

2027 ROOF REMEDIATION SPECIFICATIONS

For

**LIVONIA PUBLIC SCHOOLS:
ANNEX BUILDINGS
CHURCHILL HIGH SCHOOL
FRANKLIN HIGH SCHOOL
STEVENSON HIGH SCHOOL
LIVONIA, MICHIGAN**

Prepared For

**LIVONIA PUBLIC SCHOOLS
15125 FARMINGTON ROAD
LIVONIA, MICHIGAN**

RTA Project No. 23-057
October, 2026

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LIVONIA PUBLIC SCHOOLS
15125 FARMINGTON ROAD
LIVONIA, MI 48154-5474
(734) 744-2500

The Livonia Public Schools Board of Education, Livonia, Michigan, hereby invites the submission of **sealed bids** for the purchase of: **LPS Summer 2027 Roof Replacement Bid (Coolidge, Garfield, Roosevelt, 3 Annex Bldgs.)**

(See Attached Specifications)

Request for Proposal (RFP) documents can be obtained at the Livonia Public School Website, www.livoniapublicschools.org under the section titled DISTRICT, Purchasing Bids, 2025-26 school year, Open Bids OR the SIGMA Website, www.michigan.gov/SIGMAVSS. Please feel free to include additional pages of information if necessary. For bids to be considered they must meet or exceed all specifications herein.

Sealed bids marked “LPS Summer 2027 Roof Replacement Bid (Coolidge, Garfield, Roosevelt, 3 Annex Bldgs.)” will be received until 1:00 p.m. on the 28th day of October 2026, at the Board of Education complex, 15125 Farmington Road, Livonia, Michigan. Mailed bids should be sent to the attention of: Jeffrey Burnside, Director of Operations & District Services, Livonia Public Schools, 15125 Farmington Road, Livonia, Michigan, 48154. **Livonia Public Schools is not liable for any delivery or postal delays.**

A **pre-bid meeting** will be held on **Thursday, October 13, 2026, starting at 12:30 p.m. at Stevenson High School Annex Building**, located at **33500 Six Mile Road, Livonia, Michigan**, followed by Coolidge, Roosevelt, and Garfield.

The **Bid Opening** will take place at **1:00 p.m. on the 28th day of October 2026**, Livonia Public Schools Board of Education Complex, 15125 Farmington Road, at which time all bids will be publicly opened and read. No bids will be accepted after the date and time specified and will not be opened. Oral, telephone, fax or electronic mail bids are invalid and will not receive consideration.

All bids must be accompanied by a sworn and notarized statement of disclosing any familial relationship that exists between the owner and any employee of the bidder and any member of the Livonia Board of Education, the Livonia Public Schools Superintendent or Chief Financial Officer, any member of the Wayne RESA Board of Education or the Superintendent of Wayne RESA. **No bid shall be accepted that does not include this sworn and notarized disclosure statement.**

All bids must be accompanied by a sworn and notarized Affidavit of Compliance – Iran Economic Sanctions Act. **No bid shall be accepted that does not include this sworn and notarized statement.**

All bids must be accompanied by the Equal Opportunity Statement. **No bid shall be accepted that does not include this statement.** All bids must include a Treasury listed bid bond or certified check made payable to Livonia Public Schools for not less than five percent (5%) of the contract for each bid over \$31,000 and must be submitted with the bid forms furnished with specification.

All bids must be submitted on the forms provided in the bid packet and all sheets must be returned for the bid. All proposals shall remain firm for a period of ninety (90) days.

The Board of Education reserves the right to accept or reject any or all bids, either in whole or in part: to award to other than the low bidder: to waive any irregularities and/or informalities: and in general to make awards in any manner deemed to be in the best interests of the district, including awarding by line item, with rationale to support such a decision. Livonia Public Schools local preference resolution will be followed for all proposals.

Prices bid are to be **F.O.B. Destination**. All purchases are to be exempt from all taxes, including state and federal taxes. Exemption certificates will be furnished upon request.

Any bid submitted will be binding for ninety (90) days subsequent to the date of the bid submission. All bids must be submitted on the attached bid form and signed by the bidder. Two (2) signed copies of the bid package are to be addressed to the attention of:

Jeffrey Burnside, Director of Operations & District Services, Livonia Public Schools

15125 Farmington Road

Livonia, MI 48154-5474

“LPS Summer 2027 Roof Replacement Bid (Coolidge, Garfield, Roosevelt, 3 Annex Bldgs.)”

One (1) copy of the bid package should be retained for your files. Any questions **regarding bid specifications** should be referred to Harry Lau, Administrator of Facilities and Operations, hlau@livoniapublicschools.org, 734.744.2537, between 8 a.m. and 2:00 p.m. EDT. **All samples should be sent to Harry Lau, 15125 Farmington Road, Livonia, MI 48154.**

LATE BIDS WILL NOT BE ACCEPTED

OFFICIAL BID REQUIREMENTS

LPS Summer 2027 Roof Replacement Bid (Coolidge, Garfield, Roosevelt, 3 Annex Bldgs.)

NAME OF COMPANY _____

REPRESENTATIVE _____

BUSINESS ADDRESS _____

CITY, STATE, ZIP _____ DATE _____

The bidder above-mentioned declares and certifies:

- A. That said bidder is of lawful age and the only one interested in this bid; that no one other than said bidder has any interest herein.
- B. That this bid is made without any previous understanding, agreement or connection with any other person, firm or corporation making a bid for the same purpose, and is in all respects fair and without collusion or fraud.
- C. Bid prices **MUST** include ALL delivery charges.
- D. Specifications: Any deviation from the specifications set forth must be clearly identified and detailed on the bid proposal form; otherwise, it will be considered that items offered are in strict compliance with these specifications, and successful bidder will be held responsible. In the event that a supplier wishes to bid a voluntary alternate in addition to the base bid (and as a cost savings consideration for the District), such alternate shall be submitted with the bid, on separate sheets and labeled as such with a brief description of the difference and rationale. However, if any substitution or departure is not clearly noted and described, it will be understood that the bid intends to exactly meet the specifications.
- E. That the prices quoted herein are net and exclusive of all federal, state and municipal sales and excise taxes. TAXES- The successful company within this context is considered to be providing a service in which the company is the consumer of all equipment, supplies and materials used in providing this service. The company must pay tax on all equipment, supplies and materials used. When it comes to the affixation of materials to real property or the purchasing of services from a company, the school district's exemption does not flow through to the company who is the consumer of material for tax purposes. Any questions regarding this issue of tax, please contact the Michigan Department of the Treasury at 517.339.1123.
- F. All price proposals and delivery terms shall remain firm for ninety days after the date of bid opening and pricing should be based on current market value with agreement to invoice according to any price **reduction** that may occur prior to final delivery.
- G. District reserves the right to award this bid separately or in total, or for reasons of establishing uniformity, to other than the low bidder.
- H. No member of Livonia Public Schools Board of Education, or any officer, employee or person whose salary is payable in whole or in part from the treasury of said Board of Education is directly or indirectly interested in this bid or in the supplies, materials, equipment, work, services or any portion of the profits thereof to which it relates.
- I. The bid **MUST** be signed by an authorized company agent and submitted on the attached forms (**School District designed form**).
- J. Under penalty of perjury, the vendor bidding certifies that this bid has not been arrived at collusively or otherwise in violation of Federal or State anti-trust laws. The bidder also certifies that their bid is made without any previous understanding, agreement or connection with any other person, firm or corporation making a bid for the same purpose, and is in all respects fair and without collusion or fraud.

OFFICIAL BID REQUIREMENTS (continued):

K. All bids must be accompanied by the following three statements:

- 1) Familial Disclosure Statement – **sworn and notarized**.
- 2) Affidavit of Compliance – Iran Economic Sanctions Act – **sworn and notarized**.
- 3) Equal Opportunity Statement.

No bid shall be accepted that does not include all of these statements.

L. A bid bond executed by a U.S. Treasury listed surety company acceptable to the owner, or a cashier's check in the amount of 5% of the sum of the proposal payable to Livonia Public Schools shall be submitted with each proposal in excess of \$30,500.00.

M. Any error or omission found within this specification packet shall be communicated to all bidders as soon as possible. Bidders will not be allowed to take advantage of any errors or omissions in the specifications of this bid. Full instructions shall be given regarding any errors and omissions if called to the attention of Livonia Public Schools within two working days of the bid date.

N. Bidder must be a firm established not less than three (3) years in the field for which this bid is solicited.

O. Additional references may be requested after the bids are submitted. When requested, references are to be furnished as called for. Failure to honor this request will cause the bidder to be subject to rejection.

P. The undersigned certifies that the bid contained herein meets or exceeds specifications.

Signature_____ **Print Name**_____

Title_____ **Date**_____

**LIVONIA PUBLIC SCHOOLS
SWORN AND NOTARIZED FAMILIAL DISCLOSURE STATEMENT**

LPS Summer 2027 Roof Replacement Bid (Coolidge, Garfield, Roosevelt, 3 Annex Bldgs.)

All bidders must complete the following disclosure in compliance with MCL 380.1267 and attach this information to the bid. The bid proposal will be accompanied by a sworn statement disclosing any familial relationship that exists between the owner or any employee of the bidder and any member of the Livonia Public Schools Board of Education, the Livonia Public Schools Superintendent or the Chief Financial Officer, any member of the Wayne RESA Board of Education or the Superintendent of Wayne RESA. The District will not accept a bid proposal that does not include this sworn and notarized disclosure statement.

The members of the Livonia Public Schools Board are: Madeline Acosta, Karen Bradford, Colleen Burton, Crystal Frank, Mark Johnson, and Dave MacFarland. The Livonia Public Schools Superintendent is Andrea Oquist and the Chief Financial Officer and Board Treasurer is Alison Smith.

The following are the familial relationship(s):

	Owner/Employee Name	Related to:	Relationship:
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____

Attach additional pages if necessary to disclose familial relationships

BIDDER'S FIRM NAME _____
BY (SIGNATURE _____
PRINTED NAME AND TITLE _____

STATE OF MICHIGAN)
)SS
COUNTY OF)

Subscribe and sworn before me on this _____

Day of _____, 20____, a Notary Public

In and for _____ county,

Notary Public

My Commission expires _____

Michigan Public Act No. 517 of 2012

LPS Summer 2027 Roof Replacement Bid (Coolidge, Garfield, Roosevelt, 3 Annex Bldgs.) (the “RFP”), hereby certifies, represents and warrants that the Contractor (including its officers, directors and employees) is not an “Iran linked business” within the meaning of the Iran Economic Sanctions Act, Michigan Public Act No. 517 of 2012 (the “Act”), and that in the event Contractor is awarded a contract as a result of the aforementioned RFP, the Contractor will not become an “Iran linked business” at any time during the course of performing the work or any services under the contract.

The Contractor further acknowledges that any person who is found to have submitted a false certification is responsible for a civil penalty of not more than \$250,000.00 or 2 times the amount of the contract or proposed contract for which the false certification was made, whichever is greater, the cost of the School District's investigation, and reasonable attorney fees, in addition to the fine. Moreover, any person who submitted a false certification shall be ineligible to bid on a request for proposal for three (3) years from the date it is determined that the person has submitted the false certification.

CONTRACTOR:

Name of Contractor

By: _____

Its: _____

Date: _____

STATE OF _____)
)ss.

COUNTY OF _____)

This instrument was acknowledged before me on the _____ day of _____, 20____, by _____.

, Notary Public

_____, County, _____

My Commission Expires: _____

Acting in the County of : _____

EQUAL OPPORTUNITY STATEMENT

LPS Summer 2027 Roof Replacement Bid (Coolidge, Garfield, Roosevelt, 3 Annex Bldgs.)

Livonia Public Schools:

It is the publicly stated policy of _____ not to discriminate against any employee, applicant for employment, contractor, or material supplier, because of race, religion, national origin, ancestry, or sex. With regard to employment, such non-discrimination includes, but not limited to, our (my) policies of recruitment, recruitment advertising, selection for apprenticeships or other training, rates of pay, promotion, transfer, lay-off or termination.

In all advertising for employment, subcontractors, or suppliers we (1) shall state all applicants or respondents will receive consideration without regard to race, religion, color, national origin, ancestry, or sex.

We (I) understand that any contract for the Livonia Public Schools shall be in consideration of our maintaining the above mentioned non-discrimination policy.

We (I) understand that we (I) may be required to submit further information covering the race, color and work classification for our employees and those of subcontractors to be employed on this project.

NAME OF BIDDER (COMPANY): _____

SIGNATURE: _____

NAME: _____

TITLE: _____

VENDOR PROFILE:

Livonia Public Schools requests that vendors participating in the **LPS Summer 2027 Roof Replacement Bid (Coolidge, Garfield, Roosevelt, 3 Annex Bldgs.)** provide specific information about their company. This information will be taken into consideration when the bids are evaluated.

CONTACT INFORMATION:

NAME OF COMPANY: _____

ADDRESS: _____

CITY/STATE/ZIP: _____

PHONE: _____ FAX: _____

SALES MANAGER: _____

Email address: _____

NO. YEARS IN BUSINESS: _____ TOTAL NUMBER OF EMPLOYEES: _____

CLIENT CONTACTS:

Please provide a list of the five (5) or more references of school districts and/or companies using the products or services recommended in this bid proposal:

NAME OF SCHOOL DISTRICT/COMPANY: _____

Contact/position: _____

Email Address: _____

Address: _____

City: _____ PHONE: _____

Estimated volume of business per year: \$ _____

NAME OF SCHOOL DISTRICT/COMPANY: _____

Contact/position: _____

Email Address: _____

Address: _____

City: _____ PHONE: _____

Estimated volume of business per year: \$ _____

NAME OF SCHOOL DISTRICT/COMPANY: _____

Contact/position: _____

Email Address: _____

Address: _____

City: _____ PHONE: _____

Estimated volume of business per year: \$ _____

CLIENT CONTACTS (continued):

NAME OF SCHOOL DISTRICT/COMPANY: _____

Contact/position: _____

Email Address: _____

Address: _____

City: _____ PHONE: _____

Estimated volume of business per year: \$ _____

NAME OF SCHOOL DISTRICT/COMPANY: _____

Contact/position: _____

Email Address: _____

Address: _____

City: _____ PHONE: _____

Estimated volume of business per year: \$ _____

NAME OF SCHOOL DISTRICT/COMPANY: _____

Contact/position: _____

Email Address: _____

Address: _____

City: _____ PHONE: _____

Estimated volume of business per year: \$ _____

**SECTION 00 2114
INSTRUCTIONS TO BIDDERS**

PART 1 GENERAL

1.01 THE PROJECT

- A. In accordance with these instructions, the bidder is requested to submit a Bid for the project and Contract work indicated in the Roof Replacement Specifications.
- B. Each bidder is referred to the Bid Solicitation for this project, which includes instructions and requirements for bidders in addition to those included in this section.

1.02 CONTRACTS

- A. The Owner will enter a single lump sum Contract with the selected bidder.

1.03 SUBMISSION OF BIDS

- A. Place for Receiving Bids
 - 1. Sealed Bids for performing the work pertaining to this project will be received by Livonia Public Schools, 15125 Farmington Road, Livonia, Michigan 48154, Attn: Mr. Jeff Burnside, Director of Operations and District Services.
 - 2. All copies of the Bid Form and any other documents required to be submitted with the Bid, shall be enclosed in a sealed opaque envelope.
 - 3. The sealed Bid envelope shall be properly and clearly addressed and shall be identified with the project name, the Bidder's name and address, and the project description for which the Bid is submitted.
 - 4. If the Bid is sent by mail, the sealed envelope shall be enclosed in a mailing envelope with the notation "SEALED BID - ROOF REPLACEMENT, Livonia Public Schools" on the face of the envelope.
- B. Date for Receiving Bids
 - 1. Bids shall be mailed or otherwise delivered on time to reach the designated location on or before the time and date of receipt of Bids indicated in the Bid Solicitation, unless an extension is made by the Addendum. Bids received after time and date for receipt of Bids will remain unopened.
 - 2. Bidders shall assume full responsibility for timely delivery at location designated for receipt of Bids.
 - 3. Oral, telephone, or facsimile Bids are invalid and will not receive consideration.

1.04 BIDDERS REPRESENTATIONS

- A. Each bidder by making his Bid represents that:
 - 1. He has read, understands, and makes his Bid in accordance with the Bidding Documents.
 - 2. He has visited the site, has familiarized himself with the local conditions under which the Work is to be performed and has correlated his observations with the requirements of the proposed Bidding Documents.
 - 3. His Bid is based upon the materials, systems, and equipment required by the Bidding Documents without exception.

1.05 INSPECTION OF SITE

- A. Before submitting his Bid, each bidder shall personally inspect the site of the proposed work to arrive at a clear understanding of the conditions under which the work is to be done.
- B. Each bidder shall be held to have compared the premises and the site with the Drawings and Specifications, and to have satisfied himself to the conditions of the premises, the existing obstructions, and any other conditions affecting the completion of his work, all before the delivery of his proposal.

- C. No allowances or extra considerations on behalf of any bidder will be permitted subsequently by reason or error or oversight on the part of the bidder, or on account of interferences by the activities of the Owner.

1.06 BIDDING DOCUMENTS

- A. Bidding Documents which will be issued for the use of bidders and upon which all proposals are to be based, consist of those listed in these specifications.
 - 1. Documents consist of: Plans and specifications prepared by Roofing Technology Associates, Ltd.
- B. In the event that additional documents are required to explain revisions which are made during the bidding period or to give additional information to the bidders, the Roof Consultant will prepare such documents in the form of an Addendum with accompanying drawings, if required, and will send copies of the same to all bidders, prior to the date for receipt of proposals. All proposals are to include the work described and indicated in such additional documents.
- C. Interpretation or Correction of Bidding Documents
 - 1. Bidders shall promptly notify the Roof Consultant of any ambiguity, inconsistency or error which they may discover upon examination of the bidding documents or of the site and local conditions of the work.
 - 2. Any interpretation, correction or change of the documents will be made by the Roof Consultant by Addendum. Interpretations, corrections, or changes of the bidding documents made in any other manner will not be binding and bidders shall not rely upon such interpretations, corrections and changes.
 - 3. All questions or inquiry related to this project shall be directed to: Ron Kinne, Project Manager, Roofing Technology Associates, Ltd. at (734)-591-4444.

1.07 BIDDER'S OPTIONS

- A. For products specified only by reference standard, select product meeting that standard by any manufacturer.
- B. For products specified by naming several products or manufacturers, select any one of the products and manufacturers named which comply with the technical specifications.
- C. For products specified by naming several products or manufacturers and stating "or approved equal" or similar wording, submit a request for approval for review and approval by the Roof Consultant.
- D. For products specified by naming only product and manufacturer, there is no option and no substitutions will be allowed.

1.08 SUBSTITUTIONS

- A. Base Bid shall be in accordance with these Bidding Documents.
- B. No substitution of products or roofing systems will be allowed on this project, unless a product or roofing system specified is no longer manufactured.
- C. If a product or roofing system is no longer manufactured, contact the Roof Consultant. An Addendum will be issued with additional documents for acceptable alternate products or roofing systems.

1.09 BIDDING PROCEDURES

- A. Form of Bids
 - 1. Bid forms are furnished within the Project Specifications. Each bidder shall submit his bid in duplicate and retain one copy for his files.
 - 2. Bids must be filled out fully and correctly and submitted only on Bid Forms provided. Bids in any other form will be rejected.

3. All information required to be provided on the Bid Form shall be typewritten or printed manually in ink with a handwritten signature where noted.
- B. Bid Security
1. Bids shall be accomplished by Bid Security in the form of a bid bond or a certified check made payable to the Owner in the amount of five percent (5%) of the Base Bid lump sum price.
 2. Such Bid Security shall be submitted with the following understanding:
 - a. If a Bidder defaults in executing an Agreement or in furnishing and delivering the performance bond and labor and material payment bonds within seven (7) calendar days after receipt of an award of the contract, the Owner will sustain liquidated damages in the amount covered by the Bid Security and the Bid Security will become the property of the Owner.
 - b. If the Bidder executes and delivers the Agreement and the performance bond and labor and material payment bonds within the above time, or if the bid is not accepted within the time stipulated under "Withdrawal of Bid" in the Bid Form, the Bid Security will be returned to the Bidder by the Owner.
 - c. The Bid Security for all except the lowest three Bidders will be returned within ten (10) working days after the opening of bids, unless otherwise agreed upon with the Owner.
 - d. The remaining Bid Securities will be returned to the remaining Bidders with ten (10) working days after an Agreement has been executed. If an Agreement has not been executed within the time stipulated under "Withdrawal of Bid" in the Bid Form, then the Bid Security of any Bidder so desiring will be returned upon his written request, provided such Bidder has not been notified of the acceptance of the Bid prior to the date of such request.
- C. Modification or Withdrawal of Bid
1. A Bid may not be modified, withdrawn or canceled by the bidder during the stipulated period following the time and date designated for the receipt of Bids, and bidder so agrees in submitting his bid.
 2. Bidder may withdraw his proposal at any time prior to the time set for opening of proposals.

1.10 CONSIDERATION OF BIDS

- A. Opening of Bids
1. The properly identified bids received on time will be opened and publicly read aloud as stated in the Bid Solicitation.
- B. Acceptance of Bid (Award)
1. The Board of Education reserves the right to accept or reject any total bid, or part thereof, and to award the total Contract or part thereof to other than the low bidder. All decisions regarding Contract award will be final.
 2. The Owner shall have the right to accept Alternates in any order or combination, and to determine the low bidder based on the sum of the Base Bid and the Alternates accepted.
- C. Notice of Award
1. The Contract shall be deemed as having been awarded when formal notice of acceptance of his Proposal has been duly served upon the intended awardee by an officer or agent of the Owner duly authorized to give such notice. The Contract Date shall be the date of this Notice of Award.
 2. The bidder to whom the Contract is awarded by the Owner shall, within seven (7) days after Notice of Award and/or receipt of Agreement forms from the Owner, sign and deliver to the Owner all required copies.

D. Time of Starting and Completion

1. The roofing work can begin on June 7, 2027, and be fully completed by August 13, 2027.
2. The successful bidder shall furnish insurance and commence active work on the Project within ten (10) days after receipt of notice of award and shall complete the work within the time stated above.

E. Work Week

1. The bidder, if awarded a Contract, shall be required to establish the work week and hours of work as required to properly man the project, maintain the progress schedule and complete the work within the time stated in the Contract. The Contractor shall provide and pay for any overtime necessary to complete his work within the agreed time, with no change in the Contract Sum or additional costs to the Owner.

1.11 PERFORMANCE BOND AND LABOR AND MATERIAL PAYMENT BOND

A. Time of Delivery and Form of Bonds

1. Bidders will be required to furnish bonds executed on AIA Document A311, with the amount shown for each if over \$50,000, part equal to 100 percent of the total amount payable by terms in the Contract. Premiums for such bonds shall be included in the Base Bid.
2. The Bidder shall deliver the required Bonds to the Owner not later than the date of execution of the Contract, or if the Work is commenced prior thereto in response to a Notice of Award, the Bidder shall, prior to commencement of the Work, submit evidence satisfactory to the Owner that such bonds will be issued.

1.12 FORM OF CONTRACT BETWEEN OWNER AND CONTRACTOR

- A. A Contract for the Work will be written on AIA A105 - Standard Form of Agreement Between Owner and Contractor for a Residential or Small Commercial Project; 2017.

1.13 PERMITS

- A. Do not include the cost of the building permits in the Base Bid. Provide the Owner with a change order, upon request by the Owner, for the cost of building permits required by the local municipality or the State of Michigan.

END OF SECTION

**SECTION 00 4100
BID FORM**

PART 1 GENERAL

1.01 TO:

- A. Owner
Livonia Public Schools
15125 Farmington Road
Livonia, Michigan 48154
1. Attention: Mr. Jeff Burnside, Director of Operations and District Services

1.02 DATE: _____ (BIDDER TO ENTER DATE)

1.03 SUBMITTED BY: (BIDDER TO ENTER NAME AND ADDRESS)

- A. Bidder's Full Name _____
Address _____
City, State, Zip _____

1.04 THE UNDERSIGNED IN SUBMITTING THIS PROPOSAL AGREES AS FOLLOWS:

- A. The entire work shall subject to the requirements of the General Conditions of the Contract contained in and forming a part of AIA Document A105-2017, Standard Form of Agreement Between Owner and Contractor for a Residential or Small Commercial Project.
- B. Prior to execution of the Agreement for this work, the Contractor shall furnish the Owner with copies of Certificates of Insurance.

1.05 LIABILITY

- A. The Contractor shall and does assume liability under the terms of the Workmen's Compensation Law of the State in which the work is being performed.
- B. Contractor assumes all liability for injury to persons or damage to, or loss of property of (a) Contractor, his agents or employees, (b) Owner, its agents or employees, or members and (c) any other person, firm or corporation arising in any way directly or indirectly out of the performance of this Contract whether or not such injury, damage, or loss is due to the negligence of the Contractor, its agents or employees. This foregoing assumption of liability by Contractor shall include, without limiting the generality of the foregoing, any injury, damage, or loss arising out of the operation of motor vehicles. This assumption of liability by Contractor shall also include, without limiting the generality of the foregoing, any injury, damage or loss (1) arising out of the negligence of Contractor, (2) arising out of the joint or combined negligence of Contractor and Owner, (3) arising out of the negligence of a third party or parties and Contractor, or (4) without limiting in any way the foregoing, arising in any way, directly or indirectly out of the conduct or occurrence not fully limited to the separate sole negligence of the Owner as proven by Contractor or third party.
- C. Should the Owner or an agent or employee of the Owner or members be made a party to any suit or proceeding, even though such suit or proceeding is groundless, false or fraudulent, arising out of injury, damage, or loss for which the Contractor assumes liability under this Contract, the Contractor will defend such suit or proceeding and shall indemnify and save harmless the Owner, its agents or employees, of and from all liability loss, expenses, judgments (including interest thereon), including Attorney's fees.
- D. Since Contractor hereunder shall be an independent Contractor and not agent, servant, or employee of Owner, Contractor assumes full responsibility for compliance with any and all Federal, State, or municipal laws, ordinances, and regulations, including (but not limited to) those having to do with labor, wages and benefits, or taxes and duties collectible from employees under all applicable provisions of the law.

1.06 INSURANCE

- A. Unless otherwise specified, the Contractor shall, before commencing work hereunder, procure and thereafter maintain policies of insurance satisfactory to the Owner covering the liabilities assumed above in the following minimum amounts.
- B. Commercial General Liability insurance for the Project written on an occurrence form with policy limits of not less than \$1,000,000 each accident, \$2,000,000 general aggregate and \$1,000,000 aggregate for products-completed operations hazard, providing coverage for claims.
- C. Automobile Liability covering vehicles owned by the Contractor and non-owned vehicles used by the Contractor, with policy limits of not less than \$1,000,000 per accident, for bodily injury, death of any persons and property damage arising out of the ownership, maintenance and use of those motor vehicles along with any other statutorily required automobile coverage.
- D. Workers' Compensation Insurance: All liabilities imposed by Workers' Compensation statute and Employers Liability Insurance with limit not less than \$1,000,000 per accident for bodily injury or disease.
- E. The following party must be named as additional insured: Livonia Public Schools.
- F. The Contractor agrees to file with the Owner before commencing work hereunder, copies of policies of such insurance which shall contain by endorsement, the specific liabilities assumed above, together with Certificates of Insurance which shall contain a provision that no change in the amount of said insurance, or termination thereof, shall take place without previous 10 days written notice to the Owner and its written consent to such change or termination.

1.07 OFFER

- A. Having examined the Place of The Work and all matters referred to in the Instructions to Bidders and the Bid Documents prepared by Roofing Technology Associates, Ltd. for the above mentioned project, we, the undersigned, hereby offer to enter into a Contract to perform the Work for the Sums of:

- B. COMBINED BASE BID- ANNEX BUILDINGS (Churchill, Franklin, and Stevenson High Schools)
_____ Dollars

(\$ _____), in lawful money of the United States of America.

- C. ROOF REPLACEMENT- Price Breakdown by Building:

Churchill High School Annex:
_____ Dollars
(\$ _____)

Franklin High School Annex:
_____ Dollars
(\$ _____)

Stevenson High School Annex:
_____ Dollars
(\$ _____)

- D. Costs included within the lump sum base bid price to provide pollution insurance as shown within Article 5 of the contract:

1. _____ Dollars

(\$ _____), in lawful money of the United States of America.

- a. NOTE: This cost will be deducted from the base bid price should the owner elect to remove it from the project, upon award to the lowest responsible bidder(s).

- E. All applicable federal taxes are included, and State of Michigan taxes are included in the Bid Sum.

1.08 ACCEPTANCE

- A. This offer shall be open to acceptance and is irrevocable for ninety (90) days from the bid closing date.
- B. If this bid is accepted by Owner within the time stated above, we will:
1. Execute the Agreement within seven days of receipt of Notice of Award.

1.09 CONTRACT TIME

- A. Start Date: On _____, 2027.
- B. Completion Date: On _____, 2027.
- C. Failure to complete the Contract within the specific time parameters shall result in a 1% penalty per week of the total Contract Price.

1.10 REJECTION OF BID

- A. The undersigned understands that the Owner reserves the right to reject any or all bids and to waive any informality in the bidding.

1.11 ALTERNATES

- A. ALTERNATE PRICES - The undersigned agrees that at the Owner's discretion, the Base Bid Sum may be altered as follows if the Alternate Prices indicated and defined in the Alternates Section and elsewhere in the Bidding Documents are to be executed. Failure to bid on requested Alternated Prices shall indicate no change on the Base Bid Sum.
- B. Each bidder shall be held to have compared the premises and the site with the Drawings and Specifications, and to have satisfied himself to the conditions of the premises, the existing obstructions, and any other conditions affecting the completion of his work, all before the delivery of his proposal.
- C. No allowances or extra considerations on behalf of any bidder will be permitted subsequently by reason or error or oversight on the part of the bidder, or on account of interferences by the activities of the Owner.

- D. ALTERNATE NO. 1 - SHEET METAL FASCIA CLADDING

1. CHURCHILL HIGH SCHOOL

Add the sum of:

_____ Dollars

(\$ _____ lump sum price)

2. FRANKLIN HIGH SCHOOL

Add the sum of:

_____ Dollars

(\$ _____ lump sum price)

3. STEVENSON HIGH SCHOOL

Add the sum of:

_____ Dollars

(\$ _____ lump sum price)

E. ALTERNATE NO. 2 - INSTALL OR REPLACE 6-INCH GUTTERS AND 3"X4" DOWNSPOUTS

1. CHURCHILL HIGH SCHOOL

Add the sum of:

_____ Dollars

(\$ _____ lump sum price)

2. FRANKLIN HIGH SCHOOL

Add the sum of:

_____ Dollars

(\$ _____ lump sum price)

3. STEVENSON HIGH SCHOOL

Add the sum of:

_____ Dollars

(\$ _____ lump sum price)

1.12 UNIT PRICES

A. UNIT PRICES - The undersigned agrees that at the Owner's discretion, the Base Bid Sum may be altered as follows if the Unit Prices indicated and defined in the Unit Prices Section and elsewhere in the Bidding Documents are to be executed. Failure to bid upon requested Unit Prices shall indicate no change in the Base Bid Sum.

B. UNIT PRICE NO. 1 - WOOD NAILERS & PLYWOOD

1. Add the sum of:

1" x 6" _____ Dollars (\$ _____)
per lineal foot

1" x 8" _____ Dollars (\$ _____)
per lineal foot

2" x 4" _____ Dollars (\$ _____)
per lineal foot

2" x 6" _____ Dollars (\$ _____)
per lineal foot

2" x 8" _____ Dollars (\$ _____)
per lineal foot

2" x 10" _____ Dollars (\$ _____)
per lineal foot

2" x 12" _____ Dollars (\$ _____)
per lineal foot

3/4-inch CDX plywood _____ Dollars (\$ _____)
per square foot

1/2-inch OSB _____ Dollars (\$ _____)
per square foot

15/32-inch FRT plywood _____ Dollars (\$ _____)
per square foot

3/8-inch rough sawn plywood _____ Dollars (\$) _____
per square foot

UNIT PRICE NO. 2 - REPLACE WESTERN RED CEDAR TRIM BOARDS

2. Add the sum of:

1" x 4" _____ Dollars (\$) _____
per lineal foot
1" x 6" _____ Dollars (\$) _____
per lineal foot
1" x 8" _____ Dollars (\$) _____
per lineal foot
1" x 10" _____ Dollars (\$) _____
per lineal foot
2" x 6" _____ Dollars (\$) _____
per lineal foot
2" x 8" _____ Dollars (\$) _____
per lineal foot
2" x 10" _____ Dollars (\$) _____
per lineal foot

1.13 ADDENDA

A. The following Addenda have been received. The modifications to the Bid Documents noted below have been considered and all costs are included in the Bid Sum.

1. Addendum # _____ Dated _____.
2. Addendum # _____ Dated _____.

1.14 BID FORM SIGNATURE(S)

- A. The Corporate Seal of
- B. _____
- C. (Bidder - print the full name of your firm)
- D. was hereunto affixed in the presence of:
- E. _____
- F. (Authorized signing officer, Title)
- G. (Seal)
- H. _____
- I. (Authorized signing officer, Title)

END OF SECTION

**SECTION 00 5000
CONTRACTING FORMS AND SUPPLEMENTS**

PART 1 GENERAL

1.01 AGREEMENT AND CONDITIONS OF THE CONTRACT

- A. The Agreement and General Conditions are based on AIA A105.

1.02 FORMS

- A. Use the following forms for the specified purposes unless otherwise indicated elsewhere in Contract Documents.
- B. Post-Award Certificates and Other Forms:
 - 1. Schedule of Values Form: AIA G703.
 - 2. Application for Payment Forms: AIA G702 with AIA G703 (for Contractors).
- C. Clarification and Modification Forms:
 - 1. Change Order Form: AIA G701.
- D. Closeout Forms:
 - 1. Certificate of Substantial Completion Form: AIA G704.

1.03 REFERENCE STANDARDS

- A. AIA A105 - Standard Form of Agreement Between Owner and Contractor for a Residential or Small Commercial Project; 2007.
- B. AIA G701 - Change Order; 2001.
- C. AIA G702 - Application and Certificate for Payment; 1992.
- D. AIA G703 - Continuation Sheet; 1992.
- E. AIA G704 - Certificate of Substantial Completion; 2017.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

DRAFT AIA® Document A105™ – 2017

Standard Short Form of Agreement Between Owner and Contractor

AGREEMENT made as of the « » day of « » in the year «Two Thousand Nineteen.»
(In words, indicate day, month and year.)

BETWEEN the Owner:
(Name, legal status, address and other information)

«Livonia Public Schools»
«15125 Farmington Road
Livonia, MI 48154 »

and the Contractor:
(Name, legal status, address and other information)

« »
« »
« »
« »

for the following Project:
(Name, location and detailed description)

«Livonia Public Schools»
«Sinking Fund Roofing Projects»
« »

The Architect:
(Name, legal status, address and other information)

«Roofing Technology Associates, Ltd. »
«38031 Schoolcraft
Livonia, Michigan 48150-1065»
«734 591-4444 »

The Owner and Contractor agree as follows.

ADDITIONS AND DELETIONS:
The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

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ARTICLE 1 THE CONTRACT DOCUMENTS

§1.1 The Contractor shall faithfully and competently complete the Work described in the Request for Proposal dated _____ including Addendum No. 1 dated _____, Addendum No. 2 dated _____, and Addendum No. 3 dated _____ (collectively “the RFP”), including Advertisement or Invitation to Bid, Instructions to Bidders, Drawings and Specifications and the Contract Documents for the Project, as well as in the Contractor’s Proposal in response to the RFP dated _____ including the Post-Bid interview documents dated _____ (collectively the “Proposal”), which Proposal is incorporated herein by reference. In the event of any inconsistency or ambiguity between this Agreement and the Contractor’s Proposal, the terms that are more favorable to the Owner shall govern. The Contract Documents consist of

1. this Agreement signed by the Owner and Contractor;
2. all the Drawings and Specifications prepared by the Architect for construction for the Project, attached hereto by this reference, and including (but not necessarily limited to) the following:
Drawings:

Title		Date

§1.2 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all. Work called for on the Drawings and not mentioned in the Specifications, or vice versa, shall be performed as though fully set forth in both. Nothing in this Section 1.2, however, shall relieve the Contractor of any of its obligations under the Contract Documents. Other conflicts between or among the Contract Documents shall be resolved under the following rules of construction:

- .1 the specific shall govern over the general;
- .2 specified dimensions shown on the Drawings shall govern, even though they may differ from dimensions scaled on the Drawings, if any;
- .3 Drawings of larger scale shall govern over those of smaller scale; any special Drawing details shall govern over standard detail;
- .4 Specifications shall govern over Drawings in matters of material or equipment specified; Drawings shall govern over Specifications in matters of construction or installation detail;
- .5 documents of later date shall always govern; except that the Agreement shall govern over all other documents, regardless of their dates; and
- .6 in the event of any inconsistency or ambiguity between this Agreement and the Contract Documents, the terms that requires a higher standard of performance by the Contractor shall prevail.

§1.3 Work not particularly detailed, marked or specified shall be the same as similar parts that are detailed, marked or specified. On certain Contract Documents, only a portion of the detail may be fully shown and the remainder indicated in outline, in which case the general detail shall be understood as also applying to other like portions of the Work.

§1.4 The organization of the Specifications into divisions, sections, and/or articles, and the arrangement of the Drawings, shall not dictate to the Contractor in any way how the Work is to be divided among Subcontractors, or establish the extent of Work to be performed by any trade. Similarly, the organization of the Contractor's duties into different phases or categories in the Agreement is for convenience only and shall not limit the generality of the Contractor's obligation to provide all of the services whenever necessary.

§1.5 All references in the Contract Documents to standards (such as commercial standards, federal specifications, trade association standards or similar standards), whether for materials, processes, assemblies, workmanship, performance or any other purpose, shall mean, unless otherwise noted, the most recent available published version of such standard as of the date of that part of the Contract Documents bearing the reference. All standards referred to, except as modified in the Contract Documents, shall have the same force and effect as though printed therein. These standards will not be furnished to the Contractor, as the Contractor and all members of the construction team are required to be familiar with their requirements.

§1.6 Whenever a provision of the Contract Documents conflicts with agreements or regulations in force among members of trade associations, unions or councils, which regulate or distinguish the portions of the Work which shall or shall not be performed by a particular trade, the Contractor shall make necessary arrangements to reconcile the conflict without delay, damage, cost or recourse to the Owner. Delays in the Work resulting from the failure of the Contractor to use its best efforts to reconcile any such conflicts shall not result in an extension of the Project Schedule and shall not result in the increase of the Contract Sum.

§1.7 The Contractor acknowledges that there may be items of the Work, which the Contractor is responsible to provide under the Agreement that are not drawn or specified in the Design but are necessary for the proper execution and completion of the Work and are consistent with and reasonably inferable from the Drawings and Specifications. All such items shall be provided as part of the Work without delay in its progress and without any increase in the Contract Sum.

ARTICLE 2 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 2.1 The Contract Time is the number of calendar days available to the Contractor to substantially complete the Work.

§ 2.2 Date of Commencement:

Unless otherwise set forth below, the date of the commencement of the Work shall be the date of this Agreement.

(Insert the date of commencement if other than the date of this Agreement.)

«Date of Commencement of the Work is _____.»

Notwithstanding the foregoing, Contractor may not commence the Work on the Project until after insurance certificates and bonds, if applicable, are delivered to the Owner.

§ 2.3 Substantial Completion:

Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall achieve Substantial Completion, as defined in Section 12.5, of the entire Work:

(Check the appropriate box and complete the necessary information.)

☐ [« »] Not later than « » (« ») calendar days from the date of commencement.

☒ [« X »] By the following date: «100% Completion for the Project described in this Agreement is to be no later than _____.»

§ 2.4 Liquidated Damages:

§ 2.4.1 - § 2.4.4 NOT USED

ARTICLE 3 CONTRACT SUM

§ 3.1 The Contract Sum shall include all items and services necessary for the proper execution and completion of the Work. Subject to additions and deductions in accordance with Article 10, the Contract Sum is:

«The total Lump Sum amount is _____ and No/100 Dollars (\$ _____ .00). The total Lump Sum amount includes all Work and cost associated with such Work per this Agreement and as detailed in the RFP, and is broken down as follows:

Bid Work at _____ School for the Lump Sum of _____ Dollars (\$ _____ .00).

Bid Work at _____ School for the Lump Sum of _____ Dollars (\$ _____ .00).

Bid Work at _____ School for the Lump Sum of _____ Dollars (\$ _____ .00).

§ 3.2 For purposes of payment, the Contract Sum includes the Schedule of Values provided in **Exhibit A** related to portions of the Work.

§ 3.3 The Contract Sum is based upon the following alternates, if any, which are described in the Contract Documents and hereby accepted by the Owner.

§ 3.3.1 The following alternates are included in the Contract Sum:

Item	Price
------	-------

§ 3.3.2 The Contract Sum does not include the following alternates, which are described in the Contract Documents and may be accepted by the Owner in writing; provided, however, that the Contractor shall furnish the Owner with not less than fourteen (14) days' prior written notice of the date upon which any of the alternates set forth below in this Section 3.3.2 must be accepted by the Owner in order for the Contractor to perform the Work covered by such alternates for the price set forth below in this Section 3.3.2 and without any adjustment to a milestone date or in the Contract Time.

Item	Price
------	-------

§ 3.4 Allowances, if any, included in the Contract Sum are as follows:

(Identify each allowance.)

Item	Price
------	-------

§ 3.4.1 Use of any Allowance shall be at the sole direction and written approval of the Owner. Costs allocated against an Allowance shall exclude overhead and profit; any overage on an Allowance, shall be calculated by adding the Contractor's Actual Cost for labor and material plus the Contractor's overhead and profit as defined in Section 10.1.

§ 3.5 Unit prices, if any, are set forth in the "Schedule of Unit Prices" attached hereto and made part of this Agreement as **Exhibit B**. Such Unit prices are considered complete and include: (i) all materials, equipment, labor, delivery, installation, overhead, and profit; and (ii) any and all other costs or expenses in connection with, or incidental to, the performance of that portion of the Work to which such unit prices apply.

ARTICLE 4 PAYMENTS

§ 4.1 Based on Contractor's Applications for Payment certified by the Architect, the Owner shall pay the Contractor, in accordance with Article 12, as follows:

§ 4.1.1 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month

« »

§ 4.1.2 Provided that a complete Application for Payment is received by the Architect not later than the «last» day of a month, the Owner shall make payment of undisputed portions of the certified amount to the Contractor not later than the «last» day of the «following» month. If an Application for Payment is received by the Architect after the application date fixed above, payment shall be made by the Owner not later than «forty-five» (45) days after the Architect certifies the Application for Payment.

§ 4.1.2.1 NOT USED

§ 4.1.3 Retainage. Subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

- .1 Take that portion of the Contract Sum properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the Contract Sum allocated to that portion of the Work in the schedule of values, less retainage of «ten» percent («10»%). Pending final determination of cost to the Owner of changes in the Work, amounts not in dispute shall be included;
- .2 Add that portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction (or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing), less retainage of «ten» percent («10»%);
- .3 Subtract the aggregate of previous payments made by the Owner; and
- .4 Subtract amounts, if any, for which the Architect has withheld or nullified a Certificate for Payment.

§ 4.1.4 The progress payment amount determined in accordance with Section 4.1.3 shall be further modified under the following circumstances:

- .1 Add, upon Substantial Completion of the Work, a sum sufficient to increase the total payments to the full amount of the Contract Sum, less such amounts as the Architect shall determine for incomplete Work, retainage applicable to such work and unsettled claims; and
- .2 Add, if final completion of the Work is thereafter materially delayed through no fault of the Contractor, any additional amounts payable.

§ 4.2 Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at the rate below, or in the absence thereof, at the legal rate prevailing at the place of the Project.
(Insert rate of interest agreed upon, if any.)

Zero percent (0%)

ARTICLE 5 INSURANCE AND BONDS

§ 5.1 The Contractor shall maintain the following types and limits of insurance until the expiration of the period for correction of Work as set forth in Section 14.2, subject to the terms and conditions set forth in this Section 5.1:

§ 5.1.1 Commercial General Liability insurance for the Project, written on an occurrence form, with policy limits of not less than the minimum coverages indicated in Section 5.1.7 below.

§ 5.1.2 Automobile Liability covering vehicles owned, and non-owned vehicles used, by the Contractor, with policy limits of not less than the minimum coverages indicated in Section 5.1.7 below along with any other statutorily required automobile coverage.

§ 5.1.3 The Contractor may achieve the required limits and coverage for Commercial General Liability and Automobile Liability through a combination of primary and excess or umbrella liability insurance, provided that such primary and excess or umbrella insurance policies result in the same or greater coverage as those required under Section 5.1.7 below, and in no event shall any excess or umbrella liability insurance provide narrower coverage than the primary policy. The excess policy shall not require exhaustion of the underlying limits only through the actual payment by the underlying insurers.

§ 5.1.4 Workers' Compensation at statutory limits.

§ 5.1.5 Employers' Liability with policy limits not less than the minimum coverages indicated in Section 5.1.7 below.

§ 5.1.6 The Owner shall purchase and maintain a property insurance written on a builder's risk "all-risk" or equivalent form in the amount and with deductibles determined by the Owner. Except as otherwise provided in the Contract Documents, if the property insurance requires deductibles, the Contractor shall be responsible to pay costs, resulting from the acts or omissions of the Contractor and its subcontractors, not covered because of such deductibles.

§ 5.1.7 Other Insurance Provided by the Contractor

(List below any other insurance coverage to be provided by the Contractor and any applicable limits.)

Coverage	Limits
Workers' Compensation	Statutory
Employer's Liability:	
Bodily Injury by Accident:	\$1,000,000.
Bodily Injury by Disease, Policy Limit	\$1,000,000.
Bodily Injury by Disease, Each Employee	\$1,000,000.
General Liability:	
Each Occurrence (Bodily Injury and Property Damage)	\$1,000,000.
Personal & Advertising Injury	\$1,000,000.
Medical Payments Coverage	\$5,000.
Fire Damage Liability	\$100,000.
General Aggregate	\$2,000,000.
Products & Completed Operations Aggregate	\$2,000,000.
Excess Umbrella Liability:	
Each Occurrence	\$1,000,000.
General Aggregate	\$1,000,000.
Automobile Liability:	
a. Bodily Injury - Each Person	\$1,000,000.
Each Accident	\$1,000,000.
b. Property Damage – Each Accident	\$1,000,000.
or	
c. Combined Single Limit – Each Accident	
(Bodily Injury and Property Damage)	\$2,000,000.
Professional Liability Insurance	

Each Wrongful Act	\$2,000,000.
Policy Aggregate	\$2,000,000.
Pollution Liability	
Each Pollution Event	\$1,000,000.
Policy Aggregate	\$2,000,000.

§ 5.1.8 Contractor shall require all contractors, subcontractor and/or their agents to name Owner, Architect, Plante & Moran Cresa, L.L.C. and their respective directors, officers, and employees as additional insureds on General Liability, Umbrella / Excess Liability, Automobile Liability policies.

§ 5.1.9 Insurance coverage and surety bond required under this Agreement shall be written with insurance and surety carriers authorized to do business in the State of Michigan. Insurance coverage and surety bonds shall be in a form and provided by an insurer acceptable to the Owner with an A.M. Best rating of A, XII or better.

§ 5.1.10 The Contractor shall furnish payment and performance bonds covering faithful performance of the Contract and payment of obligations arising thereunder. Bonds may be obtained through the Contractor's usual source, and the cost thereof shall be included in the Cost of the Work. The amount of each bond shall be equal to one hundred percent (100%) of the Contract Sum. The Contractor shall deliver the required bonds to the Owner at least three (3) days before the commencement of any Work at the Project site. The Contractor shall only subcontract with Subcontractors that are trustworthy, financially able, and have a track record in successfully completing trade works of similar size and complexity.

§ 5.1.11 Except for any applicable Professional Liability Insurance coverages, Insurance coverages, shall be written on an occurrence basis, and shall be maintained without interruption from the date of commencement of the Work until the date of final payment and termination of any coverage required to be maintained after final payment, and, with respect to the Contractor's completed operations coverage, until the expiration of the period for correction of Work or for such other period for maintenance of completed operations coverage as specified in the Contract Documents. If Professional Liability Insurance coverage is required under this Agreement, Contractor shall maintain its Professional Liability Coverage without interruption for a period of not less than the Statute of Limitation and Statute of Repose periods in the state where the Project is located after the Project's relevant Date of Substantial Completion or the last day service is rendered by the Contractor on the Project, whichever shall be the later. The Contractor shall notify the Owner any disruption in coverage occurs and shall provide "tail coverage" at no cost to the Owner.

§ 5.2 The Owner shall be responsible for purchasing and maintaining the Owner's usual liability insurance and shall provide property insurance to cover the value of the Owner's property. The Contractor is entitled to receive an increase in the Contract Sum equal to the insurance proceeds related to a loss for damage to the Work covered by the Owner's property insurance, however, the Contractor shall be responsible to pay costs resulting from the acts or omissions of the Contractor and its subcontractors not covered because of any deductibles.

§ 5.3 The Contractor shall obtain an endorsement to its Commercial General Liability insurance policy to provide coverage for the Contractor's obligations under Section 8.12.

§ 5.4 Prior to commencement of the Work, the Contractor shall provide certificates of insurance showing its coverages. The Owner may require additional proof of coverage in the form of a true and accurate copy of the policies of insurance, themselves. The maintenance of the insurance in strict compliance with the requirement of this Agreement shall be condition precedent to Owner's Obligation to make any payment under this Agreement.

§ 5.5 NOT USED

§ 5.6 The Contractor and each member of the construction team shall be solely responsible for insuring against any loss or damage to all owned, borrowed or rented property, including but not limited to tools, materials, supplies, equipment, forms, scaffolding, towers, staging, bunkhouses and other temporary structures including their contents, which do not form a permanent part of the Project. The Owner shall in no event be liable for any loss or damage to any of the aforementioned items, or the Work connected with the Contractor, or employees, agents or servants of same, which is not to be included in and remain a permanent part of the Project.

ARTICLE 6 GENERAL PROVISIONS

§ 6.1 The Contract

The Contract represents the entire and integrated agreement between the parties and supersedes prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a written modification in accordance with Article 10.

§ 6.2 The Work

The term "Work" consists of all goods and services, such as labor, transportation, materials, tools, and equipment (i) to be incorporated into the Project (or the Contractor's portion of the Project if the Contractor is not responsible for the entire Project), (ii) required of the Contractor under the Contract Documents, or (iii) necessary or appropriate to fully construct, fixture, operate and maintain the Project (or the Contractor's portion of the Project if the Contractor is not responsible for the entire Project). The Work shall be performed in accordance with the Contract Documents. The Work may constitute the whole or a part of the Project. The term "Work" also shall include labor, materials, equipment and services provided or to be provided by Subcontractors, Sub-Subcontractors, material suppliers or any other entity for whom the Contractor is responsible under or pursuant to the Contract Documents.

§ 6.3 Intent

The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all.

§ 6.4 Consent, Approve, Satisfactory, Proper, and As Directed

The words "consent," "approved," "satisfactory," "proper," "as directed," any derivatives of them, or similar terms, mean written approval by the Owner, and may include approval of the Architect if the Owner so directs. Except where a different standard is specifically established, the Owner has the right to grant or withhold such approval in its sole discretion.

§ 6.5 Provide

The word "provide" and any derivatives thereof, and similar terms, mean to properly fabricate, complete, transport, deliver, install, erect, construct, test and furnish all labor, materials, equipment, apparatus, appurtenances, and all items and expenses necessary to properly complete in place, ready for operation or use under the terms of the Contract Documents.

§ 6.6 Knowledge

The terms "known," "knowledge," "recognize," "believe," and "discover," and any derivatives thereof and similar terms, when used in reference to the Contractor, shall mean that which the Contractor knows or should reasonably know, recognizes or should reasonably recognize, and discovers or should reasonably discover in exercising the care, skill, and diligence required of the Contractor by the Agreement. The expression "reasonably inferable" and similar terms mean reasonably inferable by a Contractor familiar with the Work and exercising the care, skill and diligence required of the Contractor by the Agreement.

§ 6.7 Including

The word "including" shall not be a word of limitation, but instead shall be construed as introducing one or more nonexclusive examples.

§ 6.8 Abbreviations

Words or abbreviations that are not defined but have well-known technical, trade or construction industry meanings, shall have those meanings ascribed to them. The singular shall include the plural and vice versa. Pronouns are interchangeable. The word "person" includes human beings and recognized legal entities. Unless the context clearly requires otherwise, reference to a Section shall include all subsections beneath it bearing identical introductory numbers.

§ 6.9 Ownership and Use of Architect's Drawings, Specifications and Other Documents

Documents prepared by the Architect are instruments of the Architect's service for use solely with respect to this Project. All plans, drawings, specifications, computations, sketches, data, surveys, models, photographs, renderings, and other like materials relating to the services ("Documents") shall become the property of the Owner at the conclusion of the project, or termination of the services of the Contractor, whichever is earlier, and shall be delivered to the Owner clearly marked and identified in good order. The Owner may use the Documents in connection with the Project, including maintenance, repair, or expansion of the Project or as a reference for other projects, but the Contractor and the Contractor's Architect shall incur no liability for the Owner's use of the Documents other than in connection with the Project, and the Owner hereby releases the Contractor from any loss or damage, including attorneys' fees, incurred solely as a result of Owner's use of the Documents other than in connection with the Project, or as a reference for other projects, if and only if the Contractor and/or its Architect is not involved in such use.

§ 6.10 Access and Cooperation

§6.10.1 The Owner shall cooperate with the Contractor and shall provide the Contractor reasonable access to the premises for the performance of the Contractor's Work and duties under this Agreement. Owner shall not intentionally interfere with the Work of the Contractor or any of its subcontractors.

§6.10.2 Contractor shall provide the Owner in writing critical dates when Owner supplied materials and equipment are to be on the job site when Contractor is to install such materials and equipment. The Owner shall provide such materials on the job site by such dates. The Owner is responsible for the condition, performance, and warranty of Owner supplied materials. The Contractor shall be responsible for properly installing such materials and equipment in accordance with the manufacturer's specifications. The Contractor shall be responsible for the condition, performance and warranty of the materials and equipment if the Contractor damages or improperly installs such materials and equipment.

§6.10.3 If the Contractor will require use of the Owners' utilities during construction. The Owner shall bear the cost of utilities. The Contractor shall exercise reasonable care to protect and use of such utility services; and shall bear full responsibilities to damages caused due to Contractor's acts or omissions.

§6.10.4 The Contractor will place construction Project and safety signs at the Project to provide identification for resident and occupant safety, deliveries and subcontractors. The signs will meet OSHA and MIOSHA requirements and be removed upon completion and Owner taking occupancy of the Project.

§6.11 Deliveries. Contractor shall protect and secure materials and equipment delivered to and stored at the Project site and Work that are completed from theft, vandalism, fire etc. Contractor shall carry insurance for loss due to Contractor's failure to protect and secure materials and equipment on the job site or due to Contractor's acts or omissions.

§6.12 Subcontractors. At times Contractor may employ trade specialists, laborers, vendors, and other forces (Subcontractors) to perform various aspects of the Work. The Contractor shall, at all times, be fully responsible for the Work, conduct and acts or omissions of its Subcontractors.

§6.12.1 By written agreement, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities which the Contractor, by these Documents, assumes toward the Owner and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound. Subcontracts shall include the following sentence: "Owner is an intended third-party beneficiary of this Subcontract." Sub-Subcontracts and Supply Contracts shall be subject to identical conditions, except: (i) suppliers that are not performing any Work on the Project Site are not subject to the insurance requirements described in Article 11; and (ii) Subcontractors and Sub-Subcontractors may satisfy the insurance requirements described in Article 5 by being named as an additional insured under the Contractor's insurance policies or, in the case of a Sub-Subcontractor, by being named as an additional insured under a Subcontractors' insurance policies.

§ 6.12.2 Upon request, the Contractor shall deliver a copy of any Subcontract, Sub-Subcontract or Supply Contract to the Owner.

ARTICLE 7 OWNER

§ 7.1 Information and Services Required of the Owner

§ 7.1.1 If requested by the Contractor, the Owner shall furnish required surveys and a legal description of the site.

§ 7.1.2 Except for permits and fees under Section 8.7.1 that are the responsibility of the Contractor under the Contract Documents, the Owner shall obtain and pay for other necessary approvals, easements, assessments, and charges.

§ 7.1.3 NOT USED

§ 7.2 Owner's Right to Stop the Work

If the Contractor fails to correct Work which is not in accordance with the Contract Documents, or fails to carry out the Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order is corrected, or correct the deficiencies with the Owner's own forces; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity. This right shall be in addition to and not in restriction or derogation of any other rights of the Owner under this Agreement. The Owner's right to stop the Work shall not relieve the Contractor of any of the Contractor's responsibilities or obligations under or pursuant to the Contract Documents.

§ 7.3 Owner's Right to Carry Out the Work

If the Contractor fails, defaults, or neglects to carry out the Work in accordance with the Contract Documents and fails within a three (3) day period after receipt of written notice from the Owner to commence and continue correction of such failure, default, or neglect with diligence and promptness, the Owner may, without prejudice to other remedies, including any claim against the Contractor's Performance Bond, correct such deficiencies. In such case, the Contract Sum shall be adjusted to deduct the cost of correction from payments due the Contractor.

§ 7.4 Owner's Right to Perform Construction and to Award Separate Contracts

§ 7.4.1 The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project.

§ 7.4.2 The Contractor shall coordinate and cooperate with the Owner's own forces and separate contractors employed by the Owner.

§ 7.5 Owner's Approval

Notwithstanding anything to the contrary contained in this Agreement, Owner's review and/or approval of any documents or other matters required herein shall be for the purpose of providing the Contractor or Architect with information as to Owner's objectives and goals with respect to the Project and not for the purpose of determining the accuracy and completeness of the Work. In no way should any review and/or approval Owner alter the Contractor's responsibilities under this Agreement.

ARTICLE 8 CONTRACTOR

§ 8.1 Review of Contract Documents and Field Conditions by Contractor

§ 8.1.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become familiar with local conditions under which the Work is to be performed, and correlated its observations with requirements of the Contract Documents.

§ 8.1.2 The Contractor shall carefully study and compare the Contract Documents with each other and with information furnished by the Owner. Before commencing activities, the Contractor shall (1) take field measurements and verify field conditions; (2) carefully compare this and other information known to the Contractor with the Contract Documents; and (3) promptly report errors, inconsistencies, or omissions discovered to the Architect and the Owner.

§ 8.2 Contractor's Construction Schedule

The Contractor, promptly, but not more than thirty (30) days, after being awarded the Contract shall prepare and submit for the Owner's and Architect's information and acceptance Contractor's construction schedule or Project Schedule for the Work. The Project Schedule is the Critical Path Method ("CPM") schedule for construction of the Work submitted as part of the Contractor's Contract Sum Proposal, prepared by the Contractor and accepted by the Owner. The Project Schedule can be modified only by Change Order. Following any such modification, the term "Project Schedule" shall mean the most recent Owner-approved version.

§ 8.3 Supervision and Construction Procedures

§ 8.3.1 The Contractor shall employ and assign to the Project a competent and experienced superintendent to be on-site at all times to supervise and direct the Work using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work. The Contractor shall inspect the Work of the trade contractors on the Project as it is being performed until final completion and acceptance of the Project by the Owner to ensure that the Work performed and the materials furnished are in accordance with the Contract Documents and that Work on the Project is progressing on schedule. In the event that the quality control testing should indicate that the Work, as installed, does not meet the requirements of this Project, including the Contract Documents, the Owner shall determine the extent of the Work that does not meet the requirements and the Contractor shall direct the trade contractors(s) to take appropriate corrective action, and advise the Owner of the corrective action.

§ 8.3.2 The Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner, through the Architect, the names of Subcontractors or suppliers for each portion of the Work. The Contractor shall not contract with any Subcontractor or supplier to whom the Owner or Architect have made a timely and reasonable objection.

§ 8.4 Labor and Materials

§ 8.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work.

§ 8.4.2 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Contract Work. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them.

§ 8.5 Warranty

§ 8.5.1 The Contractor warrants to the Owner and Architect that: (1) materials and equipment furnished under the Contract will be new and of good quality unless otherwise required or permitted by the Contract Documents; (2) the Work will be free from defects not inherent in the quality required or permitted; and (3) the Work will conform to the requirements of the Contract Documents. Any material or equipment warranties required by the Contract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence in accordance with Section 12.5.

§ 8.5.2 The Contractor shall provide a two (2) year limited warranty for all materials, equipment and work performed by the Contractor and/or its Subcontractors. Within the terms of the limited warranty, the Contractor shall remedy any defects due to faulty materials, workmanship, or negligence of the Contractor which are made known to the Contractor in writing, within two (2) years of the completion of the job. All materials are guaranteed for a minimum of two (2) years, or longer as specified, and all materials are warranted by the manufacturer and will be replaced according to the terms of their warranty by the Contractor without charge.

§ 8.5.3 Money being withheld for a warranty or disputed item shall not exceed twice the value of the warranty item (material and labor).

§ 8.5.4 Upon completion of any remedial work, the two (2) year warranty period in this Article 8 shall begin anew with respect to the materials, equipment and/or work requiring remedy.

§ 8.6 Taxes

The Contractor shall pay, and include in the Contract Sum, all sales, consumer, use, franchise, commercial activities, and similar taxes that are legally required when the Contract is executed. The Contractor shall pay all state and

federal taxes levied on its business, income or property and shall make all contributions for social security and other wage or payroll taxes. The Contractor shall be solely responsible for such payments and shall indemnify the Owner and hold it harmless from any assessment and payment of the same.

§ 8.7 Permits, Fees, Licenses, and Notices

§ 8.7.1 The Contractor shall obtain and pay for the building permit and other permits and governmental fees, licenses, and inspections necessary for proper execution and completion of the Work or as required by the Contract Documents. The Contractor, and all its Subcontractors of any tier, shall maintain at all time the required licenses and registrations required to perform the Work.

§ 8.7.2 The Contractor shall strictly comply with and give notices required by agencies having jurisdiction over the Work. If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume full responsibility for such Work and shall bear the attributable costs. The Contractor shall promptly notify the Architect and the Owner in writing of any known inconsistencies in the Contract Documents with such governmental laws, rules, and regulations.

§ 8.8 Submittals

The Contractor shall promptly review, approve in writing, and submit to the Architect shop drawings, product data, samples, and similar submittals required by the Contract Documents. Shop drawings, product data, samples, and similar submittals are not Contract Documents.

§ 8.9 Use of Site

The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits, the Contract Documents, and the Owner.

§ 8.10 Cutting and Patching

§8.10.1 The Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly.

§ 8.10.2 Only tradespersons skilled and experienced in cutting, fitting, and patching shall perform such Work. An appropriate member of the construction team shall do all cutting, fitting, or patching on the Work that may be required to make its several parts come together properly and fit the Work to receive or be received by work of other contractors shown by, or reasonably implied by, the Contract Documents for the completed Project. An appropriate member of the construction team shall repair or otherwise make good all such cutting, fitting, or patching after the required Work has been completed as the Architect may direct.

§ 8.10.3 The Contractor shall not cut or otherwise alter any portion of any structure of which the Work is a part or to which the Work is attached without in each instance having first submitted to the Owner Shop Drawings accurately locating each such cut or alteration. The Architect's approval of such Shop Drawings must be obtained prior to making any such cut or alteration.

§ 8.11 Cleaning Up

§ 8.11.1 General Clean Up. The Contractor shall keep the premises and surrounding area free from accumulation of debris and trash related to the Work. At the completion of the Work, the Contractor shall remove its tools, construction equipment, machinery, and surplus material; and shall properly dispose of waste materials.

§ 8.11.2 Final Clean Up.

§ 8.11.2.1 Unless the Contract Documents require a higher standard, the Contractor shall leave all Work installed or modified under the Agreement and all existing materials and surfaces affected by the Work and each area of the Project Site clean to the satisfaction of the Owner. This shall include at a minimum: complete dusting, sweeping, vacuuming, mopping, polishing, and other activities as necessary to remove all dust, dirt and other construction residues, and removal of all tools and equipment, construction debris, rubbish, and surplus materials.

§ 8.11.2.2 Immediately before turning any portion of the Project over to the Owner, the Contractor shall have all glass cleaned by professional window washers. Care shall be taken not to scratch any glass. Acid or other cleaning material which will injure or mar the surface or adjacent Work will not be allowed. Any damage resulting from glass

cleaning shall be corrected by the Contractor, including the furnishing of new glass of same character and quality or the replacement of other Work damaged or disturbed.

§ 8.12 Indemnification

To the fullest extent permitted by law, the Contractor shall indemnify, defend and hold harmless the Owner, its Board of Education, its Board Members, in their official and individual capacities, its administrators, employees, agents, contractors, successors and assignees, from and against any and all claims, suits, debts, demands, actions, judgments, liens, costs, expenses, damages, losses, injuries and liabilities, expenses, including but not limited to actual attorneys' fees and actual expert witness fees, arising out of or in connection with Contractor's resulting from performance of the Work pursuant to this Agreement and/or from Contractor's violation of any of the terms of this Agreement, including, but not limited to: (i) the negligent acts or willful misconduct of the Contractor, its officers, directors, employees, successors, assignees, subcontractors, consultants and agents; (ii) any breach of the terms of this Agreement by the Contractor, its officers, directors, employees, successors, assignees, subcontractors, consultants and agents; (iii) any violation or breach of any applicable Federal, State or local law, rule, regulation, ordinance, policy and/or licensing and permitting requirements applicable to providing the services; or (iv) any breach of any representation or warranty by the Contractor, its officers, directors, employees, successors, assignees, subcontractors, consultants and agents under this Agreement. The Contractor shall notify the Owner by certified mail, return receipt requested, immediately upon actual knowledge of any claim, suit, action, or proceeding for which the Owner may be entitled to indemnification under this Agreement. This Section shall survive the expiration or earlier termination of this Agreement and shall not be limited by the Contractor's Insurance obligations contained in this Agreement.

In addition, to the fullest extent permitted by law, the Contractor shall indemnify, defend and hold harmless the Owner its Board of Education, its Board Members, in their official and individual capacities, its administrators, employees, agents, contractors, successors and assignees, from any claim, damage, loss, injury or expense, including but not limited to actual attorney fees, incurred by the Owner related to any Hazardous Material or potentially Hazardous Material, waste, toxic substance, pollution or contamination brought into the Project Site or caused by the Contractor or used, handled, transported, stored, removed, remediated, disturbed or dispersed of by Contractor.

ARTICLE 9 ARCHITECT

§ 9.1 The Architect will provide administration of the Contract as described in the Contract Documents. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

§ 9.2 The Architect will visit the site at intervals appropriate to the stage of construction to become generally familiar with the progress and quality of the Work.

§ 9.3 The Architect will not have control over or charge of, and will not be responsible for, construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the Work, since these are solely the Contractor's responsibility. The Architect will not be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents.

§ 9.4 Based on the Architect's observations and evaluations of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor.

§ 9.5 The Architect shall make timely recommendations to the Owner regarding the rejection of Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect may require inspection or testing of the Work in accordance with the provisions of the Contract Document, whether or not such Work is fabricated, installed, or completed.

§ 9.6 The Architect will promptly review and approve or take appropriate action upon Contractor's submittals, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

§ 9.7 On written request from either the Owner or Contractor, the Architect will promptly interpret and decide matters concerning performance under, and requirements of, the Contract Documents.

§ 9.8 Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from the Contract Documents, and will be in writing or in the form of drawings. When making such interpretations

and decisions, the Architect will endeavor to secure faithful performance by the Contractor and will not be liable for results of interpretations or decisions rendered in good faith.

§ 9.9 The Architect's duties, responsibilities, and limits of authority as described in the Contract Documents shall not be changed without written consent of the Owner, Contractor, and Architect. Consent shall not be unreasonably withheld.

ARTICLE 10 CHANGES IN THE WORK

§ 10.1 The Owner, without invalidating the Contract, may order changes in the Work within the general scope of the Contract, consisting of additions, deletions or other revisions, and the Contract Sum and Contract Time shall be adjusted by Change Order accordingly, in writing. If the Owner changes the Contract Sum, the Owner shall pay the Contractor its actual cost plus reasonable overhead and profit as mutually agreed to by both parties in writing. Changes in the Work shall not be performed by Contractor without the Owner's authorization to proceed.

§ 10.2 The Architect will have authority to order minor changes in the Work not involving changes in the Contract Sum or the Contract Time and not inconsistent with the intent of the Contract Documents. Such orders shall be in writing and shall be binding on the Owner and Contractor. The Contractor shall carry out such orders promptly.

§ 10.3 Materially Different Conditions

§ 10.3.1 If concealed or unknown physical conditions are encountered at the site that differ materially from those indicated in the Contract Documents or from those conditions ordinarily found to exist, the Contract Sum and Contract Time shall be subject to reasonable adjustment as mutually agreed to by both parties in writing.

§ 10.3.2 As a professional familiar and accustomed to Project complexity of the type of Work, the Contractor has inspected the Owner's premises and the Contract Documents prior to submitting its proposal and agreeing to the terms of this Agreement (including, but not limited to, terms regarding time and compensation). Upon discovery of conditions the Contractor believes materially differ from those in the Contract Documents, Contractor shall immediately notify the Architect and the Owner, in accordance with Article 10, if additional cost or time is required to remedy such conditions. Owner shall have the right to inspect the discovered hidden conditions, to determine if the Contractor should have reasonably anticipated such conditions before agreeing to a change order for additional work. Contractor will not be entitled to compensation for differing conditions that are removed which the Contractor failed to notify the Owner and offered the Owner opportunities to inspect/verify the condition.

§ 10.4 The Contractor shall not be entitled to any extension of time change to the Contract Sum unless it is included in an authorized change order signed by the Owner and Architect. The Contractor shall submit a written change order request within lesser of twenty-one (21) days after the Contractor discovers or the time the Contractor should have discovered, with the exercise of appropriate diligence, the cause giving rise to the potential change. The Contractor's failure to strictly comply with this Section 10.4 shall constitute a waiver of and shall forever bar any recover for additional time or compensation for the circumstances giving rise to the potential change.

§ 10.5 In no event shall the Contractor be entitled to receive, and the Contractor hereby waives the right to receive any payment or any extension of time for additional or changed work, whether partially or fully completed or simply proposed, unless such additional work is authorized by a written Change Order or Construction Change Directive signed by the Owner, nor shall the Contractor be obligated to proceed with any such Work. Only the Owner shall have the right to issue a written Change Order or Constructive Change Directive to the Contractor authorizing an addition, deletion or other revision in the scope of the Work and/or an adjustment in the Contract Sum or Contract Time.

ARTICLE 11 TIME

§ 11.1 Time limits stated in the Contract Documents are of the essence of the Contract.

§ 11.2 If the Contractor is delayed at any time in progress of the Work by changes ordered in the Work, or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties, or other causes beyond the Contractor's control, the Contract Time shall be subject to equitable adjustment as mutually agreed to by both parties in writing.

§ 11.3 Costs caused by delays or by improperly timed activities or defective construction shall be borne by the responsible party.

§ 11.4 The Contractor shall provide notice in writing to the Owner of a potential claim for a delay related adjustment to the Contract Sum or Contract Time within five (5) days of start of any delay and shall request in writing all changes to the Contract Time and Contract Sum within twenty-one (21) days after cessation of the delay. Changes to the Contract Sum shall be limited to Owner caused delays that impact the Project's Critical Path and limited to the costs set forth in Sections 11.5 and 11.6 resulting from the delay. The Contractor's failure to strictly comply with this Section 11.4 shall constitute a waiver of and shall forever bar any recover for additional time or compensation for the delay.

§ 11.5 No Damage for Delay. Except only as provided in Section 11.4, in no event shall the Contractor be entitled to any compensation or recovery of any damages in connection with any delay. In no event shall the Contractor be entitled to recover special, incidental, or consequential damages including without limitation, loss of anticipated profits, revenue, or use of capital.

§ 11.6 In the event of Owner Delay, the Contractor may be entitled to an equitable adjustment in the Contract Sum. This adjustment shall be based solely upon and limited to additional direct out-of-pocket expenses to the extent they are incurred directly as a result of the Owner Delay. Without limiting the generality of the foregoing, such out-of-pocket expenses shall be calculated on an "actual cost" basis, and shall exclude home office expense and other overhead, profit and the value of lost opportunities. However, the Contractor shall use its best efforts to avoid or reduce delay damages caused by Owner Delay.

§ 11.7 All float time in the Construction Schedule shall be shared by the Owner and Contractor or otherwise used for the benefit of the Project.

ARTICLE 12 PAYMENTS AND COMPLETION

§ 12.1 Contract Sum

The Contract Sum stated in this Agreement, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

§ 12.2 Applications for Payment

§ 12.2.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment for Work completed in accordance with the values stated in this Agreement. The Application shall be supported by data substantiating the Contractor's right to payment as the Owner or Architect may reasonably require, such as evidence of payments made to, and waivers of liens from, Subcontractors and suppliers. 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 stored, and protected from damage, off the site at a location agreed upon in writing. Payment to Contractor for materials stored off site is discouraged. Contractor shall prepare the Application for Payment using AIA Standard Form G-702 and G-703 accompanied by required conditional and unconditional lien releases from the Contractor, Subcontractors, suppliers, and delivered to the Architect for review and approval.

§ 12.2.2 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment, all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, claims, security interests, or other encumbrances adverse to the Owner's interests.

§ 12.2.3 Contractor's first Application of Payment is considered incomplete unless in addition to the requirements described in Sections 12.2.1 through 12.2.2, all of the following completed items are also included with the Application of Payment: (1) Performance and Payment Bonds, if required; (2) Certificate of Insurance, as required; (3) Affidavits that the surety and insurance company or companies meets the requirements in Article 5; (4) Construction schedule for the Project; (5) Completed Schedule of Value for the Project.

§ 12.2.4 In addition to the requirements described in Section 12.2.1 through 12.2.2, all Applications for Payment shall also include:

- .1 a Schedule of Values that updated all approved Change Order amounts added and deducted, if applicable, since the last Application for Payment;

- .2 an updated Project construction schedule that shows actual progress of the Work through the period covered by the current Application for Payment, and clearly identifying any portion of the Work that is behind schedule (if any portion of Work that is behind schedule, the Contractor shall also include with the Application for Payment a schedule recovery plan to bring the Work back on schedule in the next thirty (30) days);
- .3 a duly executed and acknowledged sworn statement in statutory form and acceptable to the Owner with all information provided, together with properly notarized sworn statements, current through the previous draw, from the Contractor and all of the Subcontractor; and
- .4 except as otherwise provided, duly executed unconditional releases in the form required by the Owner establishing payment or satisfaction of all obligations as reflected on the sworn statements, provided, however, that the Contractor may furnish with each Application for Payment applicable waivers of lien or releases and properly notarized sworn statements covering the immediately preceding Application for Payment, as opposed to the current Application for Payment, (i.e., thirty (30) day lag), provided Final Payment shall not be forthcoming until final construction lien waivers, if applicable, or releases from all members of the Construction Team have been delivered.

§ 12.2.5 The Owner shall have the right to withhold sufficient amount from the Application for Payment for unacceptable, defective, deficient, or non-conforming Work ("Disputed Work") after notifying the Contractor. The Contractor shall promptly remedy the Disputed Work. Owner shall promptly render payment for such Disputed Work after the Contractor has cured and the Owner has accepted the remedied Disputed Work.

§ 12.3 Certificates for Payment

The Architect will, within seven (7) days after receipt of the Contractor's Application for Payment, either issue to the Owner a Certificate for Payment with a copy to the Contractor for such amount as the Architect determines is properly due, or notify the Contractor and Owner in writing of the Architect's reasons for withholding certification in whole or in part.

§ 12.4 Progress Payments

§ 12.4.1 After the Architect has issued a Certificate for Payment, the Owner shall make payment for undisputed sums in the manner provided in the Contract Documents.

§ 12.4.2 The Contractor shall promptly pay each Subcontractor and supplier, upon receipt of payment from the Owner, an amount determined in accordance with the terms of the applicable subcontracts and purchase orders.

§ 12.4.3 Neither the Owner nor the Architect shall have responsibility for payments to a Subcontractor or supplier.

§ 12.4.4 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the requirements of the Contract Documents.

§ 12.4.5 Except with the Owner's prior approval the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

§ 12.4.6 Whenever the Owner reasonably determines, after notice to the Contractor, that there is a basis for concern that payments properly owing to any Subcontractor of any tier, supplier or laborer are not being made on a timely basis, the Owner may elect, but shall not be obligated, to make payments to the joint order of the Contractor and such Subcontractor, supplier or laborer with any such payments satisfying any payment obligation otherwise owing by the Owner to the Contractor. The Owner may also elect at any time to require that payments be made through a construction escrow, in which event the Contractor shall supply all customary forms and indemnities as may be required to satisfy the conditions to disbursement established by the applicable escrowee. All requirements relating to payments and retainages, and applicable submittals to be made by the Contractor, shall be subject to reasonable modification and approval of any lender of the Owner supplying funds to the Project.

§ 12.5 Substantial Completion

§ 12.5.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so the Owner can occupy or utilize the Work for its intended use.

§ 12.5.2 When the Contractor believes that the Work or designated portion thereof is substantially complete, it will notify the Architect and the Architect will make an inspection to determine whether the Work is substantially complete. When the Architect determines that the Work is substantially complete, the Architect shall prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion, establish the responsibilities of the Owner and Contractor, and fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 12.6 Final Completion and Final Payment

§ 12.6.1 Upon receipt of a final Application for Payment, the Architect will inspect the Work. When the Architect finds the Work acceptable and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment.

§ 12.6.2 Final payment shall not become due until the Contractor submits to the Architect releases and waivers of liens, if applicable, and data establishing payment or satisfaction of obligations, such as receipts, claims, security interests, or encumbrances arising out of the Contract.

§ 12.6.3 Acceptance of final payment by the Contractor, a Subcontractor or supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

§ 12.6.4 Amounts withheld from the final payment to cover any incomplete work are not considered retainage and shall not be paid to the Contractor until the Work is actually completed and accepted by the Owner. Such withholdings shall not be less than 150% of the estimated cost to complete the Work.

§ 12.6.5 The Owner shall have the right to deduct from the Final Payment due the Contractor all costs, including additional fees paid to Owner's consultants, which the Owner incurred as result of and attributed to Contractor's failure to fully complete and/or closeout the Project within sixty (60) days following Substantial Completion.

§ 12.6.6 Unless otherwise agreed to by the Owner, in writing, the Owner shall not be responsible for costs incurred by the Contractor beyond sixty (60) days following Substantial Completion for the Contract Sum that is based on the Cost of the Work plus Contractor's Fee.

ARTICLE 13 PROTECTION OF PERSONS AND PROPERTY

§13.1 The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs, including all those required by law in connection with performance of the Contract. The Contractor shall take reasonable precautions to prevent damage, injury, or loss to employees on the Work and other persons who may be affected thereby, the Work and materials and equipment to be incorporated therein, and other property at the site or adjacent thereto. The Contractor shall promptly remedy damage and loss to property caused in whole or in part by the Contractor, or by anyone for whose acts the Contractor may be liable.

§13.2 The Contractor shall take all necessary precautions to guard against and eliminate all possible fire hazards and to prevent fire damage to any construction work, building materials, equipment, temporary field offices, storage sheds, and all other property. The Contractor shall provide necessary personnel and fire-fighting equipment to effectively control fires resulting from welding, flame cutting, or other operations involving the use of flame, sparks, or sparking devices. During such operations, all highly combustible or flammable materials shall be removed from the immediate working area. If removal is impossible the same shall be protected with fire blankets or suitable non-combustible shields. The Contractor shall maintain free access to the building areas for fire-fighting equipment and shall at no time block off main roadways or fire aisles without providing adequate auxiliary roadways and means of entrance for fire-fighting equipment, including heavy fire department trucks, where applicable. The Contractor shall at all times cooperate with the Owner and keep the municipal fire department informed of the means of entrance and changes to roadways or fire aisles as needed to provide fire department access to or around to Project site. The Contractor shall maintain during construction an appropriate number of fire extinguishers to meet Factory Mutual (FM) requirements. Fire extinguishers shall be in good working order, conveniently located, clearly visible, and readily accessible for proper protection of the Work.

ARTICLE 14 CORRECTION OF WORK

§ 14.1 The Contractor shall promptly correct Work rejected by the Architect as failing to conform to the requirements of the Contract Documents. The Contractor shall bear the cost of correcting such rejected Work, including the costs of uncovering, replacement, and additional testing.

§ 14.2 In addition to the Contractor's other obligations including warranties under the Contract, the Contractor shall, for a period of two (2) years after Substantial Completion, correct work not conforming to the requirements of the Contract Documents.

§ 14.3 If the Contractor fails to correct nonconforming Work within a reasonable time, the Owner may correct it in accordance with Section 7.3.

ARTICLE 15 MISCELLANEOUS PROVISIONS

§ 15.1 Assignment of Contract

§15.1.1 Neither party to the Contract shall assign the Contract as a whole without written consent of the other, except that the Owner may, without consent of the Contractor, assign the Contract to Owner's parents, subsidiaries, successor, affiliates, or lenders providing construction financing for the Project, if the assigned assumes the Owner's rights and obligations under the Contract Document. The Contractor shall execute all consents reasonably required to facilitate such assignment.

§ 15.1.2 The Contractor shall not assign the whole or any part of the Agreement, or any monies due or to become due, without the express written consent of the Owner. If the Contractor, with the Owner's consent, assigns all or any part of the Agreement or any monies due or to become due, the instrument of assignment shall contain a clause satisfactory to the Owner and stating that it is agreed that the right of the assignee in and to any monies due or to become due to the Contractor shall be subject to the prior claims of all persons, firms and corporations for services rendered or materials supplied for the performance of the Work called for in the Agreement.

§ 15.2 Tests and Inspections

§ 15.2.1 At the appropriate times, the Contractor shall arrange and bear cost of tests, inspections, and approvals of portions of the Work required by the Contract Documents or by laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities.

§ 15.2.2 If the Architect requires additional testing, the Contractor shall perform those tests.

§ 15.2.3 The Owner shall bear cost of tests, inspections, or approvals that do not become requirements until after the Contract is executed.

§ 15.3 Governing Law

The Contract shall be governed by the law of the place where the Project is located, excluding that jurisdiction's choice of law rules.

§ 15.4 Program Management Software. The Owner plans to utilize a web-based collaborative program management project software to assist in the efficient communication of all Project information to pertinent team members. The selected e-Builder platform will be utilized for storage of all pertinent Project correspondence (Meeting Minutes, RFIs, Submittals, Drawing set issuances, Bulletins, etc.), as well as for payment application and invoice processing, and change management approvals. The Contractor will be required to participate in e-Builder platform training and subsequent utilization of the software for their role and information transfer throughout the Project. The Owner will pay for up to two (2) collaborative licenses for the Contractor.

ARTICLE 16 TERMINATION OF THE CONTRACT

§ 16.1 Suspension by the Owner and Termination by the Contractor

The Owner may suspend the Work at anytime for any reason. If the Work is suspended for more than twenty one (21) consecutive days, the Contractor shall be entitled to an equitable adjustment in the Contract Sum, subject to mutual agreement of the parties. If the Architect fails to certify payment as provided in Section 12.3 for a period of thirty (30) days through no fault of the Contractor, or if the Owner fails to make payment as provided in Section 12.4.1 for a period of thirty (30) days, the Contractor may, upon seven thirty (30) additional days' written notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed including reasonable overhead and profit on the portion of the Work completed to the date of termination.

§ 16.2 Termination by the Owner for Cause

§ 16.2.1 The Owner may terminate the Contract if the Contractor

- .1 refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to Subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the Subcontractors;
- .3 disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4 is otherwise guilty of substantial breach of a provision of the Contract Documents.

§ 16.2.2 When any of the above reasons exist, the Owner, may without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' written notice, terminate employment of the Contractor and may

- .1 take possession of the site and of all materials thereon owned by the Contractor, and
- .2 finish the Work by whatever reasonable method the Owner may deem expedient.

§ 16.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 16.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished and determination of the sum due pursuant to Section 16.2.4.

§ 16.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the Contractor shall pay the difference to the Owner. This obligation for payment shall survive termination of this Agreement.

§ 16.2.5 If the Owner erroneously or improperly terminates the Contractor for cause, then the Owner's action shall be deemed to be a termination for convenience, subject to the provisions of Section 16.3.

§ 16.3 Termination by the Owner for Convenience

The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause. The Contractor shall be entitled to receive payment for Work properly executed prior to termination.

§16.4 In the event of any termination, the Contractor's and Subcontractor's obligations related to insurance, indemnity, and confidentiality shall survive.

ARTICLE 17 OTHER TERMS AND CONDITIONS

(Insert any other terms or conditions below.)

§ 17.1 The Contractor shall inspect the Work as it is being performed until final completion and acceptance of the Project by the Owner to assure that the Work performed and the materials furnished are in accordance with the Contract Documents and that Work on the Project is progressing on schedule. In the event that the quality control testing should indicate that the Work, as installed, does not meet the requirements of this Project, the Architect shall determine the extent of the Work that does not meet the requirements and the Contractor shall direct the trade contractors(s) to take appropriate corrective action, and advise the Owner of the corrective action.

§ 17.2 The Contractor shall provide daily full-time, on-site field supervision during the entire construction phase. The Contractor agrees to assign the following listed Project team members, as listed in their respective capacities to the Project:

Staff Name	Assignment	Contact Information – Mobile Phone & e-Mail
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Contractor shall promptly notify the Owner if services of any one of the listed team members become unavailable due to circumstances beyond the Contractor's control – e.g., extended illness or disability, death, or termination of employment, etc. No substitution of any of the above listed project team members shall be made without the prior written consent of the Owner; and before any such substitution the Contractor shall submit to the owner a detailed justification supported by the qualification of any proposed replacement. Owner shall have the right to interview and select alternate team member(s) employed by the Contractor to replace the unavailable team member. Contractor shall agree to provide the services of the alternate team member(s) selected by Owner. Contractor is not entitled to additional compensation for any such substitution(s) of the project team members. The Owner reserves the right to

require the replacement of any or all of the above listed team members for cause; and the Contractor shall provide suitable replacement or replacements upon two (2) weeks' notice, subject to interview and acceptance by the Owner.

§ 17.3 As part of Contract Sum, the Contractor shall conduct a post-occupancy audit eleven (11) months following the Date of Substantial Completion and thereafter provide call-back services for a period of twenty three (23) months.

§ 17.4 Notwithstanding anything regarding hazardous materials, the Contractor acknowledges and fully understands that the scope of this Work includes the proper removal and proper disposal of all hazardous materials, including but not limited to any construction debris containing asbestos, PCBs, etc., as required by applicable federal, state, and local laws, rules, regulations and directives by governmental agencies having jurisdiction over the Project and Project site.

§ 17.5 If any provision of this Agreement shall be held to be illegal, invalid or otherwise unenforceable by law, the remainder of this Agreement shall not be affected thereby and each provision, term, covenant or condition of this Agreement shall be enforced to the fullest extent permitted.

§ 17.6 The Contractor shall comply with the Owner's Policies and Procedures, which will be made available to the Contractor upon request, while on the Project site.

§ 17.7 Dispute Resolution

§ 17.7.1

For any claim subject to, but not resolved by, pursuant to this Article 17, the method of binding dispute resolution shall be as follows:

(Check the appropriate box.)

☐ Arbitration pursuant to Section 21.6 of this Agreement

☒ Litigation in a court of competent jurisdiction, unless otherwise mutually agreed to by the parties.

☐ Other (Specify)

If the Owner and Contractor do not select a method of binding dispute resolution, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, claims will be resolved in a court of competent jurisdiction.

§ 17.7.2 NOT USED

§ 17.7.3 NOT USED

§ 17.7.4 In the event the parties resort to a court, and to the extent permitted by law, the parties hereby:

1. Irrevocably consent and submit to the jurisdiction of any Federal, state, county or municipal court sitting in the State of Michigan, County of Wayne, in respect to any action or proceeding brought therein concerning any matters arising out of or in any way relating to this Agreement;
2. Expressly waive any rights pursuant to the laws of any other jurisdiction by virtue of which exclusive jurisdiction of the courts of any other jurisdiction might be claimed;
3. Irrevocably waive all objections as to venue and any and all rights it may have to seek a change of venue with respect to any such action or proceeding;
4. Agree that any final judgment rendered in any such action or proceeding shall be conclusive and may be entered in any other jurisdiction by suit on the judgment or in any other manner provided by law and expressly consent to the affirmation of the validity of any such judgment by the courts of any other jurisdiction so as to permit execution thereon.

§ 17.8 Notice

§ 17.8.1 All notices or other communications hereunder to either party shall be (1) in writing, and, if mailed, shall be deemed to have been given on the earlier of actual receipt by the intended recipient or on the third business day after the date when deposited in the United States mail by registered or certified mail, postage pre-paid, or by personal

delivery, Federal Express or other recognized and reputable overnight courier, addressed as hereinafter provided, and (2) addressed as follows:

§ 17.8.2 If to the Owner:

The Owner's Designated Representative:

(Name, address, email address, and other information)

«Phillip Francis, Director of Operations

«Livonia Public Schools»

«15125 Farmington Road

Livonia, MI 48154 »

With a copy to the Owner's Representative Consultant:

The Owner has engaged Plante & Moran Cresa, L.L.C. (PMC) as an Owner's Representative Consultant and on the Project. The Contractor shall keep the Owner and PMC informed in matters regarding the Project. Unless otherwise provided in this Agreement specifically authorized by the Owner, the Owner's Representative Consultant is not authorized to commit the Owner in matters regarding the Work, regarding changes in the Work, Construction Schedule, or grant approval on behalf of the Owner. The Owner reserves for itself the sole right to make decisions in matters regarding the Project. The following individual, subject to change upon written notification to the Contractor, shall be primary contact for the Owner's Representative Consultant:

«Scott Smith »

«Plante Moran Cresa »

«27400 Northwestern Hwy »

«Southfield, MI 48034 »

§ 17.8.3 If to the Contractor:

The Contractor's representative:

(Name, address, email address, and other information)

« »

« »

« »

« »

§ 17.8.4 Neither the Owner's nor the Contractor's representative shall be changed without ten (10) days' prior notice to the other party.

§ 17.9 The Contractor shall notify the Owner in the event of a potential or actual: (a) material change in ownership of the Contractor; (b) intent to dissolve; or (c) intent to otherwise cease active participation in the Project's local marketplace (collectively a "Material Change in Circumstances"). A Material Change in Circumstances shall include any other change that could reasonably give rise to concern on behalf of the Owner regarding the Contractor's ability or willingness to fulfill any of its obligations under this Agreement. In the event of a Material Change in Circumstances, the Contractor shall provide any reasonable assurance or guarantee requested by Owner. Owner shall have the right to terminate this agreement for cause in the event of a Material Change in Circumstances.

§ 17.10 NOT USED

§ 17.11 The Owner, being a public body, shall render required decisions within a reasonable time after being requested to do so by the Contractor. The Contractor, assisted by the Architect, shall prepare and submit all recommendations for which approval is required by Owner as soon as reasonably possible unless another schedule is agreed to by the Owner, in writing. The Contractor shall not cause unreasonable delays in the orderly progress of Work.

§ 17.12 The Contractor shall develop a plan and to administer an effective labor relations program for the Project in order to ensure labor harmony and to avoid labor disputes during construction. The Owner does not and cannot require the Contractor to employ union labor on the Project. Therefore, if it is necessary that the Contractor enters into a project labor agreement to ensure labor harmony and avoid labor dispute during construction, the Contractor shall have the discretion to do so.

§ 17.13 NOT USED

§ 17.14 NOT USED

§ 17.15 **GOVERNMENT AGENCY'S IMMUNITY FROM TORT LIABILITY.** Notwithstanding any provisions within the Contract Documents, no provisions shall be deemed a waiver of any immunity granted the Owner, being a governmental unit, by statute, including, without limitation. (MCL 691.1407 / ORC 2743.02)

This Agreement entered into as of the day and year first written above.

(If required by law, insert cancellation period, disclosures or other warning statements above the signatures.)

LIVONIA PUBLIC SCHOOLS,

OWNER (Signature)

«Phillip Francis, Director of Operations»«

(Printed name and title)

CONTRACTOR (Signature)

« »« »

(Printed name and title)

**SECTION 01 1000
SUMMARY**

PART 1 GENERAL

1.01 REQUIREMENT

- A. This section is a part of the entire set of Contract Documents and shall be coordinated with the applicable provisions of the other parts.
- B. All bidders shall be held to have thoroughly examined all the drawings and specifications and to have visited the site to determine the extent of reroofing and alteration work required. All measurements are the responsibility of the bidder.
- C. It is the declared and acknowledged intention and meaning of these specifications to repair, reroof and to alter the existing premises as required to provide a watertight roofing system.
- D. The work will include the furnishing of all materials and equipment and the performing of all labor required, whether specifically indicated by the drawings and specifications, to provide a watertight roofing system.

1.02 PROJECT

- A. Project Name: Annex Buildings Roof Replacement.
- B. Owner's Name: Livonia Public Schools.
- C. Owner's Representative: Mr. Jeff Burnside, Director of Operations and District Services, Livonia Public Schools.
- D. Roof Consultants Name: Roofing Technology Associates, Ltd., Contact: Mr. Ron Kinne, (734)591-4444.
- E. The Project consists of reroofing the designated roof areas at the Annex Buildings in Livonia, Michigan.

1.03 CONTRACT DESCRIPTION

- A. Contract Type: A single prime contract based on a Stipulated Price as described in Document 00 5000 - Contracting Forms and Supplements.

1.04 DESCRIPTION OF ALTERATIONS WORK

- A. Scope of demolition and removal work is described in Section 07 3113 - Asphalt Shingles.
- B. Scope of steep slope roof installation work is described in Section 07 3113 - Asphalt Shingles.

1.05 SEQUENCE OF OPERATIONS

- A. The various parts of the work shall be carried on in a manner which will best serve in providing for the continuous operations of all necessary functions of the existing building and to cause as little inconvenience to the public as practicable in their occupancy and use of the facilities.

1.06 WORKMANSHIP AND MATERIALS

- A. All materials and equipment shall be furnished, installed and completed in a first class, workmanlike manner as indicated in the Conditions of the Contract, on the accompanying drawings and in the technical specifications.

1.07 FIELD CONDITIONS AND DIMENSIONS

- A. The dimensions, details and other information provided relative to the existing work are furnished subject to verification by the Contractor. The Contractor shall verify all existing conditions and dimensions. No additional compensation will be granted for the Contractor's failure to comply with the above requirements.

1.08 MATERIALS AND SUBSTITUTIONS

- A. Whenever an article, material or item of equipment is defined by describing a proprietary product, or by using the name of the manufacturer or vendor, the term "or equivalent," if not inserted, shall be implied. The specific article, material or equipment mentioned shall be understood as indicating the minimum requirements for fulfilling contract obligations regarding type, function, standard of design and efficiency.
- B. Materials of manufacturers, other than those which may be named, will be given equal consideration, provided that written approval for the substitution is obtained from the Roof Consultant, and further provided that the Contractor shall be totally responsible for all costs incurred by dimension changes and weight changes occasioned by this substitution. No approvals concerning any phase of the Contract shall be valid unless given in writing by the Roof Consultant.

1.09 SHOP DRAWINGS AND PRODUCT DATA

- A. Prior to the delivery of any material or equipment to the job site, the Contractor shall check and verify all field measurements and existing conditions. Thereafter, the Contractor shall submit to the Roof Consultant, with such promptness as to cause no delay in the work, a minimum of three copies of shop drawings, product data catalogs, material schedules, etc. Following examination by the Roof Consultant, two copies will be retained for the Owner's use, and remaining copies will be returned to the Contractor with indication of approval or with notations for correction.

1.10 TIME OF COMPLETION

- A. All work specified in the Contract Documents shall be completed within the specified time period. If, at any time during the life of this Contract, the Contractor finds that for reasons beyond his control it is impossible to complete the work within the specified time period fixed by the Contract, a written request for a change to the Contract extending the time of completion shall be submitted. Such a request shall set forth in precise detail the reasons believed to justify an extension and shall be in such format as The Owner may require.

1.11 MIOSHA SAFETY STANDARDS

- A. All work must be accomplished in accordance with all applicable Construction Safety Standards rules and regulations for Construction Operations, as set forth by the Michigan Department of Labor (MIOSHA).

1.12 SAFETY

- A. The Contractor shall furnish, install and maintain as long as necessary and remove when no longer required, adequate barriers, warning signs and lights at all dangerous points throughout the work for protection of staff, workmen, and the public. The Contractor shall hold the Owner harmless from damage or claims arising out of any injury or damage that may be sustained by any person or persons because of the work under the Contract. The Contractor shall hold the Owner harmless from fines resulting from the Contractor's failure to provide all required safety protection required by the Michigan Department of Labor (MIOSHA).

1.13 STRUCTURAL PROTECTION

- A. The Contractor shall furnish, install, and maintain adequate protection of existing building elements and finishes and adjacent structures from damage caused by his operations. The Contractor shall repair or replace any damaged building element or finish to match its condition prior to the start of the work and remove all protections when the work is complete.

1.14 TEMPORARY UTILITIES

- A. Water and electricity will be available in the area where work will be performed. The Contractor will not be charged for reasonable use of these services for construction operation. The Contractor shall pay costs for installation and removal of any temporary connections including necessary safety devices and controls.

1.15 REPAIRS AND FINISHES

- A. Existing disturbed materials and equipment resulting from the construction operations shall be repaired and finished to match existing or adjacent finishes.
- B. The Contractor shall replace any glass that may be broken in the existing structure, resulting from and/or related to construction operations. All new glass shall match the existing construction.

1.16 REMOVAL OF DEBRIS AND CLEANING

- A. The Contractor shall continuously remove from the site all material and debris. No storage of removed items or debris will be permitted on the site unless so directed by the Owner.
- B. The premises shall be kept as clean as practical, consistent with the neatness required for the Owner's normal operations.

1.17 EXISTING MATERIAL AND EQUIPMENT REMOVED

- A. Contractor shall remove all fixed equipment designated to be removed.
- B. Items of existing equipment which are to be reused shall be carefully removed, stored and protected, and later reinstalled in original or new locations as required.
- C. Certain materials, particularly specified, shall be reused in the work, such material shall be in good usable condition and shall be cleaned and conditioned as required for reuse.
- D. All existing material and equipment which is to remain in place or to be reused and has been damaged or defaced during the progress of the work, shall be restored to a condition equal to that which existed prior to the start of the work, or shall be replaced with new materials and equipment equal in all respects, and finished so as to be uniform in appearance to adjacent existing work.

1.18 SALVAGED MATERIALS

- A. Salvaged materials which are not to be reused will, unless otherwise specified, or verbally requested by the Owner's Representative, become the property of the Contractor and will be removed from the premises by him and legally disposed of off-site by him.

1.19 PROGRESS MEETINGS

- A. The Owner will schedule meetings to be held on the job site whenever needed, supply information necessary to prevent job interruptions, to observe the work or to inspect completed work. The Contractor shall be represented at each progress meeting by people with full authority to act for the Contractor on all portions of the work.

1.20 APPLICABLE CODES

- A. The Contractor shall comply with all applicable state and local rules and regulations relating to buildings, employment, the preservation of public health and safety, use of streets, and the performance of the work of this Contract.
- B. Should the Contractor perform any work knowing it to be contrary to existing laws, rules and regulations, and fail to give notice of such fact to the Owner, he shall bear all costs arising there from and hold the Owner harmless for such violation.
- C. Where the contract documents require the work or parts of the work to be done in accordance with a particular standard or code recognized in the building industry, and that cited code includes requirements above the standards required by state or local law, such work shall be completed in accordance with the requirements of the Contract.

1.21 CONSTRUCTION SIGNS

- A. No signs regarding advertisements of any kind may be erected or displayed on the site. The Contractor shall provide all signs, barricades, etc. to alert, warn and/or protect the general public, building employees and their own personnel against the on-going reroofing operations in accordance with all applicable Construction Safety Standards (MIOSHA).

1.22 EXISTING CONDITIONS

- A. The Contractor shall check all dimensions and verify all conditions shown on the drawings at the site in relation to his work.
- B. Information as shown on the plans is given solely for the convenience of the Contractor, and use of such dimensions, elevations, sizes or information is made at his own risk.
- C. Conditions other than those which are described in these specifications shall be identified in writing to the Roof Consultant before proceeding with the work. The Roof Consultant will provide approved alternate details as required by changing conditions. The Contractor shall be responsible for any unauthorized changes he incorporates in the work.

1.23 OWNER OCCUPANCY

- A. Owner intends to continue to occupy adjacent portions of the existing building during the entire construction period.
- B. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
- C. Schedule the Work to accommodate Owner occupancy.

1.24 CONTRACTOR USE OF SITE AND PREMISES

- A. Arrange use of site and premises to allow:
 - 1. Owner occupancy.
 - 2. Use of site and premises by the public.
- B. Provide access to and from site as required by law and by Owner:
 - 1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
 - 2. Do not obstruct roadways, sidewalks, or other public ways without permit.
- C. Existing building spaces may not be used for storage.
- D. Time Restrictions:
 - 1. Limit conduct of especially noisy exterior work to the hours established by local municipality ordinances.
- E. Utility Outages and Shutdown:
 - 1. Prevent accidental disruption of utility services to other facilities.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 01 2000
PRICE AND PAYMENT PROCEDURES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Procedures for preparation and submittal of applications for progress payments.
- B. Correlation of Contractor submittals based on changes.
- C. Procedures for preparation and submittal of application for final payment.

1.02 RELATED REQUIREMENTS

- A. Section 00 5000 - Contracting Forms and Supplements: Forms to be used.
- B. Section 01 2200 - Unit Prices: monetary values of unit prices; Payment and modification procedures relating to unit prices.

1.03 SCHEDULE OF VALUES

- A. Submit a printed schedule on AIA Form G703 - Continuation Sheet. Contractor's standard form or electronic media printout will be considered.
- B. Electronic media printouts including equivalent information will be considered in lieu of standard form specified; submit draft to Roof Consultant for approval.
- C. Forms filled out by hand will not be accepted.
- D. Submit Schedule of Values in duplicate within 15 days after date of Owner-Contractor Agreement.
- E. Revise schedule to list approved Change Orders, with each Application For Payment.

1.04 APPLICATIONS FOR PROGRESS PAYMENTS

- A. Payment Period: Submit at intervals stipulated in the Agreement.
- B. Use Form AIA G702 and Form AIA G703, edition stipulated in the Agreement.
- C. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit sample to Roof Consultant for approval.
- D. Forms filled out by hand will not be accepted.
- E. For each item, provide a column for listing each of the following:
 - 1. Item Number.
 - 2. Description of work.
 - 3. Scheduled Values.
 - 4. Previous Applications.
 - 5. Work in Place and Stored Materials under this Application.
 - 6. Authorized Change Orders.
 - 7. Total Completed and Stored to Date of Application.
 - 8. Percentage of Completion.
 - 9. Balance to Finish.
 - 10. Retainage.
- F. Execute certification by signature of authorized officer.
- G. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored products.
- H. List each authorized Change Order as a separate line item, listing Change Order number and dollar amount as for an original item of work.
- I. Submit one electronic and three hard copies of each Application for Payment.
- J. Include the following with the application:

1. Transmittal letter on Contractor's letterhead.
 2. Partial release of liens from major subcontractors and vendors.
 3. Notarized Sworn Statements.
- K. When Roof Consultant requires substantiating information, submit data justifying dollar amounts in question. Provide one copy of data with cover letter for each copy of submittal. Show application number and date and line item by number and description.
- L. Submit separate documentation for unit price extras for insulated duct installation and new roof cap flashing installation to the Roof Consultant. Indicate the number of insulated ducts installed, and the number of new roof cap flashing installed (where none previously existed) by Building Designation.

1.05 MODIFICATION PROCEDURES

- A. Submit name of the individual authorized to receive change documents and who will be responsible for informing others in Contractor's employ or subcontractors of changes to Contract Documents.
- B. For minor changes not involving an adjustment to the Contract Sum or Contract Time, Roof Consultant will issue instructions directly to Contractor.
- C. For other required changes, Roof Consultant will issue a document signed by Owner instructing Contractor to proceed with the change, for subsequent inclusion in a Change Order.
1. The document will describe the required changes and will designate method of determining any change in Contract Sum or Contract Time.
 2. Promptly execute the change.
- D. For changes for which advance pricing is desired, Roof Consultant will issue a document that includes a detailed description of a proposed change with supplementary or revised drawings and specifications, a change in Contract Time for executing the change with a stipulation of any overtime work required and the period of time during which the requested price will be considered valid. Contractor shall prepare and submit a fixed price quotation within 7 days.
- E. Contractor may propose a change by submitting a request for change to Roof Consultant, describing the proposed change and its full effect on the work, with a statement describing the reason for the change, and the effect on the Contract Sum and Contract Time with full documentation.
- F. Computation of Change in Contract Amount: As specified in the Agreement and Conditions of the Contract.
1. For change requested by Roof Consultant for work falling under a fixed price contract, the amount will be based on Contractor's price quotation.
 2. For change requested by Contractor, the amount will be based on the Contractor's request for a Change Order as approved by Roof Consultant.
 3. For pre-determined unit prices and quantities, the amount will be based on the fixed unit prices.
 4. For change ordered by Roof Consultant without a quotation from Contractor, the amount will be determined by Roof Consultant based on the Contractor's substantiation of costs as specified for Time and Material work.
- G. Substantiation of Costs: Provide full information required for evaluation.
1. On request, provide the following data:
 - a. Quantities of products, labor, and equipment.
 - b. Taxes, insurance, and bonds.
 - c. Overhead and profit.
 - d. Justification for any change in Contract Time.
 - e. Credit for deletions from Contract, similarly documented.

2. Support each claim for additional costs with additional information:
 - a. Origin and date of claim.
 - b. Dates and times work were performed, and by whom.
 - c. Time records and wage rates paid.
 - d. Invoices and receipts for products, equipment, and subcontracts, similarly documented.
3. For Time and Material work, submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract.
- H. Execution of Change Orders: Roof Consultant will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.
- I. After execution of Change Order, promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Sum.

1.06 APPLICATION FOR FINAL PAYMENT

- A. Prepare Application for Final Payment as specified for progress payments, identifying total adjusted Contract Sum, previous payments, and sum remaining due.
- B. Application for Final Payment will not be considered until the following have been accomplished:
 1. All punch list items have been satisfactorily completed as determined by the Roof Consultant.
 2. Contractor's and Manufacturer's warranties have been issued.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 01 2200
UNIT PRICES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. List of unit prices, for use in preparing Bids.
- B. Measurement and payment criteria applicable to Work performed under a unit price payment method.
- C. Defect assessment and non-payment for rejected work.

1.02 COSTS INCLUDED

- A. Unit Prices included on the Bid Form shall include full compensation for all required labor, products, tools, equipment, plant, transportation, services and incidentals; erection, application or installation of an item of the Work; overhead and profit.

1.03 UNIT QUANTITIES SPECIFIED

- A. Quantities indicated in the Bid Form are for bidding and contract purposes only. Quantities and measurements of actual Work will determine the payment amount.

1.04 MEASUREMENT OF QUANTITIES

- A. Take all measurements and compute quantities. Measurements and quantities will be verified by Roof Consultant.
- B. Measurement by Area: Measured by square dimension using mean length and width or radius.
- C. Linear Measurement: Measured by linear dimension, at the item centerline or mean chord.

1.05 PAYMENT

- A. Payment for Work governed by unit prices will be made on the basis of the actual measurements and quantities of Work that is incorporated in or made necessary by the Work and accepted by the Roof Consultant, multiplied by the unit price.
- B. Payment will not be made for any of the following:
 - 1. Products wasted or disposed of in a manner that is not acceptable.
 - 2. Products determined as unacceptable before or after placement.
 - 3. Products remaining on hand after completion of the Work.
 - 4. Loading, hauling, and disposing of rejected Products.

1.06 DEFECT ASSESSMENT

- A. Replace Work, or portions of the Work, not complying with specified requirements.
- B. If, in the opinion of Roof Consultant, it is not practical to remove and replace the Work, Roof Consultant will direct one of the following remedies:
 - 1. The defective Work may remain, but the unit price will be adjusted to a new unit price at the discretion of Roof Consultant.
 - 2. The defective Work will be partially repaired to the instructions of the Roof Consultant, and the unit price will be adjusted to a new unit price at the discretion of Roof Consultant.
- C. The authority of Roof Consultant to assess the defect and identify payment adjustment is final.

1.07 SCHEDULE OF UNIT PRICES

- A. Unit Price No. 1 - Wood Nailers and Plywood - Replace, as necessary and designated by the Owner's Representative, deteriorated wood nailers and plywood. Quote a per lineal foot price for dimensional lumber and a per square foot price for plywood on the Bid Form for the following sizes:
 - 1. 1" x 6"
 - 2. 1" x 8"

3. 2" x 4"
 4. 2" x 6"
 5. 2" x 8"
 6. 2" x 10"
 7. 2" x 12"
 8. 3/4-inch CDX plywood
 9. 1/2-inch OSB
 10. 15/32-inch FRT plywood
 11. 3/8-inch Rough Sawn plywood
- B. Unit Price No. 2 - Western Red Cedar Trim Boards - Replace, as necessary and designated by the Owner's Representative, deteriorated trim boards. Quote a per lineal foot price for boards on the Bid Form for the following sizes:
1. 1" x 4"
 2. 1" x 6"
 3. 1" x 8"
 4. 1" x 10"
 5. 2" x 6"
 6. 2" x 8"
 7. 2" x 10"

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 01 2300
ALTERNATES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Description of Alternates.
- B. Procedures for pricing Alternates.
- C. Documentation of changes to Contract Price and Contract Time.

1.02 RELATED REQUIREMENTS

- A. Document 00 2113 - Instructions to Bidders: Instructions for preparation of pricing for Alternates.

1.03 ACCEPTANCE OF ALTERNATES

- A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in the Owner-Contractor Agreement.
- B. Coordinate related work and modify surrounding work to integrate the Work of each Alternate.

1.04 SCHEDULE OF ALTERNATES

- A. Alternate No. 1 - Sheet Metal Fascia Cladding: Provide the Owner with pricing to install the .032 prefinished aluminum fascia cladding on all buildings. Shop fabricate the fascia to fit the existing fascia boards. End joints: 6-inch wide concealed cover plates. Fabricate fascia corners to a watertight condition. Quote a lump sum price per building on the Bid Form.
- B. Alternate No. 2 - Gutters and Downspout Replacement: Provide the Owner with pricing to install 6-inch gutters and 3"x4" downspouts as new or replacement gutters and downspouts. See Section 07 3113 - Asphalt Shingles, for specifications on gutter and downspout material, profiles, and finishes. Quote a lump sum price per building for gutter and downspout installation on the Bid Form.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 01 5000
TEMPORARY FACILITIES AND CONTROLS**

PART 1 GENERAL

1.01 ROADWAYS, DRIVES, PARKING AREAS AND SIDEWALKS

- A. The Contractor is responsible for the condition of all existing roadways, sidewalks, etc., used during construction operations and shall repair same as required and leave same in good condition at the completion of the job.

1.02 BARRICADES AND PROTECTION

- A. The property on which work is to be done is in use. This means that employees and other general public may be adjacent to and below the construction operations.
- B. The Contractor will provide and maintain in good repair all barricades, guard railings and temporary protection as required by law and/or to suit job conditions.
- C. The Contractor shall do everything possible to protect the public, the workmen, the premises and adjoining property from injury or damage.
- D. Properly protect all sidewalks, pavements, existing building areas, building facades, windows and skylights. Replace or repair all parts of same which become damaged or defaced during or as a result of construction operations. Repairing of damaged parts shall be done in strict accordance with all local codes and ordinances and the Owner as conditions require.

1.03 MIOSHA

- A. All work must be accomplished in accordance with all applicable Construction Safety Standards rules and regulations for Construction Operations as set forth by the Michigan Department of Labor (MIOSHA).

1.04 VANDALISM

- A. The Contractor shall pay for all damage by vandalism to material or equipment that occurs to items finished or installed under this Contract. The Contractor shall be responsible for the work under this Contract during the construction period from the start until the final acceptance of the entire project by the Owner.

1.05 PROTECTION

- A. Provide and erect all required barricades and safety precautions in accordance with local, State and Federal Codes and other legal requirements.
- B. Provide secure, weatherproof protection for existing buildings, finishes, walks, drives, landscaping, lawns, etc., to remain. Repair any damage to the satisfaction of the Owner.
- C. Remove all protection and guards when work is completed and restore disturbed areas.
- D. Whenever lifting materials or equipment over or near existing or occupied buildings, give advance notice and arrange to have any potentially endangered spaces vacated.

1.06 TEMPORARY WEATHER PROTECTION

- A. The Contractor shall provide, maintain and pay for all temporary weather protection as required to properly protect all parts of the work from damage. This shall include temporary protective coverings.

1.07 RUBBISH DISPOSAL, FIRE SAFETY

- A. During non-construction hours, trash containers shall be covered and sealed to prevent windblown debris and access into trash containers.
- B. The location of the trash containers shall be subject to the approval of the Owner.
- C. All rubbish and debris shall be removed from the site daily or more often if directed by the Owner's Representative. Burning of trash on-site shall not be allowed.

- D. No open fire shall be permitted on the building site at any time.

1.08 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
- B. Use of existing facilities is not permitted.
- C. Maintain daily in clean and sanitary condition.

1.09 REMOVAL OF TEMPORARY WORK

- A. All temporary structures, barricades, protection and similar work shall be removed by the Contractor at completion of the project or when directed. Any repairs or alterations necessitated by such removal shall be made by the Contractor, and at the Contractor's expense.

1.10 WORK ACTIVITIES

- A. Contractors and subcontractors shall direct their employees to conduct themselves so as not to interfere with or disrupt the building activities. The Contractor shall schedule construction operations to minimize interference with operations and cooperate with Owner's Representative in maintaining public access to existing building facilities.
- B. All construction operations, delivery and storage of material and movement of equipment shall be governed by applicable local building codes, traffic regulation and safety and fire regulation of local authorities.
- C. Contractors, subcontractors, and their employees or suppliers shall not use or interfere with existing public access, drives, roads or parking lot, except as specifically indicated or by prior arrangement with the Owner's Representative.
- D. Contractor's employees parking, delivery trucks and other construction vehicle parking shall only be at areas designated by the Owner's Representative.

1.11 TEMPORARY SERVICES

- A. Temporary power, as required for the project, shall be provided by the Contractor. The generator and all electrical cords must be maintained in areas approved by the Owner's Representatives.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 07 3113
ASPHALT SHINGLES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Asphalt shingle roofing.
- B. Demolition and substrate preparation.
- C. Flexible sheet membranes for eave protection, underlayment, and valley protection.
- D. Associated metal flashings and accessories.

1.02 REFERENCE STANDARDS

- A. ASTM D226/D226M - Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing; 2009.
- B. ASTM D1970/D1970M - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection; 2013.
- C. ASTM D4586/D4586M - Standard Specification for Asphalt Roof Cement, Asbestos-Free; 2007 (Reapproved 2012) e1.
- D. ASTM D4869/D4869M - Standard Specification for Asphalt-Saturated Organic Felt Underlayment Used in Steep Slope Roofing; 2005 (Reapproved 2011) e1.
- E. ASTM E108 - Standard Test Methods for Fire Tests of Roof Coverings; 2011.
- F. ASTM D3161-13 - Standard Test Method for Wind-Resistance of Steep Slope Roofing Products; 2013.
- G. ASTM D3462 - Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules; 2010a.
- H. SMACNA (ASMM) - Architectural Sheet Metal Manual; Sheet Metal and Air Conditioning Contractors' National Association; 2012.
- I. NRCA Roofing and Waterproofing Manual - National Roofing Contractor Association, Fifth Edition, 2003 Update.
- J. Residential Asphalt Roofing Manual - Asphalt Roofing Manufacturers Association (ARMA), 2014 Edition.

1.03 SUBMITTALS

- A. Product Data: Provide data indicating material characteristics, performance criteria, and limitations.
- B. Shop Drawings: For metal flashings, indicate specially configured metal flashings, jointing methods and locations, fastening methods and locations, and installation details.
- C. Manufacturer's Instructions: Indicate installation criteria and procedures.
- D. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

1.04 MOCK-UP

- A. Deliver to the Roof Consultant any requested specialty sheet metal fabrication or roof system installation. Provide mock-up size as requested.

1.05 QUALITY ASSURANCE

A. General

1. The Contractor will be responsible for measurements. Before ordering material, preparing shop drawings, or doing any work, verify at the site all dimensions which may affect the work. The Contractor assumes full responsibility for the accuracy of figures. No allowance for additional compensation will be considered for discrepancies between dimensions on the drawings and actual field dimensions.
2. Immediately refer to any conflicts among requirements of these specifications, on drawings, those of regulatory agencies, material manufacturer's recommendations and good roofing practices to the Owner's Representative.
3. Final results are the entire responsibility of the Contractor.

B. Reference Standards

1. The latest publications of The NRCA Steep Roofing Manual; National Roofing Contractors Association, and SMACNA Architectural Sheet Metal and the Residential Asphalt Roofing Manual published by ARMA as applicable to this project.
2. Provide materials which have been tested, listed and labeled by Underwriters Laboratories (UL).

C. Installer References

1. The Contractor shall be a licensed installer for the specified asphalt shingle manufacturer and have installed shingle roof systems of a similar nature. The Contractor shall have a minimum of 5 years' experience and submit references from past jobs. Failure to meet these criteria will be basis for rejection of the bid.
2. The Contractor shall provide names and phone numbers of key individuals in the firm that can be reached 24 hours a day. Telephone numbers to an answering service or telephone answering machine will not be considered acceptable.
3. Submit a list of at least 3 completed projects similar in scope to the project building along with the Bid Form. Include contact names and phone numbers.

D. Installation Standards

1. Accomplish work under this Section in strict accordance with the shingle manufacturer's published specifications and best trade practices to achieve a completely weathertight roofing and flashing installation.

E. Materials

1. All materials to be installed must come from a single asphalt shingle manufacturer as reasonably possible; including, but not limited to asphalt shingles, felt underlayment, eaves flashing and hip and ridge cap shingles. Mixing and matching materials is unacceptable. Generic or materials without manufacturer's wrappers will not be acceptable.

1.06 FIELD CONDITIONS

- A. Do not install asphalt shingles or eave protection membrane when surface temperatures are below 45 degrees F (7 degrees C).
- B. Weather Conditions Limitations: Proceed with roofing work only when existing and forecasted weather conditions will permit work to be performed in accordance with manufacturer's recommendations and warranty requirements.
 1. Do not remove or install materials when rain, moisture, frost, snow or other inclement climatic conditions are occurring.

1.07 PRODUCT HANDLING

- A. Store and handle roofing materials in a manner which will prevent moisture intrusion. Store in a dry, well ventilated, weather tight place. Unless protected from weather or other moisture sources, do not leave unused felts on the roof overnight or when roofing work is not in progress. Store rolls of felt and other sheet materials on end on pallets or other raised surface and completely cover with tarps. Handle and store materials and equipment in a manner to avoid damage and/or significant or permanent deflection of deck.
- B. Materials and equipment shall be stored in a location determined by the Owner's Representative.

1.08 WARRANTY

- A. The Contractor shall provide a written warranty, warranting that all work of this Section shall remain serviceable and weathertight for a period of five years from date of final acceptance of the project; and to make good without expense to the Owner any work becoming defective during that period.
- B. The Contractor shall deliver to the Owner, prior to final payment, the manufacturer's standard lifetime limited warranty for the asphalt shingles installed on this project along with all other requirements such as proof of purchase. The warranty shall be for the time stated by the manufacturer for the shingle installed.

1.09 QUALITY CONTROL AND TESTING

- A. The Owner reserves the right to provide quality control for this project including inspection services during reroofing operations to assure compliance with the specifications.
- B. A pre-job conference may be required prior to the start of construction. The Contractor representatives must attend this conference.
- C. The Contractor shall notify Roofing Consultant in sufficient time, whenever roofing work is to be done and provide safe access to roof for inspection.
- D. The Contractor shall furnish Roofing Consultant with all pertinent job information prior to beginning work in accordance with Roofing Consultant directions.

PART 2 PRODUCTS

2.01 WOOD

- A. Replacement Plywood: APA panel roof sheathing, exterior exposure. Thickness: 3/4-inch.
- B. Oriented Strand Board (OSB): APA panel roof sheathing, exterior exposure. Minimum thickness: 1/2-inch. Properly sized panel clips are required.
- A. Fire-Retardant Treated Plywood (FRT): Fire retardant treated, APA panel roof sheathing, exterior exposure. Minimum thickness: 15/32-inch with a span rating that meets or exceeds the spacing of the structural supports. Properly sized panel clips are required. The FRT plywood shall be kiln dried after treatment to a moisture content of 15%.
- C. Replacement Soffit Panels: APA rated sheathing, Exposure 1. Minimum thickness: 3/8-inch with a span rating which meets or exceeds the spacing of the structural supports. Surface: Rough sawn.
- D. Wood Nailers: Construction grade lumber, size to match the existing boards, S4S, S-dry moisture content.
- E. Replacement Trim Boards, Soffit and Counterflashing: Western Red Cedar, Surface: Rough sawn, NLGA Grade: C Clear and Better, size to match the existing trim boards or as specified. Moisture Content: Kiln dried.
 - 1. Must be primed on all sides prior to installation.

2.02 LAMINATED ASPHALT SHINGLES

- A. Asphalt Shingles: Asphalt-coated glass felt, mineral granule surfaced, complying with ASTM D 3462; Class A fire resistance. 110 mph wind warranty (comply with all manufacturer's conditions and instructions). UL 2218 Class 3 impact resistance. The shingles must be algae resistant shingles. Manufacturer and shingle color:
 - 1. CertainTeed Corporation, www.certainteed.com; Landmark PRO AR, random-tab, laminated shingles. Color: Max Def Weathered Wood.
 - 2. GAF Corporation, www.gaf.com; Timberline HDZ, random-tab, laminated shingles. Color: Weathered Wood.
 - 3. Owens Corning Corporation, www.owenscorning.com; Tru Definition Duration random-tab, laminated shingles. Color: Driftwood.
- B. Hip and Ridge Shingles:
 - 1. CertainTeed Corporation: Shadow Ridge Hip and Ridge Shingles.
 - 2. GAF Corporation: Seal-A-Ridge Cap Shingles.
 - 3. Owens Corning: Pro Edge Hip and Ridge Shingles.
 - 4. Color: Match asphalt shingle color.
- C. Starter Course Shingles:
 - 1. CertainTeed Corporation: Swift Start Starter Strip.
 - 2. GAF Corporation: Weatherblocker Premium Starter Strip Shingles.
 - 3. Owens Corning: Starter Strip Plus.

2.03 SHEET MATERIALS

- A. Eaves and Valley Flashing Membrane: Self-adhering rubberized asphalt modified bituminous sheet backed by a layer of high density cross laminated polyethylene complying with ASTM D 1970, 40 mil total thickness, with split-back release film; as manufactured by:
 - 1. CertainTeed Corporation: Winter Guard Eaves Flashing.
 - 2. GAF Corporation: Weather Watch Eaves Flashing.
 - 3. Owens Corning Corporation: Weather Lock Waterproofing Underlayment.
- B. Synthetic Roofing Underlayment: Synthetic non-asphaltic sheet complying with ASTM D226 and D4869, intended by manufacturers for mechanically fastened roofing underlayment without sealed seams. Approved manufacturer and product or approved equal:
 - 1. CertainTeed Corporation; Product: Diamond Deck.
 - 2. GAF Materials Corporation; Product: Deck Armor.
 - 3. Owens Corning Corp; Product: Deck Defense.

2.04 VENTS

- A. Ridge Vents: Continuous shingle over ridge vent, molded plastic with external baffle. Exhaust vents must provide a minimum Net Free Ventilation Area of 18 square inches per lineal foot. As manufactured by:
 - 1. Air Vent Inc.: Shingle Vent II, Model Number SHFV203.
 - 2. CertainTeed Corporation: 12" Filtered Ridge Vent.
 - 3. GAF Corporation: Cobra Snow Country.
 - 4. Owens Corning Corporation: VentSure 4-Foot Strip Heat & Moisture Ridge Vents with Weather PROtector Moisture Barrier.
- B. Soffit Vents: Reuse existing.

2.05 SHEET METAL

- A. Drip Edge: 0.019 prefinished aluminum, minimum 2-1/2-inch flange, 1½-inch face minimum, with ½-inch drip edge. Color: To be selected by the Owner.

- B. Plumbing Vent Pipe Flashing: Fabricate from ASTM B 749, Type L51121, copper-bearing lead sheet, with a weight of 4 lbs./sq.ft., minimum thickness of 0.0625 inch. The sleeve must be sized to properly fit the pipe. The flange to sleeve connection must be suited for the intended slope. Flange Size: 4-inches beyond the sleeve diameter in each direction.
- C. Alternate No. 1 - Fascia Cladding: .032 prefinished aluminum. Fabricate the cladding along the eaves and rake edges to neatly fit the new or existing wood fascia as shown in RTA Detail Nos. 1 and 2. Fabricate the bottom edge to engage the bottom of the fascia. End joints: 6-inch wide concealed cover plates: The top edge of the fascia cladding shall extend behind the drip edge face by the maximum distance. Color: to be selected by the Owner. Acceptable manufacturers or approved equal:
 - a. Holcim Elevate: Una-Clad.
 - b. Petersen Aluminum Corporation: Pac-Clad.
- D. Alternate No. 2 - Replacement Gutters and Downspouts: .027 prefinished aluminum, 6-inch K-style gutters. .019 prefinished aluminum, 3" x 4" corrugated rectangular downspouts. Water diverters: .027 prefinished aluminum. Utilize manufactured endcaps, outlet tubes, elbows, etc. wherever possible. Utilize commercially available heavy duty hidden hangers and downspout straps. Color to be selected by the Owner. Acceptable manufacturers or approved equal:
 - 1. Holcim Elevate: Una-Clad.
 - 2. Petersen Aluminum Corporation: Pac-Clad.
 - 3. Gutter Expansion Joints: Fabricate from matching prefinished galvanized steel in accordance with SMACNA Figure 1-7.
 - 4. Hidden Hangers: 16 gauge galvanized steel manufactured by AMSI Supply Company, visit www.amsisupply.com.

2.06 FASTENERS

- A. NOTE: Staples will not be allowed for use on this project except for attaching the synthetic underlayment and eaves flashing.
- B. To secure the wood deck: 8d galvanized nails, long enough to penetrate the supporting structure a minimum of 1-1/2-inches and provide a minimum pull-out resistance of 100 pounds.
- C. To secure the wood deck to the steel roof deck: Galvanized wood to steel self-drilling screw type fasteners capable of providing a minimum pull-out resistance of 100 pounds. Acceptable manufacturer or approved equal:
 - 1. ITW Buildex – Wood to steel, self-drilling screws, 3/4-inch minimum embedment.
- D. To secure wood trim boards: 8d hot-dipped galvanized spiral shank nails or Type 316 stainless steel, long enough to penetrate the supporting structure a minimum of 1-1/2-inches and provide a minimum pull-out resistance of 100 pounds.
- E. Roofing nails: Standard round wire shingle type, galvanized, of sufficient length to penetrate through roof sheathing, Sizes: 1-1/4-inch x .012 with 3/8-inch diameter nail head.
- F. To secure the shingle over ridge vent: Minimum 3-inch hot dipped galvanized nails or as required by the selected ridge vent manufacturer.

2.07 MISCELLANEOUS

- A. Elastomeric Sealant: For sheet metal flashings, high performance, one component, polyurethane-base as manufactured by:
 - 1. Sika Corporation, Sikaflex - 1a
 - 2. Tremco, Inc., Vulkem 116
 - 3. RO-AN Corporation, Solar Seal #900
- B. Paintable Acrylic Latex Sealant: DAP ALEX PLUS All Purpose Acrylic Latex Caulk Plus Silicone or approved equal.
- C. Plastic Cement: ASTM D 4586, asphalt plastic roof cement compatible with asphalt shingles.

- D. Primer and Paint for Sheet Metal: For preparing and painting sheet metal vent stacks, vent stack flashings, and rain caps; acceptable manufacturers or approved equal:
 - 1. Pittsburgh Paints
 - a. Metal Primer: PITT-TECH® Int/Ext Primer/Finish DTM Industrial Enamel.
 - b. Metal Paint: SPEEDHIDE® Exterior Satin Acrylic Latex.
 - 2. Sherwin-Williams Company
 - a. Metal Primer: Pro Industrial™ Pro-Cryl® Universal Acrylic Primer.
 - b. Metal Paint: A-100® Exterior Latex Paint, color to be selected by the Owner.
- E. Primer and Paint for New Wood Surfaces: For preparing new replacement wood trim surfaces; acceptable manufacturers or approved equal:
 - 1. Pittsburgh Paints
 - a. Wood Primer: SUN-PROOF® Exterior House and Trim Oil Primer, White Universal Primer, 1-70.
 - b. Wood Paint: SPEEDHIDE® Exterior Satin Acrylic Latex, color to be selected by the Owner.
 - 2. Sherwin-Williams Company
 - a. Wood Primer: A-100® Exterior Oil Wood Primer.
 - b. Wood Paint: A-100® Exterior Latex Paint, color to be selected by the Owner.

PART 3 EXECUTION

3.01 DEMOLITION AND SUBSTRATE PREPARATION

- A. Verification, rerouting and connection of duct work to existing bathroom fans, installation of attic baffles and any other attic work must be done while the attic is open and accessible to the Contractor. No provisions will be made to accommodate attic access after the new roof system is installed.
- B. The Contractor shall photographically document all damaged building components, window screens, building grounds, drives and sidewalks prior to the job start to record pre-existing conditions.
- C. Remove only the amount of existing shingles that can be replaced on the same day. All flashings, counterflashing and ridge cap shingles must be completed on the same day.
- D. Remove and discard the following components or prepare surfaces as described:
 - 1. Remove and discard the existing shingle roofing, drip edge, underlayment, valley flashing and miscellaneous debris down to the structural roof deck.
 - 2. Remove and discard the existing hip cap shingles, ridge cap shingles, and ridge vents. Review the existing roof deck openings at the ridge for compliance with the new ridge vent manufacturer's requirements. Cut the roof deck opening to match the ridge vent manufacturer's requirements. Roof deck openings wider than 3-inches must be filled. Minimum infill deck width: 12-inches. Extend the roof deck opening at the ridge to within approximately 12-inches of the gable ends and where the ridge line intersects the adjacent roof slopes. Stop the ridge opening 4 feet from the fire separation walls.
 - 3. Remove the existing nails/staples or drive them flush with the deck to provide a smooth substrate for installing the new shingle roof.
 - 4. Remove and discard enough roof decking to allow access into each attic space to verify attic conditions and conduct repairs.
 - 5. Return displaced attic insulation to its original position or install new matching insulation.
 - 6. Remove and discard the existing plumbing vent flashings.
 - 7. Closely inspect all fascia, frieze boards and soffit panels to remain. Remove and discard existing loose fasteners. Resecure loose components with new appropriate fasteners. Remove and discard all warped, delaminated, damaged, cracked, or deteriorated wood fascia, frieze boards, and soffit panels. Replace full boards only. No splicing of components is acceptable.

- a. NOTE: Deteriorated wood trim replacement shall be bid as an extra. Unit price must include sealing nail heads and board joints, primer coat on all surfaces and cut edges, and two paint coats. See Unit Price Section and Bid Form.
8. Remove and discard fascia cladding at Stevenson High School.
9. Temporarily remove existing vent stack flange, sleeve and umbrella flashings. Wire brush, prime and paint existing flashings, vent stacks and rain caps.
10. Remove and save the rooftop mounted security cameras.
11. Temporarily displace the gutters and downspouts as necessary to facilitate reroofing operations. Report to the Owner's Representative gutters or downspouts in poor condition.
12. Review gutter connections and downspout connections for broken, missing, improperly secured conditions. Review gutters for excessively spaced gutter connections (maximum spacing of hidden hangers or spikes and ferrules should be 30-inches). Prepare to repair gutter and downspout connections.
13. If Alternate No. 2 is accepted, remove and discard existing gutters, downspouts, and all hardware.
14. Closely inspect all roof decking. Remove and discard all warped, delaminated or deteriorated decking. Remove and discard improperly installed or repaired roof deck conditions. Replacement roof decking is to match the existing roof deck.
 - a. NOTE: Roof deck replacement is to be bid as an extra, see Unit Prices Section and the Bid Proposal Form.
15. Inspect the fastening pattern used to secure the existing roof deck. Install additional fasteners as required to properly secure the existing roof deck.
16. Blow off or sweep the roof deck clean prior to installing new materials.
17. The Contractor shall hire a canopy company to remove and reinstall the canopies and store in a location designated by the Owner. Temporarily displace the existing canopies.

3.02 INSTALLATION PROCEDURES

A. General

1. The Contractor must comply with the manufacturer's instructions, except where more stringent requirements are indicated herein.
2. The Contractor for this work is to insist on a thoroughly dry deck surface before beginning work. The Contractor should see that the deck is free of moisture, frozen scale and other foreign matter. Do not apply roofing materials when moisture in any form can be seen on the felt underlayment and/or on the surface to which those materials will be applied.
3. Do not install any roofing materials during rain or other inclement weather. One exception is that temporary work may be installed during such weather to protect the building interior. Remove all temporary work and materials that have been exposed to such weather, then install permanent materials as specified during acceptable weather conditions.
4. Schedule and supervise work crews so that the area of roofing begun one day is finished before leaving the job site that day. Included are all flashings within each day's work area.

B. Wood Deck Replacement

1. Install matching replacement decking with the long dimension across the supports. Leave a 1/8-inch gap at all edges and end joints. Install new panel clips between each support. The new decking must span a minimum of three supports.
2. Mechanically attach the new matching wood decking to the underlying supports using the specified fasteners. Fasten the new wood decking edges 6-inches on-center, and 9-inches on-center into the intermediate supports.
3. Install new matching wood decking at the attic access locations. Mechanically attach the wood decking as described above.

4. Install new matching wood decking where the existing decking was removed due to deterioration or improper installation. Replacement wood decking within 4 feet of fire separation walls to be fire retardant treated plywood. Mechanically attach the wood decking as described above.
- C. Drip Edge
1. Install the sheet metal drip edge directly over the deck tight with the fascia boards along the eaves. Install the drip edge over the underlayment along the rakes. Fasten the drip edge 12-inches on-center with roofing nails. Shingle lap the end joints 2-inches.
- D. Eaves Flashing
1. The eaves flashing shall be adhered to the roof deck and lapped in accordance with the eaves flashing membrane manufacturer's installation instructions.
 2. Install eaves flashing at the eaves edges of the steep-sloped roofs. The eaves flashing shall extend from the eaves up the slopes of the roofs a minimum distance of 68-inches (2 full width sheets). The eaves flashing shall be installed over the flange of the sheet metal drip edge at the eaves and below the flange of the drip edge at the rake edge.
 3. Install eaves flashing to provide 100% coverage on the ticket booths.
 4. Install two full width sheets of eaves flashing in the valleys parallel with the valley center line. Lap the sheets of eaves flashing in accordance with the RTA Details. The eaves flashing protection shall extend 24-inches on each side of the valley center line. Lap end joints 6-inches minimum. Lap the adjacent synthetic underlayment onto the valley eaves flashing a minimum of 6-inches.
 5. Install eaves flashing at the rooftop penetration locations. Extend the eaves flashing onto the deck a minimum of 12-inches in all directions. Install a second layer of eaves flashing following the penetration flashing installation and extend 6-inches beyond the flashing flange limits on the upslope and sides of the flashing flange.
 6. Install additional sheets of eaves flashing in susceptible leak locations.
- E. Underlayment
1. Install underlayment in strict accordance with the selected roof covering manufacturer's requirements to achieve UL listed, Class A fire rating. Select the manufacturer's recommended underlayment to meet the Class A rating.
 2. Install one ply of underlayment over the entire surface of the steep-sloped roof decks free of wrinkles, tears and voids. Install the underlayment in accordance with NRCA Section 3.2.1 and Figure 2 and RTA Details.
 3. The underlayment shall be secured with as many fasteners as necessary to hold it in place. The underlayment shall be installed parallel to the eaves, with 3-inch side laps and 6-inch end laps. End laps in adjacent courses of underlayment shall be staggered a minimum of 6 feet.
- F. Asphalt Shingle Installation
1. Install the shingles in accordance with the manufacturer's specifications and recommendations.
 2. Use chalk lines to align the shingles horizontally during installation. Chalk line use is mandatory.
 3. Install the starter courses of shingles along the eaves and rake edges. Position the starter shingles ½-inch minimum beyond the drip edge. Secure the shingles with a minimum of four nails per shingle.
 4. Secure the shingles in accordance with the shingle manufacturer's requirements, using a minimum of four nails per full shingle, or two per partial shingle. Do not secure above the nail lines stamped on the shingles to ensure that each nail is driven through two layers of shingles.
 - a. NOTE: Exposed nails (fasteners driven too low) and the punctured shingle must be removed and replaced. Covering nail heads with sealant in the field of the roof is not acceptable.

- b. NOTE: Asphalt shingles must extend beyond the eaves edge and rake edge drip edge flashing 1/2-inch minimum regardless of the selected shingle manufacturer's installation instructions to the contrary.
 5. Install shingles in the valleys using the closed-cut valley method; see the RTA Details. The closed side shingles shall extend 12-inches minimum beyond the valley centerline. The cut side shingles shall be cut approximately 2-inches above the valley centerline. Clip the upper corners from the top edge of each cut side shingle as required to direct water into the valley.
 6. Install hip and ridge cap shingles with proper exposure and proper nail placement.
- G. Vents
 1. Install shingle over ridge vents continuously along the ridges in accordance with the manufacturer's requirements. The ridge vent shall cover the entire ridge. Use chalk lines to assist with the proper alignment of the ridge vent. Temporarily secure the ridge vent with appropriate length roofing nails. Install ridge cap shingles in accordance with the ridge vent manufacturer's requirements.
 - a. NOTE: Do not install ridge vents over fire separation walls. Report to the Roof Consultant if a ridge vent shown on the Roof Plan is located over a fire separation wall.
- H. Plumbing Vent Pipe Flashing
 1. Install the specified lead flashing at the vent stacks in accordance with NRCA Detail No. ASPH-8. Properly lap the shingle courses with the flashing flanges. Set the flange in a bed of roof cement only. Strip in the top and side edges of the flange with 12-inch wide strips of eaves flashing. Trim the shingles to closely fit around the vent flashing and set the shingle tabs into a bead of elastomeric sealant. Turn the sleeve into the pipe no less than one inch.
- I. Vent Stack Flashing
 1. Prime and apply two paint coats of the specified paint on the vent stacks and vent stack flashing in accordance with the paint manufacturer's requirements.
 2. Reinstall the existing sheet metal flange, sleeve and umbrella flashing at the base of the vent stacks. Set the flange in a bead of roof cement and secure with roofing nails. Apply a continuous bead of the specified sealant around the top edge of the umbrella flashing.
 3. Reinstall the rain cap flashing on the vent stack. Fasten the rain cap flashing as recommended by the manufacturer to resist wind damage.
- J. Existing and New Wood Trim
 1. Follow the Western Red Cedar wood trim manufacturer's installation instructions.
 2. Replace damaged or deteriorated wood trim or fascia. Maintain clearances and follow fastening requirements.
 3. Resecure the existing wood trim as originally secured. Resecure wood trim with the specified fasteners. Countersink nail heads and seal existing and new nail heads with the specified sealant.
 4. Prime and paint all cut edges of new wood trim in accordance with the wood trim manufacturers requirements.
 5. Apply two paint coats on new wood trim to match the existing.
 6. Seal or reseal the joints at the wood trim with the specified sealant. Touch up paint nail heads and caulk joints.
- K. Soffit Panels
 1. New rough sawn plywood soffit panels are to receive one primer coat and two paint coats applied in accordance with the paint manufacturer's requirements. Install new wood soffit panels where the existing soffit panels were removed due to deterioration. Secure the new soffit panels to the structural supports with the specified fasteners (3 fasteners per support). Cross cut and butt joint tolerances: 1/16".

- L. Alternate No. 1 - Fascia Cladding
 - 1. If Alternate No. 1 is accepted, install fascia cladding on the fascia of all three Annex Buildings as shown in RTA Detail Nos. 1 and 2. Engage the bottom edge of the fascia cladding with the new or existing wood fascia. Install 6-inch concealed cover plates at the end joints between fascia sections. Center the concealed cover plates behind the fascia sections. Apply beads of sealant between the cover plate and the fascia sections. Form corners to a watertight condition. Secure the top edge with roofing nails spaced 12-inches on center.
- M. Existing Gutters and Downspouts
 - 1. Replace missing or damaged downspout components.
 - 2. Repair missing, damaged or backed out gutter hangers or downspout straps with like kind using good gutter repair practices.
 - 3. Reseal leaking gutter joints with appropriate gutter sealant.
 - 4. Clean out the existing gutters upon reroofing completion.
 - 5. Touch up the gutters where the paint was damaged during reroofing operations. The paint color must match the gutter color.
- N. Alternate No. 2 - Gutters and Downspouts
 - 1. If Alternate No. 2 is accepted, install new specified 6-inch gutters along the entire eaves edges of the main building. Do not install gutters and downspouts on the ticket booths. Install the gutters with all accessories, end caps, outlet tubes and corners to match. Secure and seal the joints between gutter sections, outlet tubes, corners, and end caps using pop rivets and the specified sealant. Secure the gutter to the fascia with heavy duty hidden hangers spaced 30-inches on center (maximum). Positively slope the gutters to drain. Install new water diverters at inside corners of new gutters. Secure the new water diverters with self-drilling screws.
 - a. Install butt type expansion joints at or less than the specified maximum gutter length in accordance with SMACNA Figure 1-7. Allowances for gutter expansion shall be in accordance with SMACNA Table 1-7.
 - b. Install the specified 3x4 downspouts shown on the roof plan. Secure the downspouts to the walls with a minimum of two downspout straps per downspout. Use appropriate fasteners for siding or brick masonry attachment. Install downspout elbows at the discharge locations.
- O. Miscellaneous
 - 1. Return loosened downspouts to their original position and secure the downspout straps.
 - 2. Apply the specified sealant over all exposed fastener heads at the ridge cap, hip cap and penetration flashing flanges.
 - 3. Resecure loosened building components as originally secured. Seal joints between siding, trim boards, and nail heads.
 - 4. Touch up paint all nail heads and sealed joints in trim boards with the specified paint.
 - 5. Return rooftop mounted equipment to its original location and securely fasten in place. Seal fastener heads with specified sealant.
 - 6. Canopy company is to return the canopies to their original positions and secured as originally secured.
- P. Cleaning
 - 1. Clean exposed work upon completion of installation; remove grease and oil films, excess joint sealer, handling marks, and debris from installation, leaving work clean and unmarked, free from dents, creases, waves, scratch marks, or other damage to finish.
- Q. Protection
 - 1. Do not permit traffic over finished roof surface; protect roofing until completion of project.

LIVONIA PUBLIC SCHOOLS
ANNEX BUILDINGS
RTA PROJECT NO. 23-057

ASPHALT SHINGLES
SECTION 07 3113 - 11

2. Touch-up, repair, or replace damaged asphalt shingles or accessories before Date of Substantial Completion.

END OF SECTION

APPENDIX

Roof Plan

Annex Buildings Plate 1

Details

Eaves Edge.....Detail 1

Rake EdgeDetail 2

Closed Cut ValleyDetail 3

Ridge.....Detail 4

Architectural Sheet Metal Manual – Sheet Metal and Air Conditioning Contractors National Association, (SMACNA), Seventh Edition, 2012

Gutter Expansion JointFigure 1-7

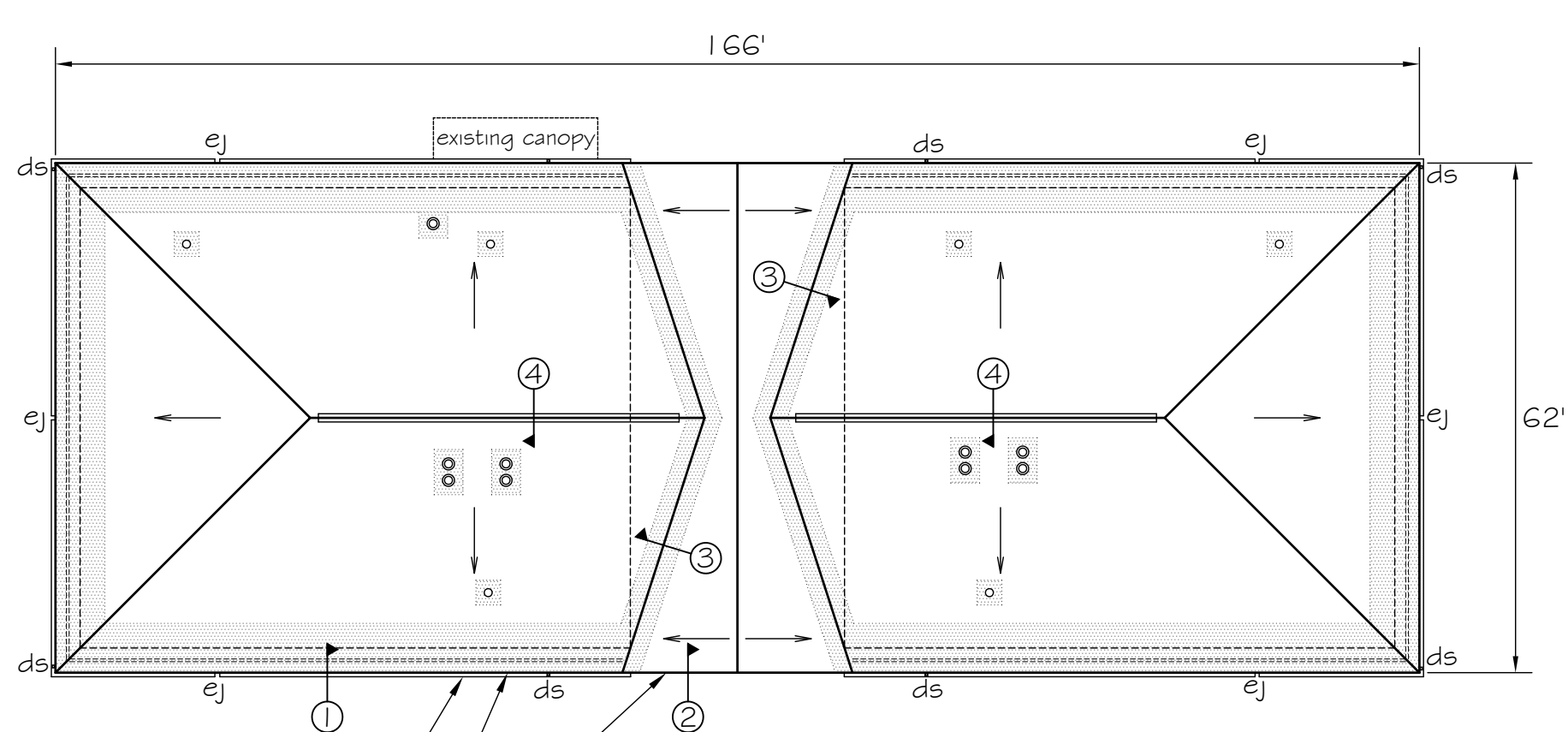
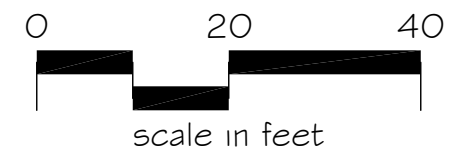
Allowances for Gutter Expansion Table 1-7

NRCA Roofing and Waterproofing Manual – National Roofing Contractors Association, Fifth Edition, 2003.

3.2.1 Underlayment Configuration Figure 2

NRCA Roofing and Waterproofing Manual – Construction Details – National Roofing Contractors Association, Fifth Edition, 2003

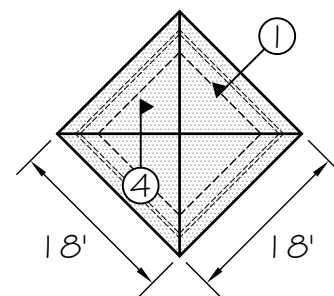
Pipe Penetration ASPH-8



LEGEND:

- plumbing vent pipe
- ⦿ hot stack
- gutter and downspout
- gutter expansion joint
- ridge vent
- roof slope
- exterior wall line
- existing soffit vent
- RTA detail
- eaves flashing

- ALTERNATE NO. 2
new gutters and
downspouts
- ALTERNATE NO. 1
new prefinished aluminum
fascia cladding



TICKET BOOTH

ANNEX BUILDING

GENERAL NOTES:

1. All areas and dimensions shown are approximate and based upon rough field measurements taken by representatives of Roofing Technology Associates, Ltd.
2. This drawing should not be used for bidding or estimating purposes. Contractors are responsible for their own field measurements, quantities and verification of conditions shown.



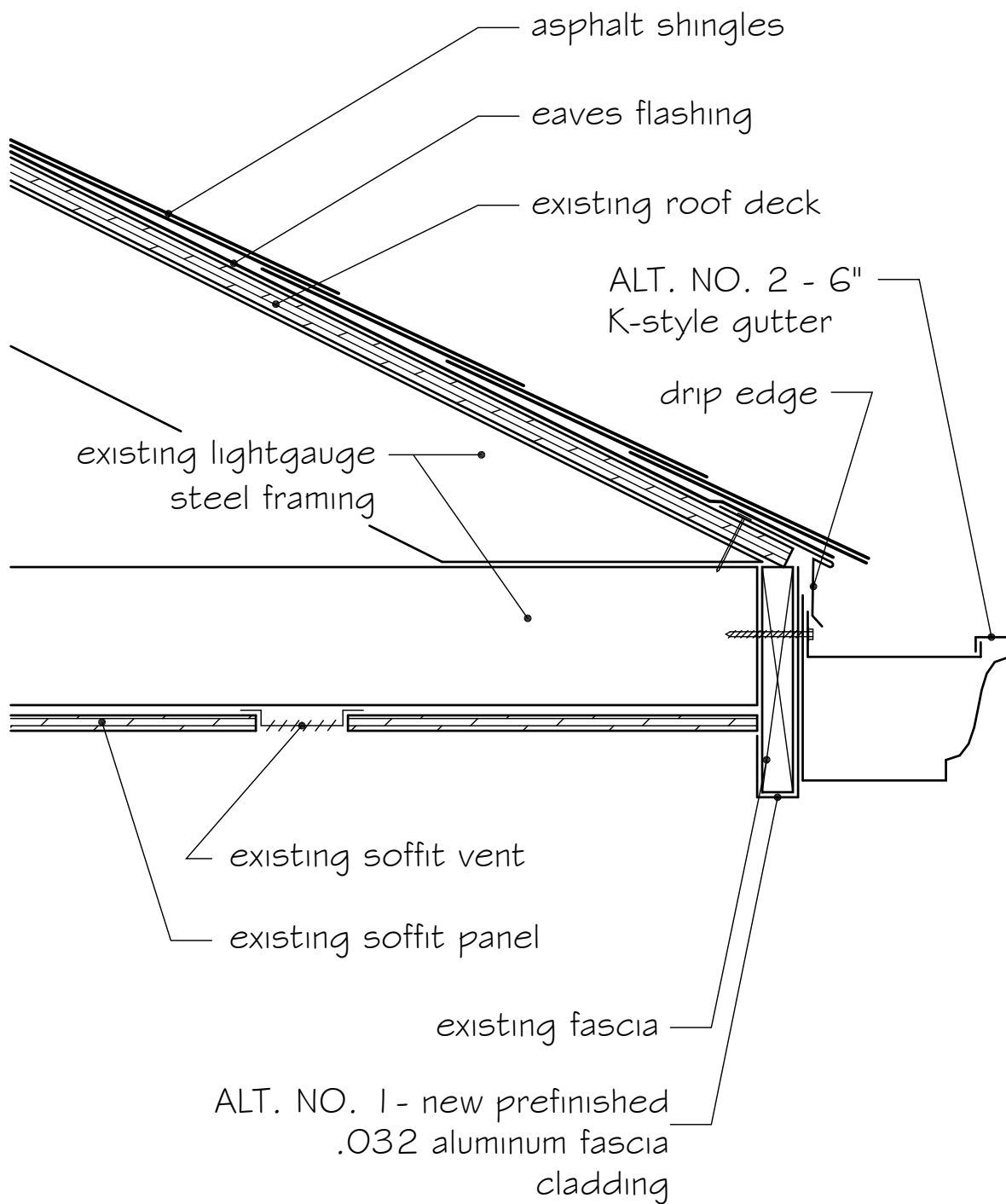
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ROOF PLAN

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ANNEX BUILDINGS
LIVONIA, MICHIGAN

Project No:	23-057	Drawn By:	APW	Plate No:
Date:	9-29-23	Checked By:	RDK	1



EAVES EDGE

not to scale

NOTE: components shown are new unless noted as existing



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Project No: 23-057

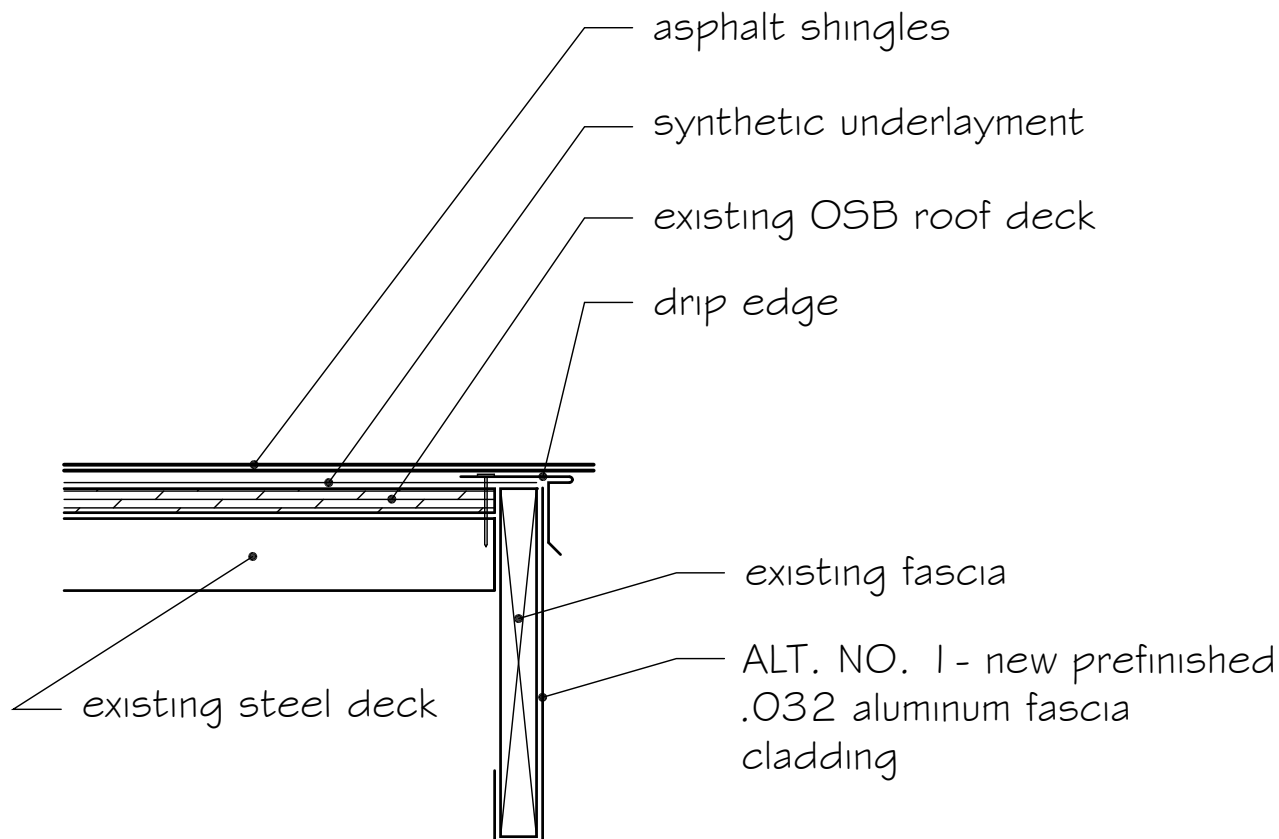
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RAKE EDGE not to scale

NOTE: components shown are new unless noted as existing



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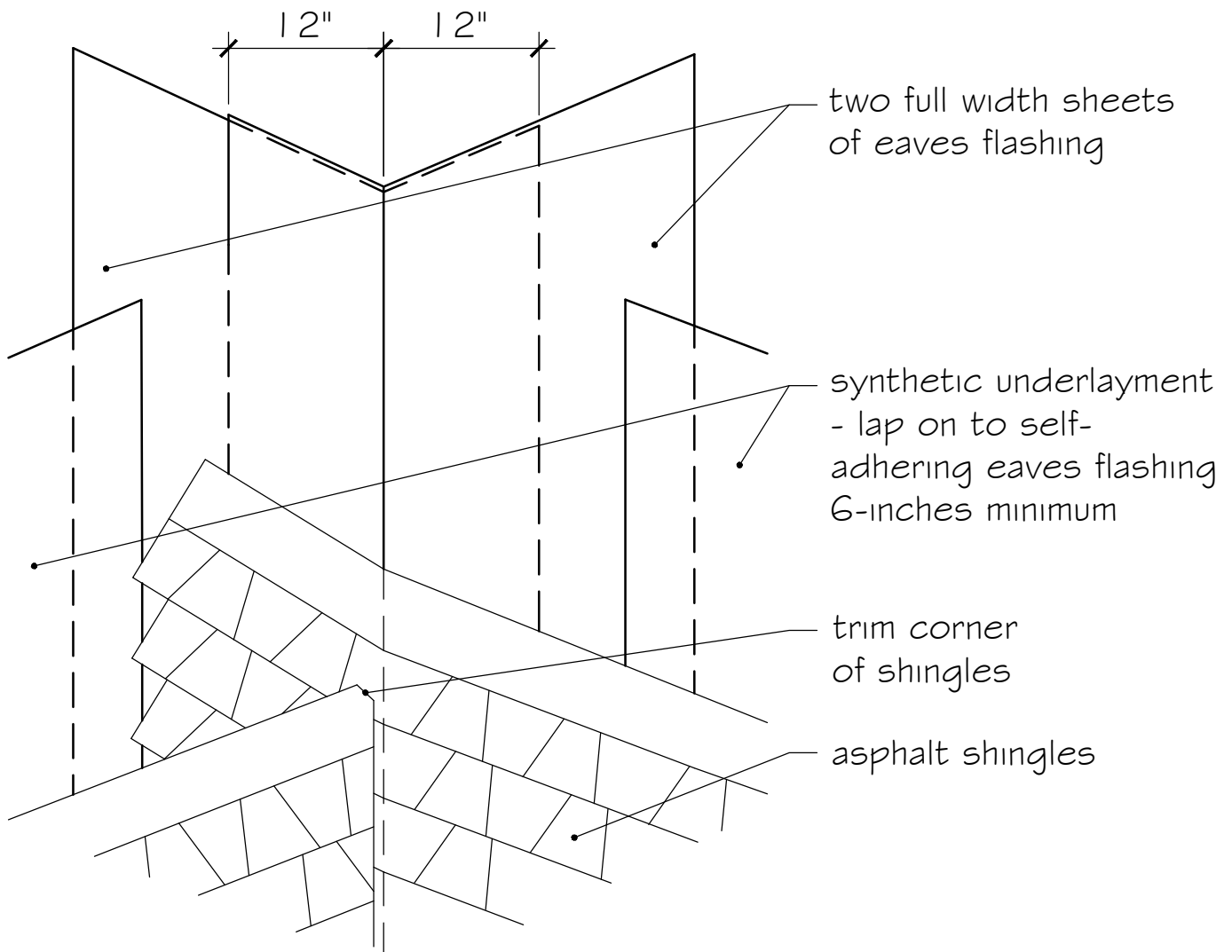
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2



CLOSED CUT VALLEY not to scale

NOTE: components shown are new unless noted as existing



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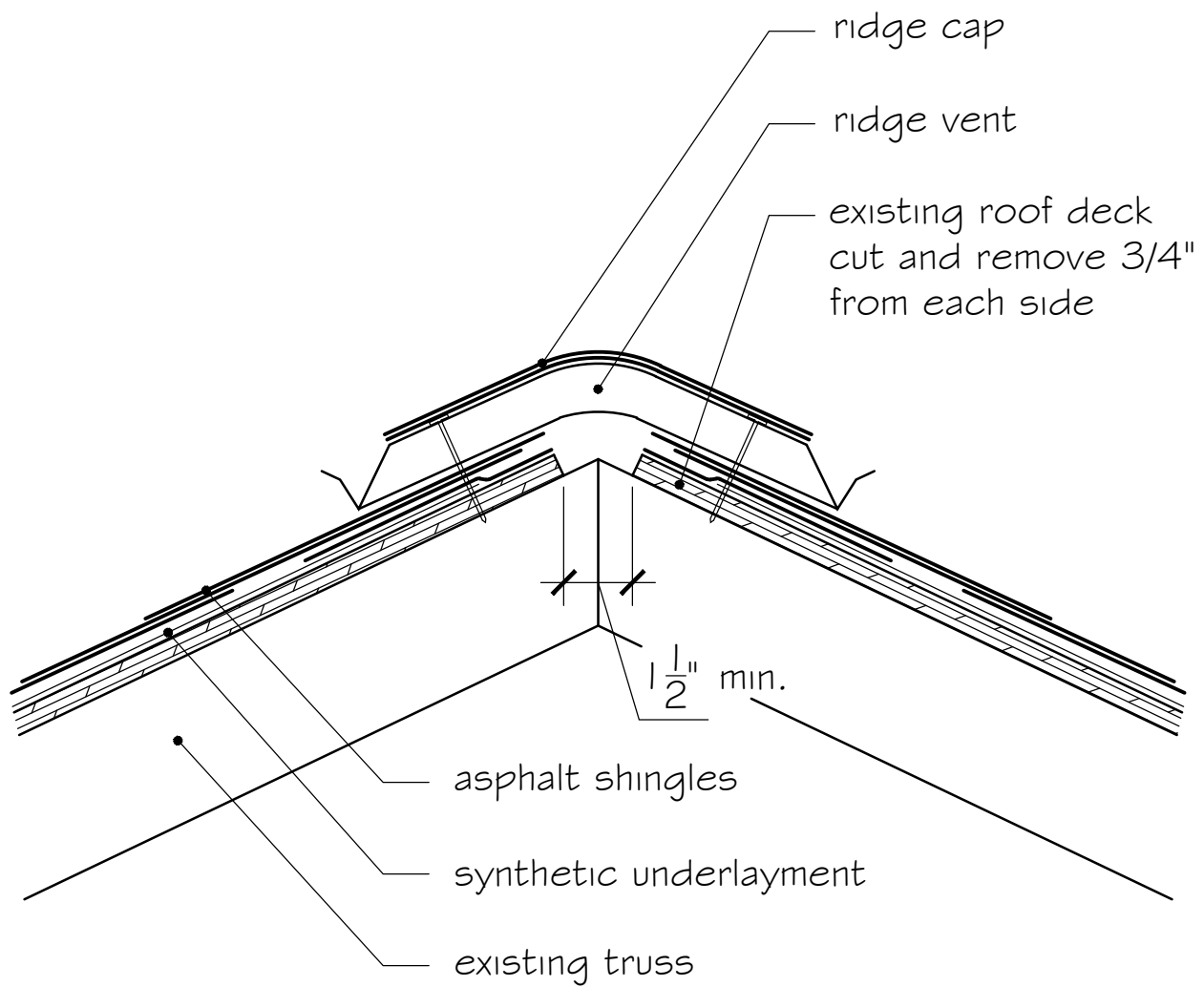
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RIDGE not to scale

NOTE: components shown are new unless noted as existing



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Project No: 23-057

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Detail No:

Date: 10-25-24

Checked By: RDK

4

BUTT TYPE GUTTER EXPANSION JOINT

Figure 1-7 shows the method used to fabricate and install a butt type gutter expansion joint.

Gutter ends are flanged at the top, riveted and soldered into each section of gutter. Sections are joined and a cap is used to cover the joint as shown in Section A-A. Values for dimensions B, C, D, and E are given in tables on Figure 1-5.

A cover plate is used primarily to hide the exposed expansion joint. Where appearance is not an important factor, the cover plate may be eliminated. The cover plate must not be attached in a manner that will restrict

the movement of the gutter sections. It should also slope down to the back of the gutter or have a water dam as shown in the Alternate Cap Detail.

This expansion joint is shown on a rectangular gutter attached to a flat roof using a gravel stop. This application may be used for any rectangular hanging gutter installation. Installation requirements include notching of the gravel stop to fit over the expansion joint.

The use of a continuous cleat (as shown) is optional.

FIGURE 1-7

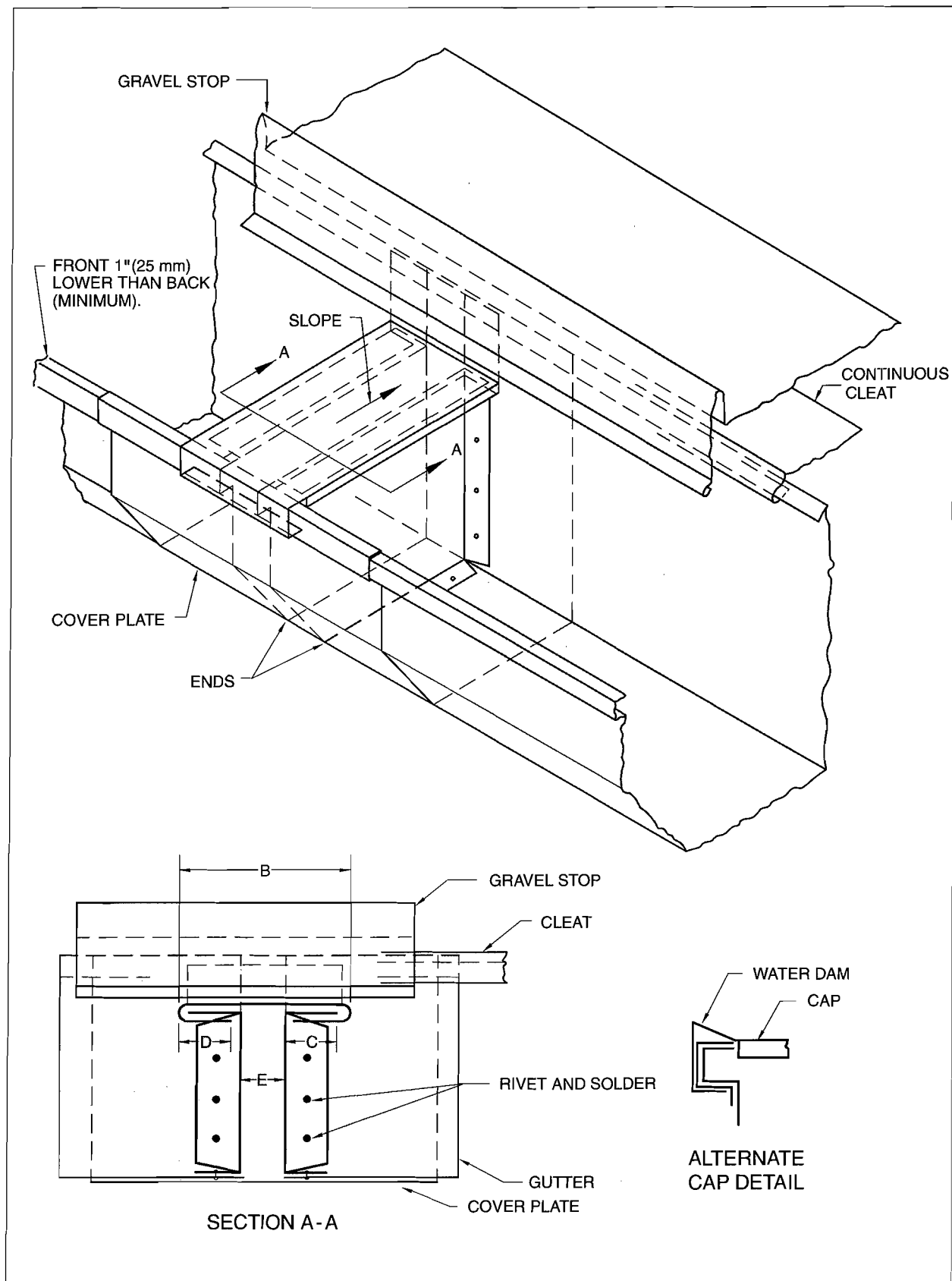


FIGURE 1-7 BUTT TYPE GUTTER EXPANSION JOINT

ALLOWANCES FOR GUTTER EXPANSION

It is essential to provide expansion joints in all gutter installations to allow for movement due to temperature changes. The following provisions apply equally to eave and built-in gutters.

In planning expansion joint locations, recognize that an expansion joint acts as a dam in the gutter. This will influence the number and placement of downspouts and drains.

Figures 1-5A to G represent basic arrangements for expansion control in both hanging gutters and built-in gutters. The system of gutters, downspouts, and their supports must have the flexibility and strength to accommodate expansion.

If the downspout is rigidly connected to the gutter and it is anchored at the gutter outlet, anchoring the gutter at that point is necessary unless the connection will withstand the expansion force.

If the downspout and gutter outlet are designed for flexibility, such as with a flexible section of downspout or with an open vented connection, plan for relative movement of the components. See Figures 1-5G and 1-5H. Figure 1-5G shows a downspout overflow vent with some provision for expansion movement between the gutter and the downspout. Figure 1-5C illustrates that the rule of 50 ft. (15 m) maximum length of gutter per downspout is satisfied by locating two gutter outlets at

the same anchor point. No expansion joint is used in this arrangement. One efficiently draining, funnel shaped gutter outlet and one downspout might be used at this anchor point with no dam in the gutter. See Figure 1-5H.

Figure 1-5D indicates that an expansion joint should be located no more than "X" or "Y" from an inside or outside gutter corner, where X + Y is a maximum of 50 ft (15 m). Locating a downspout at the corner avoids waterflow around a corner, which is less efficient.

The "E" value, Table 1-7, gives expansion joint dimensions for Section A-A of Figures 1-5, 1-6, 1-7, 1-8 and 1-10. Expansion coefficients for commonly used metals are given in Appendix A, Table A-8. In Table 1-7, the 50 ft (15 m) allowances are for the Figure 1-5A arrangement with 50 ft (15 m) distance between downspouts. The 10 ft (3 m) allowances are for the Figure 1-5B situation with downspouts centered in two 10 ft (3 m) sections of built-in gutter. For other lengths, interpolate between the tabled values.

Dimension letters other than E shown in Section A-A and in the table below the double line are:

B – Width of the cap for the expansion joint.

C – Flange turned on the upper part of the gutter end.

D – Flange turned on the cap.

Temp. °F, (C)	Copper or Stainless Steel				Aluminum				Steel			
	10 ft. (3 m)		50 ft. (15 m)		10 ft. (3 m)		50 ft. (15 m)		10 ft. (3 m)		50 ft. (15 m)	
E@170 (77)	1/16"	2 mm	3/16"	5 mm	1/16"	2 mm	3/16"	5 mm	1/16"	2 mm	3/16"	5 mm
120 (49)	1/8"	3 mm	1/2"	13 mm	3/16"	5 mm	5/8"	16 mm	1/8"	3 mm	7/16"	11 mm
100 (38)	3/16"	5 mm	5/8"	16 mm	3/16"	5 mm	13/16"	21 mm	1/8"	3 mm	1/2"	13 mm
75 (24)	3/16"	5 mm	3/4"	19 mm	1/4"	6 mm	1 1/16"	27 mm	3/16"	5 mm	5/8"	16 mm
35 (1.7)	1/4"	6 mm	15/16"	24 mm	5/16"	8 mm	1 3/8"	35 mm	3/16"	5 mm	3/4"	19 mm
0 (-17)	1/4"	6 mm	1 1/8"	29 mm	3/8"	10 mm	1 11/16"	43 mm	3/16"	5 mm	13/16"	21 mm
B	2"	50 mm	3 1/4"	83 mm	2 3/4"	70 mm	4 1/2"	114 mm	1 3/4"	44 mm	2 1/2"	64 mm
C	1/2"	13 mm	13/16"	21 mm	1 1/16"	17 mm	1 1/8"	29 mm	7/16"	11 mm	5/8"	16 mm
D	1/2"	13 mm	13/16"	21 mm	1 1/16"	17 mm	1 1/8"	29 mm	7/16"	11 mm	5/8"	16 mm

Table 1-7 Installation Values For "E" of Figures 1-5, 1-6, 1-7, 1-8, 1-9 and 1-10

3.2.1 Underlayment Configurations

There are different underlayment configurations that can be used for asphalt shingle roof systems. Generally, these configurations can be categorized as follows:

- single layer of underlayment
- single layer of self-adhering underlayment
- double layer of underlayment

A "single layer of underlayment" is one layer of underlayment fastened to the deck before application of a roof covering. For single layer applications, all felts should be applied horizontally in shingle fashion and lapped a minimum of 2 inches (50 mm) over the preceding felt sheet. Endlaps should be a minimum of 4 inches (100 mm). An underlayment should be fastened with nails or staples, as necessary to hold the felts in place until the installation of a primary roof covering. (See Figures 1 and 2)

A "single-layer of self-adhering underlayment" consists of one layer of self-adhering, polymer-modified bitumen sheet membrane applied over a roof deck. This type of membrane is designed to be used as an ice dam protection membrane. Designers should note that these types of membranes, when installed over an entire roof area, act as air and vapor retarders. Potential problems with ventilation, moisture control and vapor retarder placement should be considered during the design phase. See Figures 1 and 2.

A "double-layer underlayment" is two layers of underlayment fastened to a roof deck before the application of asphalt shingles. When a double-layer underlayment is required, felt should be applied horizontally in shingle fashion. For double-layer applications, all felts should be lapped a minimum of 19 inches (480 mm) over the preceding felt sheet. Endlaps should be a minimum of 4 inches (100 mm). An underlayment should be fastened appropriately for the slope of the roof to hold the felts in place until a primary roof covering material is applied. See Figures 3 and 4

When a double-layer configuration is used and underlayment layers are identical materials, they are commonly installed in shingle fashion with 19 inches (480 mm) overlap and 17 inches (430 mm) exposure. However, if one layer is used to "dry-in" the building temporarily or underlayments of two differing compositions are used, it is common for each layer to be applied in a single-layer configuration.

3.2.2 Roof Slope

The following are recommendations for underlayments used with asphalt shingles with respect to roof slope.

- On roof decks having a slope of 4:12 (18 degrees) or more, a minimum of one layer of No. 15 asphalt-saturated felt underlayment should be applied horizontally in shingle fashion to serve as the underlayment. See Figures 1 and 2.

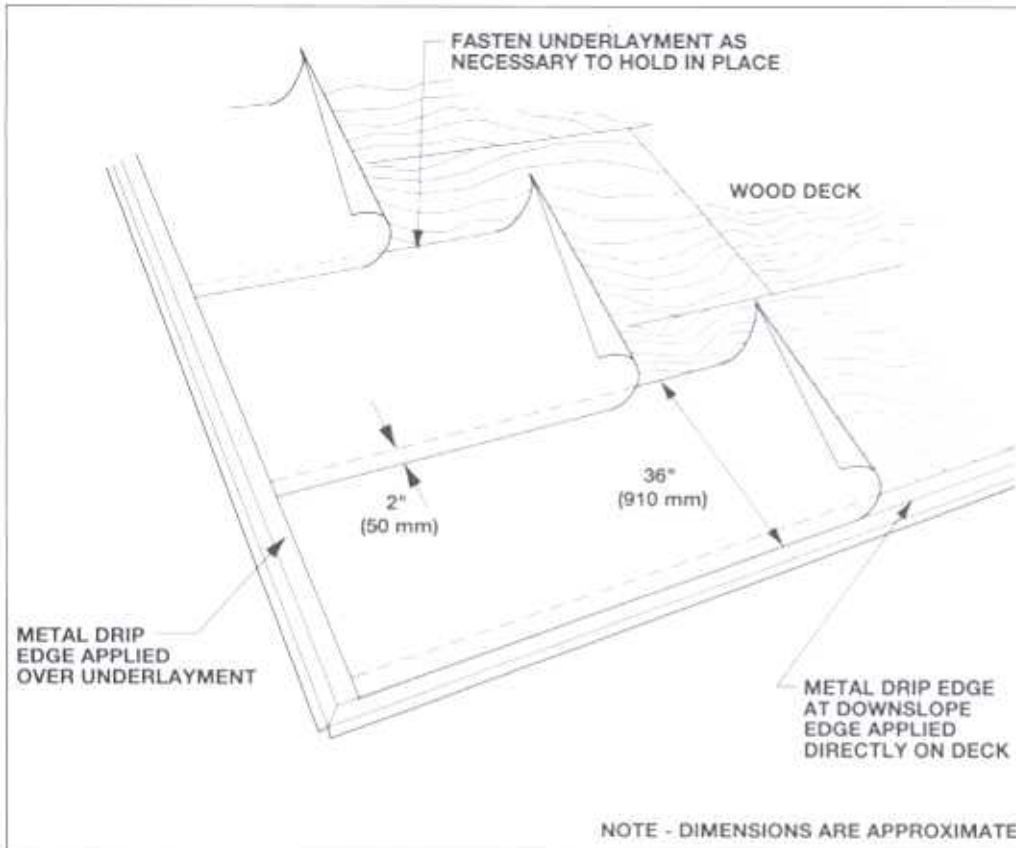


Figure 1: Single layer underlayment

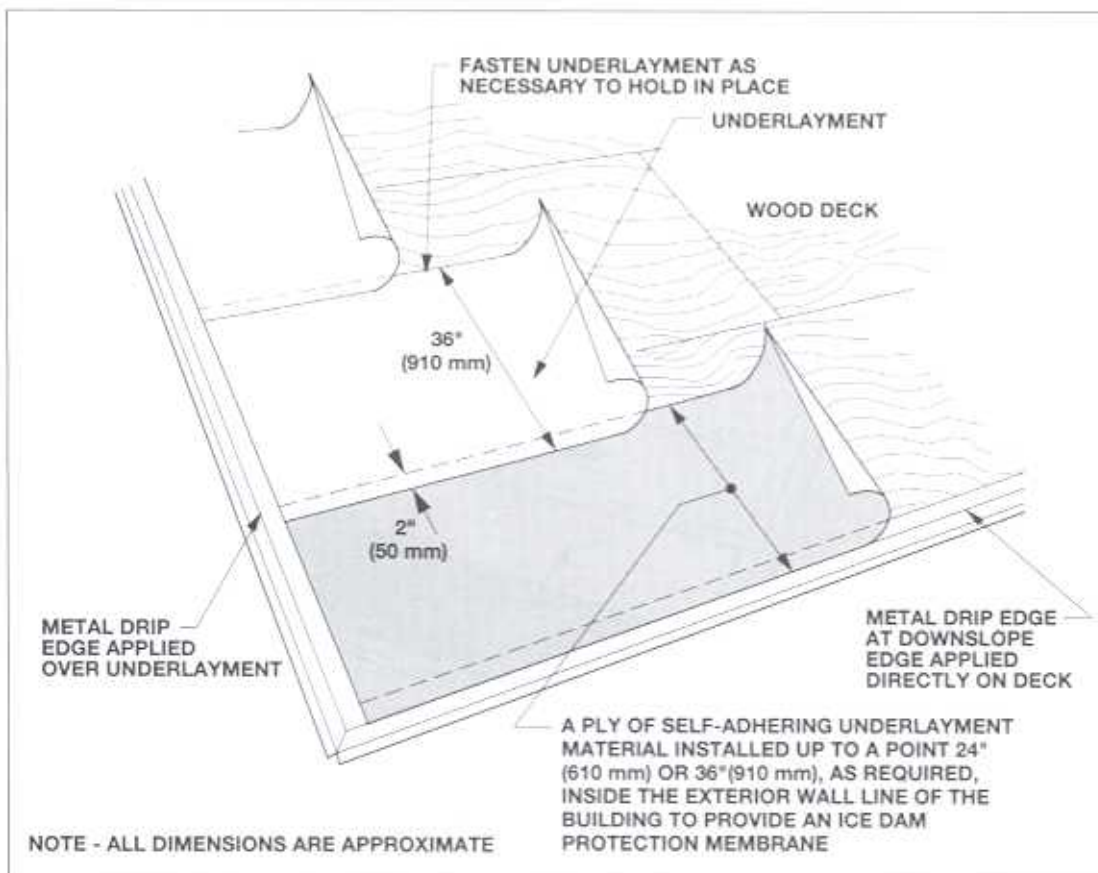
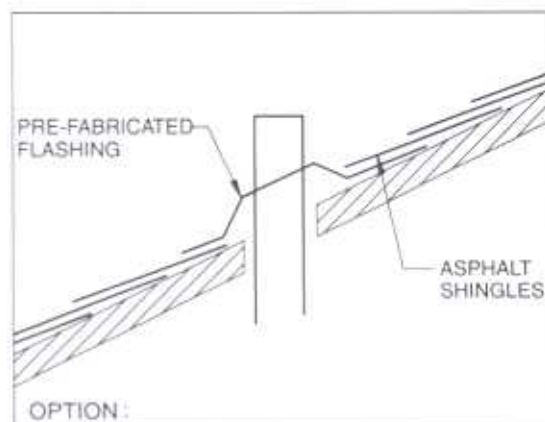
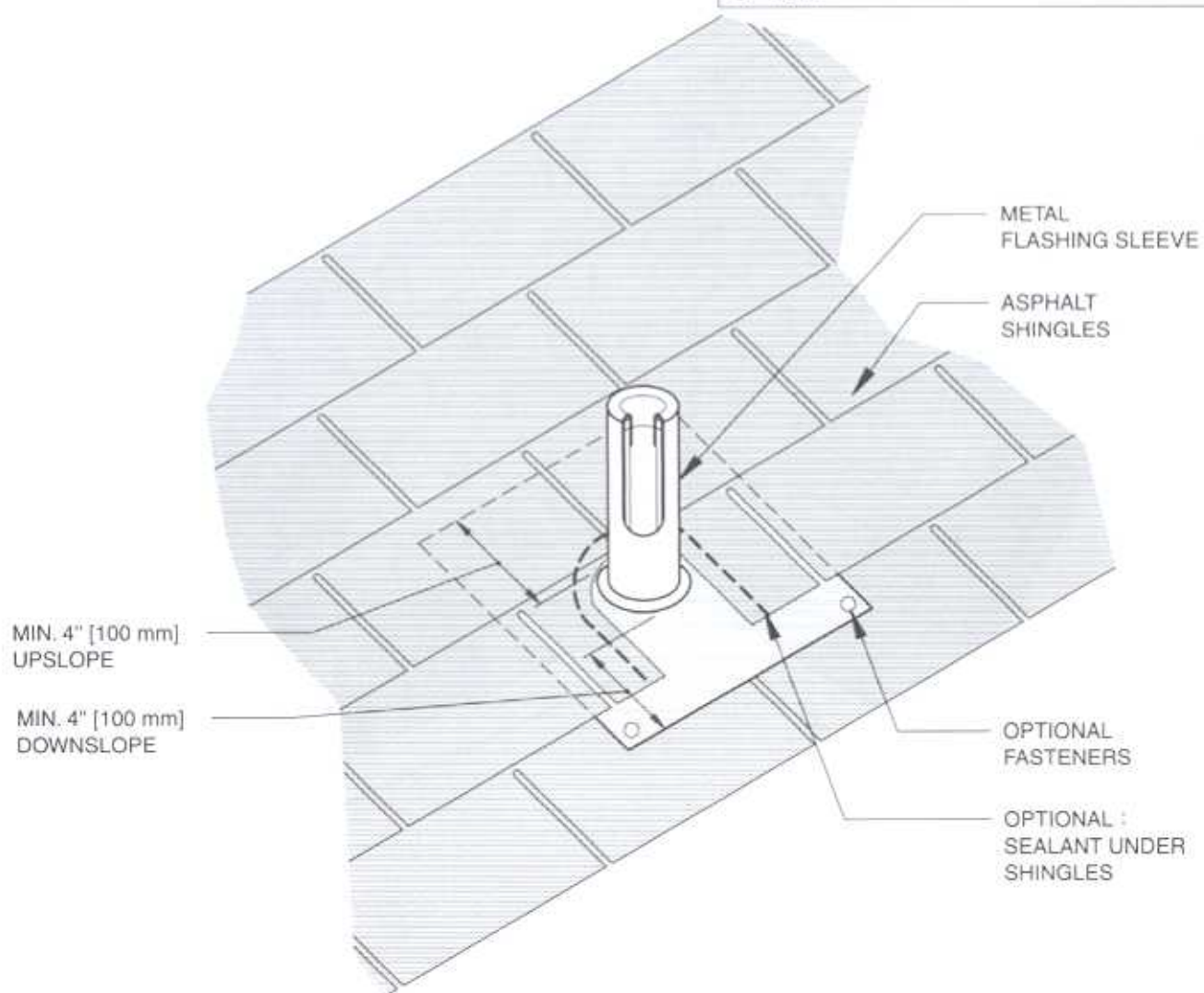


Figure 2: Single layer of underlayment with ice dam protection membrane



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PIPE PENETRATION

2001

NOT DRAWN TO SCALE

ASPH-8