

Delete Subparagraph 4.4.6 through 4.4.8.

4.5 MEDIATION

Delete Article 4.5

4.6 ARBITRATION

Delete Article 4.6

ARTICLE 5 - SUBCONTRACTORS

Delete Subparagraph 5.2.1 and substitute the following:

5.2.1 Unless otherwise required by the Contract Documents, the Contractor shall furnish at the Pre-Construction Conference, to the Owner and Architect, in writing, the names of the persons or entities, including those who furnish materials or equipment, proposed for each of the portions of the Work. No Contractor payments shall be made until the information is received.

Delete Subparagraph 5.2.2 and substitute the following:

5.2.2 The Contractor shall be solely responsible for selection and performance of all subcontractors. The Contractor shall not be entitled to claims for additional time and/or increase in the Contract Sum due to a problem with performance or non-performance of a subcontractor.

Delete Subparagraphs 5.2.3 and substitute the following:

5.2.3 The Contractor shall notify the Owner when a subcontractor is to be changed and substituted with another subcontractor.

Delete Subparagraph 5.2.4.

Delete Subparagraph 5.3.1 and in its place substitute the following:

5.3.1 All Work performed for Contractor by a Subcontractor or a sub-subcontractor will be pursuant to an appropriate agreement between Contractor and Subcontractor or Subcontractor and sub-subcontractor which specifically binds the Subcontractor or sub-subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of the Owner and Architect and contains applicable waiver of subrogation provisions, and which makes the Owner a third party beneficiary of any such agreement. Nothing in these Contract Documents shall provide, in favor of any person or organization other than the Contractor, a right of action against the Owner.

Delete Subparagraph 5.4.1 and substitute in its place the following:

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- 5.4.1 Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner provided that:
- 1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Paragraph 14.2 and only for those subcontract agreements which the Owner accepts by notifying the Subcontractor in writing; and
 - 2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

Delete Subparagraph 5.4.2 and substitute in its place the following:

- 5.4.2 If the Work in connection with a subcontract has been suspended for more than thirty (30) days after termination for the Contract by the Owner pursuant to paragraph 14.2 and the Owner accepts assignment of such Contract, the Subcontractor's compensation may be adjusted for any increase in direct costs incurred by such subcontractor as a result of the suspension.

Add the new Subparagraph 5.4.3 as follows:

- 5.4.3 Each subcontract shall specifically provide that the Owner shall only be responsible to the Subcontractor in the event of the exercise of an assignment for those obligations of the Contractor that accrue subsequent to the Owner's exercise of any rights under this conditional assignment.

ARTICLE 6 - CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

- 6.1.1 In the last line, change the words "in Section 4.3" to read "elsewhere in the Contract Documents."

- 6.1.3 In the last line, change the word "Other" to read "Owner".

Delete Subparagraph 6.1.4.

- 6.2.3 Delete the second sentence.

- 6.2.4 In the last line, change the words "in Section 10.2.5" to read "elsewhere in the Contract Documents."

Delete Subparagraph 6.2.5.

ARTICLE 7 - CHANGES IN THE WORK

Delete Subparagraph 7.1.1 and substitute the following:

- 7.1.1 Changes in the Work may be accomplished after execution of the Agreement and Bonds and without invalidating the Contract and Bonds, by Change Order, Constructive Change Directive or order for a minor change in the Work provided such changes are within the scope of the Contract Documents and subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents. Any change outside the scope of the Contract Documents in excess of \$150,000.00 shall be let out for public bid as provided by Louisiana Revised Statute 38:2212.

Add the following Subparagraph 7.1.5:

- 7.1.5 Any change pertaining to the Work which is not required to be put out for public bid, shall be negotiated in the best interest of the Owner or let out for public bid. When the change is negotiated, the change order in accordance with Louisiana Revised Statutes 38:2212 A. (7), shall be fully documented and itemized as to the Contractor's cost, including material quantities, material costs, taxes, insurance, wages, employee benefits, other related costs, profit and overhead. When unit prices are contained in the initial Contract, no deviations shall be allowed in computing negotiated changes. The Contractor shall provide and deliver to the Architect the above information including any application for extension in the Contract Time, within ten (10) days after being notified to prepare a Change Order.

Add the following Subparagraph 7.2.3:

- 7.2.3 Agreement on any Change Order shall constitute a final settlement of all matters relating to the change in the Work which is the subject of the Change Order, including, but not limited to all direct and indirect costs associated with such change and any and all adjustments to the Contract Sum and the Contract Time. In the event a Change Order increases the Contract Sum, Contractor shall include the Work covered by such Change Orders in Applications for Payment.

7.3 CONSTRUCTION CHANGE DIRECTIVES

Change Subparagraph 7.3.6 as follows:

In the first sentence, delete the words, "a reasonable allowance for overhead and profit" and substitute "an allowance for overhead and profit in accordance with clauses 7.3.10.1 through 7.3.10.6 below."

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Add the following to the end of Subparagraph 7.3.7:

Any credit to the Owner shall be the sum of the materials and labor costs and sub-contract costs. The Owner shall not be due any credit for overhead and profit.

Delete Subparagraph 7.3.8.

Add the following Subparagraphs 7.3.10, 7.3.11 and 7.3.12 to 7.3.

7.3.10 In Subparagraph 7.3.6, the allowance for the combined overhead and profit included in the total cost to the Owner shall be based on the following schedule:

- 1 For the Contractor, for Work performed by the Contractor's own forces, up to fifteen (15%) percent of the cost.
- 2 For the Contractor, for Work performed by the Contractor's Subcontractor, up to ten (10%) percent of the amount due the Subcontractor.
- 3 For each Subcontractor or Sub-subcontractor involved, for Work performed by the Subcontractor's or Sub-subcontractor's own forces, up to fifteen (15%) percent of the cost.
- 4 For each Subcontractor, for Work performed by the Subcontractor's Sub-subcontractor's, up to ten (10%) percent of the amount due the Sub-subcontractor.
- 5 Cost to which overhead and profit is to be applied shall be determined in accordance with Subparagraph 7.3.6.
- 6 In order to facilitate checking of quotations for extras or credits, all proposals, except those so minor that their propriety can be seen by inspection, shall be accomplished by a complete itemization of costs including labor, materials and Subcontracts. Labor and materials shall be itemized in the manner prescribed above. Where major cost items are Subcontracts, they shall be itemized also. In no case will a change be approved without such itemization if itemization is required by law.

7.3.11 Any credit to the Owner resulting from a change in the Work shall be the sum of:

- 1 Contractor's material, equipment costs not incurred, labor cost and other sums not actually expended.
- 2 Subcontractor's and/or Sub-subcontractor's material, equipment costs not incurred, labor cost and other sums not actually expended.

The only credit that will not be required is for overhead and profit.

7.3.12 In any Change Order, no allowance or itemization of costs shall be allowed for salaries or other compensation of the Contractor's personnel at the Contractor's principal office and branch offices; any part of the Contractor's capital expenses, including interest; overhead and general expenses of any kind not included above in cost of the work; cost of supervision not specifically required by the Change Order; and costs due to negligence, including but not limited to correction of defective or nonconforming work.

ARTICLE 8 - TIME

Delete Subparagraph 8.1.2 and substitute the following:

8.1.2 A Notice to Proceed shall designate a date for commencement of the Contract Time established in the Contract Documents. The date shall not be postponed by the failure of the Contractor or of persons or entities for whom the Contractor is responsible to act. A written Notice to Proceed shall be issued by the Architect when directed by the Owner.

Add the following Subparagraph 8.1.5:

8.1.5 The Contract Time shall not be changed by the submission of a schedule that shows an early completion date unless specifically authorized by Change Order.

Delete the last sentence of Subparagraph 8.2.2.

8.3 DELAYS AND EXTENSION OF TIME

8.3.1 In Subparagraph 8.3.1 in the first sentence after the words "owner pending" delete the words "mediation and arbitration" and add the word "litigation" and delete the last word "determine" and add the following:

"recommend, subject to Owner's approval of Change Order. If the claim is not made within the limits of paragraph 4.3, all right

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for future claims for that month are waived.”

Add the following Subparagraph 8.3.1.2:

- 8.3.1.1 The Contractor acknowledges and agrees that adjustments in the Contract Time will be permitted for a delay only to the extent such delay (1) is not caused or could not have been anticipated by the Contractor, (2) could not be limited or avoided by the Contractor’s timely notice to the Owner of the delay, (3) is of a duration not less than one (1) day, and (4) affects the critical path of the progress of the Work.

Add the following Subparagraph 8.3.1.2:

- 8.3.1.2 An extension of Contract Time, to the extent allowed under Paragraph 8.3, shall be the sole remedy of the Contractor for any (1) delay in the commencement of the Work, (2) hindrance or obstruction in the performance of the Work, (3) loss of productivity, unless a delay is caused by acts of the Owner which interfere with the Contractor’s performance of the Work and only to the extent that such acts continue after the Contractor furnishes the Owner and Architect with written notice of such interference. In no event shall the Contractor be entitled any indirect cost, consequential damages, lost opportunity cost, impact damages or other similar claims. The Owner’s exercise of any of its rights or remedies under the Contract Documents such as ordering changes in the Work, suspension, or correction of the Work, shall not be construed as an act of interference with the Contractor’s performance of the Work.

Add the following Subparagraph 8.3.4 to 8.3:

- 8.3.4 If the Contractor submits a progress report indicating, or otherwise expresses an intention to achieve, completion of the Work prior to any completion date required by the Contract Documents or expiration of the Contract Time, no liability of the Owner to the Contractor for any failure of the Contractor to so complete the Work shall be created or implied.

Add the following paragraph 8.4 to Article 8:

8.4 LIQUIDATED DAMAGES

- 8.4.1 Time is of the essence in completing the Work, and, in the event of delay on the part of the Contractor in completing the Work as specified beyond the date set forth in the Contract Documents as adjusted by Change Orders, it is distinctly understood and agreed that a deduction shall be made from the Contract Sum at a rate as stated in the Bid Proposal form plus any compensation for the Architect’s services and expenses made necessary for each and every day of delay until the Work is complete. This is not a penalty but agreed upon liquidated damages for delay. The calculations shall be for each and every calendar day exclusive of the day within which completion was required and up to and including the date of completion of the Work as determined by the Architect and Owner. The expiration of the time stipulated without the work having been completed shall in itself constitute a default without the necessity of any notice being given to the Contractor or its Surety. The Contractor and its Surety agree that the above mentioned sum shall be deducted at any time in the sole discretion of the Owner from the Contract Sum by means of a written adjustment executed by the Owner without the Contractor’s signature, it specifically having been agreed upon in advance as a measure of damage to the Owner on account of the Contractor’s delay.

ARTICLE 9 - PAYMENTS AND COMPLETION

9.2 SCHEDULE

Add the following Subparagraph 9.2.2 to Paragraph 9.2:

- 9.2.2 The Contractor and each Subcontractor shall prepare a trade payment breakdown for the Work for which each is responsible, such breakdown being submitted on the AIA Application for Payment Form or other form approved by the Architect and Owner. The form shall be divided in detail sufficient to exhibit all areas and/or sections of the Work, and/or by convenient units and shall be updated as required by either the Owner or Architect as necessary to reflect (1) description of the Work listing labor and materials separately, (2) total value, (3) percent of the Work completed to date, (4) value of Work completed to date, (5) percent of the previous amount billed, (6) previous amount billed, (7) current percent completed, and (8) value of Work completed to date. Any breakdown which fails to provide sufficient detail shall be rejected. If a trade breakdown is initially approved and subsequently used but is found later to be improper for any reason, sufficient funds shall be withheld from future Applications for Payment to ensure an adequate reserve, exclusive of the normal retainage to complete the Work. The schedule shall be coordinated with Subparagraph 3.10.

9.3 APPLICATIONS FOR PAYMENT

Delete Subparagraph 9.3.1 and clause 9.3.1.1 and 9.3.1.2 and substitute the following:

- 9.3.1 Monthly, the Contractor shall submit to the Architect an Application for Payment Form, supported by any additional data substantiating the Contractor’s right to payment as the Owner or the Architect may require. Application for Payment shall be

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submitted on or about the first of each month which application shall represent a consistent billing cycle of not less than 30 days for the value of labor and materials incorporated into the work and of materials, suitably stored, at the site, less normal retainage, all in accordance with LA R.S. 38:2248. The normal retainage shall not be due the Contractor until after substantial completion and expiration of the forty-five day lien period and submission to the Architect of a clear lien certificate and invoice for retainage. Contractor waives any claim for payment not submitted within one (1) year from the date of the filing of the Notice of Substantial Completion of the Work.

Delete Subparagraph 9.3.2 and substitute the following:

9.3.2 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner’s title to such materials and equipment or otherwise protect the Owner’s interest and shall include applicable insurance, storage, and transportation to the site for such materials and equipment stored off the site.

Add new Subparagraph 9.3.4 as follows:

9.3.4 Contractor further expressly undertakes to defend the Owner and indemnify and hold it harmless, at the Contractor’s sole expense including attorney’s fees, against any actions, lawsuits, or proceedings brought against the Owner as a result of any claim or lien filed against the Contract funds, the Work, the site of any of the Work, the Project site and any improvements thereon, or payments due the Contractor. The Contractor hereby agrees to indemnify and hold Owner harmless against any claim or lien and agrees to pay any judgment or claim or lien resulting from any such actions, lawsuits or proceedings, including attorney’s fees and interest.

At the end of paragraph 9.3.3 add the following sentence:

The Contractor further warrants that upon submittal of an application for payment, all work that entitles the Contractor to payment has been completed in accordance with the Contract Documents and specifications, and Contractor acknowledges that, in no event, shall payment be due for work that has not been performed.

Add the following Subparagraph 9.3.5 as follows:

9.3.5 The Owner may release any funds withheld due to a lien or affidavit of a claim if the Contractor obtains security acceptable to the Owner or a lien bond which is (1) issued by a surety acceptable to the Owner, (2) in form and substance satisfactory to the Owner and the Clerk of Court and (3) an amount of not less than 125% of such lien claim or affidavit of claim or as provided by law. By posting a lien bond or other acceptable security, however, the Contractor shall not be relieved of any responsibilities or other obligations under Paragraph 9.3, including, without limitation, the duty to defend and indemnify the Owner. The cost of any premiums incurred in connection with any such bonds and securities shall be the responsibility of the Contractor and shall not be part of, or cause any adjustment to, the Contract Sum.

9.5 DECISIONS TO WITHHOLD CERTIFICATION

Add the following Supplementary Subparagraphs 9.5.1.8, .9, and .10 to 9.5.1:

- 9.5.1.8 Completed Work has been damaged which requires correction or replacement;
- 9.5.1.9 Correction of defective Work by Owner or completion of the Work by the Owner; or
- 9.5.1.10 Belief or knowledge by the Architect of an occurrence of an event justifying termination for cause.
- 9.5.1.11 Failure to complete the punch list within the 45 day lien period.

9.6 PROGRESS PAYMENTS

In Subparagraph 9.6.1, after the word “Documents” delete the words “and shall so notify the Architect” and add the following:

Provided, however, Owner may refuse to make payment of the amount recommended by the Architect and the Owner may withhold from any payment an amount based on:

- 1 The Owner’s estimate of the value of any claims made against the Owner on account of the Contractor’s Work;
- 2 The Owner’s estimate of the value of any claim it has asserted against the Contractor;

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- 3 125% of the amount of any lien or affidavit of claim that have been filed in the Mortgage Records for the Parish in which the Project is located in connection with the Work; or
- 4 Other items such as liquidated damages which allow the Owner to withhold or set-off against any amount recommended by the Architect.

Delete Subparagraph 9.6.3, 9.6.4 and 9.6.5 from 9.6.

Delete Subparagraph 9.6.7 from 9.6.

9.7 FAILURE OF PAYMENT

Delete Subparagraph 9.7.1 from 9.7.

9.8 SUBSTANTIAL COMPLETION

Delete Subparagraph 9.8.1 and substitute the following:

- 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use. Upon the recommendation of the Architect to the Owner that the Project is complete or substantially complete, the Owner at a public meeting may approve the Certificate of Substantial Completion and direct its recordation in the mortgage records of the Clerk of Court of St. Tammany Parish. The Contractor shall at his expense record the certificate of Substantial Completion and provide the recordation information to the Architect and Owner. The time for the Correction Period shall begin on the date the acceptance is filed and recorded in the Mortgage Records.

Delete Subparagraph 9.8.3 and substitute the following:

- 9.8.3 Upon receipt of the Contractor's list, the Architect will make an inspection to determine whether the Work or designated portion thereof is substantially complete. A prerequisite to the Work being accepted as substantially complete, is the Owner's receipt of the executed Roofing Contractor's and Roofing Manufacturer's guarantees, where roofing work is part of the Contract. If the Architect's inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use, the Contractor shall, before acceptance of the Work as substantially complete, complete or correct such item upon notification by the Architect. In such case, the Contractor shall then submit a request for another inspection by the Architect to determine Substantial Completion. In no event shall acceptance of the work, or a part thereof, as substantially complete, constitute a right of Contractor to payment under the Contract for work not yet performed by the Contractor and Contractor agrees that no such sum shall be due until completion of that work.

Delete Subparagraph 9.8.4 and substitute the following:

- 9.8.4 The Certificate of Substantial Completion from the Architect shall include as an attachment the list of minor corrective items (punch list) to be completed by the Contractor, together with the estimated cost of completing such minor corrective items. In addition, the Certificate of Substantial Completion shall designate that the Contractor shall complete the list of minor corrective items within forty-five (45) days of the date of the Owner's acceptance of the Certificate. At the end of the forty-five (45) day period, without further notice to Contractor, the Owner shall have the option of either completing the items identified on the list of minor corrective items (punch list) and retaining the cost of the work done, including any additional architect fees from the Contract Sum, or calling on the Surety to complete the minor corrective items under the performance bond and/or labor and material payment bond.

Delete Subparagraph 9.8.5 and substitute the following:

- 9.8.5 Warranties required by the Contract Documents shall commence on the Date of Substantial Completion of the Work unless otherwise agreed to in writing by the Owner and Contractor. Unless otherwise agreed to in writing by the Owner and Contractor, security, maintenance, heat, utilities, damage to the Work not covered by the punch list, and insurance shall become the Owner's responsibility on the Date of Substantial Completion.

Add to Subparagraph 9.10.1, after the first sentence, the following:

If the Architect does not find the Work acceptable under the Contract Documents, the Architect shall make one additional inspection; if the Work is still not acceptable, the Architect, and each of the Architect's principal consultants, shall be paid \$100.00/hour for their time at the project site, for each additional inspection, to be withheld from the unpaid funds remaining in the Contract Sum. The payment shall be made by the Owner and deducted from the construction contract funds.

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Add to Subparagraph 9.10.2 the following at the end of the first sentence:

(6)A Certificate from the Clerk of Court for the Parish of St. Tammany which shall be dated at least forty-six (46) days subsequent to the date of recordation in the same office of the acceptance of substantial completion for the Owner and to the effect that no liens or claims for labor or materials have been recorded against the Project, (7) all warranties and guarantees required under or pursuant to the Contract Documents, which shall be submitted by the Architect to the Owner for acceptance as part of the final Application for Payment, (8) all operation manuals and training of Owner's staff in the operation of mechanical, electrical, heating and air conditioning systems, and (9) reproducible drawings (as-builts) accepted by the Architect.

Delete Subparagraph 9.10.4.

Add the following Paragraph 9.11 to Article 9:

9.11 Liquidated Damages

9.11.1 The Contractor and the Contractor's Surety, if any, shall be liable for and shall pay the Owner the sums stipulated in Subparagraph 8.4.1 as liquidated damages for each calendar day of delay until the Work is determined to be complete by the Architect and Owner.

ARTICLE 10 - PROTECTION OF PERSONS AND PROPERTY

10.2 SAFETY OF PERSONS AND PROPERTY

Add to Subparagraph 10.2.2, in the first sentence, between the words "bearing on" and "safety", add the words, "the health and".

Delete, in Subparagraph 10.2.5, the words, "directly or indirectly"

Add Subparagraph 10.2.8:

10.2.8 Any fines levied against the Owner due to the Contractor's (or its subcontractor's) failure to comply with OSHA standards or other Federal, State, and local regulations shall be paid by the Contractor. If any such fines are not promptly paid, then the amount of the fine may be withheld by the Owner from payment to the Contractor.

10.3 HAZARDOUS MATERIALS

Add to Subparagraph 10.3.1, in the first sentence, after "(PCB)" add "or lead".

Delete Subparagraph 10.3.2 and substitute the following:

10.3.2 In the event the Contractor encounters on the site material reasonably believed to be asbestos, lead, or polychlorinated biphenyl (PCB) which has not been rendered harmless, the Contractor shall immediately stop Work in the area affected and report the condition to the Owner and Architect in writing. The Work in the affected area shall not thereafter be resumed except by written agreement of the Owner and Contractor if in fact the material is asbestos, lead, or polychlorinated biphenyl (PCB) and has not been rendered harmless. The Work in the affected area shall be resumed immediately following the occurrence of any one of the following events (1) the Owner causes remedial Work to be performed which results in the absence of asbestos, lead or polychlorinated biphenyl (PCB), or (2) the Owner and the Contractor by written agreement, decide to resume performance of the Work, or (3) the Work may safely and lawfully proceed as determined by an appropriate governmental authority or as evidenced by a written report to both the Owner and Contractor which is prepared by an environmental engineer. In no event, however, shall the Owner have any responsibility for any substance or material that is brought to the project site by the Contractor or any subcontractor, any materialmen, or supplier, or any entity for whom any of them is responsible. The Contractor agrees not to use any fill or other materials to be incorporated into the Work which are hazardous, toxic or comprised of any items that are hazardous or toxic.

Delete Subparagraph 10.3.3.

Delete from Subparagraph 10.4 all words following the word "Contractor".

Delete Subparagraph 10.5.

10.6 EMERGENCIES

Delete Subparagraph 10.6.1 and substitute the following:

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10.6.1 In an emergency affecting the safety of persons or property, the Contractor shall notify the Owner and Architect immediately of the emergency, simultaneously acting at his discretion to prevent damage, injury, or loss.

ARTICLE 11 – INSURANCE AND BONDS

Delete from Subparagraph 11.1.2 “, whether written on an occurrence or claims-made basis;” from the second sentence

Add the following subparagraph 11.1.4:

The following general requirements to apply to all insurance required under ARTICLE 11:

11.1.4.1 General Conditions

- a. Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Work hereunder by the Contractor, his agents, representatives, employees and subcontractors. The cost of such insurance shall be included in the Contractor’s bid.
- b. Insurance provided by the Contractor shall be with a reliable company with an A.M. Best’s rating of no less than A-, acceptable to and approved by the Owner, and authorized to do business in Louisiana. This requirement will be waived for workers’ compensation coverage only for those companies who participate in the State of Louisiana Workers’ Compensation Assigned Risk Pool.
- c. The Owner and Architect must be included as additional insured on the general liability policy.
- d. All Workers Compensation policies must be endorsed with a waiver of subrogation.
- e. Each policy shall contain a provision signed by the agent of the company stipulating that the policy will not be canceled without thirty (30) days prior written notice to the Owner.
- f. Any and all policy deductibles shall be paid by the Contractor.
- g. All certificates of insurance shall be delivered to the Owner within ten days of the award of the Contract by the Owner. Bidders in submitting a proposal agree to submit certified copies of their insurance policies to the Owner for review.
- h. Claims made policies are not acceptable to the Owner and cannot be used to comply with insurance requirements of this Contract.

11.1.4.2 All policies and certificates of insurance of the Contractor/Subcontractor shall contain the following clauses:

11.1.4.2.1 The Contractor/Subcontractor’s insurers will have no right of recovery or subrogation against the Owner, it being the intention of the parties that the insurance policies shall protect both parties, and Owner’s insurance, if any, will not be utilized to cover any loss.

11.1.4.2.2 The Owner shall be named as an additional insured by the Contractor (ISO Forms CG 20 10, Current form approved for use in Louisiana).

11.1.4.2.3 The insurance companies issuing the policy or policies shall have no recourse against the Owner for payment of any premiums or for assessments under any form of policy.

11.1.4.2.4 Any and all deductibles in the insurance policies shall be assumed by and be at the sole risk of the Contractor whether a claim is made against the Owner or its agents or employees.

11.1.4.2.5 Any deductibles or self-insured retentions must be declared to and approved by the Owner. At the option of the Owner, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the Owner, its officers, officials, employees and volunteers; or the Contractor’s bond shall guarantee payment of losses and related investigations, claim administration and defense expenses.

11.1.5 INSURANCE

The Contractor/Subcontractor, prior to commencing work, shall provide at his own expense, proof of the following insurance coverages required by the contract to the Owner by insurance companies authorized in the State of Louisiana. Insurance is to be placed with insurers with an A. M. Best’s rating of no less than A-. This rating requirement will be waived for the workers’ compensation coverage and policies written through Lloyds of London or Institute of London Underwriter (ILU) companies.

SECTION IIIB - SUPPLEMENTARY CONDITIONS

Thirty days prior notice of cancellation shall be given to the Owner by registered mail, return receipt requested, on all of the required coverage provided to the Owner. All notices will name the Contractor/ Subcontractor and identify the contract number.

Insurance coverage specified in the GENERAL CONDITIONS (AIA Document A 201, 1997 Edition) to be provided by the Contractor, and any other insurance described below shall be furnished with the following minimum limits:

11.1.5.1 Workers’ Compensation - Statutory - in compliance with the Compensation Law of the State. Exception: Employers liability to be \$1,000,000 when work is to be over water and involves maritime exposures.

11.1.5.2 Commercial General Liability Insurance with a combined single limit per occurrence for bodily injury and property damage. Insurance Services Office Commercial General Liability coverage (“occurrence”) form CG 0001. (Current form approved for use in Louisiana.) “Claims Made” form is unacceptable. The “occurrence form” shall not have a “sunset clause”. This insurance shall include coverage for bodily injury and property damage, and indicate on the Certificate of Insurance which of the seven (7) coverages required below are not included in the policy, if any:

1. Premises B Operations;
2. Broad Form Contractual Liability;
3. Products and Completed Operations
4. Use of Contractors and Subcontractors;
5. Personal Injury;
6. Broad Form Property Damage
7. Explosion, Collapse and underground (XCU) Coverage

NOTE: On the certification of insurance, under the description of operations, the following wording is required: THE AGGREGATE LOSS LIMIT APPLIES TO EACH PROJECT, or a copy of ISO form CG2503 (Current form approved for use in Louisiana) shall be submitted.

COMBINED SINGLE LIMIT (CSL) - AMOUNT OF INSURANCE REQUIRED

Type of <u>Construction</u>	Projects Under <u>\$100,000</u>	Projects \$100,001 - <u>\$1,000,000</u>	Projects Over <u>\$1,000,000</u>
New Buildings:			
-Each Occurrence/ Minimum Limit	\$500,000	\$1,000,000	\$3,000,000
-Aggregate (Applicable to this Contract ONLY)	\$500,000	\$1,000,000	\$3,000,000
Renovations:	<i>The building(s) value for this Project is: \$ _____</i>		
-Each Occurrence/ Minimum Limit	\$500,000*** (Depends On Building Value)	\$1,000,000*** (Depends On Building Value)	\$3,000,000*** (Depends On Building Value)
-Aggregate (Applicable to this Contract ONLY)	\$500,000*** (Depends On Building Value)	\$1,000,000*** (Depends On Building Value)	\$3,000,000*** (Depends On Building Value)

****While the minimum combined single limit of \$500,000 is required for all renovations, the value of a building shall be multiplied by 10% and insurance requirements will be increased at \$1,000,000 intervals and rounded to the nearest \$1,000,000. Example: Renovation on \$33,000,000 building would require \$3,000,000 minimum combined single limit of coverage. Maximum limit required is \$5,000,000.00 regardless of building value.*

11.1.5.3 Business Automobile Liability Insurance with a combined single limit of \$1,000,000 per occurrence for bodily injury and property damage, unless otherwise indicated. Insurance Services Office form number CA 0001 covering Automobile Liability (Current form approved for use in Louisiana.) The policy shall provide coverage for owned, hired, and non-owned coverage. If an automobile is to be utilized in the execution of this Contract and the vendor/contractor does not own a vehicle, then proof of hired and non-owned coverage is sufficient. This insurance shall include for bodily injury and property damage the following coverages:

1. Owned automobiles;
2. Hired automobiles;

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- 3. Non-owned automobiles.
- 4. Medical Payments: \$5,000.00 minimum

11.1.5.4 An Umbrella Policy may be used to meet minimum requirements.

11.1.6 All property losses shall be made payable to and adjusted with the Owner.

11.1.7 All policies of insurance or declarations of coverage amounts and types shall be approved by the Owner prior to the inception of any work.

11.1.8 Other insurance required is as follows:

11.1.8.1 Owner’s Protective Liability Insurance shall be furnished by the Contractor and naming the St. Tammany Parish School Board as the Insured.

	<u>Projects Under \$100,000</u>	<u>Projects \$100,001- \$1,000,000</u>	<u>Projects Over \$1,000,000</u>
CSL - Each Occurrence	\$500,000	\$1,000,000	\$3,000,000

11.1.8.2 Asbestos Abatement Liability
(required when asbestos abatement is included in the work)

The contractor or subcontractor who will be doing the asbestos abatement as outlined in this contract shall obtain and maintain such liability coverage for the asbestos abatement hazard and exposure with minimum limits of \$1,000,000 per occurrence for the duration of the project. The policy shall name the St. Tammany Parish School Board as an additional insured for the project. The policy shall be written on an “occurrence” form without a sunset clause. Claims-made coverage is unacceptable. The insurance company shall have an A.M. Best rating of at least A-:VI or better or written through Lloyds of London or Institute of London Underwriter (ILU) companies.

11.1.9 If, at any time, any of the said policies shall be or become unsatisfactory to the Owner, as to form or substance, or if a company issuing any such policy shall be or become unsatisfactory to the Owner, the Contractor/Subcontractor shall promptly obtain a new policy, submit the same to the Owner for approval and submit a certificate thereof as hereinabove provided.

Upon failure of the Contractor/Subcontractor to furnish, deliver and maintain such insurance as above provided, this contract, at the election of the Owner, may be forthwith declared suspended, discontinued or terminated. Failure of the Contractor/Subcontractor to take out and/or to maintain or the taking out and/or maintenance of any required insurance, shall not relieve the Contractor/Subcontractor from any liability under the contract, nor shall the insurance requirements be construed to conflict with the obligations of the Contractor/Subcontractor concerning indemnification. The Owner reserves the right to require complete, certified copies of all required insurance policies, at any time. Should Contractor fail to obtain any insurance required under this Contract then the Owner is entitled to a reduction in the Contract sum for what insurance would reasonably have cost the Contractor.

11.1.10 RISKS AND INDEMNIFICATIONS ASSUMED BY THE CONTRACTOR. Neither the acceptance of the Completed Work nor payment therefore shall release the Contractor/Subcontractor from his obligations from the insurance requirements or indemnification agreement.

11.1.10.1 Additional insurance may be required on an individual basis for extra hazardous contracts and specific service agreements.

If such additional insurance is required for a specific contract, that requirement will be described in the “Special Conditions” of the contract specifications.

11.1.10.2 If any of the Property and Casualty insurance requirements are not complied with at their renewal dates, payments to the Contractor/Subcontractor will be withheld until those requirements have been met, or at the option of the Owner, the Owner may pay the Renewal Premium and withhold such payments from any monies due the Contractor/Subcontractor.

11.1.10.3 All property losses shall be made payable to and adjusted with the Owner.

11.1.10.4 All policies and certificates of insurance shall be approved by the Owner prior to the inception of any work.

11.1.10.5 If at any time any of the foregoing policies shall be or become unsatisfactory to the Owner, as to form or substance, or if a company issuing any such policy shall be or become unsatisfactory to the Owner, the Contractor/Subcontractor shall, upon notice to that effect from the Owner, promptly obtain a new policy, submit the same to the Owner for approval and submit a certificate thereof as hereinabove provided. Upon failure of the Contractor/Subcontractor to furnish, deliver and maintain such insurance as above provided, this Contract, at the election of the Owner, may be forthwith declared suspended, discontinued or terminated.

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Failure of the Contractor/Subcontractor to take out and/or maintain or the taking out and/or maintenance of any required insurance, shall not relieve the Contractor/Subcontractor from any liability under the Contract, nor shall the insurance requirements be construed to conflict with or otherwise limit the obligations of the Contractor/Subcontractor concerning indemnification. The Owner reserves the right to require complete, certified copies of all required insurance policies, at any time.

11.1.11 SUBCONTRACTORS

Contractor shall be responsible for insuring that subcontractors have adequate insurance to protect the Owner and Contractor from liability.

11.1.12 CERTIFICATE OF INSURANCE

Contractor shall furnish the Owner with certificates of insurance affecting coverage required by this clause. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates of insurance must also contain the following in the "Description of Operations" section:

If the Contractor is a General Contractor, then so state.

If the Contractor is a specialty contractor, then so state and provide the list of specialties for which the contractor is insured.

The certificates are to be received and approved by the Owner before work commences. The Owner reserves the right to require complete, certified copies of all required insurance policies, at any time.

Delete paragraph 11.2 and its subparagraph.

11.3 PROJECT MANAGEMENT PROTECTIVE LIABILITY INSURANCE

Delete Subparagraphs 11.3.1, 11.3.2, & 11.3.3

11.4 PROPERTY INSURANCE

Delete all Subparagraphs 11.4.1 through 11.4.10 and substitute the following:

11.4.1 The contractor shall provide builder's risk insurance to protect the Owner, the Contractor and subcontractors for loss with coverage in an amount equal to the sum of the Contract award. The policy shall insure against all risk of loss or damage. The Contractor shall be responsible for any deductible on any policy of insurance if a claim is made under the policy. Builder's risk insurance shall name the Owner as an additional insured..

ARTICLE 12 - UNCOVERING AND CORRECTION OF WORK

12.2 CORRECTION OF WORK

Add the following to the end of Subparagraph 12.2.1:

If prior to the date of Substantial Completion, the Contractor, a Subcontractor or anyone for whom either is responsible uses or damages any portion of the Work, including, without limitation, mechanical, electrical, plumbing and other building systems, machinery, equipment or other mechanical device, the Contractor shall cause such item to be restored to "like new" condition at no expense to the Owner.

Delete Subparagraph 12.2.2 and substitute the following:

12.2.2 If, within one year after the date of the recordation of the certificate of Substantial Completion or Acceptance in the mortgage records for the Parish of St. Tammany, the Work or any portion thereof is found by the Architect or Owner not to be in accordance with the requirements of the Contract Documents, the Contractor shall correct such Work or if it is rejected by the Owner or Architect, remove such Work from the site and replace it with Work in accordance with the Contract Documents. If circumstances exist, including, but not limited to an emergency, the Owner may have any such Work corrected or removed and replaced. In such event, the Contractor shall reimburse the Owner for all costs and damages, including compensation for the Architect's services and expenses made necessary thereby. This period of correction of one year shall be extended as to respective portions of the Work performed after the date of the filing of the Certificate of Substantial Completion. This obligation under this subparagraph 12.2.2 shall survive acceptance of the Work under the Contract Documents and termination of the Agreement. The Architect shall give written notice promptly after the discovery of any condition of nonconforming work. Further, this obligation is in addition to and does not limit any general warranty provided by law or specified in the Contract Documents.

Delete the last three sentences of Subparagraph 12.2.1.

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Delete Subparagraph 12.2.2.3.

Add to Subparagraph 12.2.5 the following:

Further, nothing contained in this Paragraph 12.2 shall limit in any manner the provisions of law.

ARTICLE 13 - MISCELLANEOUS PROVISIONS

Delete from Subparagraph 13.1.1 “place where the Project is located” and insert the words “State of Louisiana”.

Add the following Subparagraph 13.1.2 to 13.1:

- ii. The Contractor and his Surety consent and yield to the jurisdiction of the 22nd Judicial District Court for the Parish of St. Tammany or such other court located in the Parish of St. Tammany, Louisiana.

Delete from Subparagraph 13.2.1, in the second sentence, the words, “Except as provided in Section 13.2.2” and the words, “as a whole”.

Delete Subparagraph 13.2.2.

Delete from Subparagraph 13.3.1, the words, “if delivered in person to the individual or a member of the firm or entity or to an officer of the corporation for which it was intended, or”.

Delete the existing Subparagraph 13.4.3 and substitute the following Subparagraph 13.4.3:

- 13.4.3 Nothing contained in the Contract Documents shall create a contractual relationship or any cause of action in favor of a third party against either the Owner, Contractor or Surety.

Delete Paragraph 13.6 INTEREST and Subparagraph 13.6.1 thereunder in their entirety. No interest is due by the Owner for any late payment.

Delete paragraph 13.7 COMMENCEMENT OF STATUTORY OF LIMITATION PERIOD and subparagraph 13.7.1 and its subparts thereunder in their entirety and in its place substitute the following:

13.7 PRESCRIPTION

- 13.7.1 Any action against the Contractor on the Contract or on any Bond or against the Contractor or Surety or both on the Bonds furnished by the Contractor, all in connection with the construction, alteration or repair of any public works shall prescribe only as provided by law.

Add the following paragraphs 13.8 through 13.12.1

13.8 WORK CONTINUATION AND PAYMENT

- 13.8.1 Unless otherwise agreed in writing, the Contractor shall carry on the Work, maintain the Schedule of the Work pending any claim or lawsuit, and, if so, the Owner shall continue to make payments in accordance with the provisions of the Contract Documents except as to any item in dispute.

13.9 ARBITRATION

- 13.9.1 All references within the Contract Documents referring to or including provisions for arbitration are stricken, deleted and deemed void. No provision shall be construed as authorizing or including provisions for arbitration. However, the parties may, subsequent to any dispute, agree to arbitration to settle a dispute.

13.10 ATTORNEY’S FEES

- 13.10.1 If as a result of any action or lawsuit filed by the Contractor it is necessary for the Owner to retain an attorney, the Contractor shall pay all legal fees and costs incurred by the Owner, if the Owner is the prevailing party for all or a portion of any claim.
- 13.10.2 In the event it is necessary for Owner to retain an attorney and/or file suit as a result of a breach by the Contractor of any of the Contractor’s obligations in the Contract Documents, including, but not limited, failing to comply with the provisions of the plans and specifications or failing to perform in a good and workmanlike manner, or failing to perform its work timely, or any other breaches of the Contractor’s obligations, the Contractor will be deemed liable for any and all attorney’s fees and court costs incurred by Owner.

SECTION IIIB - SUPPLEMENTARY CONDITIONS

13.11 PRECONSTRUCTION CONFERENCE

13.11.1 No later than fifteen (15) days after the date of the Notice to Proceed, a conference will be held to review the Contractor's schedule and Schedule of Values submitted to the Architect together with a review of the Contractor's plans for proceeding with the Work and such other items as may be designated by the Architect. The meeting will be convened by the Architect with a representative of the Owner and the Project representatives of the Contractor.

13.12 PROJECT MEETINGS

13.12.1 Monthly Project Meetings will be held at which the Architect, Owner's representative, and Project Representative, if any, shall be present. The Contractor and the primary subcontractors shall also be represented. The Contractor is responsible to prepare the minutes of the meeting and to distribute them to all parties within five (5) days of the date of the monthly Project Meeting.

ARTICLE 14 - TERMINATION OR SUSPENSION OF THE CONTRACT

Delete Paragraphs 14.1 and 14.1.1

Add the following Subparagraphs to 14.2.1:

- .5 becomes insolvent, seeking relief in bankruptcy, is placed in bankruptcy involuntarily, or makes a general assignment for the benefit of the creditors and fails to provide adequate assurances, the adequacy of which the Owner will be the sole judge, of the Contractor's future performance in accordance with the requirements of the Contract Documents;
- .6 disregards the authority of the Architect;
- .7 loses charge of the property of the Contractor resulting in a trustee, receiver, custodian or agent appointed under applicable law or under contract;
- .8 breaches any warranty made by the Contractor under or required pursuant to the Contract Documents; or
- .9 fails after commencement of the Work to proceed continuously with the construction and completion of the Work for more than ten (10) working days, except as permitted under the Contract Documents.
- .10 Failure to complete the punch list within the lien period as provided in 9.8.2.

Delete from Subparagraph 14.2.2, the words, "upon certification by the Architect that sufficient cause exists to justify such action" and Delete from Subparagraph 14.2.2.3 the last sentence commencing with the word "Upon" and ending with "Work".

Add the following sentence to Subparagraph 14.2.3:

Termination by the Owner shall not suspend assessment of liquidated damages against the surety.

Add the following Subparagraph 14.2.5:

14.2.5 If an agreed sum of liquidated damages has been established, termination by the Owner under this Article will not relieve the Contractor and surety of their obligations under the liquidated damages provisions and the Contractor and/or surety shall be liable to the Owner for per diem liquidated damages.

Add the following Subparagraph 14.2.6:

14.2.6 In the event that the Owner terminates the Contract for one of the reasons stated in Subparagraph 14.2.1 and it is later determined that said termination for cause was improper, unwarranted, or otherwise invalid, then the provisions of Subparagraph 14.4, **TERMINATION BY THE OWNER FOR CONVENIENCE**, shall apply. The Contract shall be deemed **TERMINATED BY THE OWNER FOR CONVENIENCE** from the day of the original Notice of Termination by the Owner for Cause.

Delete Subparagraph 14.3.2.

Delete from Subparagraph 14.4.3, the words "and costs incurred by reason of such termination along with reasonable overhead and profit on the Work not executed."

SECTION IIIB - SUPPLEMENTARY CONDITIONS

ARTICLE 15 - EQUAL OPPORTUNITY EMPLOYMENT

Add the following Subparagraphs 15.1 and 15.2 as Article 15:

- 15.1 The Contractor and all subcontractors shall not discriminate against any employee or applicant for employment in accordance with LA R.S. 23:301, *et seq.* or any other applicable law, including but not limited to LA R.S. 23:332 and LA R.S. 23:334.
- 15.2 The Contractor and all subcontractors shall, in all solicitations or advertisement for employment placed by them or on their behalf, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, or age.

END OF SECTION IIIB

Revised 9.18.09

SECTION IIIC - CHANGE ORDER

CHANGE ORDER NO: _____

PROJECT: _____

DATE: _____

PROJECT NO: _____

CONTRACT DATE: _____

JOB NO: _____

TO: CONTRACTOR: _____
(Name and Address)

You are directed to make the following change in this contract: (attach itemized breakdown to show cost including materials quantities, material costs, taxes, insurance, employee benefits, other related costs, profit and overhead):

NOT VALID UNTIL SIGNED BY OWNER AND CONTRACTOR

The Original Contract Sum	\$ _____
Net Change by previous Change Orders	\$ _____
Contract Sum Prior to this Change	\$ _____
Contract Sum will be (increased) (decreased) (unchanged) by this Change	\$ _____
New Contract Sum including this Change	\$ _____
Contract Time will be (increased) (decreased) (unchanged) by	_____ days
Revised Contract Completion Date as of the date of this Change Order is	_____

Change Order is:

RECOMMENDED:

ACCEPTED:

APPROVED:

(Architect)

(Contractor)

St. Tammany Parish School Board
(Owner)

By: _____

By: _____

By: _____

Date: _____

Date: _____

Date: _____

TECHNICAL SPECIFICATIONS

Table of Contents

DIVISION 7 –

07550	MODIFIED BITUMEN MEMBRANE ROOFING
07710	PREFABRICATED FASCIAS COPINGS AND EXPANSION JOINTS
76200	SHEET METAL FLASHING AND TRIM

**SECTION 07550
MODIFIED BITUMEN MEMBRANE ROOFING**

PART 1 GENERAL

1.01 SECTION INCLUDES:

- A. Preparation of Substrate to Receive Roofing Materials
- B. Base Sheet and Roof Insulation Application to Prepared Substrate
- C. Roof Membrane Application
- D. Roof Flashing Application
- E. Incorporation of Sheet Metal Flashing Components and Roofing Accessories into the Roof System

1.02 PRODUCTS INSTALLED BUT NOT FURNISHED UNDER THIS SECTION

- A. Sheet Metal Flashing and Trim
- B. Sheet Metal Roofing Specialties

1.03 RELATED SECTIONS

- A. Section 76200 - Sheet Metal Flashing and Trim
- B. Section 07710 – Prefabricated Fascias Copings and Expansion Joints

1.04 REFERENCE STANDARDS

References in these specifications to standards, test methods and codes, are implied to mean the latest edition of each such standard adopted. The following is an abbreviated list of associations, institutions, and societies which may be used as references throughout these specifications.

ASTM	American Society for Testing and Materials Philadelphia, PA
FM	Factory Mutual Engineering and Research Norwood, MA
NRCA	National Roofing Contractors Association Rosemont, IL
OSHA	Occupational Safety and Health Administration Washington, DC

SMACNA Sheet Metal and Air Conditioning Contractors National Association
Chantilly, VA

UL Underwriters Laboratories
Northbrook, IL

1.05 DESCRIPTION OF WORK

The basic work descriptions required in this specification are referenced below. Equal products or systems are acceptable; submit in accordance with Section 1.06 Submittals. Disconnection and removal, re-installation and re-connection of all equipment will be by St. Tammany Parish School Board.

Gym Stage Roof

Project Type: Tear-off Specification #: 2030 IT

Deck: Cementitious wood fiber Slope: Less than 1/8 inch

Base Sheet: Parabase FS, mechanically attached.

Insulation - tapered layer: Tapered Paratherm System by Siplast, providing for a roof slope of 1/8 inch, applied in Para-Stik Insulation Adhesive.

Insulation - crickets: Tapered Paratherm Crickets by Siplast, providing for a roof slope of 1/4 inch, applied in Para-Stik Insulation Adhesive.

Insulation - top layer: DensDeck Prime by Georgia-Pacific, having a thickness of 1/2 inch, applied in Para-Stik Insulation Adhesive.

Roof System: Paradiene 20 TG, torch applied;
Paradiene 30 FR TG, torch applied

Flashing System: Veral Aluminum, torch applied.

Cafetorium

Project Type: Tear-off Specification #: 2030 IT

Deck: FM Approved metal Slope: Less than 1/8 inch

Insulation - tapered layer: Tapered Paratherm System by Siplast, providing for a roof slope of 1/4 inch, mechanically attached simultaneously with the top layer of insulation.

Insulation - top layer: DensDeck Prime by Georgia-Pacific, having a thickness of 1/2 inch, mechanically attached.

Roof System: Paradiene 20 TG, torch applied;

Paradiene 30 FR TG, torch applied

Flashing System: Veral Aluminum, torch applied.

1.06 SUBMITTALS

All submittals which do not conform to the following requirements will be rejected.

- A. Submittal of Equals: Submit primary roof systems to be considered as equals to the specified roof system no less than 7 days prior to bid date. Primary roof systems which have been reviewed and accepted as equals to the specified roof system will be listed in an addendum prior to bid date; only then will equals be accepted at bidding. Submittals shall include the following:
1. Two 3 inch x 5 inch samples of the primary roofing and flashing sheets.
 2. Latest edition of the roofing system manufacturer's specifications and installation instructions.
 3. Descriptive list of the materials proposed for use.
 4. Evidence of Underwriters' Laboratories Class A acceptance of the proposed roofing system (including mopping asphalt or cold adhesive) without additional requirements for gravel or coatings. No other testing agency approvals will be accepted.
 5. Evidence of Factory Mutual Approval Standard 4470 for the proposed membrane system.
 - a) The roof configuration (including fastening of base sheet or insulation) shall be approved by FM for minimum 1-90 windstorm construction for the Cafetorium Roof.
 - b) The roof membrane configuration shall be approved by FM for Class 1-SH (severe hail) exposure.
 6. Letter from the proposed primary roofing manufacturer confirming that a phased roof application, with only the modified bitumen base ply in place for a period of up to 10 weeks, is acceptable and approved for this project.
 7. List of 3 of the proposed primary roofing manufacturer's projects, located in the United States, of equal size and degree of difficulty which have been performing successfully for a period of at least 10 years.
 8. Letter from the proposed primary roofing manufacturer confirming that the filler content in the elastomeric blend of the proposed roof membrane and flashing components does not exceed 35% in weight.
 9. Complete list of material physical and mechanical properties for each sheet including: weights and thicknesses; low temperature flexibility; peak load; ultimate

elongation; dimensional stability; compound stability; high temperature stability; granule embedment and resistance to thermal shock for foil faced products.

10. Sample copy of the proposed guarantee.

B. Submittals Prior to Contract Award:

1. Letter from the proposed primary roofing manufacturer confirming that the bidder is an acceptable Contractor authorized to install the proposed system.
2. Letter from the primary roofing manufacturer stating that the proposed application will comply with the manufacturer's requirements in order to qualify the project for the specified guarantee.

C. Submittals Prior to Project Close-out:

1. Certificate Of Analysis from the testing laboratory of the primary roofing materials manufacturer, confirming the physical and mechanical properties of the roofing membrane components. Testing shall be in accordance with the parameters published in ASTM D 5147 and ASTM D 7051 and indicate Quality Assurance/Quality Control data as required to meet the specified properties. A separate Certificate Of Analysis for each production run of material shall indicate the following information:
 - a) Material type
 - b) Lot number
 - c) Production date
 - d) Dimensions and Mass (indicate the lowest values recorded during the production run);
 - Roll length
 - Roll width
 - Selvage width
 - Total thickness
 - Thickness at selvage (coating thickness)
 - Weight
 - e) Physical and Mechanical Properties;
 - Low temperature flexibility
 - Peak load
 - Ultimate Elongation
 - Dimensional stability
 - Compound Stability
 - Granule embedment
 - Resistance to thermal shock (foil faced products)
2. Manufacturer's printed recommendations for proper maintenance of the specified roof system including inspection frequencies, penetration addition policies, temporary repairs, and leak call procedures.

1.07 QUALITY ASSURANCE

- A. Acceptable Products: Primary roofing products, including each type of sheet, all manufactured in the United States, shall be supplied by a single manufacturer which has been successfully producing the specified types of primary products for not less than 10 years. The primary roofing products shall have maintained a consistent composition for a minimum of five years.
- B. Agency Approvals: The proposed roof system shall conform to the following requirements. No other testing agency approvals will be accepted.
 - 1. Underwriters Laboratories Class A acceptance of the proposed roofing system (including mopping asphalt or cold adhesive) without additional requirements for gravel or coatings.
 - 2. Factory Mutual Approval Standard 4470 listing for the proposed membrane system. The roof membrane configuration shall be approved by FM for Class 1-SH (severe hail) exposure. The roof configuration (including fastening of base sheet or insulation) shall be approved by FM for minimum 1-90 windstorm construction for the Cafetorium Roof.
- C. Acceptable Contractor: Contractor shall have a minimum of 2 years experience in successfully installing the same or similar roofing materials and be certified in writing by the roofing materials manufacturer to install the primary roofing products.
- D. Scope of Work: The work to be performed under this specification shall include but is not limited to the following: Attend necessary job meetings and furnish competent and full time supervision, experienced roof mechanics, all materials, tools, and equipment necessary to complete, in an acceptable manner, the roof installation in accordance with this specification. Comply with the latest written application instructions of the manufacturer of the primary roofing products. In addition, application practice shall comply with requirements and recommendations contained in the latest edition of the Handbook of Accepted Roofing Knowledge (HARK) as published by the National Roofing Contractor's Association, amended to include the acceptance of a phased roof system installation.
- E. Local Regulations: Conform to regulations of public agencies, including any specific requirements of the city and/or state of jurisdiction.
- F. Manufacturer Requirements: Ensure that the primary roofing materials manufacturer provides direct trained company personnel to attend necessary job meetings, perform periodic inspections as necessary, and conducts a final inspection upon successful completion of the project.

1.08 PRODUCT DELIVERY STORAGE AND HANDLING

- A. Delivery: Deliver materials in the manufacturer's original sealed and labeled containers and in quantities required to allow continuity of application.
- B. Storage: Store materials out of direct exposure to the elements. Store roll goods on a clean, flat and dry surface. All material stored on the roof overnight shall be stored on pallets. Rolls of roofing must be stored on ends. Store materials on the roof in a

manner so as to preclude overloading of deck and building structure. Store materials such as solvents, adhesives and asphalt cutback products away from open flames, sparks or excessive heat. Cover all material using a breathable cover such as a canvas. Polyethylene or other non-breathable plastic coverings are not acceptable.

- C. Handling: Handle all materials in such a manner as to preclude damage and contamination with moisture or foreign matter. Handle rolled goods to prevent damage to edges or ends.
- D. Damaged Material: Any materials that are found to be damaged or stored in any manner other than stated above will be automatically rejected, removed and replaced at the Contractor's expense.

1.09 PROJECT/SITE CONDITIONS

A. Requirements Prior to Job Start

1. Notification: Give a minimum of 5 days notice to the Owner and manufacturer prior to commencing any work and notify both parties on a daily basis of any change in work schedule.
2. Permits: Obtain all permits required by local agencies and pay all fees which may be required for the performance of the work.
3. Safety: Familiarize every member of the application crew with all fire and safety regulations recommended by OSHA, NRCA and other industry or local governmental groups.

B. Environmental Requirements

1. Precipitation: Do not apply roofing materials during precipitation or in the event there is a probability of precipitation during application. Take adequate precautions to ensure that materials, applied roofing, and building interiors are protected from possible moisture damage or contamination.

C. Protection Requirements

1. Membrane Protection: Provide protection against staining and mechanical damage for newly applied roofing and adjacent surfaces throughout this project.
2. Torch Safety: Crew members handling torches shall be trained by an Authorized Certified Roofing Torch Applicator (CERTA) Trainer, be certified according to CERTA torch safety guidelines as published by the National Roofing Contractor's Association (NRCA), and follow torch safety practices as required by the contractor's insurance carrier. Designate one person on each crew to perform a daily fire watch. The designated crew member shall watch for fires or smoldering materials on all areas during roof construction activity, and for the minimum period required by CERTA guidelines after roofing material application has been suspended for the day.

3. Limited Access: Prevent access by the public to materials, tools and equipment during the course of the project.
4. Debris Removal: Remove all debris daily from the project site and take to a legal dumping area authorized to receive such materials.
5. Site Condition: Complete, to the owner's satisfaction, all job site clean-up including building interior, exterior and landscaping where affected by the construction.

1.10 GUARANTEE/WARRANTY

- A. Roof Membrane/System Guarantee: Upon successful completion of the project, and after all post installation procedures have been completed, furnish the Owner with the manufacturer's 20 year labor and materials guarantee covering the rigid insulation, insulation fasteners/plates, insulation adhesive and roof membrane/flashing system. The guarantee shall be a term type, without deductibles or limitations on coverage amount, and shall be issued at no additional cost to the Owner.

> Siplast 20 year Roof Membrane/System Guarantee

PART 2 PRODUCTS

2.01 ROOFING SYSTEM ASSEMBLY/PRODUCTS

A. Base Sheet

1. Base Sheet: A fiberglass reinforced, asphalt coated sheet with a polyolefin film backing, having a minimum weight of 20 lb/sq. The sheet shall conform to ASTM D 4601, Type II requirements.

> Siplast Parabase FS

- B. Rigid Roof Insulation: Roof insulation shall be UL and FM approved. Insulation shall be approved in writing by the insulation manufacturer for intended use and for use with the specified roof assembly. Maintain a maximum panel size of 4 feet by 4 feet where polyisocyanurate insulation is specified to be installed in hot asphalt or insulation adhesive.

1. Gypsum Sheathing Panel: A panel composed of a gypsum based, non-structural water resistant core material integrally bonded with fiberglass mats on both sides having a nominal thickness of 1/4 inch. The panel surface shall be factory primed with a non-asphaltic primer. Acceptable types are as follows:

> DensDeck Prime Gypsum Roof Board, by Georgia Pacific Corporation; Atlanta, GA

2. Perlite Tapered Edge Panels: A tapered panel composed of expanded volcanic minerals combined with waterproofing binders. The top surface shall be pre-treated with an asphalt based coating. The panels shall have a dimension sufficient to

provide for a smooth transition and provide proper support for the membrane layer or subsequent layer of insulation when there are transitions of 1/4 inch or greater.

2.02 DESCRIPTION OF SYSTEMS

A. Roofing Membrane Assembly: A roof membrane assembly consisting of two plies of a prefabricated, reinforced, homogeneous Styrene-Butadiene-Styrene (SBS) block copolymer modified asphalt membrane, applied over a prepared substrate. Reinforcement mats shall be impregnated/saturated and coated each side with SBS modified bitumen blend and coated one side with a torch grade SBS bitumen blend adhesive layer. The adhesive layer shall be manufactured using a process that embosses the surface with a grooved pattern to provide optimum burn-off of the plastic film and to maximize application rates. The cross sectional area of the sheet material shall contain no oxidized or non-SBS modified bitumen. The roof system shall pass 500 cycles of ASTM D 5849 Resistance to Cyclic Joint Displacement (fatigue) at 14 F (-10 C). Passing results shall show no signs of membrane cracking or interply delamination after 500 cycles. The roof system shall pass 200 cycles of ASTM D 5849 after heat conditioning performed in accordance with ASTM D 5147. The assembly shall possess waterproofing capability, such that a phased roof application, with only the modified bitumen base ply in place, can be achieved for prolonged periods of time without detriment to the watertight integrity of the entire roof system.

> Siplast Paradiene 20 TG/30 FR TG torchable roof system

1. Modified Bitumen Base and Stripping Ply

- a) Thickness (avg): 114 mils (2.9 mm) (ASTM D 5147)
- b) Thickness (min): 110 mils (2.8 mm) (ASTM D 5147)
- c) Weight (min per 100 ft² of coverage): 76 lb (3.7 kg/m²)
- d) Maximum filler content in elastomeric blend: 35% by weight
- e) Low temperature flexibility @ -15 F (-26 C): PASS (ASTM D 5147)
- f) Peak Load (avg) @ 73 F (23 C): 30 lbf/inch (5.3 kN/m) (ASTM D 5147)
- g) Peak Load (avg) @ 0 F (-18 C): 75 lbf/inch (13.2 kN/m) (ASTM D 5147)
- h) Ultimate Elongation (avg.) @ 73 F (23 C): 50% (ASTM D 5147)
- i) Dimensional Stability (max): 0.1% (ASTM D 5147)
- j) Compound Stability (min): 250 F (121 C) (ASTM D 5147)
- k) Approvals: UL Class listed, FM Approved (products shall bear seals of approval)
- l) Reinforcement: fiberglass mat or other meeting the performance and dimensional stability criteria

> Siplast Paradiene 20 - torchable grade

2. Modified Bitumen Stripping Ply at Gravel Stop

- a) Thickness (avg): 138 mils (3.5 mm) (ASTM D 5147)
- b) Thickness (min): 134 mils (3.4 mm) (ASTM D 5147)
- c) Weight (min per 100 ft² of coverage): 96 lb (4.7 kg/m²)
- d) Peak filler content in elastomeric blend - 35% by weight
- e) Low temperature flexibility @ -13 F (-25 C): PASS (ASTM D 5147)
- f) Peak Load (avg) @ 73 F (23 C): 80 lbf/inch (14.1 kN/m) (ASTM D 5147)

- g) Peak Load (avg) @ 0 F (-18 C): 150 lbf/inch (26.5 kN/m) (ASTM D 5147)
- h) Ultimate Elongation (avg.) @ 73 F (23 C): 100% (ASTM D 5147)
- i) Compound Stability (max): 0.1% (ASTM D 5147)
- j) High Temperature Stability (min): 250 F (121 C) (ASTM D 5147)
- k) Approvals: UL Class listed, FM Approved (products shall bear seals of approval)
- l) Reinforcement: fiberglass mat or other meeting the performance and Compound stability criteria

> Siplast Paradiene 20EG TG, torch grade

3. Modified Bitumen Finish Ply

- a) Thickness (avg): 138 mils (3.5 mm) (ASTM D 5147)
- b) Thickness at selvage (coating thickness) (avg): 118 mils (3.0 mm) (ASTM D 5147)
- c) Thickness at selvage (coating thickness) (min): 114 mils (2.9 mm) (ASTM D 5147)
- d) Weight (min per 100 ft² of coverage): 112 lb (5.4 kg/m²)
- e) Maximum filler content in elastomeric blend: 35% by weight
- f) Low temperature flexibility @ -15 F (-26 C): PASS (ASTM D 5147)
- g) Peak Load (avg) @ 73 F (23 C): 30 lbf/inch (5.3 kN/m) (ASTM D 5147)
- h) Peak Load (avg) @ 0 F (-18 C): 75 lbf/inch (13.2 kN/m) (ASTM D 5147)
- i) Ultimate Elongation (avg.) @ 73 F (23 C): 55% (ASTM D 5147)
- j) Dimensional Stability (max): 0.1% (ASTM D 5147)
- k) Compound Stability (min): 250 F (121 C) (ASTM D 5147)
- l) Granule Embedment (max loss): 2.0 grams per sample (ASTM D 5147)
- m) Approvals: UL Class listed, FM Approved (products shall bear seals of approval)
- n) Reinforcement: fiberglass mat or other meeting the performance and dimensional stability criteria
- o) Surfacing: ceramic granules

> Siplast Paradiene 30 FR - torchable grade

B. Flashing Membrane Assembly: A flashing membrane assembly consisting of a prefabricated, reinforced, Styrene-Butadiene-Styrene (SBS) block copolymer modified asphalt membrane with a continuous, channel-embossed metal-foil surfacing. The finish ply shall conform to ASTM D 6298 and the following physical and mechanical property requirements.

> Siplast Veral flashing system, aluminum finish

1. Cant Backing Sheet and Flashing Reinforcing Ply

- a) Thickness (avg): 102 mils (2.6 mm) (ASTM D 5147)
- b) Thickness (min): 98 mils (2.5 mm) (ASTM D 5147)
- c) Weight (min per 100 ft² of coverage): 72 lb (3.5 kg/m²)
- d) Maximum filler content in elastomeric blend: 35% by weight
- e) Low temperature flexibility @ -15° F (-26° C) - PASS (ASTM D 5147)
- f) Peak Load (avg) @ 73°F (23°C): 30 lbf/inch (5.3 kN/m) (ASTM D 5147)
- g) Peak Load (avg) @ 0°F (-18°C): 75 lbf/inch (13.2 kN/m) (ASTM D 5147)
- h) Ultimate Elongation (avg.) @ 73°F (23°C): 50% (ASTM D 5147)

- i) Dimensional Stability (max): 0.1% (ASTM D 5147)
- j) Compound Stability (min - sheet): 250°F (121°C) (ASTM D 5147)
- j) Compound Stability (min – adhesive coating): 212°F (100°C) (ASTM D 5147)
- k) Approvals: UL Class listed, FM Approved (products shall bear seals of approval)
- l) Reinforcement: fiberglass mat or other meeting the performance and dimensional stability criteria
- m) Back Surfacing: polyolefin film

> Siplast Paradiene 20 SA

2. Metal-Clad Modified Bitumen Flashing Sheet

- a) Thickness (avg): 142 mils (3.6 mm) (ASTM D 5147)
- b) Thickness (min): 138 mils (3.5 mm) (ASTM D 5147)
- c) Weight (min per 100 ft² of coverage): 92 lb (4.5 kg/m²)
- d) Coating Thickness – back surface (min): 40 mils (1 mm) (ASTM D 5147)
- e) Low temperature flexibility @ 0° F (-18° C): PASS (ASTM D 5147)
- f) Peak Load (avg) @ 73°F (23°C): 85 lbf/inch (15 kN/m) (ASTM D 5147)
- g) Peak Load (avg) @ 0°F (-18°C): 180 lbf/inch (31.7 kN/m) (ASTM D 5147)
- h) Ultimate Elongation (avg) @ 73°F (23°C): 45% (ASTM D 5147)
- i) Tear-Strength (avg): 120 lbf (0.54 kN) (ASTM D 5147)
- j) Dimensional Stability (max): 0.2% (ASTM D 5147)
- k) Compound Stability (min): 225°F (107°C) (ASTM D 5147)
- l) Cyclic Thermal Shock Stability (maximum): 0.2% (ASTM D 7051)
- m) Approvals: UL Approved, FM Approved (products shall bear seals of approval)
- n) Reinforcement: fiberglass scrim mat or other meeting the performance and dimensional stability criteria
- o) Surfacing: aluminum metal foil

> Siplast Veral Aluminum

C. Catalyzed Acrylic Resin Flashing System: A specialty flashing system consisting of a liquid-applied, fully reinforced, multi-component acrylic membrane installed over a prepared or primed substrate. The flashing system consists of a catalyzed acrylic resin primer, basecoat and topcoat, combined with a non-woven polyester fleece. The resin and catalyst are pre-mixed immediately prior to installation. The use of the specialty flashing system shall be specifically approved in advance by the membrane manufacturer for each application.

> Parapro 123 Flashing System by Siplast; Irving, TX

2.03 ROOFING ACCESSORIES

A. Roofing Adhesives

1. Insulation Adhesive: A single component, moisture cured, polyurethane foam adhesive, dispensed from a portable, pre-pressurized container used to adhere insulation panels to the substrate as well to other insulation panels.

- > Para-Stik Insulation Adhesive by Siplast; Irving, TX
- B. Bituminous Cutback Materials
1. Primer: An asphalt, solvent blend conforming to ASTM D 41 requirements.
 - > Siplast PA-1125 Asphalt Primer by Siplast; Irving, TX
 2. Mastics: An asphalt cutback mastic, reinforced with non-asbestos fibers, used as a base for setting metal flanges conforming to ASTM D 4586 Type II requirements.
 - > Siplast PA-1021 Plastic Cement by Siplast; Irving, TX
- C. Sealant: A moisture-curing, non-slump elastomeric sealant designed for roofing applications. The sealant shall be approved by the roof membrane manufacturer for use in conjunction with the roof membrane materials. Acceptable types are as follows:
- > Siplast PS-304 Elastomeric Sealant by Siplast; Irving, TX
- D. Ceramic Granules: No. 11 grade specification ceramic granules of color scheme matching the granule surfacing of the finish ply.
- E. Perlite Cant Strips: A cant strip composed of expanded volcanic minerals combined with waterproofing binders. The top surface shall be pre-treated with an asphalt based coating. The face of the cant shall have a nominal 4 inch dimension.
- F. Fasteners
1. Base Sheet Fasteners: Base sheet fasteners shall be approved by the manufacturer of the primary roofing products. Acceptable base sheet fasteners for specific substrate types are listed below.
 - a) Wood Cement Fiber Decks
 - A single unit, precision formed, Galvalume (AZ-55) coated steel fastener having a 2.7 inch cap and a 1.4 inch long shank. The fastener shall incorporate twin high tensile steel wires that facilitate a diverging reverse hook action when driven into the structural substrate.
 - > Para-Lok Fastener by Siplast; Irving, TX
 2. Insulation Fasteners: Insulation fasteners and plates shall be FM Approved, and/or approved by the manufacturer of the primary roofing products. The insulation fasteners shall provide attachment required to meet the specified uplift performance and to restrain the insulation panels against the potential for ridging. The fastening pattern for each insulation panel to be used shall be as recommended by the insulation manufacturer and approved by the manufacturer of the primary roofing products. Acceptable insulation fastener manufacturers for specific deck types are listed below.

- a) Metal Decks: Insulation mechanical fasteners for metal decks shall be factory coated for corrosion resistance. The fastener shall conform meet or exceed Factory Mutual Standard 4470 and when subjected to 30 Kesternich cycles, show less than 15% red rust. Acceptable insulation fastener types for metal decks are listed below.
 - A fluorocarbon coated screw type roofing fastener having a minimum 0.220 inch thread diameter. Plates used in conjunction with the fastener shall be a metal type having a minimum 3 inch diameter, as supplied by the fastener manufacturer.
 - > Parafast Fastener by Siplast; Irving, TX
- 3. Flashing Reinforcing Sheet Fasteners for Wood/Plywood Substrates to Receive Flashing Coverage: Fasteners shall be approved by the manufacturer of the primary roofing products. Acceptable fasteners for specific substrate types are listed below.
 - a) Wood/Plywood Substrates
 - A 12 gauge, spiral or annular threaded shank, zinc coated steel roofing fastener having a minimum 1 inch head.
 - > Square Cap by W.H. Maze Co.; Peru, IL
 - > 12 Gauge Simplex Nail by the Simplex Nail and Manufacturing Co., Americus, GA
- G. Walktread: A prefabricated, puncture resistant polyester core reinforced, polymer modified bitumen sheet material topped with a ceramic-coated granule wearing surface.
 - 1. Thickness: 0.217 in (5.5 mm)
 - 2. Weight: 1.8 lb/ft² (8.8 kg/m²)
 - 3. Width: 30 in (76.2 cm)
 - > Paratread Roof Protection Material by Siplast; Irving, TX

PART 3 EXECUTION

3.01 PREPARATION

- A. General: Sweep or vacuum all surfaces, removing all loose aggregate and foreign substances prior to commencement of roofing.
- B. Remove All Existing:
 - Surface gravel
 - Roof membrane
 - Insulation
 - Base flashings
 - Edge metal
 - Flanged metal flashings

- Cants
- Walkways
- Non functional penetrations/curbs
- Vapor retarder
- Metal trim, counterflashing

3.02 SUBSTRATE PREPARATION

- A. Base Sheet Securement to Prepared Substrate: Lay the base sheet over the entire area to be roofed, lapping sides 3 inches and ends 6 inches. Using the specified fasteners, fasten each sheet every 9 inches through laps and stagger fasten the remainder of the sheet in 2 rows on nominal 12 inch centers with fasteners in each row on 12 inch centers. Increase the fastening pattern by 70% at the perimeter of the roof and by 160% in the corners.
- B. Insulation: Install insulation panels with end joints offset; edges of the panels shall be in moderate contact without forcing applied in strict accordance with the insulation manufacturer's requirements and the following instructions. Where insulation is installed in two or more layers, stagger joints between layers. Maintain a maximum panel size of 4 feet by 4 feet for polyisocyanurate insulation applied in hot asphalt or insulation adhesive.
 - 1. Insulation - multiple layer (Gym Stage Roof): Install all layers in an application of the specified insulation adhesive in strict accordance with the requirements of the insulation adhesive supplier. Stagger the panel joints between insulation layers.
 - 2. Insulation - multiple layer (Cafetorium): Mechanically attach the insulation layers simultaneously to the substrate, using the specified fasteners, at a rate of 1 fastener per 2 square feet of panel area (16 per 4' x 8' panel). Stagger the panel joints between insulation layers. Increase the fastening frequency at the corners/perimeter in accordance with the recommendations set forth in FM Global Property Loss Prevention Data Sheet 1-29.
 - 3. Crickets: Construct crickets of tapered insulation panels in a layout as indicated on the roof plan.
 - 4. Tapered Edge at Transitions: Field-cut, shape and install tapered edge strip at transitions of 1/4 inch or greater between substrate components to provide a smooth transition and proper support for the subsequent insulation layer or membrane/flashing system components.

3.03 ROOF MEMBRANE INSTALLATION

- A. Membrane Application: Apply roofing in accordance with roofing system manufacturer's instructions and the following requirements. Application of roofing membrane components shall immediately follow application of base sheet and/or insulation as a continuous operation.

- B. Aesthetic Considerations: An aesthetically pleasing overall appearance of the finished roof application is a standard requirement for this project. Make necessary preparations, utilize recommended application techniques, apply the specified materials including granules, and exercise care in ensuring that the finished application is acceptable to the Owner.
- C. Priming: Prime metal and concrete and masonry surfaces with a uniform coating of the specified asphalt primer.
- D. Bitumen Consistency: Cutting or alterations of bitumen, primer, and sealants will not be permitted.
- E. Roofing Application: Apply all layers of roofing free of wrinkles, creases or fishmouths. Exert sufficient pressure on the roll during application to ensure prevention of air pockets.
1. Apply all layers of roofing perpendicular to the slope of the deck.
 2. Fully bond the base ply to the prepared substrate, utilizing minimum 3 inch side and end laps. Apply each sheet directly behind the torch applicator. Cut a dog ear angle at the end laps on overlapping selvage edges. Using a clean trowel, apply top pressure to top seal T-laps immediately following sheet application. Stagger end laps a minimum of 3 feet.
 3. Fully bond the finish ply to the base ply, utilizing minimum 3 inch side and end laps. Apply each sheet directly behind the torch applicator. Stagger end laps of the finish ply a minimum 3 feet. Cut a dog ear angle at the end laps on overlapping selvage edges. Using a clean trowel, apply top pressure to top seal T-laps immediately following sheet application. Stagger side laps of the finish ply a minimum 12 inches from side laps in the underlying base ply. Stagger end laps of the finish ply a minimum 3 feet from end laps in the underlying base ply.
 4. Maximum sheet lengths and special fastening of the specified roof membrane system may be required at various slope increments where the roof deck slope exceeds 1/2 inch per foot. The manufacturer shall provide acceptable sheet lengths and the required fastening schedule for all roofing sheet applications to applicable roof slopes.
- F. Granule Embedment: Broadcast mineral granules over all bitumen overruns on the finish ply surface, while the bitumen is still hot or the adhesive is soft, to ensure a monolithic surface color.
- G. Flashing Application: Cut the cant backing sheet into 12 inch widths and peel the release film from the back of the sheet. Set the sheet into place over the primed substrate extending 6 inches onto the field of the roof area and 6 inches up the vertical surface utilizing minimum 3 inch laps. Set the non-combustible cant into place dry prior to installation of the roof membrane base ply. Flash walls and curbs using the reinforcing sheet and the metal foil flashing membrane. After the base ply has been applied to the top of the cant, prime the base ply surfaces to receive the reinforcing sheet. Fully adhere the reinforcing sheet, utilizing minimum 3 inch side laps onto the primed base ply surface and up the primed wall or curb to the desired flashing height.

After the final roofing ply has been applied to the top of the cant, prepare the surface area that is to receive flashing coverage by torch heating granular surfaces or by application of asphalt primer; allowing primer to dry thoroughly. Torch apply the metal foil-faced flashing into place using three foot widths (cut off the end of roll) always lapping the factory selvage edge. Stagger the laps of the metal foil flashing layer from lap seams in the reinforcing layer. Extend the flashing sheet a minimum of 4 inches beyond the toe of the cant onto the prepared surface of the finished roof and up the wall or curb to the desired flashing height. Exert pressure on the flashing sheet during application to ensure complete contact with the vertical/horizontal surfaces, preventing air pockets; this can be accomplished by using a damp sponge or shop rag. Check and seal all loose laps and edges. Nail the top edge of the flashing on 9 inch centers. (See manufacturer's schematic for visual interpretation).

- H. Catalyzed Acrylic Resin Flashing System: Install the liquid-applied primer and flashing system in accordance with the membrane system manufacturer's printed installer's guidelines and other applicable written recommendations as provided by the manufacturer.
- I. Water Cut-Off: At end of day's work, or when precipitation is imminent, construct a water cut-off at all open edges. Cut-offs can be built using asphalt or plastic cement and roofing felts, constructed to withstand protracted periods of service. Cut-offs must be completely removed prior to the resumption of roofing.

3.04 ROOF SYSTEM INTERFACE WITH RELATED COMPONENTS

- A. Edge Metal: Completely prime metal flanges and allow to dry prior to installation. Turn the base ply down 2 inches past the roof edge and over the nailer. After the base ply and continuous cleat (if applicable) have been installed, set the flange in mastic and stagger nail every 3 inches on center. Strip-in the flange using the stripping-ply material, extending a minimum of 4 inches beyond the edge of the flange. Terminate the finish ply at the gravel-stop rise of the edge metal. SEE ITEM: SEALANT, for finish of this detail.
- B. Lead Pipe Flashings: Completely prime the lead flanges and allow to dry prior to installation. After the base ply has been applied, set the flange in mastic and strip-in the flange using the stripping-ply material, extending a minimum of 4 inches beyond the edge of the flange. Terminate the finish ply at the flange-sleeve juncture of the pipe flashing. SEE ITEM: SEALANT for finish of this detail.
- C. Lead Drain Flashings: Completely prime the lead drain flashing and allow to dry prior to installation. After the base ply has been applied, set the lead flashing sheet in mastic and form to turn down inside of the drain bowl. Ply-in the perimeter of the lead flashing using an additional layer of the base ply material, overlapping the perimeter of the lead a minimum of 4 inches. Terminate the finish ply to extend beneath the clamping ring seal. Install the clamping ring with all bolts in place.
- D. Light Air Unit Supports: Separate light air handling units that are supported by wood sleepers (not supported by a roof curb) from the new roof assembly using the manufacturer's walktread-roof protection material. Cut each walktread pad to a size which extends a minimum of 2 inches beyond the perimeter of each sleeper block. Set

the walktread pad dry over the new assembly. Set each sleeper block dry over the walktread pad.

- E. Small Pipe Supports: Support all gas lines and conduits which are a maximum of 1 inch diameter and run horizontally over the roof membrane surface using wood blocking and the manufacturer's walktread - roof protection material. The blocking shall be 4 inches by 4 inches by 12 inches in size. Cut each walktread pad to a size which extends a minimum of 2 inches beyond the perimeter of the blocking. Loosely secure the pipe to allow movement over the 6 inch center of each block; the spacing for the blocks shall be of adequate distance to prevent sagging of the pipe and to prevent the pipe from coming into contact with the new roof assembly. Set the walktread dry over the new roof assembly. Set each pipe support block dry over the walktread pad.
- F. Metal Pipe Flashings: Completely prime the metal pipe flanges and allow to dry prior to installation. After the base ply has been applied, set the flanges in mastic and strip-in the flange using the stripping-ply material, extending a minimum of 4 inches beyond the edge of the flange. Terminate the finish ply at the flange-sleeve juncture of the pipe flashing. Install a watertight umbrella to the penetration, completely covering the opening of the pipe flashing. SEE ITEM: SEALANT for finish of this detail.
- G. Walktread: Cut the walktread into maximum 5 foot lengths and allow to relax until flat. Adhere the sheet using the specified plastic cement. Apply the specified cement in a 3/8 inch thickness to the back of the product in 5 inch by 5 inch spots in accordance with the pattern as supplied by the walktread manufacturer. Walk-in each sheet after application to ensure proper adhesion. Use a minimum spacing of 2 inches between sheets to allow for proper drainage.
- H. Sealant: Apply a smooth continuous bead of the specified sealant at the exposed finish ply edge transition to metal flashings incorporated into the roof system.

3.05 FIELD QUALITY CONTROL AND INSPECTIONS

- A. Site Condition: Leave all areas around job site free of debris, roofing materials, equipment and related items after completion of job.
- B. Notification Of Completion: Notify the manufacturer by means of manufacturer's printed Notification of Completion form of job completion in order to schedule a final inspection date.
- C. Final Inspection
 - 1. Post-Installation Meeting: Hold a meeting at the completion of the project, attended by all parties that were present at the pre-job conference. A punch list of items required for completion shall be compiled by the Contractor and the manufacturer's representative. Complete, sign, and mail the punch list form to the manufacturer's headquarters.
- D. Issuance Of The Guarantee: Complete all post installation procedures and meet the manufacturer's final endorsement for issuance of the specified guarantee.

**SECTION 07710
PREFABRICATED FASCIAS COPINGS AND EXPANSION JOINTS**

PART 1 GENERAL

1.01 SUMMARY:

- A. Work included: Furnishing and installing factory fabricated and finished raised edge, gravel stop, coping, and expansion joint systems.

1.02 RELATED SECTIONS

- A. Section 76200 – Sheet Metal Flashing and Trim
- B. Section 07550 – Modified Bitumen Membrane Roofing

1.03 REFERENCE STANDARDS

References in these specifications to standards, test methods, codes etc., are implied to mean the latest edition of each such standard adopted. The following is an abbreviated list of associations, institutions, and societies which may be used as references throughout these specifications.

FM	Factory Mutual Engineering and Research Norwood, MA
ANSI	American National Standards Institute Washington, DC
SPRI	Single Ply Roofing Industry Waltham, MA

1.04 SUBMITTALS

- A. Submittals Prior to Contract Award:
 - 1. Latest edition of the prefabricated metal component supplier's specification.
 - 2. Latest edition of prefabricated metal component supplier's Installer's Guide for gravel stop system.
 - 3. Samples: Available on request; sized to represent metal components adequately.
 - 4. Copy of the roofing system manufacturer's inclusion addendum offering coverage of the prefabricated systems under the standard terms of the roofing guarantee.

1.05 QUALITY ASSURANCE

A. Agency Approvals: The proposed prefabricated metal component shall conform to the following requirements. No other testing agency approvals will be accepted.

1. FM Approval for Class 1-___ Windstorm Classification for Roof Perimeter Fascia Systems.

*NOTE: Verify the FM Approvals Windstorm Classification for the appropriate metal component dimension and gauge per FM Global RoofNav.

2. The roof perimeter fascia system shall be certified through third party verification by the manufacturer/supplier to meet performance design criteria according to the most recent edition of ANSI/SPRI ES-1: Wind Design Standard for Edge Systems Used with Low Slope Roofing Systems.

B. Scope of Work: The work to be performed under this specification shall include but is not limited to the following: Attend necessary job meetings and furnish competent and full time supervision, experienced mechanics, all materials, tools, and equipment necessary to complete, in an acceptable manner, the prefabricated metal installation in accordance with this specification. Comply with the latest written application instructions of the supplier of the prefabricated metal components.

C. Local Regulations: Conform to regulations of public agencies, including any specific requirements of the city and/or state of jurisdiction.

D. Manufacturer Requirements: Ensure that the prefabricated metal component supplier provides direct trained company personnel to attend necessary job meetings, perform periodic inspections as necessary, and conducts a final inspection upon successful completion of the project.

1.06 PRODUCT DELIVERY STORAGE AND HANDLING

A. Delivery: Deliver materials in the manufacturer's original packaging.

B. Storage: Store materials out of direct exposure to the elements.

C. Plastic Surface Film: Do not remove the plastic surface film on the metal component until after it is installed.

D. Damaged Material: Any materials that are found to be damaged will be automatically rejected, removed and replaced at the Contractor's expense.

1.07 PROJECT/SITE CONDITIONS

A. Requirements Prior to Job Start

1. Verify that all other trades responsible for related work are complete prior to installing the prefabricated metal components.
2. Mounting surfaces shall be straight and secure and provide adequate widths to properly support the prefabricated metal component.
3. Safety: Familiarize every member of the application crew with all safety regulations recommended by OSHA, SMACNA and other industry or local governmental groups.

B. Protection Requirements

1. Prefabricated Metal Component Protection: Provide protection against mechanical damage for newly applied prefabricated metal component surfaces throughout the project.
2. Limited Access: Prevent access by the public to materials, tools and equipment during the course of the project.
3. Debris Removal: Remove all debris daily from the project site.
4. Site Condition: Complete, to the owner's satisfaction, all job site clean-up including building interior, exterior and landscaping where affected by the construction.

1.08 GUARANTEE/ ADDENDUM

- A. Roof Membrane Guarantee Addendum: In addition to the specified guarantee, furnish the Owner with the roofing manufacturer's inclusion addendum to the guarantee offering coverage of the prefabricated raised edge, gravel stop, coping, and expansion joint systems under the standard terms of the roof membrane/roof system guarantee.

> Siplast Paraguard Roof Perimeter System Inclusion Addendum

PART 2 PRODUCTS

2.01 PREFABRICATED METAL COMPONENT SUPPLIER

- A. Siplast
1000 East Rochelle Blvd.
Irving, TX 75062
- B. Prefabricated Gravel Stop. Prefabricated gravel stop components shall be factory formed according to the requirements of the membrane manufacturer. The gravel stop system shall consist of the following components:
 - A factory formed retainer cleat with pre-punched nail holes fabricated from 24 gauge, G90 galvanized steel,, secured using galvanized roofing nails.

- A factory formed gravel stop with pre-punched nailing holes, secured using galvanized roofing nails. fabricated from minimum 24 gauge galvanized steel having a spray coated Kynar™ finish.
-
- Factory formed concealed splice plates.
- Factory formed welded miters.
 - > Proform Gravel Stop, by Siplast, Inc., Irving, TX
(800) 922-8800

PART 3 EXECUTION

3.01 PREFABRICATED METAL COMPONENT INSTALLATION

- A. Reference Paraguard Roof Perimeter Systems Installer's Guide for installation procedures

3.02 FIELD QUALITY CONTROL AND INSPECTIONS

- A. Site Condition: Leave all areas around job site free of debris, construction materials, equipment and related items after completion of job.
- B. Issuance Of The Addendum to the Roof Membrane/System Guarantee: Complete all post installation procedures and meet the prefabricated metal suppliers final endorsement for issuance of the addendum to the specified roofing guarantee.

SECTION 076200
SHEET METAL FLASHING AND TRIM

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. Formed Products:

- a. Formed roof drainage sheet metal fabrications.
 - b. Formed low-slope roof sheet metal fabrications.
 - c. Formed equipment support flashing.

- B. Related Sections:

- 1. Section 07550: Modified Bitumen Membrane Roofing.
 - 2. Section 07110: Prefabricated Fascias Copings and Expansion Joints

1.3 PERFORMANCE REQUIREMENTS

- A. General: Sheet metal flashing and trim assemblies as indicated shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.
- B. Thermal Movements: Provide sheet metal flashing and trim that allows for thermal movements from ambient and surface temperature changes.
 - 1. Temperature Change Range: 120 deg F, ambient; 180 deg F, material surfaces.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each manufactured product and accessory.

- B. Shop Drawings: Show fabrication and installation layouts of sheet metal flashing and trim, including plans, elevations, expansion-joint locations, and keyed details. Distinguish between shop- and field-assembled work. Include the following:
 - 1. Identification of material, thickness, weight, and finish for each item and location in Project.
 - 2. Details for forming sheet metal flashing and trim, including profiles, shapes, seams, and dimensions.
 - 3. Details for joining, supporting, and securing sheet metal flashing and trim, including layout of fasteners, cleats, clips, and other attachments. Include pattern of seams.
 - 4. Details of termination points and assemblies, including fixed points.
 - 5. Details of expansion joints and expansion-joint covers, including showing direction of expansion and contraction.
 - 6. Details of special conditions.
 - 7. Details of connections to adjoining work.
- C. Samples for Initial Selection: For each type of sheet metal flashing, trim, and accessory indicated with factory-applied color finishes involving color selection.
- D. Samples for Verification: For each type of exposed finish required, prepared on Samples of size indicated below:
 - 1. Accessories and Miscellaneous Materials: Full-size Sample.
- E. Qualification Data: For qualified fabricator.
- F. Maintenance Data: For sheet metal flashing, trim, and accessories to include in maintenance manuals.
- G. Warranty: Sample of special warranty.

1.5 QUALITY ASSURANCE

- A. Fabricator Qualifications: Shop that employs skilled workers who custom fabricate sheet metal flashing and trim similar to that required for this Project and whose products have a record of successful in-service performance.
- B. Sheet Metal Flashing and Trim Standard: Comply with SMACNA's "Architectural Sheet Metal Manual" unless more stringent requirements are specified or shown on Drawings.
- C. Preinstallation Conference: Conduct conference at Project site.
 - 1. Meet with Owner, Architect, Owner's insurer if applicable, Installer, and installers whose work interfaces with or affects sheet metal flashing and trim including installers of roofing materials, roof accessories, unit skylights, and roof-mounted equipment.
 - 2. Review methods and procedures related to sheet metal flashing and trim.

3. Examine substrate conditions for compliance with requirements, including flatness and attachment to structural members.
4. Review special roof details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect sheet metal flashing.
5. Document proceedings, including corrective measures and actions required, and furnish copy of record to each participant.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Do not store sheet metal flashing and trim materials in contact with other materials that might cause staining, denting, or other surface damage. Store sheet metal flashing and trim materials away from uncured concrete and masonry.
- B. Protect strippable protective covering on sheet metal flashing and trim from exposure to sunlight and high humidity, except to the extent necessary for the period of sheet metal flashing and trim installation.

1.7 WARRANTY

- A. Special Warranty on Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace sheet metal flashing and trim that shows evidence of deterioration of factory-applied finishes within specified warranty period.

1. Finish Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SHEET METALS

- A. General: Protect mechanical and other finishes on exposed surfaces from damage by applying a strippable, temporary protective film before shipping.
- B. Aluminum Sheet: ASTM B 209, alloy as standard with manufacturer for finish required, with temper as required to suit forming operations and performance required.

1. Color Anodic Finish, Coil Coated: AAMA 611, AA-M12C22A42/A44, Class I, 0.018 mm or thicker.
 - a. Color: White.
 - b. Color Range: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.
2. Exposed Coil-Coated Finishes:

- a. Two-Coat Fluoropolymer: AAMA 620. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
- 3. Concealed Finish: Pretreat with manufacturer's standard white or light-colored acrylic or polyester backer finish, consisting of prime coat and wash coat with a minimum total dry film thickness of 0.5 mil .
- C. General: Provide materials and types of fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and recommended by manufacturer of primary sheet metal unless otherwise indicated.
- D. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal..
 - 1. General: Blind fasteners or self-drilling screws, gasketed, with hex-washer head.
 - a. Exposed Fasteners: Heads matching color of sheet metal using plastic caps or factory-applied coating.
 - b. Blind Fasteners: High-strength aluminum or stainless-steel rivets suitable for metal being fastened.
 - 2. Fasteners for Aluminum Sheet: Aluminum or Series 300 stainless steel.
- E. Sealant Tape: Pressure-sensitive, 100 percent solids, gray polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2 inch wide and 1/8 inch thick.
- F. Elastomeric Sealant: ASTM C 920, elastomeric polymer sealant; low modulus; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.
- G. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked-type expansion joints with limited movement.
- H. Epoxy Seam Sealer: Two-part, noncorrosive, aluminum seam-cementing compound, recommended by aluminum manufacturer for exterior nonmoving joints, including riveted joints.
- I. Bituminous Coating: Cold-applied asphalt emulsion complying with ASTM D 1187.
- J. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required for application.

2.2 FABRICATION, GENERAL

- A. General: Custom fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, geometry, metal thickness, and other characteristics of item indicated. Fabricate items at the shop to greatest extent possible.
1. Fabricate sheet metal flashing and trim in thickness or weight needed to comply with performance requirements, but not less than that specified for each application and metal.
 2. Obtain field measurements for accurate fit before shop fabrication.
 3. Form sheet metal flashing and trim without excessive oil canning, buckling, and tool marks and true to line and levels indicated, with exposed edges folded back to form hems.
 4. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces exposed to view.
- B. Fabrication Tolerances: Fabricate sheet metal flashing and trim that is capable of installation to a tolerance of 1/4 inch in 20 feet on slope and location lines as indicated and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.
- C. Fabrication Tolerances: Fabricate sheet metal flashing and trim that is capable of installation to tolerances specified in MCA's "Guide Specification for Residential Metal Roofing."
- D. Sealed Joints: Form nonexpansion but movable joints in metal to accommodate elastomeric sealant.
- E. Expansion Provisions: Where lapped expansion provisions cannot be used, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with butyl sealant concealed within joints.
- F. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal.
- G. Fabricate cleats and attachment devices of sizes as recommended by SMACNA's "Architectural Sheet Metal Manual" for application, but not less than thickness of metal being secured.
- H. Seams: Fabricate nonmoving seams with flat-lock seams. Tin edges to be seamed, form seams, and solder.
- I. Seams: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with elastomeric sealant unless otherwise recommended by sealant manufacturer for intended use. Rivet joints where necessary for strength.
- J. Seams for Aluminum: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with epoxy seam sealer. Rivet joints where necessary for strength.
- K. Do not use graphite pencils to mark metal surfaces.

2.3 ROOF DRAINAGE SHEET METAL FABRICATIONS

- A. Hanging Gutters: Fabricate to cross section indicated, complete with end pieces, outlet tubes, and other accessories as required. Fabricate in minimum 96-inch- long sections. Furnish flat-stock gutter spacers and gutter brackets fabricated from same metal as gutters, of size recommended by SMACNA but not less than twice the gutter thickness. Fabricate expansion joints, expansion-joint covers, gutter bead reinforcing bars, and gutter accessories from same metal as gutters.
 - 1. Gutter Style: SMACNA designation similar to existing.
 - 2. Expansion Joints: Lap type.
 - 3. Gutters: Fabricate from the following materials:
 - a. Stainless Steel: 24 Gauge (.032").

- B. Downspouts: Fabricate rectangular downspouts complete with mitered elbows. Furnish with metal hangers, from same material as downspouts, and anchors.
 - 1. Fabricated Hanger Style: SMACNA figure as required.
 - 2. Manufactured Hanger Style: SMACNA figure as required.
 - 3. Fabricate from the following materials:
 - a. Stainless Steel: 24 Gauge (.032").

2.4 LOW-SLOPE ROOF SHEET METAL FABRICATIONS

- A.

- B. Roof-Penetration Flashing: Fabricate from the following materials:
 - 1. Aluminum-Zinc Alloy-Coated Steel: 0.028 inch thick.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions and other conditions affecting performance of the Work.
 - 1. Verify compliance with requirements for installation tolerances of substrates.
 - 2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.

- B. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.

- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

- A. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement. Use fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.
1. Install sheet metal flashing and trim true to line and levels indicated. Provide uniform, neat seams with minimum exposure of solder, welds, and sealant.
 2. Install sheet metal flashing and trim to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
 3. Space cleats not more than 12 inches apart. Anchor each cleat with two fasteners. Bend tabs over fasteners.
 4. Install exposed sheet metal flashing and trim without excessive oil canning, buckling, and tool marks.
 5. Install sealant tape where indicated.
 6. Torch cutting of sheet metal flashing and trim is not permitted.
 7. Do not use graphite pencils to mark metal surfaces.
- B. Metal Protection: Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with bituminous coating or by other permanent separation as recommended by SMACNA.
- C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet with no joints allowed within 24 inches of corner or intersection. Where lapped expansion provisions cannot be used or would not be sufficiently watertight, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with sealant concealed within joints.
- D. Fastener Sizes: Use fasteners of sizes that will penetrate metal decking not less than recommended by fastener manufacturer to achieve maximum pull-out resistance.
- E. Seal joints as shown and as required for watertight construction.
1. Where sealant-filled joints are used, embed hooked flanges of joint members not less than 1 inch into sealant. Form joints to completely conceal sealant. When ambient temperature at time of installation is moderate, between 40 and 70 deg F, set joint members for 50 percent movement each way. Adjust setting proportionately for installation at higher ambient temperatures. Do not install sealant-type joints at temperatures below 40 deg F.
- F. Rivets: Rivet joints in where indicated and where necessary for strength.

3.3 ROOF DRAINAGE SYSTEM INSTALLATION

- A. General: Install sheet metal roof drainage items to produce complete roof drainage system according to SMACNA recommendations and as indicated. Coordinate installation of roof perimeter flashing with installation of roof drainage system.

- B. Hanging Gutters: Join sections with riveted and soldered joints or with lapped joints sealed with sealant. Provide for thermal expansion. Attach gutters at eave or fascia to firmly anchored gutter brackets spaced not more than 36 inches apart. Provide end closures and seal watertight with sealant. Slope to downspouts.
 - 1. Fasten gutter spacers to front and back of gutter.
 - 2. Loosely lock straps to front gutter bead and anchor to roof deck.
 - 3. Anchor and loosely lock back edge of gutter to continuous eave or apron flashing.
 - 4. Anchor back of gutter that extends onto roof deck with cleats spaced not more than 24 inches apart.
 - 5. Install gutter with expansion joints at locations indicated, but not exceeding, 50 feet apart. Install expansion-joint caps.
- C. Downspouts: Join sections with 1-1/2-inch telescoping joints.
 - 1. Provide hangers with fasteners designed to hold downspouts securely to walls. Locate hangers at top and bottom and at approximately 60 inches o.c. in between.
 - 2. Provide elbows at base of downspout to direct water away from building.
 - 3. Connect downspouts to underground drainage system indicated.
- D. Expansion-Joint Covers: Install expansion-joint covers at locations and of configuration indicated. Lap joints a minimum of 4 inches in direction of water flow.

3.4 ERECTION TOLERANCES

- A. Installation Tolerances: Shim and align sheet metal flashing and trim within installed tolerance of 1/4 inch in 20 feet on slope and location lines as indicated and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.
- B. Installation Tolerances: Shim and align sheet metal flashing and trim within installed tolerances specified in MCA's "Guide Specification for Residential Metal Roofing."

3.5 CLEANING AND PROTECTION

- A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.
- B. Clean and neutralize flux materials. Clean off excess solder.
- C. Clean off excess sealants.
- D. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed unless otherwise indicated in manufacturer's written installation instructions. On completion of installation, remove unused materials and clean finished surfaces. Maintain in a clean condition during construction.

- E. Replace sheet metal flashing and trim that have been damaged or that have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 076200