

ROOFING PROJECT SPECIFICATIONS

Town of Glastonbury
2149 Main Street
Glastonbury, CT 06033

Roof Area: **Hebron Ave School**
1323 Hebron Avenue
Glastonbury, CT 06033

Date of Issue: **March 5, 2010**

Mandatory Pre-bid: **Wednesday, March 17, 2010, 2:00 pm**

Bid Due Date: **Tuesday, March 30, 2010, 11:00 am**

Bid Number GL – 2011-01

DO NOT DETACH - THIS DOCUMENT MUST REMAIN INTACT

TOWN OF GLASTONBURY

INVITATION TO BID

<u>BID #</u>	<u>ITEM</u>	<u>DATE & TIME REQUIRED</u>
GL-2011-01	Replacement Roof-Hebron Ave School	March 30, 2010 @ 11:00 a.m.

The Town of Glastonbury is seeking bids for work required to replace the roof at Hebron Avenue School, 1323 Hebron Ave. Glastonbury, CT 06033.

Bid forms may be obtained at the Office of the Purchasing Agent, Town Hall, 2155 Main Street, Glastonbury, Connecticut 06033 (second level) or on the Town's website at www.glastonbury-ct.gov.

A mandatory pre-bid meeting and site walk through will be held at the Hebron Avenue School, 1323 Hebron Ave, Glastonbury, Connecticut 06033 on March 17, 2010 at 3:00 p.m.. All bidders must attend in order for their bid to be considered. Contractors shall comply with State Statutes concerning Employment, and Labor Practices, if applicable, and Section 31-53 of the Connecticut General Statutes as amended (Prevailing wages), including annual adjustments in Prevailing Wages. Certified payrolls will be required bi-weekly. Sealed proposals must be accompanied with Bid Security. Bid Security shall be issued payable to the "Town of Glastonbury" in the form of a certified check or Bid Bond in an amount not less than 10% of the total amount of the base bid. The Bid Bond must be issued by a surety company licensed in the State of Connecticut. Cashier's checks will not be accepted.

The Town reserves the right to waive informalities or reject any part of, or the entire bid, when said action is deemed to be in the best interest of the Town. All Sealed Bids must be submitted to the Office of the Purchasing Agent no later than the time and date indicated. All bids will be publicly opened and read.

Mary F. Visone
Purchasing Agent

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1. Sealed bids (**one original and one copy**) on the attached Bid Forms will be received at the Office of the Purchasing Agent, Town Hall, 2155 Main Street, Glastonbury, Connecticut, 06033 (second level). At the designated time of opening, they will be publicly opened, read, recorded and placed on file.
2. Whenever it is deemed to be in the best interest of the Town, the Town Manager, Purchasing Agent or designated representative shall waive informalities in any and all bids. The right is reserved to reject any bid, or any part of any bid, when such action is deemed to be in the best interest of the Town of Glastonbury.
3. Bidders shall submit a Bid on a lump sum basis for the Base Bid and include costs for line items as specified. The basis of award will be based upon the sum of the Base Bid
4. Bids will be carefully evaluated as to conformance with stated specifications.
5. The envelope enclosing your bid should be clearly marked by bid number, time of bid opening, and date.
6. Specifications must be submitted complete in every detail and, when requested, samples shall be provided. If a bid involves any exception from stated specifications, they must be clearly noted as exceptions, underlined, and attached to the bid.
7. The Bid Documents contain the provisions required for the requested item. Information obtained from an officer, agent, or employee of the Town or any other person shall not affect the risks or obligations assumed by the Bidder or relieve him/her from fulfilling any of the conditions of the bid.
8. Each Bidder is held responsible for the examination and/or to have acquainted themselves with any conditions at the job site which would affect their work before submitting a bid. Failure to meet these criteria shall not relieve the Bidder of the responsibility of completing the bid without extra cost to the Town of Glastonbury.
9. Any bid may be withdrawn prior to the above-scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and the date specified shall not be considered. No Bidder may withdraw a bid within sixty (60) days after the actual date of the opening thereof. Should there be reasons why a bid cannot be awarded within the specified period, the time may be extended by mutual agreement between the Town and the Bidder.
10. Each bid must be accompanied by a bid bond payable to the Town for ten percent (10%) of the total amount of the bid. The bid bond of the successful Bidder will be retained until the payment bond and performance bond have been executed and approved, after which it will be returned. A certified check may be used in lieu of a bid bond. The Town of Glastonbury will not be liable for the accrual of any interest on any certified check submitted. Cashier's checks will not be accepted.
11. A 100% Performance and Payment bond is required of the successful bidder. This bond shall cover all aspects of the specification and shall be delivered to the Purchasing Agent prior to the issuance of a purchase order. The Performance and Payment Bond will be returned upon the delivery and acceptance of the bid items.
12. The Bidder agrees and warrants that in the submission of this sealed Bid, they will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religion, national origin, sex, or physical disability including, but not limited to blindness, unless it is shown by such Bidder that such disability prevents performance of that which must be done to successfully

fulfill the terms of this sealed Bid or in any manner which is prohibited by the laws of the United States or the State of Connecticut: and further agrees to provide the Human Relations Commission with such information requested by the Commission concerning the employment practices and procedures of the Bidder. An Affirmative Action Statement will be required by the successful Bidder.

13. Bidder agrees to comply with all of the latest Federal and State Safety Standards and Regulations and certifies that all work required in this bid will conform to and comply with said standards and regulations. Bidder further agrees to indemnify and hold harmless the Town for all damages assessed against the Town as a result of Bidder's failure to comply with said standards and/or regulations.
14. All correspondence regarding any purchase made by the Town of Glastonbury shall reference the Town's purchase order number. Each shipping container shall clearly indicate both Town purchase order number and item number.
15. Bidder is required to review the Town of Glastonbury Code of Ethics adopted July 8, 2003 and effective August 1, 2003. Bidder shall acknowledge that they have reviewed the document in the area provided on the bid/proposal response page (BP). The selected Bidder will also be required to complete and sign an Acknowledgement Form prior to award. The Code of Ethics and the Consultant Acknowledgement Form can be accessed at the Town of Glastonbury website at www.glastonbury-ct.gov. Upon entering the website click on **General Information**, then **Bids and Quotes** which will bring you to the links for the **Code of Ethics** and the **Consultant Acknowledgement Form**. If the Bidder does not have access to the internet, a copy of these documents can be obtained through the Purchasing Department at the address listed within this bid/proposal.
16. Any bidder, in order to be considered, shall be engaged primarily in the business of reroofing schools with a minimum of five (5) years experience and have a valid contractor's license in the State of Connecticut. Each Bidder shall submit a list of similar projects completed within the last three years. In order to be eligible for consideration, the Bidder must have successfully completed a minimum of five (5) similar projects within the last five (5) years. Please provide project name and contact information for project coordinator (name, title, address, phone number). Please also provide contract value.
17. **Non-Resident Contractors:**

The Town is required to report names of non-resident (out-of-State) contractors to the State of Connecticut, Department of Revenue Services (DRS) to ensure that Employment Taxes and other applicable taxes are being paid by Contractors. **Upon award, all non-resident contractors must furnish a five percent (5%) sales tax guarantee bond (State Form AU-766) or a cash bond for five percent (5%) of the total contract price (State Form AU-72) to DRS even though this project is exempt from most sales and use taxes.**

See State Notice to Non-Resident Contractors SN 2005 (12). If the above bond is not provided, the Town is required to withhold five percent (5%) from the contractor's payments and forward it to the State DRS.

The Contractor must promptly furnish to the Town a copy of the Certificate of Compliance issued by the State DRS.

18. Bidder shall include on a sheet(s) attached to its proposal a complete disclosure of all past and pending mediation, arbitration and litigation cases that the bidder or its principals (regardless of their

place of employment) have been involved in for the most recent five years. Please include a statement of the issues in dispute and their resolution. Acceptability of Bidder based upon this disclosure shall lie solely with the Town.

19. Bidder or its principals, regardless of their place of employment, shall not have been convicted of, nor entered any plea of guilty, or nolo contendere, or otherwise have been found civilly liable or criminally responsible for any criminal offense or civil action. Bidder shall not be in violation of any State or local ethics standards or other offenses arising out of the submission of bids or proposals, or performance of work on public works projects or contracts.
20. Municipal construction projects are exempt from Federal Excise Taxes, as well as, State of Connecticut Sales, Use and Service Taxes and should not be include in the Bidder's proposal.
21. After award of Contract, Owner will require the Contractor's schedule of Values, which shall be submitted at the preconstruction meeting. The Schedule of Values must accurately reflect job costs and include a complete breakdown of material and labor costs.
22. **Prevailing Wage Rates:** All provisions of all applicable State Labor Standards must be complied with under this Contract. The execution of the Contract by the Bidder binds it to all applicable State Labor Laws and Regulations.

Note that these rates change annually on July 1st and all provisions for such changes in Prevailing Wage Rates are to be included in the Bidder's Lump Sum Proposal. Please make special note of the State requirement to adjust wage rate and fringe benefits on July 1st following the original published rates. Bidder is to include in its bid proposal all costs required by such annual increases in the PREVAILING RATES. No Escalation Clauses are to be included in the bidder's proposal and No Escalation Clauses will be in the Contract Agreement. Bidder is to anticipate any future increases and include these costs in its quotation.

All other statutory laws, to the extent they are required to be incorporated into a contract by statute, are hereby deemed fully incorporated herein and in the Contract. Violation of Prevailing Wage Law requirements may cause Contract to be terminated and the Owner reserves its rights if such termination is required.

Wage Rate Determination for this Project from the State of Connecticut is included in the Project Manual. Certified payrolls for site labor shall be submitted bi-weekly to Owner **on the correct State form**. The Owner reserves the right to, without prior notice, audit payroll checks given to workers on site in order to ascertain that wages and fringe benefits are being paid as required by the State of Connecticut. Contractor to comply with Connecticut General Statutes Section 31-53, as amended. Contractor's invoices will not be paid if certified payrolls are incomplete, incorrect or not received in a timely manner.

All Apprentices must be registered with the State of Connecticut and their number shall not exceed the number allowed by law. Otherwise, all workers must be paid at least the Journeyman rate listed including benefits.

23. For technical questions regarding this Bid, please contact David Sacchitella, Buildings Superintendent, at (860) 652-7706. For administrative questions regarding this Bid, please contact Mary F. Visone, Purchasing Agent at (860) 652-7589. **The request must be received at least three (3) business days prior to the advertised response deadline. All questions, answers, and/or addenda, as applicable, will be posted on the Town's website at www.glastonbury-ct.gov (Upon**

entering the website click on Bids & RFPs). It is the respondent's responsibility to check the website for addenda prior to submission of any proposal.

Failure to comply with general rules may result in disqualification of the Bidder.

01.00 WORKMANSHIP, MATERIALS AND EMPLOYEES

- 01.01 Wherever in this contract the word "Engineer" is used, it shall be understood as referring to the Director of Facilities of the Town of Glastonbury acting personally or through any assistants duly authorized.
- 01.02 The entire work described herein shall be completed in accordance with the plans and specifications to the full intent and meaning of the same. Unless otherwise specified, all materials incorporated in the permanent work shall be new, and both workmanship and material shall be of good quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.
- 01.03 The wording "furnish", "install", "construct", "furnish and install", or any similar terms, unless specifically noted to the contrary, shall include all labor, materials, water, tools, equipment, light, power, transportation, and any other services required for the completion of the work.
- 01.04 The Contractor shall at all times enforce strict discipline and good order among his employees, and shall seek to avoid employing on the work any unfit person or anyone not skilled in the work assigned to him.

02.00 SUPERINTENDENT

- 02.01 The Contractor shall keep on the work during its progress, in the absence of the Contractor, a competent Superintendent. The Superintendent shall be acceptable to the Engineer and shall fully represent the Contractor. All directions given to the Superintendent shall be binding as if given to the Contractor.

03.00 PRECONSTRUCTION MEETING

- 03.01 A Preconstruction Meeting will be held with the Engineer, Contractor, and any other interested parties prior to commencing any work. The Engineer shall arrange the meeting based on a mutually convenient time.

04.00 PERMITS

- 04.01 All permits, licenses, and fees required for the performance of the Contract work shall be secured and paid for by the Contractor. The local building permit fees will be waived.

05.00 PROPERTY ACCESS

- 05.01 The Contractor shall take all proper precautions to protect from injury or unnecessary interference, and provide proper means of access to abutting property where the existing access is cut off by the Contractor.
- 05.02 The Contractor shall take all proper precautions to protect persons from injury or unnecessary inconvenience and leave an unobstructed way along the public and private places for travelers, vehicles, and access to hydrants.
- 05.03 The Contractor shall make arrangements with the adjacent property owners for such trespass as he may reasonably anticipate in the performance of the work. All such arrangements shall be reported, in writing, to the Engineer.

06.00 PROTECTION OF THE PUBLIC AND OF WORK AND PROPERTY

- 06.01 The Contractor shall continuously maintain adequate protection of all work from damage, and shall take all reasonable precautions to protect the Town from injury or loss arising in connection with the Contract.
- 06.02 The Contractor shall adequately protect adjacent private and public property as provided by law and the Contract Documents.
- 06.03 The Contractor shall make good any damage, injury, or loss of work and to the property of the Town resulting from lack of reasonable protective precautions.
- 06.04 The Town buildings involved will be occupied and fully operational. The Contractor may be required to adjust his work schedule should the work have an adverse impact on operations. There will be no modification of the bid price should a schedule adjustment be required.

07.00 EXISTING IMPROVEMENTS

- 07.01 The Contractor shall conduct his work so as to minimize damage to existing improvements designated to remain. Except where specifically stated otherwise in the specifications, drawings, or as directed by the Engineer, it will be the responsibility of the Contractor to restore to their original condition, as near as practical, all improvements on public or private property. This shall include:
- a. Property within and adjacent to the work area such as shrubs, walks, driveways, fences, etc.
 - b. Utility mains, ducts, poles, and services. The Contractor is hereby notified that utilities, if/where shown on the plans, are at approximate locations. These locations are subject to possible errors in the source of information and errors in transcription. The Contractor shall make certain of the exact location of all mains, ducts, poles, and services prior to excavation.

08.00 SEPARATE CONTRACTS

- 08.01 The Engineer reserves the right to let other contracts in connection with this work. The Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and coordinate his work with theirs. Wherever work being done by the Town of Glastonbury forces or by other contractors is contiguous to work covered by this Contract, the respective rights of the various interests involved shall be established by the Engineer to secure the completion of the various portions of the work.

09.00 INSPECTION OF WORK

- 09.01 The Town shall provide sufficient personnel for the inspection of the work.
- 09.02 The Engineer shall at all times have access to the work whenever it is in preparation or progress, and the Contractor shall provide proper facilities for such access and for inspection.

09.03 If the specifications or the Engineer's instructions require any work to be specially tested or approved, the Contractor shall give the Engineer timely notice of its readiness for inspection and, if the inspection is by another authority other than the Engineer, of the date fixed for such inspection. Inspections by the Engineer shall be made promptly. If any work should be covered up without approval or consent of the Engineer, it must, if required by the Engineer, be uncovered for examination and properly restored at the Contractor's expense.

09.04 Re-inspection of any work may be ordered by the Engineer. If such work is found to be in accordance with the Contract Documents, the Town shall pay the cost of re-inspection and replacement. If such work is not in accordance with the Contract Documents, the Contractor shall pay such cost.

10.00 RIGHT TO INCREASE OR DECREASE WORK

10.01 The Town shall have the right to increase or decrease the amount of work herein specified as may be required.

11.00 RIGHT OF ENGINEER TO STOP WORK FOR WEATHER CONDITIONS

11.01 Should the work, in the opinion of the Engineer, be in danger by reason of inclemency of weather, or could not be finished in time to prevent such danger, the Contractor shall cease operations upon order of the Engineer, and shall not resume them until ordered to do so by the Engineer when the weather conditions are favorable. The Contractor shall, upon such orders, discontinue work, remove all materials or appliances for or in use upon the work, and place the premises in proper condition for use by the public during the time the work is suspended as herein provided, without cost to the Town.

12.00 CONTRACTOR TO BE RESPONSIBLE FOR IMPERFECT WORK OR MATERIALS

12.01 Any faithful work or imperfect material that may be discovered before the acceptance and the payment of the work shall be corrected upon the order of the Engineer. The acceptance and payment of the work does not in any manner relieve the Contractor of his obligation to construct work in the proper manner and the use of materials herein specified.

13.00 TOWN MAY NOTIFY CONTRACTOR IF WORK IS NOT CARRIED ON SATISFACTORILY

13.01 If, in the opinion of the Engineer, the Contractor is not proceeding with the work at a sufficient rate of progress so as to finish in the time specified, or has abandoned said work, or is not complying with the terms and stipulations or the Contract and specifications, the Engineer may serve notice on the Contractor to adopt such methods as will ensure the completion of the work in the time specified.

13.02 If, within five days after the Engineer has notified the Contractor that his work is not being carried on satisfactorily as before mentioned, the Engineer shall have the right to annul the Contract and manage the work under the direction of the Engineer, or re-let, for the very best interest of the Town as a new contract, the work under said new Contract shall be considered the responsibility of the defaulting Contractor.

13.03 Additional costs incurred over and above the original Contract shall be borne by the Performance Bond.

14.00 DEDUCTIONS FOR UNCORRECTED WORK

- 14.01 If the Engineer deems it inexpedient to correct work that has been damaged or that was not done in accordance with the Contract, an equitable deduction from the Contract price shall be made there for.
- 14.02 The Contractor shall promptly remove from the premises all materials condemned by the Engineer as failing to meet Contract requirements, whether incorporated in the work or not, and the Contractor shall promptly replace and re-execute his own work in accordance with the Contract and without expense to the Town, and shall bear the expense of making good all work by other contractors destroyed or damaged by such removal or replacement.
- 14.03 If the Contractor does not remove such condemned work and materials as promptly as possible after written notice, the Engineer may remove them and store the materials at the expense of the Contractor.

15.00 CLEANING UP

- 15.01 The Contractor must remove all debris of every description as the work progresses and leave the surroundings in a neat and orderly condition to the satisfaction of the Engineer.
- 15.02 Upon completion, and before acceptance and final payment, the Contractor shall remove from the site all equipment, forms, surplus material, rubbish and miscellaneous debris and leave the site in a neat and presentable condition.

16.00 ROYALTIES AND PATENTS

- 16.01 The Contractor shall pay all royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and shall save the Town of Glastonbury harmless from loss on account hereof, except that the Town of Glastonbury shall be responsible for all such loss when a particular manufacturer, product, or process is specified by the Town of Glastonbury.

17.00 ERRORS OR CONFLICT IN DRAWINGS AND SPECIFICATIONS

- 17.01 The Contractor shall immediately notify the Owner/Engineer should he find any errors or conflicts in the contract documents. The Owner/Engineer shall render his interpretation or instruction in writing on the items as soon as possible.
- 17.02 Any work undertaken by the Contractor containing possible errors or conflicts will be done at his own risk unless he has received prior written approval from the Owner/Engineer.
- 17.03 The Contractor shall be responsible for estimating and supplying all quantities, and where clarification or additional information is required, a request in writing to the Owner/Engineer shall be made. No extra charge or compensation will be allowed the Contractor unless there is a change in scope or dimension of the project resulting in need for extra material, equipment and/or labor. Said differences are to be handled under Article 18.

18.00 EXTRA WORK AND EXTRA COST

- 18.01 The Owner, without invalidating the contract documents, may order extra work or make changes by altering, adding to or deducting from the work, the contract price being adjusted accordingly. All such work shall be executed under the conditions of the original contract except that any claim of extension of time caused thereby shall be adjusted at the time of ordering the change.
- 18.02 No extra work or change shall be performed unless in pursuance of a written order from the Owner/Engineer, with the agreed price prior to the commencement of the work, and no claim for an addition to the contract price shall be valid unless so ordered.
- 18.03 The value of any such work or change shall be determined, in one or more of the following ways:
- a) By estimate and acceptance on a lump sum.
 - b) By unit prices named in the contract or subsequently agreed upon.
 - c) By cost and percentage or by cost and a final fee.

19.00 SUBSTITUTIONS

- 19.01 The Contractor shall use materials as specified unless material list is of an open nature. Material other than specified will be permitted only after written application, including four (4) copies of specifications, is made by the Contractor and written approval received from the Engineer or Owner.

The material installed in the job site shall be new and of the quality specified.

The manufacturer's recommendation shall be followed for the installation of all equipment.

20.00 PRODUCT SUBMITTALS

- 20.01 Prior to ordering materials, the Contractor shall submit submittals as specified in the detailed specification sections. Three (3) copies of the submittals shall be forwarded to the Engineer for review and approval.
- 20.02 Submittals shall indicate specification Section for each product. Submittals not containing all the required information shall be returned to the contractor for re-submittal.

21.00 OWNER'S ACCEPTANCE

- 21.01 Within seven (7) days of the Contractor's notification that the installation is substantially complete, the Owner's authorized representative shall inspect the installation. The Owner, with the Contractor, shall take necessary steps to inspect the installation. Upon completion of the inspection, the Owner or the Owner's authorized representative may either accept the work outright or prepare a "Punch List" that upon completion by the Contractor and acceptance by the Owner will signify final acceptance provided that all other applicable terms and provisions of the Contract have been completed to the Owner's satisfaction.

22.00 RESPONSIBILITY FOR MAINTENANCE

- 22.01 It will be the Contractor's responsibility to maintain the work as specified in the detailed specifications during the warranty period.

23.00 SERVICE BY THE CONTRACTOR

23.01 The Contractor shall maintain the work as specified during the warranty period.

24.00 WARRANTY

24.01 The guarantee shall be as specified in the respective sections of the specification.

24.02 The Contractor shall be responsible for the repair and/or replacement of all defective work and materials. All repair work shall be completed in a timely fashion.

24.04 Should the Contractor not respond promptly, the Owner may take any action he deems necessary to repair the defect and prevent further damage to his property, including the hiring of another contractor, or the repairing of such a defect with material supplied by the Contractor. In this event, the Contractor shall be liable for expenses incurred and property damages suffered by the Owner.

01.00 NOTICE TO CONTRACTOR

- 01.01 Intent of Contract: The intent of the Contract is to prescribe a complete work or improvement which the Contractor undertakes to do, in full compliance with the specifications, plans, special provisions, proposal and Contract. The Contractor shall perform all work in close conformity with the plans or as modified by written orders, including the furnishing of all materials, supplies, transportation, labor, and all other things necessary to the satisfactory prosecution and completion of the project.

The scope of the work shall include all labor, materials and equipment needed to provide and install the replacement roof described in these plans and specifications at the Hebron Avenue School, 1323 Hebron Ave, Glastonbury, CT 06033.

02.00 COMMUNICATIONS

- 02.01 All notices, demands, requests, instructions, approvals, proposals, and claims must be in writing.
- 02.02 Any notice to, or demand upon, the Contractor shall be sufficiently given if delivered at the office of the Contractor stated on the signature page of the Agreement (or at such other office as the Contractor may, from time to time, designate) in a sealed, postage-prepaid envelope or delivered with charges prepaid to any telegraph company for transmission, in each case addressed to such office.
- 02.03 All papers required to be delivered to the Town shall, unless otherwise specified in writing to the Contractor, be delivered to the Director of Facilities, 2143 Main Street, Glastonbury, CT 06033, and any notice to, or demand upon, the Town shall be delivered at the above address in a sealed, postage-prepaid envelope or delivered with charges prepaid to any telegraph company for transmission, in each case addressed to such office or to such other representatives of the Town, or to such other address as the Town may subsequently specify in writing to the Contractor for such purpose.
- 02.04 Any such notice shall be deemed to have been given as of the time of actual delivery or, in case of mailing, when the same should have been received in due course of post or, in the case of telegrams, at the time of actual receipt, as the case may be.

03.00 INSURANCE

The Bidder shall, at its own expense and cost, obtain and keep in force during the entire duration of the Project or Work the following insurance coverage covering the Bidder and all of its agents, employees and sub-contractors and other providers of services and shall name the **Town its employees and agents as an Additional Insured** on a primary and non-contributory basis to the Bidders Commercial General Liability and Automobile Liability policies. **These requirements shall be clearly stated in the remarks section on the Bidders Certificate of Insurance.** Insurance shall be written with Carriers approved in the State of Connecticut and with a minimum Best's Rating of A-. In addition, all Carriers are subject to approval by the Town. Minimum Limits and requirements are stated below:

- 1) Worker's Compensation Insurance:

- Statutory Coverage
- Employer's Liability
- \$100,000 each accident/\$500,000 disease-policy limit/\$100,000 disease each employee

2) Commercial General Liability:

- Including Premises & Operations, Products and Completed Operations, Personal and Advertising Injury, Contractual Liability and Independent Contractors.
- Limits of Liability for Bodily Injury and Property Damage
Each Occurrence \$1,000,000
Aggregate \$2,000,000 (The Aggregate Limit shall apply separately to each job.)
- A Waiver of Subrogation shall be provided

3) Automobile Insurance:

- Including all owned, hired, borrowed and non-owned vehicles
- Limit of Liability for Bodily Injury and Property Damage:
Per Accident \$1,000,000

The Bidder shall direct its Insurer to provide a Certificate of Insurance to the Town before any work is performed. The Certificate shall specify that the Town shall receive 30 days advance written notice of cancellation or non-renewal. The Certificate shall evidence all required coverage including the Additional Insured and Waiver of Subrogation. The Bidder shall provide the Town copies of any such policies upon request.

INDEMNIFICATION

To the fullest extent permitted by law, the Bidder shall indemnify and hold harmless the Town and Board of Education and its consultants, agents, and employees from and against all claims, damages, losses and expenses, direct, indirect or consequential (including but not limited to fees and charges of engineers, attorneys and other professionals and court and arbitration costs) arising out of or resulting from the performance of the Bidder's work, provided that such claim, damage, loss or expense is caused in whole or in part by any negligent act or omission by the Bidder, or breach of its obligations herein or by any person or organization directly or indirectly employed or engaged by the Bidder to perform or furnish either of the services, or anyone for whose acts the Bidder may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.

04.00 WORK BY OTHERS

04.01 Private utilities, contractors, developers or other parties may be expected to be working within the Contract area during this Contract. It shall be the responsibility of the contractor to coordinate his work with the work being done by others in order that the construction shall proceed in an efficient and logical manner. The Contractor shall have no claim or claims whatever against the Town, the Engineer, or other parties due to delays or other reasons caused by the work by others or his failure to coordinate such work.

05.00 CONTRACTOR'S WORK AND STORAGE AREA

05.01 The Contractor shall contact the Town to determine if any specific locations will be designated, or gain its approval prior to using any area for storage of equipment, materials and trailers during the period of this Contract. The Contractor shall confine his work/storage area to the limits as designated or approved and shall be responsible for the security of the work/storage area. Upon completion of the Contract, the Contractor shall remove all equipment and materials, except as otherwise specified, and restore the site to its original condition as approved by the Engineer and at no cost to the Town.

06.00 DISPOSAL AREA

06.01 The Tryon Street Bulky Waste Facility will be available to the Contractor, at no charge, for disposal of materials that are accepted at that facility. No materials containing lead-based paint of any level shall be dumped at the Tryon Street facility. The Contractor is required to obtain a disposal area for all other unsuitable or surplus materials at no cost to the Town. Contractors are encouraged to recycle all applicable materials from this project.

07.00 DUST CONTROL

07.01 During the progress of the work, the Contractor shall conduct his operations and maintain the area of his activities so as to minimize the creation and dispersion of dust. If the Engineer decides that it is necessary to use water or calcium chloride for more effective dust control, the Contractor shall furnish and spread the material, as directed, without additional compensation.

08.00 PROTECTION OF EXISTING UTILITIES

08.01 Before starting any excavation, the Contractor shall submit to the Engineer plans or details showing the proposed method the Contractor will use to support and protect all existing utilities during construction. The furnishing of such plans and details shall not serve to relieve the Contractor of any responsibility for the proper conduct of the work.

08.02 There will be no extra payment for submitting plans or details for supporting and protecting all existing utilities during construction.

09.00 TIME FOR COMPLETION/NOTICE TO PROCEED

09.01 Within ten (10) calendar days after the date of the Notice of Award, the Contractor must provide the appropriate insurance certificates to the Town Purchasing Agent and shall be issued a Notice to Proceed and a Purchase Order prior to initiating any work on the project.

09.02 Work shall commence after the last day of school as described in the Notice to Proceed/Purchase Order.

09.03 After the work has begun, it will continue in an orderly fashion and shall be fully completed by August 18, 2010. The Engineer reserves the right to extend the contract an additional thirty (30) days by mutual written agreement.

10.00 MEASUREMENT AND PAYMENT

10.01 All direct, indirect, or incidental costs of work and/or services required by these specifications shall be included in the Lump Sum price.

10.02 Monthly progress payments will be made, based on the approved Schedule of Values, for work that has progressed in accordance with the contract documents, subject to a deduction of five percent (5%) of the amount of the application for payment to be retained by the Owner until completion of the entire contract in an acceptable manner and two and one half percent (2.5%) until the applicable one year warranty period has expired and all required inspections have been completed and results have been submitted and approved by the Engineer. **PLEASE NOTE: NO INVOICE WILL BE PAYABLE BEFORE JULY 1, 2010.**

11.00 COMPLIANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS

11.01 This award of bid is subject to the conformance of the Contractor to all Federal, State, and Local laws, statutes, regulations, ordinances or other requirements that are applicable to the type of work contained in these specifications.

INSERT PREVAILING WAGES HERE

Project: Hebron Avenue School Roof Replacement

**Minimum Rates and Classifications
for Building Construction**

B 13314

**Connecticut Department of Labor
Wage and Workplace Standards Division**

By virtue of the authority vested in the Labor Commissioner under provisions of Section 31-53 of the General Statutes of Connecticut, as amended, the following are declared to be the prevailing rates and welfare payments and will apply only where the contract is advertised for bid within 20 days of the date on which the rates are established. Any contractor or subcontractor not obligated by agreement to pay to the welfare and pension fund shall pay this amount to each employee as part of his/her hourly wages.

Project Number GL-2011-01
State#:

Project Town Glastonbury
FAP#

Project: Hebron Avenue School Roof Replacement

CLASSIFICATION	Hourly Rate	Benefits
1a) Asbestos Worker/Insulator (Includes application of insulating materials, protective coverings, coatings, & finishes to all types of mechanical systems; application of firestopping material for wall openings & penetrations in walls, floors, ceilings - Last updated 9/1/08	34.21	19.81
1b) Asbestos/Toxic Waste Removal Laborers: Asbestos removal and encapsulation (except its removal from mechanical systems which are not to be scrapped), toxic waste removers, blasters.**See Laborers Group 7**		
2) Boilermaker	34.94	19.00

As of: Wednesday, March 03, 2010

Project: Hebron Avenue School Roof Replacement

3a) Bricklayer, Cement Mason, Concrete Finisher (including caulking), Stone Masons	32.18	20.44 + a
3b) Tile Setter	30.78	16.98
3c) Terrazzo Workers, Marble Setters - Last updated 10/1/08	30.91	19.12
3d) Tile, Marble & Terrazzo Finishers	24.90	14.78
3e) Plasterer	32.18	20.44

-----LABORERS-----

As of: Wednesday, March 03, 2010

Project: Hebron Avenue School Roof Replacement

4) Group 1: Laborers (common or general), carpenter tenders, wrecking laborers, fire watchers.	24.25	14.45
4a) Group 2: Mortar mixers, plaster tender, power buggy operators, powdermen, fireproofers/mixer/nozzleman, fence erector.	24.50	14.45
4b) Group 3: Jackhammer operators, mason tender (brick) and mason tender (cement/concrete)	24.75	14.45
4c) **Group 4: Pipelayers (Installation of water, storm drainage or sewage lines outside of the building line with P6, P7 license) (the pipelayer rate shall apply only to one or two employees of the total crew who primary task is to actually perform the mating of pipe sections)[If using this classification call the Labor Department for clarification] Last updated 4/8/09	25.25	14.45
4d) Group 5: Air track operators, Sand blasters - Last updated 4/8/09	25.00	14.45
4e) Group 6: Nuclear toxic waste removers, blasters - Last updated 4/8/09	27.25	14.45

As of: Wednesday, March 03, 2010

Project: Hebron Avenue School Roof Replacement

4f) Group 7: Asbestos removal and encapsulation (except it's removal from mechanical systems which are not to be scrapped) - Last updated 4/5/09	25.25	14.45
4g) Group 8: Bottom men on open air caisson, cylindrical work and boring crew - Last updated 4/8/09	24.75	14.45
4h) Group 9: Top men on open air caisson, cylindrical work and boring crew - Last updated 4/8/09	24.25	14.45
5) Carpenter, Acoustical Ceiling Installation, Soft Floor/Carpet Laying, Metal Stud Installation, Form Work and Scaffold Building, Drywall Hanging, Modular-Furniture Systems Installers, Lathers, Piledrivers, Resilient Floor Layers.	29.00	17.80
5a) Millwrights	29.75	17.80
6) Electrical Worker (including low voltage wiring) (Trade License required: E1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9)	35.40	19.51

As of: Wednesday, March 03, 2010

Project: Hebron Avenue School Roof Replacement

7a) Elevator Mechanic (Trade License required: R-1,2,5,6)	43.57	20.035+a+b
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-----LINE CONSTRUCTION-----

Groundman	22.67	6.50% + 6.20
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Linemen/Cable Splicer	41.22	6.5% + 12.20
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8) Glazier (Trade License required: FG-1,2)	31.73	14.55 + a
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9) Ironworker, Ornamental, Reinforcing, Structural, and Precast Concrete Erection	32.75	25.08 + a
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As of: Wednesday, March 03, 2010

Project: Hebron Avenue School Roof Replacement

----OPERATORS----

Group 1: Crane handling or erecting structural steel or stone, hoisting engineer 2 drums or over, front end loader (7 cubic yards or over); work boat 26 ft. and over. (Trade License Required)	34.05	17.75 + a
Group 2: Cranes (100 ton rate capacity and over); Backhoe/Excavator over 2 cubic yards; Piledriver (\$3.00 premium when operator controls hammer). (Trade License Required)	33.73	17.75 + a
Group 3: Excavator, Backhoe/Excavator under 2 cubic yards; Cranes (under 100 ton rated capacity), Grader/Blade; Master Mechanic; Hoisting Engineer (all types of equipment where a drum and cable are used to hoist or drag material regardless of motive power of operation), Rubber Tire Excavator (Drott-1085 or similar); Grader Operator; Bulldozer Fine Grade. (slopes, shaping, laser or GPS, etc.).	32.99	17.75 + a
Group 4: Trenching Machines; Lighter Derrick; Concrete Finishing Machine; CMI Machine or Similar; Koehring Loader (Skooper).	32.60	17.75 + a
Group 5: Specialty Railroad Equipment; Asphalt Paver; Asphalt Reclaiming Machine; Line Grinder; Concrete Pumps; Drills with Self Contained Power Units; Boring Machine; Post Hole Digger; Auger; Pounder; Well Digger; Milling Machine (over 24" Mandrell)	32.01	17.75 + a

As of: Wednesday, March 03, 2010

Project: Hebron Avenue School Roof Replacement

Group 5 continued: Side Boom; Combination Hoe and Loader;
Directional Driller. 32.01 17.75 + a

Group 6: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough
grade dozer). 31.70 17.75 + a

Group 7: Asphalt roller, concrete saws and cutters (ride on types),
vermeer concrete cutter, Stump Grinder; Scraper; Snooper; Skidder;
Milling Machine (24" and under Mandrell). 31.36 17.75 + a

Group 8: Mechanic, grease truck operator, hydroblaster; barrier
mover; power stone spreader; welding; work boat under 26 ft.;
transfer machine. 30.96 17.75 + a

Group 9: Front end loader (under 3 cubic yards), skid steer loader
regardless of attachments, (Bobcat or Similar): forklift, power
chipper; landscape equipment (including Hydroseeder). 30.53 17.75 + a

Group 10: Vibratory hammer; ice machine; diesel and air, hammer,
etc. 28.49 17.75 + a

As of: Wednesday, March 03, 2010

Project: Hebron Avenue School Roof Replacement

Group 11: Conveyor, earth roller, power pavement breaker (whiphammer), robot demolition equipment.	28.49	17.75 + a
Group 12: Wellpoint operator.	28.43	17.75 + a
Group 13: Compressor battery operator.	27.85	17.75 + a
Group 14: Elevator operator; tow motor operator (solid tire no rough terrain).	26.71	17.75 + a
Group 15: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator.	26.30	17.75 + a
Group 16: Maintenance Engineer/Oiler.	25.65	17.75 + a

As of: Wednesday, March 03, 2010

Project: Hebron Avenue School Roof Replacement

Group 17: Portable asphalt plant operator; portable crusher plant operator; portable concrete plant operator.	29.96	17.75 + a
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Group 18: Power safety boat; vacuum truck; zim mixer; sweeper; (Minimum for any job requiring a CDL license).	27.54	17.75 + a
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-----PAINTERS (Including Drywall Finishing)-----

10a) Brush, Roller	28.17	14.55
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10b) Taper/Drywall Finisher	28.92	14.55
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10c) Paperhanger	28.67	14.55
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As of: Wednesday, March 03, 2010

Project: Hebron Avenue School Roof Replacement

10e) Spray	31.17	14.55
11) Plumber (excluding HVAC pipe installation) (Trade License required: P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2)	36.32	21.26
12) Post Digger, Well Digger, Pile Testing Machine	32.01	17.75 + a
13) Roofer (composition)	31.10	15.31
14) Roofer (slate & tile)	31.60	15.31
15) Sheetmetal Worker (Trade License required for HVAC and Ductwork: SM-1,SM-2,SM-3,SM-4,SM-5,SM-6)	31.57	25.92

As of: Wednesday, March 03, 2010

Project: Hebron Avenue School Roof Replacement

16) Pipefitter (Including HVAC work) (Trade License required: S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4, G-1, G-2, G-8 & G-9)	36.32	21.26
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-----TRUCK DRIVERS-----

17a) 2 Axle	26.98	13.48 + a
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17b) 3 Axle, 2 Axle Ready Mix	27.08	13.48 + a
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17c) 3 Axle Ready Mix	27.13	13.48 + a
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17d) 4 Axle, Heavy Duty Trailer up to 40 tons	27.18	13.48 + a
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As of: Wednesday, March 03, 2010

Project: Hebron Avenue School Roof Replacement

17e) 4 Axle Ready Mix	27.23	13.48 + a
17f) Heavy Duty Trailer (40 Tons and Over)	27.43	13.48 + a
17g) Specialized Earth Moving Equipment (Other Than Conventional Type on-the-Road Trucks and Semi-Trailers, Including Euclids)	27.23	13.48 + a
18) Sprinkler Fitter (Trade License required: F-1,2,3,4)	40.50	16.85 + a

As of: Wednesday, March 03, 2010

Project: Hebron Avenue School Roof Replacement

Welders: Rate for craft to which welding is incidental.

**Note: Hazardous waste removal work receives additional \$1.25 per hour for truck drivers.*

***Note: Hazardous waste premium \$3.00 per hour over classified rate*

- Crane with 150 ft. boom (including jib) - \$1.50 extra
- Crane with 200 ft. boom (including jib) - \$2.50 extra
- Crane with 250 ft. boom (including jib) - \$5.00 extra
- Crane with 300 ft. boom (including jib) - \$7.00 extra
- Crane with 400 ft. boom (including jib) - \$10.00 extra

All classifications that indicate a percentage of the fringe benefits must be calculated at the percentage rate times the "base hourly rate".

Apprentices duly registered under the Commissioner of Labor's regulations on "Work Training Standards for Apprenticeship and Training Programs" Section 31-51-d-1 to 12, are allowed to be paid the appropriate percentage of the prevailing journeymen hourly base and the full fringe benefit rate, providing the work site ratio shall not be less than one full-time journeyman instructing and supervising the work of each apprentice in a specific trade.

The Prevailing wage rates applicable to this project are subject to annual adjustments each July 1st for the duration of the project.

Each contractor shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.

It is the contractor's responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's website.

The annual adjustments will be posted on the Department of Labor's Web page: www.ct.gov/dol

The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project.

All subsequent annual adjustments will be posted on our Web Site for contractor access.

As of: Wednesday, March 03, 2010

Project: Hebron Avenue School Roof Replacement

Effective October 1, 2005 - Public Act 05-50: any person performing the work of any mechanic, laborer, or worker shall be paid prevailing wage

All Person who perform work ON SITE must be paid prevailing wage for the appropriate mechanic, laborer, or worker classification.

All certified payrolls must list the hours worked and wages paid to All Persons who perform work ON SITE regardless of their ownership i.e.: (Owners, Corporate Officers, LLC Members, Independent Contractors, et. al)

Reporting and payment of wages is required regardless of any contractual relationship alleged to exist between the contractor and such person.

~~Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clause (29 CFR 5.5 (a) (1) (ii)).

Please direct any questions which you may have pertaining to classification of work and payment of prevailing wages to the Wage and Workplace Standards Division, telephone (860)263-6790.

As of: Wednesday, March 03, 2010

November 29, 2006

Notice
To All Mason Contractors and Interested Parties
Regarding Construction Pursuant to Section 31-53 of the
Connecticut General Statutes (Prevailing Wage)

The Connecticut Labor Department Wage and Workplace Standards Division is empowered to enforce the prevailing wage rates on projects covered by the above referenced statute.

Over the past few years the Division has withheld enforcement of the rate in effect for workers who operate a forklift on a prevailing wage rate project due to a potential jurisdictional dispute.

The rate listed in the schedules and in our Occupational Bulletin (see enclosed) has been as follows:

Forklift Operator:

- **Laborers (Group 4) Mason Tenders** - operates forklift solely to assist a mason to a maximum height of nine feet only.

- **Power Equipment Operator (Group 9)** - operates forklift to assist any trade and to assist a mason to a height over nine feet.

The U.S. Labor Department conducted a survey of rates in Connecticut but it has not been published and the rate in effect remains as outlined in the above Occupational Bulletin.

Since this is a classification matter and not one of jurisdiction, effective January 1, 2007 the Connecticut Labor Department will enforce the rate on each schedule in accordance with our statutory authority.

Your cooperation in filing appropriate and accurate certified payrolls is appreciated.

Sec. 31-53b. Construction safety and health course. New miner training program. Proof of completion required for mechanics, laborers and workers on public works projects. Enforcement. Regulations. Exceptions.

(a) Each contract for a public works project entered into on or after July 1, 2009, by the state or any of its agents, or by any political subdivision of the state or any of its agents, described in subsection (g) of section 31-53, shall contain a provision requiring that each contractor furnish proof with the weekly certified payroll form for the first week each employee begins work on such project that any person performing the work of a mechanic, laborer or worker pursuant to the classifications of labor under section 31-53 on such public works project, pursuant to such contract, has completed a course of at least ten hours in duration in construction safety and health approved by the federal Occupational Safety and Health Administration or, has completed a new miner training program approved by the Federal Mine Safety and Health Administration in accordance with 30 CFR 48 or, in the case of telecommunications employees, has completed at least ten hours of training in accordance with 29 CFR 1910.268.

(b) Any person required to complete a course or program under subsection (a) of this section who has not completed the course or program shall be subject to removal from the worksite if the person does not provide documentation of having completed such course or program by the fifteenth day after the date the person is found to be in noncompliance. The Labor Commissioner or said commissioner's designee shall enforce this section.

(c) Not later than January 1, 2009, the Labor Commissioner shall adopt regulations, in accordance with the provisions of chapter 54, to implement the provisions of subsections (a) and (b) of this section. Such regulations shall require that the ten-hour construction safety and health courses required under subsection (a) of this section be conducted in accordance with federal Occupational Safety and Health Administration Training Institute standards, or in accordance with Federal Mine Safety and Health Administration Standards or in accordance with 29 CFR 1910.268, as appropriate. The Labor Commissioner shall accept as sufficient proof of compliance with the provisions of subsection (a) or (b) of this section a student course completion card issued by the federal Occupational Safety and Health Administration Training Institute, or such other proof of compliance said commissioner deems appropriate, dated no earlier than five years before the commencement date of such public works project.

(d) This section shall not apply to employees of public service companies, as defined in section 16-1, or drivers of commercial motor vehicles driving the vehicle on the public works project and delivering or picking up cargo from public works projects provided they perform no labor relating to the project other than the loading and unloading of their cargo.

(P.A. 06-175, S. 1; P.A. 08-83, S. 1.)

History: P.A. 08-83 amended Subsec. (a) by making provisions applicable to public works project contracts entered into on or after July 1, 2009, replacing provision re total cost of work with reference to Sec. 31-53(g), requiring proof in certified payroll form that new mechanic, laborer or worker has completed a 10-hour or more construction safety course and adding provision re new miner training program, amended Subsec. (b) by substituting "person" for "employee" and adding "or program", amended Subsec. (c) by adding "or in accordance with Federal Mine

Safety and Health Administration Standards" and setting new deadline of January 1, 2009, deleted former Subsec. (d) re "public building", added new Subsec. (d) re exemptions for public service company employees and delivery drivers who perform no labor other than delivery and made conforming and technical changes, effective January 1, 2009.

Informational Bulletin

THE 10-HOUR OSHA CONSTRUCTION SAFETY AND HEALTH COURSE

(applicable to public building contracts entered into *on or after July 1, 2007*, where the total cost of all work to be performed is at least \$100,000)

- (1) This requirement was created by Public Act No. 06-175, which is codified in Section 31-53b of the Connecticut General Statutes (pertaining to the prevailing wage statutes);
- (2) The course is required for public building construction contracts (projects funded in whole or in part by the state or any political subdivision of the state) entered into on or after July 1, 2007;
- (3) It is required of private employees (not state or municipal employees) and apprentices who perform manual labor for a general contractor or subcontractor on a public building project where the total cost of all work to be performed is at least \$100,000;
- (4) The ten-hour construction course pertains to the ten-hour Outreach Course conducted in accordance with federal OSHA Training Institute standards, and, for telecommunications workers, a ten-hour training course conducted in accordance with federal OSHA standard, 29 CFR 1910.268;
- (5) The internet website for the federal OSHA Training Institute is http://www.osha.gov/fso/ote/training/edcenters/fact_sheet.html;
- (6) The statutory language leaves it to the contractor and its employees to determine who pays for the cost of the ten-hour Outreach Course;
- (7) Within 30 days of receiving a contract award, a general contractor must furnish proof to the Labor Commissioner that all employees and apprentices performing manual labor on the project will have completed such a course;
- (8) Proof of completion may be demonstrated through either: (a) the presentation of a *bona fide* student course completion card issued by the federal OSHA Training Institute; *or* (2) the presentation of documentation provided to an employee by a trainer certified by the Institute pending the actual issuance of the completion card;
- (9) Any card with an issuance date more than 5 years prior to the commencement date of the construction project shall not constitute proof of compliance;

- (10) Each employer shall affix a copy of the construction safety course completion card to the certified payroll submitted to the contracting agency in accordance with Conn. Gen. Stat. § 31-53(f) on which such employee's name first appears;
- (11) Any employee found to be in non-compliance shall be subject to removal from the worksite if such employee does not provide satisfactory proof of course completion to the Labor Commissioner by the fifteenth day after the date the employee is determined to be in noncompliance;
- (12) Any such employee who is determined to be in noncompliance may continue to work on a public building construction project for a maximum of fourteen consecutive calendar days while bringing his or her status into compliance;
- (13) The Labor Commissioner may make complaint to the prosecuting authorities regarding any employer or agent of the employer, or officer or agent of the corporation who files a false certified payroll with respect to the status of an employee who is performing manual labor on a public building construction project;
- (14) The statute provides the minimum standards required for the completion of a safety course by manual laborers on public construction contracts; any contractor can exceed these minimum requirements; and
- (15) Regulations clarifying the statute are currently in the regulatory process, and shall be posted on the CTDOL website as soon as they are adopted in final form.
- (16) Any questions regarding this statute may be directed to the Wage and Workplace Standards Division of the Connecticut Labor Department via the internet website of <http://www.ctdol.state.ct.us/wgwkstnd/wgemenu.htm>; or by telephone at (860)263-6790.

THE ABOVE INFORMATION IS PROVIDED EXCLUSIVELY AS AN EDUCATIONAL RESOURCE, AND IS NOT INTENDED AS A SUBSTITUTE FOR LEGAL INTERPRETATIONS WHICH MAY ULTIMATELY ARISE CONCERNING THE CONSTRUCTION OF THE STATUTE OR THE REGULATIONS.

Statute 31-55a

Last Updated: July 13, 2009

You are here: [DOL Web Site](#) » [Wage and Workplace Standards](#) » Statute 31-55a

- Special Notice -

To All State and Political Subdivisions, Their Agents, and Contractors

Connecticut General Statute 31-55a - Annual adjustments to wage rates by contractors doing state work.

Each contractor that is awarded a contract on or after October 1, 2002, for (1) the construction of a state highway or bridge that falls under the provisions of section 31-54 of the general statutes, or (2) the construction, remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public works project that falls under the provisions of section 31-53 of the general statutes shall contact the Labor Commissioner on or before July first of each year, for the duration of such contract, to ascertain the prevailing rate of wages on an hourly basis and the amount of payment or contributions paid or payable on behalf of each mechanic, laborer or worker employed upon the work contracted to be done, and shall make any necessary adjustments to such prevailing rate of wages and such payment or contributions paid or payable on behalf of each such employee, effective each July first.

- The prevailing wage rates applicable to any contract or subcontract awarded on or after October 1, 2002 are subject to annual adjustments each July 1st for the duration of any project which was originally advertised for bids on or after October 1, 2002.
- Each contractor affected by the above requirement shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.
- It is the **contractor's** responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's Web Site. The annual adjustments will be posted on the Department of Labor Web page: www.ctdol.state.ct.us. For those without internet access, please contact the division listed below.
- The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project. All subsequent annual adjustments will be posted on our Web Site for contractor access.

Any questions should be directed to the Contract Compliance Unit, Wage and Workplace Standards Division, Connecticut Department of Labor, 200 Folly Brook Blvd., Wethersfield, CT 06109 at (860)263-6790.

←-- [Workplace Laws](#)


Published by the Connecticut Department of Labor, Project Management Office

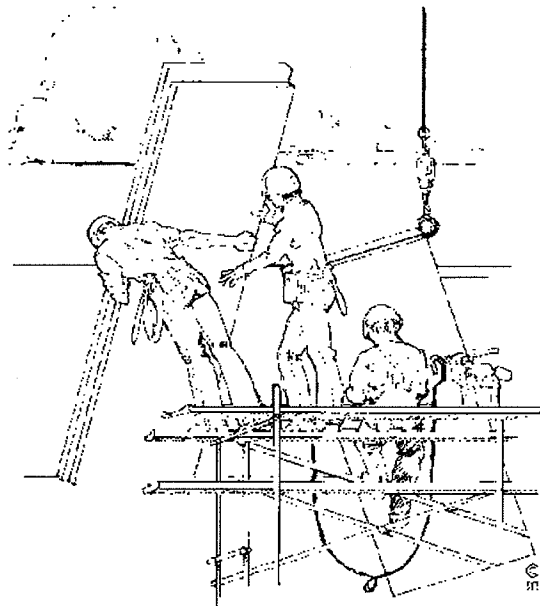
~NOTICE~

TO ALL CONTRACTING AGENCIES

Please be advised that Connecticut General Statutes Section 31-53, requires the contracting agency to certify to the Department of Labor, the total dollar amount of work to be done in connection with such public works project, regardless of whether such project consists of one or more contracts.

Please find the attached "Contracting Agency Certification Form" to be completed and returned to the Department of Labor, Wage and Workplace Standards Division, Public Contract Compliance Unit.

 Inquiries can be directed to (860)263-6543.



CONNECTICUT DEPARTMENT OF LABOR
WAGE AND WORKPLACE STANDARDS DIVISION
CONTRACT COMPLIANCE UNIT

CONTRACTING AGENCY CERTIFICATION FORM

I, _____, acting in my official capacity as _____,
authorized representative title

for _____, located at _____,
contracting agency address

do hereby certify that the total dollar amount of work to be done in connection with

_____, located at _____,
project name and number address

shall be \$ _____, which includes all work, regardless of whether such project
consists of one or more contracts.

CONTRACTOR INFORMATION

Name: _____

Address: _____

Authorized Representative: _____

Approximate Starting Date: _____

Approximate Completion Date: _____

Signature

Date

Return To: Connecticut Department of Labor
Wage & Workplace Standards Division
Contract Compliance Unit
200 Folly Brook Blvd.
Wethersfield, CT 06109

Date Issued: _____

CONNECTICUT DEPARTMENT OF LABOR
WAGE AND WORKPLACE STANDARDS DIVISION

CONTRACTORS WAGE CERTIFICATION FORM

I, _____ of _____
Officer, Owner, Authorized Rep. Company Name

do hereby certify that the _____
Company Name

Street

City

and all of its subcontractors will pay all workers on the

Project Name and Number

Street and City

the wages as listed in the schedule of prevailing rates required for such project (a copy of which is attached hereto).

Signed

Subscribed and sworn to before me this _____ day of _____, _____.

Notary Public

Return to:
Connecticut Department of Labor
Wage & Workplace Standards Division
200 Folly Brook Blvd.
Wethersfield, CT 06109

Rate Schedule Issued (Date): _____

[New] In accordance with Section 31-53b(a) of the C.G.S. each contractor shall provide a copy of the OSHA 10 Hour Construction Safety and Health Card for each employee, to be attached to the first certified payroll on the project.

PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS

In accordance with Connecticut General Statutes, 31-53 Certified Payrolls with a statement of compliance shall be submitted monthly to the contracting agency.

Connecticut Department of Labor
Wage and Workplace Standards Division
200 Folly Brook Blvd.
Wethersfield, CT 06109

WEEKLY PAYROLL

CONTRACTOR NAME AND ADDRESS: _____ SUBCONTRACTOR NAME & ADDRESS _____

WORKER'S COMPENSATION INSURANCE CARRIER _____

PAYROLL NUMBER _____ PROJECT NAME & ADDRESS _____

POLICY # _____

EFFECTIVE DATE: _____
EXPIRATION DATE: _____

PERSON/WORKER, ADDRESS and SECTION	Week-Ending Date	APPR RATE %	MALE/FEMALE AND RACE*	WORK CLASSIFICATION Trade License Type & Number - OSHA 10 Certification Number	DAY AND DATE							Total ST Hours	Total O-TIME Hours	BASE HOURLY RATE	TYPE OF FRINGE BENEFITS Per Hour 1 through 6 (see back)	GROSS PAY FOR ALL WORK PERFORMED THIS WEEK	TOTAL DEDUCTIONS			GROSS PAY FOR THIS PREVAILING RATE JOB	CHECK # AND NET PAY				
					S	M	T	W	TH	F	S						FEDERAL STATE	WITH-HOLDING	LIST OTHER						
HOURS WORKED EACH DAY														GROSS PAY FOR ALL WORK PERFORMED THIS WEEK	FICA	WITH-HOLDING	LIST OTHER	GROSS PAY FOR THIS PREVAILING RATE JOB	CHECK # AND NET PAY						
													S-TIME	1. \$											
													O-TIME	2. \$											
													S-TIME	3. \$											
													O-TIME	4. \$											
													S-TIME	5. \$											
													O-TIME	6. \$											

7/13/2009 *IF REQUIRED

WWS-CPI *SEE REVERSE SIDE

PAGE NUMBER _____ OF _____

OSHA 10 ~ ATTACH CARD TO 1ST CERTIFIED PAYROLL

***FRINGE BENEFITS EXPLANATION (P):**

Bona fide benefits paid to approved plans, funds or programs, except those required by Federal or State Law (unemployment tax, worker's compensation, income taxes, etc.).

Please specify the type of benefits provided:

- 1) Medical or hospital care _____
- 2) Pension or retirement _____
- 3) Life Insurance _____
- 4) Disability _____
- 5) Vacation, holiday _____
- 6) Other (please specify) _____

CERTIFIED STATEMENT OF COMPLIANCE

For the week ending date of _____,

I, _____ of _____, (hereafter known as Employer) in my capacity as _____ (title) do hereby certify and state:

Section A:

1. All persons employed on said project have been paid the full weekly wages earned by them during the week in accordance with Connecticut General Statutes, section 31-53, as amended. Further, I hereby certify and state the following:

- a) The records submitted are true and accurate;
- b) The rate of wages paid to each mechanic, laborer or workman and the amount of payment or contributions paid or payable on behalf of each such employee to any employee welfare fund, as defined in Connecticut General Statutes, section 31-53 (h), are not less than the prevailing rate of wages and the amount of payment or contributions paid or payable on behalf of each such employee to any employee welfare fund, as determined by the Labor Commissioner pursuant to subsection Connecticut General Statutes, section 31-53 (d), and said wages and benefits are not less than those which may also be required by contract;
- c) The Employer has complied with all of the provisions in Connecticut General Statutes, section 31-53 (and Section 31-54 if applicable for state highway construction);
- d) Each such employee of the Employer is covered by a worker's compensation insurance policy for the duration of his employment which proof of coverage has been provided to the contracting agency;
- e) The Employer does not receive kickbacks, which means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided directly or indirectly, to any prime contractor, prime contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a prime contractor in connection with a subcontractor relating to a prime contractor; and
- f) The Employer is aware that filing a certified payroll which he knows to be false is a class D felony for which the employer may be fined up to five thousand dollars, imprisoned for up to five years or both.

2. OSHA~The employer shall affix a copy of the construction safety course, program or training completion document to the certified payroll required to be submitted to the contracting agency for this project on which such employee's name first appears.

(Signature) (Title) Submitted on (Date)

Section B: Applies to CONNDOT Projects ONLY

That pursuant to CONNDOT contract requirements for reporting purposes only, all employees listed under Section B who performed work on this project are not covered under the prevailing wage requirements defined in Connecticut General Statutes Section 31-53.

(Signature) (Title) Submitted on (Date)

Note: CTDOL will assume all hours worked were performed under Section A unless clearly delineated as Section B WWS-CP1 as such. Should an employee perform work under both Section A and Section B, the hours worked and wages paid must be segregated for reporting purposes.

*****THIS IS A PUBLIC DOCUMENT***
DO NOT INCLUDE SOCIAL SECURITY NUMBERS**

[New] In accordance with Section 31-53b(e) of the C.G.S. each contractor shall provide a copy of the OSHA 10 Hour Construction Safety and Health Card for each employee, to be attached to the first certified payroll on the project.

PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS															
In accordance with Connecticut General Statutes, 31-53 Certified Payrolls with a statement of compliance shall be submitted monthly to the contracting agency.				Connecticut Department of Labor Wage and Workplace Standards Division 200 Folly Brook Blvd. Waterbury, CT 06109											
CONTRACTOR NAME AND ADDRESS: Landon Corporation, 15 Connecticut Avenue, Northford, CT 06472				WORKERS COMPENSATION INSURANCE CARRIER: Travelers Insurance Company POLICY # #BAC888928 EFFECTIVE DATE: 1/1/09 EXPIRATION DATE: 12/31/09											
SUBCONTRACTOR NAME & ADDRESS: XYZ Corporation 2 Main Street Yantic, CT 06389				WEEKLY PAYROLL											
PAYROLL NUMBER	Week-Ending Date	APPR RATE %	MALE/FEMALE AND RACE*	PROJECT NAME & ADDRESS											
				DOT 105-296, Route 82											
PERSON/WORKER ADDRESS and SECTION	WORK CLASSIFICATION	DAY AND DATE							Total ST Hours						
		S	M	T	W	TH	F	S							
				HOURS WORKED EACH DAY											
				S-TIME	O-TIME						Total O/T Hours				
				40											
1	9/26/09			20	21	22	23	24	25	26					
Robert Craft 81 Maple Street Williamlic, CT 06226	M/C			8	8	8	8	8	8	8					
WORK CLASSIFICATION Electrical Lineman E-1 1234567 Owner OSHA 123456				TOTAL FRINGE BENEFIT PLAN CASH \$ 30.75 Base Rate \$ 8.82 Cash Fringe		TYPE OF FRINGE BENEFITS Per Hour 1 through 6 (see back) 1. \$ 5.80 2. \$ 3. \$ 2.01 4. \$ 5. \$ 6. \$		GROSS PAY FOR ALL WORK PERFORMED THIS WEEK \$1,582.80		TOTAL DEDUCTIONS FEDERAL STATE WITH- HOLDING WITH- HOLDING FICA		GROSS PAY FOR THIS PREVAILING RATE JOB \$1,582.80		CHECK # AND NET PAY #123 \$ xxx.xx	
Ronald Jones 212 Elm Street Norwich, CT 06360	M/B	65%		8	8	8	8	8	8	8					
WORK CLASSIFICATION Electrical Apprentice OSHA 234567				TOTAL FRINGE BENEFIT PLAN CASH \$ 19.99 Base Rate \$ 16.63 Cash Fringe		TYPE OF FRINGE BENEFITS Per Hour 1 through 6 (see back) 1. \$ 2. \$ 3. \$ 4. \$ 5. \$ 6. \$		GROSS PAY FOR ALL WORK PERFORMED THIS WEEK \$1,464.80		TOTAL DEDUCTIONS FEDERAL STATE WITH- HOLDING WITH- HOLDING FICA		GROSS PAY FOR THIS PREVAILING RATE JOB \$1,464.80		CHECK # AND NET PAY #124 \$xxx.xx	
Franklin T. Smith 234 Washington Rd. New London, CT 06320 SECTION B	M/H			8											
WORK CLASSIFICATION Project Manager				TOTAL FRINGE BENEFIT PLAN CASH \$ Base Rate \$ Cash Fringe		TYPE OF FRINGE BENEFITS Per Hour 1 through 6 (see back) 1. \$ 2. \$ 3. \$ 4. \$ 5. \$ 6. \$		GROSS PAY FOR ALL WORK PERFORMED THIS WEEK \$1,500.00		TOTAL DEDUCTIONS FEDERAL STATE WITH- HOLDING WITH- HOLDING FICA		GROSS PAY FOR THIS PREVAILING RATE JOB \$1,500.00		CHECK # AND NET PAY #125 xxx.xx	

7/13/2009
 WWS-CPI
 *IF REQUIRED
 *SEE REVERSE SIDE
 PAGE NUMBER 1 OF 2

OSHA 10 ~ ATTACH CARD TO 1ST CERTIFIED PAYROLL

***FRINGE BENEFITS EXPLANATION (P):**

Bona fide benefits paid to approved plans, funds or programs, except those required by Federal or State Law (unemployment tax, worker's compensation, income taxes, etc.).

Please specify the type of benefits provided:

- 1) Medical or hospital care Blue Cross 4) Disability _____
- 2) Pension or retirement _____ 5) Vacation, holiday _____
- 3) Life Insurance Utopia 6) Other (please specify) _____

CERTIFIED STATEMENT OF COMPLIANCE

For the week ending date of 9/26/09

I, Robert Craft of XYZ Corporation, (hereafter known as Employer) in my capacity as Owner (title) do hereby certify and state:

Section A:

1. All persons employed on said project have been paid the full weekly wages earned by them during the week in accordance with Connecticut General Statutes, section 31-53, as amended. Further, I hereby certify and state the following:
 - a) The records submitted are true and accurate;
 - b) The rate of wages paid to each mechanic, laborer or workman and the amount of payment or contributions paid or payable on behalf of each such employee to any employee welfare fund, as defined in Connecticut General Statutes, section 31-53 (h), are not less than the prevailing rate of wages and the amount of payment or contributions paid or payable on behalf of each such employee to any employee welfare fund, as determined by the Labor Commissioner pursuant to subsection Connecticut General Statutes, section 31-53 (d), and said wages and benefits are not less than those which may also be required by contract;
 - c) The Employer has complied with all of the provisions in Connecticut General Statutes, section 31-53 (and Section 31-54 if applicable for state highway construction);
 - d) Each such employee of the Employer is covered by a worker's compensation insurance policy for the duration of his employment which proof of coverage has been provided to the contracting agency;
 - e) The Employer does not receive kickbacks, which means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided directly or indirectly, to any prime contractor, prime contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a prime contractor in connection with a subcontractor relating to a prime contractor; and
 - f) The Employer is aware that filing a certified payroll which he knows to be false is a class D felony for which the employer may be fined up to five thousand dollars, imprisoned for up to five years or both.

2. OSHA~The employer shall affix a copy of the construction safety course, program or training completion document to the certified payroll required to be submitted to the contracting agency for this project on which such employee's name first appears.

Robert Craft owner 10/2/09
 (Signature) (Title) Submitted on (Date)

Section B: Applies to CONNDOT Projects ONLY
 That pursuant to CONNDOT contract requirements for reporting purposes only, all employees listed under Section B who performed work on this project are not covered under the prevailing wage requirements defined in Connecticut General Statutes Section 31-53.

Robert Craft owner 10/2/09
 (Signature) (Title) Submitted on (Date)

Note: CTDOL will assume all hours worked were performed under Section A unless clearly delineated as Section B WWS-CPI as such. Should an employee perform work under both Section A and Section B, the hours worked and wages paid must be segregated for reporting purposes.

*****THIS IS A PUBLIC DOCUMENT***
 DO NOT INCLUDE SOCIAL SECURITY NUMBERS**

Information Bulletin ***Occupational Classifications***

The Connecticut Department of Labor has the responsibility to properly determine "job classification" on prevailing wage projects covered under C.G.S. Section 31-53.

♪ Note: This information is intended to provide a sample of some occupational classifications for guidance purposes only. It is not an all-inclusive list of each occupation's duties. This list is being provided only to highlight some areas where a contractor may be unclear regarding the proper classification.

Below are additional clarifications of specific job duties performed for certain classifications:

Asbestos Insulator

- Handle, install, apply, fabricate, distribute, prepare, alter, repair, or dismantle heat and frost insulation, including penetration and fire stopping work on all penetration fire stop systems.

Carpenter

- Assembly and installation of modular furniture/furniture systems.
[New] a. Free-standing furniture is not covered. This includes: student chairs, study top desks, book box desks, computer furniture, dictionary stand, atlas stand, wood shelving, two- position information access station, file cabinets, storage cabinets, tables, etc.
- Applies fire stopping materials on fire resistive joint systems only.
- Installation of insulated material of all types whether blown, nailed or attached in other ways to walls, ceilings and floors of buildings.
- Installation of curtain/window walls only where attached to wood or metal studs.

Cleaning Laborer

- The clean up of any construction debris and the general cleaning, including sweeping, wash down, mopping, wiping of the construction facility, washing, polishing, dusting, etc., prior to the issuance of a certificate of occupancy falls under the *Labor classification*.

Delivery Personnel (Revised)

- If delivery of supplies/building materials is to one common point and stockpiled there, prevailing wages are not required. If the delivery personnel are involved in the distribution of the material to multiple locations within the construction site then they would have to be paid prevailing wages for the type of work performed: laborer, equipment operator, electrician, ironworker, plumber, etc.
- An example of this would be where delivery of drywall is made to a building and the delivery personnel distribute the drywall from one "stockpile" location to further sub-locations on each floor. Distribution of material around a construction site is the job of a laborer/tradesman and not a delivery personnel.

Electrician

- Installation or maintenance of telecommunication, LAN wiring or computer equipment.
- Low voltage wiring.

Fork Lift Operator

- Laborers Group 4) Mason Tenders - operates forklift solely to assist a mason to a maximum height of nine (9) feet only.
- Power Equipment Operator Group 9 - operates forklift to assist any trade, and to assist a mason to a height over nine (9) feet.

Glaziers

- Installs light metal sash, head sills, and 2-story aluminum storefronts.
- Installation of aluminum window walls and curtain walls is the 'joint work' of the Glaziers and Ironworkers classification which requires either a blended rate or equal composite workforce.

Ironworkers

- Handling, sorting, and installation of reinforcing steel (rebar).
- Installation of aluminum window walls and curtain walls is the "joint work" of the Glaziers and Ironworkers classification which requires either a blended rate or equal composite workforce. Insulated metal and insulated composite panels are still installed by the Ironworker.
- Metal bridge rail (traffic), metal bridge handrail, and decorative security fence installation.

Insulator

- Installing fire stopping systems/materials for "Penetration Firestop Systems": transit to cables, electrical conduits, insulated pipes, sprinkler pipe penetrations, ductwork behind radiation, electrical cable trays, fire rated pipe penetrations, natural polypropylene, HVAC ducts, plumbing bare metal, telephone and communication wires, and boiler room ceilings. Past practice using the applicable licensed trades, Plumber, Sheet Metal, Sprinkler Fitter, and Electrician, is not inconsistent with the Insulator classification and would be permitted.

Lead Paint Removal

- Painter Rate
 1. Removal of lead paint from bridges.
 2. Removal of lead paint as preparation of any surface to be repainted.
 3. Where removal is on a Demolition project prior to reconstruction.
- Laborer Rate
 1. Removal of lead paint from any surface NOT to be repainted.
 2. Where removal is on a *TOTAL* Demolition project only.

Roofers


- Preparation of surface, tear-off and/or removal of any type of roofing, and/or clean-up of any areas where a roof is to be relaid.

Sheet Metal Worker

- Fabrication, handling, assembling, erecting, altering, repairing, etc. of coated metal material panels and composite metal material panels when used on building exteriors and interiors as soffits, fascia, louvers, partitions, wall panel siding, canopies, cornice, column covers, awnings, beam covers, cladding, sun shades, lighting troughs, spires, ornamental roofing, metal ceilings, mansards, copings, ornamental and ventilation hoods, vertical and horizontal siding panels, trim, etc. The sheet metal classification also applies to the vast variety of coated metal material panels and composite metal material panels that have evolved over the years as an alternative to conventional ferrous and non-ferrous metals like steel, iron, tin, copper, brass, bronze, aluminum, etc. Insulated metal and insulated composite panels are still installed by the Iron Worker. Fabrication, handling, assembling, erecting, altering, repairing, etc. of architectural metal roof, standing seam roof, composite metal roof, metal and composite bathroom/toilet partitions, aluminum gutters, metal and composite lockers and shelving, kitchen equipment, and walk-in coolers.

Truck Drivers

- Truck Drivers delivering asphalt are covered under prevailing wage while on the site and directly involved in the paving operation.
- Material men and deliverymen are not covered under prevailing wage as long as they are not directly involved in the construction process. If, they unload the material, they would then be covered by prevailing wage for the classification they are performing work in: laborer, equipment operator, etc.
- Hauling material off site is not covered provided they are not dumping it at a location outlined above.
- Driving a truck on site and moving equipment or materials on site would be considered covered work, as this is part of the construction process.

 Any questions regarding the proper classification should be directed to the Contract Compliance Unit, Wage and Workplace Standards Division, Connecticut Department of Labor, 200 Folly Brook Blvd, Wethersfield, CT 06 109 at (860) 263-6543.

Connecticut Department of Labor
Wage and Workplace Standards Division
FOOTNOTES

Please Note: If the "Benefits" listed on the schedule for the following occupations includes a letter(s) (+ a or + a+b for instance), refer to the information below.

Benefits to be paid at the appropriate prevailing wage rate for the listed occupation.

If the "Benefits" section for the occupation lists only a dollar amount, disregard the information below.

**Bricklayers, Cement Masons, Cement Finishers, Concrete Finishers (including caulking),
Stone Masons
(Building Construction) and
(Residential- Hartford, Middlesex, New Haven, New London and Tolland Counties)**

- a. Paid Holiday: Employees shall receive 4 hours for Christmas Eve holiday provided the employee works the regularly scheduled day before and after the holiday. Employers may schedule work on Christmas Eve and employees shall receive pay for actual hours worked in addition to holiday pay.

Bricklayer (Residential- Fairfield County)

- a. Paid Holiday: If an employee works on Christmas Eve until noon he shall be paid for 8 hours.

Electricians

Fairfield County: West of the Five Mile River in Norwalk

- a. \$2.00 per hour not to exceed \$14.00 per day.

Elevator Constructors: Mechanics

- a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day, plus the Friday after Thanksgiving.
- b. Vacation: Employer contributes 8% of basic hourly rate for 5 years or more of service or 6% of basic hourly rate for 6 months to 5 years of service as vacation pay credit.

Glaziers

- a. Paid Holidays: Labor Day and Christmas Day.

Power Equipment Operators
(Heavy and Highway Construction & Building Construction)

- a. Paid Holidays: New Year's Day, Good Friday, Memorial day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, provided the employee works 3 days during the week in which the holiday falls, if scheduled, and if scheduled, the working day before and the working day after the holiday. Holidays falling on Saturday may be observed on Saturday, or if the employer so elects, on the preceding Friday.

Ironworkers

- a. Paid Holiday: Labor Day provided employee has been on the payroll for the 5 consecutive work days prior to Labor Day.

Laborers (Tunnel Construction)

- a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. No employee shall be eligible for holiday pay when he fails, without cause, to work the regular work day preceding the holiday or the regular work day following the holiday.

Roofers

- a. Paid Holidays: July 4th, Labor Day, and Christmas Day provided the employee is employed 15 days prior to the holiday.

Sprinkler Fitters

- a. Paid Holidays: Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day, provided the employee has been in the employment of a contractor 20 working days prior to any such paid holiday.

Truck Drivers

(Heavy and Highway Construction & Building Construction)

- a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas day, and Good Friday, provided the employee has at least 31 calendar days of service and works the last scheduled day before and the first scheduled day after the holiday, unless excused.

**Hebron Avenue School Roof Replacement
LIST OF DRAWINGS**

BID #GL-2011-01

R.100 TITLE PAGE

R.101 ALL ROOFS

R.102 SECTION 1

R.103 SECTION 2

R.104 SECTION 3

R.105 SECTION 4

R.106 SECTION 5 & 6

R.501 DETAILS

R.502 DETAILS

R.503 DETAILS

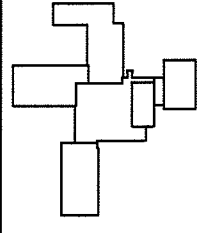
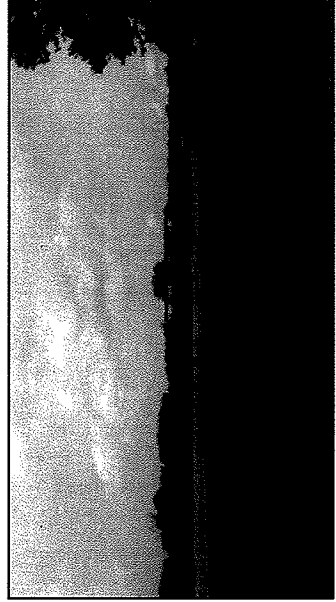
R.504 DETAILS

R.505 DETAILS

R.506 DETAILS

TAKE OFF RECORD

HEBRON AVE SCHOOL
1323 HEBRON AVE.
GLASTONBURY, CT 06033



HEBRON AVE SCHOOL
1323 HEBRON AVE.
GLASTONBURY, CT 06033
PROJECT # GL-2011-01

SCALE:

DWG # 1 OF 13

KEY DRAWING

DRAWING # :	R.100 - TITLE PAGE
DATE :	2.23.10
DRAWN BY :	KM
REVISION #1	2.26.10
REVISION #2	-
REVISION #3	-



SR PRODUCTS
CUSTOMER SATISFACTION
SINCE 1980

30505 BAINBRIDGE RD., SUITE 210
SOLON, OHIO 44139
440.248.0220

TABLE OF CONTENTS

PAGE #	DRAWING NUMBER	AREA
PAGE 1	R.100 - TITLE PAGE	-
PAGE 2	R.101 - ALL ROOFS	53,111.41 SF
PAGE 3	R.102 - SECTION 1	10,710.00 SF
PAGE 4	R.103 - SECTION 2	12,363.00 SF
PAGE 5	R.104 - SECTION 3	11,268.00 SF
PAGE 6	R.105 - SECTION 4	13,745.00 SF
PAGE 7	R.106 - SECTION 5 & 6	5,025.41 SF
PAGE 8	R.501 - DETAILS	-
PAGE 9	R.502 - DETAILS	-
PAGE 10	R.503 - DETAILS	-
PAGE 11	R.504 - DETAILS	-
PAGE 12	R.505 - DETAILS	-
PAGE 13	R.506 - DETAILS	-

LEGEND

	FLAT ROOF
	OPENING
	RIDGE
	ROOF EDGE
	BRICK CHIMNEY
	CURB (UNUSED)
	DOWNSPOUT
	DRAIN
	EXPANSION JOINT
	HVAC
	HVAC ON SLEEPERS
	PIPE RUN
	PIPE RUN #2
	ROOF HATCH
	SKYLIGHT
	STACK
	VENT

GEN. NOTES

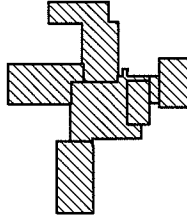
1. SYMBOLS IN LEGEND ARE TYPICAL FOR ALL DRAWINGS.
2. ALL MASONRY ABOVE ROOF LINE ON SECTION 5 (CAFETERIA) MUST BE WATER-PROOFED WITH 2 COATS OF AN APPROVED DAMP-PROOFER.
3. ROOF HATCH LOCATED ON SECTION 4 MUST BE ADJUSTED TO MEET OSHA REQUIREMENTS.
4. PROVIDE NEW SPLASH GUARDS UNDER ALL DOWN-SPOUTS WITH AN ADDITIONAL LAYER OF MODIFIED MEMBRANE BELOW NEW SPLASH GUARDS.
5. INSTALL NEW METAL SLEEPERS (REPLACING THE WOOD SLEEPERS) UNDER ALL UNITS. INSTALL AN ADDITIONAL LAYER OF MODIFIED UNDER ALL NEW METAL SLEEPERS.
6. CONTRACTOR SHALL PROVIDE OSHA APPROVED SKY LIGHT PROTECTION AT ALL SKY LIGHTS.
7. CONTRACTOR TO INSTALL NEW DECKING IN AREAS WHERE DESIGNATED VENTS AND UNITS ARE TO BE REMOVED BY CONTRACTOR.
8. CONTRACTORS SHALL BE RESPONSIBLE TO REPLACE EXISTING FASCIA WITH NEW FASCIA. CONTRACTOR SHALL FIELD MEASURE EXISTING FASCIA TO MATCH NEW FASCIA PROFILE.

HEBRON AVE SCHOOL
1323 HEBRON AVE.
GLASTONBURY, CT 06033
PROJECT # GL-2011-01

SCALE: 1" = 40'-0"

DWG # 2 OF 13

KEY DRAWING



DRAWING #: R101 - ALL ROOFS

DATE: 2.23.10

DRAWN BY: KM

REVISION #1: 2.26.10

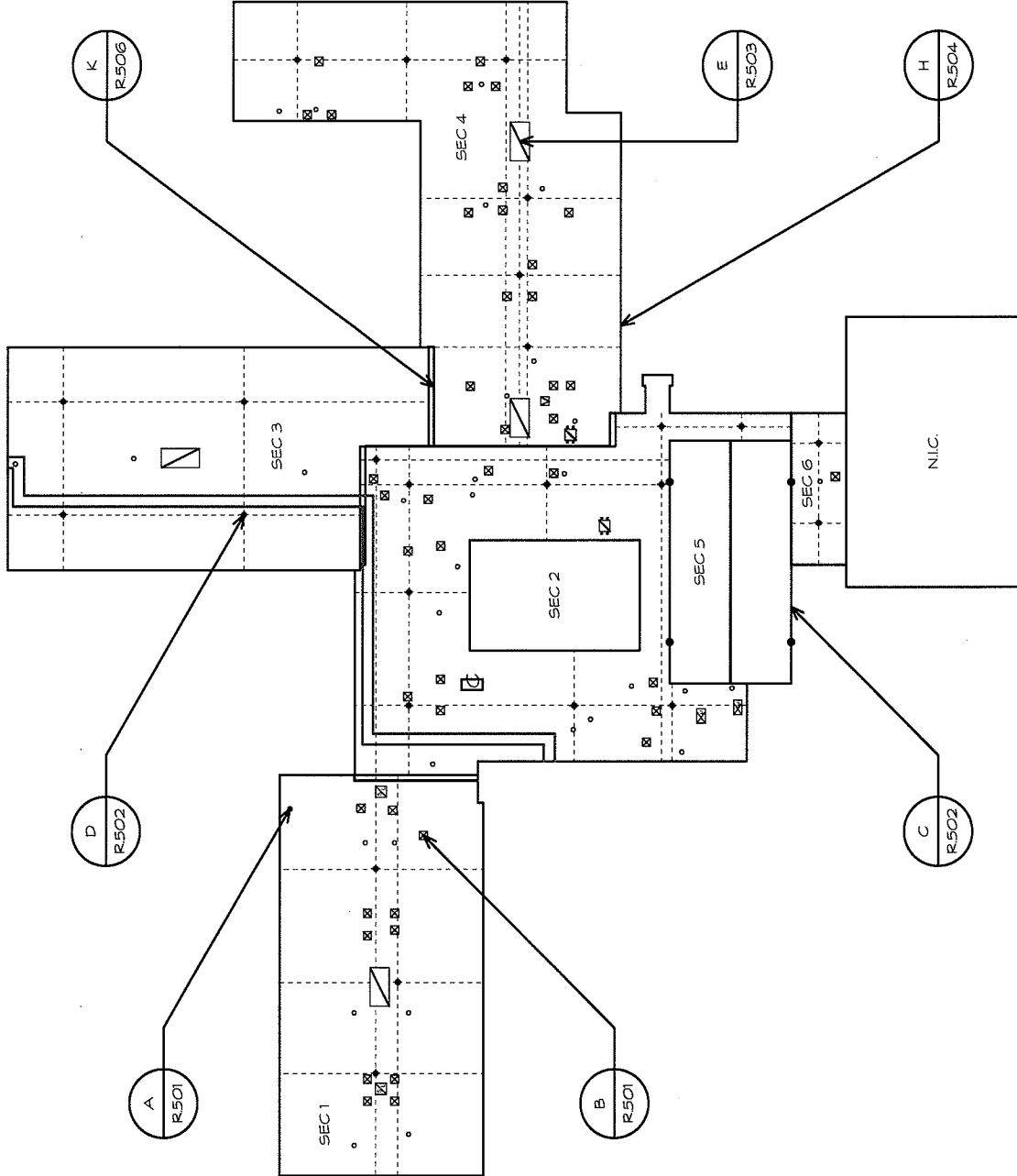
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REVISION #3: -



SR PRODUCTS
CUSTOMER SATISFACTION
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30505 BAINBRIDGE RD., SUITE 210
SOLON, OHIO 44139
440.248.0220

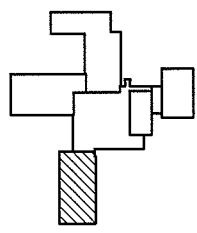


HEBRON AVE SCHOOL
 1323 HEBRON AVE.
 GLASTONBURY, CT 06033
 PROJECT # GL-2011-01

SCALE : 1" = 15'-0"

DWG # 3 OF 13

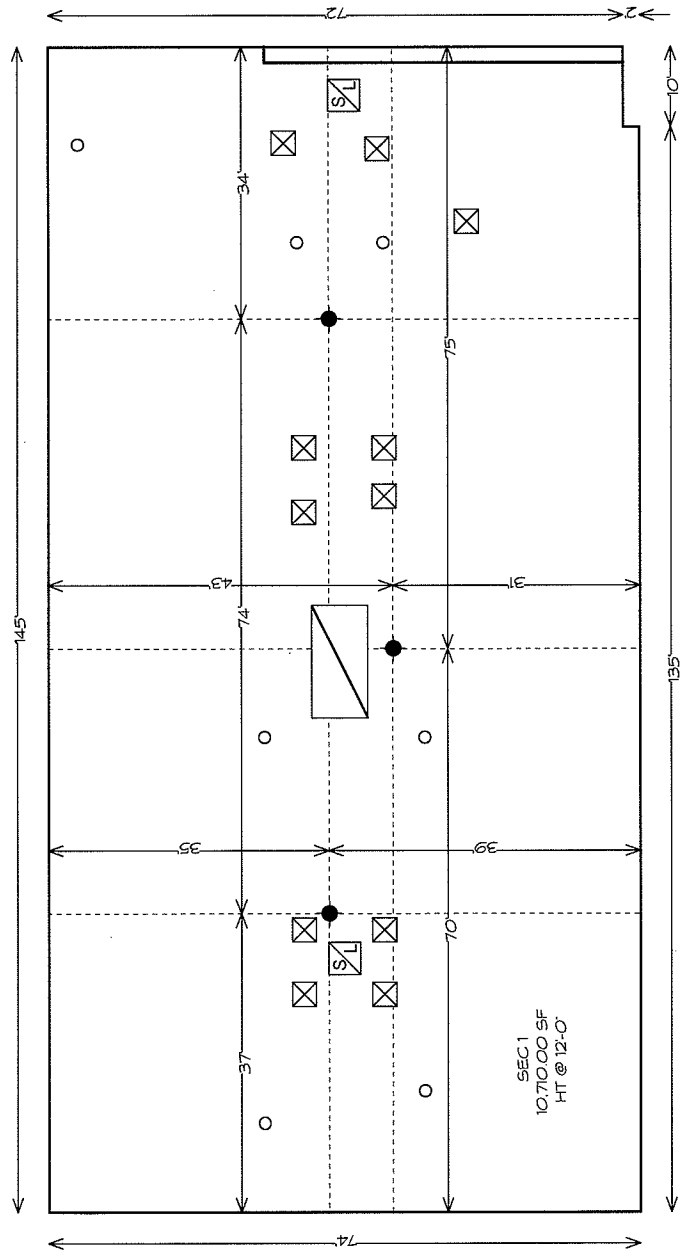
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REVISION #3	-



SR PRODUCTS
 CUSTOMER SATISFACTION
 SINCE 1900
 3056 BANBRIDGE RD., SUITE 210
 COLTON, CT 06033
 440.248.0220



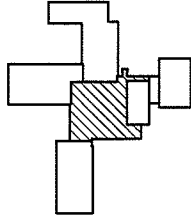
HEBRON AVE SCHOOL
 1323 HEBRON AVE
 GLASTONBURY, CT 06033

PROJECT # GL-2011-01

SCALE : 1" = 20'-0"

DWG # 4 OF 13

KEY DRAWING



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DRAWN BY: KM

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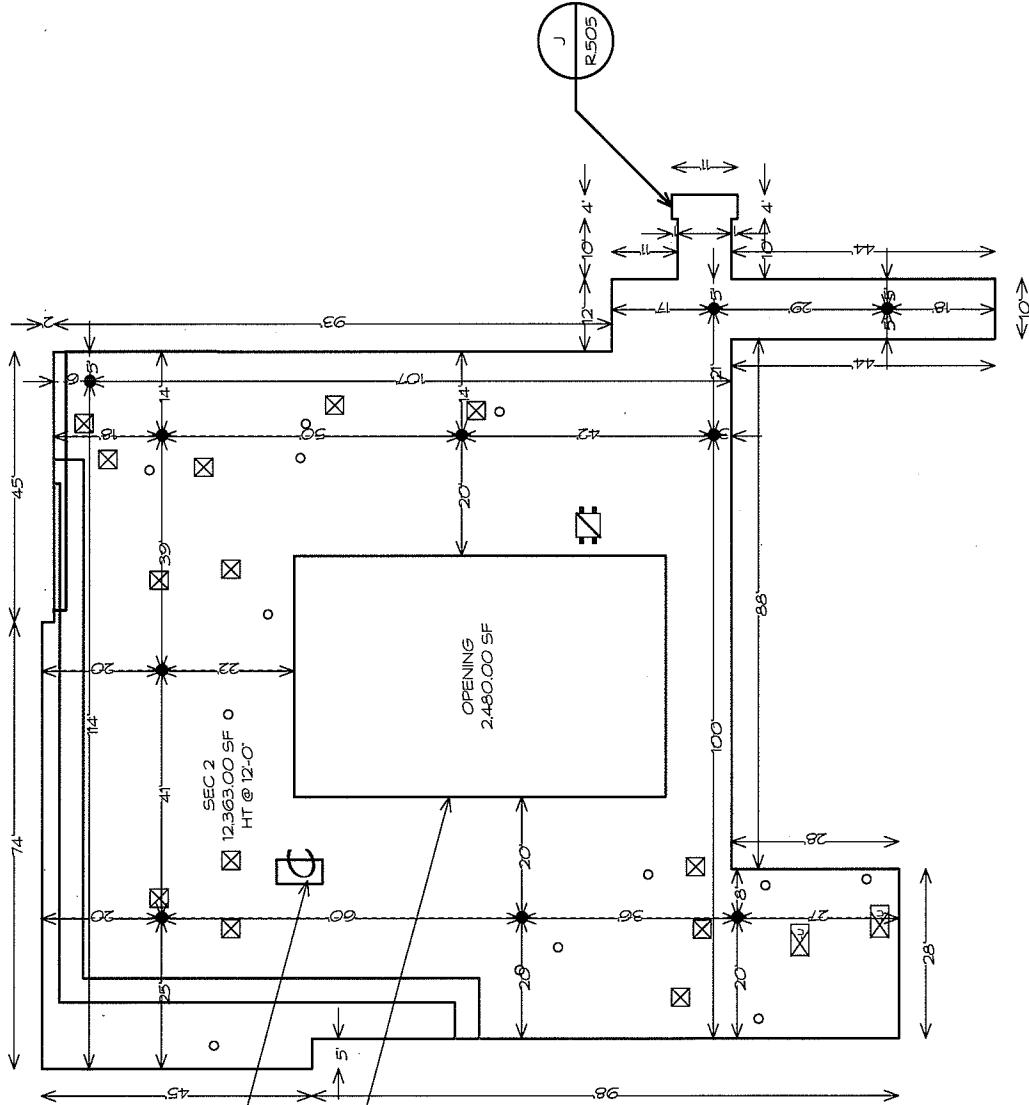
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REVISION #3 -



SR PRODUCTS
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 SINCE 1900

30905 BAINBRIDGE RD., SUITE 210
 SOLON, OHIO 44139
 440.288.0220



CONTRACTOR SHALL
 REPAIR MORTAR ON
 SOUTH SIDE OF CHIMNEY

INSTALL NEW FIELD
 FORMED FASCIA IN
 OPEN AREA

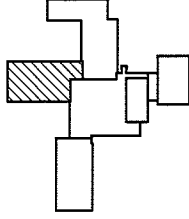


HEBRON AVE SCHOOL
 1323 HEBRON AVE.
 GLASTONBURY, CT 06033
 PROJECT # GL-2011-01

SCALE : 1" = 20'-0"

DWG # 5 OF 13

KEY DRAWING



DRAWING # : R.104 - SECTION 3

DATE : 2.23.10

DRAWN BY : KM

REVISION #1 2.26.10

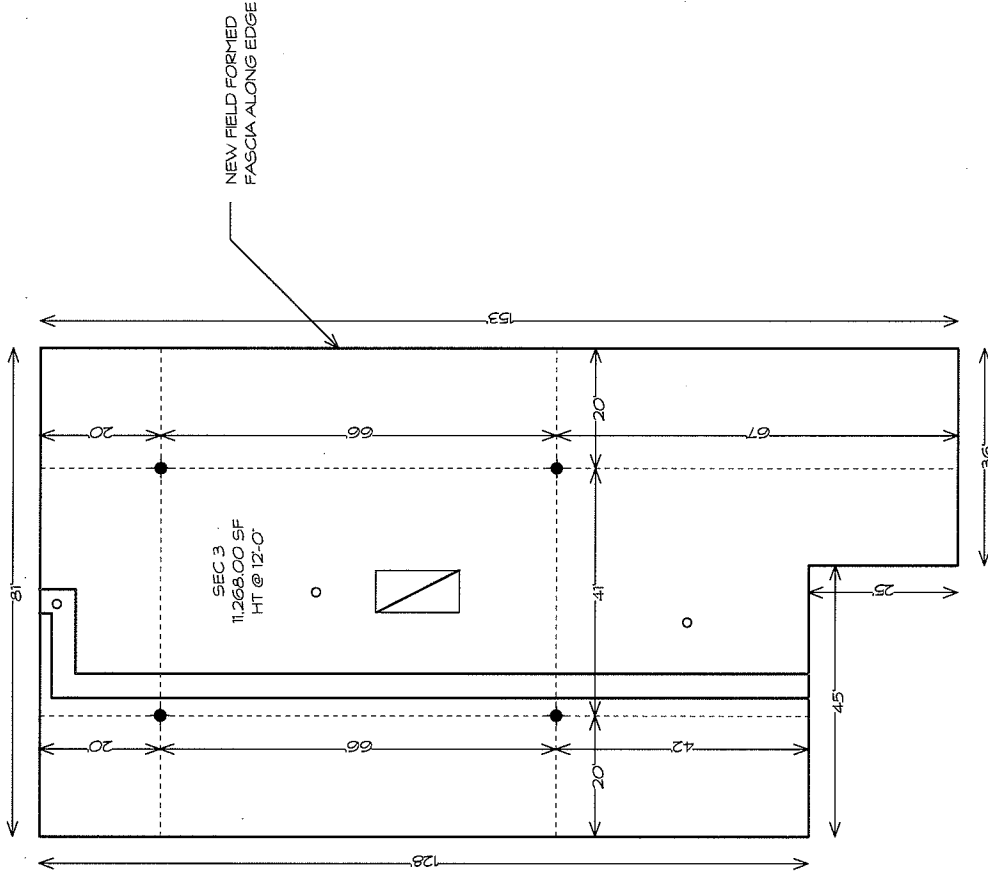
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REVISION #3 -



SR PRODUCTS
 CUSTOMER SATISFACTION
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 SOLON, OHIO 44139
 440.246.0220

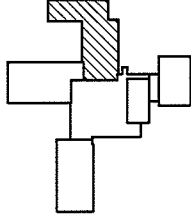


HEBRON AVE SCHOOL
 1323 HEBRON AVE
 GLASTONBURY, CT 06033
 PROJECT # GL-2011-01

SCALE : 1" = 20'-0"

DWG # 6 OF 13

KEY DRAWING

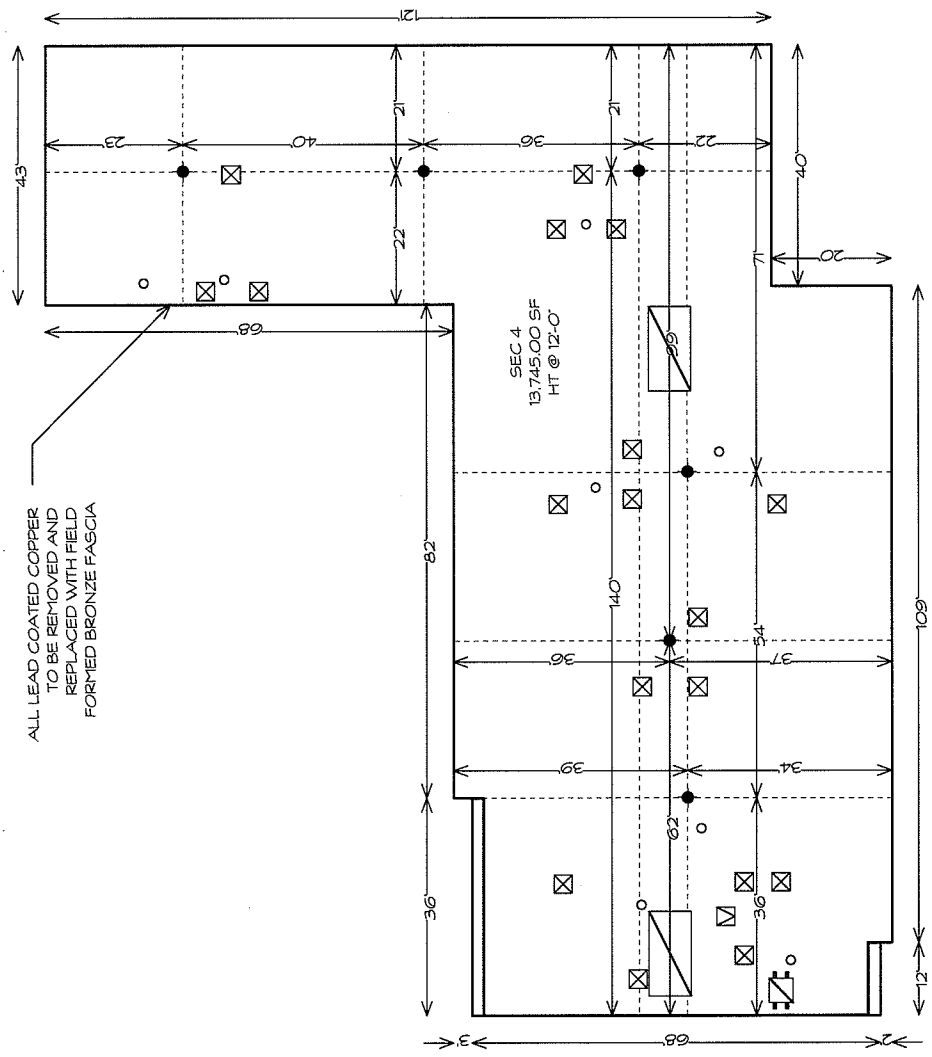


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DATE:	2.23.10
DRAWN BY:	KM
REVISION #1	2.26.10
REVISION #2	-
REVISION #3	-



SR PRODUCTS
 CUSTOMER SATISFACTION
 SINCE 1900

30605 BAINBRIDGE RD., SUITE 210
 SOLON, OHIO 44139
 440.248.0220



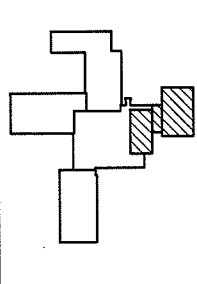
HEBRON AVE SCHOOL
 1323 HEBRON AVE.
 GLASTONBURY, CT 06033

PROJECT # GL-2011-01

SCALE : 1" = 15'-0"

DWG # 7 OF 13

KEY DRAWING



DRAWING # : R.106 - SECTION 5 & 6


DATE : 2.23.10

DRAWN BY : KM

REVISION #1 2.26.10

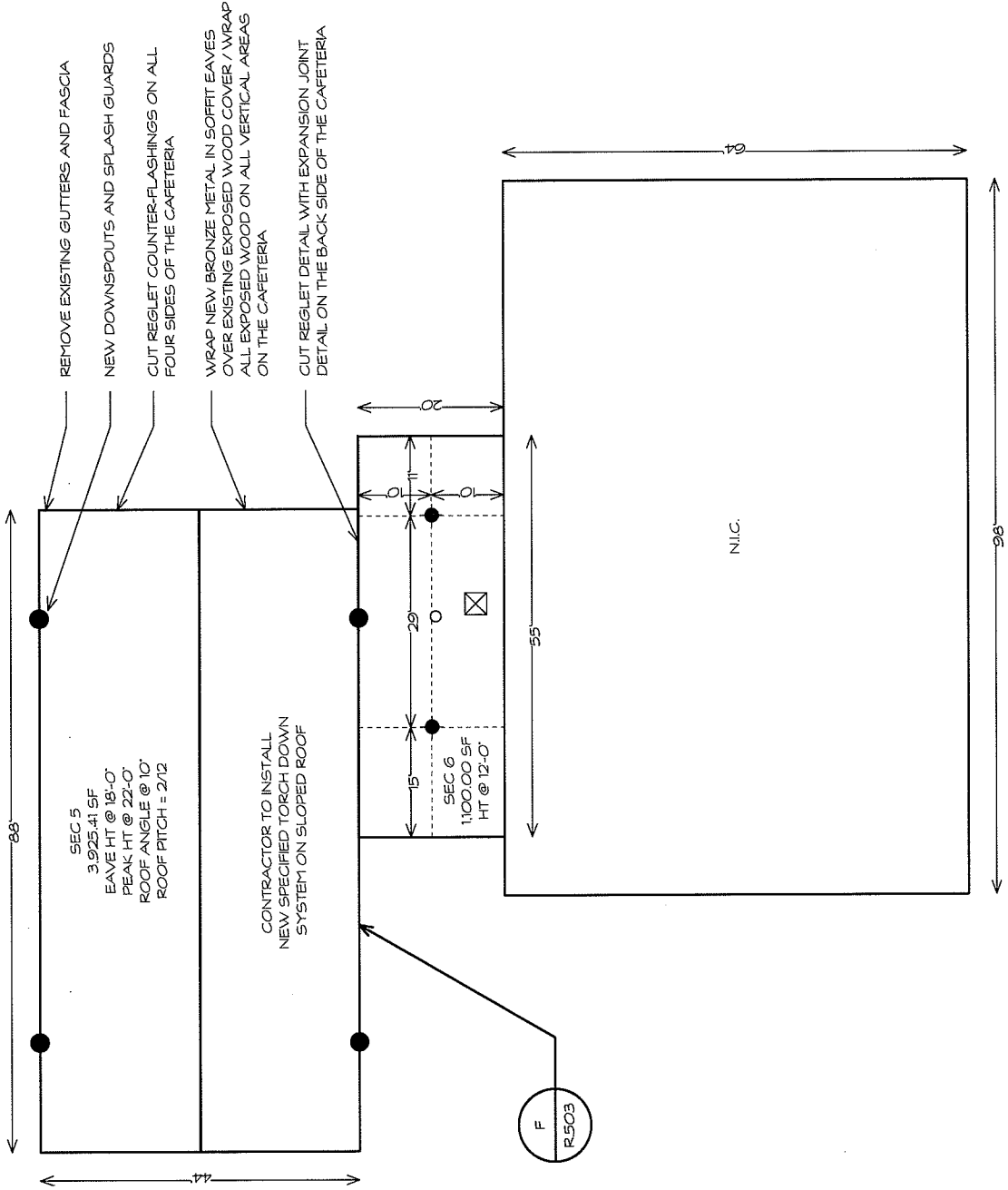
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REVISION #3 -



SR PRODUCTS
 CUSTOMER SATISFACTION
 SINCE 1900

30505 BANBRIDGE RD., SUITE 210
 SOUTH BRITAIN, VT 05493
 449.248.0220



HEBRON AVE SCHOOL
1323 HEBRON AVE.
GLASTONBURY, CT 06033

PROJECT # GL-2011-01

NTS

DWG # 8 OF 13

KEY DRAWING

DRAWING # : R.501 -
DETAILS

DATE : 2.23.10

DRAWN BY : KM

REVISION #1 2.26.10

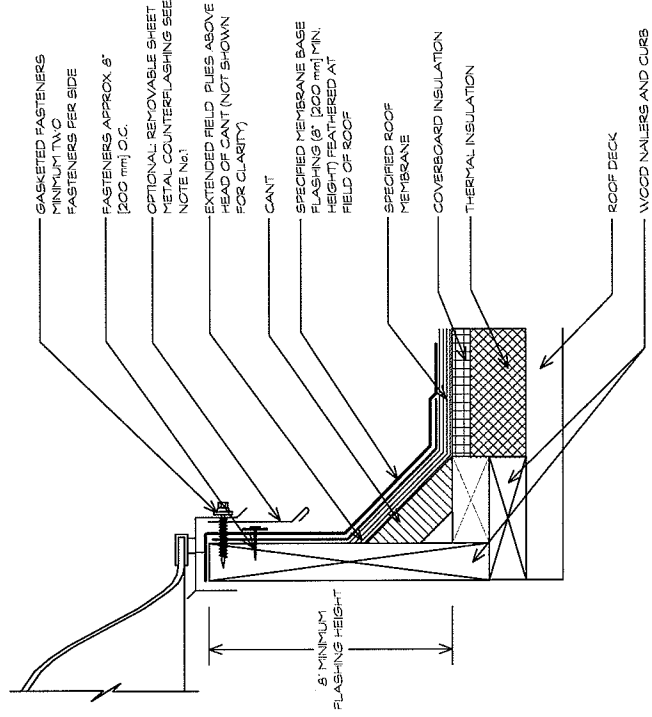
REVISION #2 -

REVISION #3 -



SR PRODUCTS
CUSTOMER SATISFACTION
SINCE 1900

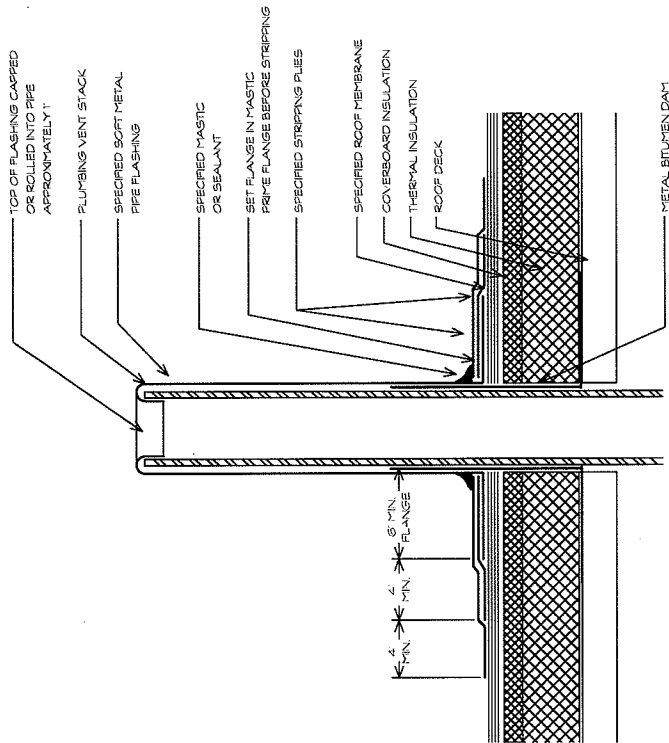
30505 BAUNSBOROUGH RD., SUITE 210
SOLVAY, NY 13150
440.248.0220



NOTES:

1. WHERE THE SKYLIGHT, SCUTTLE OR SMOKE VENT AND FRAME OVERLAPS THE BASE FLASHING AT LEAST 3\"/>
2. DO NOT USE MODIFIED COAL TAR ON SLOPES THAT EXCEED 1/2\"/>
3. DO NOT USE TYPE I TAR WITH TARRED GLASS FELTS ON SLOPES THAT EXCEED 1/4\"/>

B CURB DETAIL
TYP.



NOTES:

1. SHEET LEAD MINIMUM OF 2-1/2 LB PER SQUARE FOOT.
2. THE METAL BITUMEN DAMP IS REQUIRED FOR COAL TAR BUILT-UP ROOFING. IT MUST EXTEND 2\"/>
3. DO NOT USE MODIFIED COAL TAR ON SLOPES THAT EXCEED 1/2\"/>
4. WITH TARRED ORGANIC FELTS ON SLOPES THAT EXCEED 1/2\"/>

A PLUMBING VENT DETAIL
TYP.

HEBRON AVE SCHOOL
1323 HEBRON AVE.
GLASTONBURY, CT 06033

PROJECT # GL-2011-01

NTS

DWG # 9 OF 13

KEY DRAWING

DRAWING #: R.502 -
DETAILS

DATE: 2.23.10

DRAWN BY: KM

REVISION #1 2.26.10

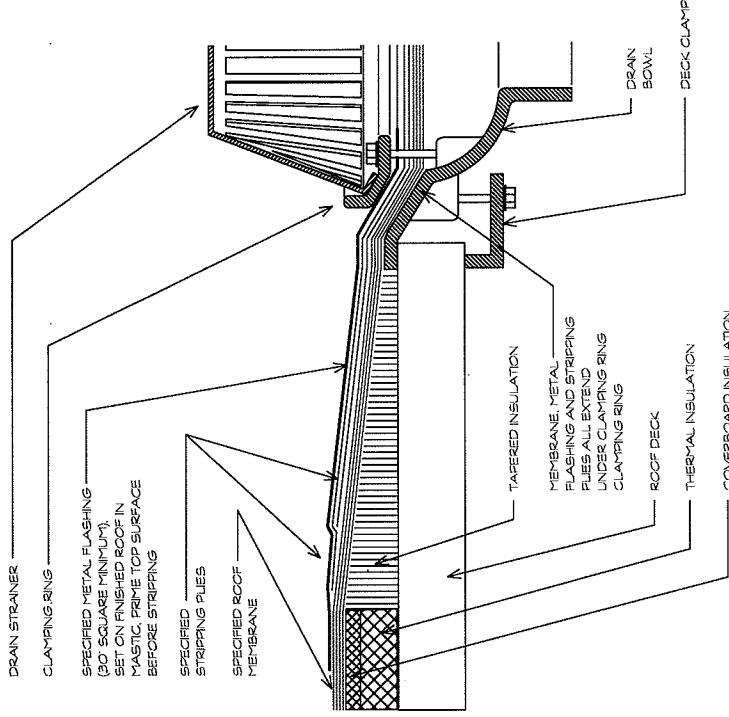
REVISION #2 -

REVISION #3 -



SR PRODUCTS
CUSTOMER SATISFACTION
SINCE 1990

30665 BAINBRIDGE RD., SUITE 210
SOLON, OHIO 44189
440.248.0220

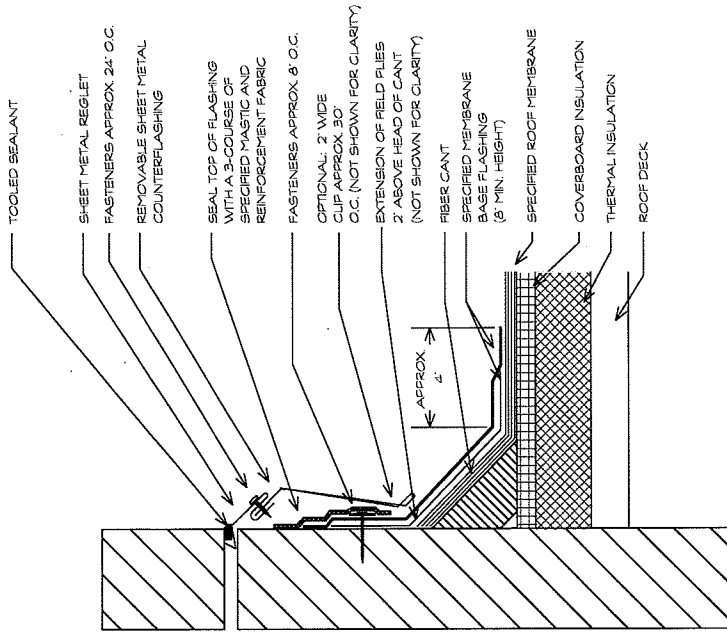


NOTES:

- DO NOT APPLY COAL TAR OR DEAD LEVEL ASPHALT INTO DRAIN SUMP. INSTALL METAL GRAVEL STOPS.
- DO NOT USE MODIFIED COAL TAR ON SLOPES THAT EXCEED 1/2" PER FOOT.
- DO NOT USE TYPE I TAR WITH POLYESTER OR TAPERED GLASS FELTS ON SLOPES THAT EXCEED 1/4" PER FOOT, OR WITH TAPERED ORGANIC FELTS ON SLOPES THAT EXCEED 1/2" PER FOOT.



ROOF DRAIN DETAIL



NOTES:

- THE JOINTS IN THE SHEET METAL COUNTERFLASHING SHOULD NOT BE SOLDERED.
- DO NOT OBSTRUCT OR FLASH OVER WEEP HOLES.
- DO NOT USE MODIFIED COAL TAR ON SLOPES THAT EXCEED 1/2" PER FOOT.
- DO NOT USE TYPE I TAR WITH POLYESTER OR TAPERED GLASS FELTS ON SLOPES THAT EXCEED 1/4" PER FOOT, OR WITH TAPERED ORGANIC FELTS ON SLOPES THAT EXCEED 1/2" PER FOOT.



REGLET IN-WALL DETAIL

HEBRON AVE SCHOOL
 1323 HEBRON AVE.
 GLASTONBURY, CT 06033
 PROJECT # GL-2011-01

NTS

DWG # 10 OF 13

KEY DRAWING

DRAWING # : R-503 - DETAILS

DATE : 2.23.10

DRAWN BY : KM

REVISION #1 2.26.10

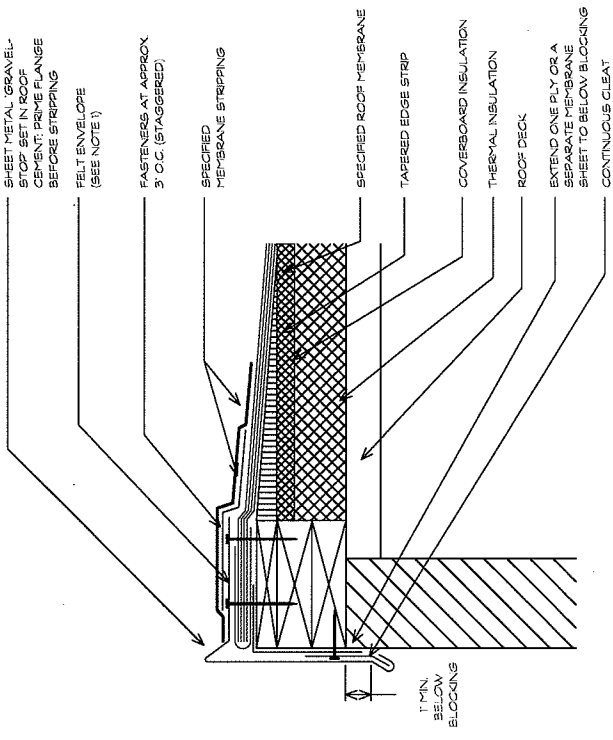
REVISION #2 -

REVISION #3 -



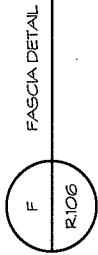
SR PRODUCTS
 CUSTOMER SATISFACTION
 SINCE 1980

30816 BAINBRIDGE RD., SUITE 210
 SOLID ROCK, CT 06488
 401.248.0220

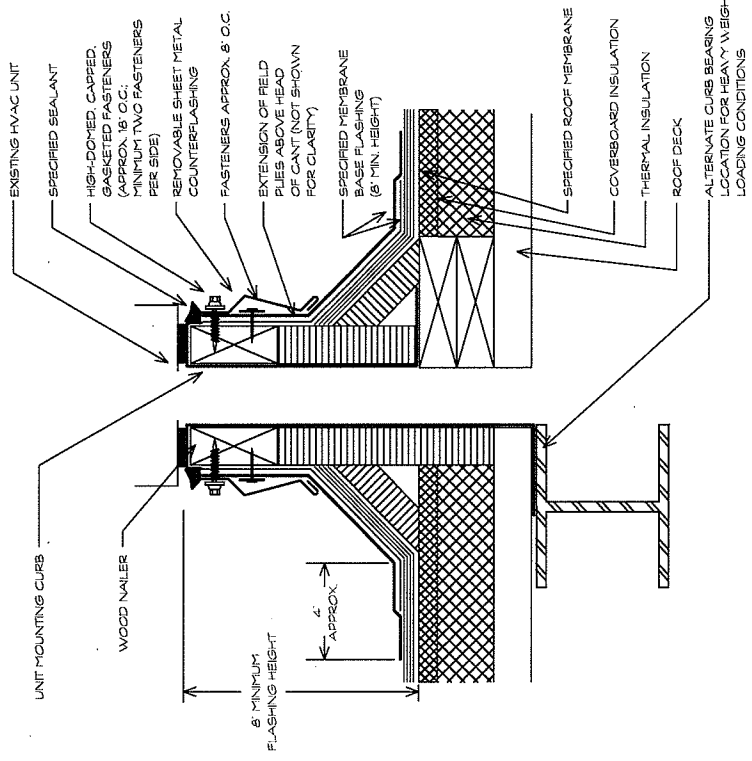


NOTES:

1. FOR COAL TAR AND ASPHALT TYPES (E.I. INSTALL ENVELOPE (BITUMEN STOP) FOR A CONTINUOUS EDGE SEAL AT THE PERIMETER AND AT PENETRATIONS BY ONE PLY OF A BASE SHEET OR TWO PLYS OF AN INTERMEDIATE COVERING. OVERLAPPING FELT PLYS ARE TO BE EXTENDED BY 5" TURNED BACK INTO THE MEMBRANE AND ADHERED. THE ENVELOPE IS INTENDED TO PREVENT BITUMEN SEEPAGE FROM THE EDGE OF THE MEMBRANE.
2. DO NOT USE MODIFIED COAL TAR ON SLOPES THAT EXCEED 1/2" PER FOOT.
3. DO NOT USE TYPE I TAR WITH POLYESTER OR TARRSSED GLASS FELTS ON SLOPES THAT EXCEED 1/4" PER FOOT, OR WITH TARRSSED ORGANIC FELTS ON SLOPES THAT EXCEED 1/2" PER FOOT.
4. REFER TO REF-10 (TABLE) FOR METAL THICKNESS AND CLEAR REQUIREMENTS.
5. FREQUENT NAILING OF SHEET METAL PLANGE IS NECESSARY TO MINIMIZE THERMAL MOVEMENT.
6. WOOD BLOCKING TO BE FASTENED IN ACCORDANCE WITH FACTORY MUTUAL LOSS PREVENTION DATA FOR USE FOR WETTER FLASHING DETAILS.
7. WOOD BLOCKING MAY BE SLOTTED FOR VENTING OF WET-FILL DECKS OR OTHER CONSTRUCTIONS WHERE APPLICABLE.

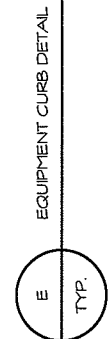


F FASCIA DETAIL



NOTES:

1. DO NOT USE MODIFIED COAL TAR ON SLOPES THAT EXCEED 1/2" PER FOOT.
2. DO NOT USE TYPE I TAR WITH POLYESTER OR TARRSSED GLASS FELTS ON SLOPES THAT EXCEED 1/4" PER FOOT, OR WITH TARRSSED ORGANIC FELTS ON SLOPES THAT EXCEED 1/2" PER FOOT.



E EQUIPMENT CURB DETAIL

HEBRON AVE SCHOOL
1323 HEBRON AVE.
GLASTONBURY, CT 06033

PROJECT # GL-2011-01

NTS

DWG # 11 OF 13

KEY DRAWING

DRAWING # : R.504 - DETAILS

DATE : 2.23.10

DRAWN BY : KM

REVISION #1 2.26.10

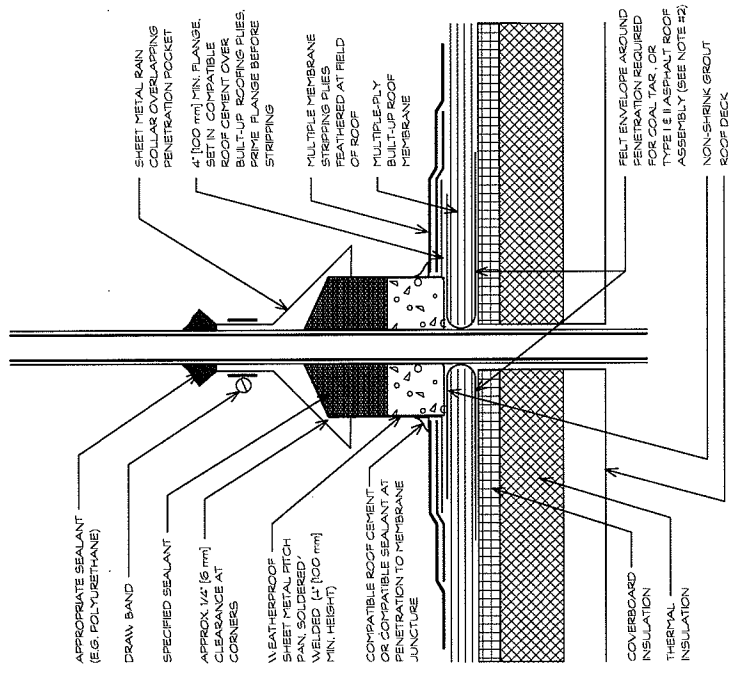
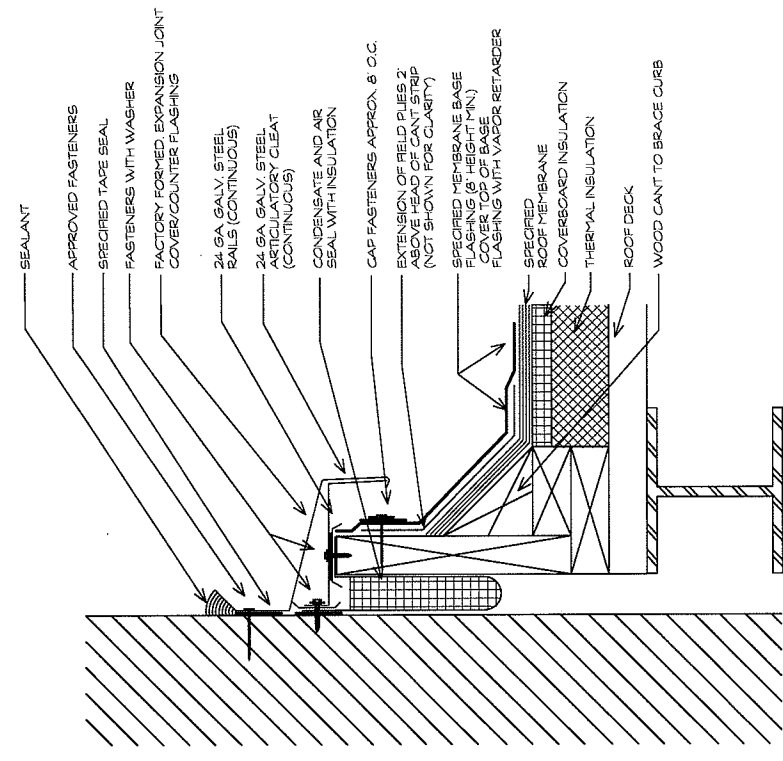
REVISION #2 -

REVISION #3 -



SR PRODUCTS
CUSTOMER SATISFACTION
SINCE 1900

38565 BANBRIDGE RD., SUITE 210
SOLON, CT 06488
440.248.0220



- NOTES:
- PRIOR TO INSTALLATION, SEAL PENETRATION WITH ELASTIC FILL.
 - INSTALL ENVELOPE (BITUMEN-STOP) FOR A CONTINUOUS EDGE SEAL AT THE PERIMETER AND AT PENETRATIONS BY EXTENDING ONE PLY OF SPECIFIED BASE SHEET OR TWO PILES OF SPECIFIED MEMBRANE. AFTER ALL OVERLAPPING FIELD PILES ARE IN PLACE, THE EXTENDED MEMBRANE FIELD PILES SHOULD BE TURNED BACK INTO THE MEMBRANE AND ADHERED. THE ENVELOPE IS INTENDED TO PREVENT BITUMEN SEEPAGE FROM THE EDGE OF THE MEMBRANE.
 - DO NOT USE MODIFIED COAL TAR ON SLOPES THAT EXCEED 1/2 PER FOOT.
 - DO NOT USE TYPE I TAR WITH POLYESTER OR TARRED GLASS FELT'S ON SLOPES THAT EXCEED 1/2 PER

- NOTES:
- THIS DETAIL SHOULD BE USED WHERE THERE IS ANY POSSIBILITY THAT DIFFERENTIAL MOVEMENT WILL OCCUR BETWEEN THE DECK AND A VERTICAL SURFACE. THE WOOD MEMBERS SHOULD NOT BE FASTENED TO THE WALL.
 - THE JOINTS IN THE SHEET METAL COUNTERFLASHING SHOULD NOT BE SOLDERED.

G PENETRATION POCKET DETAIL

TYP.

H EXPANSION JOINT COVER DETAIL

TYP.

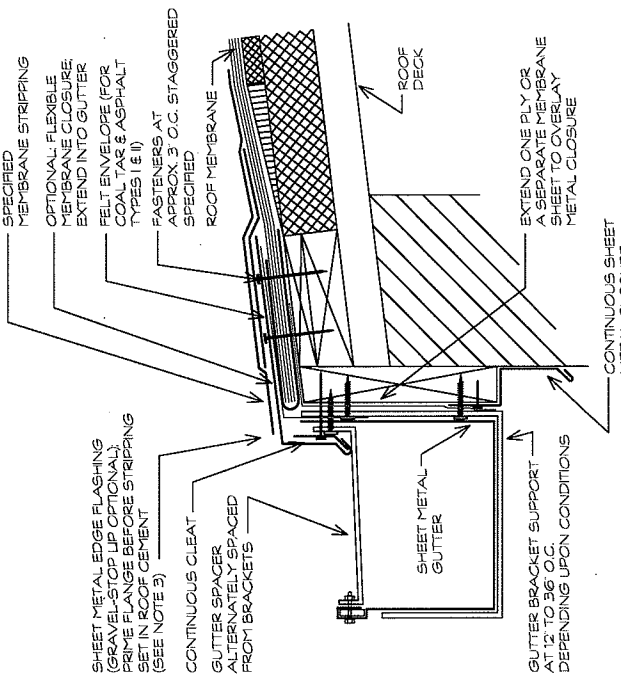
HEBRON AVE SCHOOL
 1323 HEBRON AVE.
 GLASTONBURY, CT 06033
 PROJECT # GL-2011-01

NTS
 DWG # 12 OF 13
 KEY DRAWING

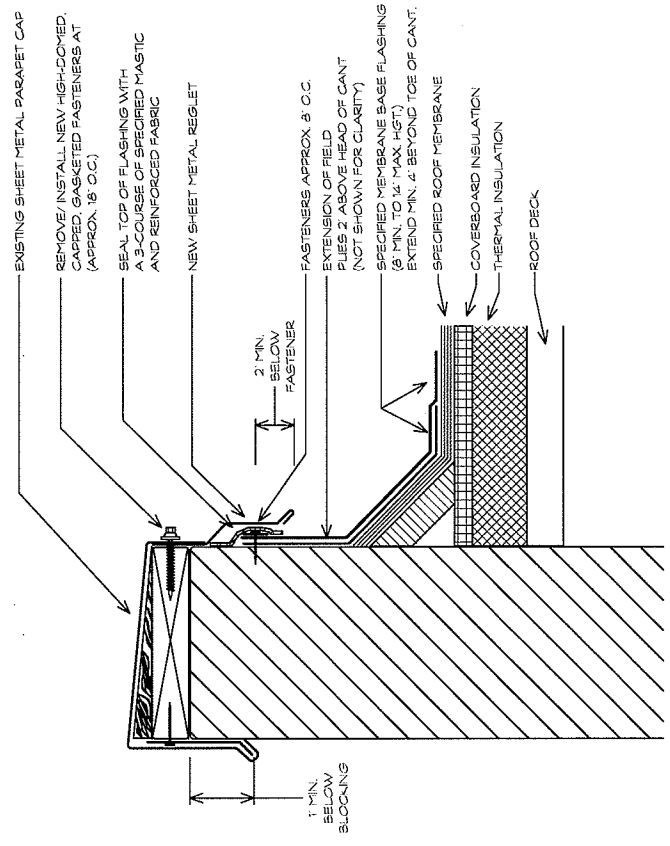
DRAWING #:	R.505 - DETAILS
DATE:	2.23.10
DRAWN BY:	KM
REVISION #1	2.26.10
REVISION #2	-
REVISION #3	-



SR PRODUCTS
 CUSTOMER SATISFACTION
 SINCE 1900
 30505 BANBRIDGE RD., SUITE 210
 SOUTH BEND, IN 46708
 440.248.0220



- NOTES:**
- GUTTER BRACKETS ARE RECOMMENDED TO BE AT LEAST ONE GAUGE HEAVIER THAN GUTTER STOCK.
 - DESIGN GUTTER EXPANSION JOINTS PLACED AT APPROPRIATE INTERVALS COMPENSURATE WITH TYPE OF METAL.
 - INSTALL METAL PITCH DRAIN/GRAVEL STOP ON PERIMETER WHEN COAL TAR OR DEAD LEVEL ASPHALT IS USED FOR SURFACING.
 - INSTALL ENVELOPE (BITUMEN-STOP) FOR A CONTINUOUS EDGE SEAL AT THE PERIMETER AND AT PENETRATIONS BY EXTENDING ONE PLY OF SPECIFIED BASE SHEET OR TWO PLYS OF NON-PERFORATED ORGANIC ASPHALT SATURATED FELT BEYOND THE EDGE OF THE MEMBRANE FIELD PLYS. AFTER ALL OVERLAPPING FIELD PLYS ARE IN PLACE, THE EXTENDED PLY IS TURNED BACK INTO THE MEMBRANE AND ADHERED. THE ENVELOPE IS INTENDED TO PREVENT BITUMEN SEEPAGE FROM THE EDGE OF THE MEMBRANE.
 - DO NOT USE MODIFIED COAL TAR ON SLOPES THAT EXCEED 1/2' PER FOOT.
 - DO NOT USE TYPE I TAR WITH POLYESTER OR TARRED GLASS FELTS ON SLOPES THAT EXCEED 1/4' PER FOOT, OR WITH TARRED ORGANIC FELTS ON SLOPES THAT EXCEED 1/2' PER FOOT.



- NOTES:**
- DO NOT USE MODIFIED COAL TAR ON SLOPES THAT EXCEED 1/2' PER FOOT.
 - DO NOT USE TYPE I TAR WITH POLYESTER OR TARRED GLASS FELTS ON SLOPES THAT EXCEED 1/4' PER FOOT, OR WITH TARRED ORGANIC FELTS ON SLOPES THAT EXCEED 1/2' PER FOOT.

1
 TYP.
 GUTTER DETAIL

J
 R103
 PARAPET WALL COPING / EXTENDER DETAIL

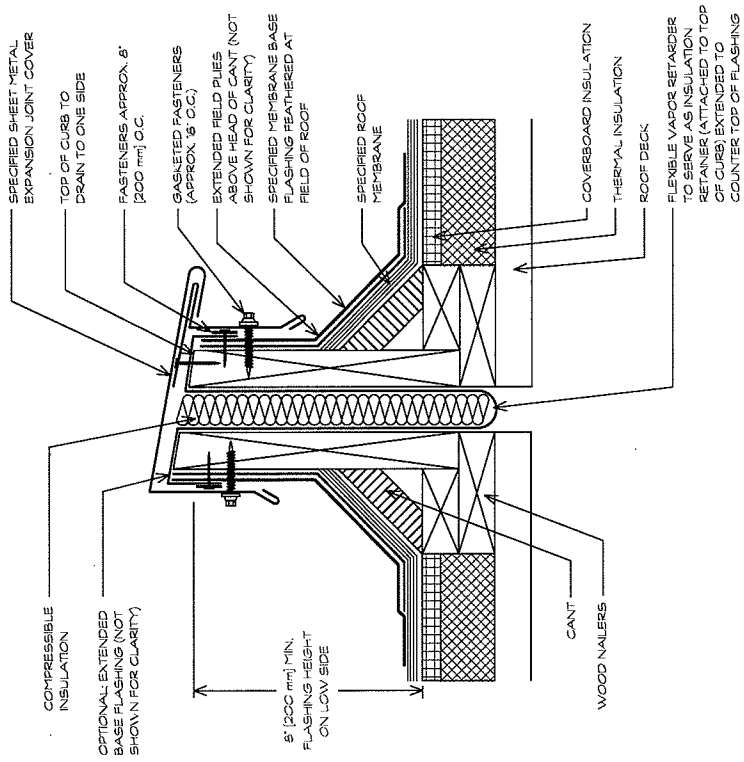
HEBRON AVE SCHOOL
 1323 HEBRON AVE.
 GLASTONBURY, CT 06033
 PROJECT # GL-2011-01

NTS	
DWG # 13 OF 13	
KEY DRAWING	
DRAWING # :	R.506 - DETAILS
DATE :	2.23.10
DRAWN BY :	KM
REVISION #1	2.26.10
REVISION #2	-
REVISION #3	-



SR PRODUCTS
 CUSTOMER SATISFACTION
 SINCE 1900

30505 BAINBRIDGE RD., SUITE 210
 SOLON, OHIO 44139
 440.248.9220





















- NOTES:
- DO NOT USE MODIFIED COAL TAR ON SLOPES THAT EXCEED 1/2" PER FOOT.
 - DO NOT USE TYPE I TAR WITH TARGED GLASS FELTS ON SLOPES THAT EXCEED 1/4" PER FOOT, OR WITH TARGED ORGANIC FELTS ON SLOPES THAT EXCEED 1/2" PER FOOT.

K
 EXPANSION JOINT WITH METAL COVER
 TYP.

Takeoff Record - R1 - Hebron Ave School All Roofs 2.26.10

	<u>(Units: Feet)</u>	<u>Area</u>	<u>Length</u>	<u>Count</u>
<input type="checkbox"/>	N.I.C.			
<input type="checkbox"/>	Flat Roof (Dig)	6272.00	324' 0"	4
<input type="checkbox"/>	SEC 1			
<input type="checkbox"/>	Flat Roof (Dig)	10710.00	438' 0"	6
—	Expansion Joint	47.00	47' 0"	
<input checked="" type="checkbox"/>	Curb (HVAC)	168.00	42' 0"	1
<input checked="" type="checkbox"/>	Skylight	48.00	32' 0"	2
○	Stack	16.49	11' 0"	7
●	Drain (Existing)			3
<input checked="" type="checkbox"/>	Vent	396.00	132' 0"	11
<input type="checkbox"/>	SEC 2			
<input type="checkbox"/>	Flat Roof (Dig)	12363.00	668' 0"	22
<input type="checkbox"/>	Opening (Dig)	2480.00	204' 0"	4
—	Expansion Joint	70.00	70' 0"	
<input checked="" type="checkbox"/>	Brick Chimney	336.00	24' 0"	1
<input checked="" type="checkbox"/>	Curb (Unused)	108.00	36' 0"	2
<input checked="" type="checkbox"/>	Unit on Sleepers (HVAC)	13.00	26' 0"	2
○	Stack	30.63	20' 5"	13
●	Drain (Existing)			10
—	Pipe Run		159' 0"	159
<input checked="" type="checkbox"/>	Vent	468.00	156' 0"	13
—	Pipe Run #2		167' 0"	167
<input type="checkbox"/>	SEC 3			
<input type="checkbox"/>	Flat Roof (Dig)	11268.00	468' 0"	6
<input checked="" type="checkbox"/>	Curb (HVAC)	168.00	42' 0"	1
○	Stack	7.07	4' 9"	3
●	Drain (Existing)			4
—	Pipe Run		142' 0"	142
—	Pipe Run #2		142' 0"	142

Takeoff Record - R1 - Hebron Ave School All Roofs 2.26.10

	<u>(Units: Feet)</u>	<u>Area</u>	<u>Length</u>	<u>Count</u>
SEC 4				
	Flat Roof (Dig)	13745.00	604' 0"	12
	Expansion Joint	116.00	116' 0"	
	Curb (HVAC)	336.00	84' 0"	2
	Roof Hatch	18.00	12' 0"	1
	Unit on Sleepers (HVAC)	13.00	26' 0"	2
	Stack	18.85	12' 7"	8
	Drain (Existing)			6
	Vent	648.00	216' 0"	18
SEC 5				
	Downspout		0' 0"	4
	Roof Plane	3925.41		
	Eave		176' 0"	
	Rake Edge		89' 3"	
	Ridge		88' 0"	
SEC 6				
	Flat Roof (Dig)	1100.00	150' 0"	4
	Expansion Joint	55.00	55' 0"	
	Stack	2.36	1' 7"	1
	Drain (Existing)			2
	Vent	36.00	12' 0"	1

Proposal of _____
(hereinafter called "Bidder"), organized and existing under the laws of the State of _____
_____, doing business as _____
_____.

To the Town of Glastonbury (hereinafter called "Town").

In compliance with your Invitation to Bid, the Bidder hereby proposes to furnish and/or services as per Bid Number GL-2011-01 in strict accordance with the Bid Documents, within the time set forth therein, and at the prices stated below.

By submission of this bid, the Bidder certifies, and in the case of a joint bid each party thereto certifies as to their own organization that this bid has been arrived at independently without consultation, communication, or agreement as to any matter relating to this bid with any other Bidder or with any competitor.

The Bidder acknowledges receipt of the following Addendum:

Addendum #1 _____

Addendum #2 _____

Addendum #3 _____

It is the responsibility of the bidder to check the Town's website for any Addendum before submitting the bid.

TOTAL BID AMOUNT:

Furnish and install replacement roof for Hebron Ave School as specified in the Plans and Specifications for Bid GL-2011-01 \$ _____

WRITTEN BID AMOUNT: \$ _____

Spot metal deck rehabilitation	\$ _____ /sq.ft
Spot metal deck replacement	\$ _____ /sq.ft
Spot removal and replacement of existing roof insulation	\$ _____ /sq.ft.
New Drain installation	\$ _____ /each
Linear foot installation of new piping for drain installation	\$ _____ /ft.

Other Items Required with Submission of Bid Proposal

The following bid checklist describes items required for inclusion with the above-referenced bid proposal package. It is provided for the convenience of the bidders and, therefore, should not be assumed to be a complete list.

- _____ Bid Bond (10% of total bid amount).
- _____ List of similar projects completed within last three (3) years. A minimum of five (5) are required.
- _____ Acknowledgement of Addendums in Bid Proposal (as applicable).
- _____ Acknowledgement of Code of Ethics in Bid Proposal.
- _____ Sealed bids, one original and one copy.
- _____ Disclosure of past and pending mediation, arbitration and litigation cases that the Bidder or its principals have been involved in for the most recent five years (if applicable).
- _____ Copy of Bidder's Contractor's License (State of Connecticut).

It is the responsibility of the Respondent to clearly mark the outside of the bid envelope with the Bid Number, Date and Time of Bid Opening, and it also THE RESPONSIBILITY OF THE BIDDER TO CHECK THE TOWN'S WEBSITE BEFORE SUBMITTING BID FOR ADDENDUMS POSTED PRIOR TO BID OPENING.

CODE OF ETHICS

I/We have reviewed a copy of the Town of Glastonbury's Code of Ethics and agree to submit a Consultant Acknowledgement Form if I/We are selected. Yes _____ No _____*

*Bidder is advised that effective August 1, 2003, the Town of Glastonbury cannot consider any bid or proposal where the Bidder has not agreed to the above statement.

Respectfully submitted:

Type or Print Name of Individual

Doing Business as (Trade Name)

Signature of Individual

Street Address

Title

City, State, Zip Code

Date

Telephone Number/Fax Number

E-Mail Address

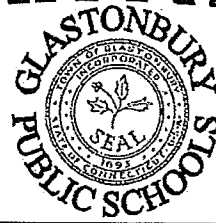
SS# or TIN#

(Seal – If bid is by a Corporation)

Attest

SCHOOL YEAR AT A GLANCE

2010



2011

SCHOOL BEGINS: AUG 31 Grs. 7-12
SCHOOL BEGINS: SEPT 1 Grs. K-6

*SCHOOL ENDS: JUNE 13

M	T	W	TH	F
AUGUST 2010 Gr 7-12 1 DAYS				
2	3	4	5	6
9	10	11	12	13
16	17	18	19	20
23	24	25	26	27
30	31			

M	T	W	TH	F
SEPTEMBER 2010 20 DAYS				
		1	2	3
6	7	8	9	10
13	14	15	16	17
20	21	22	23	24
27	28	29	30	

M	T	W	TH	F
OCTOBER 2010 20 DAYS				
				1
4	5	6	7	8
11	12	13	14	15
18	19	20	21	22
25	26	27	28	29

M	T	W	TH	F
NOVEMBER 2010 19 DAYS				
1	2	3	4	5
8	9	10	11	12
15	16	17	18	19
22	23	24	25	26
29	30			

M	T	W	TH	F
DECEMBER 2010 17 DAYS				
		1	2	3
6	7	8	9	10
13	14	15	16	17
20	21	22	23	24
27	28	29	30	31

M	T	W	TH	F
JANUARY 2011 Gr 7-12 19 DAYS Gr. K-6 20 DAYS				
3	4	5	6	7
10	11	12	13	14
17	18	19	20	21
24	25	26	27	28
31				

- AUG 30 Teacher Work Day
- ◇ AUG 31 FIRST DAY OF SCHOOL, GRADES 7-12
Teacher Work Day, Grades K-6
- ◇ SEPT 1 FIRST DAY OF SCHOOL, GRADES K-6
FULL DAY
- SEP 6 Labor Day
- SEP 9 Rosh Hashanah
- OCT 11 Columbus Day
- NOV 2 Election Day - No School for Students
- NOV 24 Early Dismissal
- NOV 25-26 Thanksgiving Recess
- DEC 24-25 Holiday Recess
- JAN 2 (Includes Christmas and New Year's Day)
- JAN 17 Martin Luther King Day
- JAN 20-25 Grades 7-12: Mid-Term Exams
(Early Dismissal Grades 9-12)
- △ JAN 26 Gr. 7-12 No School for Students
Teacher Work Day, Grades 7-12
- FEB 21-25 Winter Recess (Includes Presidents' Day)
- APR 18-22 Spring Recess (Includes Good Friday)
- MAY 30 Memorial Day
- Last 4 Days Final Exams, Grades 7-12
(Early Dismissal Grades 7-12)
- Last Day Projected Last Day - June 13
Early Dismissal Grades 1-12
(PM K will attend AM Session)
- Projected Teacher Work Day - June 14
Teacher Work Day will be the first work day
following the last day for students.

□ SCHOOL CLOSED

M	T	W	TH	F
15 DAYS FEBRUARY 2011				
	1	2	3	4
7	8	9	10	11
14	15	16	17	18
21	22	23	24	25
28				

M	T	W	TH	F
23 DAYS MARCH 2011				
	1	2	3	4
7	8	9	10	11
14	15	16	17	18
21	22	23	24	25
28	29	30	31	

M	T	W	TH	F
16 DAYS APRIL 2011				
				1
4	5	6	7	8
11	12	13	14	15
18	19	20	21	22
25	26	27	28	29

M	T	W	TH	F
21 DAYS MAY 2011				
2	3	4	5	6
9	10	11	12	13
16	17	18	19	20
23	24	25	26	27
30	31			

M	T	W	TH	F
9 DAYS JUNE 2011				
		1	2	3
6	7	8	9	10
13	14	15	16	17
20	21	22	23	24
27	28	29	30	

***SCHOOL ENDS JUNE 13**

*If weather or other emergencies require the closing of school, the lost days will be made up by extending the school year in June up to 12 days.
If additional days are needed, they will be taken from the Spring Recess, beginning April 18.

SCHOOL YEAR AT A GLANCE

2009 2010



Professional Development
 Early Dismissal
 Gideon Welles, SMS, & GHS
 October 8, 2009
 February 4, 2010
 March 11, 2010

SCHOOL BEGINS: Sept 1 Grs. 7-12
 SCHOOL BEGINS: Sept 2 Grs. K-6

*SCHOOL ENDS: JUNE 16

M	T	W	TH	F
AUGUST 2009				
	3	4	5	6
10	11	12	13	14
17	18	19	20	21
24	25	26	27	28
31				

M	T	W	TH	F
SEPTEMBER 2009 <small>Gr 7-12 20 DAYS Gr. K-6 19 DAYS</small>				
	1	2	3	4
7	8	9	10	11
14	15	16	17	18
21	22	23	24	25
28	29	30		

M	T	W	TH	F
OCTOBER 2009 21 DAYS				
		1	2	
5	6	7	8	9
12	13	14	15	16
19	20	21	22	23
26	27	28	29	30

M	T	W	TH	F
NOVEMBER 2009 18 DAYS				
2	3	4	5	6
9	10	11	12	13
16	17	18	19	20
23	24	25	26	27
30				

M	T	W	TH	F
DECEMBER 2009 17 DAYS				
	1	2	3	4
7	8	9	10	11
14	15	16	17	18
21	22	23	24	25
28	29	30	31	

M	T	W	TH	F
JANUARY 2010 <small>Gr 7-12 16 DAYS Gr. K-6 19 DAYS</small>				
				1
4	5	6	7	8
11	12	13	14	15
18	19	20	21	22
25	26	27	28	29

- AUG 31 Teacher Work Day
- ◇ SEPT 1 FIRST DAY OF SCHOOL, GRADES 7-12
Teacher Work Day, Grades K-6
- ◇ SEPT 2 FIRST DAY OF SCHOOL, GRADES K-6
FULL DAY
- SEP 7 Labor Day
- SEP 28 Yom Kippur
- OCT 8 Early Dismissal GW, SMS, GHS Only
- OCT 12 Columbus Day
- NOV 3 Election Day - No School for Students
- NOV 25 Early Dismissal
- NOV 26-27 Thanksgiving Recess
- DEC 24- JAN 1 Holiday Recess
(Includes Christmas and New Year's Day)
- JAN 18 Martin Luther King Day
- JAN 21-26 Grades 7-12: Mid-Term Exams
(Early Dismissal Grades 9-12)
- △ JAN 27 Gr. 7-12 No School for Students
Teacher Work Day, Grades 7-12
- FEB 4 Early Dismissal GW, SMS, GHS Only
- FEB 15-19 Winter Recess (Includes Presidents' Day)
- MAR 11 Early Dismissal GW, SMS, GHS Only
- APR 2 Good Friday
- APR 19-23 Spring Recess
- MAY 31 Memorial Day
- Last 4 Days Final Exams, Grades 7-12
(Early Dismissal Grades 7-12)
- Last Day Projected Last Day - June 16
Early Dismissal Grades 1-12
(PM K will attend AM Session)
Projected Teacher Work Day - June 17
Teacher Work Day will be the first work day
following the last day for students.
- SCHOOL CLOSED

M	T	W	TH	F
FEBRUARY 2010 15 DAYS				
	1	2	3	4
8	9	10	11	12
15	16	17	18	19
22	23	24	25	26

M	T	W	TH	F
MARCH 2010 23 DAYS				
	1	2	3	4
8	9	10	11	12
15	16	17	18	19
22	23	24	25	26
29	30	31		

M	T	W	TH	F
APRIL 2010 16 DAYS				
			1	2
5	6	7	8	9
12	13	14	15	16
19	20	21	22	23
26	27	28	29	30

M	T	W	TH	F
MAY 2010 20 DAYS				
3	4	5	6	7
10	11	12	13	14
17	18	19	20	21
24	25	26	27	28
31				

M	T	W	TH	F
JUNE 2010 12 DAYS				
	1	2	3	4
7	8	9	10	11
14	15	16	17	18
21	22	23	24	25
28	29	30		

***SCHOOL ENDS JUNE 16**

*If weather or other emergencies require the closing of school, the lost days will be made up by extending the school year in June up to 9 days.
 If additional days are needed, they will be taken from the Spring Recess, beginning April 19.

APPROVED: 02.26.07
 REVISED 09.22.08

ATTENTION CONTRACTOR
 APPROVED FORM FOR YOUR FILES-NOTE ANY COMMENTS BOTTOM OF PAGE 2 - APPROVAL REQUIREMENTS
 APPLICATION DENIED-SEE BOTTOM PAGE 2

GLASTONBURY PUBLIC SCHOOLS

OFFICE OF DISTRICT SAFETY OFFICER

Dr. Kenneth R. Roy
 Director of Environmental Health & Safety
 330 Hubbard St.
 Glastonbury, CT 06033-3099

Telephone: (860) 652-7200 Ext. 2002
 Fax: (860) 652-7275
 E-mail: royk@glastonburyus.org

CONTRACTOR COMPLIANCE FORM

Notice to Contractors:

In concert with, but not limited to, all OSHA General Industry and Construction standards, EPA, NFPA, AHERA, and building codes, contractors conducting work activities at/on any Glastonbury Public School District property are required to provide the following information:

NOTICE: THIS FORM MUST BE COMPLETED AND APPROVED 3 DAYS PRIOR TO COMMENCING ANY OPERATIONS

Once approved, the form will be returned to the originator. Approval is conditional relative to noted specifications by GPS Safety Officer/Director of Environmental Health and Safety.

1. Project Information:

Project Description:		
Location:		
Start Date:	Completion Date:	
Contractor Safety Officer	Phone:	Fax:

Permit Prepared By:

Date Prepared:

Project Scope	Yes	No	Comments
Confined Spaces*	<input type="checkbox"/>	<input type="checkbox"/>	
Electrical Work	<input type="checkbox"/>	<input type="checkbox"/>	
Forklift	<input type="checkbox"/>	<input type="checkbox"/>	
Hazardous Materials	<input type="checkbox"/>	<input type="checkbox"/>	
Ladders/Scaffolds	<input type="checkbox"/>	<input type="checkbox"/>	
Respirators	<input type="checkbox"/>	<input type="checkbox"/>	
Rigging/Lifting	<input type="checkbox"/>	<input type="checkbox"/>	
Welding**	<input type="checkbox"/>	<input type="checkbox"/>	
Asbestos Management***	<input type="checkbox"/>	<input type="checkbox"/>	
Other	<input type="checkbox"/>	<input type="checkbox"/>	

* Contractors need to secure "Confined Space Program" form and seek approval from GPS Safety Compliance Officer 3 days prior to working in permit confined spaces.
 ** Hot permits are required from GPS Safety Compliance Officer prior to "hot" work.
 *** Contractors need to secure Asbestos Management plan from Glastonbury Public Schools prior to all construction/demolition work.

2. Provide district safety officer with Material Safety Data Sheets (MSDS) for all materials used on-site.

LIST EITHER CHEMICAL OR TRADE NAME OF EACH ATTACHED MSD SHEET BELOW	

3. In cases of hazardous waste production, a written disposal plan must be provided to and approved by the District Safety Director, 5 days prior to initiation of work for those materials disposed of on site.
4. All contractors and/or their personnel are required to be in compliance with all EPA, NFPA, AHERA and OSHA and other appropriate safety standards when working on site (under the direction of a contractor's project supervisor).
5. All on-site activities carried out by contractors, and/or their employees, must be done in such a manner as to maintain a safe working environment for all Glastonbury Public Schools' employees, students and visitors.
6. Contractor employees found to be in non-compliance may be removed from the District worksite by the District Safety Officer.
7. Contractors found to be in non-compliance will be subject to forfeiture of payment and/or contract termination.
8. The district reserves the right to inspect the worksite at any time for safety compliance.
9. The district may require review of a contractors OSHA 200/300 log for a period of three (3) previous years.

Please type company name and address below

	RETURN TO: Dr. Kenneth Roy, Safety Compliance Officer E-mail: royk@glastonburyus.org
--	---

By signature, the contractor agrees to adhere to all components and the spirit of this document.

Signature of Contractor	Title	Date

<p>INTERNAL USE ONLY</p> <p>APPROVAL STATUS: <input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>GPS Safety Officer: _____ Date: _____</p> <p>c: <input type="checkbox"/> Maintenance Office File <input type="checkbox"/> Contractor <input type="checkbox"/> Safety Officer Roy <input type="checkbox"/> Building Principal/Supervisor <input type="checkbox"/> (Other) <input type="checkbox"/> (Other)</p>	<p>NOTE TO CONTRACTOR: APPROVAL CONTINGENT ON THE FOLLOWING ITEMS:</p>
---	---

(revised 9/12/07)

**GLASTONBURY, CONNECTICUT
MULTIPLE BUILDING SURVEY****EMG CORPORATION****HEBRON AVENUE SCHOOL**

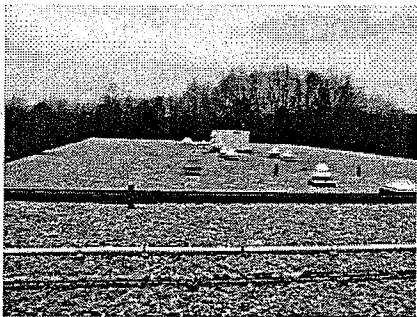
Approximate Square Footage: 57,600 s.f.

Hebron Avenue School is a masonry and steel structure with approximately six different roof areas. There are three different types of roof systems on this school. There is ballasted EPDM membrane roofing, mechanically attached EPDM membrane roofing and fully adhered EPDM membrane roofing. The roof areas range in installation from 1988 to 1996. The building personnel reported that there has been one active leak under the oldest ballasted EPDM section.

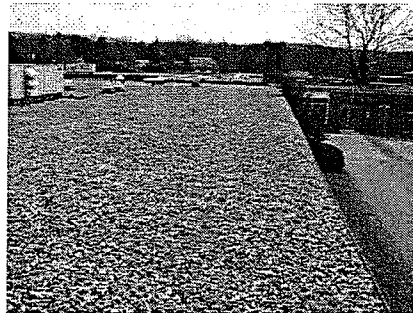
The oldest section of ballasted roofing was installed around 1988 making it approximately 20 years old. The overall condition of the roof is fair with some deficiencies noted. Open gravelstop stripping, vegetation growth, bridging flashings and delamination of the seams and patches were observed. The infrared survey revealed five suspect wet areas. However, the varying thicknesses of ballast make these results inconclusive. Given the deficiencies noted and the advanced age of this roofing, the Owner should begin budgeting for replacement within the next 1-3 years. Any repairs during that time frame should be stop-gap in nature to prevent water entry into the building.

The mechanically attached EPDM was also installed around 1988. The overall condition of this roof area is fair. The seams at the patches and cover strips are deteriorating throughout. However, these areas could be stripped in to extend the service life of this roof. The infrared moisture survey did not reveal any anomalies (or suspected wet areas) within the system. With the proper repairs, stripping in the seams, and continued maintenance, it is estimated that this roof system should provide an additional 4-6 years of effective service life.

The remaining areas of roofing were installed around 1995 or 1996. These are fully adhered and ballasted EPDM assemblies. There were no observed deficiencies on these roof areas and the infrared inspection did not reveal any anomalies. The overall condition of these roof systems is fair. With stripping in the seams of the fully adhered EPDM, and continued maintenance, it is estimated that these EPDM roof systems should provide an additional 5-7 years of effective service life. (The seams may be stripped-in on the ballasted system but the cost will be more significant due to the additional labor required to expose the seams and then reposition all the ballast.)

HEBRON AVENUE SCHOOL

Overview of ballasted EPDM
(4090525)

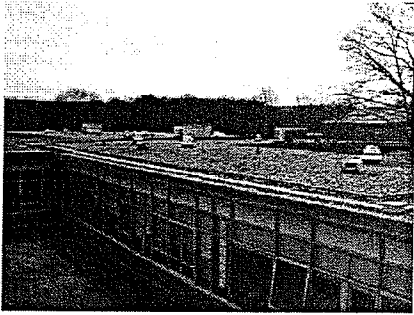


Overview of ballasted EPDM
(4090529)

GLASTONBURY, CONNECTICUT
MULTIPLE BUILDING SURVEY

EMG CORPORATION

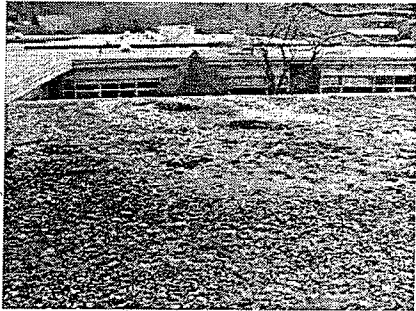
HEBRON AVENUE SCHOOL (cont.)



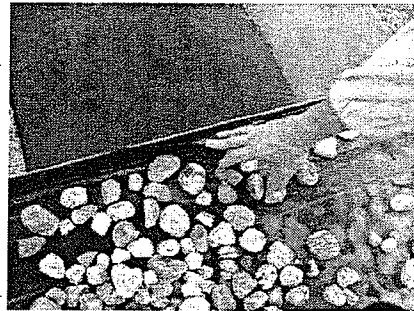
Overview of ballasted EPDM (P4090534)



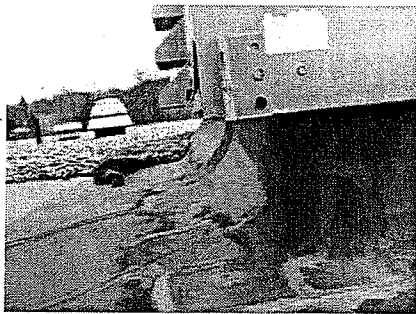
Overview of ballasted EPDM (P4090541)



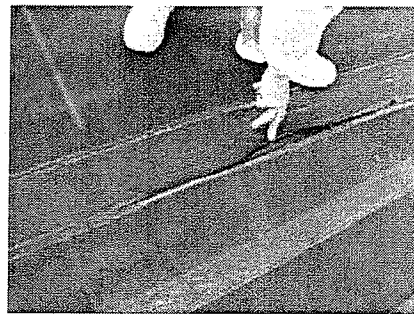
Vegetation growth on roof surface (P4090540)



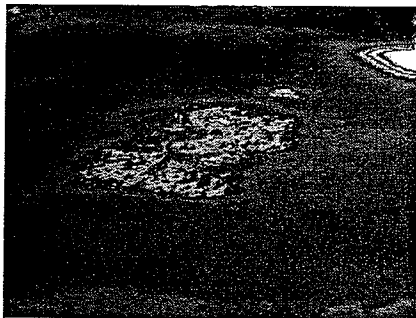
Open gravelstop stripping (P4090548)



Bridging base flashing (P4090555)



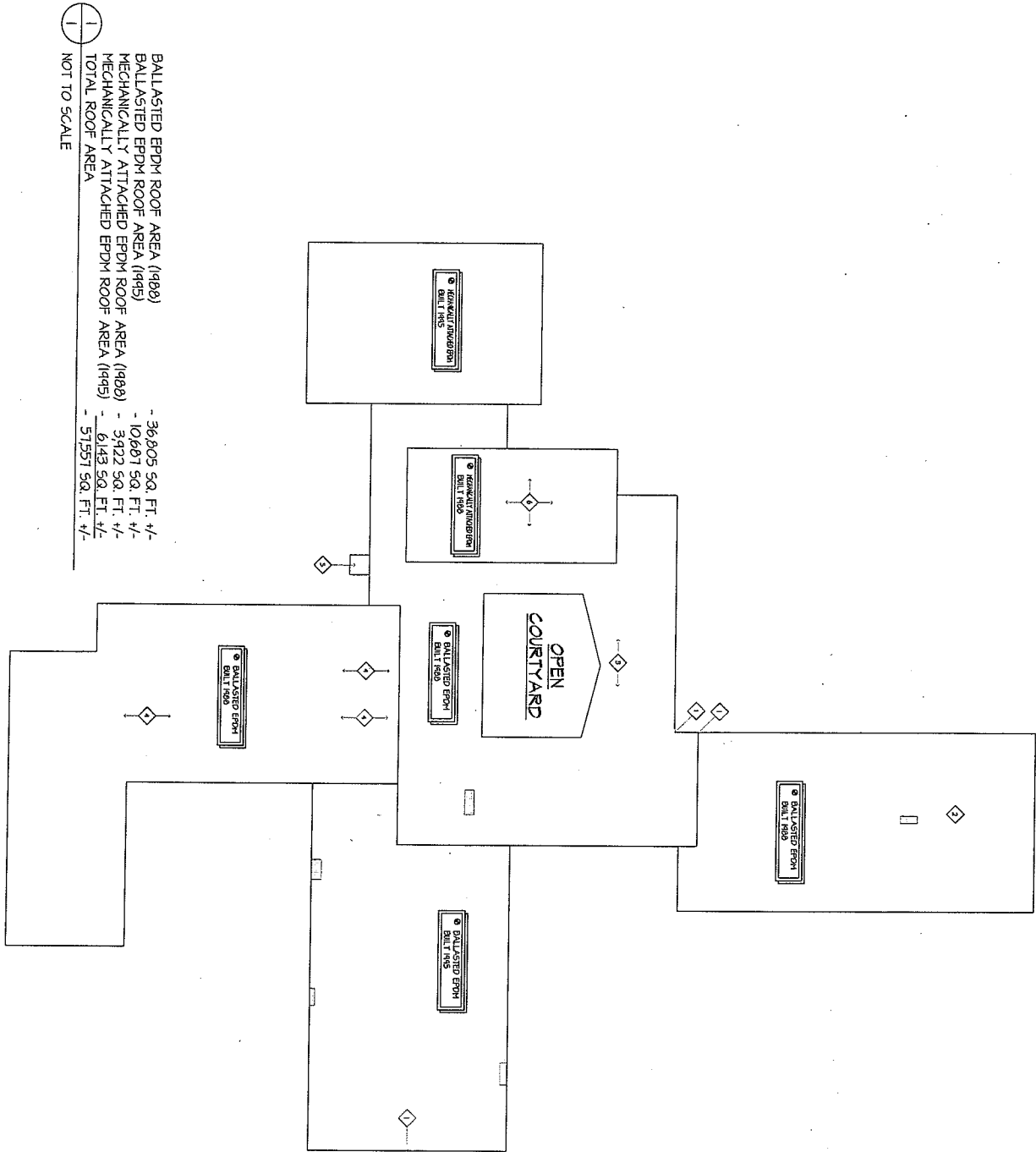
Delamination at field seam edges (P4090563)



IR image of wet area (IMR00127)



IR image of wet area (IMR00129)



BALLASTED EPDM ROOF AREA (1985)
 BALLASTED EPDM ROOF AREA (1985)
 MECHANICALLY ATTACHED EPDM ROOF AREA (1985)
 MECHANICALLY ATTACHED EPDM ROOF AREA (1985)
 TOTAL ROOF AREA
 NOT TO SCALE

- 36,805 SQ. FT. +/-
- 10,681 SQ. FT. +/-
- 3,922 SQ. FT. +/-
- 6,143 SQ. FT. +/-
- 57,551 SQ. FT. +/-

USE AS GUIDE ONLY

61-2011-01

DEFICIENCY LIST	
1	OPEN GRAVEL STOP STRIPING
2	BROKEN SKYLIGHT DOME
3	VEGETATION GROWTH
4	BUILDING IN FLASHING
5	HOLE IN MEMBRANE
6	DELAminated PATCH / COVER STRIPS

CONTOUR LEGEND	
CONTOUR LEANS	VALUES
LEVEL I - DRY	0
LEVEL II - DAMP	1/4
LEVEL III - WET	0.25
LEVEL IV - FLOODING	0

ros ROOF CONSULTING SERVICES, INC
 P.O. BOX 4141
 RICHMOND, VIRGINIA 23228
 (804) 915-0885
 * SURVEYS * SPECIFICATIONS * INSPECTIONS *

Date	4/9/2008
Drawn By	NAME
Scale	NONE
Checked By	JLET



INFRARED MOISTURE SURVEY
 For: GLASTONBURY COUNTY PUBLIC SCHOOLS
 Project: HEBRON AVENUE SCHOOL
 1523 HEBRON AVENUE

Sheet 01
 A-
 of 01

For Discussion Purposes Only

SECTION 01010
SUMMARY OF WORK

1. PART 1 - GENERAL

1.1. RELATED DOCUMENTS:

- A. Documents affecting work of this Section include, but are not necessarily limited to, General Requirements, bidding documents and drawings.

1.2. SUMMARY OF WORK:

- A. Furnish and install roof materials, insulation, flashings, and miscellaneous materials on the following designated roof areas;
- B. Work includes but not limited to:
 - 1 Remove existing ballast and EPDM membrane, remove all marked penetrations, remove antenna's on cafeteria roof (Section 5), remove all piping, conduits and supports laying on roof surface. Patch all openings created by piping and conduit removal.
 - 2 Cut back insulation and install new decking with an approved material over all openings created with the removal of the marked penetrations. Replace insulation in kind.
 - 3 Remove all wet insulation and replace in kind (include a 4,000 sq. ft. wet insulation removal allowance), use nuclear scan drawing as a guide only.
 - 4 Remove all metal flashings including edge, counterflashings, gutters and downspouts. All lead coated copper metal and existing aluminum metal to be removed.
 - 5 Remove all insulation along drains in a 8' x 8' down to deck sump all existing drains in and re-flash all existing drains, include 6 new strainers in your bid.
 - 6 Mechanically attach existing insulation down according to I-90 wind uplift requirements.
 - 7 Install new multi-layer modified roof system with a 25 year warranty
 - 8 Re-point crack along the South side of the Chimney including the cap. Waterproof masonry all masonry above the roof line.
 - 9 Install new metal flashings as specified, matching up new metal with existing bronze color, wrap all exposed wood on vertical surface and soffit with white flat stock along Section 5.
 - 10 Provide skylight protection according to OSHA requirements on the two skylights on Section 1
 - 11 Make the necessary changes to the hatch way in Section 4 to meet OSHA standards

1.3. INTENT OF THE SPECIFICATIONS:

- A. The intent of these specifications is to describe the materials and methods of construction required for the performance of the work. In general, it is intended that the drawings shall delineate the detailed extent of the work. When there is a discrepancy between drawings, referenced specifications, and standards and this specification, this specification shall govern.

1.4. PROTECTION:

- A. The Contractor shall use every available precaution to provide for the safety of property owner, visitors to the site, and all connected with the work under the specification.
- B. All existing facilities both above and below ground shall be protected and maintained free of damage. Existing facilities shall remain operating during the period of construction unless otherwise permitted. All access roadways must remain open to traffic unless otherwise permitted.
- C. Barricades shall be erected to fence off all construction areas from operations personnel.
- D. Safety Requirements
 - 1 All application, material handling, and associated equipment shall conform to and be operated in conformance with OSHA safety requirements.
 - 2 Comply with federal, state, local and owner fire and safety requirements.
 - 3 Advise owner whenever work is expected to be hazardous to owner employees and/or operations.
 - 4 Maintain a crewman as a floor area guard whenever roof decking is being repaired or replaced.
 - 5 Maintain proper fire extinguisher within easy access whenever power tools, roofing kettles, and torches are being used.
 - 6 ALL SAFETY REQUIREMENTS OF THE BUILDING OWNER MUST BE FOLLOWED. NO EXCEPTIONS WILL BE PERMITTED. SAFETY ORIENTATION MEETING REQUIRED PRIOR TO PERFORMING ANY WORK.

1.5. HOUSEKEEPING:

- A. Keep materials neat and orderly.
- B. Remove scrap, waste and debris from project area.
- C. Maintenance of clean conditions while work is in progress and cleanup when work is completed shall be in strict accordance with the "General Requirements" of this contract.

* * * END OF SECTION 01010 * * *

SECTION 01015

CONTRACTOR'S USE OF PREMISES

2. PART 1 - GENERAL

2.1. RELATED DOCUMENTS:

- A. Documents affecting work of this Section include, but are not necessarily limited to, General Requirements, bidding documents and drawings.

2.2. DESCRIPTION

- A. Work included:
 - 1 This Section applies to situations in which the Contractor or his representatives including, but not necessarily limited to, suppliers, subcontractors, employees, and field engineers, enter upon Owner's property.

2.3. QUALITY ASSURANCE

- A. Promptly upon award of the Contract, notify all pertinent personnel regarding requirements of this Section.
- B. Owner may require all personnel who will enter upon the Owner's property certify their awareness of and familiarity with requirements of this Section.

2.4. TRANSPORTATION FACILITIES

- A. Provide adequate protection for curbs and sidewalks over which trucks and equipment pass to reach job site. If any damage occurs the contractor is responsible for repairs.
- B. Contractor's vehicles:
 - 1 Require Contractor's vehicles, vehicles belonging to employees of Contractor, and all other vehicles entering upon Owner's property in performance of Work of Contract, to use only the Access Route approved in advance by Owner.
 - 2 Do not permit such vehicles to park on any street or other area of Owner's property except in the area approved by Owner as "Contractor's Parking Area."

2.5. LANDSCAPING

- A. Provide adequate protection for trees, grass, shrubs and all other landscaping during set-up or construction. If any damage occurs the contractor is responsible for repairs as designated by the Owner.

2.6. FACILITY USAGE

- A. Provide adequate protection for all interior and exterior portions of the building during set-up and construction. If any damage occurs the contractor is responsible for repairs as designated by the Owner.
- B. Restrooms and other amenities of the building will only be used with permission of the Owner. If such authorization is given, the Contractor is responsible for maintaining cleanliness and repairs as designated by the Owner.

2.7. SECURITY

- A. Restrict access of all persons entering upon the Owner's property to the Access Route and to the actual site of the work.

* * * END OF SECTION 01015 * * *

SECTION 01060
REGULATORY REQUIREMENTS

3. PART 1 - GENERAL

3.1. RELATED DOCUMENTS:

- A. Documents affecting work of this Section include, but are not necessarily limited to, General Requirements, bidding documents and drawings.

3.2. TAXES:

- A. Contractor shall pay all sales, consumer, use and other similar taxes required by law.

3.3. PERMITS AND FEES:

- A. The Contractor shall apply for and secure all incidental permits, governmental fees and licenses necessary for proper execution and completion of the Work.

3.4. GOVERNING CODES:

- A. Work performed under this specification shall be in compliance with applicable codes, laws, and ordinances of the municipal, state, and federal departments concerned. Materials and workmanship required by such regulations shall be provided by the Contractor whether or not specifically noted herein or shown on the drawings.

3.5. NOTICES:

- A. The Contractor shall give all notices and comply with all laws, ordinances, rules, regulations and orders of any public authority bearing on the performance of the Work. If Contractor performs any Work knowing it to be contrary to such laws, ordinances, rules and regulations, without providing notice to building owner's representative, Contractor shall assume full responsibility and shall bear all costs.

3.6. REGULATORY REQUIREMENTS

- A. State and local building codes.

* * * END SECTION 01060 * * *

SECTION 01090

REFERENCES

4. PART 1 - GENERAL

4.1. RELATED DOCUMENTS:

- A. Documents affecting work of this Section include but are not necessarily limited to, General Requirements, bidding documents and drawings.

4.2. REFERENCE STANDARDS

- A. Referenced specifications and standards published by national societies, associations, and institutes shall be considered as part of this specification. In all cases, the referenced specification or standard shall be of the most recent publication date. Abbreviated identifications for the particular organizations involved are as listed below:

- 1 ASTM - American Society for Testing and Materials
- 2 AWPA - American Wood Preservers Association
- 3 AWPB - American Wood Preservers Bureau
- 4 NRCA - National Roofing Contractors Association
- 5 OSHA - Occupational Safety and Health Administration
- 6 AIA - American Institute of Architecture
- 7 FM - Factory Mutual
- 8 UL - Underwriters Laboratory
- 9 ANSI - American National Standards Institute
- 10 SMACNA Sheet Metal and Air-conditioning Contractors National Association

* * * END OF SECTION 01090 * * *

SECTION 01151
APPLICATIONS FOR PAYMENT

5. PART 1 - GENERAL

5.1. RELATED DOCUMENTS:

- A. Documents affecting work of this Section include, but are not necessarily limited to, General Requirements, bidding documents and drawings.

5.2. DESCRIPTION

- A. Work included:
 - 1 Comply with procedures described in this Section when applying for progress payment and final payment under Contract.

5.3. QUALITY ASSURANCE

- A. Prior to start of construction, secure Designated Owner's representative's approval of schedule of values required to be submitted.
- B. During progress of the Work, modify schedule of values as approved by Designated Owner's representative to reflect changes in the Contract Sum due to Change Orders or other modifications of Contract.
- C. Base requests for payment on approved schedule of values.

5.4. SUBMITTALS

- A. Formal submittal: Unless other wise directed by Designated Owner's representative:
 - 1 Make an informal submittal of request for payment by filling in, with erasable pencil, pertinent portions of AIA Document G702, "Application and Certificate for Payment," plus continuation sheet or sheets.
 - 2 Sign and notarize Application and Certificate for Payment.
 - 3 Submit original and three (3) copies of Application and Certificate for payment, plus four identical copies of continuation sheet or sheets, to Designated Owner's representative.
 - 4 Designated Owner's representative will compare formal submittal with approved informal submittal and, when approved, will sign Application and Certificate for Payment, will make required copies, and will distribute:
 - a One copy to Contractor;
 - b Two copies to Owner;
 - c One copy to Designated Owner's representative's file.

5.5. MATERIAL PAYMENT PROCEDURE

- A. Material payment will be processed upon delivery of materials to job site, issuance of invoice by the Contractor and approval by Owner's Representative. All suppliers and subcontractors must be paid in full and Waiver of Lien by major suppliers and subcontractors issued prior to any subsequent payments being made to the contractor.
- B. In the absence of a letter of credit, performance, payment or materials and labor bond a waiver of lien agreement conditioned upon payment by joint check shall be performed by the contractor, owner and materials manufacture for this project.

- C. Once all work has been completed, and final inspection has been made, Contractor may invoice the Owner for 90% of the remaining labor and the materials which were provided by Contractor. The owner will make payment of the remaining 10% once the warranty has been issued.

* * * END OF SECTION 01151 * * *

SECTION 01153
CHANGE ORDER PROCEDURE

6. PART 1 - GENERAL

6.1. RELATED DOCUMENTS:

- A. Documents affecting work of this Section include, but are not necessarily limited to, General Requirements, bidding documents and drawings.

6.2. DESCRIPTION

- A. Work included:
 - 1 Make such changes in the Work, in the Contract Sum, in the Contract Time of Completion, or any combination thereof, as are described in written Change Orders signed by the Owner and the Designated Owner's representative and issued after execution of the Contract, in accordance with the provisions of this Section.

6.3. QUALITY ASSURANCE

- A. Include within the Contractor's quality assurance program such measures as are needed to assure familiarity of the Contractor's staff and employees with these procedures for processing Change Order data.

6.4. SUBMITTALS

- A. Make submittals directly to the Designated Owner's representative at his normal place of business.
- B. Submit the number of copies called for under the various items listed in this Section.

6.5. PRODUCT HANDLING

- A. Maintain a "Register of Bulletins and Change Orders" at the job site, accurately reflecting current status of all pertinent data.
- B. Make the Register available to the Designated Owner's representative for review at his request.

6.6. PROCESSING CHANGES INITIATED BY THE OWNER

- A. Should the Owner contemplate making a change in the Work or a change in the Contract Time of Completion, the Designated Owner's representative will issue a "Bulletin" to the Contractor.
 - 1 Bulletins will be dated and will be numbered in sequence.
 - 2 The Bulletin will describe the contemplated change, and will carry one of the following instructions to the Contractor:
 - a Make the described change in the Work at no change in the Contract Sum and no change in the Contract Time of Completion;
 - b Promptly advise the Designated Owner's representative as to credit or cost proposed for the described change. This is not an authorization to proceed with the change.
- B. If the Contractor has been directed by the Designated Owner's representative to promptly advise him as to credit or cost proposed for the described change, the Contractor shall:
 - 1 Analyze the described change and its impact on costs and time;

- 2 Secure the required information and forward it to the Designated Owner's representative for review;
- 3 Meet with the Designated Owner's representative as required to explain costs and, when appropriate, determine other acceptable ways to achieve the desired objective;
- 4 Alert pertinent personnel and subcontractors as to the impending change and, to the maximum extent possible, avoid such work as would increase the Owner's cost for making the change, advising the Designated Owner's representative in writing when such avoidance no longer is practicable.

6.7. PROCESSING CHANGES INITIATED BY THE CONTRACTOR

- A. Should the Contractor discover a discrepancy among the Contract Documents or other cause for suggesting a change in the Work, a change in the Contract Sum, or a change in the Contract Time of Completion, he shall notify the Designated Owner's representative as required by pertinent provisions of the Contract Documents.
- B. Upon agreement by the Designated Owner's representative that there is reasonable cause to consider the Contractor's proposed change, the Designated Owner's representative will issue a Bulletin in accordance with the provisions described in Article 1.6 above.

6.8. PROCESSING BULLETINS

- A. Make written reply to the Designated Owner's representative in response to each Bulletin.
 - 1 State proposed change in the Contract Sum, if any.
 - 2 State proposed change in the Contract Time of Completion, if any.
 - 3 Clearly describe other changes in the Work required by the proposed change, or desirable therewith, if any.
 - 4 Include full backup data such as subcontractor's letter of proposal or similar information.
 - 5 Submit this response in single copy.
- B. When cost or credit for the change has been agreed upon by the Owner and the Contractor the Designated Owner's representative will issue a "Change Order" to the Contractor.

6.9. PROCESSING CHANGE ORDERS

- A. Change Orders will be dated and will be numbered in sequence.
- B. The Change Order will describe the change or changes, will refer to the Bulletin or Bulletins involved, and will be signed by the Owner and the Designated Owner's representative.
- C. The Designated Owner's representative will issue three copies of each Change Order to the Contractor.
 - 1 The Contractor promptly shall sign all three copies and return two copies to the Designated Owner's representative.
 - 2 The Designated Owner's representative will retain one signed copy in his file and will forward one signed copy to the Owner.
- D. Should the Contractor disagree with the stipulated change in Contract Sum or change in Contract Time of Completion, or both:
 - 1 The Contractor promptly shall return two copies of the Change Order, unsigned by him, to the Designated Owner's representative with a letter signed by the Contractor and stating the reason or reasons for the Contractor's disagreement.

- 2 The Contractor's disagreement with the Change Order shall not in any way relieve the Contractor of his responsibility to proceed with the change as ordered and to seek settlement of the dispute under pertinent provisions of the Contract Documents.

* * * END OF SECTION 01153 * * *

SECTION 01200
PROJECT MEETINGS

7. PART 1 - GENERAL REQUIREMENTS

7.1. RELATED DOCUMENTS:

- A. Documents affecting work of this Section include, but are not necessarily limited to, General Requirements, bidding documents and drawings.

7.2. PRECONSTRUCTION CONFERENCE

- A. The Preconstruction Conference will be scheduled within 15 working days after the Owner has issued the Notice to Proceed, but prior to actual start of the Work.
- B. Attendance: Representative of owner, roofing manufacturer/supplier, and contractor.
- C. Minimum agenda: Data will be distributed and discussed on:
- 1 Organizational arrangement of Contractor's forces and personnel, and those of subcontractors, materials suppliers, and the owner's representative.
 - 2 Channels and procedures for communication.
 - 3 Review set-up area.
 - 4 Review all required permits.
 - 5 Review insurance requirements.
 - 6 Construction schedule, including sequence of critical work.
 - 7 Contract Documents, including distribution of required copies of Drawings and revisions.
 - 8 Processing of Shop Drawings and other data submitted to the owner's representative for review.
 - 9 Processing of field decisions and Change Orders.
 - 10 Rules and regulations governing performance of the work.
 - 11 Procedures for safety and first aid, security, quality control, housekeeping, and related matters.

7.3. PROGRESS MEETINGS

- A. Will be scheduled by owner's representative weekly or as described at the pre-bid meeting.
- B. Attendance: Owner, Contractor, Job Superintendent, Roofing Material Manufacturer/Supplier, and Sub-Contractors, as appropriate.
- C. Minimum Agenda:
- 1 Review of work progress.
 - 2 Field observations, problems, and decisions.
 - 3 Identification of problems which impede planned progress.
 - 4 Maintenance of progress schedule.
 - 5 Corrective measures to regain projected schedules.
 - 6 Planned progress during succeeding work period.

- 7 Coordination of projected progress.
- 8 Maintenance of quality and work standards.
- 9 Effect of proposed changes on progress, schedule, and coordination.
- 10 Other business relating to work.

7.4. PRE-FINAL INSPECTION

- A. Contractor must inform material supplier and building owner's representative prior to application of flood coat and gravel. Pre-final inspection will then be scheduled.
- B. Installations or details noted as deficient during inspection must be repaired and corrected by applicator.
- C. Once corrections have been made, contractor must inform material supplier and building owner's representative so a second inspection can be scheduled.
- D. Material supplier must approve roofing system prior to application of flood coat, surfacing application and/or gravel surfacing.

7.5. FINAL INSPECTION

- A. Scheduled by roofing material manufacturer upon job completion.
- B. Attendance: Owner or designated representative, contractor, roofing material manufacturer/supplier.
- C. Minimum Agenda:
 - 1 Walkover inspection.
 - 2 Identification of needed corrections to be completed by contractor with final approval from warrantor.

* * * END OF SECTION 01200 * * *

SECTION 01300

SUBMITTALS

8. PART 1 - GENERAL

8.1. RELATED DOCUMENTS:

- A. Documents affecting work of this Section include, but are not necessarily limited to, General Requirements, bidding documents and drawings.

8.2. SUBMITTAL PROCEDURES

A. Coordination of submittals:

- 1 Prior to each submittal, carefully review and coordinate all aspects of each item being submitted.
- 2 Verify that each item and the submittal for it conform in all respects with the specified requirements.
- 3 By affixing the Contractor's signature or approval stamp to each submittal, he/she certifies that this coordination has been performed.

B. Substitutions:

- 1 The Contract is based on the standards of quality established in the Contract Documents. To give all bidders equal opportunity, use of any materials or methods other than those specified will require the proper submittal information and must be pre-approved in written addenda 10 days prior to bid due date.
- 2 The following products do not require further approval except for interface within the Work:
 - a Minor products specified by reference to standard specification such as ASTM and similar standards.
 - b Products specified by manufacturer's name and catalog model number.
- 3 Building owner reserves right to final authority on acceptance or rejection of any substitute.
- 4 Request for substitutions will be accepted from prime bidders only. Requests for substitutions from parties not bidding on the project as a primary contractor will not be considered.

C. "Or equal":

- 1 The specified materials are named to denote the kind and quality required, whether or not the words "or approved equal" are used. These materials shall serve as standards and all proposals shall be based upon the same.
- 2 Where the phrase "or equal," or "or equal as approved by the Owner," occurs in the Contract Documents, the material or method must be so approved for this Work by the Owner prior to receipt of bids.
- 3 The decision of the Owner shall be final.

8.3. SUBMITTAL DOCUMENTS

- A. Only Bidders proposing substitutes to the material or methods specified in this specification are required to submit the following documentation.
- 1 A list of three (3) jobs of similar size where the proposed materials have been used, under similar conditions as specified.

- 2 Roof System Test Data: Each manufacture must submit independent third part test reports on a multi-ply roof membrane system. The independent third party test data must be submitted on lab letterhead.
 - a Test data must be submitted on the entire roof membrane system and not for individual roof components such as, base sheets, ply sheets, adhesives, cap sheets, flood coats and etc.
 - b Test data must be conducted per test methods listed in the Section 7500 - Systems Roofing
 - c Independent test laboratory shall be ISO/IEC 17025 certified.
- 3 Shop Drawings:
 - a Make Shop Drawings accurately to a scale sufficiently large to show all pertinent aspects of the item and its method of connection to the Work.
 - b Owner will review and comment on required changes. The Contractor may make and distribute corrected copies as are required for his purposes.
- 4 Copy of the roofing supplier's warranty which meets all requirements of the specified warranty.
- 5 Individual product identification, including material supplier's literature and MSDS sheets.
- 6 Letter from material supplier signed by a corporate officer, on company stationary, confirming that all bidding documents have been approved, that the site has been inspected and meets the requirements for suitability, and that the specified warranty shall be provided upon satisfactory completion of the project.
- 7 Material supplier providing the roofing warranty shall have a ISO 9001 Certificate of Registration.
 - a Submit a copies of the material suppliers Certificate of Registration
- 8 Verify material supplier is a financially stable organization with the ability to protect the building Owner from both product liability and warranty claims relating to roofing that might arise during the course of the warranty period. It is the intent of the building Owner to establish requirements that will protect him, be fair to all suppliers and ensure that requirements are in line with the exposure of the supplier. The following information will be provided by the material supplier that will issue the warranty and will be submitted by the prime bidder:
 - a A certificate of insurance for product liability with minimum limits in accordance with the following formula:
 - (a) Product Liability Insurance will be a minimum aggregate coverage, not less than 5% of total company sales, with coverage of not less than 1 million dollars per occurrence.
 - (b) First dollar coverage.
 - (c) Coverage provided by an admitted company licensed to do business in *Glastonbury*, with an A.B. Best rating of A-or better.
 - b An affidavit signed by a corporate officer stating that they are not currently, nor have been within the last five (5) years, involved in litigation regarding asbestos content of their materials. Or provide a list of all pending asbestos related litigation, an estimate of the dollar amount of all potential asbestos related liability and a summary of all asbestos related settlements over the last five years.

- c An affidavit signed by a corporate officer that the cost of the warranty claims has not exceeded 2% of that company's total roofing product sales in any of the last five (5) years.
- 9 Any proposed substitute materials or methods must also be accompanied by the following documentation:
- a A detailed analysis of the roofs being bid on.
 - b A complete specification of the proposed substitute. If, after review, the substitute is found to be acceptable, copies will be provided to each bidder who has picked up the original specification.
 - c Written explanation of why substitutions should be considered is required.

8.4. BID DOCUMENTS

- A. Bid and Proposal Form shall contain quotes to be identified "BASE BID" for the specified materials and methods. Quotes for approved substitutions or specified alternates shall be identified as "DEDUCTION FROM BASE BID" for installation.
- B. Each bid shall be accompanied by a bid guarantee of 10% of the bid amount. The bid guarantee may be in the form of a bond or a certified check, cashier's check, or letter of credit.
- C. Certificate of insurance with limits specified in Section 00100.
- D. Evidence of experience as specified in Section 00100.

*** * * END OF SECTION 01300 * * ***

SECTION 01400
QUALITY CONTROL

9. PART 1 - GENERAL

9.1. RELATED DOCUMENTS:

- A. Documents affecting work of this Section include, but are not necessarily limited to, General Requirements, bidding documents and drawings.

9.2. QUALITY CONTROL

- A. Contractor shall:
 - 1 Be experienced in hot multi-ply roofing and modified bitumen roofing.
 - 2 Be acceptable by owner and roofing material manufacturer/supplier.
- B. Roofing manufacturer shall:
 - 1 Be an Associate Member in good standing with National Roofing Contractor's Association (NRCA).
 - 2 Be recognized in roofing, waterproofing and moisture survey industry.
 - 3 Be approved by owner.
 - 4 Material manufacturer/supplier must supply representative to perform periodic inspections throughout the course of the project. Written reports must be submitted to the owner's representative and copies to the contractor.
 - 5 Material supplier providing the roofing warranty shall be ISO 9001:2000 and ISO 14001:2004 Certified.
 - a Submit copies of the material suppliers Certificates of Registration
 - b Certificates of Registration shall have listed: Design, Manufacturer and Distribution in the Scope of Approval and/or Activity
- C. Infra-red scan must be made to the completed roof prior to application of final surfacing. Infra-red scanner must be approved by the manufacturer/supplier issuing the warranty. Cost of this survey must be included in the Contractor's Base Bid.
- D. Any deficiencies noted during inspections must be corrected by the contractor and approved in writing by the material manufacturer/supplier's representative.

9.3. FIELD QUALITY CONTROL

- A. Dimensions in the construction documents are approximate and are used to describe the scope of work.
- B. The contractor shall field measure in (in US measurement) all roof areas to verify the dimensions to order adequate material quantities to complete the work specified in these documents.
- C. Any discrepancies found by the contractor during the bid process must be submitted in writing to the owner's representative. Start of the project is notice to the owner that the contractor as verified all field dimensions and material quantities to complete the project.

9.4. RANDOM SAMPLING

- A. During course of work, owner/owner's representative may secure samples of materials being used from containers at job site and submit them to an independent laboratory for comparison to specified material.
- B. If test results prove that a material is not functionally equal to specified material:
 - 1 Contractor shall pay for all testing.
 - 2 Owner will charge Contractor a penalty up to 20 percent of contract price when all work has been completed before test results become known.
 - 3 Owner will charge Contractor a penalty in proportion to amount of work completed before test results become known. Remaining work shall be completed with specified materials.

10. PART 2 - PRODUCTS

10.1.GENERAL

- A. Comply with Quality Control, References, Specification, and Manufacturer's data. Where conflict may exist, more stringent requirements govern.
- B. Provide primary products, including each type of roofing sheet (felt), bitumen, base flashings, miscellaneous flashing materials, and sheet metal components from a single manufacturer, which has produced that type of product successfully for not less than three (3) years. Provide secondary products (insulation, mechanical fasteners, lumber, etc.) only as recommended by manufacturer of primary products for use with roofing system specified.

11. PART 3 - EXECUTION

11.1.SUBMITTALS

- A. Provide building owner's representative a letter from the roof material manufacturer indicating that applicator is approved to install their products and will provide warranty for this installation.

* * * END OF SECTION 01400 * * *

SECTION 01600
MATERIAL AND EQUIPMENT

12. PART 1 - GENERAL

12.1.RELATED DOCUMENTS:

- A. Documents affecting work of this Section include, but are not necessarily limited to, General Requirements, bidding documents and drawings.

12.2.DELIVERY, STORAGE AND HANDLING

A. Delivery of Materials

- 1 Deliver materials to job-site in new, dry, unopened and well-marked containers showing product and manufacturer's name.
- 2 Deliver materials in sufficient quantity to allow continuity of work.

B. Storage of Materials

- 1 Store bitumen and ply sheets in dry area protected from water or extreme humidity.
- 2 Store ply sheets on ends only where possible; on sloped roofs, store flat parallel to joists. Discard rolls which have been flattened, creased, or otherwise damaged.
- 3 Stack insulation on pallets.
- 4 Remove plastic packing shrouds. Cover all stored materials with canvas tarpaulin top to bottom. Secure tarpaulin.
- 5 Rooftop storage: Disperse material on roof to avoid structure overloading.

C. Material Handling

- 1 Handle all materials on site to avoid bending, tearing, or other damage during transportation and installation.
- 2 Material handling equipment shall be selected and operated so as not to damage existing construction or applied roofing. Do not operate or situate material handling equipment in locations that will hinder smooth flow of vehicular or pedestrian traffic.

D. Environmental Requirements

- 1 Do not work in rain, snow or in presence of water.

*** * * END OF SECTION 01600 * * ***

SECTION 01700
CONTRACT CLOSE-OUT

13. PART 1 - GENERAL

13.1. RELATED DOCUMENTS:

- A. Documents affecting work of this Section include, but are not necessarily limited to, General Requirements, bidding documents and drawings.

13.2. DESCRIPTION

- A. Work included:
 - 1 Provide an orderly and efficient transfer of the completed Work to the Owner.

13.3. QUALITY ASSURANCE

- A. Prior to requesting inspection by the Project Manager, use adequate means to assure that the Work is completed in accordance with the specified requirements and is ready for the requested inspection.

13.4. PROCEDURES

- A. Substantial Completion:
 - 1 All roofing materials and components are in place and water tight according to specifications with alternates approved by Designated Owner's representative and Building Owner.
 - 2 Roofing Contractor will notify designated Owner's representative of substantial completion. Within a reasonable time after receipt of notification, the designated Owner's representative will inspect to determine status of completion.
 - 3 Should the designated Owner's representative determine that the Work is not substantially completed:
 - a The Designated Owner's representative will promptly notify the Contractor, giving the reasons therefore.
 - b Roofing Contractor will remedy the deficiencies and notify the Designated Owner's representative when ready for re-inspection.
 - c The Designated Owner's representative will re-inspect the Work.
- B. Final Completion:
 - 1 Designated Owner's representative will prepare and submit a written statement at final completion.
 - 2 Certify that:
 - a Contract Documents have been reviewed;
 - b Work has been inspected for compliance with the Contract Documents;
 - c Work has been completed in accordance with the Contract Documents;
 - d Equipment and systems have been tested as required, and are operational;
 - e Work is completed and ready for final inspection.
 - 3 The Designated Owner's representative will make an inspection to verify status of completion.

- 4 Should the Designated Owner's representative determine that the Work is incomplete or defective:
 - a The Designated Owner's representative will promptly notify the Contractor, in writing, listing the incomplete or defective work.
 - b Remedy the deficiencies promptly, and notify the Designated Owner's representative when ready for reinspection.
 - 5 When the Designated Owner's representative determines that the Work is acceptable under the Contract Documents, he will request the Contractor to make close-out submittals.
- C. Close-out submittals include, but are not necessarily limited to:
- 1 Operation and maintenance data for items so listed in pertinent other Sections of these Specifications, and for other items when so directed by the Project Manager;
 - 2 Warranties and bonds;
 - 3 Evidence of payment and release of liens;
 - 4 List of subcontractors, service organizations, and principal vendors, including names, addresses, and telephone numbers where they can be reached for emergency service at all times including nights, weekends, and holidays.
- D. Final adjustment of accounts:
- 1 Submit a final statement of accounting to the Project Manager, showing all adjustments to the Contract Sum.
 - 2 If so required, the Designated Owner's representative will prepare a final Change Order showing adjustments to the Contract Sum which were not made previously by Change Orders.

13.5. INSTRUCTION

- A. Instruct the Owner's personnel in proper operation and maintenance of systems, equipment, and similar items which were provided as part of the Work.

*** END OF SECTION 01700 ***

SECTION 01741

NDL WARRANTY

14. PART 1 - GENERAL

14.1. RELATED DOCUMENTS:

- A. Documents affecting work of this Section include, but are not necessarily limited to, General Requirements, bidding documents and drawings.

14.2. GENERAL

- A. This portion of the specification sets forth the warranty requirements for the following roof area(s): All Roof Areas.

14.3. WARRANTY

- A. Quotations will include a price for a 25 year no dollar limit, non prorated warranty to be provided by the material supplier.
- B. The material supplier will issue the warranty to the owner upon material supplier acceptance of the project completion and full payment of all bills related to the project.
- C. Warranty supplier shall, as part of the warranty, provide one (1) maintenance visit within the first two (2) years of the warranty period. Each maintenance visit will include Inspections, Housekeeping, Routine Maintenance and Preventive Maintenance as described below.

1 Roof Inspections

- a Visual inspection of the roof membrane and roof surface
- b Inspection of all rooftop equipment and penetrations to identify potential sources of water entry including, but not limited to, the metal edge system, base flashings on equipment and adjoining walls, counter-flashing and termination details, soil stacks and vents, pitch pans, skylights and access hatches, gutters, scuppers and drains.
- c Advise owner of missing drain dome strainers, cracked drain rings or bowls, and missing clamps or bolts. Replacement of these items will be at owner's expense.

2 General Rooftop Housekeeping

- a Service will include removal of surface debris from the membrane, roof drains, gutters, and scuppers, but not clogged pipes or plumbing.
- b Debris that will be removed include the following: Naturally occurring debris such as leaves and branches; Trash which may clog drains such as bottles, newspapers or cups; Small items which may damage the roof membrane if stepped on such as nails or screws
- c All debris will be disposed of at the owner's approved site location

3 Routine Maintenance

- a Sealant voids in termination bars, counter-flashings and parapet caps will be touched-up as required.
- b Exposed fasteners will be resealed on perimeter metal details where required.
- c All pitch pans will be refilled and topped off as required.
- d Metal projections (hoods and clamps) will be checked and resealed if required.

- e Soil stack leads will be inspected for cuts or holes and temporarily resealed when required with appropriate materials until arrangements can be made for permanent repair.
- 4 Preventive Maintenance Service
- a All repairs will follow the manufacturer's written repair and maintenance guidelines, or NRCA recommended repair procedure if the manufacturer is unknown.
 - b Tears, splits and breaks in the perimeter and internal membrane flashing systems and flashing strip-ins will be repaired with appropriate repair materials.
 - c Visible membrane defects, which may allow water into the roofing system, will be repaired with appropriate repair materials.
 - d Re-secure loose metal coping caps, termination bars, counter-flashings and metal edge systems where required with appropriate fasteners
 - e Dress-up reflective coatings where mastic repairs have been made
 - f Exposed fasteners on roof top equipment that are loose will be tightened and resealed.
 - g Check and re-secure drain bolts and clamping rings.
 - h Check strip-in around drain leads, coat with approved mastics if required.
 - i Reattach loose gutter straps, seal open gutter joints, and repair gutter strip-ins where required
 - j Check scupper boxes for open solder or caulking and seal with appropriate materials if required.

* * * END OF SECTION 01741 * * *

SECTION 02050
SELECTIVE DEMOLITION AND SALVAGE

15. PART 1 GENERAL

15.1. RELATED DOCUMENTS:

- A. Documents affecting work of this Section include, but are not necessarily limited to, General Requirements, bidding documents and drawings.

15.2. DEMOLITION AND SALVAGE

A. SUMMARY

- 1 This portion of the specification governs the demolition, salvaging (to the extent specified by building owner), and disposal of materials resulting from the demolition.

B. APPLICABLE ROOF SECTIONS:

- 1 Roof Areas to be covered under this section: All Roof Areas on Drawings, Sections 1-6

16. PART 2 - PRODUCTS (NOT APPLICABLE)

17. PART 3 - EXECUTION

17.1. DEMOLITION

- A. Demolition operations shall be performed in such a manner that no damage to existing facilities or injury to persons will result from the performance of the Work.
- B. The contractor shall review and visually survey areas marked for demolition before beginning demolition.
- C. The use of equipment or wrecking devices shall be subject to the approval of building owner; however, such approval does not relieve the contractor of responsibilities described above.

17.2. PREPARATION

A. Protection:

- 1 Contractor shall be responsible for protection of property during course of work. Lawns, shrubbery, paved areas, and building shall be protected from damage. Repair damage at no extra cost to owner.
- 2 Multi-ply roofing, flashings, and insulation shall be installed and sealed in a watertight manner on same day of installation or before arrival of inclement weather.
- 3 At start of each workday, drains within daily work area shall be plugged. Plugs to be removed at end of each workday or before arrival of inclement weather.
- 4 At end of each working day, partial installation shall be sealed with water stops along edges to prevent water entry.
- 5 Preparation work shall be limited to those areas that can be covered with installed roofing material on same day or before arrival of inclement weather.
- 6 Provide at site, prior to commencing removal of debris, a dumpster or dump truck to be located where directed by owner. Construct an enclosed chute from roof for removal of debris from roof area. Protect building surfaces at chute/set-up areas with tarpaulin. Remove dumpster from premises when full and empty at approved dumping or refuse area. Deliver empty dumpster to site for further use. Upon job completion, dumpster/chute

shall be removed from premises. Spilled or scattered debris shall be cleaned up immediately. Removed material to be disposed from roof as it accumulates.

- 7 Arrange work sequence to avoid use of newly constructed roofing for storage, walking surface, and equipment movement. Move equipment and ground storage areas as work progresses.

B. Surface Preparation

- 1 Clean roof of loose debris and dirt with closed vacuum system.
- 2 Designated roof materials are to be removed.
- 3 Remove designated wet roofing and insulation.
- 4 Existing Insulation to remain if dry
 - a First Layer: Polyisocyanurate + or - 2.5" (Section 5 has 4" of Polyisocyanurate)
 - b Second Layer: Perlite + or - 1" (Section 5 has ½" Perlite Insulation)
- 5 Remove all base flashings.
- 6 Remove metal counter flashings as required.
- 7 Remove, cut off, metal wall panels or other wall coverings as required for access to flashings.
- 8 Remove unused equipment as designated by building owner's representative.
- 9 Dispose of all materials unless designated by building owner's representative for re-installation or salvage.
- 10 Sweep roof deck clean. Dirt, gravel, and foreign materials within flutes of metal deck is not acceptable.

17.3.HAZARDOUS MATERIALS

- A. Meet all rules and regulations pertaining to the handling and disposal of roof material which contain hazardous materials.

17.4.SALVAGE

- A. Material as specified and recovered from demolition operations shall remain the property of building owner. With the owner's permission, other materials shall become the property of the contractor. Material salvaged for building owner shall be placed in storage areas designated by building owner. Material that is not salvaged for building owner shall be removed from the site or discarded in an on-site disposal area designated by building owner.

* * * END OF SECTION 02050 * * *

SECTION 05310
STEEL ROOF DECK

18. PART 1 - GENERAL

18.1.RELATED DOCUMENTS:

- A. Documents affecting work of this Section include, but are not necessarily limited to, General Requirements, bidding documents and drawings.

18.2.SUMMARY:

- A. Metal deck repairs shall be done as required to create a sound substrate for new roof installation. Deck repairs may only be done with the written approval by building owner's representative.
- B. APPLICABLE ROOF SECTIONS:
 - 1 Roof Areas to be covered under this section: All Roof Areas on Drawings, Sections 1-6

19. PART 2 - PRODUCTS

19.1.METAL ROOF DECK

- A. Sheet steel: ASTM A1008, Grade C structural quality; with factory applied prime coat.
- B. Metal roof deck: Gage, rib depth, rib configuration - match existing; three span; lapped and stitched joints.
- C. Butt and finish strips: 20-gage sheet steel.
- D. Acceptable manufacturers:
 - 1 Submit proposed manufacturer's specification for owner approval.
- E. Metal roof deck fastener manufacturers:
 - 1 Buildex Div. of ITW, Itasca, IL
- F. Rust inhibitive primer:

Superior Flex Seal Primer, SR Products, Solon, OH		
Test	Typical Value	Test Method
Asbestos Content	0%	EPA 600/R-93/116
Viscosity	1500 - 2000 cps @ 78° ± 1°F	ASTM D 2196
Density	7.8 lbs/gal.	ASTM D 1475
Solids by Weight	62%	ASTM D 4479
Flash Point	101°F minimum	ASTM D 93
VOC	350 g/l maximum	ASTM D 3960

20. PART 3 - EXECUTION

20.1.METAL ROOF DECK REPAIRS

- A. Deck Reinforcement: Install sheet steel reinforcement profiled to existing decking configuration over all rusted openings 16 sq. inches or less. If two or more rusted openings existing in same deck section, replace deck.
- B. Deck Reattachment:
 - 1 Mechanically reattach loose sections of deck to steel support members twelve inches o.c.

C. Side laps:

- 1 Nestable side lap: Mechanically fasten 18 inches o.c.
- 2 Interlocking side lap: Button punch 18 inches o.c.

D. Deck Replacement:

- 1 Sawcut at bar joist/beam center, remove decking. Minimum length: Three spans.
- 2 Erect metal decking according to SDI Design Manual. If unable to lap, butt to adjacent deck. Minimum bearing on steel supports: one inch.
- 3 Mechanically fasten side laps 18 inches o.c.
- 4 Fasten deck to steel support members at ends and intermediate supports with mechanical fasten twelve inches o.c. maximum.
- 5 Install six inch wide sheet steel butt strip where deck ends butt. Mechanically fasten butt strips to steel deck six inches o.c.

E. Deck Protection: Apply rust inhibitive paint over surface rust.

* * * END OF SECTION 05310 * * *

SECTION 06110
WOOD FRAMING

21. PART 1 - GENERAL

21.1.RELATED DOCUMENTS:

- A. Documents affecting work of this Section include, but are not necessarily limited to, General Requirements, bidding documents and drawings.

21.2.SUMMARY:

- A. This portion of the specification sets forth the general requirements, including the quality and type of materials required for the installation of all lumber used for wood curbs, nailing strips, miscellaneous blocking material, unexposed fillers, fascias, edging strips, etc.
- B. APPLICABLE ROOF SECTIONS:
 - 1 Roof Areas to be covered under this section: All Roof Areas on Drawings, Sections 1-6

21.3.STORAGE:

- A. All material specified herein shall be stored (after delivery to the site) so that it will be fully protected from damage and weather, and shall be piled to prevent warpage. All lumber shall be fully protected to maintain the original required moisture content as specified in item titled "Moisture Content".

21.4.OTHER REQUIREMENTS:

- A. Dimensions indicated on the drawings are nominal dimensions (except where details show actual sizes) and shall be subject to the standard reductions required for surfacing or tolerances permitted by the grading rules. Unless otherwise indicated on drawings, all material shall be S4S (surfaced four sides).

21.5.PROTECTION:

- A. All finished work shall be adequately protected against damage from any source.

21.6.COORDINATION:

- A. Carpenters shall coordinate their work with that of the other trades so that progress continues without interruption.

22. PART 2 - PRODUCTS

**22.1.WOOD - FRAMING AND CURBS
GRADING RULES, GRADES, AND SPECIES**

- A. Lumber: Southern Pine, yellow pine, douglas fir, spruce, ponderosa pine, larch or Hemlock and shall meet the following minimum grade requirement of construction standard (75% #1 and 25% #2); free from warping and visible decay. Lumber shall be graded according to the standard grading rules of the Southern Pine Inspection Bureau, the West Coast Lumber Inspection Bureau, or the Western Wood Products Association.

22.2.MOISTURE CONTENT

- A. All lumber shall be air-dried or kiln-dried before treatment, so that the moisture content is not more than 19%. After treatment, it shall be kiln-dried at temperatures not exceeding 160 degrees F. (71 degrees C) so that the moisture content is not more than 19% at time of shipment

22.3.DECAY-RESISTANT TREATMENT

- A. Lumber in contact with roofing or acting as fascias, and all other exterior lumber, shall be Chemically Treated Wood or Natural rot resistant wood.
- B. Chemically Treated Wood
 - 1 Wood shall be pressure-treated with a preservative in accordance with AWPA Specifications and approved by the EPA. Chromate copper arsenate, creosote and oil-borne preservatives are not acceptable.
 - 2 Treating processes, material conditions, plant equipment, and other pertinent requirements shall conform to AWPA Specifications for specific kind of lumber and type of preservative to be used. Retention shall be as required for intended use.
- C. Natural rot resistant wood
 - 1 The following North America Softwoods may be used in lieu of chemically treated wood.
 - a Douglas Fir – Heartwood
 - b Southern Pine – Sapwood
Western Red Cedar – Heartwood
 - c Eastern White Cedar – Heartwood
Western Larch – Heartwood
Eastern Larch (Tamarack) - Heartwood
- D. All treated lumber shall bear the mark of a code recognized third party agency such as the AWPA.

22.4.PLYWOOD

- A. Grade: CDX or Cyme exterior Grade.
- B. Description: 5/8" thick.

22.5.MECHANICAL FASTENERS / WOOD TO STEEL DECK:

- A. Acceptable Manufacturers:
 - 1 Buildex Div. Of ITW Itasca, IL
 - 2 Olympic Manufacturing Group Inc. Agawam, MA
- B. Screw Length: Sufficient to engage steel deck ¾"

22.6.WOOD TO WOOD:

- A. Type: Galvanized, common, annular ring nail. Length: Sufficient to penetrate underlay blocking 1-1/4 inches.
- B. Acceptable Manufacturers:
 - 1 Buildex Div. of ITW Itasca, IL
 - 2 Olympic Manufacturing Group Inc. Agawam, MA

22.7.WOOD TO MASONRY:

- A. Acceptable Manufacturers:
 - 1 Buildex Div. of ITW Itasca, IL
 - 2 Olympic Manufacturing Group Inc. Agawam, MA
 - 3 Rawl, Powers Fastening Co. New Rochelle, NY

- B. Length: As recommended by manufacturer.

22.8. WOOD TO HOLLOW MASONRY:

- A. Acceptable Manufacturers:
 - 1 Buildex Div. Of ITW Itasca, IL
 - 2 Olympic Manufacturing Group Inc. Agawam, MA
 - 3 Rawl, Powers Fastening Co. New Rochelle, NY
- B. Length: As recommended by manufacturer.

23. PART 3 - EXECUTION

23.1. CARPENTRY

- A. At roof edge to receive metal fascia, around all roof top penetration perimeters, and under any flashing component that is to have a roof flange mechanically fastened to roofing substrate;
- B. Mechanically attach wood blocking. Blocking thickness: Equal to final insulation thickness. Width: Six inches nominal.
- C. Fasteners shall be installed in two rows staggered. Spacing in any one row shall not exceed 24 inches. Within eight feet of outside corners, spacing shall not exceed twelve inches in any one row.
- D. Where required, offset blocking layers twelve inches, weave corners.
- E. When preservative treated wood is cut, the cut end shall be treated in accordance with AWPA Specification M4.
- F. Lumber shall be accurately cut to the work requirements and shall be well fastened.
- G. Bolted fastenings shall have washers of adequate size under both heads and nuts. Nails shall be of correct size and quantity for proper fastening. Oversized nails that will result in splitting shall not be used. All fasteners shall be galvanized per ASTM A 153.

*** END SECTION 06110 ***

SECTION 07221

ROOF INSULATION FOR METAL DECK TYPES

24. PART 1 - GENERAL

24.1. RELATED DOCUMENTS:

- A. Documents affecting work of this Section include, but are not necessarily limited to, General Requirements, bidding documents and drawings.

24.2. SUMMARY:

- A. This portion of the specification describes materials and workmanship required for the installation of insulation over Metal decks.
- B. All materials described herein shall be furnished and installed by the roofing contractor unless specifically noted otherwise.
- C. Roof Areas covered under this section: All Roof Areas on Drawings, Sections 1-6

24.3. PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Insulation shall be delivered to the site in an undamaged and dry condition. Material received that is not dry or is otherwise damaged shall be rejected.
- B. Proper storage on or off the site shall be the responsibility of the roofing contractor.
- C. Any unused insulation remaining on the roof at the end of the workday shall be returned to storage.

24.4. INSULATION - GENERAL

- A. All insulation materials must be approved by the warrantor of primary roof membrane materials. Samples should be provided to the manufacturer and written approval from the warrantor of primary roof membrane materials is required before ordering these materials for the project.
- B. Insulation boards shall be full size except when cutting is required at roof edges and openings. Boards that are broken, cracked, have been exposed to moisture, or are otherwise damaged shall not be used.
- C. The proper installation and fit of wood nailers, blocking, and other rough carpentry in appropriate locations shall be verified prior to installation of roof insulation.
- D. Caution shall be exercised with construction traffic to avoid damage to new insulation. Breaking or crushing of insulation is unacceptable and any damaged insulation shall be replaced at the roofing contractor's expense.
- E. Insulation shall be laid with end joints staggered and all joints tight; however, boards shall not be forced into place.
- F. No more insulation shall be installed during any work period than can be covered by all plies of roofing during the same work period. At the end of the work period, temporary edge seals shall be installed to protect the roof insulation. Upon resumption of work, they must be removed. Such seals shall consist of strips of roofing felt applied and topcoated with specified interply adhesive.
- G. Insulation surfaces shall be cleared of all debris before roofing is placed.
- H. All precautions should be made to prevent bitumen drippage during and after application of insulation and roofing materials.

25. PART 2 - PRODUCTS

25.1.INSULATION

- A. Insulation Types:
 - 1 Existing First Layer: Polyisocyanurate 2.5" (Section 5 has 4" of Polyisocyanurate)
 - 2 Existing Second Layer: Perlite 1" (Section 5 has a 1/2" layer of Perlite)
 - 3 Tapered edge strip: ASTM C728-82, perlite. tapered from 1-5/8 inch to 1/8 inch (on twelve inch dimension), size 12 x 48 inches or as approved by the system warrantor's representative
 - 4 Cants: ASTM C728-82, perlite.
 - 5 Crickets: ASTM C728-82, perlite, factory fabricated, 1/2 inch slope, 2 x 4 feet dimension.
- B. Insulation Adhesives and Fasteners:
 - 1 Fasteners:
 - a ES Products Inc. Bristol, RI
 - b ITW Buildex Itasca, IL
 - c Olympic Manufacturing Group Inc. New Rochelle, NY
 - d Simplex Nails Americus, GA
 - e Powers Rawl, Powers Fastening Inc. New Rochelle, NY
 - f Construction Fasteners Wyomissing, PA

26. PART 3 - EXECUTION

26.1.CONDITION OF DECK

- A. Prior to installing insulation, deck must be inspected and accepted by the roofing contractor. Contractor must verify deck slopes and determine if insulation stops and/or backnailing is required by the warranty supplier based on the system being installed. All deficiencies must be corrected prior to start of work.
- B. The roofing contractor shall perform all other work of preparing the deck. When insulation is applied, the deck shall be dry and free of dew, frost, ice, and snow.
- C. The roofing contractor shall notify the building owner's representative of any improper installations.

26.2.HEATING OF BITUMEN

- A. Kettles shall be equipped with thermometers calibrated to indicate bitumen temperature and shall be free of any noncompatible materials.
- B. Asphalt shall never be heated to or above its flash point. Avoid heating above manufacturer's guidelines. Application temperature shall not vary more than 25 degrees F above or below the "equiviscous" temperature (EVT). The EVT represents the ideal mop-bucket temperature for good application. Cutting or any other alteration of bitumens will not be permitted.
- C. Bitumen temperatures shall be checked regularly to insure compliance with the above requirements.

26.3.THERMAL INSULATION

- A. First Layer: (existing ISO Board)
 - 1 Existing insulation will be loose laid. Additional layers of insulation will be installed and attached through this layer.

B. Second Layer: (Existing Perlite)

- 1 Mechanically attach insulation to deck, pattern and density to meet local code requirements, minimum eight (8) (4' x 8') (one fastener per 4 sq. ft.) fasteners per board.
- 2 Install additional fasteners to ensure insulation is firm under foot.
- 3 Drive mechanical fasteners as recommended by fastener manufacturer. Fastener must properly engage the deck, secure the insulation and not damage the insulation surface or facer.

C. Insulation installation requirements:

- 1 Stagger joints at least six inches.
- 2 Install insulation boards in courses parallel to roof edges, mopping surface up.
- 3 Firmly butt each insulation board to surrounding boards. Do not jam or deform boards.
- 4 Maximum elevation variation between boards at joints: 1/8 inch.
- 5 Cut and fit insulation boards where roof deck intersects vertical surfaces. Cut board 1/4 inch from vertical surface.
- 6 All boards installed shall be 18 inches in length or width, minimum.
- 7 Promptly spread any adhesive that may accumulate on insulation surface to achieve smooth surface for roofing installation.
- 8 If warranty supplier requires backnailing of the plies due to slope, wood insulation stops or nailers shall be provided.
 - a The wood nailer thickness shall be equal to the thickness of the insulation so that a smooth transition between the top surface of the membrane substrate and the top surface of the wood nailer is achieved.
 - b Spacing of the wood nailers shall not exceed the recommendations of the warranty supplier.

26.4.TAPERED EDGE INSTALLATION

- A. Tapered edge strips shall be adhered with the specified insulation adhesive.
- B. Tapered edge strips are to be installed around all drains to form a continuous 48-inch square sump.
- C. Tapered edge strips shall be used at perimeter roof edge where nailer and gravel stop is raised.

26.5.CANTS

- A. Cant strips shall be installed at all 90-degree angles where the horizontal installation of insulation meets the vertical sides of roof penetrations and walls. Cants must be installed prior to application of membrane and flashings.

* * * END OF SECTION 07221 * * *

SECTION 07501

SuperiorCraft® ROOFING SYSTEM.

27. PART 1 - GENERAL

27.1.RELATED DOCUMENTS:

- A. Documents affecting work of this Section include, but are not necessarily limited to, General Requirements, bidding documents and drawings.

27.2.GENERAL

- A. This portion of the specification sets forth the general requirements and describes materials and workmanship for installing the specified roofing system.
- B. Follow Membrane manufacturers guidelines
- C. Roofing contractor shall furnish and install all materials described herein unless specifically noted otherwise.
- D. This section is for work on roofs: All Roof Areas on Drawings, Sections 1-6

27.3.INSPECTION

- A. Roofing Contractor shall verify installation conditions as satisfactory to receive work, including deck slope which may require insulation stops and/or backnailing by the warranty supplier based on specified system.
- B. The roofing contractor shall notify building owner, in writing of any defects in the substrate, and work shall not proceed until defects have been corrected.
- C. Do not install new roofing until all unsatisfactory conditions are corrected. Beginning work constitutes acceptance of conditions.
- D. Check projections, curbs, and deck for inadequate anchorage, foreign material, moisture, or unevenness that would prevent quality and execution of new roofing system.
- E. Start of work by the roofing contractor shall imply approval of deck surfaces and site conditions; and no claim in this respect will be considered valid in case of failure of the roofing components within the guarantee period.
- F. Roofing Contractor shall verify that work of other trades penetrating roof deck or requiring workers and equipment to transverse roof deck has been approved by owner, roofing system warrantor, and roofing contractor.

27.4.SCHEDULE

- A. Installation of the new roofing system should be scheduled after all other major rooftop construction is complete to minimize potential for damage to the new roofing system by others.

27.5.QUALITY ASSURANCE

- A. The roofing and associated work shall be contracted to a single firm, called the roofing contractor hereafter, specializing in the type of roofing required, so that there will be undivided responsibility for the performance of the work.

27.6.PRE-ROOFING CONFERENCE

- A. Related section: SECTION 01200 - PROJECT MEETINGS

- B. A pre-roofing conference shall be held at the project site in advance of the time scheduled for roofing work. The purpose of this conference is to review requirements for the work and conditions that could possibly interfere with successful performance of the work. This conference shall review existing conditions and deck surfaces, roof insulation, roofing, flashing, and any other items related to the roof system. Every party who is concerned with the work, or required to coordinate with it or to protect it thereafter, should attend this conference, including the authorized representative of building owner, the roofing system warrantor, and the roofing contractor. A record of all decisions and agreements made at this meeting, as well as a list of attendees shall be recorded for the job record. The building owner's representative is responsible for this documentation and shall initiate and chair this meeting.

27.7.SUBMITTALS

- A. Related section: SECTION 01300 - SUBMITTALS
- B. Prior to starting work, the roofing contractor shall submit 3 copies of the technical data on roofing materials, including material specifications, Material Safety Data Sheets, and installation procedures.

27.8.JOB CONDITIONS

- A. Roofing work shall proceed only when weather conditions will permit the work to proceed in accordance with the roofing system warrantor's recommendations.

27.9.FIRE AND SMOKE PROTECTION

- A. Kettles shall be located so as to prevent damage to buildings or other property. They shall not be positioned on roof decks. Mops shall be spun at the end of work periods to separate the strands, and shall be stored in that conditions to prevent spontaneous combustion. Fire extinguishers shall be provided near kettles for immediate use.

27.10.SAFETY PRECAUTIONS

- A. All owner's and OSHA safety rules shall be adhered to in the execution of this work. The fumes of hot bituminous materials may be toxic to some workers. Adequate protection shall be provided, to prevent burns and skin irritation, in accordance with building owner safety requirements.

27.11.ROOF TRAFFIC

- A. After work on roof is started, no traffic will be permitted on the roof other than that necessary for the roofing application and inspection. Materials shall not be piled on the roof to the extent that design live loads are exceeded. Roofing materials shall not be transported over unfinished or finished roofing or existing roofs unless adequate protection is provided.
- B. Any damage to existing roofs shall be repaired as directed by building owner at no expense to building owner.

27.12.PROTECTION AGAINST SOILAGE

- A. Surface of walls, walks, pavements, adjacent property, etc., shall be protected as necessary to prevent soiling or other damage resulting from the application of roofing or transporting of materials. If surfaces are stained or damaged in any way, they shall be restored by this contractor, at no cost to building owner, in a manner acceptable to building owner.
- B. Felt envelopes shall be installed where required to prevent bitumen drippage. Follow NRCA guidelines for felt enveloping techniques.

27.13.PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Related section: SECTION 01600 - MATERIAL AND EQUIPMENT
- B. Materials shall be delivered to the site in an undamaged and dry condition.

- C. Material received which is not dry or is otherwise damaged shall be rejected. Storage should be either in a heated building or in a warehouse or similar type structure at ambient temperature and humidity. Conditions should be such that the moisture content of felts at time of use does not exceed the equilibrium moisture content (EMC) at 75% RH.
- D. Rolls of flashing and felts shall be stacked on their ends and never in contact with the ground. Bituminous emulsions shall be stored at temperatures above freezing.
- E. Proper storage on or off the site shall be the responsibility of the roofing contractor.
- F. Any unused roofing felt remaining on the roof at the end of the workday shall be returned to storage.

27.14.WORK SEQUENCE

- A. Once work is started on a roof or section, it shall continue without undue delay until that section is completed before starting another. The installation of flashings shall follow application of the roofing immediately.

27.15.FINAL INSPECTION

- A. Related section: SECTION 01200 - PROJECT MEETINGS
- B. Upon completion of the installation, an inspection shall be made by a representative of building owner to ascertain that the roofing system has been installed according to the roofing system warrantor's published specifications and details. The warranty will be issued upon approval of the installation and payment for all materials and fees.

27.16.ADJUSTMENT AND REPAIR

- A. Any roofing damaged or misapplication shall be repaired or replaced as designated by the building owner and roofing system warrantor. Repairs or replacement will be made by the contractor at no expense to building owner.

27.17.ROOFING WARRANTY

- A. Related section: SECTION 01740 - WARRANTIES
- B. Upon project completion, acceptance by building owner and warrantor, and payment of all materials and fees, the specified warranty will be issued.

28. PART 2 - PRODUCTS

28.1.GENERAL

- A. Comply with Quality Control, References, Specification, and Manufacturer's data. Where conflict may exist, requirements that are more stringent govern.
- B. Provide primary products, including each type of roofing sheet (felt), bitumen, base flashings, miscellaneous flashing materials, and sheet metal components from a supplier/manufacturer, which has produced that type of product successfully for not less than three (3) years. Provide secondary products (insulation, mechanical fasteners, lumber, and etc.) only as recommended by the warrantor of primary products for use with roofing system specified.

28.2.SYSTEM ROOFING MATERIALS

- A. Roof System Description:
A hot-applied roof system designed for exceptional performance and sustainability. This granule surfaced system combines premium quality components for optimum rooftop performance. Formulated with a unique blend of high quality asphalt specifically selected to complement premium reinforcements, this roof system is designed to provide long-term performance.
- B. Roof System Materials
SuperiorCraft® SC0-3 System, SR Products, Solon, OH

Test	Typical Value	Test Method
Tensile Strength at Maximum Load, 0°F + 3.6°F (-18 ± 2°C), lbf/in.	425.7 lbf/in. MD 351.71 lbf/in. XMD	ASTM D 2523 ¹
Tensile Strength at Maximum Load, 73.4 ± 3.6°F (23 ± 2°C), lbf/in.	268.86 lbf/in. MD 230.96 lbf/in. XMD	ASTM D 2523 ¹
Elongation at Break, 0°F ± 3.6°F (-18 ± 2°C), %	16.62 % MD 10.19 % XMD	ASTM D 2523 ¹
Elongation at Break, 73.4 ± 3.6°F (23 ± 2°C), %	10.43 % MD 3.50 % XMD	ASTM D 2523 ¹
Minimum No. of Reinforcing Plies	Two	ASTM D 2829

¹ASTM D 2523 testing is to be conducted at a crosshead speed of 2.0 inches per minute

C. Related Roofing System Materials

1 Base Sheet

SR Glass Base Felt, S R Products, Solon, OH

Test	Typical Value	Test Method
Avg. Breaking Strength @ 73.4°F min – Longitudinal	79	ASTM D 146
Avg. Breaking Strength @ 73.4°F min – Transverse	62	ASTM D 146
Pliability 90° Around, 1" Mandrel @ 77°F	Pass	ASTM D 4601
Net Dry Mass – Coated Sheet min clb/100 ft ² – Average of Rolls	25.0	ASTM D 228
Net Dry Mass – Coated Sheet min (lb/100 ft ²) – Individual Roll	25.0	ASTM D 228
Moisture (as received), max %	0.6	ASTM D 146
Mass of Desaturated Glass Felt, min (lb/100ft ²)	2.0	ASTM D 228
Surfacing and Stabilizer, max (%)	53	ASTM D 228
Asphalt, min (lb/100ft ²)	9.0	ASTM D 228
Ash Glass Mat, (%)	74	ASTM D 228
Unrolling @ 40°F & 140°F	Pass/Pass	ASTM D 4601

2 Base Sheet Adhesive:

SRP 1000, S R Products, Solon, OH

Test	Typical Value	Test Method
Softening Point	195-203°F	ASTM D 36
Flash Point	550°F or greater	ASTM D 92
Penetration	19 units, 25°C	ASTM D 5
Ductility	3.5 cm, 25°C	ASTM D 113
Tensile Strength	80-90 psi	ASTM D 412
Elongation	100%	ASTM D 412
Density	1.0 or greater	ASTM D 70
Asbestos Content, %	None	EPA 600/R-93/116
Cold Temperature Bend	40°F min.	ASTM D 3111
Fire Resistance	Class A	ASTM E 108
Surface Chalking	None	ASTM D 4214
Cracking	None	ASTM D 661

3 Asphalt Primer:

Superior Flex Seal Primer, SR Products, Solon, OH

Test	Typical Value	Test Method
Asbestos Content	0%	EPA 600/R-93/116
Viscosity	100-200 cps	ASTM D 2196
Density	7.2 lbs/gal.	ASTM D 1475
Solids by Weight	43%	ASTM D 4479

Flash Point 101°F minimum ASTM D 93

4 Asphalt Mastic:

SR Flashing Cement, SR Products, Solon, OH

Test	Typical Value	Test Method
Non-Volatile Matter by Weight	76-82%	ASTM D 4586
Viscosity @ 77°F	450,000 - 950,000 cps	ASTM D 2196
Density @ 77°F	9.5 - 10.0 lb/gal.	ASTM D 1475
Resistance to Sag @ 140°F	1/8" maximum	ASTM D 4586
Adhesion to Wet Surfaces	55%	ASTM D 3409
Moisture by Weight	1.5%	ASTM D 4586
Mineral or Other Stabilizers by Weight	38%	ASTM D 4586
Asphalt by Weight	40%	ASTM D 4586
Uniformity & Workability	Acceptable as described	ASTM D 4586
Behavior @ 140°F	No blistering	ASTM D 4586
Pliability @ 32°F	No cracking/separation	ASTM D 4586

29. PART 3 – EXECUTION

29.1.MEMBRANE

A. Back Nailing

- 1 The contractor shall be responsible to determine back nailing requirements of membrane manufacturer and follow those requirements.

B. Base Sheet Installation:

- 1 Starting at the lowest point on roof, apply hot adhesive from outside edge or lowest point up onto roof at least width of roll, at the rate of 30 lbs. / 100 sq. ft.
- 2 Immediately roll out a full width of Specified Base Membrane into hot adhesive at EVT, carefully aligning roll with edge of roof.
- 3 Starting at the one ply line apply hot adhesive out onto insulation at the rate of 30 lbs. / 100 sq. ft. up onto roof at least width of roll.
- 4 Immediately roll out a full width of Specified Base Membrane into hot adhesive, at EVT, carefully aligning roll with one ply line. If slope exceeds 3" in 12", base sheet should be installed parallel to the roof slope (i.e. "strapping method"), follow NRCA guidelines for insulation stops and backnailing.
- 5 Repeat steps 3 & 4 until reaching the crest of roof.

C. Membrane Installation:

- 1 Two plies of specified sheet shall be embedded into fluid, continuous applications of specified adhesive. The starter sheets and plies shall begin at the starting/low point of the roof and run parallel to the ridge or high point of roof.
- 2 Starter sheets shall be installed to maintain a minimum 2" side lap and there shall be a minimum of two plies at all locations. Starter strips shall be installed according to NRCA guidelines.
- 3 The asphalt shall be heated in accordance with the Equiviscous Temperature (EVT) concept and applied within the EVT temperature range (EVT ± 25°F [± 14°C]). Asphalt application shall result in approximately 25 pounds of asphalt (± 25% on a total job average basis) per roof square between each ply.

D. Cap Sheet Installation:

- 1 Starting at the lowest point on roof, apply adhesive from outside edge or lowest point up onto roof at least width of roll, at the rate of 2.5-3 gals / 100 sq. ft.

- 2 Immediately roll out a full width of Specified Cap Sheet into hot adhesive, carefully aligning roll with edge of roof.
- 3 Starting at the one ply line apply adhesive out onto substrate at the rate of 2.5-3 gals. / 100 sq. ft. up onto roof at least width of roll.
- 4 Immediately roll out a full width of Specified Cap Sheet into hot adhesive, carefully aligning roll with one ply line. Follow manufacturers guidelines for backnailing on up slope side.
- 5 Repeat steps 3 & 4 until reaching the crest of roof.

E. Membrane installation further requirements:

- 1 Follow warranty supplier's recommendations for backnailing requirements.
- 2 Place ply sheets to ensure water will flow over or parallel to, but never against, exposed edges.
- 3 When using adhesives, ply should never touch ply even at roof edges, laps, tapered edge strips, and cants.
- 4 Apply specified adhesive no more than ten feet ahead of each roll being embedded, less in cool weather.
- 5 Avoid excessive application of asphalt adhesive over top ply, leave top ply exposed with minimal asphalt at ply lines or back-line on the insulation.
- 6 Light brooming or squeegeeing may be required to aid adhesion of ply sheets, base sheets, and/or cap sheets.
- 7 Avoid traffic on all newly installed membrane.
- 8 Overlap previous day's work 24 inches.
- 9 Lap ply sheet ends six inches. Stagger end laps twelve inches minimum.
- 10 Fit plies into roof drain rims, install metal flashing and finishing plies, secure clamping collars, and install domes.
- 11 Cut out fishmouths/side laps that are not completely sealed. Replace all sheets that are not fully and continuously bonded.
- 12 Roof is to be inspected and approved by representative from roof system warrantor before application of surfacing.

29.2.DAILY WATERSTOP/TIE-INS

- A. Install "deadman" insulation filler at insulation staggers.
- B. Extend roofing plies at least twelve inches onto prepared area of adjacent roofing. Embed plies into Specified Interply Adhesive. Strip edges with twelve-inch wide ply sheet embedded completely in alternate uniform courses of Specified Interply Adhesive.
- C. At beginning of next day's work, remove temporary connection by cutting felts evenly along edge of existing roof system. Remove "deadman" insulation fillers.

29.3.ADJUSTING AND CLEANING

- A. Repair of Deficiencies: Installations or details noted as deficient during inspections must be repaired and corrected by applicator, and made ready for reinspection within five working days.
- B. Clean up: Immediately upon job completion, roof membrane and flashing surfaces shall be cleaned of debris.

*** END OF SECTION 07501 ***

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SECTION 07651

FLEXIBLE FLASHING AND SHEET METAL

30. PART 1 - GENERAL

30.1.RELATED DOCUMENTS:

- A. Documents affecting work of this Section include, but are not necessarily limited to, General Requirements, bidding documents and drawings.

30.2.GENERAL

- A. This portion of the specification sets forth the general requirements and describes materials and workmanship for installing the flashings and sheet metal on the roofing systems specified.
- B. All materials described herein shall be furnished and installed by the roofing contractor unless specifically noted otherwise.
- C. This section is for work on roofs: All Roof Areas on Drawings, Sections 1-6
- D. Any shop formed metal work shall be in accordance with Architectural Sheet Metal Manual, latest edition, as issued by Sheet Metal and Air Conditioning Contractors' National Association, Inc., (SMACNA).

31. PART 2 - PRODUCTS

31.1.MECHANICAL FASTENERS

- A. Sheet Metal to Masonry
 - 1 Tapcon 1/4 inch diameter, Phillips flat head anchor with EPDM washer by Buildex Div. of ITW, Itasca, IL.
 - 2 Length: Sufficient to provide 1-1/4 inch embedment.
- B. Sheet Metal to Curbs
 - 1 Fab-lok Fac 10-8 stainless steel screw, aluminum sleeve by Textron Fastening Systems, Providence, RI.
- C. Stainless sheet steel to wood blocking:
 - 1 Roofing nails: galvanized steel wire, flat head, diamond point, round, barbed shank.
 - 2 Length: Sufficient to penetrate wood blocking 1-1/4 inches minimum.
- D. Galvanized sheet steel to wood blocking:
 - 1 Roofing nails; galvanized steel wire, flat head, diamond point, round, barbed shank.
 - 2 Length: Sufficient to penetrate wood blocking 1-1/4 inches minimum.
- E. Base Flashing to Masonry
 - 1 Masonry nail by Simplex Nail, Inc., Americus, GA.
 - 2 King-Con Concrete & Masonry Wall Anchor with Plate by ITW Buildex, Itasca, IL.

31.2.METAL FLASHING

- A. Plumbing vents:
 - 1 Prefabricated plumbing vent flashings, 4 lb lead

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B. Pitch pan and bonnets:

- 1 Aluminum: ASTM B209, .050 inch thick mill finish

C. Reglet sealant:

One Part Urethane Sealant

Test	Typical Value	Test Method
Rheological (sag in vertical displacement at 120°F (49°C))	No sag	ASTM C 639
Extrusion Rate	2 seconds	ASTM C 603
Hardness Properties (Shore A)	25 ± 5	ASTM D 2240
Movement Capability	+ 25%	ASTM C 719
Weight Loss, After Heat Aging	9%	ASTM C 792
Cracking and Chalking, After Heat Loss	None	ASTM C 792
Stain and Color Change	Passes (no visible stain)	ASTM C 519
Tack-Free Time at 77°F (25°C), 50% R.H.	16 – 24 hours	Fed. Spec. TT-S-230c
Cure Time at 77°F (25°C), 50 R.H.	4 – 7 days	Observed
Tensile Strength at 77°F (25°C)	250 psi	ASTM D 412
% Elongation	500%	ASTM D 412
Accelerated Aging	No physical damage	ASTM C 793
Asbestos Content	0%	EPA 600/R-93/116

D. Wall Counterflashing Systems:

- 1 Two piece surface mounted
- 2 Aluminum: ASTM B209, .050 inch thick mill finish

E. Gravel stop, bitumen stops and fascia systems: fabricated metal components per SMACNA standards by the roofing manufacturer.

- 1 Refer to Division 07700--Metals

F. Coping and Area divider covers: fabricated metal components per SMACNA standards by the roofing manufacturer.

- 1 Refer to Division 07700--Metals

G. Expansion joint covers: fabricated metal components per SMACNA standards by the roofing manufacturer.

- 1 Refer to Division 07700--Metals

31.3.FLEXIBLE FLASHINGS:

A. Flashing ply sheet:

1 Flashing Base Ply Felt:

S R Glass VI, SR Products, Solon, OH

Test	Typical Value	Test Method
Breaking Strength	75-80 lbf/in. MD 70-75 lbf/in. XMD	ASTM D 2178
Pliability	Pass	ASTM D 2178
Ash	70-88%	ASTM D 2178
Bituminous Saturant	7 lb/100 ft ² (1)	ASTM D 2178
Mass of Desaturated Felt	1.9-2.2 lb/100 ft ²	ASTM D 2178
Asbestos Content	0%	EPA 600/R-93/116
Fire Resistance	Pass	ASTM E 108/UL 790
Adherent Comminuted Surfacing	3.0 lb/100 ft ² , max.	ASTM D 2178
Dry Mass of Asphalt-Impregnated Glass Felt	6 lb/100 ft ² , min.	ASTM D 2178

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2 Flashing Top Ply:

Pars Alt 190 FR GR, SR Products, Solon, OH

Test	Typical Value	Test Method
Thickness, mil (mm)	170 (4.5)	ASTM D 5147/6164
Maximum Load, 73.4 + 3.6°F lbf/in.	105 MD 78 XMD	ASTM D 5147/6164
Elongation at Maximum Load, 73.4 + 3.6°F, %	55 MD 57 XMD	ASTM D 5147/6164
Maximum Load, 0°F + 3.6°F lbf/in.	118 MD 97 XMD	ASTM D 5147/6164
Elongation at Maximum Load, 0°F + 3.6°F, %	30 MD 26 XMD	ASTM D 5147/6164
Tear Strength, 73.4 + 3.6°F lbf/in.	116 MD 92 XMD	ASTM D 5147/6164
Low Temperature Flexibility, °C	-26°	ASTM D 5147/6164
Dimensional Stability, %	0.2	ASTM D 5147/6164
Compound Stability, °F	215	ASTM D 5147/6164
Granule Embedment (Grams Loss), max.	1.2	ASTM D 5147/6164
Net Mass per Unit Area, lbs/100 ft ²	113	ASTM D 228

B. Adhesives and coatings:

1 Flashing adhesive:

SRP 1000, SR Products Solon, OH

Test	Typical Value	Test Method
Softening Point	195-203°F	ASTM D 36
Flash Point	550°F or greater	ASTM D 92
Penetration	19 units, 25°C	ASTM D 5
Ductility	3.5 cm, 25°C	ASTM D 113
Tensile Strength	80-90 psi	ASTM D 412
Elongation	100%	ASTM D 412
Density	1.0 or greater	ASTM D 70
Asbestos Content, %	None	EPA 600/R-93/116
Cold Temperature Bend	40°F min.	ASTM D 3111
Fire Resistance	Class A	ASTM E 108
Surface Chalking	None	ASTM D 4214
Cracking	None	ASTM D 661

C. Accessories:

1 Reinforcing fabric:

SR Glass Mesh, SR Products, Solon, OH

Test	Typical Value	Test Method
Weight	9.0 lbs./ 100 sq. ft.	ASTM D 1668
Fabric Count	10 x 10	ASTM D 1668
Tensile (Warp and Fill Directions)	75 lbf/in., min.	ASTM D 1668
Moisture Absorption	None	ASTM D 1668

2 Asphalt mastic:

SR Flashing Cement, SR Products, Solon, OH

Test	Typical Value	Test Method
Asbestos Content	0%	EPA 600/R-93/116
Non-Volatile Matter by Weight	76-82%	ASTM D 4586
Viscosity @ 77°F	450,000 - 950,000 cps	ASTM D 2196
Density @ 77°F	9.5 - 10.0 lb/gal.	ASTM D 1475
Resistance to Sag @ 140°F	1/8" maximum	ASTM D 4586

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	Adhesion to Wet Surfaces	55%	ASTM D 3409
	Moisture by Weight	1.5%	ASTM D 4586
	Mineral or Other Stabilizers by Weight	38%	ASTM D 4586
	Asphalt by Weight	40%	ASTM D 4586
	Uniformity & Workability	Acceptable as described	ASTM D 4586
	Behavior @ 140°F	No blistering	ASTM D 4586
	Pliability @ 32°F	No cracking/separation	ASTM D 4586
3	Pitch pan sealant: SR Pitch Poxy, SR Products, Solon, OH		
4	Asphalt primer: Superior Flex Seal Primer, SR Products, Solon, OH		
	Test	Typical Value	Test Method
	Asbestos Content	0%	EPA 600/R-93/116
	Viscosity	100-200 cps	ASTM D 2196
	Density	7.2 lbs/gal.	ASTM D 1475
	Solids by Weight	43%	ASTM D 4479
	Flash Point	101°F minimum	ASTM D 93
5	Flashing tape: Tape Seal		
	Test	Typical Value	Test Method
	Solids by Weight	100%	ASTM D 1353
	Rubber Modifier	Polyisobutylene (Butyl Rubber)	Fourier Transform-Infrared Spectroscopy
	Hardness Shore "A"	20 durometer @ 77°F	ASTM D 2240
6	Non-Shrink Grout: Quikrete FastSet™ Non-Shrink Grout		
	Approximate water content per bag	1 ½ gal (5.7 L)	
	Flow, ASTM C 939	-	ASTM C 939
	Flow, at 5 drops	125 – 145	ASTM C 827
	Working Time	about 15 min.	
	Setting Time		ASTM C 191
	Final	20-45 min.	
	Compressive Strength		ASTM C 109
	3 Hours after set	2500 psi (17.2 MPa)	
	24 Hours	4500 psi (31 MPa)	
	7 Days	5500 psi (37.9 MPa)	
	28 Days	7500 psi (51.7 MPa)	
	Slant Shear Bond Strength		ASTM C 928
	1 Day	1000 psi (6.9 MPa)	
	7 Days	1500 psi (10.3 MPa)	

32. PART 3 - EXECUTION

32.1.BASE FLASHINGS

A. Preparation:

- 1 Remove existing flashing materials to substrate. Replace damaged material in like kind.
- 2 Prime vertical substrate with asphalt primer at approximate rate of one gallon per 125 - 150 sq. ft.
- 3 Install new roofing two inches beyond top edge of cant.

B. Base ply(s):

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- 1 Fully adhere two (2) plies of specified base flashing completely to flashing substrate, cant, and roofing. Flashing should extend a minimum of 8" and maximum of 14" above finished roof membrane.
- C. Cap ply:
- 1 Fully adhere a flashing top ply over base ply(s).
 - 2 Mechanically fasten top of flashing to substrate; fasten minimum of 8 inches on center.
 - 3 Seal top edge with a 4 inch wide stripping membrane embedded in alternating courses of specified Asphalt Mastic.
 - 4 Strip in bottom edge of flashing with 4 inch wide stripping membrane and specified flashing adhesive.
 - 5 Surface flashing with specified protective coating (if specified).
 - 6 Install specified counterflashing system as per detail drawings.
- D. Additional instructions for mineral surface flashing cap.
- 1 Snap a chalk line 6" from the toe of cant out onto roof membrane.
 - 2 Measure the distance from the chalk line up the wall to where flashing will be terminated. On sloped roofs, take two measurements 1 meter (39") apart.
 - 3 Measure down length of a roll of specified membrane, and cut, in cross machine direction, a section same length. If roof is sloped, start at the bottom, and transfer height measurement to cutting of the flashing cap. Each section is 1 meter (39") in width.
 - 4 The joints of the membrane covering the deck should be staggered so that the membranes covering the vertical face of the parapet or curb do not coincide with those covering the deck.
 - 5 Starting at the low end of the area being flashed, apply section in specified adhesive using a strapping method, overlapping the exposed smooth selvage with each new section. Bottom of flashing cap must be lined up 6" from toe of cant, on chalk line.
 - 6 The salvage of the last section should be cut flush to the mineral surface prior to the application, ensuring that total flashing surface is mineral surfaced.
 - 7 All areas where excessive adhesive is exposed on side laps may be coated with specified heat reflective coating or granules sprinkled in as flashing sections are installed.

32.2.AT SINGLE AND MULTIPLE PENETRATIONS-SMALL PIPES & CONDUITS

- A. Remove existing pitch pans.
- B. Install new insulation and roofing membrane system.
- C. Apply 1/16 inch uniformly thick layer of asphalt mastic to surface receiving metal flange.
- D. Install specified pitch pan(s) around penetration(s).
- E. Prime metal flange, projection, and pitch pan interior with asphalt primer. Do not prime pan interior or projection if urethane pitch pocket sealant is used.
- F. Seal flange with two strips of polyester roofing ply embedded between alternate spreads of membrane adhesive. Extend first ply two inches beyond flange, second ply two inches beyond first ply.
- G. Fill to pitch pan 3/4" from top with non shrink grout, allow to set up.
- H. Seal top with specified pitch pan sealant.
- I. All penetrations will receive a bonnet or watershed as shown in detail drawings.

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32.3.AT PLUMBING VENTS

- A. Remove existing stack flashing.
- B. Wedge plumbing vent tight against deck.
- C. Fabricate and install plumbing vent flashing from specified lead.
 - 1 Flange, six inches wide minimum, extend completely around periphery of vent flashing. Set flange into asphalt mastic. Neatly dress flange with wood block.
 - 2 Pipe outside diameters greater than two inches: Bend lead inside pipe one inch minimum with rubber/plastic mallet. Replace cracked lead.
 - 3 Pipe outside diameters two inches or less: Cut lead at vent top. Fabricate and install integral lead cap.
 - 4 Prime metal flange with asphalt primer and allow to dry.
 - 5 Apply flashing adhesive on metal flange and onto roof.
 - 6 Flash with three targets of flashing base ply felt, four, eight, and twelve inches larger than lead flange.

32.4.AT SCUPPERS

- A. Remove existing scupper liners and membrane to wood blocking.
- B. Replace rotted and untreated blocking as needed and approved by owner's representative with new, treated wood blocking.
- C. Install base membrane over wood blocking, into the port and out onto the roof 2 feet in all directions, set in a bed of asphalt mastic.
- D. Install pre-manufactured scupper.
- E. Install scupper head below outside of port and new downspouts.
- F. Prime metal surfaces to receive membrane plies and allow to dry.
- G. Solidly adhere roof membrane plies completely to stripping plies, scupper flanges, cant, and port, progressing plies 1-2" further than previous applied ply.
- H. Wall flashings shall extend over flanges and roof membrane out 6" past cant.

32.5.AT EDGE/GUTTERS

- A. Remove existing edge flashing, gutters and downspouts.
- B. Replace rotted blocking as needed and approved by building owner's representative. Install insulation firmly butting against wood blocking.
- C. Solidly adhere roofing membrane plies completely to insulation blocking. Ensure complete bond and continuity without wrinkles or voids. Envelope felts.
- D. Fabricate and install new edge/gutter with outlet tubes. Locate outlet tubes in original position. Slope gutter to outlets.
- E. Install gutter support system.
- F. Provide gutter expansion joints every 30 feet.
- G. Fasten and strip-in drip edge flange according to detail drawing.
- H. Install new downspouts. Dimensions to match existing.

* * * END OF SECTION 07651 * * *

SECTION 07712

MANUFACTURED EXPANSION JOINT SYSTEM

33. PART ONE - GENERAL

33.1.RELATED DOCUMENTS:

- A. Documents affecting work of this Section include, but are not necessarily limited to, General Requirements, bidding documents and drawings.

33.2.SUMMARY:

- A. Work included: Furnishing and installing factory fabricated and finished Roof-to-Roof or Roof-to-Wall modular expansion joint systems.
- B. Roof Areas covered under this section: All Roof Areas on Drawings, Sections 1-6

33.3.SUBMITTALS:

- A. Product Data: Provide specified product and complete installation data for all materials in this specification.
- B. Shop drawings: Show profiles, joining method, accessories location, anchorage and flashing details, adjacent construction interface, and dimensions.
- C. Samples: Available on request; sized to adequately represent material.

33.4.PRODUCT HANDLING:

- A. All materials shall be delivered in the manufacturer/ supplier's original sealed, labeled containers.
- B. Store materials in a dry, protected, well-vented area. Report damaged material immediately to delivering carrier and manufacturer/supplier.
- C. Remove protective plastic surface film immediately after installation.

33.5.SUBSTITUTIONS

- A. Shall be accepted only from bidding contractors a minimum of ten (10) working days before bid due date; must meet performance standards of this specification.

33.6.JOB CONDITIONS:

- A. Verify that other trades are complete before mounting expansion joint covers.
- B. Mounting surfaces to be straight and secure; substrates of proper width.
- C. Refer to construction documents, shop drawings and installation instructions.

33.7.EXPANSION JOINT WARRANTY:

- A. Related section: SECTION 01740 - WARRANTIES
- B. Upon project completion, acceptance by building owner and payment of all materials and fees, the specified system warranty will be issued.

34. PART TWO – PRODUCTS

34.1.EXPANSION JOINT SYSTEM:

- A. Expansion Joint System: Storm Defender Expansion Joint Cover System - continuous metal caps with anchor cleats, light gauge metal rails to hold continuous condensation seal and concealed joint covers for capping most roof expansion joint conditions. The system shall be watertight and maintenance free and not require exposed fasteners. Joints shall be butt-type with concealed splice plates.
- B. Performance characteristics:
 - 1 Expansion Joint System sections shall expand & contract freely while mechanically locked in place.
 - 2 Expansion Joint System sections shall lock to anchor cleats by pressure from support chairs.
- C. Condensation Seal: continuous water resistance membrane with fiberglass batten insulation.
- D. Light gauge galvanized steel rails: 24 gauge galvanized steel.
- E. Expansion Joint cap: Length of 12'-0"; Width to accommodate existing joint width.
- F. Expansion Joint vertical face and back leg: 2" by 2".
- G. Expansion Joint System Cleat: 24 gauge galvanized steel perforated cleat with stainless steel spring levelers; normally 12'-0" long with pre-punched elongated slots that allow free movement, installed by mechanical fastener system supplied by the manufacturer/supplier.
- H. Stainless Steel Fasteners: As recommended by the manufacturer/supplier per substrate application or supplied by manufacture. No exposed fasteners permitted.
- I. Metal: .050" Kynar 500 Coated Aluminum

34.2.ACCESSORIES:

- A. Corners, end caps, transitions, etc. shall be fabricated by the Modular Expansion Joint System manufacturer/supplier.
- B. Welding the assembly shall be used to maintain watertight integrity.

35. PART THREE - EXECUTION

35.1.INSPECTION:

- A. Verify that wood curb height is a minimum of 8" above roof level.
- B. Verify that Expansion Joint System installation will not disrupt other trades. Verify that substrate is dry, clean, straight, level, and free of foreign matter. Correct defects before proceeding.

35.2.INSTALLATION:

- A. Submit product design drawings for review and approval before fabrication to Architect or Specifier.
- B. Installing contractor shall check as-built condition and verify manufacturer and/or supplier expansion joint details prior to fabrication per manufacturer and/or supplier's installation guide.
- C. Manufacturer/supplier shall furnish mechanical fastener system consistent with manufacturer/supplier's instructions; suitable for wood blocking substrates.
- D. Fasteners attaching the continuous cleat to the wood blocking shall not be over tightened to restrict the continuous cleat from moving freely.

* * * END OF SECTION 07712 * * *

SECTION 15400

ROOF DRAINS

36. PART 1 - GENERAL

36.1.RELATED DOCUMENTS:

- A. Documents affecting work of this Section include, but are not necessarily limited to, General Requirements, bidding documents, Flexible Flashing and Sheet Metal and drawings.

36.2.GENERAL:

- A. Existing drains will be re-worked, re-flashed, and deteriorated components replaced, allow for 6 new strainers in your bid replacing six existing deteriorated damaged strainers.
- B. At start of each workday, drains within daily work area shall be plugged. Plugs to be removed at end of each workday or before arrival of inclement weather
- C. All drains will require new flashing lead.
- D. New drains to be installed as directed by building owner's representative.
- E. Roof Areas to be covered under this section: All Roof Areas on Drawings, Sections 1-6

37. PART 2 - PRODUCTS

37.1.DRAIN ACCESSORIES

- A. Replacement parts should be from same manufacturer of original drain.
- B. New drains, when required, should be appropriate for existing conditions. Acceptable drain manufacturer's are:
 - 1 Zurn, Erie, PA
 - 2 Smith, Montgomery, Alabama
 - 3 Josam, Michigan City, Indiana
- C. Metal flashing:
 - 1 ASTM B29-79(1984), four lb. sheet lead.
 - 2 Soft copper drain flashing sheet.
- D. Bitumen Stop: If bitumen stops are required (refer to detail drawing), see Flexible Flashing and Sheet Metal Requirements.

38. PART 3 - EXECUTION

38.1.DRAINS

- A. Existing drains
 - 1 Remove flashing collar. Clean. If broken, replace.
 - 2 Install tapered edge strip around drain to create 48 x 48 inch sump. Miter corners. Seal top of tapered edge to drain rim with fiberglass mesh embedded between alternate courses of asphalt mastic.

- 3 Install multi-ply roofing or stripping plies into sump and onto drain rim (refer to detail drawing).
- 4 Apply 1/16 inch uniformly thick layer of asphalt mastic to surface receiving lead flashing.
- 5 Set single piece lead flashing (30" square minimum) in mastic centered over drain, extend lead six inches beyond drain rim. Neatly dress lead with wood block.
- 6 Prime lead with asphalt primer and allow to dry.
- 7 Install two plies fiberglass roof ply embedded in alternate courses of specified membrane adhesive over primed lead. Stripping plies shall extend two and four inches beyond edge of lead.
- 8 Reclamp flashing collar to drain in bed of mastic. If bolts are broken, drill and retap. If ladder clamps are installed, replace missing clamps.
- 9 Neatly cut lead within drain at rim, remove.
- 10 Install strainer.
- 11 Install bitumen stop where coal tar floodcoat is to be used (see detail drawing).

B. New Drains:

- 1 Locate and install drain body in locations specified by owner's representative.
- 2 Install tapered edge strip around drain to create 48 x 48 inch sump. Miter corners. Seal top of tapered edge to drain rim with fiberglass mesh embedded between alternate courses of asphalt mastic.
- 3 Install multi-ply roofing or stripping plies into sump and onto drain rim (refer to detail drawing).
- 4 Apply 1/16 inch uniformly thick layer of asphalt mastic to surface receiving lead flashing.
- 5 Set single piece lead flashing (30" square minimum) in mastic centered over drain, extend lead six inches beyond drain rim. Neatly dress lead with wood block.
- 6 Prime lead with asphalt primer.
- 7 Install two plies fiberglass roof ply embedded in alternate courses of hot melt adhesive over primed lead. Stripping plies shall extend two and four inches beyond edge of lead.
- 8 Reclamp flashing collar to drain in bed of mastic. If bolts are broken, drill and retap. If ladder clamps are installed, replace clamps.
- 9 Neatly cut lead within drain at rim, remove.
- 10 Seal/plug drain to prevent water entry until service connection is completed

C. Service Connection:

- 1 Locate new piping to include as few bends as possible. Do not overload any existing pipe and drain, ensure balanced disposal of all rain water. Make adequate provisions for thermal movement of all piping.
- 2 Provide cleanouts at elbows under each drain, and at tops and bottoms of each vertical run, at connection to storm sewer, as called for by Plumbing Code, and as required to make sure that drainage system can be cleaned anywhere, if needed. Provide and install access panels if required for service cleanouts.
- 3 Where new work joins old, provide all necessary materials, repairs, changes, and associated work as needed for proper connections.
- 4 Make all connections watertight.
- 5 Remove seal/plug and install strainer.

- 6 Use insulation on all pipes and fittings from drains to existing down- pipes. Ensure full continuity of insulation over pipes, fitting, and connections. Provide concealed saddles at all hangers.

* * * END OF SECTION 15400 * * *

