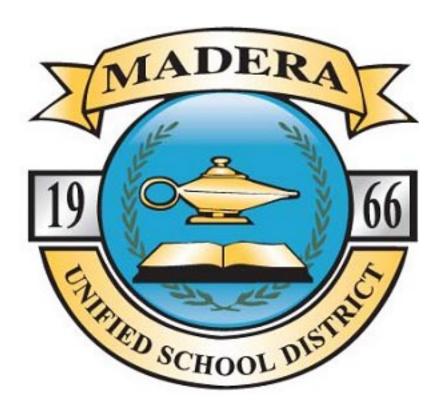
## **BIDDER PACKET FOR**

## THOMAS JEFFERSON MIDDLE SCHOOL RE-ROOFING PROJECT BID #141501



## MADERA UNIFIED SCHOOL DISTRICT

1902 Howard Road, Madera, CA 93637 Edward C. González Superintendent

BID DATE: APRIL 2, 2015 @ 1:00 PM

### BIDDER PACKET

To: All contractors interested in bidding on the project known as

## THOMAS JEFFERSON MIDDLE SCHOOL RE-ROOFING PROJECT, BID #141501

The attached documents are necessary if you intend to submit a bid on the abovementioned project. Please read all documents carefully. The documents included are:

Notice to Contractors Calling for Bids

Instruction to Bidders

Timeline

Notice of Pre-bid Mandatory Bidders Conference and Job Walk

Information for Bidders

**General Conditions** 

Bid Form

List of Subcontractors

Bid Bond

Noncollusion Affidavit

**General Contract** 

Contractor's Certificate Regarding Workmen's Compensation

Performance Bond

Payment Bond

Manufacturer's Warranty

California Labor Code (by reference only)

Title 24 of the California Code of Regulations (by reference only)

California Building Code (1995 Edition) (by reference only)

Prevailing Wage Rate Tables

**Contractor Prequalification Form** 

Owner Supplied Materials List

Interested bidders <u>must</u> attend the mandatory pre-bid job site meeting at the date and time as shown on the TIMELINE page of the Bidder Packet. At that time the owner will conduct a tour of the areas and scope of work covered by this project.

Please address all questions regarding this project to no later than March 27, 2015 @ 10:00 am:

Madera Unified School District Curtis Manganaan, Director of Maintenance and Operations curtismanganaan@maderausd.org

Sealed bids are due at the above address at the time and date as shown on the TIMELINE page of the Bidder Packet, at which time and place they will be opened.

## NOTICE TO CONTRACTORS CALLING FOR BIDS

## PROJECT: THOMAS JEFFERSON MIDDLE SCHOOL RE-ROOFING PROJECT BID # 141501

**NOTICE IS HEREBY GIVEN** that the Madera Unified School District of Madera County, California, acting by and through its Governing Board, hereinafter referred to as the District, will receive up to, but not later than 1:00 p.m., April 2, 2015, sealed bids for the award of a contract for Thomas Jefferson Middle School Re-Roofing Project Bid #141501

Sealed bids will be accepted at the Maintenance and Operations Department, located at 1205 Madera Ave., Madera, CA 93637, and shall be opened and publicly read aloud at the above stated time and place.

All inquiries about this bid shall be directed to the Maintenance & Operations Department, Madera Unified School District, Attention: Curtis Manganaan <u>curtismanganaan@maderausd.org</u>. Refer questions to curtismanganaan<u>@maderausd.org</u> no later than March 27th, @ 10:00 a.m. 2015. Only questions received via email will be responded to.

Bids shall be submitted upon the forms provided in the bid package. Each bid must conform with and be responsive to the contract documents, copies of which are on file and may be obtained from the Madera Unified School District website <a href="http://www.madera.k12.ca.us/Page/6706">http://www.madera.k12.ca.us/Page/6706</a>

Each bid shall be accompanied by (1) the security referred to in the contract documents; (2) the list of proposed subcontractors, if any; and (3) the non-collusion affidavit (4) materials list, and (5) bid form.

A mandatory bidder conference and job-walk will be conducted on March 24, 2015 at 9:00 a.m. located at Thomas Jefferson Middle School, 1407 Sunset Ave. Madera, CA 93637.

Bidders shall be required to have a valid class "C-39" Contractor's License, and MUST submit their DIR Registration Number.

The prevailing wage rate law is mandatory for all work performed under this contract. Copies of local rates are available at online at www.dir.ca.gov/DLSR.

No bidder may withdraw his bid for a period of sixty (60) days after the date set for the opening of bids. The District reserves the right to reject any and all bids or to waive irregularities in any bid.

Madera Unified School District is an "equal opportunity" Employer. Qualified Disabled Veteran Business Enterprises are encouraged to participate in this project.

Curtis Manganaan, Director, Maintenance & Operations Madera Unified School District; Madera, California

## INSTRUCTIONS TO BIDDERS

## EXAMINATION OF REQUIREMENTS:

Before submitting a proposal, bidders shall carefully examine the drawings, read the specifications and related documents, visit the site of the proposed work and shall fully inform themselves as to all existing conditions and limitations. A sum to cover all items and conditions shall be included in the bid amount.

## DISCREPANCIES, ERRORS, AND OMISSIONS:

Should a bidder find discrepancies, errors, or omissions in the documents, or should a bidder be in doubt as to the intended interpretation of the documents, the bidder at once shall notify the Owner. Should it be necessary, a written addendum will be issued. Changes authorized by oral communication will not become effective unless validated by a written addendum issued by the Owner.

## EXECUTION OF FORM OF PROPOSAL:

Bids shall be submitted upon the Bid Form provided by the Owner. Numbers shall be stated both in writing and in figures. Signatures shall be in ink and in cursive writing. Proposals shall not contain any recapitulation of the work to be performed. Oral, telegraphic or telephonic proposals will not be considered. Proposals will be invalid unless signed by the bidder or by a person authorized to sign by the bidding entity. If the bidding entity is a partnership, proposal must be signed with the partnership name and by at least one partner; if a corporation, bid must be signed by a person authorized to execute proposals on behalf of the corporation. The type of organization, i.e., corporation, co-partnership, private individual or individuals doing business under a fictitious name shall be designated in the space provided.

## AWARD OR REJECTION OF BIDS:

It is the Owner's intent to award the contract(s) to the lowest responsible bidder complying with these instructions, provided his bid is reasonable and acceptance is to the Owner's advantage. However, the Owner reserves the right to reject all bids without explanation and/or reject the bid of any bidder whom has previously failed to perform properly or to complete on time, contracts of a nature similar to this project.

## BIDDERS INTEREST IN MORE THAN ONE BID:

Except in case of required alternate proposals, no person, firm, or corporation shall make, file, or be interested in more than one bid for the same work for this project. However, a person, firm, or corporation which has submitted a sub-proposal to a bidder or who has quoted prices of materials to bidder, is not disqualified from submitting a sub-proposal or quoting prices to other bidders.

## TIMELINE FOR

## THOMAS JEFFERSON MIDDLE SCHOOL RE-ROOFING PROJECT BID# 141501

March 14, 2015	First publishing of Notice to Bidders
March 21, 2015	Second publishing of Notice to Bidders
March 24, 2015	Mandatory pre-bid job-walk at 9:00 AM
April 2, 2015	Bid opening at 1:00 PM
May 12, 2015	Board to consider bids at Board Meeting
May 13, 2015	District to issue NOTICE TO PROCEED to contractor
June 8, 2015	Project start date
August 1, 2015	Project completion date

## **MANDATORY BID WALK**

## THOMAS JEFFERSON MIDDLE SCHOOL RE-ROOFING PROJECT BID # 141501 SIGN-IN SHEET

Printed Name	Printed Name
Vendor Represented by above	Vendor Represented by above
E-mail	E-mail
Printed Name	Printed Name
Vendor Represented by above	Vendor Represented by above
E-mail	E-mail
Printed Name	Printed Name
Vendor Represented by above	Vendor Represented by above
E-mail	E-mail

## INFORMATION FOR BIDDERS

- 1. Preparation of Bid Form The District invites bids on the form attached to be submitted at such time and place as is stated in the Notice to Contractors Calling for Bids. All blanks in the bid form must be appropriately filled in. All bids shall be submitted in sealed envelopes bearing on the outside the name of the bidder, his address, and the name of the project for which the bid is submitted. It is the sole responsibility of the bidder to see that his bid is received in proper time. Any bid received after the scheduled closing time for receipt of bids will be returned to the bidder unopened. Contractor must submit materials list with bid form as information. Contractor must also be an approved installer of the owner supplied materials and must meet all qualifications set forth in the technical specifications.
- 2. <u>Bid Security</u> Each bid shall be accompanied by a certified or cashier's check payable to the District or a satisfactory bid bond, in favor of the District, executed by the bidder as principal and a legally admitted California surety insurer as surety, in an amount not less than TEN PERCENT (10%) of the maximum amount of the bid. The check or bid bond shall be given as guarantee that the bidder shall execute the contract if it is awarded to him in conformity with the contract documents and shall provide the surety bond or bonds as specified therein within five (5) days after notification of the award of the contract to the bidder. The bid must be signed in the name of the bidder and must bear the signature in longhand of the person or persons duly authorized to sign the bid on behalf of the bidder.
- 3. <u>Modifications</u> Changes in or additions to the bid form, recapitulations of the work bid upon, alternative proposals, or any other modification of the bid form which is not specifically called for in the contract documents may result in the District's rejection of the bid as not being responsive to the invitation to bid. No oral or telephonic modifications of any bid submitted will be considered, and a telegraphic modification may be considered only if the postmark evidences that a confirmation of the telegram duly signed by the bidder was placed in the mail prior to the opening of bids.
- 4. **Erasures** The bid submitted must not contain any erasures, interlineations, or other corrections unless each such correction is suitably authenticated by affixing in the margin immediately opposite the correction the surname or surnames of the persons signing the bid.
- 5. Examination of Site and Contract Documents Each bidder shall visit the site of the proposed work and fully acquaint himself with the conditions relating to the proposed project so that he may fully understand the facilities, difficulties, and restrictions attending the execution of the work under the contract. Bidders shall thoroughly examine and be familiar with the drawings and specifications. The failure or omission of any bidder to receive or examine any contract document, form, instrument, addendum, or other document, or to visit the site and acquaint himself with conditions there existing, shall in no way relieve any bidder from any obligation with respect to his bid or to the contract. The submission of a bid shall be taken as prima facie evidence of compliance with this section.
- 6. <u>Withdrawal of Bids</u> Any bidder may withdraw his bid either personally by written request or by telegraphic request at any time prior to the scheduled closing time for the receipt of bids.
- 7. <u>Agreements and Bonds</u> The Agreement form which the successful bidder, as Contractor, will be required to execute and the forms and amounts of surety bonds, which he will be required to furnish at the time of execution of the Agreement, are included in

the contract documents and should be carefully examined by the bidder. The required number of executed copies of the Agreement, the Performance Bond, and the Payment Bond (Labor and Material Bond) is as specified in the Supplementary General Conditions. Payment and Performance bonds must be executed by a legally admitted California surety insurer

- 8. <u>Interpretation of Plans and Documents</u> If any person contemplating submitting a bid for the proposed contract is in doubt as to the true meaning of any part of the drawings, specifications, or other contract documents, or finds discrepancies in or omissions from the drawings and specifications, he may submit to the District a written request for an interpretation or correction thereof. The person submitting the request will be responsible for its prompt delivery. Any interpretation or correction of the contract documents will be made only by addendum duly issued and a copy of such addendum will be mailed or delivered to each person receiving a set of the contract documents. No person is authorized to make any oral interpretation of any provision in the contract documents to any bidder, and no bidder is authorized to rely on any such unauthorized oral interpretation.
- 9. <u>Bidders Interested In More than One Bid</u> No person, firm, or corporation shall be allowed to make or file, or be interested in more than one bid for the same work unless alternate bids are specifically called for. A person, firm, or corporation that has submitted a sub-proposal to a bidder, or that has quoted prices of materials to a bidder, is not thereby disqualified from submitting a sub-proposal or quoting prices to other bidders or making a prime proposal.
- 10. <u>Award of Contract</u> The District reserves the right to reject any or all bids, or to waive any irregularities or informalities in any bids or in the bidding process. The award of the contract, if made by the District, will be to the lowest responsible bidder therefor.
- 11. <u>Alternates</u> If alternate bids are called for the contract may be awarded at the election of the governing board to the lowest responsible bidder on the base bid, or on the base bid and any alternate or combination of alternates.
- 12. **Evidence of Responsibility** Upon the request of the District, a bidder whose bid is under consideration for the award of the contract shall submit promptly to the District satisfactory evidence showing the bidder's financial resources, his construction experience, and his organization and plant facilities available for the performance of the contract.
- 13. <u>Listing Subcontractors</u> Each bidder shall submit a list of the proposed subcontractors, if any, on this project as required by the Subletting and Subcontracting Fair Practices Act (Government Code §4100, et seq.). Forms for this purpose are furnished with the contract documents.
- 14. Worker's Compensation In accordance with the provisions of Section 3700 of the Labor Code, Contractor shall secure the payment of compensation to his employees. Contractor shall sign and file with District the following certificate prior to performing the work under this contract: "I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of the code, and I will comply with such provisions before commencing the performance of the work of this project should I be awarded a contract." The form of such certificate is included as part of the contract documents and/or bid form.
- 15. <u>Bid Deposit Return</u> Deposits of three or more low bidders, the number being at the discretion of the District, will be held for thirty (30) days or until posting by the

successful bidder(s) of the bonds and certificates of insurance required and return of executed copies of the appropriate agreement form, whichever first occurs, at which time the deposits will be returned.

- 16. Forfeiture for Failure to Execute Contract In the event the bidder to whom an award is made fails or refuses to execute the contract within five calendar days from the date of receiving notification that he is the bidder to whom the contract is awarded, the District may declare the bidder's bid deposit or bond forfeited as damages caused by the failure of the bidder to enter into the contract, and may award the work to the next lowest bidder, or may call for new bids.
- 17. Anti-Discrimination It is the policy of the District that in connection with all work performed under contracts, there be no discrimination against any prospective or active employee engaged in the work because of race, color, ancestry, national origin, religious creed, gender, age, or marital status. The Contractor agrees to comply with applicable Federal and California laws including, but not limited to, the California Fair Employment and Housing Act, beginning with Government Code Section 12900, and Labor Code Section 1735. In addition, the Contractor agrees to require like compliance by any subcontractors employed on the work by him.
- 18. **Non-collusion Affidavit** Bidders on all public works contracts are required to submit an Affidavit of Non-collusion with their bid. This form is included with the bid package and must be signed under penalty of perjury and dated.
- 19. **Fingerprinting Requirements**. Contractors and any subcontractors shall comply with the requirements of state law regarding fingerprinting and background checks, including Education Code section 45125.1 and 45122.1, when any employee's come into contact with pupils on school grounds during the course of this project. Requirements include:
  - (1) Submitting to the Department of Justice the fingerprints of all employees who may have any contact with pupils.
  - (2) Not permitting any employee to come into contact with pupils until the Department of Justice has ascertained that the employee has not been convicted of a felony a defined in Education Code section 45122.1;
  - (3) Certifying in writing to the District governing board that none of its employees who may come into contact with pupils have been convicted of a felony as defined in section 45122.1; and
  - (4) Providing the District governing board with current lists of names of its employees who may come into contact with pupils.

Contractor shall use the Department of Justice form or other form as required by the Department of Justice for fingerprint and background check requests.

The certification and list of names must be provided before allowing an employee to have contact with pupils. The initial certification shall be made no later than <u>20 days</u> after the notice of award. Thereafter, contract shall provide supplemental certifications and updated lists before allowing any other employee to have contract with pupils.

Contractor or subcontractor's failure to comply with state law fingerprinting and background check requirements including but not limited to Education Code section 45125.1 shall constitute cause for immediate termination of the contract.

## **GENERAL CONDITIONS**

## **ARTICLE 1**

## **CONTRACT DOCUMENTS**

The contract documents include the Bid Packet, the Agreement, and the General and Special Conditions, the Drawings, and the Specifications. Two or more copies of each, as required, shall be signed by both parties and one signed copy of each shall be retained by each party.

The intent of these documents is to include all labor, non-owner supplied materials, appliances and services of every kind necessary for the proper execution of the work.

The documents are to be considered as one, and whatever is called for by any one of the documents shall be as binding as if called for by all documents.

## **ARTICLE 2**

## MATERIALS, APPLIANCES, EMPLOYEES

Except as otherwise noted, the Contractor shall provide and pay for all non-owner supplied materials, labor, tools, water, power and other items necessary to complete the work.

Unless otherwise specified, all materials shall be new, and both workmanship and materials shall be of good quality.

All workmen and sub-contractors, if any, shall be skilled in their trades.

### **ARTICLE 3**

## **ROYALTIES AND PATENTS**

The Contractor shall pay royalties and license fees, if applicable. He shall defend all suits or claims for infringement of any patent rights and shall save the Owner harmless from loss on account thereof.

## **ARTICLE 4**

## SURVEYS, PERMITS, AND REGULATIONS

The Owner shall furnish all surveys unless otherwise specified. Permits and licenses necessary for the prosecution of the work shall be secured and paid for by the Contractor. Easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the Owner, unless otherwise specified. The Contractor shall comply with all laws and regulations bearing on the conduct of the work and shall notify the Owner if the drawings and specifications are at variance therewith.

### **ARTICLE 5**

## PROTECTION OF WORK, PROPERTY, AND PERSONS

The Contractor shall adequately protect the work, adjacent property and the public and shall be responsible for any damage or injury due to his act or neglect.

### **ARTICLE 6**

#### INSPECTION OF WORK

The Contractor shall permit and facilitate inspection of the work by the Owner and his agents and public authorities at all times.

## ARTICLE 7

### CONTINGENCY ALLOWANCES/CHANGES IN WORK

Use of the contingency allowance will be made only as directed for the Owner's purposes, and only be written authorization signed by Owner's and Architect's "representative" which designate amounts to be charged to the allowance. Change orders authorizing use of funds from the contingency allowance will include the Contractor's related costs and reasonable overhead and profit margins.

At project closeout, the unused amounts remaining in the contingency allowance shall be credited to Owner by Change Order.

Any changes in the work in excess of the contingency allowance shall be made in writing and submitted to the Board for approval. Claims by the Contractor for extra cost or time must be made in writing before executing the work involved.

## **ARTICLE 8**

## **CORRECTION OF WORK**

The Contractor shall re-execute any work that fails to conform to the requirements of the contract and that appears during the progress of the work, and shall remedy any defects due to faulty materials or workmanship which appear within a period of one (1) year from the date of completion of the contract unless a greater time period is specified elsewhere in the contract documents. The provisions of this article apply to work done by sub-contractors, if any, as well as to work done by direct employees of the Contractor.

## **ARTICLE 9**

### OWNER'S RIGHT TO TERMINATE THE CONTRACT

Should the Contractor neglect to prosecute the work properly or with diligence, or fail to perform any provision of the contract, the Owner, after seven (7) days' written notice to the Contractor, may, without prejudice to any other remedy he may have, make good the deficiencies and may deduct the cost thereof from the payment then or thereafter due the contractor or, at his option, may terminate the contract and take possession of all materials, tools, and appliances and finish the work by such means as he sees fit, and if the unpaid balance of the contract price exceeds the expense of finishing the work, such excess shall be paid to the Contractor, but if such expense exceeds such unpaid balance, the Contractor shall pay the difference to the Owner.

## **ARTICLE 10**

### CONTRACTOR'S RIGHT TO TERMINATE THE CONTRACT

Should the work be stopped by any public authority for a period of thirty (30) days or more, through no fault of the Contractor, or should the work be stopped through act or neglect of the Owner for a period of seven (7) days, or should the Owner fail to pay the Contractor any payment within seven (7) days written notice to the Owner, Contractor may stop work or

terminate the contract and recover from the Owner payment for all work executed and any loss sustained and reasonable profit and damages.

# **ARTICLE 11 PAYMENTS**

Payments shall be made as provided in the Agreement. The making and acceptance of the final payment shall constitute a waiver of all claims by the Owner, other than those arising from unsettled liens or from faulty work appearing thereafter, as provided for in Article 9, and of all claims by the Contractor except any previously made and still unsettled. Payments otherwise due may be withheld on account of defective work not remedied, liens filed, damage by the Contractor to others not adjusted, or failure to make payments properly to sub-contractors or for materials or labor.

## **ARTICLE 12 INSURANCE**

The Contractor shall take out, pay for, and maintain at all times during the performance of work under this contract, through companies and agencies approved by the Owner and containing provisions satisfactory to the Owner the following insurance:

### **INSURANCE**

- 1. Workmen's Compensation and Employer's Liability Insurance in the Contractor's name with limits or liability under the Employer's Liability portion of not less than \$300,000, containing a waiver of subrogation in favor of the Owner executed by the Insurance Company.
- 2. Public Liability Insurance including Contractor's Protective Liability in the Contractor's name, with bodily injury including accidental death, to any one person in an amount of not less than \$1,000,000 per person, and \$2,000,000 per accident and property damage limits of not less than \$1,000,000.
- 3. Contractual Liability Insurance in the Contractor's name specifically endorsed to cover the indemnity agreement in this contract. Limits of liability shall be not less than \$250,000 per accident for bodily injury and \$1,000,000 for property damage.
- 4. Automobile Liability Insurance with an Employer's Non-Ownership Liability Endorsement in the Contractor's name. Limits of liability shall be not less than \$250,000 per person and \$500,000 per accident for bodily injury and \$100,000 for property damage.
- 5. All of the above insurance coverage must be carried with the same insurance company.
- 6. **Indemnity Agreement.** The Contractor hereby agrees and covenants to protect, defend, hold harmless, and indemnify the Owner, from and against any and all claims, actions, liabilities, losses, and expenses relating to any and all losses or damages (including, without limiting the foregoing, injury to or death of persons and damage to property) allegedly or actually arising out of or incidental to the work, services, and activities of the Contractor or any of its sub-contractors under this Contract, including without limiting the foregoing, all acts and omissions of the officers, employees and agents of the Contractor and its sub-contractors in connection with any installation, job or work under this contract or while proceeding to or from the site of any installation, job or work, whether or not lawful or within the scope of their employment.

7. In the event the Agreement shall specify insurance amounts greater than the amounts mentioned herein, then the greater amounts shall govern in determining the policy amounts.

## ARTICLE 13 EVIDENCE OF INSURANCE

Before the work is started, the Contractor shall forward to the Owner two (2) copies of a certificate of insurance or memorandum of insurance evidencing that all required insurance is in force.

The Contractor must certify to the Owner that he has obtained similar certificates or memorandum evidence of insurance from each of his sub-contractors, if any, before their work commences. Each sub-contractor must be covered by insurance for the same character and in the same amounts as the Contractor unless the Contractor and the Owner agree that a reduced coverage is adequate because of the nature of the particular sub-contract work.

## **ARTICLE 14**

### CONTRACTOR'S AND BUILDER'S RISK

The owner will carry insurance or self-insure the Builder's Risk (fire, vandalism, malicious mischief and Extended Coverage perils) in amounts to cover the value of work installed. The Owner's insurance will not cover hoists or equipment belonging to the Contractor or any of his sub-contractors. The Contractor shall be responsible for all materials delivered to the site, but not yet installed.

## **ARTICLE 15**

#### LIENS

The final payment shall not be due until the Contractor has delivered to the Owner a complete release of all liens arising out of this contract, or receipts in full covering all labor and materials for which a lien could be filed, or a bond satisfactory to the Owner indemnifying him against any lien.

## ARTICLE 16 DAMAGES

The Owner, Architect, or authorized representatives of either, shall not in any way or manner be answerable or suffer loss, damage, expense or liability for any loss or damage that may happen to said work, or part thereof, or in or about the same during its construction and before acceptance, and the said Contractor shall assume all liabilities of every kind of nature arising from said work, either by accident, neglect, or any other cause whatever; and shall hold the Owner harmless from all liability of every kind provided however, the risk of loss to the extent covered by insurance.

## ARTICLE 17 LIQUIDATED DAMAGES

Liquidated damages shall be paid by the Contractor to the Owner in the event Owner and/or the public is denied the use of or access to the facilities on which the Contractor is working due to delay or overrun of time by Contractor. Because it would be difficult to determine an exact amount for damages for such denial of use or access to the facilities, the amount of one thousand dollars (\$1,000.00) per calendar day is agreed upon as a fair and reasonable amount to which the

Owner shall be entitled from the Contractor in the event of delay or overrun of time by Contractor.

## **ARTICLE 18**

### FIRE INSURANCE WITH EXTENDED COVERAGE

The Owner shall self-insurance or effect and maintain fire insurance with extended coverage upon the entire structure on which the work of this contract is to be done to one hundred percent of the insurable value thereof, in or adjacent to the structure insured.

## ARTICLE 19 SEPARATE CONTRACTS

The Owner 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.

If any part of the Contractor's work depends for proper execution or results upon the work of any other contractor, the contractor shall inspect and promptly report to the Owner any defects in such work that render it unsuitable for such proper execution and results. His failure to inspect and report shall constitute an acceptance of the other contractor's work as fit and proper for the reception of his work, except as to defects which may develop in the contractor's work after the execution of his work.

To insure the proper execution of his subsequent work, the Contractor shall measure work already in place and shall at once report to the Owner any discrepancy between the executed work and the drawings.

Where work of one trade joins, or is on other work, there shall be no discrepancy when it is completed. In engaging one kind of work with another, marring or damaging shall not be permitted. Should improper work of any trade be covered by another, which results in damage or defects, the whole work affected shall be made good by the contractor without expense to the Owner.

The Contractor shall anticipate the relations of the various trades to the progress of the work and shall see that required anchorage or blocking is furnished and set at proper times. Anchorage and blocking necessary for each trade shall be a part of same, except where stated otherwise.

The Contractor and all sub-contractors shall coordinate their work with adjacent work and shall cooperate with each other so as to facilitate the general progress of the work. The contractor and all sub-contractors shall afford each other every reasonable opportunity for the installation of its work and for the storage of its materials.

## ARTICLE 20 OWNER'S STATUS

The Owner shall have general supervision and direction of the work. He has authority to stop the work whenever stoppage may be necessary to insure the proper execution of the Contract.

## ARTICLE 21 ARCHITECT'S DECISIONS

For projects employing the use of an architect, the architect shall, within a reasonable time, make decisions on all claims of the Contractor and on all other materials relating to the execution and progress of the work or the interpretation of the Contract Documents.

The architect's decisions, in matters relating to artistic effect, shall be final, if within the terms of the Contract Documents.

## ARTICLE 22 ARBITRATION

Any disagreement arising out of this contract, or from the breach thereof, shall be submitted to arbitration, and judgment upon the award rendered may be entered in the court of the forum, state or federal, having jurisdiction. It is mutually agreed that the decision of the arbitrators shall be a condition precedent to any right of legal action that either party may have against the other. The arbitration shall be held under the Standard Form of Arbitration Procedure of the American Arbitration Association.

## **ARTICLE 23**

## **CUTTING, PATCHING AND DIGGING**

The Contractor shall do all cutting, fitting or patching of his work that may be required to make its several parts come together properly and fit it to receive or be received by the work of other contractors shown upon, or reasonably implied by the Drawings and Specifications for the completed structure, and he shall make good after then as the Owner may direct.

Any cost caused by defective or ill-timed work shall be borne by the party responsible therefore.

The Contractor shall not endanger any work by cutting, digging, or otherwise, and shall not cut or alter the work of any other contractor save with the consent of the Owner.

## ARTICLE 24

### **USE OF PREMISES**

The Contractor shall confine his apparatus, the storage of materials and the operations of his workmen to limits indicated by law, ordinances, permits or directions of the Owner and shall not unreasonably encumber the premises with his materials. The Contractor shall not load or permit any part of the structure to be loaded with a weight that will endanger its safety.

The Contractor shall enforce the Owner's instructions regarding signs, advertisements, fire, and smoking.)

## ARTICLE 25

### **CLEANING UP**

The Contractor shall at all times keep the premises free from accumulations of waste material or rubbish caused by his employees or work, and at the completion of the work, he shall remove all rubbish from and about the building and all his tools, scaffolding and surplus materials and shall leave his work "broom clean" or its equivalent, unless more exactly specified. In case of dispute, the Owner may remove the rubbish and charge the cost to the Contractor.

## **ARTICLE 26**

## DRUG-FREE/SMOKE FREE WORKPLACE

The Contractor shall remove any worker from the Project Premises when directed to do so by the District or any representative of the District. The District and all of the District's projects are "drug-

free" and "smoke-free" workplaces and, as such, require that the Contractor be subject to the requirements mandated by California Government Code Sections 8350, et seq. The Drug-Free Workplace Act of 1990 requires that every person or entity awarded a contract or grant for the procurement of any property or service from a State agency certify that it will provide a drug-free and smoke-free workplace and, in that respect, comply with certain obligations set forth in that Act. In addition, the Drug-Free Workplace Act provides that each contract or grant awarded by the State agency may be subject to suspension of payments or termination for failure to comply with such Act. It is the sole responsibility of the Contractor to police and oversee any and all personnel used in connection with the Work and the Project, whether employed directly or indirectly by Contractor. If Contractor fails to maintain a drug-free and smoke-free workplace as required by the Drug-Free Workplace Act, the District may enforce its lawful rights to suspend pending or subsequent payments and to terminate the Contract and may pursue all other rights and remedies in may have against the Contractor at law and/or in equity. The Contractor shall also submit to the District the drug-free workplace certificate required by law within seven (7) days after award of the Contract.

# ARTICLE 27 DELAY IN THE WORK

Extension of Contract Time. The District shall extend the time period for completion of the Work by the number of calendar days the Contractor is delayed only when satisfactory evidence is presented to the District, within five (5) calendar days after the commencement of the matter or condition causing the delay, that such delay could not be anticipated at the time of entering into the Contract and is neither caused nor continued by fault or negligence on the part of the Contractor, its Subcontractors, Material men or others reasonably and customarily under the Contractor's control and is not otherwise caused by the Contractor or within its control. The following shall constitute matters or conditions that may justify an extension to the Contract Time hereunder: an act of God or of a public enemy, act of government, act of any quasigovernmental or publicly-regulated entity including a public utility, labor disputes, fire, abnormal adverse weather, flood, epidemic, quarantine restrictions, riot, strike, freight embargo, unavoidable casualties, and other such causes beyond the Contractor's control. If abnormal adverse weather conditions are the basis of a claim for an extension to the Contract Time, such claim shall be documented by data substantiating that weather conditions were abnormal for the period of time claimed and could not have been reasonably anticipated at the time of contracting, and that such weather conditions had an adverse effect on the scheduled construction. The District shall ascertain the facts and the extent of the delay, and its findings shall be conclusive. A time extension granted for Work at one site shall not apply to any other site. Any extension of time, if allowed by the District pursuant to this Section, shall be authorized under written Change Order.

<u>District Liability for Delays</u>. Except as otherwise provided in this Section, the District and those acting on its behalf shall not be liable for any damages because of any delay in furnishing the Project Premises or otherwise resulting from any cause beyond the control and without the fault of the District, including, but not restricted to: an act of God or of a public enemy, act of government, act of any quasi-governmental or publicly-regulated entity including a public utility, labor disputes, act of the Contractor or the Contractor's employees, Subcontractors, Material men or agents, act of any other contractor on the Project, abnormal adverse weather conditions, fire, flood, epidemic, quarantine restrictions, riot, strike, freight embargo, unavoidable casualties, or act of any third person or entity not subject to the direct control of the District. The sole remedy of the Contractor for any such delay shall be limited to an extension of the Contract Time in accordance with this Section above. Notwithstanding anything to the contrary stated above, the District may, in its sole and absolute discretion and without obligation to do so, elect to increase the Contract Price for

significant delays that are not caused by the Contractor or any person under the Contractor's control where the circumstances warrant such a change in the Contract Price pursuant to a Change Order.

In anticipation of, and in compliance with, the provisions of California Public Contract Code Section 7102, and because it is agreed by the Contractor and the District that actual damages are impracticable and extremely difficult to ascertain, if the Contractor is delayed in completing the Work due solely to the fault of the District, and where such delay is unreasonable under the circumstances and was not contemplated by the parties at the time of contracting, the Contractor shall be entitled to an appropriate time extension to account for the delay, to be authorized by Change Order, and to pay to Contractor liquidated damages in the amount of One Thousand Dollars (\$1,000.00) for each day of such delay. An extension of the Contract Time shall be the Contractor's sole remedy (and the Contractor shall have no right to actual or liquidated damages) for any delay, hindrance in the performance of the Work, loss in productivity, impact damages or similar claims unless the delay (i) is caused solely by the acts of the District, (ii) is unreasonable under the circumstances, and (iii) was not contemplated by the parties at the time of contracting. If any such District-caused delay occurs, the Contractor expressly agrees to be limited solely to the liquidated damages provided for in this Section.

Notwithstanding anything to the contrary stated above, Contractor hereby acknowledges and agrees that Contractor shall not be entitled to any compensation, under any theory of recovery, for extended overhead, project general conditions, acceleration costs or other costs or expenses, arising or resulting from delays of up to one-hundred twenty (120) days from the date of bid opening in the District's obtaining bid approval from its Board and the State of California (if required). In bidding this Project, Contractor fully agrees and understands that a considerable delay may result from the date of the bid opening until the issuance of the Notice to Proceed and that no compensation shall be due to Contractor for such delay unless such delay exceeds one-hundred twenty (120) days, in which event the Contractor shall be appropriately compensated only for the portion of such delay that exceeds one-hundred twenty (120) days.

## **ARTICLE 28**

### HOLD HARMLESS CLAUSES

The Contractor shall indemnify, defend and hold the District, the Board, the Architect, its and their officers, employees, agents, consultants, other independent contractors, consultants and representatives, harmless from and against every liability, claim, demand, cost, loss, damage or expense which may accrue or be made by reason of:

Any injury to person or property sustained by the Contractor or by any person, firm, corporation, partnership, limited liability company or other entity, including, without limitation, any Subcontractor or Material man of any tier, employed directly or indirectly by it upon or in connection with the Work:

Any injury to person or property sustained by any person, firm, corporation, partnership, limited liability company or other entity, caused by any act, neglect, Default or omission of the Contractor or any person, firm, corporation, partnership, limited liability company or other entity, including, without limitation, any Subcontractor or Materialman of any tier, directly or indirectly employed by it upon or in connection with the Work, whether the injury or damage occurs upon or adjacent to the Work or the Project;

The furnishing or use of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, process, article, or appliance under the Contract. The violation of any applicable laws, rules or regulations of any governmental entity in connection with the Work; or Any failure or alleged failure of the Contractor (or any person hired or employed, directly or indirectly, by the Contractor) to pay any Subcontractor or Materialman of any tier or any other

person employed in connection with the Work, and/or the filing of any stop notice or mechanic's lien claim.

The Contractor, at its own cost, expense and risk, shall defend all legal proceedings that may be brought against the District, the Board, its and their officers, employees, agents, consultants, other independent contractors and representatives, on any such liability, claim, demand, cost, loss, damage or expense, and satisfy any resulting judgment that may be rendered against any of them whether or not the liability, claim, demand, cost, loss, damage or expense was actually or allegedly caused wholly or in part through the negligence or other tortuous conduct of any of them; provided that, notwithstanding anything to the contrary stated above, the Contractor shall not be obligated to indemnify any particular indemnity if the liability, claim, demand, cost, loss, damage or expense was actually and solely caused by such indemnity's gross negligence or willful misconduct.

## ARTICLE 29 GUARANTY-WARRANTY

Beside guaranties required elsewhere in the Contract Documents, the Contractor shall, and hereby does, guaranty and warrant that the Project and all Work executed and materials furnished under the Contract will be free from defects of materials and workmanship for a period of one (1) year after the date of Acceptance of Completion, except that certain specific items of the Work and Project may require a guaranty or warranty for a greater period of time when so provided in any Contract Document and the guaranty period for certain portions of the Work may commence prior to Acceptance of Completion as provided herein. Immediately upon receipt of written notice from the District, but in no event later than one (1) business day thereafter, the Contractor shall repair or replace, at its own expense, any defective material or Work which may be discovered before Acceptance of Completion or within the above guaranty period, any material or Work damaged thereby, and all adjacent material or Work which may be displaced in connection with the repair or replacement required hereunder. Inspection of or failure to inspect the Work or the Project by the District shall not relieve the Contractor from these obligations. The Contractor shall notify the District upon completion of the repairs.

If the Contractor fails to repair or replace the material or Work as indicated in the preceding paragraph within one (1) business day from the date of receipt of a written notice from the District notifying the Contractor of the defect, the District, with its own forces or by contract, may proceed with the repair or replacement and assess the costs thereof against the Contractor, which costs will bear interest at the rate of 8% annual from the date expended until repaid to the District, and which amount may be withheld or retained from any portion of the Contract Price outstanding and otherwise owing to the Contractor in accordance with this document. When necessary to keep school open or safely operating, the District, with its own forces or by contract, may make such repairs or replacement without advance notice to the Contractor and assess the costs thereof (together with interest as specified above) against the Contractor. Such action by the District will not relieve the Contractor of the guaranties provided in this Section or elsewhere in the Contract Documents. If Contractor fails to repair or replace any Work or material covered by any guaranty or warranty set forth in the Contract Documents within the applicable guaranty or warranty period, the District may elect to declare the Contractor a non-responsible bidder on future District projects.

Whether the Contractor or the District actually repairs or replaces defective material or Work within the applicable guaranty period pursuant to either of the preceding two paragraphs, the warranty period shall begin anew from the date of completion of the repair or replacement. For example, if an item with a one year warranty requires repair or replacement during the guaranty period, then the

guaranty for that item shall expire one (1) year after the completion of the repair or replacement of such item and not one (1) year after Acceptance of Completion.

Contractor further warrants that title to all Work, materials and equipment will pass to the District upon receipt of payment by Contractor therefor, free and clear of all lien rights, stop notice rights, security interests or encumbrances (collectively referred to as liens). The Contractor shall also defend the District, at the Contractor's sole cost and expense, against any and all actions, lawsuits or proceedings brought against the District as a result of claims, liens or stop notices filed against the District, the Project Premises or otherwise. The Contractor hereby indemnifies, defends and holds harmless the District against any and all such claims, liens and stop notices and agrees to pay any judgment, lien or stop notice claim against the District or the District's property resulting from any actions, lawsuits or proceedings brought to enforce such liens, stop notices or other claims.

This Section does not in any way limit the guaranty on any items for which a longer guaranty is specified, or on any items for which a manufacturer gives a guaranty for a longer period. Contractor shall furnish the District all appropriate guaranty or warranty certificates immediately upon completion of the Project.

No payment by the District, or any partial or entire use or occupancy of the Project by the District, shall constitute an acceptance of any Work not performed in accordance with the Contract Documents and all applicable laws, rules and regulations.

## ARTICLE 30 WAGE RATES

In compliance with the provisions of the California Labor Code, hereby incorporated herein, all workers employed by the Contractor or any Subcontractor of any tier performing Work under this Contract shall be paid not less than the general prevailing rate of per diem wages in effect at the time of execution of the Contract for each craft, classification or type of worker needed to execute the Work under this Contract. Although the District will rely upon the determinations made by the California State Director of Industrial Relations for wage rates, the District reserves the right to establish wage rates and determine classifications in the event of a dispute, as allowed by law.

Pursuant to the provisions of this document and the California Labor Code, the District has obtained from the Director of the Department of Industrial Relations the general prevailing rate of per diem wages and the prevailing rate for holiday and overtime work in the locality in which the Work is to be performed for each craft, classification or type of worker needed to execute the Contract. Holidays shall be as defined in the collective bargaining agreement applicable to each particular craft, classification or type of worker employed under the Contract.

Per diem wages pursuant to California Labor Code Section 1773 shall be deemed to include employer payments for health and welfare, pensions, vacation, travel time and subsistence pay as provided in Section 1773.8 of the California Labor Code, apprenticeship or other training programs authorized by Section 3093 of the California Labor Code, and similar purposes when the term per diem wages is used herein.

Pursuant to Section 1773.6 of the California Labor Code, if during the period this bid is required to remain open, the Director of Industrial Relations determines that there has been a change in the prevailing rate of per diem wages in the locality in which the Work under the Contract is to be performed, he shall make the change available to the District, but the change shall not affect any request for bids or the Contract subsequently awarded.

Pursuant to Section 1815 of the California Labor Code, holiday and overtime work, when permitted by law, shall be paid for at the rate of at least one and one-half (1-1/2) times the specified rate of per diem wages, unless otherwise specified.

There shall be paid to each worker of the Contractor, or any Subcontractors of any tier engaged in Work on the Project, not less than the general prevailing wage rate, regardless of any contractual relationship which may be alleged to exist between the Contractor or any Subcontractor of any tier and such worker.

Pursuant to California Labor Code Section 1775, the Contractor shall forfeit as a penalty to the District not more than **Two Hundred Dollars** (\$200.00) for each calendar day or portion thereof for each worker paid less than the prevailing wage rates for such work or craft in which such worker is employed for any Work performed under the Contract by the Contractor or any Subcontractor of any tier, except as otherwise provided in Section 1775(b). The difference between the prevailing rates and the amount actually paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall also be paid to each worker by the Contractor or Subcontractor. Such amounts may be retained or withheld from the Contract Price in accordance with section(s) of this document. The amount of the penalty shall be determined by the Labor Commissioner and shall be based on consideration of the Contractor's or Subcontractor's mistake, inadvertence, or neglect in failing to pay the correct rate of prevailing wages, or the previous record of the Contractor in meeting his or her prevailing wage obligations, or the failure by the Contractor or Subcontractor to pay the correct rates of prevailing wages. A mistake, inadvertence, or neglect in failing to pay the correct rate of prevailing wages is not excusable if the Contractor or Subcontractor had knowledge of his or her obligations under the provisions of this document or the California Labor Code. All penalties or forfeitures from prevailing wage violations shall be deposited into the District's general fund, pursuant to California Labor Code Sections 1771.5 and 1771.6.

Any contract executed between the Contractor and any Subcontractor for the performance of Work under this Contract shall include a copy of the provisions of Sections 1771, 1775, 1776, 1777.5, 1813, and 1815 of the California Labor Code.

The Contractor shall monitor the payment of the specified general prevailing rate of per diem wages by each Subcontractor to each Subcontractor's employees, by periodic review of the certified payroll records of each Subcontractor.

Upon becoming aware of the failure of any Subcontractor to pay his or her workers the specified prevailing rate of wages, the Contractor shall diligently take corrective action to halt or rectify the failure, including, but not limited to, retaining sufficient funds due the Subcontractor for any Work performed under the Contract.

Prior to making final payment to any Subcontractor for any Work performed under the Contract, the Contractor shall obtain an affidavit signed under penalty of perjury from the Subcontractor that the Subcontractor has paid the specified general prevailing rate of per diem wages to his or her employees in connection with the Work and any amounts due pursuant to California Labor Code Section 1813.

The Division of Labor Standards Enforcement (DLSE) shall notify the Contractor within fifteen (15) days of the receipt by the DLSE of a complaint of the failure of any Subcontractor to pay workers the general prevailing rate of per diem wages. If the DLSE determines that employees of any Subcontractor were not paid the general prevailing rate of per diem wages and if the District did not retain sufficient money under the Contract to pay those employees the balance of wages owed under this general prevailing rate of per diem wages, the Contractor shall withhold an amount of moneys due the Subcontractor sufficient to pay those employees the general prevailing rate of per diem wages if requested by the DLSE. The Contractor shall pay any money retained from and owed to a Subcontractor upon receipt of notification by the DLSE that the wage complaint has been resolved. If notice of the resolution of the wage complaint has not been received by the Contractor within one hundred eighty (180) days of the filing of a valid notice of completion or District's acceptance of the Project, whichever occurs later, the Contractor shall pay all moneys retained from

the Subcontractor to the District. If the Subcontractor prevails in the enforcement action, the District shall release any funds retained pursuant to this Section.

Contractor shall post, at appropriate conspicuous points on the Project Premises, a schedule showing all determined general prevailing wage rates.

The Contractor is responsible for ascertaining and complying with all rates for all crafts utilized in and during the Work. Questions pertaining to prevailing wages should be directed to the following address:

Division of Labor Statistics and Research P. O. Box 420603 San Francisco, California 94142 (415) 703-4281

Full compliance with SB 854 is expected as part of this contract. No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a) in which circumstance the contractor or subcontractor is ineligible to respond to a bid or to do public work]. No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015). This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

## **ARTICLE 31**

## RECORD OF WAGES PAID: INSPECTON

Pursuant to Section 1776 of the California Labor Code:

Each Contractor and Subcontractor shall keep accurate payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by him, her or it in connection with the public work under this Contract. Each payroll record shall contain or be verified by a written declaration that it is made under penalty of perjury, stating both of the following:

- (1) The information contained in the payroll record is true and correct.
- (2) The employer has complied with the requirements of Sections 1771, 1811, and 1815 of the California Labor Code for any work performed by his or her employees in the public work project under this Contract.

The payroll records shall be certified and shall be available for inspection at all reasonable hours at the principal office of the Contractor on the following basis:

- A certified copy of an employee's payroll record shall be made available for inspection or furnished to such employee or his or her authorized representative on request.
- A certified copy of all payroll records enumerated in provision(s) of this document and copies of all cancelled payroll checks shall be made available for inspection or furnished upon request to a representative of the District, the Division of Labor Standards Enforcement and the Division of Apprenticeship Standards of the Department of Industrial Relations.
- A certified copy of all payroll records enumerated in provision(s) of this document shall be made available upon request by the public for inspection or for copies thereof. However, a

request by the public shall be made through either the District, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to the above section, the requesting party shall, prior to being provided the records, reimburse the costs of preparation by the Contractor, Subcontractors, and the entity through which the request was made. The public shall not be given access to such records at the principal office of the Contractor.

Each Contractor and Subcontractor shall file a certified copy of the records with the entity that requested such records within ten (10) days after receipt of a written request.

Any copy of records or payroll checks made available for inspection as copies and furnished upon request to the public or any public agency by the District, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address and social security number. The name and address of the Contractor awarded the Contract or the Subcontractor performing the Contract shall not be marked or obliterated.

The Contractor shall inform the District of the location of the above records, including the street address, city and county, and shall, within five (5) working days, provide a notice of a change of location and address.

In the event of noncompliance with the requirements of this Section, the Contractor shall have ten (10) days in which to comply subsequent to receipt of written notice specifying in what respects the Contractor must comply with this Section. Should noncompliance still be evident after such 10-day period, the Contractor shall pay a penalty of One **Hundred Dollars** (\$100.00) to the District for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, such penalties shall be withheld from progress payments otherwise due the Contractor hereunder.

## ARTICLE 32 HOURS OF WORK

As provided herein and/or in Section 1810, Chapter 1, Part 7, Division 2 of the California Labor Code, eight (8) hours of labor shall constitute a legal day's work. The time of service of any work employed at any time by the Contractor or by any Subcontractor upon the Work, or upon any part of the Work contemplated by this Contract, is limited and restricted to eight (8) hours during any one calendar day and forty (40) hours during any one calendar week, except as hereinafter provided. Notwithstanding the provisions hereinabove set forth, Work performed by employees of the Contractor or any Subcontractor in excess of eight (8) hours per day and forty (40) hours during any one week shall be permitted upon this public work; provided that, compensation for all hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be at not less than one and one-half (1-1/2) times the basic rate of pay.

As provided in Section 1813 of the California Labor Code, the Contractor shall pay to the District a penalty of Twenty-Five Dollars (\$25.00) for each worker employed in the execution of this Contract by the Contractor or by any Subcontractor, for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any calendar day or forty (40) hours in any one calendar week, in violation of the provisions of Article 3, (commencing at Section 1810), Chapter 1, Part 7, Division 2 of the Labor Code, unless compensation to the worker so employed by the Contractor is not less than one and one-half (1-1/2) times the basic rate of pay for all hours worked in excess of eight (8) hours per day or forty (40) hours per week, as applicable. The District may retain or withhold any such amounts from the Contract.

Any work required to be performed after regular working hours or on Sundays or other holidays shall be performed without additional expense to the District.

## **ARTICLE 33**

## ASSIGNMENT OF ANTITRUST CLAIMS

In entering into a public works contract or a subcontract to supply goods, services or materials pursuant to a public works contract, the Contractor or Subcontractor offers and agrees to assign to the District all rights, title and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2 [commencing with Section 16700] of Part 2 of Division 7 of the California Business and Professions Code), arising from purchases of goods, services or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the District tenders final payment to the Contractor, without further acknowledgment by the parties.

If the District receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under Chapter 11 (commencing with Section 4550) of Division 5 of Title 1 of the California Government Code, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the District any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the District as part of the bid price, less the expenses incurred in obtaining that portion of the recovery.

Upon demand in writing by the assignor, the District shall, within one year from such demand, reassign the cause of action assigned pursuant to this Section if the assignor has been or may have been injured by the violation of law for which the cause of action arose, and (a) the District has not been injured thereby, or (b) the District declines to file a court action for the cause of action.

## **ARTICLE 34**

## FAIR EMPLOYMENT PRACTICES

The following provisions pertaining to fair employment practices are incorporated into this Contract. All references to "contractor" in this Section shall be deemed to refer collectively to the Contractor named herein and all Subcontractors of any tier performing Work on the Project.

In connection with the performance of the Work under this Contract, each contractor agrees as follows:

- (i) The contractor will not knowingly discriminate against any employee or applicant for employment because of sex, race, color, religion, ancestry, age, handicap, national origin, or other protected classification. The contractor will take action to ensure that applicants are employed, and that employees are treated equally during employment, without regard to their sex, race, color, religion, ancestry, age, handicap, national origin, or any non-job related criteria. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising; layoff or termination, rates of pay or other forms of compensation; and selection for training, including apprenticeship where applicable.
- (ii) The contractor agrees to post at the Project Premises in conspicuous places, available to employees and applicants for employment, notices to be provided by the District setting forth the provisions of this Fair Employment Practices Section.
- (iii) In all advertisements for labor or other personnel, or requests for employment of any nature, the contractor shall encourage applications of all persons without regard to

- gender, race, color, religion, ancestry, age, handicap, national origin, or other protected classification persons.
- (iv) The contractor shall permit access to those records of employment, employment advertisements, application forms and other pertinent data designated by the District, for the purpose of investigation to determine compliance with this Fair Employment Practices Section of this Contract.
- (v) Following the award, but within ten (10) days after issuance of the Notice to Proceed, the Contractor shall meet the following standards for compliance with the fair employment requirements of this Contract and the applicable sections of laws and regulations of the State of California, and shall ensure that each Subcontractor of every tier will meet these requirements within ten (10) days after receiving a notice to proceed from the Contractor, unless the District provides for a greater time period:
  - (A) Provide evidence, as required by the District, that all Subcontractors of every tier, the Contractor's supervisors, and other personnel have been notified, in writing, of the content of this Fair Employment Practices section and their responsibilities under it by posting notices in conspicuous places, including, without limitation, the Project Premises, the contractor's offices, and in other places available to supervisors and other personnel; and
  - (B) Provide evidence, as required by the District, that all sources of employee referrals (including, but not limited to, unions, employment agencies, and the State Employment Development Office) have been notified of the content of this Fair Employment Practices section.
- (vi) After a determination by the District that a contractor has knowingly committed a violation of Fair Employment Practices as set forth herein or of the California Fair Employment Practices Act (if a State-funded project), or of any applicable federal law or executive order concerning equal employment practices, the District shall cause written notice to be served on the contractor and to any Subcontractor of any tier involved in such violation. The notice shall set forth the nature of the violation. Upon the District's request, the contractor shall meet with representatives of the District in order to determine the means of correcting the violation and the time period within which the violation shall be corrected. If within ten (10) days the parties are unable to agree upon a means of remedying the violation or upon the time period within which said remedy shall be affected, the District shall serve a second written notice upon the manner in which the violation shall be corrected. If the contractor has not corrected the violation in the manner prescribed by the District within fifteen (15) days after receipt of the second notice, the District may impose any or all of the following penalties:
  - (A) Determine the contractor not to be a responsible bidder for any future contract until such time as the contractor has satisfied the District that the requirements of the Fair Employment Practices provisions of this Contract have been met;
  - (B) Terminate the entire Contract, in which case the District shall not be liable for any further payments thereunder, or for any damages to the contractor caused by such termination, except as provided below;

- (C) Terminate and cancel any portion of the Contract or Work hereunder, or require the Contractor to terminate and cancel (or cause to be terminated and cancelled) the subcontract of any offending Subcontractor, which is related to the violation in which case the District shall not be liable for any further payments as to said portion of the contract or for any damages caused by such termination, except as provided for below, and may engage another Contractor or Subcontractors to perform said Work; or
- (D) Assess as liquidated damages payable as provided by law the penalties provided in California Labor Code Sections 1735 and 1775, for each calendar day, or portion thereof, for each person who was denied employment as a result of such violation.
- (vii) Nothing contained in these Fair Employment Practices provisions shall be construed so as to prevent the District from pursuing any other remedies that may be available to it at law or in equity.
- (viii) The contractor shall include the provisions of this Fair Employment Practices Section in every first tier subcontract and require each Subcontractor to bind each further Subcontractor with whom a contract exists to such provisions, so that such provisions will be binding upon every Subcontractor of every tier who performs any of the Work required by this Contract.
- (ix) Should the termination, under the provisions above, of part or all of any contract be finally determined by a court of law to have been improper and unauthorized, the District shall compensate each employee of any affected contractor who was actually working on the Project Premises at the time of the contract termination for wages that such employee would have received had such contract not been so terminated, less any wages the employee earned or had the opportunity to earn during the time the employee otherwise would have been employed on the Project Premises.
- (x) Should the termination, under provisions of this document above, of part or all of any contract be finally determined be a court of law to have been improper and unauthorized, then the District shall reimburse the Contractor for all direct damages which it may have incurred by reason of such termination.
- (xi) The District shall have the right, but not the obligation unless requested in writing by the Contractor within three (3) days of service of any summons and complaint or other pleading, to defend the contractor against any legal action which may be brought by reason of any action that the District may have taken under the provisions of these documents. In the event a dispute arises between the District and the Contractor as to whether or not the Contractor was acting upon District direction, the decision of the matter by the District, made by and through the District Administrator of Operations, shall be final.

## **ARTICLE 35**

# CONTRACTOR NOT A PARTNER, OFFICER, EMPLOYEE OR AGENT OF THE DISTRICT

While engaged in carrying out and complying with the terms and conditions of the Contract, the Contractor is an independent contractor and not a partner, officer, employee or agent of the District, and the District shall not be liable for any of the Contractor's acts, omissions, liabilities or other obligations as such.

## ARTICLE 36 ATTORNEYS' FEES

In the event of any dispute between the District and the Contractor pertaining to the Work, the Project or this Contract, the prevailing party (as determined by the court or arbitrator) shall be entitled to recover from the other party its reasonable attorneys' fees, costs and expenses incurred in connection therewith. The term "attorneys' fees" or "attorneys' fees and costs" shall mean the fees and expenses of counsel to the parties hereto, which may include printing, photostating, duplicating and other expenses, air freight charges, and fees billed for law clerks, paralegals and other persons not admitted to the bar but performing services under the supervision of an attorney, and the costs and fees incurred in connection with the enforcement or collection of any judgment obtained in any such proceeding.

## ARTICLE 37 ASSIGNMENT

The Contractor shall not assign or transfer, by operation of law or otherwise, any or all of its rights, burdens, duties or obligations under this Contract, under any of the Contract Documents, or any part hereof or thereof without the prior written consent of the Surety(ies) on the Payment Bond and Performance Bond and the District, which may be given or withheld in their sole and absolute discretion. Should the Contractor request an assignment of monies under the Contract, the District shall be entitled to assess against the Contractor the reasonable costs for processing such assignment. Any assignment of monies due or to become due under this Contract shall be subject to (i) prior lien and stop notice rights for services rendered or materials supplied for performance of the Work called for under this Contract in favor of all persons, firms, or corporations rendering such services or supplying such materials (including, without limitation, Subcontractors and Materialmen) to the extent that claims are filed pursuant to the California Civil Code, the California Code of Civil Procedure or the California Government Code and (ii) deductions for liquidated damages if liquidated damages have been assessed against the Contractor as specified herein.

## ARTICLE 38 NOTICE AND SERVICE THEREOF

All notices, requests, demands, consents, instructions or other communications hereunder shall be in writing (which shall include US Mail, telegram or fax) and shall be deemed to have been duly given or made upon transmittal thereof, if transmitted on a business day, otherwise on the first business day after transmittal, or on the date of confirmed dispatch if sent by fax on a business day, otherwise on the first business day thereafter, or upon the delivery thereof to the telegraph office if sent by telegraph on a business day, otherwise on the first business day thereafter, or three (3) business days after deposit in the mails if sent by certified mail, postage prepaid, return receipt requested, or on the next business day if sent by overnight personal delivery, in each case addressed to the party to which such notice is requested or permitted to be given or made hereunder, at the address and numbers set forth underneath such party's signature line to the General Contract, or at such other address and number of which such party shall have notified in writing the party giving such notice.

## **BID FORM**

## THOMAS JEFFERSON MIDDLE SCHOOL RE-ROOFING PROJECT BID #141501

TO: MADERA UNIFIED SCHOOL DISTRICT 1205 MADERA AVE. Madera, California 93637 (559) 675-4534

Closing Date and Time: April 2, 2015 @ 1:00 PM To: Madera Unified School District, acting by and through its Governing Board, herein called "District":

- 2. It is understood that the District reserves the right to reject this bid and that this bid shall remain open and not be withdrawn for the period specified in the **Notice to Contractors Calling for Bids**, which is contained within the bidder packet.
- 3. The required bid security is hereto attached.
- 4. It is understood and agreed that if written notice of the acceptance of this bid is mailed, telegraphed, or delivered to the undersigned after the opening of the bid, and within the time this bid is required to remain open, or at any time thereafter before this bid is withdrawn, the undersigned will execute and deliver to the District a contract in the form attached hereto in accordance with the bid as accepted, and that he will also furnish and deliver to the District the Performance Bond and Payment Bond as specified, all within five (5) days after receipt of notification of award, and that the work under the contract shall be commenced by the undersigned bidder, if awarded the contract, on the date to be stated in the District's Notice to the Contractor to Proceed and as shown on the **TIMELINE** which is a part of the bidder packet, and shall be completed by the Contractor in the time specified in the contract documents.

5.	All notices or other constated below.	respondence should be addressed to the undersigned at the address
	Company Name: _	
	Responsible Person:	

	Address:			
	City/State/Zip:			
	Telephone number:			
	E-mail address:			
6.	The names of all perso	ns interested in the foregoing	g proposal are as fo	ollows:
names o	of the president, secretary trea	or other interested person is a cornsurer, and manager thereof; if a composing firm; if bidder or other	co-partnership, state tr	rue name of firm, also
7.	The undersigned holds	a California Contractor lice	nse Class	_License No.

9. In the event the bidder to whom Notice of Intent to Award Contract is given fails or refuses to post the required bonds and return executed copies of the agreement form

District may declare the Bidder's bid deposit or bond forfeited as damages.

The undersigned holds DIR (Department of Industrial Relations) #\_\_\_\_\_per SB

within five (5) days from the date of receiving the Notice of Intent to Award Contract, the

- 10. Pursuant to Section 4552 of the Government Code, in submitting a bid to the District, the bidder offers and agrees that if the bid is accepted, it will assign to the district all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 {commencing with Section 16700} of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the bidder for sale to the District pursuant to the bid. Such assignment shall be made and become effective at the time the District tenders final payment to the bidder.
- 11. Designation of Subcontractors

8.

854.

a. In compliance with the Subletting and Subcontracting Fair Practices Act (Public Contract Code §4100 et seq.) and any amendments thereof, each bidder shall set forth below: (1) the name and the location of the place of business of each subcontractor who will perform work or labor or render services to the prime contractor in or about the construction of the work or improvement to be performed under this contract in an amount in excess of one-half of one percent of the prime Contractor's total bid and (2) the portion of the work which will be done by each subcontractor under this act. The prime contractor shall list only one subcontractor for each portion as is defined by the prime contractor in this bid.

If a prime contractor fails to specify a subcontractor of if a prime contractor b. specifies more than one subcontractor for the same portion of work to be performed under the contract in excess of one-half of one percent of the prime Contractor's total bid, he shall be deemed to have agreed that he is fully qualified to perform that portion himself, and that he shall perform that portion himself. No prime contractor whose bid is accepted shall (1) substitute any subcontractor, (2) permit any subcontract to be voluntarily assigned or transferred or allow it to be performed by anyone other than the original subcontractor listed in the original bid, or (3) sublet or subcontract any portion of the work in excess of one-half of one percent of the prime Contractor's total bid as to which his original bid did not designate a subcontractor, except as authorized in the Subletting and Subcontracting Fair Practices Act. Subletting or subcontracting of any portion of the work in excess of one-half of one percent of the prime Contractor's total bid as to which no subcontractor was designated in the original bid shall only be permitted in cases of public emergency or necessity, and then only after a finding reduced to writing as public record of the authority awarding this contract, setting forth the facts constituting the emergency of necessity.

## **BID FORM**

## THOMAS JEFFERSON MIDDLE SCHOOL RE-ROOFING PROJECT BID #141501

This form shall be used by interested bidders to submit bids for the project, **THOMAS JEFFERSON MIDDLE** SCHOOL RE-ROOFING PROJECT, BID #141501, for the Madera Unified School District, as described in BIDDERS PACKET. Bids are to be submitted by 1:00 PM on April 2, 2015, to the Madera Unified School District's Maintenance & Operations office located at 1205 Madera Ave., Madera, CA 93637, at which time and place bids will be opened. (insert business name of bidder) does hereby submit a bona fide bid to perform the work as specified in the contract documents for the above named project as per contract documents. \*\*\*Bidders to include \$3,000.00 owners allowance in (BASE BID ONLY) to be used at Owners discretion\*\*\* BASE BID AMOUNT BUILDING + Owners Allowance of \$3,000.00 Lump sum Base bid for this project is for the Thomas Jefferson Middle School Re-roofing Project to be completed in accordance with contract documents, including all costs to the school district including, but not limited to, materials, labor, tools, insurance, cleanup, and warranties, shall be (Write in words the amount of your bid on this line) (Show bid in numbers) SQUARE FOOT WOOD BOARD REPLACEMENT AMOUNT Square foot wood board replacement to be completed in accordance with contract documents, including all costs to the school district including, but not limited to, materials, labor, tools, insurance, cleanup, and warranties, shall be (Show bid in numbers) (Write in words the amount of your bid on this line)

In the event of a conflict between the written and numeric versions of the bid, the written version will prevail.

At the discretion of <u>District</u>, I agree to enter into a contract with the <u>District</u> for the above mentioned work. I possess a valid license to contract in the State of California for the above-described project. I warrant that I am insured as required by the provisions of the contract documents for the above project and that I will provide evidence of such insurance prior to start of work.

I am aware of provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of the code, and I will comply with such provisions before commencing the performance of the work of this project should I be awarded a contract.

Signed (authorized signature)	
Printed name of person signing	
Title of person signing	
Date	
Contractor doing business as (name style of contractor's license):	
Type of Business: (Sole Proprietorship, Partnership, Corporation)	
Contractor License Number:	
Contractor DIR # per SB 854	

## SUBCONTRACTOR LIST

Portion of Work			
	,		
	(Use Additional P	ages if Necessary)	
Date:			
Bidder:			
Title:			
Signature:			
Street Address:			
City, State, Zip:			
Telephone Number	· ·		

Note: If bidder is a corporation, the legal name of the corporation shall be set forth above together with the signature of authorized officers or agents and the document shall bear the corporate seal; if bidder is a partnership, the true name of the firm shall be set forth above together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership, and if bidder is an individual, his signature shall be placed above.

If there are no subcontractors to be used on this project then write, "NO SUBS" in the above spaces provided for listing of subcontractors.

### **BID BOND**

Name of Principal	
Address	
City of, State of	
as Principal, and	
a corporation organized and existing under the laws of the State of	,
legally doing business in California as an admitted surety insurer at:	
Address	
City of, State of California, as Surety, are District hereinafter called the District, in the sum of <b>TEN PERCENT</b> (10%) <b>AMOUNT OF THE BID</b> of the Principal submitted to the District for which and Surety bind ourselves, our heirs, executors, administrators, successors, and and severally.	<b>OF THE TOTAL</b> payment Principal
THE CONDITION OF THE OBLIGATION OF THIS BOND IS THAT Thas submitted the accompanying bid dated	

#### THOMAS JEFFERSON MIDDLE SCHOOL RE-ROOFING PROJECT BID # 141501

NOW THEREFORE, IF THE Principal does not withdraw said bid within the period specified therein after the opening of the same, or, if no period be specified, within sixty (60) days after said opening; and if the Principal is awarded the contract, and shall within the period specified therefor, or if no period be specified, within five (5) days after the prescribed forms are presented to him for signature, enter into a written contract with the District, in accordance with the bid as accepted and give bond with good and sufficient surety of sureties, as may be required, for the faithful performance and proper fulfillment of such contract and for the payment for labor and materials used for the performance of the contract or in the event of the withdrawal of said bid within the period specified or the failure to enter into such contract and give such bonds within the time specified, if the Principal shall pay the District the difference between the amount specified in said bid and the amount for which the District may procure the required work and/or supplies, in the later amount be in excess of the former, together with all costs incurred by the District in again calling for bids, then the above obligation shall be void and of no effect, otherwise to remain in full force.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract on the call for bids, or to the work to be performed thereunder, or the specifications accompanying the same, shall in anywise affect its obligation under this bond, and it does hereby waive notice of any such change, extension of

time, alteration or addition to the terms of said contract or the call for bids or to the work, or to the specifications.

In the event suit is brought upon this bond by the District and judgement is recovered, the Surety shall pay all costs incurred by the District us such suit, including a reasonable attorney's fee to be fixed by the court.

IN WITNESS WHEREOF this is above named on the		xecuted by the Principal and Surety, 2015.
Principal		
BY		(Corporate Seal)
Typed or printed name		
Title		
Surety		
BY		(Corporate Seal)
Typed or printed name		
Title		
(Attach Attorney-In-Fact Certifi	icate)	

# NONCOLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

	, being first duly sworn, deposes and says that he or
she is	of the party making the foregoing bid that the bid is
not made in the interest of, or on be association, organization, or corpor the bidder has not directly or indire sham bid, and has not directly or in bidder or anyone else to put in a shabidder has not in any manner, direct conference with anyone to fix the boverhead, profit, or cost element of advantage against the public body a contract; that all statements contain directly or indirectly, submitted his thereof, or divulged information or corporation, partnership, company a	chalf of, any undisclosed person, partnership, company, ation; that the bid is genuine and not collusive or sham; that ctly induced or solicited any other bidder to put in a false or directly colluded, conspired, connived, or agreed with any am bid, or that anyone shall refrain from bidding; that the tly or indirectly, sought by agreement, communication, or id price of the bidder or any other bidder, or to fix any the bid price, or of that of any other bidder, or to secure any awarding the contract of anyone interested in the proposed ed in the bid are true; and, further, that the bidder has not or her bid price or any breakdown thereof, of the contents date relative thereto, or paid, and will not pay, any fee to any association, organization, bid depository, or to any member or
agent thereof to effectuate a collusi I certify (or declare) under penalty	of perjury under the laws of the State of California that the
foregoing is true and correct.	
Date	Signature

## **GENERAL CONTRACT**

<b>THIS GENERAL CONTRACT</b> is made as of theday of, 2015, in the County of Madera, State of California, by and between the <b>MADERA UNIFIED SCHOOL DISTRICT</b> (hereinafter called "District"), and (hereinafter called "Contractor").	
In consideration of the mutual covenants and considerations stated herein, the receipt and sufficiency of which are hereby acknowledged, the District and Contractor hereby agree as follows:	
1. SCOPE OF WORK The Contractor shall perform within the time stipulated herein, and shall provide all labor, equipment, materials, tools, utility services and transportation to complete in a workmanlike manner, in accordance with the terms and conditions of the Contract Documents, as defined in Section 10 below, all of the work (the "Work") require in connection with the following titled project, all as more fully described in the contract Documents and Bidder Packet titled:	ed
THOMAS JEFFERSON MIDDLE SCHOOL RE-ROOFING PROJECT, BID #14150	1
2. <u>CONTRACT PRICE</u> The District shall pay to the Contractor as full consideration for the faithful performance of the Contract, subject to any additions or deductions ordered or approved by the District by any Change Order (as described and provided for in the Gener Conditions), the lump sum price of:	al
<b>3.</b> <u>CHANGE ORDER AUTHORIZATION</u> All change orders must be approved by the Characteristics Officer, Superintendent and the Board of Education. No change order will be particles prior written approval by the Chief Facilities Officer and the Superintendent is secured.	
4. CONTRACT TIME The Work shall be commenced on the date stated in the TIMELIN section of the contract documents and shall be completed within the time allowed in the TIMELINE section of the contract documents. If the Work is not completed in conformal with the foregoing, the Contractor shall be subject to liquidated damages in the amount se forth in Section 4 below. The project completion date established for this work shall be August 1, 2015.	nce

- **5.** <u>LIQUIDATED DAMAGES</u> The agreed upon liquidated damages payable to the District pursuant to Section 17 of the General Conditions in the event that the Work is not completed within the Contract Time shall be One Thousand Dollars (\$1,000.00) for each calendar day that the completion of the Project is so delayed beyond the expiration of the Contract Time.
- **6.** <u>INSURANCE REQUIREMENTS</u> As provided in Section 12 of the General Conditions, Contractor shall procure and maintain from the Starting Date until final payment under this General Contract is made to the Contractor, and shall require all subcontractors to so procure and maintain for all periods during which such subcontractors are performing any portion of the Work, the insurance described below.
- a. Builder's Risk Insurance or its equivalent on a so-called all risks basis (including collapse, but excluding coverage for earthquake and flood) on a completed value (non-reporting) form for the full Contract Price (as may be increased from time to time pursuant to Change Orders (as defined in the General Conditions)) or full replacement values, whichever is the greater sum, covering the interest of the District, its contractors

- and subcontractors in all Work, including, without limitation, all materials and equipment stored on the site to be incorporated in such Work and all materials and equipment already incorporated in such Work.
- Single Limit Bodily Injury and/or Property Damage Liability Insurance for Combined Single Limit Bodily Injury and/or Property Damage Liability of not less than \$1,000,000.00 Liability, contractors Protective (Contingency) Liability, Products Liability or Completed Operations, Hazardous Materials (required when the Contract involves removal of these materials), and Owned, Hired, and Nonowned Automobiles Insurance, and shall be endorsed to the name of the District, its Board, and all other indemnitees described in Section 36 of the General Conditions as additional insureds and shall provide specifically that any insurance carried by the District which may be applicable to any claim or loss shall be deemed excess and the Contractor's insurance primary despite any conflicting provisions in the Contractor's policy to the contrary. Coverage shall be maintained with no self-insured retention.
- c. Workers' Compensation Insurance in accordance with the provisions of the California Labor Code, adequate to protect it and all subcontractors from claims under Workers' Compensation Acts which may arise from operations under the Contract Documents, whether such operations be by the Contractor or by any subcontractor or anyone directly or indirectly employed by either of them.
- d. All insurance coverage amounts specified above shall be Project-specific to this particular Work, and all such insurance shall cover only risks relating to or arising out of the Project and the Work. The insurance and required amounts of insurance specified above shall not be reduced or encumbered on account of other work contracted for or being performed by Contractor.
- e. Such other insurance in amounts as the District may reasonably deem advisable from time to time for protection against claims, liabilities and losses arising out of or in connection with the Project or the Work; provided that, the additional cost of such insurance shall be added to the Contract Price pursuant to a Change Order in accordance with Section 7 of the General Conditions.
- **PROVISIONS REQUIRED BY LAW** Each and every provision of law and clause required to be inserted into this General Contract and the other Contract Documents shall be deemed to be read and enforced as though it were included herein or therein (as applicable), and if through mistake or otherwise any such provision is not inserted or is not inserted correctly, then upon application of either party the General Contract or any of the other Contract Documents (as applicable) shall forthwith be physically amended to make such insertion or correction.

# 7. **DESIGNATION OF ENGINEER AND INSPECTOR** District

8. <u>DUE AUTHORIZATION</u> This General Contract is, and all Contract Documents to be executed by Contractor in connection with the Work and the Project will be, duly authorized, executed and delivered by Contractor, legal, valid and binding obligations of Contractor, and enforceable against Contractor in accordance with their respective terms (except to the extent that such enforcement may be limited by applicable bankruptcy, insolvency, moratorium and other principles relating to or limiting the right of contracting parties generally), and does not and will not violate any provisions of any

agreement to which contractor is a party or may become a party or to which it is subject or may become subject. The representations and warranties contained in this Section 29 shall be deemed to be remade each day throughout the term of the Contract.

- **AUTHORIZATION OF SIGNATORIES** Each individual and entity executing this General Contract hereby represents and warrants that he, she, or it has the capacity set forth on the signature page hereof with full power and authority to bind the party on whose behalf he, she, or it is executing this General Contract to the terms and provisions hereof.
- **10.** COMPONENT PARTS OF THE CONTRACT The "Contract" consists of the following contract documents, all of which are component parts of the Contract, if by reference, as if herein set out in full, or attached hereto (the "Contract Documents"):

Notice to Contractors Calling for Bids

Instruction to Bidders

Timeline

Notice of Pre-bid Mandatory Bidders Conference and Job Walk

Scope of Work

Information for Bidders

**General Conditions** 

Bid Form

**General Contract** 

Contractor's Certificate Regarding Workmen's Compensation

Performance Bond

Payment Bond

California Labor Code (by reference only)

Title 24 of the California Code of Regulations (by reference only)

California Building Code (1995 Edition) (by reference only)

Prevailing Wage Rate Tables

Owner Supplied Materials List

All of the above-listed Contract Documents are intended to be complimentary. Work required by any one of the above-named items and not required by another shall be performed as if required by all.

**IN WITNESS WHERE OF,** this General Contract has been duly executed by the above named parties, on the day and year as shown below.

DISTRICT:	CONTRACTOR:	
MADERA UNIFIED SCHOOL DISTRICT		
Date		Date
By:	,	
Print Name	Print name	

# CONTRACTOR'S CERTIFICATE REGARDING WORKERS' COMPENSATION

Labor Code section 3700:

"Every employer except the State shall secure the payment of compensation in one or more of the following ways:

- a. By being insured against liability to pay compensation in one or more insurers duly authorized to write compensation insurance in this State.
- b. By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become do his employees."

I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of this contract.

NAME	 	
TOTAL F		
TITLE	 	
SIGNATURE		
<del></del>		
DATE	 	

Attach copies of Certificates of Insurance issued by insurance companies if applicable.

(In accordance with Article 5 {commencing at Section 1860}, Chapter 1, Part 7, Division 2 of the Labor Code, the above certificate must be signed and filed with the awarding body prior to performing any work under this contract.)

# CONTRACTOR CERTIFICATION REGARDING BACKGROUND CHECKS

		certifies that it has performed one of the following:	
[Name	of contra	ctor/consultant]	
	Pursuant to Education Code Section 45125.1, Contractor has conducted criminal background checks, through the California Department of Justice, of all employees providing services to the District, pursuant to the contract/purchase order dated, and that none have been convicted of serious or violent felonies as specified in Penal Code Sections 1192.7(c) and 667.5(c), respectively.		
		ner required by Education Code Section 45125.1, attached hereto as Attachment "A" is a list of the of the employees of the undersigned who may come in contact with pupils.	
OR			
	Pursuant to Education Code Section 45125.2, Contractor will ensure the safety of pup by one or more of the following methods:		
		1) The installation of a physical barrier at the worksite to limit contact with pupils.	
		(2) Continual supervision and monitoring of all employees of the entity by an employee of the entity whom the Department of Justice has ascertained has no been convicted of a violent or serious felony.	
I declar	e under p	enalty of perjury under the laws of the United States that the foregoing is true and correct.	
Date _		, 2015 [Name of Contractor/Consultant]	
		By its:	

# ATTACHMENT "A"

(INSERT NAMES OF EMPLOYEES WHO MAY COME IN CONTACT WITH PUPILS)

1.	
_	
4.	
6.	
8.	
9.	
10.	
13.	
14.	

# ATTACHMENT "B"

Quantities of owner supplied materials required for the project completion. The project documents include product type, size, and product name for use in this section. This materials list must be included with the bid form for a complete responsive bid.

1.	Stressply Plus FR Mineral surface sheet (75 sq ft per roll)
2.	Stressbase 80 Ply Sheet (150 sq ft per roll)
3.	Flashing Bond Mastic (5 gal pail)
4.	Tuff Stuff Urethane Sealant (10.1 oz tube)
5.	Garla-Prime VOC (5 gal pail)
6.	Garmesh (150' x 6'')
7.	Pyramic Acrylic Coating Base Coat (55 gal drum)
8.	Pyramic Acrylic Coating Top Coat (55 gal drum)
9.	WhiteKnight Urethane Coating (5 gallon pail)
10.	Weatherking Plus WC Membrane Adhesive (55 gallon Drum)
11.	Weatherking Flashing Adhesive (5 gallon pail)

#### **CONTRACTOR'S QUALIFICATION STATEMENT**

(For Non- Authorized installers of the Owner Supplied Materials or by request from Owner / Architect)

The undersigned certified under oath that the information provided herein is true and sufficiently complete so as not to be misleading. Submitted to: Submitted by: Firm Name: Address: Principal Office Location: Qualification Statement Submitted for - Project Name Type of Work: Site Preparation General Construction Roofing Plumbing HVAC Sprinkler Electrical Other (File separate form for each classification of work) Organization: Please provide the following information concerning your organization: Type of Entity: Corporation Partnership Individual Other Name of Principal, Owners or Partners Years of Service Name **Position** with Organization Number of years this organization has been in business? Have members of this organization operated under former Yes\_\_\_\_ No\_\_\_\_ names/businesses? If "yes," list name, type of entity and names of principal, owners or partners.

Provide a brief description of the general type of construction the firm performs. Please indicate for this project the work you intend to subcontract or perform. **Perform** Subcontract Earth Work Concrete Work Masonry Work Structural Work Roofing Work Sprinkler Plumbing HVAC Electrical **Experience** Please list the type and number of educational projects your firm has constructed which were subject to the Owner Guidelines and other California regulatory agency construction requirements: <u>Type</u> Number New Construction - Primary New Construction - Secondary Renovations - Primary Renovations - Secondary Please list on a separate sheet marked "Appendix A" the major construction projects your organization has in progress providing the name of project, owner, architect, contract amount, bonding company, insurance carrier, percentage complete and scheduled completion date. Please list on a separate sheet marked "Appendix B" the major projects your organization has completed in the past five years, giving the name of project, owner, architect, contract amount, bonding company, date of completion and percentage of the cost of the work performed with your own forces. **Insurance and Bonds** Please list names of current insurance carrier and number of projects insured by carrier: Please list names of bonding company/agent utilized for projects constructed during the last five years: **Claims and Suites** Has your organization ever failed to complete and construction work it has been awarded? Yes\_\_\_No\_\_\_ Within the last five years, has any officer or principal of your organization ever been an officer or principal of another

Yes\_\_\_No\_\_\_

Has there been in the last ten years, or is there now pending or threatened, any litigation, arbitration, investigation, or

(If the answer is yes, please describe in full.)

organization when it failed to complete a construction contract?

governmental or regulatory proceeding involving claims in excess of \$100,000 or requesting a declaratory judgment or injunctive relief with respect to the construction or operation of any building which your firm, its principals, predecessors or affiliates constructed?	Yes	No		
Are all city, county, state and Federal taxes of any type, including real estate, FICA and Workmen's Compensation paid to date?	Yes	No		
Is there any potential claim, demand, litigation, arbitration, investigation, governmental proceeding or regulatory proceeding involving your firm, or its principals, predecessors or affiliates? If the answer to either of the preceding questions is "Yes," please describe in full in an attachment.	Yes	No		
In addition to the litigation, arbitration, investigation or governmental or regulatory proceeding refereed to in the preceding paragraphs, is there any litigation, arbitration, investigation or governmental or regulatory proceeding now pending or threatened to which your firm is or may be a party, or are you aware of any potential claim or demand, which might otherwise affect the capacity of your firm to perform with respect to your involvement with the Owner, whether or not it concerns other work which you have undertaken? If so, please describe in full.	Yes	No		
Bankruptcy Has your firm, its principals, predecessors, or affiliates been the subject of any proceeding under the federal bankruptcy laws or any other proceedings under state or federal law in which a court or government agency has assumed jurisdiction over any of the assets or business of your firm, its principals, predecessors or affiliates? If so, please identify the proceedings, the court or governmental body and the date such jurisdiction was assumed in an attachment.	Yes	No		
Change Order History  Describe each instance within the last five (5) years where change ord in the aggregate to more than five percent (5%) of the contract price for in which actual construction costs exceeded the contract price by m	or any bu	ilding which	ch your firm	n constructed,
Financial Condition Please attach your organizations' last two (2) years' financial statement income statement showing the following:	nts includ	ing your la	test balance	e sheet and
Current assets (e.g., cash, joint venture accounts, receivable, accrued i prepaid expenses):	ncome, d	leposits, m	aterials inve	entory and
Net Fixed Assets:				
Other Assets:				
Current Liabilities (e.g., accounts payable, notes payable, accrued exp accrued salaries and accrued payroll taxes): List all older than 60 days		ovision for	income tax	tes, advances,

Name and address of firm preparing attached financial statement and date thereof.

earnings):

Other Liabilities (e.g., capital stock, authorized and outstanding shares per values, earned surplus and retained

References	
Please list below Trade References:	
Please list below Bank References:	
Authorized Signature	
X	
Print Name	
X	
Date	

X

# SECTION 01 11 00 – SUMMARY OF WORK

# PART 1 — GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes modified bituminous roofing system.
- B. Related Work Specified Elsewhere:
  - 1. Section 06 Rough Carpentry
  - 2. Section 07: Modified Built-up Roofing
  - 3. Section 07: Sheet Metal Flashing and Trim
  - 4. Section 09: Painting

# 1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Identification: Thomas Jefferson Middle School Re-Roofing Project, Bid # 141501
- B. Project Location(s):
  - 1. Thomas Jefferson Middle School, 1407 Sunset Ave. Madera, CA 93637
- C. Owner: Madera Unified School District, 1902 Howard Road, Madera, CA 93637
- D. General scope of work but not limited to;
  - 1. Includes removal and disposal of existing roofing system(s), insulation board, gutters, flashings, copings, etc. for a complete prepared roof surface.
  - 2. The existing roofing system(s) are assumed to contain asbestos materials and shall be disposed of and handled as such. This cost is to be included in the contractors bid.
  - 3. Includes one hundred (100) square feet of decking replacement included in the base bid price. A per square foot price will be inserted into the bid form for anything needed and approved by the district over 100 square feet.
  - 4. Installation of a complete SBS cold applied roofing system including insulation board, tapered insulation crickets, tapered insulation where existing, etc. with all applicable items and details for a complete warrantable roofing assembly.

- 5. All drain baskets are to be painted safety yellow after the final roof coating is installed.
- 6. Raise all roof curbs to a minimum of 8" above the finished roof height.
- 7. Install walkway pads at all service sides of all mechanical equipment and roof hatch.
- 8. Install all new 4lb lead flashings at pipe penetrations with collar flared out, caulked, and banded. Install factory cap on all waste stacks or open top penetrations.
- 9. Install 24 gauge galvanized edge metal with 22 gauge cleat, coping metal, skirt flashing, surface mount & expansion joint metal, as needed for a complete roofing assembly.
- 10. Prepare, prime, and paint all associated metal flashings.
- 11. Complete project per attached plan set.

#### 1.4 WORK COMPLETED BY THE DISTRICT

A. No work will be completed by the district.

#### 1.5 TYPE OF CONTRACT

A. Work will be completed under a single prime contract.

### 1.6 USE OF PREMISES

- A. General: Contractor will have limited use of premises for construction operations.
- B. Use of site: Limit use of premises to work areas required. Do not disturb portions of the project site beyond areas in which the work is indicated.
  - A. The building interior is off limits to the contractor. All access shall be from the exterior.
  - B. The point of exterior access must be approved by the owner.
- C. Entrances: Keep all entrances serving the building clear and available to the owner, owner's employees, and emergency vehicles.
- D. Use of existing building: Maintain existing building in a weather tight condition throughout the construction period. Repair damage caused by construction operations. Protect building and occupants during construction.

- E. Vehicle Parking: Contractor parking is available on site and will need to be approved by the owner.
- F. Assume full responsibility for protection and safekeeping of materials stored on premises. Coordinate the location of materials and equipment to be stored on premises. Provide barricades, barriers, and enclosures as required to ensure safety.

# 1.7 OWNERS OCCUPANCY REQUIRMENTS

- A. The owner will occupy the building during the entire construction phase. Cooperate with the owner during construction operations to minimize owner conflicts and facilitate owner usage. Perform the work as to not interfere with owners operations.
- B. A minimum of 72 hours notice is needed for all activities that will affect the owners operations.

#### 1.8 WORK RESTRICTIONS

- A. On site work hours: Work shall generally be performed from the hours of 7:00 am 5:00 pm Monday through Friday except as otherwise indicated or approved by the owner.
  - 1. Weekend hours, early morning hours, utility shut down, and noisy activity requires owner's authorization a minimum of 72 hours in advance.

#### 1.9 UNIT PRICES

- A. The following unit prices will be used to add or deduct from the total contract amount.
  - A. Unit-1 Replacement of dryrot wood roof decking, add a line items per square foot cost to proposal form.
  - B. Unit-2 Replacement of dryrot wood fascia board, add a line item per square foot cost to proposal form.

#### 1.10 SCHEDULE OF ALTERNATES

A. No alternates have been identified for this project.

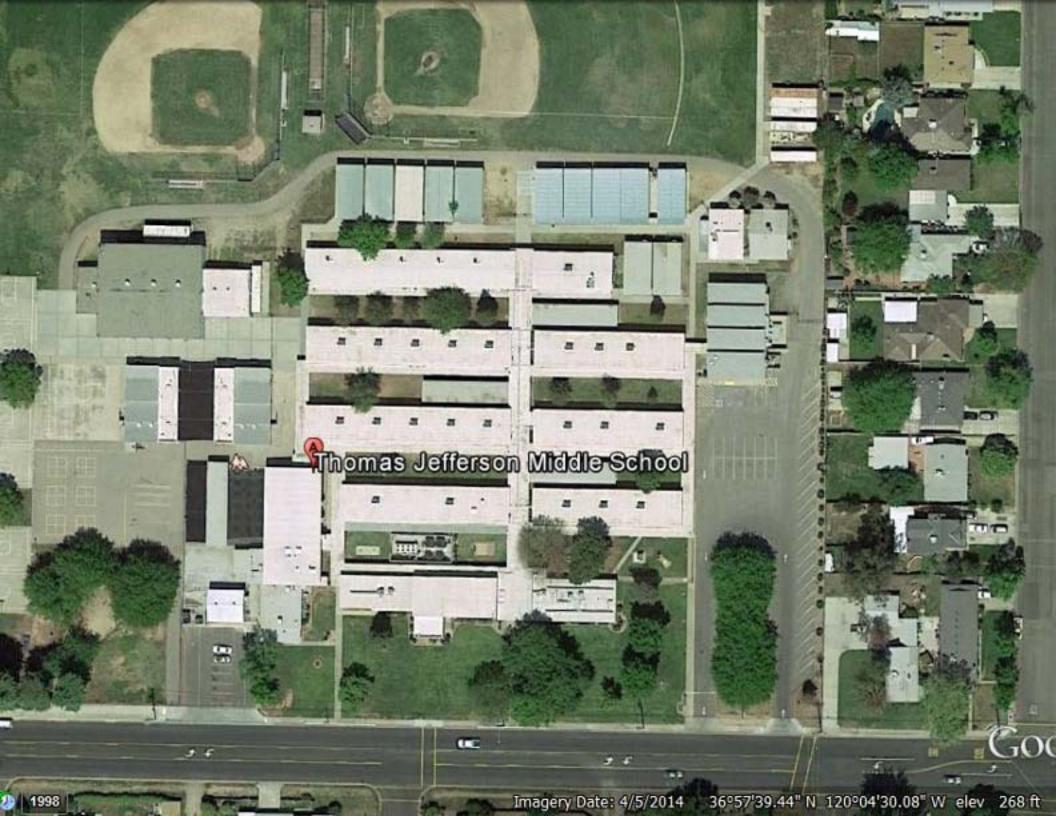
#### 1.11 PROJECT CONDITIONS

- A. Proceed with roofing work only when existing and forecasted weather conditions will permit a unit of work to be installed in accordance with manufacturer's recommendations and warranty requirements.
- B. Do not apply roofing insulation or membrane to damp deck surface.
- C. Do not expose materials subject to water or solar damage in quantities greater than can be weatherproofed during same day.

# 1.12 SEQUENCING AND SCHEDULING

- A. Sequence installation of roofing with related units of work specified in other sections to ensure that roof assemblies, including roof accessories, flashing, trim and joint sealers, are protected against damage from effects of weather, corrosion and adjacent construction activity.
- B. Complete all roofing field assembly work each day. Phased construction will not be accepted.

END OF SECTION 01 11 00 – SUMMARY OF WORK



# **SECTION 06 10 00 - ROUGH CARPENTRY**

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification sections, apply to work of this section.
- B. Related work specified elsewhere:
  - 1. Division 01: Summary of Work
  - 2. Division 07: Built-up Roofing Restoration
  - 3. Division 07: Asphalt Shingle Roofing
  - 4. Division 07: Modified Built-up Roofing
  - 5. Division 07: Sheet Metal Flashing and Trim
  - 6. Division 09: Painting

#### 1.2 **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 pressure treated and non pressure treated lumber used for wood curbs, nailing strips, miscellaneous blocking material, unexposed fillers, fascia, edging strips, deck replacement, etc

## 1.3 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 stacked to prevent damage. All lumber shall be fully protected to maintain the original required moisture content as specified in item titled "Moisture Content".

# 1.4 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).

#### 1.5 **PROTECTION:**

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

#### 1.6 COORDINATION:

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

#### **PART 2 - PRODUCTS**

#### 2.1 WOOD - FRAMING AND CURBS:

# A. GRADING RULES, GRADES, AND SPECIES

1. 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.

#### B. MOISTURE CONTENT

1. 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

## C. DECAY-RESISTANT TREATMENT:

- 1. Lumber in contact with roofing or acting as fascias, and all other exterior lumber, shall be pressure-treated with a waterborne preservative in accordance with AWPA Specification P5. Creosote and oil-borne preservatives are not acceptable.
- 2. Treating processes, material conditions, plant equipment, and other pertinent requirements shall conform to AWPA Specifications C1 and C2 for specific kind of lumber and type of preservative to be used. Retention shall be as required for intended use.
- 3. All treated lumber shall bear the mark of a code recognized third party agency such as the AWPA.

### D. PLYWOOD:

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

### E. WOOD SIDING:

1. T 111 or approved equal.

# 2.2 MECHANICAL FASTENERS:

# A. WOOD TO STEEL:

- 1. Acceptable Manufacturers:
  - a. Roofgrip screw with Climaseal coating; plastic disc Buildex Div. of ITW, Itasca, IL.
  - b. Dekfast screw with Sentri coating: plastic disc Construction Fasteners, Inc., Wyomissing, PA.
  - c. Fabco Fastening Systems, West Newton, PA: Insul-Fixx screw with Fabcote coating; plastic plate, Plate-Fixx screw with Fabcote coat; plastic disc.
  - d. Kwik-Deck screw with Oxyseal coating; plastic disc Atlas Bolt & Screw Div., Trans Union Fastener Corp., Ashland, OH.
  - e. Olympic #12-11 Standard Steel Deck Screw or #14-10 Heavy Duty All Purpose Screw with CR-10 coating; three inch diameter plastic Olympic Manufacturing Group, Inc., Agawam, MA.
  - f. Glasfast (plastic disc) Owens-Corning Fiberglas Corp., Toledo, OH.
  - g. Perma Fastener screw with permaseal coating; plastic plate International Permalite, Inc., Oak Brook, IL.
- 2. Screw Length: Sufficient to engage steel, wood deck 1 inch.

#### B. WOOD TO WOOD:

- 1. Type: Galvanized, common, annular ring nail. Length: Sufficient to penetrate underlay blocking 1-1/4 inches.
- 2. Acceptable Manufacturers:
  - a. Hillwood Manufacturing Co., Cleveland, OH.
  - b. Independent Nail, Inc., Bridgewater, MA.
  - c. W.H. Maze Co., Peru, IL.
  - d. National Nail Corp., Grand Rapids, MI.

#### C. WOOD TO MASONRY:

1. Acceptable Manufacturers:

- a. Tapcon 1/4" diameter, Phillips pan head anchor Buildex Div. of ITW, Itasca, IL.
- b. Confas Construction Fasteners, Inc., Wyomissing, PA.
- c. Con-fixx Fabco Fastening Systems, West Newton, PA.
- d. #14-10 Heavy Duty all Purpose Screw Olympic Manufacturing Group, Inc., Agawam, MA.
- e. Tru-Fast fastener (stainless steel) The Tru-Fast Corp., Bryan, OH.
- 2. Length: Sufficient to provide 1-1/2 inch embedment.

# D. WOOD TO HOLLOW MASONRY:

- 1. Acceptable Manufacturers:
  - a. Sleeve Anchor by Hilti Fastening Systems, Tulsa, OK.
  - b. Rawly Hollow Masonry Anchor by the Rawlplug Co., Inc., New Rochelle, NY.
- 2. Length: As recommended by manufacturer

#### **PART 3 - EXECUTION**

#### 3.1 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; mechanically attach wood blocking. Blocking thickness: Equal to common 1 x 4", 1 x 6" 2x4", 2x6", 2x8", 2x10", 2x12".
- B. 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.
- C. Where required, offset blocking layers twelve inches, weave corners.
- D. When preservative treated wood is cut, the cut end shall be treated in accordance with AWPA Specification M4.
- E. Lumber shall be accurately cut to the work requirements and shall be well fastened.
- F. 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

SECTION 06 10 00 – ROUGH CARPENTRY

that will result in splitting shall not be used. All fasteners shall be galvanized per ASTM A 153.

END OF SECTION

# SECTION 07 52 00 - MODIFIED BITUMINOUS MEMBRANE ROOFING

# PART 1 — GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes modified bituminous roofing system.
  - 1. Includes removal and disposal of existing roofing system(s), insulation board, gutters, flashings, copings, etc. for a complete prepared roof surface.
  - 2. The existing roofing system(s) are assumed to contain asbestos materials and shall be disposed of and handled as such. This cost is to be included in the contractors bid.
  - 3. Includes one hundred (100) square feet of decking replacement included in the base bid price. A per square foot price will be inserted into the bid form for anything needed and approved by the district over 100 square feet.
  - 4. Installation of a complete SBS cold applied roofing system including insulation board, tapered insulation crickets, tapered insulation where existing, etc. with all applicable items and details for a complete warrantable roofing assembly.
  - 5. All drain baskets are to be painted safety yellow after the final roof coating is installed.
  - 6. Raise all roof curbs to a minimum of 8" above the finished roof height.
  - 7. Install walkway pads at all service sides of all mechanical equipment and roof hatch.
  - 8. Install all new 4lb lead flashings at pipe penetrations with collar flared out, caulked, and banded. Install factory cap on all waste stacks or open top penetrations.
  - 9. Install 24 gauge galvanized edge metal with 22 gauge cleat, coping metal, skirt flashing, surface mount & expansion joint metal, as needed for a complete roofing assembly.
  - 10. Prepare, prime, and paint all associated metal flashings.
  - 11. Complete project per attached plan set.

- B. Related Work Specified Elsewhere:
  - 1. Section 07: Membrane Re-Roofing Procedures.
  - 2. Section 06: Rough Carpentry
  - 3. Section 07: Built-up Roofing Restoration
  - 4. Section 07: Sheet Metal Flashing and Trim.
  - 5. Section 09: Painting

#### 1.3 REFERENCES

- B. American Society of Civil Engineers (ASCE):
  - 1. ASCE 7-10, Minimum Design Loads for Buildings and Other Structures.
- C. American Society for Testing and Materials (ASTM):
  - 1. ASTM D41 Standard Specification for Asphalt Primer Used in Roofing, Dampproofing and Waterproofing.
  - 2. ASTM D312 Standard Specification for Asphalt Used in Roofing.
  - 3. ASTM D451 Standard Test Method for Sieve Analysis of Granular Mineral Surfacing for Asphalt Roofing Products.
  - 4. ASTM D1079 Standard Terminology Relating to Roofing, Waterproofing and Bituminous Materials.
  - 5. ASTM D1227 Standard Specification for Emulsified Asphalt Used as a Protective Coating for Roofing.
  - 6. ASTM D1863 Standard Specification for Mineral Aggregate Used as a Protective Coating for Roofing.
  - 7. ASTM D2178 Standard Specification for Asphalt Glass Felt Used as a Protective Coating for Roofing.
  - 8. ASTM D2822 Standard Specification for Asphalt Roof Cement.
  - 9. ASTM D4601 Standard Specification for Asphalt Coated Glass Fiber Base Sheet Used in Roofing.
  - 10. ASTM D5147 Standard Test Method for Sampling and Testing Modified Bituminous Sheet Materials.

- 11. ASTM D6162 Standard Specification for Styrene Butadiene Styrene (SBS)
  Modified Bituminous Sheet Materials Using a Combination of Polyester and Glass
  Fiber Reinforcements.
- 12. ASTM D6163 Standard Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using Glass Fiber Reinforcements.
- 13. ASTM E108 Standard Test Methods for Fire Test of Roof Coverings.
- D. Factory Mutual Research (FM):
  - 1. Roof Assembly Classifications.
- E. National Roofing Contractors Association (NRCA):
  - 1. Roofing and Waterproofing Manual.
- F. Underwriters Laboratories, Inc. (UL):
  - 1. Fire Hazard Classifications.
- G. Warnock Hersey (WH):
  - 1. Fire Hazard Classifications.
- H. American National Standards Institute and Single Ply Roofing Institute (ANSI/SPRI)
  - 1. ANSI/SPRI ES-1 Testing and Certification Listing of Shop Fabricated Edge Metal. RE-1, RE-2, RE-3.
  - 2. ANSI/SPI FX-1 2001 Standard Field Testing Procedure for determining the withdrawal resistance of roofing fasteners.

#### 1.4 SUBMITTALS FOR REVIEW

- A. Product Data: Provide manufacturer's technical product data for each type of roofing product specified. Include data substantiating that materials comply with specified requirements.
- B. Samples: Submit two (2) samples of the following:
  - 1. Rosin Sheet
  - 2. Base Sheet
  - 3. Ply Sheet Membrane
  - 4. SBS Modified Surface Membrane
  - 5. Insulation Board
  - 6. Cover Board

- 7. Mechanical Fastener All Types
- C. Specimen Warranty: Provide an unexecuted copy of the warranty specified for this Project, identifying the terms and conditions required of the Manufacturer and the Owner.
- D. Any material submitted as equal to the specified material must be accompanied by a report signed and sealed by a professional engineer licensed in the state in which the installation is to take place. This report shall show that the submitted equal meets the Design and Performance criteria in this specification. Substitution requests submitted without licensed engineer approval will be rejected for non-conformance.
- E. LEED Certification: Provide a roof system to achieve or aid in the qualification of points satisfying;
  - 1. SSC7.2 Heat Island Effect
  - 2. MRC4 Recycled Content
  - 3. MRC6 Rapidly Renewable Materials

# 1.5 SUBMITTALS FOR INFORMATION

- A. Manufacturer's Installation Instructions: Submit installation instructions and recommendations indicating special precautions required for installing the membrane.
- B. Manufacturer's Certificate: Certify that roof system furnished is approved by Factory Mutual, Underwriters Laboratories, Warnock Hersey or approved third party testing facility in accordance with ASTM E108, Class A for external fire and meets local or nationally recognized building codes.
- C. Manufacturer's Certificate: Certify that materials are manufactured in the United States and conform to requirements specified herein, are chemically and physically compatible with each other, and are suitable for inclusion within the total roof system specified herein.
- D. Manufacturer's Certificate: Submit a certified copy of the roofing manufacturer's ISO 9001 compliance certificate.
- E. Test Reports: Submit test reports, prepared by an independent testing agency, for all modified bituminous sheet roofing, indicating compliance with ASTM D5147.
- F. Wind uplift calculations per California Building Code (CBC), Chapter 15, Section 1504, ASCE 7-10 stamped by the roofing systems manufacturer's California licensed structural engineer.
- G. Written certification from the roofing system manufacturer certifying the applicator is currently authorized for the installation of the specified roof system to achieve the required warranty term.
- H. Design Loads: Submit copy of manufacturer's minimum design load calculations according to ASCE 7-10, Method 2 for Components and Cladding, professional engineer employed by the system manufacturer as a full-time staff engineer. In no case shall the design loads

be taken to be less than those detailed in Design and Performance Criteria article of this specification.

- I. Qualification data for firms and individuals identified in Quality Assurance Article below.
- J. Perform in field fastener pull testing and provide results for review and acceptance. Supply letter from manufacturer stating securement materials, methods, and spacing required to achieve the required uplift resistance.

#### 1.6 CONTRACT CLOSEOUT SUBMITTALS

- A. General: Comply with Requirements of Division 01 Section Closeout Submittals.
- B. Special Project Warranty: Provide specified warranty for the Project, executed by the authorized agent of the Manufacturer.
- C. Roofing Maintenance Instructions. Provide a manual of manufacturer's recommendations for maintenance of installed roofing systems.
- D. Insurance Certification: Assist Owner in preparation and submittal of roof installation acceptance certification as may be necessary in connection with fire and extended coverage insurance on roofing and associated work.
- E. Demonstration and Training Schedule: Provide a schedule of proposed dates and times for instruction of Owner's personnel in the maintenance requirements for completed roofing work. Refer to Part 3 for additional requirements.

#### 1.7 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this Section with not less than 12 years documented experience and have ISO 9001 certification.
- B. Installer Qualifications: Company specializing in modified bituminous roofing installation with not less than 5 years experience and authorized by roofing system manufacturer as qualified to install manufacturer's roofing materials.
- C. Installer's Field Supervision: Maintain a full-time Supervisor/Foreman on job site during all phases of roofing work while roofing work is in progress. Maintain proper supervision of workmen.
- D. Maintain a copy of the Contract Documents in the possession of the Supervisor/Foreman and on the roof at all times.
- E. Source Limitations: All major roof components to be supplied by warranty manufacturer. Major components to include: base ply, plies, adhesives, mastics, modified membranes, reinforcing membranes and reflective coatings.
  - Upon request of the Architect or Owner, submit Manufacturer's written approval of secondary components in list form, signed by an authorized agent of the Manufacturer.

F. Source Quality Control: Manufacturer shall have in place a documented, standardized quality control program such as ISO-9001.

#### 1.8 PRE-INSTALLATION CONFERENCE

- A. Pre-Installation Roofing Conference: Convene a pre-roofing conference approximately two (2) weeks before scheduled commencement of modified bituminous roofing system installation and associated work.
- B. Require attendance of installer of each component of associated work, installers of deck or substrate construction to receive roofing work, installers of rooftop units and other work in and around roofing that must precede or follow roofing work (including mechanical work if any), Architect, Owner, roofing system manufacturer's representative, and other representatives directly concerned with performance of the Work, including (where applicable) Owner's insurers, testing agencies and governing authorities. Objectives of conference include:
  - 1. Review foreseeable methods and procedures related to roofing work, including set up and mobilization areas for stored material and work area.
  - 2. Tour representative areas of roofing substrates (decks), inspect and discuss condition of substrate, roof drains, curbs, penetrations and other preparatory work performed by others.
  - 3. Review structural loading limitations of deck and inspect deck for loss of flatness and for required attachment.
  - 4. Review roofing system requirements (drawings, specifications and other contract documents).
  - 5. Review required submittals both completed and yet to be completed.
  - 6. Review and finalize construction schedule related to roofing work and verify availability of materials, installer's personnel, equipment and facilities needed to make progress and avoid delays.
  - 7. Review required inspection, testing, certifying and material usage accounting procedures.
  - 8. Review weather and forecasted weather conditions and procedures for coping with unfavorable conditions, including possibility of temporary roofing (if not mandatory requirement).
  - 9. Record discussion of conference including decisions and agreements (or disagreements) reached and furnish copy of record to each party attending. If substantial disagreements exist at conclusion of conference, determine how disagreements will be resolved and set date for reconvening conference.
  - 10. Review notification procedures for weather or non-working days.

- C. The Owner's Representative will designate one of the conference participants to record the proceedings and promptly distribute them to the participants for record.
- D. The intent of the conference is to resolve issues affecting the installation and performance of roofing work. Do not proceed with roofing work until such issues are resolved the satisfaction of to the Owner and Architect of Record. This shall not be construed as interference with the progress of Work on the part of the Owner or Architect of Record.

# 1.9 DELIVERY, STORAGE AND HANDLING

- A. Deliver products to site with seals and labels intact, in manufacturer's original containers, dry and undamaged.
- B. Store and handle roofing sheets in a dry, well-ventilated, weather-tight place to prevent moisture exposure. Store rolls of felt and other sheet materials on pallets or other raised surface. Stand all roll materials on end. Remove factory plastic wrappings to avoid condensation accumulating materials. Cover roll goods with a canvas tarpaulin or other breathable material (not polyethylene).
- C. Do not leave unused materials on the roof overnight or when roofing work is not in progress unless protected from weather and other moisture sources.
- D. Secure all material and equipment on the job site. If any material or equipment is stored on the roof, assure that the integrity of the deck is not compromised at any time. Damage to the deck caused by the Contractor's actions will be the sole responsibility of the Contractor, and the deck will be repaired or replaced at his expense.

#### 1.10 MANUFACTURER'S INSPECTIONS

- A. When the Project is in progress, the roofing system manufacturer will provide the following:
  - 1. Report progress and quality of the work as observed.
  - 2. Provide job site inspections two (2) days per week and provide electronic documentation of progress, problems, & solutions to Architect and Owner sent on a weekly basis throughout the course of construction.
  - 3. Report to the Architect and Owner in writing any failure or refusal of the Contractor to correct unacceptable practices called to the Contractor's attention.
  - 4. Confirm after completion that manufacturer has observed no application procedures in conflict with the specifications other than those that may have been previously reported and corrected.

#### 1.11 PROJECT CONDITIONS

A. Proceed with roofing work only when existing and forecasted weather conditions will permit a unit of work to be installed in accordance with manufacturer's recommendations and warranty requirements.

- B. Do not apply roofing insulation or membrane to damp deck surface.
- C. Do not expose materials subject to water or solar damage in quantities greater than can be weatherproofed during same day.
- D. All slopes greater than 2:12 require back-nailing to prevent slippage of the ply sheets. Use ring or spiral-shank one (1) inch cap nails, or screws and plates at a rate of one (1) fastener per ply (including the membrane) at each insulation stop. Place insulation stops at 16 ft o.c. for slopes less than 3:12 and four (4) ft o.c. for slopes greater than 3:12. On non-insulated systems, nail each ply directly into the deck at the rate specified above. When slope exceeds 2:12, install all plies parallel to the slope (strapping) to facilitate backnailing. Install four (4) additional fasteners at the upper edge of the membrane when strapping the plies.

# 1.12 SEQUENCING AND SCHEDULING

- A. Sequence installation of roofing with related units of work specified in other Sections to ensure that roof assemblies, including roof accessories, flashing, trim and joint sealers, are protected against damage from effects of weather, corrosion and adjacent construction activity.
- B. Complete all roofing field assembly work each day. Phased construction will not be accepted.
- C. Provide manufacturer approved water cut offs at the end of the days application. Cut out and discard these materials prior to re-starting work.

#### 1.13 WARRANTY

- A. Upon completion of installation, and acceptance by the Owner and Architect, the Manufacturer will supply to the Owner a thirty (30) year No Dollar Limit (NDL) watertight warranty.
- B. Installer will submit a two (2) year warranty to the membrane manufacturer with a copy directly to Owner.
- C. Warranty shall commence on date of substantial completion or final payment, whichever is agreed by contract.
- D. Manufacturer will provide the following services at no cost to the owner at years 2, 5, & 10, & 15.
  - A. Inspection by a technical service representative and delivery of a written inspection report documenting roof conditions.
  - B. General rooftop housekeeping and clean-up, subject to limits, but generally including removal of incidental debris.
- E. Leak responsibilities from the manufacturer to the owner in the event a roof leak should occur.

- A. Provide a toll free (800) number for owner to call in leak report. Number will be monitored (24) hours per day (365) days per year.
- B. Provide a response to owner within (24) hours of when call is made.
- C. Provide a repair crew, at the building site, within two (2) business days of the call.
- D. Provide follow up inspection to ensure repairs were completed properly.

#### 1.14 DESIGN AND PERFORMANCE CRITERIA

- A. Uniform Wind Uplift Load Capacity
  - 1. Installed roof system shall withstand negative (uplift) design wind loading pressures complying with the following criteria. Attachment shall be installed exactly as given in Part 3.
    - a. Design Code: ASCE 7-10, Method 2 for Components and Cladding.

# PART 2 — PRODUCTS

# 2.1 PRODUCTS, GENERAL

- A. Basis of Design: Materials, manufacturer's product designations, and/or manufacturer's names specified herein shall be regarded as the minimum standard of quality required for work of this Section. Comply with all manufacturer and contractor/fabricator quality and performance criteria specified in Part 1.
- B. Substitutions: Products proposed as equal to the products specified in this Section shall be submitted in accordance with Bidding Requirements and Division 01 provisions.
  - 1. Proposals shall be accompanied by a copy of the manufacturer's standard specification section. That specification section shall be signed and sealed by a professional engineer licensed in the state in which the installation is to take place. Substitution requests containing specifications without licensed engineer certification shall be rejected for non-conformance.
  - 2. Include a list of three (3) projects of similar type and extent, located within a one hundred mile radius from the location of the project. In addition, the three projects must be at least five (5) years old and be available for inspection by the Architect, Owner or Owner's Representative.
  - 3. Equivalency of performance criteria, warranty terms, submittal procedures, and contractual terms will constitute the basis of acceptance.
  - 4. The Architect and Owner's decision regarding substitutions will be considered final. Unauthorized substitutions will be rejected.

#### 2.2 ACCEPTABLE MANUFACTURERS

A. The design is based upon roofing systems engineered and manufactured by The Garland Company or approved equals:

The Garland Company

Telephone: (800) 762-8225 ext. 720

Website: www.garlandco.com

Local Representative: Richard Jones

#### 2.3 DESCRIPTION

- A. Modified bituminous sheet roofing work including but not limited to:
  - 1. Install one layer Red Rosin over entire roof substrate prior to installation of insulation board.
  - 2. Install flat and/or tapered insulation board as specified.
  - 3. Cold Applied Adhesive: V.O.C. compliant, SBS, non-asbestos containing cold applied adhesive for roof slopes up to 3:12.
  - 4. Install one layer of Stressbase 80 SBS 20% pre consumer recycled content, LEED 10% MR 4 recycled content, UL Environment Certified, modified ply and flashing membrane in cold applied adhesive.
  - 5. Install one layer modified membrane & flashing membrane: (Stressply Plus FR Mineral) Environmentally Friendly; 145 mil SBS (Styrene-Butylene-Styrene) mineral surfaced, rubber modified roofing membrane incorporating recycled rubber, fire retardant characteristics and reinforced with a fiberglass and polyester composite scrim. Recycled content 6 percent, LEED MR 4 recycled content, UL Certified. Install in adhesive.
  - 6. Surfacing: Pyramic; Title 24, CRRC, & Energy Star approved white acrylic coating ASTM G26
  - 7. LEED Certification: Provide a roof system to achieve or aid in the qualification of points satisfying;
    - a. SSC7.2 Heat Island Effect
    - b. MRC4 Recycled Content

# 2.4 BITUMINOUS MATERIALS

- A. Asphalt Primer: V.O.C. compliant, ASTM D41.
- B. Asphalt Roofing Mastic: V.O.C. compliant, ASTM D4586
- C. Cold Applied Modified Membrane Adhesive: VOC compliant: Performance Requirements:

- 1. Non-Volatile Content ASTM D4479 78%
- 2. Density @ 77 degrees ASTM D1475 9 lbs./gallon
- 3. Viscosity Stormer 800-1200 grams
- 4. Flash Point ASTM D93 100°F min. (38°C)
- 5. Slope: up to 3:12
- 6. VOC: 250 g/l max
- D. Cold Applied Flashing Adhesive. VOC: Performance Requirements:
  - 1. Non-Volatile Content ASTM D4479 70%
  - 2. Density ASTM D1475 8.6 lbs./gal.
  - 3. Flash Point ASTM D93 100°F (38°C)
  - 4. VOC: 300 g/l

# 2.5 SHEET MATERIALS

- A. Red Rosin Paper: 36" wide x 167' long, 500 square feet per roll.
- B. Base & Base Flashing Ply (StressBase 80 Sheet): Fiberglass scrim with the following minimum performance requirements according to ASTM D5147. Properties (Finished Membrane):
  - 1. Tensile Strength
    - a. 2 in/min. @  $73.4 \pm 3.6$ °F MD 100 lbf/in CMD 100 lbf/in
    - b. 50mm/min. @  $23 \pm 3^{\circ}$ C MD 39 kN/m CMD 39 kN/m
  - 2. Tear Strength
    - a. 2 in/min. @  $73.4 \pm 3.6$ °F MD 110 lbf CMD 110 lbf
    - b. 50mm/min. @  $23 \pm 3^{\circ}$ C MD 1335 N CMD 1335 N
  - 3. Elongation at Maximum Tensile
    - a. 2 in/min. @  $73.4 \pm 3.6$ °F MD 2.5 % CMD 2.5 %
  - 4. Low Temperature Flexibility (ASTM D5147): Passes -20°F (-28.8°C)

- D. Modified Membrane & Flashing Ply Properties: Stressply Plus FR Mineral; ASTM D6163, Type III Grade G per the minimum performance requirements of ASTM D5147.
  - 1. Tensile Strength
    - a. 2 in/min. @  $73.4 \pm 3.6$ °F MD 310 lbf/in CMD 310 lbf/in
    - b. 50 mm/min. @  $23 \pm 3$ °C MD 54.2 kN/m CMD 54.2 kN/m
  - 2. Tear Strength
    - a. 2 in/min. @  $73.4 \pm 3.6$ °F MD 500 lbf CMD 500 lbf
    - b. 50 mm/min. @  $23 \pm 3^{\circ}$ C MD 2224 N CMD 2224 N
  - 3. Elongation at Maximum Tensile
    - a. 2 in/min. @  $73.4 \pm 3.6^{\circ}$ F MD 3.5% CMD 3.5%
    - b. 50 mm/min. @  $23 \pm 3^{\circ}$ C MD 3.5% CMD 3.5%
  - 4. Low Temperature Flexibility (ASTM D5147): Passes -30°F (-34°C)

#### 2.6 SURFACINGS

- A. White Elastomeric Roof Coating: Pyramic; Energy Star, CRCC, & Title 24 approved white acrylic roof coating: ASTM D4798
  - 1. Weight/Gallon 12 lbs./gal. (1.44 g/cm3)
  - 2. Non-Volatile % (ASTM D 1644) 66 min
  - 3. Reflectance 81%
  - 4. Emmitance 89%
  - 5. SRI 101
- B. White Urethane Roof Coating: WhiteKnight Plus WC; Energy Star, CRCC, & Title 24 approved white urethane roof coating: ASTM D4798
  - 1. Weight/Gallon 10.4 lbs./gal.
  - 2. Non-Volatile (ASTM D 75) Typical 83%
  - 3. Reflectance 83%
  - 4. Emmitance 89%
  - 5. SRI 104

#### 2.7 RELATED MATERIALS

- A. Roof Insulation base layer: (ASTM C 1289) polyisocyanurate rigid insulation board; minimum thickness (N/A, unless needed to match existing condition), square edges. All sizes thicker than 2" are to be installed in multiple layers and have all edges stagger to the maximum dimension possible.
- B. Roof Insulation top layer: Knight Celotex Structodeck or equal, (ASTM C 208) High Density ½" six side primed wood fiber board 4' x 8'.
- C. Tapered Insulation Tapered insulation board to be used as required for tapered insulation system with a minimum ½" per foot slope. Provide sufficient crickets or saddles to ensure water does not pond on the new roof installation. Submit taper plan to district for review and approval prior to start of project. Install taper insulation where existing.
- D. Nails and Fasteners: Non-ferrous metal or galvanized steel, except that hard copper nails shall be used with copper; aluminum or stainless steel nails shall be used with aluminum; and stainless steel nails shall be used with stainless steel, I addition plates should be used. Fasteners shall be self-clinching type of penetrating type as recommended by the manufacturer of the deck material. Nails and fasteners shall be flush-driven through flat metal discs of not less than one (1) inch diameter. Omit metal discs when one-piece composite nails or fasteners with heads not less than one (1) inch diameter are used.
- E. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FMG 4470, designed for fastening roofing insulation to substrate, tested by manufacturer for required pullout strength, and acceptable to roofing system manufacturer.
- F. Metal Discs: Flat discs or caps of zinc-coated sheet metal not lighter than twenty eight (28) gauge and not less than three (3) inch in diameter. Form discs to prevent dishing. Bell or cup shaped caps are not acceptable.
- G. Termination bar should be extruded aluminum .125 x 1"
- H. Walkway Pads: Factory formed asphalt, APOC or equal. Install per approved plans.
  - 1. Install ¾" thick 3'x 4' walk pad 4" apart in a uniform pattern around all mechanical equipment and at the base of all roof access points.
- I. Walkway Pad Adhesive: Adhesive used to adhere approved walk way pads as recommended and furnished by the membrane manufacturer
  - 1. Walkway pads to be installed after final roof coating.
- J. Urethane Sealant: One part, non-sag sealant as approved and furnished by the membrane manufacturer for moving joints.
  - 1. Tensile Strength (ASTM D412): 250 psi
  - 2. Elongation (ASM D412): 950%

- 3. Hardness, Shore A (ASTM C920): 35
- 4. Adhesion-in-Peel (ASTM C920): 30 pli
- K. Glass Fiber Cant: Continuous triangular cross Section made of inorganic fibrous glass used as a cant strip as recommended and furnished by the membrane manufacturer.
- L. Drain Flashings should be 4lb (1.8kg) sheet lead formed and rolled
- M. Plumbing stacks should be 4lb (1.8kg) sheet lead formed and rolled. All plumbing stacks are to have the factory lead cap installed. Caulking and banding will not be accepted on open top penetrations. On electrical or flashings which a factory cap can't be used a lead umbrella flashing is to be installed, banded, flared out, and sealed with urethane sealant.

### PART 3 — EXECUTION

# 3.1 EXECUTION, GENERAL

A. Comply with all requirements and manufacturer recommendations.

#### 3.2 EXAMINATION

- A. Verify that deck surfaces and project conditions are ready to receive work of this section.
- B. Verify that deck is supported and secured to structural members.
- C. Verify that deck is clean and smooth, free of depressions, projections or ripples, and is properly sloped to drains.
- D. Verify that adjacent roof substrate components do not vary more than 1/4 inch in height.
- E. Verify that deck surfaces are dry.
- F. Confirm that moisture content does not exceed twelve (12) percent by moisture meter tests.
- G. Verify that openings, curbs, pipes, conduit, sleeves, ducts, and other items which penetrate the roof are set solidly, and that reglets are set in place.

# 3.3 GENERAL INSTALLATION REQUIREMENTS

- A. Cooperate with manufacturer, inspection and test agencies engaged or required to perform services in connection with installing the roof system.
- B. Insurance/Code Compliance: Where required by code, install and test the roofing system to comply with governing regulation and specified insurance requirements.
- C. Protect other work from spillage of roofing materials and prevent materials from entering or clogging drains and conductors. Replace or restore other work damaged by installation of the modified bituminous roofing system.

- D. Coordinate installation of roofing system components so that insulation and roofing plies are not exposed to precipitation or left exposed overnight. Provide cut-offs at end of each day's work to cover exposed ply sheets and insulation with two (2) plies of #15 organic roofing felt set in full mopping's of bitumen and with joints and edges sealed with roofing cement. Remove cut-offs immediately before resuming work.
- E. Substrate Joint Penetrations: Prevent cold process adhesive from penetrating substrate joints, entering building, or damaging roofing system components or adjacent building construction.
- F. Apply roofing materials as specified by manufacturer's instructions.
  - 1. Keep roofing materials dry before and during application.
  - 2. Do not permit phased construction.
  - 3. Complete application of roofing plies, modified sheet and flashing in a continuous operation.
  - 4. Begin and apply only as much roofing in one day as can be completed that same day.

# 3.4 INSULATION UNDERLAYMENT INSTALLATION

- A. Install one layer of Red Rosin sheet over entire roof substrate prior to installation of insulation board.
- B. Lap rosin sheet ends eight (8) inches (203mm). Stagger end laps twelve (12) inches (304mm) minimum.

#### 3.5 INSULATION INSTALLATION

- A. Install all insulation and roofing in strict accordance with manufacturer's current recommendations and reference standards, as specified, and as required for ASCE7-10.
- B. Mechanically attach base layer of ridged insulation using fasteners at the rate of 11-17-17.
- C. Install boards with long joints continuous and running in a direction parallel to the roof decking. Short joints should be staggered. All joints shall be butted tightly together.
- D. Install top layer of insulation with ALL joints staggered into a full width application of insulation adhesive. Maximum board size shall be 4' x 8'. ALL joints must be staggered by a minimum of 1'.
- E. Tapered insulation system shall be installed as detailed on plans and as required to provide positive drainage at all roof areas. Starting at the drain sumps, install pre-formed tapered insulation in a full width application of insulation adhesive. Panels shall be installed with no gaps larger than ¼".

#### 3.6 BASE PLY INSTALLATION

- A. Install (1) one base ply in two (2) gallons per square of cold applied membrane adhesive, shingled uniformly to achieve one ply throughout over the prepared substrate. Shingle in proper direction to shed water on each large area of roofing. Prior to installation, cut sheets into 18' lengths and allow to them to relax.
- B. Lap ply sheet ends eight inches. Stagger end laps twelve inches minimum.
- C. Extend plies two inches beyond top edges of cants at wall and projection bases.
- D. Install one (1) base ply to all perimeter and projection details.
- E. Allow the one (1) ply of base sheet to cure at least thirty minutes before installing the modified membrane. However, the modified membrane must be installed the same day as the base plies.
- F. Lightly broom sheet to ensure proper adhesion.

#### 3.7 MODIFIED MEMBRANE APPLICATION

- A. Solidly bonded to the base layer with specified cold adhesive at the rate of two (2) gallons per 100 square feet.
- B. The roll must push a puddle of adhesive in front of it with adhesive slightly visible at all side laps. Care should be taken to eliminate air entrapment under the membrane.
- C. Subsequent rolls of modified shall be installed across the roof as above with a minimum of four (4) side laps and eight (8) end laps. The end laps shall be staggered a minimum of (3). The modified membrane shall be laid in the same direction as the underlayers but the laps shall not coincide with the laps of the base layers.
- D. Extend membrane two (2) beyond top edge of all cants in full moppings of the cold adhesive as shown on the drawings.
- E. Lightly broom sheet to ensure proper adhesion.

# 3.8 FLASHING MEMBRANE INSTALLATION

- A. Seal all curb, wall and parapet flashings with an application of mastic and mesh on a daily basis. Do not permit conditions to exist that will allow moisture to enter behind, around or under the roof or under the flashing membrane.
- B. Prepare all walls, penetrations, expansion joints and where shown on the drawings to be flashed with asphalt primer at the rate of one hundred (100) square feet per gallon. Allow primer to dry tack free.
- C. Use the modified membrane as the flashing membrane. Adhere to the underlying base flashing ply with specified cold adhesive in these specifications. Nail off at a minimum of eight (8) inches (203mm) o.c. from the finished roof at all vertical surfaces.

- D. Solidly adhere the entire sheet of flashing membrane to the substrate. Tops of all flashings that are not run up and over curb shall be secured through termination bar 6 inches (152mm) and sealed at top.
- E. Seal all vertical laps of flashing membrane with a three-course application of trowel-grade mastic and fiberglass mesh.
- F. Coordinate counter flashing, cap flashings, expansion joints and similar work with modified bitumen roofing work [as specified in other sections].
- G. Coordinate roof accessories, miscellaneous sheet metal accessory items, including piping vents and other devices with the roofing system work as specified in other sections. When using mineralized cap sheet all stripping shall be installed prior to cap sheet installation.

## 3.9 FLASHING MEMBRANE INSTALLATION

- A. Scupper Through Wall [Detail No. MBC-15]:
  - 1. Inspect the nailer to assure proper attachment and configuration.
  - 2. Run one ply over nailer, into scupper hole and up flashing as in typical wall flashing detail. Assure coverage of all wood nailers.
  - 3. Install a scupper box in a ¼ inch (6mm) bed of mastic. Assure all box seams are soldered and have a minimum four (4) inch (101mm) flange. Make sure all corners are closed and soldered. Prime scupper at a rate of 100 square feet per gallon and allow to dry.
  - 4. Fasten flange of scupper box every three (3) inches (76mm) o.c. staggered.
  - 5. Strip in flange of scupper box with base flashing ply covering entire area with six (6) inch (152mm) overlap on to the field of the roof and wall flashing.
  - 6. Install a second ply of modified flashing ply in bitumen over the base flashing ply, nine (9) inches (228mm) on to the field of the roof. Apply a three-course application of mastic and mesh at all seams.
- B. Scupper Through Wall (Overflow) [Detail No. MBC-16]:
  - 1. Inspect the nailer to assure proper attachment and configuration.
  - 2. Run one ply over nailer up the overflow, into the scupper hole and up flashing as in typical wall flashing detail. Assure coverage of all wood nailers.
  - 3. Install scupper box in a ¼ inch (6mm) bed of mastic. Assure all box seams are soldered and have a minimum four (4) inch (101mm) flange. Make sure all corners are closed and soldered. Prime scupper at a rate of 100 square feet per gallon and allow to dry.
  - 4. Fasten flange of scupper box every three (3) inches (76mm) o.c. staggered.

- 5. Strip in flange scupper box with base flashing ply covering entire area with six (6) inch (152mm) overlap on to the field of the roof and wall flashing.
- 6. Install a second ply of modified flashing ply in bitumen over the base flashing ply, nine (9) inches (228mm) on to the field of the roof. Apply a three-course application of mastic and mesh at all seams.

## C. Coping Cap:

- 1. Minimum flashing height is eight (8) inches (203mm) above finished roof height. Maximum flashing height is 24 inches. Prime vertical wall at a rate of 100 square feet per gallon and allow to dry.
- 2. Set cant in bitumen. Run all field plies over cant a minimum of two (2) inches (50mm).
- 3. Install base flashing ply covering entire wall and wrapped over top of wall and down face with six (6) inches (152mm) on to field of the roof and set in cold asphalt. Nail membrane at eight (8) inches (203mm) o.c.
- 4. Install a second ply of modified flashing ply in bitumen over the base flashing ply, nine (9) inches (228mm) on to the field of the roof. Apply a three-course application of mastic and mesh at all seams and allow to cure.
- 5. Install coping cap per manufacturer's recommendations.

# D. Surface Mounted Counterflashing [Detail No. MBC-22]:

- 1. Minimum flashing height is eight (8) inches (203mm) above finished roof height. Maximum flashing height is 24 inches. Prime vertical wall at a rate of 100 square feet per gallon and allow to dry.
- 2. Set cant in bitumen. Run all field plies over cant a minimum of two (2) inches (50mm).
- 3. Install base flashing ply covering wall set in bitumen with six (6) inches (152mm) on to field of the roof.
- 4. Install a second ply of modified flashing ply in bitumen over the base flashing ply, nine (9) inches (228mm) on to the field of the roof. Apply a three-course application of mastic and mesh at all vertical seams and allow to cure.
- 5. Apply butyl tape to wall behind flashing. Secure termination bar through flashing, butyl tape and into wall. Alternatively use caulk to replace the butyl tape.
- 6. Secure counterflashing set on butyl tape above flashing at eight (8) inches (203mm) o.c. and caulk top of counterflashing.

## E. Equipment Support [Detail No. MBC-32]:

1. Minimum curb height is eight (8) inches (203mm) above finished roof height. Prime vertical at a rate of 100 square feet per gallon and allow to dry.

- 2. Set cant in bitumen. Run all field plies over cant a minimum of two (2) inches (50mm).
- 3. Install base flashing ply covering curb set in bitumen with six (6) inches (152mm) on to field of the roof.
- 4. Install a second ply of modified flashing ply in bitumen over the base flashing ply, nine (9) inches (228mm) on to the field of the roof. Attach top of membrane to top of curb and nail at eight (8) inches (203mm) o.c. Apply a three-course application of mastic and mesh at all vertical seams and allow to cure.
- 5. Install pre-manufactured cover. Fasten sides at 24 inches (609mm) o.c. with fasteners and neoprene washers. Furnish all joint cover laps with butyl tape between metal covers.
- 6. Set equipment on neoprene pad and fasten as required by equipment manufacturer.

## F. Curb Detail/Air Handling Station [Detail No. MBC-33]:

- 1. Minimum curb height is eight (8) inches (203mm) above finished roof height. Prime vertical at a rate of 100 square feet per gallon and allow to dry.
- 2. Set cant in bitumen. Run all field plies over cant a minimum of two (2) inches (50mm).
- 3. Install base flashing ply covering curb set in bitumen with six (6) inches (152mm) on to field of the roof.
- 4. Install a second ply of modified flashing ply in bitumen over the base flashing ply, nine (9) inches (228mm) on to the field of the roof. Apply a three-course application of mastic and mesh at all vertical seams and allow to cure.
- 5. Install pre-manufactured counterflashing with fasteners and neoprene washers or per manufacturer's recommendations.
- 6. Set equipment on neoprene pad and fasten as required by equipment manufacturer.

## G. Skylight [Detail No. MBC-34]:

- 1. Minimum curb height is eight (8) inches (203mm) above finished roof height. Prime vertical at a rate of 100 square feet per gallon and allow to dry.
- 2. Set cant in bitumen. Run all field plies over cant a minimum of two (2) inches (50mm).
- 3. Install base flashing ply covering curb set in bitumen with six (6) inches (152mm) on to field of the roof.
- 4. Install a second ply of modified flashing ply in bitumen over the base flashing ply, nine (9) inches (228mm) on to the field of the roof. Attach top of membrane to top of wood nailer and apply a three-course application of mastic and mesh. Allow to cure and aluminize.

5. Install pre-manufactured lens and fasten flashing sides at eight (8) inches (203mm) o.c. with fasteners and neoprene washers.

## H. Pre-manufactured Curb For Equipment Support [Detail No. MBC-35]:

- 1. Minimum curb height is eight (8) inches (203mm) above finished roof height. Prime vertical at a rate of 100 square feet per gallon and allow to dry.
- 2. Run all field plies over cant of the pre-manufactured equipment support a minimum of two (2) inches.
- 3. Install base flashing ply covering pre-manufactured curb with six (6) inches (152mm) on to field of the roof.
- 4. Install a second ply of modified flashing ply installed over the base flashing ply, nine (9) inches (228mm) on to field of the roof. Attach top of membrane to top of wood curb and nail at eight (8) inches (203mm) o.c. Apply a three-course application of mastic and mesh at all vertical seams and allow to cure.
- 5. Install pre-manufactured cover. Fasten sides at 24 inches (609mm) o.c. with fasteners and neoprene washers. Furnish all joint cover laps with butyl tape between metal covers.
- 6. Set equipment on neoprene pad and fasten as required by equipment manufacturer.

## I. Exhaust Fan [Detail No. MBC-36]:

- 1. Minimum curb height is eight (8) inches (203mm) above finished roof height. Prime vertical at a rate of 100 square feet per gallon and allow to dry.
- 2. Set cant in bitumen. Run all plies over cant a minimum of two (2) inches (50mm).
- 3. Install base flashing ply covering curb with six (6) inches (152mm) on to field of the roof.
- 4. Install a second ply of modified flashing ply installed over the base flashing ply, nine (9) inches (228mm) on to field of the roof. Attach top of membrane to top of wood curb and nail at eight (8) inches (203mm) o.c. Apply a three-course application of mastic and mesh at all vertical seams and allow to cure.
- 5. Install metal exhaust fan over the wood nailers and flashing to act as counterflashing. Fasten per manufacturer's recommendation.

# J. Passive Vent/Air Intake [Detail No. MBC-37]:

- 1. Minimum curb height is eight (8) inches (203mm) above finished roof height. Prime vertical at a rate of 100 square feet per gallon and allow to dry.
- 2. Set cant in bitumen. Run all plies over cant a minimum of two (2) inches (50mm).
- 3. Install base flashing ply covering curb with six (6) inches (152mm) on to the field of the roof.

- 4. Install a second ply of modified flashing ply installed over the base flashing ply, nine (9) inches (228mm)on to field of the roof. Attach top of membrane to top of wood curb and nail at eight (8) inches (203mm) o.c. Apply a three-course application of mastic and mesh at all vertical seams and allow to cure.
- 5. Install passive vent/air intake over the wood nailers and flashing to act as counterflashing. Fasten per manufacturer's recommendations.

## K. Roof Drain [Detail No. MBC-41]:

- 1. Plug drain to prevent debris from entering plumbing.
- 2. Taper insulation to drain minimum of 24 inches (609mm) from center of drain.
- 3. Install two (2) base flashing plies (40 inch square minimum) in bitumen.
- 4. Set lead/copper flashing (30 inch square minimum) in ¼ inch (6mm) bed of mastic. Run lead/copper into drain a minimum of two (2) inches (50mm). Prime lead/copper at a rate of 100 square feet per gallon and allow to dry.
- 5. Run roof system plies over drain. Cut out plies inside drain bowl.
- 6. Install modified membrane (48 inch square minimum) in bitumen.
- 7. Install clamping ring and assure that all plies are under the clamping ring.
- 8. Remove drain plug and install strainer.

#### L. Plumbing Stack [Detail No. MBC-50]:

- 1. Minimum stack height is 12 inches (609mm).
- 2. Run roof system over the entire surface of the roof. Seal the base of the stack with elastomeric sealant.
- 3. Prime flange of new sleeve. Install properly sized sleeves set in ¼ inch (6mm) bed of roof cement.
- 4. Install base flashing ply in bitumen.
- 5. Install membrane in bitumen.
- 6. Caulk the intersection of the membrane with elastomeric sealant.
- 7. Turn sleeve a minimum of one (1) inch (25mm) down inside of stack.

## M. Heat Stack [Detail No. MBC-51]:

- 1. Minimum stack height is 12 inches (609mm).
- 2. Run roof system over the entire surface of the roof. Seal the base of the stack with elastomeric sealant.

- 3. Prime flange of new sleeve. Install properly sized sleeves set in ¼ inch (6mm) bed of roof cement.
- 4. Install base flashing ply in bitumen.
- 5. Install modified membrane in bitumen.
- 6. Caulk the intersection of the membrane with elastomeric sealant.
- 7. Install new collar over cape. Weld collar or install stainless steel draw brand.

## N. Passive Vent/Air Intake [Detail No. MBH-37]:

- 1. Minimum curb height is eight (8) inches. Prime vertical at a rate of one hundred (100) square feet per gallon and allow to dry.
- 2. Set cant in bitumen. Run all plies over cant a minimum of two (2) inches.
- 3. Install base flashing ply covering curb with six (6) inches on to the field of the roof.
- 4. Install a second ply of modified flashing ply installed over the base flashing ply, nine (9) inches on to field of the roof. Attach top of membrane to top of wood curb and nail at eight (8) inches o.c. Apply a three-course application of mastic and mesh at all vertical seams and allow to cure.
- 5. Install passive vent/air intake over the wood nailers and flashing to act as counterflashing. Fasten per manufacturers recommendations.

#### 3.10 APPLICATION OF SURFACING

A. Prior to installation of surface, obtain approval from manufacturer as to work completed. On average, at least 30 days are required prior to final surfacing.

## B. Reflective Coating:

- 1. Allow all cold applied mastics and coating to properly dry and cure before coating application.
- 2. Paint all exposed roofing with manufacturer's base coat Acrylic Coating installed at a rate of one and a half (1.5) gallons per square, back roll entire installation required.
- 3. Paint all cricket waterways, drain sumps, behind roof curbs and areas where water may collect with manufacturers Energy Star top coat Urethane Coating installed a rate of one and a half (1.5) gallons per square, back roll of entire installation required.
- 4. Paint all exposed roofing (except for areas noted above in #3) with manufacturer's Energy Star top coat Acrylic Coating installed at a rate of one and a half (1.5) gallons per square, back roll entire installation required.

## 3.11 FIELD QUALITY CONTROL

- A. Perform field inspection and as required.
- B. Correct defects or irregularities discovered during field inspection.
- C. Require attendance of roofing materials manufacturers' representatives at site during installation of the roofing system. A copy of the specification should also be on site at all times.

#### 3.12 CLEANING

- A. Remove bitumen adhesive drippings from all walls, windows, floors, ladders and finished surfaces.
- B. In areas where finished surfaces are soiled by asphalt or any other sources of soiling caused by work of this section, consult manufacturer of surfaces for cleaning instructions and conform to their instructions.
- C. Repair or replace defaced or disfigured finishes caused by work of this section.

#### 3.13 CONSTRUCTION WASTE MANAGEMENT

A. Remove and properly dispose of waste products generated during roofing procedures. Comply with requirements of authorities having jurisdiction.

#### 3.14 FINAL INSPECTION

- A. At completion of roofing installation and associated work, meet with Contractor, Architect, installer, installer of associated work, Owner, roofing system manufacturer's representative, and other representatives directly concerned with performance of roofing system.
- B. Walk roof surface areas of the building, inspect perimeter building edges as well as flashing of roof penetrations, walls, curbs and other equipment. List all items requiring correction or completion and furnish copy of list to each party in attendance.
- C. The roofing system manufacturer reserves the right to request a thermo graphic scan of the roof during final inspection to determine if any damp or wet materials have been installed. The thermo graphic scan shall be provided by the Roofing Contractor.
- D. If core cuts verify the presence of damp or wet materials, the Roofing Contractor shall be required to replace the damaged areas at his own expense.
- E. Repair or replace deteriorated or defective work found at time above inspection as required to a produce an installation which is free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
- F. Notify the Contractor, Architect, Owner upon completion of corrections.

G. Following the final inspection, provide written notice of acceptance of the installation from the roofing system manufacturer.

#### 3.15 DEMONSTRATION AND TRAINING

- A. At a time and date agreed to by the Owner, instruct the Owner's facility manager, or other representative designated by the Owner, on the following procedures:
  - 1. Roof troubleshooting procedures.
  - 2. Notification procedures for reporting leaks or other apparent roofing problems.
  - 3. Roofing maintenance.
  - 4. The Owner's obligations for maintaining the roofing warranty in effect and force.
  - 5. The Manufacturer's obligations for maintaining the roofing warranty in effect and force.

## 3.16 OWNER SUPPLIED MATERIALS

- A. Contractor must submit all quantities of owner supplied materials; per the list supplied below required to complete the project per specification section 07 52 00 with their bid.
  - 1. Contractor must provide all labor and incidental materials to install owner supplied materials as part of their bid.
  - 2. All materials not specifically included in the owner supplied materials section will be the responsibility of the contractor to provide and install in compliance with section 07 52 00.
  - 3. Contractor must provide an accurate list of owner supplied materials to the Owner, overages will be returned to the owner and under estimated quantities will be the full responsibility of the contractor to supply and install in full compliance with this section.
  - 4. Freight charges of owner supplied materials will be the responsibility of the owner. Contractor must take delivery of materials, properly protect, cover and store at jobsite.
  - 5. Contractor must be able to provide certification in writing from roof system manufacturer that the contractor is approved to install the specified roof system and provide all warranty requirements of section 07 52 00.
- B. Materials specifically provided by the Owner;
  - Stressply Plus FR Mineral surface sheet (75 sq ft per roll)
  - Stressbase 80 Ply Sheet (150 sq ft per roll)
  - Flashing Bond Mastic (5 gal pail)

- Tuff Stuff Urethane Sealant (10.1 oz tube)
- Garla-Prime VOC (5 gal pail)
- Garmesh (150' x 6")
- Pyramic Acrylic Coating, Base Coat (55 gal drum)
- Pyramic Acrylic Coating, Top Coat (55 gal drum)
- WhiteKnight Plus WC, Urethane Top Coat (5 gallon pail)
- Weatherking Plus WC (55 gal drum)
- Weatherking Flashing Adhesive (5 gallon pail)
- Freight to jobsite

END OF SECTION 07 52 00 - MODIFIED BITUMINOUS MEMBRANE ROOFING - COLD-APPLIED

# SECTION 07 59 01 - MEMBRANE REROOFING PREPARATION

## **PART 1 - GENERAL**

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section includes the following:
  - 1. Existing roof tear-off.
  - 2. Removal of existing base flashings.

## 1.3 MATERIALS OWNERSHIP

A. Except for items or materials indicated to be reused, reinstalled, or otherwise indicated to remain Owner's property, demolished materials shall become Contractor's property and shall be removed from Project site and disposed of legally.

#### 1.4 **DEFINITIONS**

- A. Roofing Terminology: Refer to ASTM D 1079 and glossary in NRCA's "The NRCA Roofing and Waterproofing Manual" for definition of terms related to roofing work in this Section.
- B. Existing Membrane Roofing System: Built-up asphalt roofing membrane, surfacing, and components and accessories between deck and roofing membrane.
- C. Substrate Board: Rigid board or panel products placed over the roof deck that serve as thermal barriers, provide a smooth substrate, or serve as a component of a fire-resistance-rated roofing system.
- D. Roof Tear-Off: Removal of existing membrane roofing system from deck.
- E. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and reinstalled.

# 1.5 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning membrane roofing removal. Comply with hauling and disposal regulations of authorities having jurisdiction.

#### 1.6 PROJECT CONDITIONS

- A. Owner will occupy portions of building immediately below reroofing area. Conduct reroofing so Owner's operations will not be disrupted. Provide Owner with not less than 72 hours' notice of activities that may affect Owner's operations.
  - 1. Coordinate work activities daily with Owner so Owner can place protective dust or water leakage covers over sensitive equipment or furnishings, shut down HVAC and fire-alarm or -detection equipment if needed, and evacuate occupants from below the work area if desired.
- B. Protect building to be reroofed, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from reroofing operations.
- C. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not block required exits or path from required exit to public right-of-way. Coordinate with requirements of authorities having jurisdiction.
- D. Owner assumes no responsibility for condition of areas to be reroofed.
- E. Weather Limitations: Proceed with reroofing preparation only when existing and forecasted weather conditions permit Work to proceed without water entering into existing roofing system or building.
- F. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner.

## **PART 2 - PRODUCTS**

## 2.1 TEMPORARY ROOFING MATERIALS

A. Refer to Division 07 Section "Built-Up Asphalt Roofing."

#### **PART 3 - EXECUTION**

## 3.1 PREPARATION

- A. Coordinate with Owner to shut down air intake equipment in the vicinity of the Work. Cover air intake louvers before proceeding with reroofing work that could affect indoor air quality or activate smoke detectors in the ductwork.
- B. During removal operations, have sufficient and suitable materials on-site to facilitate rapid installation of temporary protection in the event of unexpected rain.
- C. Maintain roof drains in functioning condition to ensure roof drainage at end of each workday. Prevent debris from entering or blocking roof drains and conductors. Use roof-drain plugs specifically designed for this purpose. Remove roof-drain plugs at end of each workday, when no work is taking place, or when rain is forecast.
  - 1. If roof drains will be temporarily blocked or unserviceable due to roofing system removal or partial installation of new membrane roofing system, provide alternative drainage method to remove water and eliminate ponding. Do not permit water to enter into or under existing membrane roofing system components that are to remain.

#### 3.2 ROOF TEAR-OFF

- A. Remove loose aggregate from aggregate-surfaced built-up bituminous roofing.
- B. Roof Tear-Off: Remove existing roofing membrane and other membrane roofing system components down to the deck.
  - 1. Remove any existing roof insulation.
- C. Hazardous Materials have been identified in portions of the existing roofing system where roofing is designated to be removed. Refer to the appendix of the Project Manual for additional information and requirements.

## 3.3 DECK REMOVAL / REPLACEMENT

A. Remove existing plywood substrate as directed by owner or owner's representative. Replacement of damaged or dryrot sheathing shall be performed on a per square foot basis.

#### 3.4 EXISTING BASE FLASHINGS

A. Remove existing base flashings around parapets, curbs, walls, and penetrations.

1. Clean substrates of contaminants such as sheet materials, dirt, and debris.

# 3.5 DISPOSAL

- A. Collect and place demolished materials in containers. Dispose of demolished materials daily. Do not allow demolished materials to accumulate on-site.
- B. Transport demolished materials off Owner's property and legally dispose of them.

**END OF SECTION** 

# SECTION 07 62 00 - SHEET METAL FLASHING AND TRIM

## PART 1 — GENERAL

#### 1.1 RELATED DOCUMENTS

**A.** Drawings and general provisions of the Contract, including the Conditions of the Contract and Division 01 Specification Sections apply to this section.

#### 1.2 SUMMARY

- **A.** Provide all labor, equipment, and materials to fabricate and install all related sheet metal flashing components for a complete roofing assembly.
- **B.** Related Sections:
  - 1. Division 07 Section Common Work Results for Thermal and Moisture Protection.
- **C.** Related Work Specified Elsewhere:
  - 1. Division 01: Section Summary of Work
  - 2. Division 07: Built-up Roofing Restoration
  - **3.** Division 07: Asphalt Shingle Roofing
  - **4.** Division 09: Painting
  - **5.** Division 07: Modified Built up Roofing

#### 1.3 REFERENCES

- **A.** American Society for Testing and Materials (ASTM)
  - **1.** ASTM A653 Standard Specification for Steel Sheet, Zinc-Coated (galvanized) or Zinc-Iron Alloy-Coated (galvannealed) by the Hot-Dip Process.
  - **2.** ASTM A792 Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy Coated by the Hot-Dip Process.
  - **3.** ASTM B209 Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
  - **4.** ASTM B221 Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.

- **5.** ASTM D692 Standard Specification for Coarse Aggregate for Bituminous Paving Mixtures.
- **B.** American National Standards Institute and Single Ply Roofing Institute (ANSI/SPRI)
  - **1.** ANSI/SPRI ES-1 Testing and Certification Listing of Shop Fabricated Edge Metal.
- C. Warnock Hersey International, Inc., Middleton, WI (WH)
- **D.** Factory Mutual Research Corporation (FMRC
- **E.** Underwriters Laboratories (UL)
- **F.** Sheet Metal and Air Conditioning Contractors National Association (SMACNA)
  - 1. 1993 Edition Architectural Sheet Metal Manual
- **G.** National Roofing Contractors Association (NRCA)
  - 1. Roofing and Waterproofing Manual
- **H.** American Society of Civil Engineers (ASCE)
  - **1.** ASCE 7-05 Minimum Design Loads for Buildings and Other Structures.

#### 1.4 SUBMITTALS FOR REVIEW

- **A.** Product Data:
  - **1.** Provide manufacturer's specification data sheets for each product.
  - **2.** Metal material characteristics and installation recommendations.
  - **3.** Submit color chart prior to material ordering and/or fabrication so that equivalent colors to those specified can be approved.
- **B.** Samples: Submit two (2) samples, illustrating typical metal edge, coping, gutters, fascia extenders for material and finish.
- **C.** Shop Drawings
  - **1.** For manufactured and ANSI/SPRI approved shop fabricated gravel stops, fascia, scuppers, and all other sheet metal fabrications.
  - **2.** Indicate material profile, jointing pattern, jointing details, fastening methods, flashing, terminations, and installation details.

- **3.** Indicate type, gauge and finish of metal.
- **D.** Specimen Warranty: Provide an unexecuted copy of the warranty specified for this Project, identifying the terms and conditions required of the Manufacturer and the Owner.

#### 1.5 SUBMITTALS FOR INFORMATION

- A. Design Loads: Any material submitted as equal to the specified material must be accompanied by a report signed and sealed by a professional engineer licensed in the state in which the installation is to take place. This report shall show that the submitted equal meets the wind uplift and perimeter attachment requirements according to ASCE 7-05 and ANSI/SPRI ES-1. Substitution requests submitted without licensed engineer approval will be rejected for non-conformance.
- **B.** Factory Mutual Research Corporation's (FMRC) wind uplift resistance classification: The roof perimeter flashing shall conform to the requirements as defined by the FMRC Loss Prevention Data Sheet 1-49.
- A letter from an officer of the manufacturing company certifying that the materials furnished for this project are the same as represented in tests and supporting data.:
- C. Mill production reports certifying that the steel thicknesses are within allowable tolerances of the nominal or minimum thickness or gauge specified.
- **D.** Certification of work progress inspection. Refer to Quality Assurance Article below.

#### **E.** Certifications:

- **1.** Submit roof manufacturer's certification that metal fasteners furnished are acceptable to roof manufacturer.
- 2. Submit roof manufacturer's certification that metal furnished is acceptable to roofing manufacturer as a component of roofing system and is eligible for roof manufacturer's system warranty.
- **F.** Test Reports: Submit third party validation of environmental claims, prepared UL Environment, for all metal flashing and trim containing recycled content and/or bio based content.

# 1.6 CONTRACT CLOSEOUT SUBMITTALS

- **A.** General: Comply with Requirements of Section 01 78 00 Closeout Submittals.
- **B.** Special Project Warranty: Provide specified warranty for the Project, executed by the authorized agent of the Manufacturer.
- **C.** Roofing Maintenance Instructions. Provide a manual of manufacturer's recommendations for maintenance of installed roofing systems.

D. Insurance Certification: Assist Owner in preparation and submittal of roof installation acceptance certification as may be necessary in connection with fire and extended coverage insurance on roofing and associated work.

## 1.7 QUALITY ASSURANCE

- **A.** Engage an experienced roofing contractor specializing in sheet metal flashing work with a minimum of five (5) years experience.
- **B.** Maintain a full-time supervisor/foreman who is on the job-site at all times during installation. Foreman must have a minimum of five (5) years experience with the installation of similar system to that specified.
- C. Source Limitation: Obtain components from a single manufacturer. Secondary products which cannot be supplied by the specified manufacturer shall be approved in writing by the primary manufacturer prior to bidding.
- D. Upon request fabricator/installer shall submit work experience and evidence of financial responsibility. The Owner's representative reserves the right to inspect fabrication facilities in determining qualifications.

## 1.8 DELIVERY, STORAGE, AND HANDLING

- **A.** Deliver materials in manufacturer's original, unopened containers or packages with labels intact and legible.
- **B.** Stack pre-formed and pre-finished material to prevent twisting, bending, or abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
- **C.** Prevent contact with materials which may cause discoloration or staining.

#### 1.9 PROJECT CONDITIONS

**A.** Determine that work of other trades will not hamper or conflict with necessary fabrication and storage requirements for pre-formed metal edge system.

## 1.10 DESIGN AND PERFORMANCE CRITERIA

- **A.** Thermal expansion and contraction:
  - 1. Completed metal edge flashing system shall be capable of withstanding expansion and contraction of components caused by changes in temperature without buckling, producing excess stress on structure, anchors or fasteners, or reducing performance ability.

#### 1.11 WARRANTIES

- A. Owner shall receive one (1) warranty from manufacturer of roofing materials covering all of the following criteria. Multiple warranties are not acceptable.
  - Pre-finished metal material shall require a written twenty (20)-year non-prorated warranty covering fade, chalking and film integrity. The material shall not show a color change greater than 5 NBS color units per ASTM D2244 or chalking excess of 8 units per ASTM D659. If either occurs material shall be replaced per warranty, at no cost to the Owner.
  - 2. Changes: Changes or alterations in the edge metal system without prior written consent from the manufacturer shall render the system unacceptable for a warranty.
  - **3.** Warranty shall commence on date of substantial completion or final payment, whichever is agreed by contract.
  - 4. The Contractor shall provide the Owner with a notarized written warranty assuring that all sheet metal work including caulking and fasteners to be watertight and secure for a period of two years from the date of final acceptance of the building. Warranty shall include all materials and workmanship required to repair any leaks that develop, and make good any damage to other work or equipment caused by such leaks or the repairs thereof.
  - 5. Installing roofing contractor shall be responsible for the installation of the edge metal system in general accordance with the membrane manufacturer's recommendations.
  - **6.** Installing contractor shall certify that the edge metal system has been installed per the manufacturer's printed details and specifications.
  - 7. One manufacturer shall provide a single warranty for all accessory metal for flashings, metal edges and copings, along with the warranty for metal roof areas, membrane roof areas, and any transitions between two different material types.

## PART 2 — PRODUCTS

## 2.1 PRODUCTS, GENERAL

- A. Refer to Division 01 Section "Common Product Requirements."
- Basis of Design: Materials, manufacturer's product designations, and/or manufacturer's names specified herein shall be regarded as the minimum standard of quality required for work of this Section. Comply with all manufacturer and contractor/fabricator quality and performance criteria specified in Part 1.

- C. Substitutions: Products proposed as equal to the products specified in this Section shall be submitted in accordance with Bidding Requirements and Division 01 provisions.
  - 1. Proposals shall be accompanied by a copy of the manufacturer's standard specification section. That specification section shall be signed and sealed by a professional engineer licensed in the state in which the installation is to take place. Substitution requests containing specifications without licensed engineer certification shall be rejected for non-conformance.
  - 2. Include a list of three (3) projects of similar type and extent, located within a one hundred mile radius from the location of the project. In addition, the three projects must be at least five (5) years old and be available for inspection by the Architect, Owner or Owner's Representative.
  - **3.** Equivalency of performance criteria, warranty terms, submittal procedures, and contractual terms will constitute the basis of acceptance.
  - **4.** The Owner's decision regarding substitutions will be considered final. Unauthorized substitutions will be rejected.

## 2.2 MATERIALS

#### **A.** Materials:

- Minimum gauge of steel or thickness of Aluminum to be specified in accordance with Architectural Sheet Metal Manual, Sheet Metal and Air Conditioning Contractor's National Association, Inc. recommendations
  - **A.** Zinc-coated steel, ASTM A653, coating designation G-90, in thickness of 24 gauge, commercial or lock-forming quality.
- **2.** Exposed and unexposed surfaces for mill finish flashing, fascia, and coping cap, shall be as shipped from the mill.
- **3.** Exposed and unexposed surfaces for anodized aluminum flashing, fascia, and coping cap, shall be as shipped from mill.

#### 2.4 RELATED MATERIALS AND ACCESSORIES

- **A.** Metal Primer: Zinc chromate type.
- B. Plastic Cement: ASTM D 4586
- **C.** Sealant: Specified in Section 07900 or on drawings.
- **D.** Underlayment: ASTM D2178, No15 asphalt saturated roofing felt.
- **E.** Slip Sheet: Rosin sized building paper.

#### **F.** Fasteners:

- 1. Corrosion resistant screw fastener as recommended by metal manufacturer. Finish exposed fasteners same as flashing metal.
- **2.** Fastening shall conform to Factory Mutual requirements or as stated on section details, whichever is more stringent.
- **G.** Gutter and Downspout Anchorage Devices: Material as specified for system.

## PART 3 — EXECUTION

## 3.1 EXECUTION, GENERAL

**A.** Refer to Division 07 Section Common Work Results for Thermal and Moisture Protection.

#### 3.2 PROTECTION

**A.** Isolate metal products from dissimilar metals, masonry or concrete with bituminous paint, tape, or slip sheet. Use gasketed fasteners where required to prevent corrosive reactions.

#### 3.3 GENERAL

- **A.** Secure fascia to wood nailers at the bottom edge with a continuous cleat.
- **B.** Fastening of metal to walls and wood blocking shall comply with building code standards.
- All accessories or other items essential to the completeness of sheet metal installation, whether specifically indicated or not, shall be provided and of the same material as item to which applied.
- D. Allow sufficient clearances for expansion and contraction of linear metal components. Secure metal using fasteners as required by the system. Exposed face fastening will be rejected.

#### 3.4 INSPECTION

- **A.** Verify that curbs are solidly set and nailing strips located.
- **B.** Perform field measurements prior to fabrication.
- **C.** Coordinate work with work of other trades.
- **D.** Verify that substrate is dry, clean and free of foreign matter.
- **E.** Commencement of installation shall be considered acceptance of existing conditions.

#### 3.5 MANUFACTURED SHEET METAL SYSTEMS

- **A.** Furnish and install manufactured fascia and coping cap systems in strict accordance with manufacturer's printed instructions.
- **B.** Provide factory-fabricated accessories including, but not limited to, fascia extenders, miters, scuppers, joint covers, etc. Refer to Source limitation provision in Part 1.

#### 3.6 SHOP-FABRICATED SHEET METAL

- **A.** Metal work shall be shop fabricated to configurations and forms in accordance with recognized sheet metal practices.
- **B.** Hem exposed edges.
- **C.** Angle bottom edges of exposed vertical surfaces to form drip.
- **D.** Lap corners with adjoining pieces fastened and set in sealant.
- **E.** Form joints for gravel stop fascia system, coping cap with a 3/8" opening between sections. Back the opening with an internal drainage plate formed to the profile of fascia piece.
- **F.** Install sheet metal to comply with referenced ANSI/SPRI, SMACNA and NRCA standards.

#### 3.7 FLASHING MEMBRANE INSTALLATION

- A. Scupper Through Roof Edge
  - 1. Install scupper box in a one fourth (1/4) inch bed of mastic. Assure all box seams are soldered and have minimum four (4) inch flange. Make sure all corners are closed and soldered.
  - 2. Prime metal edge at a rate of one hundred (100) square feet per gallon and allow to dry.

## **B.** Drip Edge Detail

- 1. Position base plies of the Modified Roofing membrane over the roof edge covering nailers completely, fastening eight (8) inches on center. Install membrane and cap sheet with proper material and procedure according to manufacturer's recommendations.
- 2. Install continuous cleat on face of nailer and fasten six (6) inches on center.

- 3. Install new Drip Edge hooked to continuous cleat. Set metal flange into roofing cement, nail every three (3) inches on center, and prime at a rate of one hundred (100) square feet per gallon.
- **4.** Drip Edge flange with base flashing membrane extending six (6) inches into roof field, followed with a cap sheet extending nine (9) inches into the roof field. Install membrane and cap sheet with proper material and procedure according to manufacturer's recommendations.

## **C.** Gravel Stop Detail

- 1. Position base plies of the Built-Up and/or Modified Roofing membrane over the roof edge covering nailers completely, fastening eight (8) inches on center. Install membrane and cap sheet with proper material and procedure according to manufacturer's recommendations.
- 2. Install continuous cleat on face of nailer and fasten six (6) inches on center.
- 3. Install new Gravel Stop hooked to continuous cleat. Set metal flange into roofing cement, nail every three (3) inches on center, and prime at a rate of one hundred (100) square feet per gallon.
- **4.** Strip in Gravel Stop flange with base flashing membrane extending six (6) inches into roof field, followed with a cap sheet extending nine (9) inches into the roof field. Install membrane and cap sheet with proper material and procedure according to manufacturer's recommendations.

## **D.** Edge Metal With Gutter

- 1. Position base plies of the Built-Up and/or Modified Roofing membrane over the roof edge covering nailers completely, fastening eight (8) inches on center. Install membrane and cap sheet with proper material and procedure according to manufacturer's recommendations.
- **2.** Install gutter and strapping fastening six (6) inches on center.
- **3.** Install continuous cleat on face of nailer and fasten six (6) inches on center.
- 4. Install new edge metal hooked to continuous cleat. Set metal flange into roofing cement, nail every three (3) inches on center, and prime at a rate of one hundred (100) square feet per gallon.
- 5. Strip in edge metal with base flashing membrane extending six (6) inches into roof field, followed with a cap sheet extending nine (9) inches into the roof field. Install membrane and cap sheet with proper material and procedure according to manufacturer's recommendations.

## **E.** Snap-On Coping Cap Detail

- **1.** Install Miters first.
- 2. Position base flashing of the Built-Up and/or Modified Roofing membrane over the wall edge covering nailers completely, fastening eight (8) inches on center. Install membrane and cap sheet with proper material and procedure according to manufacturer's recommendations.
- **3.** Install minimum sixteen (16) gauge, sixteen (16) inch long by specified width anchor chair at [Contact Garland Representative] feet on center.
- 1. Install six (6) inch wide splice plate by centering over sixteen (16) inch long by specified width anchor chair. Apply two beads of sealant to either side of the splice plate's center. Approximately two (2) inches from the coping cap joint. Install Coping Cap by hooking outside hem of coping on outside face of anchor chair. Press downward on inside edge of coping until "snap" occurs and hem is engaged on the entire chair.

### 3.8 CLEANING

- **A.** Clean installed work in accordance with the manufacturer's instructions.
- **B.** Replace damaged work than cannot be restored by normal cleaning methods.

#### 3.9 CONSTRUCTION WASTE MANAGEMENT

**A.** Remove and properly dispose of waste products generated. Comply with requirements of authorities having jurisdiction

#### 3.10 FINAL INSPECTION

- A. At completion of installation and associated work, meet with Contractor, Architect, installer, installer of associated work, Owner, roofing system manufacturer's representative, and other representatives directly concerned with performance of roofing system.
- B. Inspect work and flashing of roof penetrations, walls, curbs and other equipment. List all items requiring correction or completion and furnish copy of list to each party in attendance.
- **C.** Repair or replace deteriorated or defective work found at time above inspection as required to a produce an installation which is free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
- **D.** Notify the Owner upon completion of corrections.
- **E.** Following the final inspection, provide written notice of acceptance of the installation from the roofing system manufacturer.

**F.** Immediately correct roof leakage during construction. If the Contractor does not respond within twenty-four (24) hours, the Owner will exercise rights to correct the Work under the terms of the Conditions of the Contract.

## 3.11 DEMONSTRATION AND TRAINING

- A. At a time and date agreed to by the Owner, instruct the Owner's facility manager, or other representative designated by the Owner, on the following procedures:
  - **1.** Troubleshooting procedures.
  - 2. Notification procedures for reporting leaks or other apparent roofing problems.
  - **3.** Maintenance.
  - **4.** The Owner's obligations for maintaining the warranty in effect and force.
  - **5.** The Manufacturer's obligations for maintaining the warranty in effect and force.

END OF SECTION 07 62 00 - SHEET METAL FLASHING AND TRIM

# SECTION 09 91 00 – PAINTING

#### PART 1 - GENERAL

#### 1.1 SECTION INCLUDES

- A. Surface preparation and field painting of fascia board and sheet metal items and surfaces as specified, including mechanical and electrical equipment that do not have a factory-applied finish.
- B. Surface preparation and field painting of exposed exterior items and surfaces.

#### 1.2 RELATED SECTIONS

- A. Section 06 Rough Carpentry
- B. Section 07 Modified Bitumen Roofing
- C. Section 07 Modified Roofing Restoration
- D. Section 07 Asphalt Shingle Roofing
- E. Section 07 Sheet Metal Flashing and Trim

#### 1.3 REFERENCES

- A. American Society for Testing and Materials (ASTM) D 16 Standard Terminology for Paint, Related Coatings, Materials, and Applications.
- B. Steel Structures Painting Council (SSPC) SP6 Commercial Blast Cleaning Procedures.
- C. Steel Structures Painting Council (SSPC) SP10 Near White Blast Cleaning Procedure.

## 1.4 SUBMITTALS

- A. Submit under provisions of General Conditions.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Material List: An inclusive list of required coating materials. Indicate each material and cross-reference specific coating, finish system, and application. Identify each material by manufacturer's catalog number and general classification.
  - 2. Preparation instructions and recommendations.
  - 3. Manufacturer's Information: Manufacturer's technical information, including label analysis and instructions for handling, storing, and applying each coating material.

- C. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- D. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.

## 1.5 QUALITY ASSURANCE

- A. Installer Qualifications: A firm or individual experienced in applying paints and coatings similar in material, design, and extent to those indicated for this Project, whose work has resulted in applications with a record of successful in-service performance.
- B. Obtain block fillers and primers for each coating system from the same manufacturer as the finish coats.
- C. Paint exposed surfaces. If an item or a surface is not specifically mentioned, paint the item or surface the same as similar adjacent materials or surfaces. If a color of finish is not indicated, Architect will select from standard colors and finishes available.
- D. Do not paint prefinished items, concealed surfaces, finished metal surfaces, operating parts, and labels.
- E. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
  - 1. Finish areas designated by Architect.
  - 2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
  - 3. Refinish mock-up area as required to produce acceptable work.

## 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label.
- B. Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45 degree F (7 degree C). Maintain storage containers in a clean condition, free of foreign materials and residue.
- C. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
- D. Apply waterborne paints only when temperatures of surfaces to be painted and surrounding air are between 50 and 90 degree F (10 and 32 degree C), unless manufacturer's instructions specifically states.
- E. Apply solvent-thinned paints only when temperatures of surfaces to be painted and surrounding air are between 45 and 95 degree F (7 and 35 degree C).

- F. Do not apply paint in or when snow, rain, fog, or mist; or when relative humidity exceeds 85 percent or is imminent; or at temperatures less than 5 degree F (3 degree C) above the dew point; or to damp or wet surfaces.
  - 1. Painting may continue during inclement weather if surfaces and areas to be painted are enclosed and heated within temperature limits specified by manufacturer during application and drying periods.
- G. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

## 1.7 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

## 1.8 EXTRA MATERIALS

- A. Furnish extra paint materials from the same production run as the materials applied and in the quantities described below. Package with protective covering for storage and identify with labels describing contents. Deliver extra materials to Owner.
- B. Quantity: Furnish Owner with an additional three percent, but not less than 1 gal (3.8 l) or 1 case, as appropriate, of each material and color applied.

#### PART 2 PRODUCTS

## 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: BEHR Process Corporation, which is located at: 3400 W. Segerstrom Ave.; Santa Ana, CA 92704; Tel: 714-545-7101; Fax: 714-241-1002
- B. Or owner and architect approved equal.

## 2.2 PAINT MATERIALS - GENERAL

- A. Material Compatibility: Provide block fillers, primers, and finish-coat materials that are compatible with one another and with the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
- B. VOC Classification: Provide materials, including primers, undercoats, and finish-coat materials, that meet local air quality management district regulations.
- C. Color: Refer to Finish Schedule and Paint Legend for paint colors.
- D. Application Rate: Coating thickness for primer, intermediate, barrier and finish coats

shall be measured as Dry Film Thickness (DFT) and comply with manufacturer's published recommendations.

## 2.3 EXTERIOR PAINT SYSTEMS

- A. Ferrous Metal Steel / Iron:
  - 1. One Prime Coat:
    - BEHR PREMIUM PLUS Interior/Exterior Oil-Based Primer & Sealer No. 434.
  - 2. Two finish coats:
    - a. BEHR PREMIUM PLUS ULTRA Exterior Paint.
- B. Non-Ferrous Metal Galvanized / Aluminum:
  - 1. One Prime Coat: (If primer is required per product instruction)
    - a. BEHR PREMIUM PLUS Exterior Water-Based Primer & Sealer No. 436.
  - 2. Two finish coats:
    - a. BEHR PREMIUM PLUS ULTRA Exterior Paint.
- C. Wood Stain-Blocking / Tannin Bleed (i.e. Cedar and Redwood) Solid Color Staining (If primer is required per product instruction)
  - 1. One Prime Coat:
    - a. BEHR PREMIUM PLUS Exterior Water-Based Primer & Sealer No. 436.
- D. Wood Floors, Decks and Steps:
  - 1. One Prime Coat: (If primer is required per product instruction)
    - a. BEHR PREMIUM PLUS Exterior Water-Based Primer & Sealer No. 436.
  - 2. Two finish coats:
    - a. BEHR PREMIUM SOLID COLOR DECK, FENCE & SIDING

#### PART 3 EXECUTION

## 3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- C. Coordination of Work: Review other Sections in which primers are provided to ensure compatibility of the total system for various substrates. On request, furnish information on characteristics of finish materials to ensure use of compatible primers.
  - 1. Notify Architect about anticipated problems when using the materials specified over substrates primed by others.
  - 2. If a potential incompatibility of primers applied by others exists, obtain the

following from the primer Applicator before proceeding:

- a. Confirmation of primer's suitability for expected service conditions.
- b. Confirmation of primer's ability to be top coated with materials specified.

#### 3.2 PREPARATION

- A. General: Remove hardware and hardware accessories, plates, machined surfaces, lighting fixtures, and similar items already installed that are not to be painted. If removal is impractical or impossible because of size or weight of the item, provide surface-applied protection before surface preparation and painting.
  - 1. After completing painting operations in each space or area, reinstall items removed using workers skilled in the trades involved.
- B. Cleaning: Before applying paint or other surface treatments, clean substrates of substances that could impair bond of the various coatings. Remove oil and grease before cleaning.
  - 1. Schedule cleaning and painting so dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.
- C. Surface Preparation: Clean and prepare surfaces to be painted according to manufacturer's written instructions for each particular substrate condition and as specified.
  - 1. Provide barrier coats over incompatible primers or remove and reprime.
  - 2. Provide barrier coats over incompatible primers or remove primers and re-prime substrate.
  - 3. Cementitious Substrates: Prepare concrete, brick, concrete masonry block, and cement plaster surfaces to be coated. Remove efflorescence, chalk, dust, dirt, grease, oils, and release agents. Roughen as required to remove glaze. If hardeners or sealers have been used to improve curing, use mechanical methods to prepare surfaces.
    - a. Use abrasive blast-cleaning methods if recommended by coating manufacturer.
    - b. Determine alkalinity and moisture content of surfaces by performing appropriate tests. If surfaces are sufficiently alkaline to cause the finish paint to blister and burn, correct this condition before application. Do not coat surfaces if moisture content exceeds that permitted in manufacturer's written instructions.
  - 4. Wood Substrates: Clean surfaces of dirt, oil, and other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Smoothly sand surfaces exposed to view and dust off.
    - a. Scrape and clean small, dry, seasoned knots, and apply a thin coat of white shellac or other recommended knot sealer, before applying primer.
    - b. Immediately on delivery, prime edges, ends, faces, undersides, and backsides of wood to be coated.
    - c. After priming, fill holes and imperfections in the finish surfaces with putty or plastic wood filler. Sand smooth when dried.
    - d. Determine moisture content of surfaces by performing a moisture test.

Do not coat if moisture content exceeds 15 percent.

- 5. Ferrous-Metal Substrates: Clean ungalvanized ferrous-metal surfaces that have not been shop coated; remove oil, grease, dirt, loose mill scale, and other foreign substances. Use solvent or mechanical cleaning methods that comply with SSPC recommendations.
  - a. Blast-clean steel surfaces as recommended by coating manufacturer and according to SSPC-SP 10.
  - b. Treat bare and sandblasted or pickled clean metal with a metal treatment wash coat before priming.
  - c. Touch up bare areas and shop-applied prime coats that have been damaged. Wire brush, solvent clean, and touch up with same primer as the shop coat.
- 6. Nonferrous-Metal Substrates: Clean nonferrous and galvanized surfaces according to manufacturer's written instructions for the type of service, metal substrate, and application required.
  - a. Remove pretreatment from galvanized sheet metal fabricated from coil stock by mechanical methods.
- D. Material Preparation: Carefully mix and prepare coating materials according to manufacturer's written instructions.
  - 1. Maintain containers used in mixing and applying coatings in a clean condition, free of foreign materials and residue.
  - 2. Stir materials before applying to produce a mixture of uniform density. Stir as required during application. Do not stir surface film into the material. Remove film and, if necessary, strain coating material before using.
  - 3. Use only the type of thinners approved by manufacturer and only within recommended limits.
  - 4. Tinting: Tint each undercoat a lighter shade to simplify identification of each coat when multiple coats of same material are applied. Tint undercoats to match the color of the finish coat, but provide sufficient differences in shade of undercoats to distinguish each separate coat.

## 3.3 APPLICATION

- A. General: Apply paint according to manufacturer's written instructions. Use applicators and techniques best suited for substrate and type of material being applied.
- B. General: Apply high-performance coatings according to manufacturer's written instructions.
  - 1. Use applicators and techniques best suited for the material being applied.
  - 2. Do not apply high-performance coatings over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to forming a durable coating film.
  - 3. Coating surface treatments, and finishes are indicated in the coating system descriptions.
  - 4. Provide finish coats compatible with primers used.
  - 5. The term "exposed surfaces" includes areas visible when permanent or built-in fixtures, convector covers, grilles, covers for finned-tube radiation, and similar

- components are in place. Extend coatings in these areas, as required, to maintain system integrity and provide desired protection.
- C. Application Procedures: Apply coatings by brush, roller, spray, or other applicators according to manufacturer's written instructions.
  - 1. The number of coats and film thickness required is the same regardless of application method.
  - 2. Completed Work: Match approved Samples for color, texture, and coverage. Remove, refinish, or recoat work that does not comply with specified requirements.

## 3.4 FIELD QUALITY CONTROL

- A. Owner reserves the right to invoke the following test procedure at any time and as often as Owner deems necessary during the period when paint is being applied:
  - 1. Owner will engage a qualified independent testing agency to sample paint material being used. Samples of material delivered to Project will be taken, identified, sealed, and certified in the presence of Contractor.
  - 2. Owner may direct Contractor to stop painting if test results show material being used does not comply with specified requirements. Contractor shall remove non-complying paint from Project site, pay for testing, and repaint surfaces previously coated with the non-complying paint. If necessary, Contractor may be required to remove non-complying paint from previously painted surfaces if, on repainting with specified paint, the two coatings are incompatible.

#### 3.5 CLEANING

A. After completing painting, clean glass and paint-spattered surfaces. Remove spattered paint by washing and scraping without scratching or damaging adjacent finished surfaces.

## 3.6 PROTECTION

- A. Protect work of other trades, whether being painted or not, against damage from painting. Correct damage by cleaning, repairing or replacing, and repainting, as approved by Architect.
- B. Provide "Wet Paint" signs to protect newly painted finishes. After completing painting operations, remove temporary protective wrappings provided by others to protect their work.
- C. After work of other trades is complete, touch up and restore damaged or defaced painted surfaces.

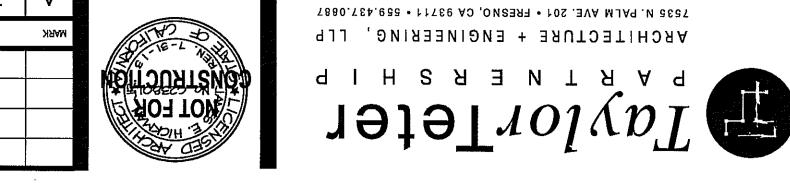
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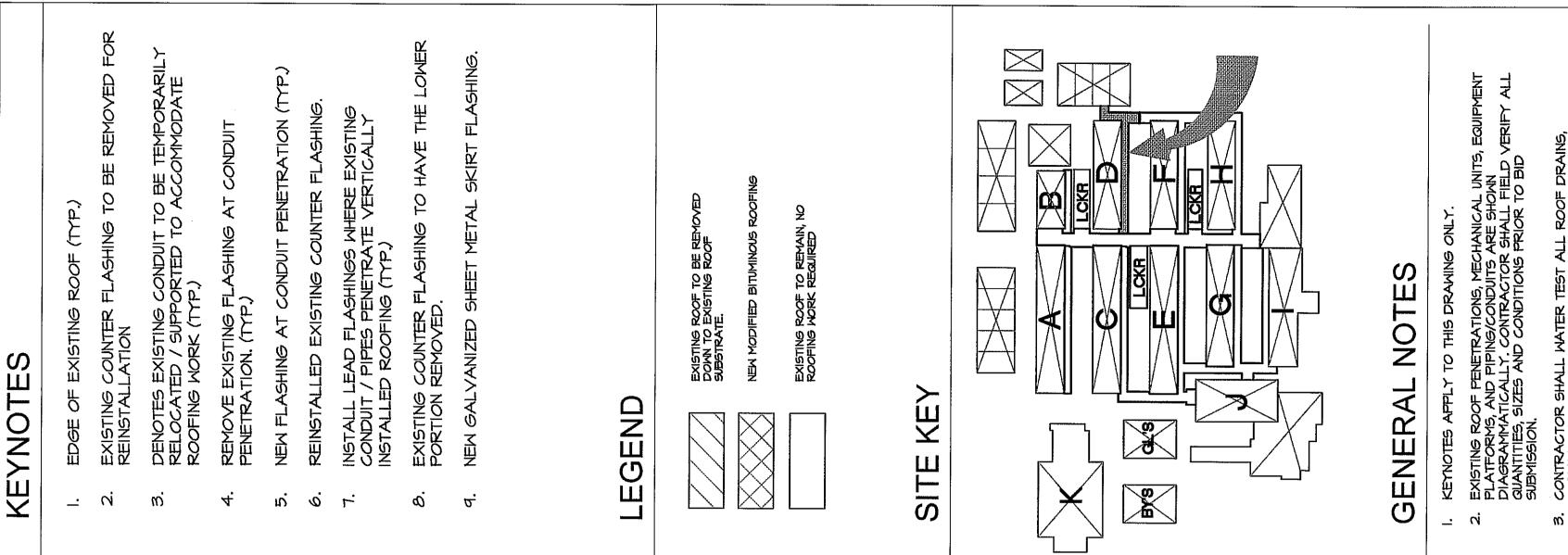
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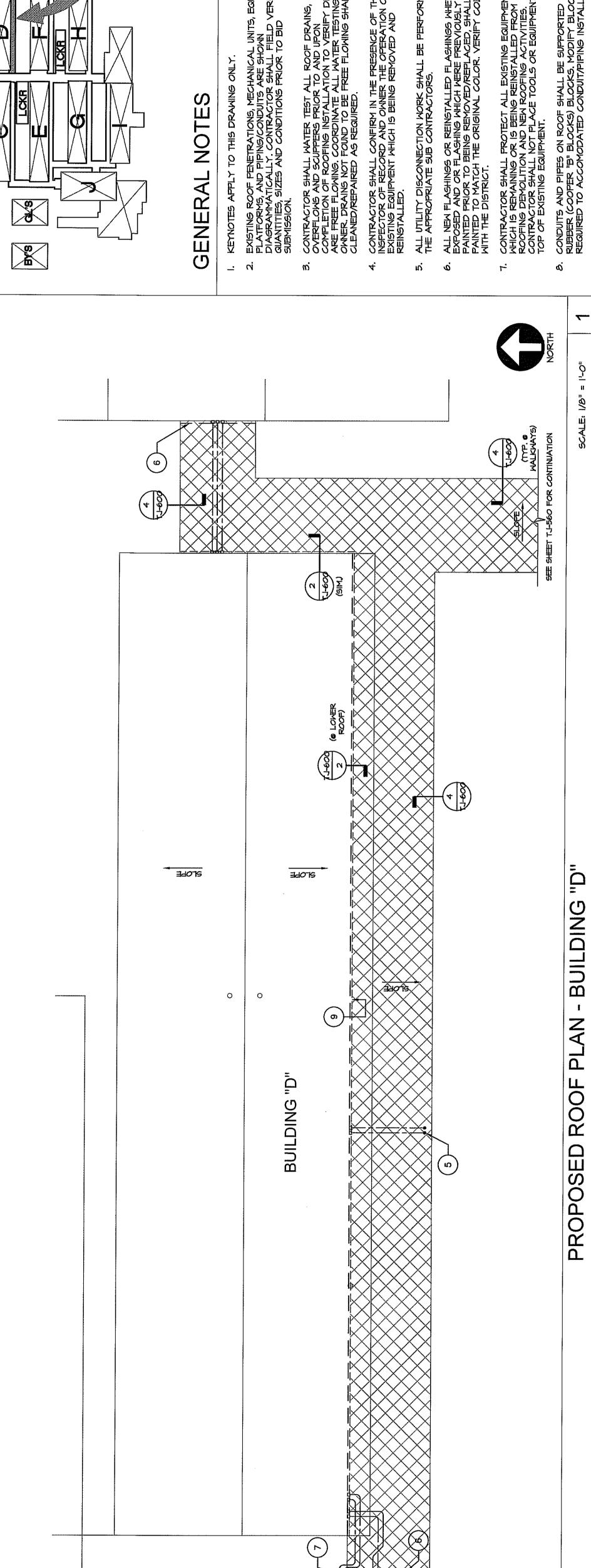
125 S. BRIDGE ST. 150. VISALIA, CA 93291. 559.625.5246 7535 N. PALM AVE. 201 • FRESNO, CA 93711 • 559.437.0887 ARCHITECTURE + ENGINEERING,

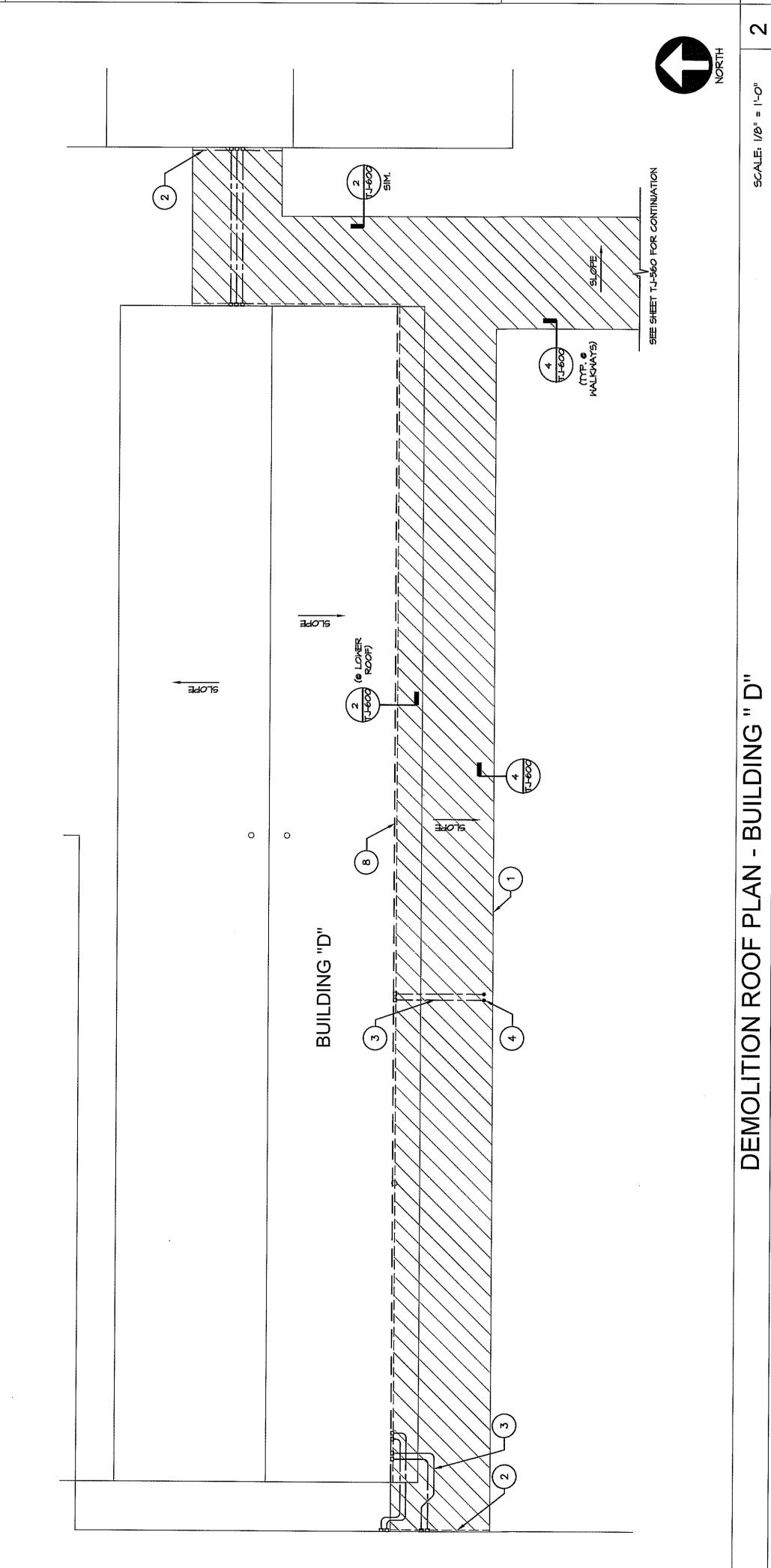


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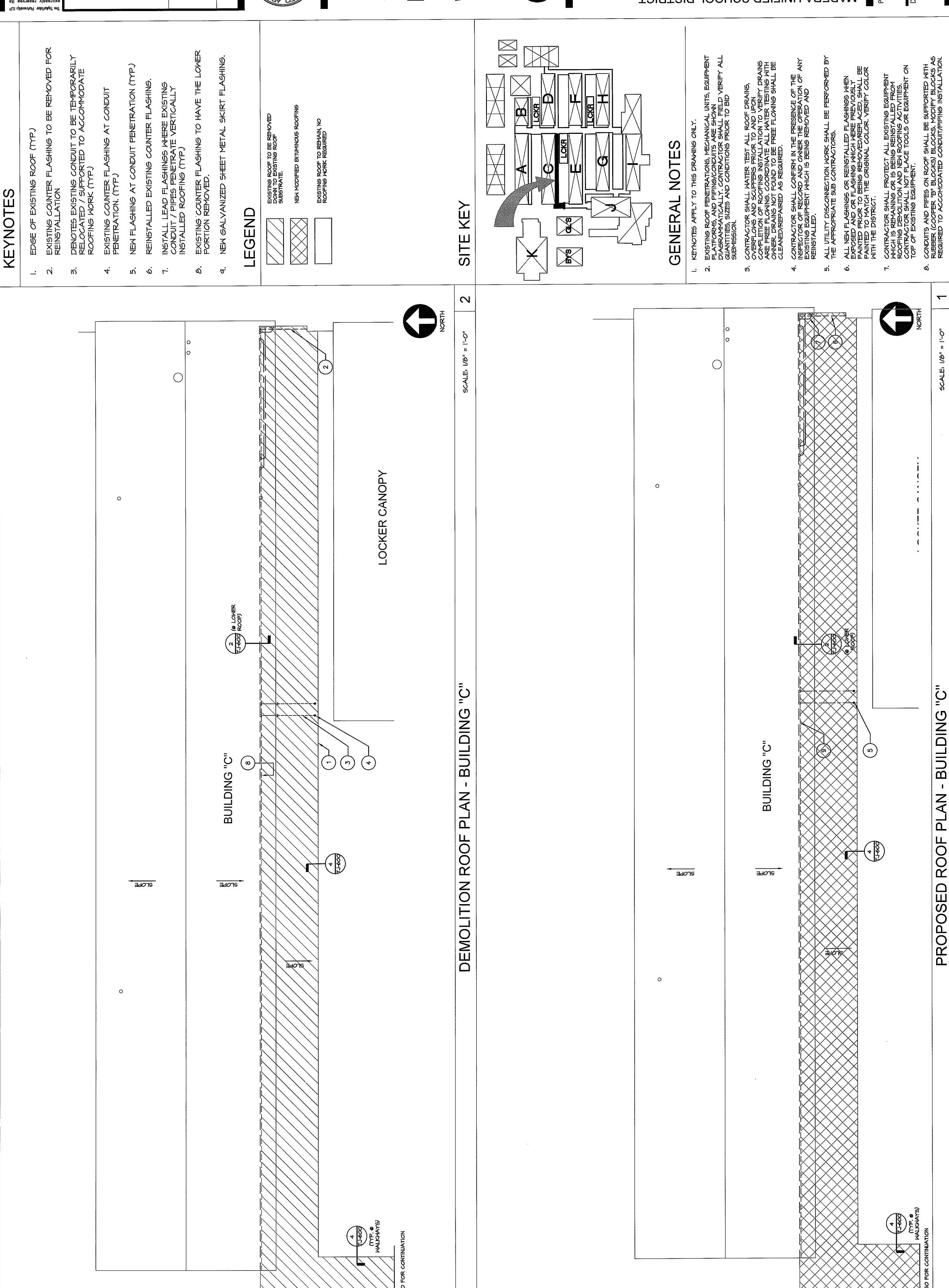
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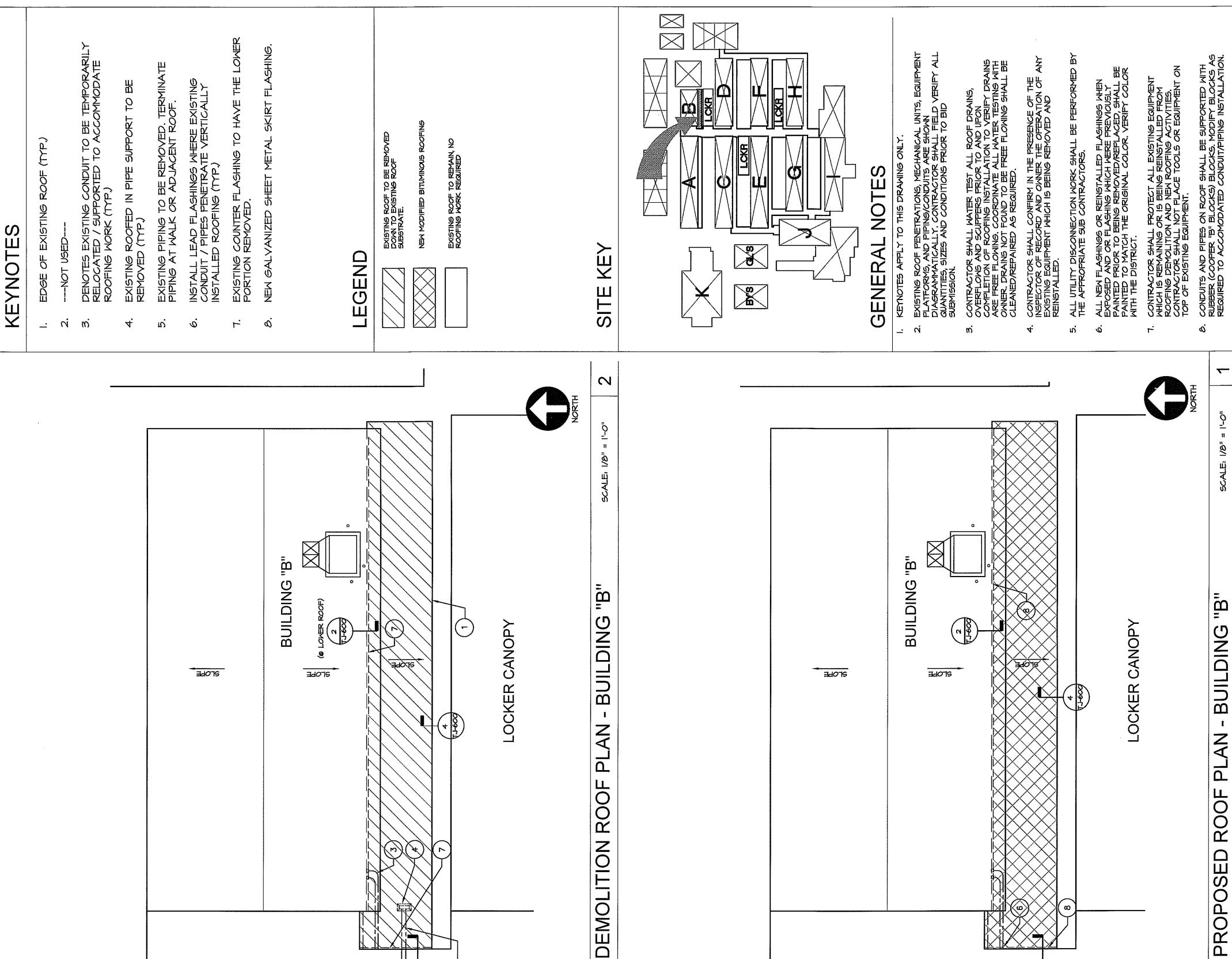
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125 S. BRIDGE ST. 150. VISALIA, CA 93291. 559.625.5246

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EXISTING MECHANICAL EQUIPMENT TO BE REMONFOR REINSTALLATION. DISCONNECT EXISTING DU MORK. EXISTING MECHANICAL UNIT SUPPORT TO BE REMOVED.

EXISTING COUNTER FLASHING TO BE REMOVED REINSTALLATION.

CLEAN WALL OF ROOFING MATERIAL CAULKING.

REINSTALLED EXISTING COUNTER FLASHING

NEW SURFACE MOUNTING CAULK TOP EDGE OF CC

EXISTING VENT PENETRATION TO REMAIN (TYP.)

DENOTES EXISTING SURFACE MOUNTING COUNTER FLASHING TO BE REMOVED (TYP.)

EDGE OF EXISTING ROOF (TYP.)

KEYNOTES

DESCRIPTION

NEM LEAD FLASHING AND CAP AT EXISTING VENT PIPE (TYP.)

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TEMPORARILY SUPPORT / RELOCATE DATA CONDUIT / JUNCTION BOX TO ACCOMMODATE ROOFING WORK. LEGEND  $\overline{\omega}$ 

EXISTING ROOF TO BE REMOVED DOWN TO EXISTING ROOF SUBSTRATE.

EXISTING ROOF TO REMAIN, NO ROOFING WORK REQUIRED

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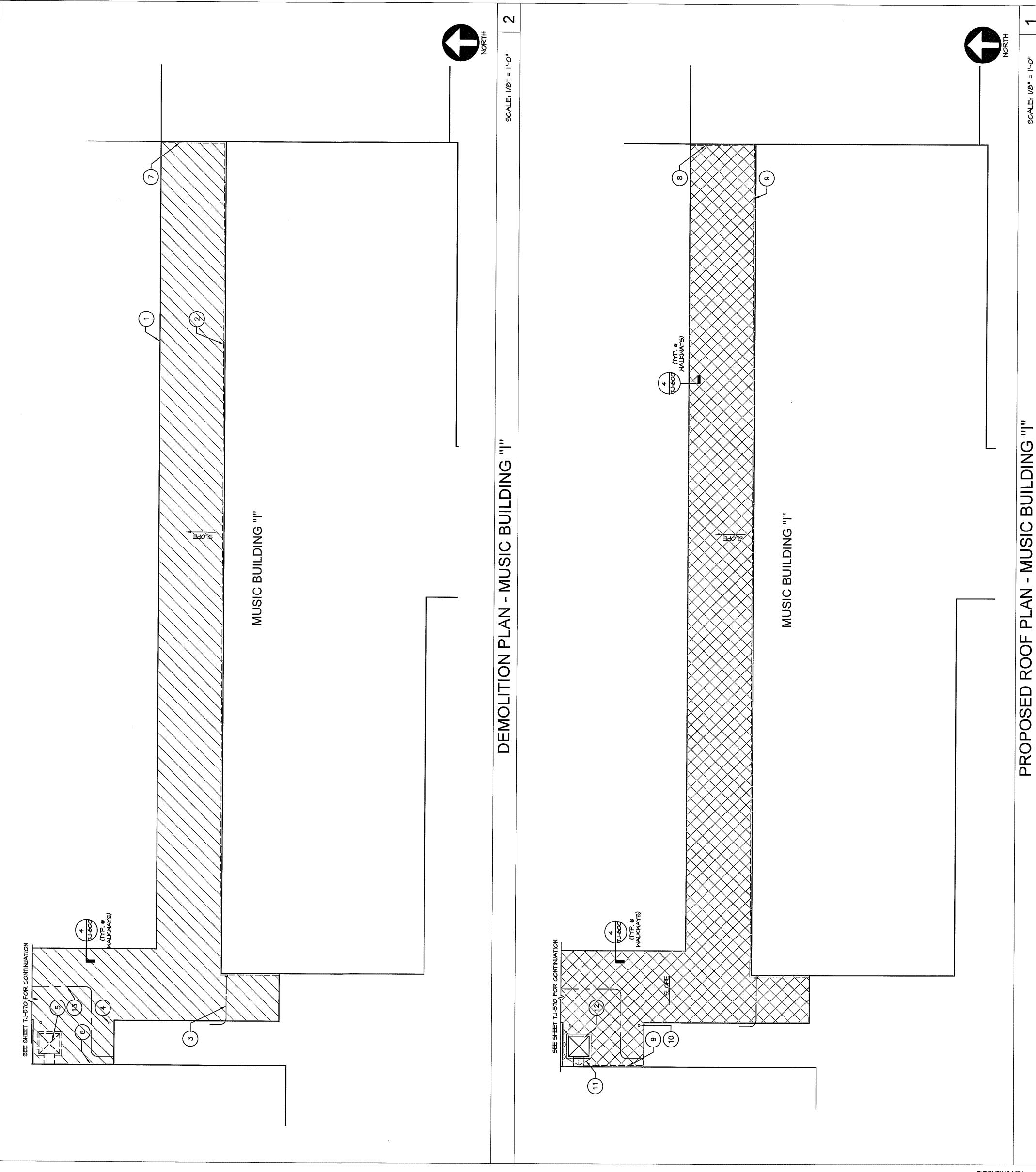
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PLOT DATE: IO/2/12



THOMAS JEFFERSON MIDDLE SCHOOL SITE PLAN

**DRAWINGTITLE:** 

MADERA, CALIFORNIA MADERA UNIFIED SCHOOL DISTRICT REROOFING PROJECTS AT VARIOUS DISTRICT SITES

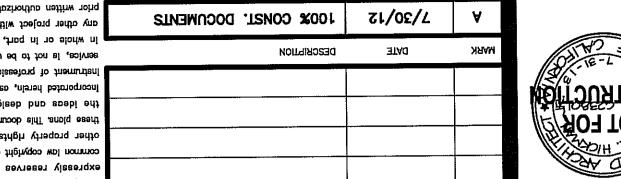
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LEGEND

ARCHITECTURE + ENGINEERING, LLP TajaTvolvnT et er s H I H E R S H I P





KEYNOTES

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SCHOOL

PLAN - THOMAS JEFFERSON MIDDLE

SCALE: 3" = 1'-0"

THOMAS JEFFERSON DETAILS

125 S. BRIDGE ST. 150. VISALIA, CA 93291. 559.625.5246 7535 N. PALM AVE. 201 • FRESNO, CA 93711 • 559.437.0887 ARCHITECTURE + ENGINEERING,

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MADERA, CALIFORNIA MADERA UNIFIED SCHOOL DISTRICT REROOFING PROJECTS AT VARIOUS DISTRICT SITES

4 3 2 TERMINATION BAR AND SEALANT TAPE NEW CONT. CAN' STRIP -EXISTING ROOF SUBSTRATE NEW BASE PLY  $\bar{m}$ -NEW CONT. CANT STRIP m  $\bar{m}$ SCALE SCALE HOTAM 8'TSIX3 NEM MODIFIED BITUMINO ROOFING SYSTEM. **PROPOSED** PROPOSED NEM CAULKING OVER EXISTING CAULKING ֡֟֟֟ ֖֖֡ PROPOSED PROPOSED **BLD'G** FLASHING FLASHING  $\Box$ EXISTING ROL TO REMAIN BASE BASE EXIST'G STRUCTURE/SUBSTRATE TO REMAIN **DEMOLITION** ROOF EDGE DETAIL LOWER ROOF WALL DEMOLITION DEMOLITION EXISTING GALVANIZED SHEET METAL FLASHIN TO REMAIN, REMOVE LOWER DASHED PORTI EXISTING ROOFING ANI INSULATION TO BE REMOVED DOWN TO SUBSTRATE EXISTING ROOFING CANT AND INSULATO BE REMOVED TO ROOF SUBSTR س ∓ ا EXISTING ROOFING TO E REMOVED, SHOWN DASH EXISTING CAULKING 1 REMAIN EXISTING CANT STRIP TO BE REMOVED DEMOLITION LOWER ROOF WALI EXISTING FLASHING TO-REMAIN STEPPED ROOF EXISTING ROOFING — CANT AND INSULATION TO BE REMOVED  $\times$  $\times$  $\times$ 2 3 \\Zu XXXXXX XXXXXX ROOF EDGE DETAIL XXXXXX XXXXXX XXXXXX XXXXXX NEM MODIFIED BITUMINOUS MEMBRANE ROOFING EXISTING ROOF SUBSTRATE TO REMAIN NEW TAPERED INSULATION STRIP AT EDGE OF ROOF (TYP.) NEW INSULATION-UNDERLAYMENT ×  $\times$ × XXXXXX XXXXXX

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125 S. BRIDGE ST. 150. VISALIA, CA 93291. 559.625.5246

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EXISTING PIPE / CONDUIT PENETRATION TO REMAIN. REMOVE EXISTING PIPE/CONDUIT FLASHING. NEW VENT PIPE FLASHING AT EXISTING VENT PIPE INSTALL NEW 4" GALVANIZED SKIRT FLASHING AT EXISTING GRAVITY VENT AND EVAP. COOLER CURB/FLASHING. ATTACH AT 8" O.C. W/ GROMMETED FASTENERS. TERMINATE NEW ROOFINAT CURB WITH TERMINATION BAR. EXISTING GUTTER TO BE CLEANED AND SEALED AT UPPER ROOF EDGE: NEW I-1/2" GALVANIZED EDGE FLASHING TO MATCH EXISTING (TYP. AT ENTIRE PERIMETER OF UPPER ROOF) LINE OF WALL AT LOWER ROOF SHOWN DASHED EXISTING GRAVITY VENT, EVAP. COOLER AND CURBS TO REMAIN. CONDUITS AND PIPES ON ROOF SHALL BE SUPPORTED WITH RUBBER (COOPER "B" BLOCKS) BLOCKS. MODIFY BLOCKS AS REQUIRED TO ACCOMODATED CONDUIT/PIPING INSTALLATION. CONTRACTOR SHALL CONFIRM IN THE PRESENCE OF THE INSPECTOR OF RECORD AND OWNER THE OPERATION OF ANY EXISTING EQUIPMENT WHICH IS BEING REMOVED AND REINSTALLED. EXISTING EXHAUST FAN TO BE REMOVED FOR REINSTALLATION. AT UPPER ROOF EDGE: REMOVE UPPER (TOP) MOST COUNTER FLASHING (TYP. AT ENTIRE PERIMETER OF UPPER ROOF) DENOTES EXISTING SURFACE MOUNTED WALL COUNTER FLASHING TO BE REMOVED. DENOTES NEW SURFACE MOUNTED WALL FLA (FRY-REGLET, "SM" SPRINGLOK MODEL WITH FACTORY PRE-FABRICATED CORNERS) SEA EDGE OF FLASHING. NEM FLASHING AT EXISTING PIPE/CONDUIT PENETRATION. ALL UTILITY DISCONNECTION WORK SHALL BE PERFORN THE APPROPRIATE SUB CONTRACTORS. EXISTING EXHAUST VENT FLASHING TO REMOVED. VENT FLASHING TO MATCH EXISTING EXISTING ROOF TO BE REMOVED DOWN TO EXISTING ROOF SUBSTRATE. KEYNOTES APPLY TO THIS DRAWING ONLY. EXISTING ROOF TO REMAIN, NO ROOFING WORK REQUIRED EXISTING VENT PIPE FLASHING EXISTING GUTTER TO REMAIN **GENERAL NOTES** LINE UPPER ROOF ABOVE. KEYNOTES EGEND vi wi 4. 'n. <u>0</u> ø. <u>4</u>.  $\overline{w}$ <u>n</u>.  $\overline{a}$ w. iV. Ġ 2  $\overline{\phantom{a}}$ SCALE: 1/8" HUOTS ∃d07S ∃do7s SLOPE **GYMNASIUM GYMNASIUM** PLAN ſ **DEMOLITION PLAN** POSED ROOF

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MADERA UNIFIED SCHOOL DISTRICT REROOFING PROJECTS AT VARIOUS DISTRICT SITES

125 S. BRIDGE ST. 150. VISALIA, CA 93291. 559.625.5246 7535 N. PALM AVE. 201 • FRESNO, CA 93711 • 559.437.0887 1919TVOIVDT





7/30/12

**DATE** 

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NEW FLASHING AT CONDUIT PENETRATION (TYP.)

REINSTALLED EXISTING

EXISTING LIGHT SUPPORT. REMOVED EXISTING ROOFING AND SHEET METAL CAP ON TOP OF SUPPORT BLOCKS. TEMPORARILY SUPPORT I SUPPORT DURING ROOFING WORK. (TYP.)

EXISTING COUNTER FLASHING TO BE REMOVED FOR REINSTALLATION

EDGE OF EXISTING

DENOTES EXISTING CC RELOCATED / SUPPOR ROOFING MORK (TYP.)

REMOVE EXISTING FL PENETRATION. (TYP.)

EXISTING COUNTER FLASHING TO HAVE THE LOWER PORTION REMOVED. (TYP.)

NEW GALVANIZED SHEET METAL SKIRT FLA

EXISTING ROOF TO BE REMOVED DOWN TO EXISTING ROOF SUBSTRATE. LEGEND

EXISTING ROOF TO REMAIN, NO ROOFING WORK REQUIRED

SITE KEY

KEYNOTES APPLY TO THIS DRAWING ONLY. GENERAL NOTES

EXISTING ROOF PENETRATIONS, MECHANICAL UNITS, EQUIPY PLATFORMS, AND PIPING/CONDUITS ARE SHOWN DIAGRAMMATICALLY. CONTRACTOR SHALL FIELD VERIFY QUANTITIES, SIZES AND CONDITIONS PRIOR TO BID SUBMISSION.

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BUILDING "H"

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ALL UTILITY DISCONNECTION WORK SHALL BE PERF THE APPROPRIATE SUB CONTRACTORS. 4. Ó

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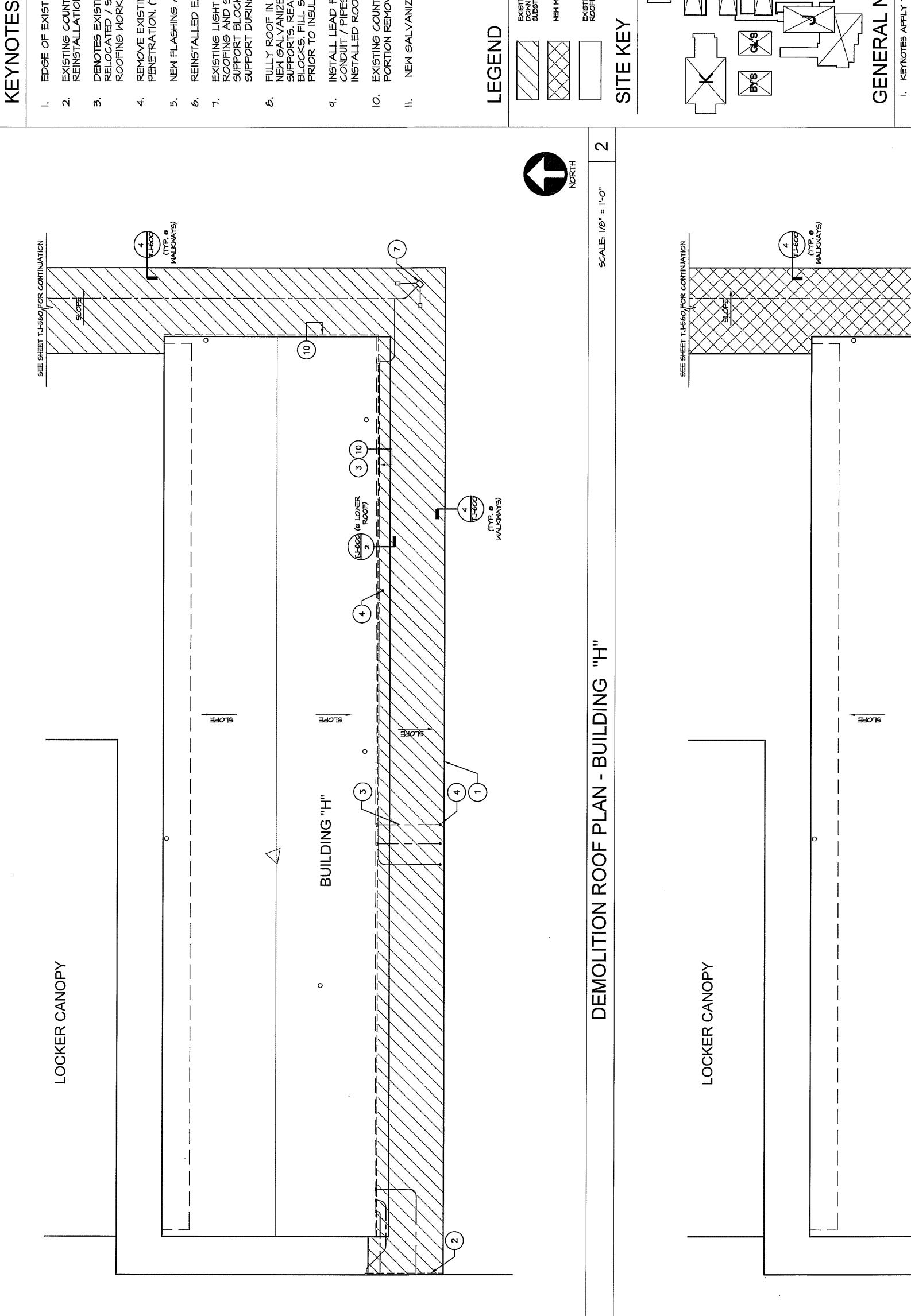
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- BUILDING

PROPOSED ROOF PLAN

PLOT DATE: IO/2/12



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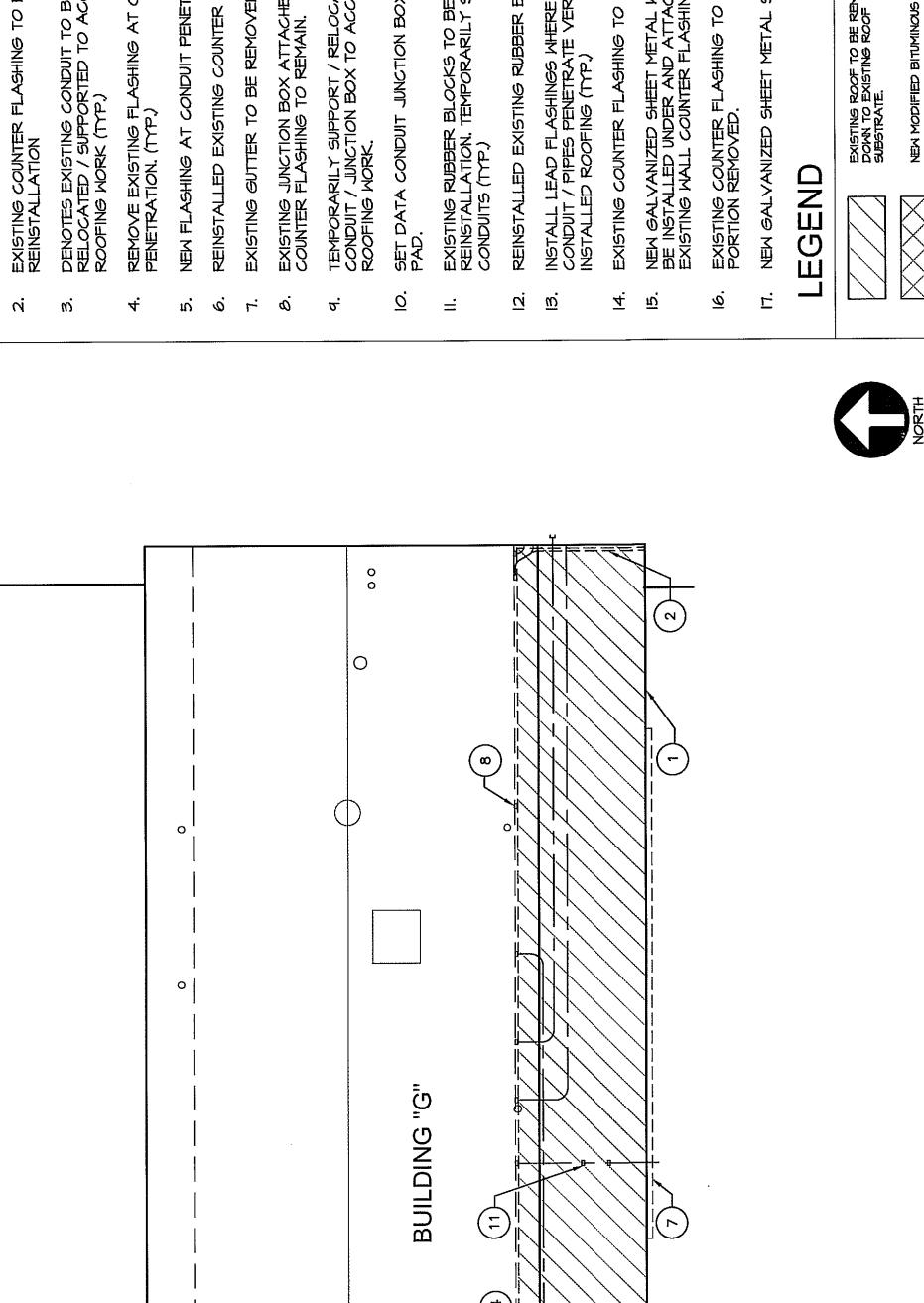
MADERA, CALIFORNIA MADERA UNIFIED SCHOOL DISTRICT REROOFING PROJECTS AT VARIOUS DISTRICT SITES

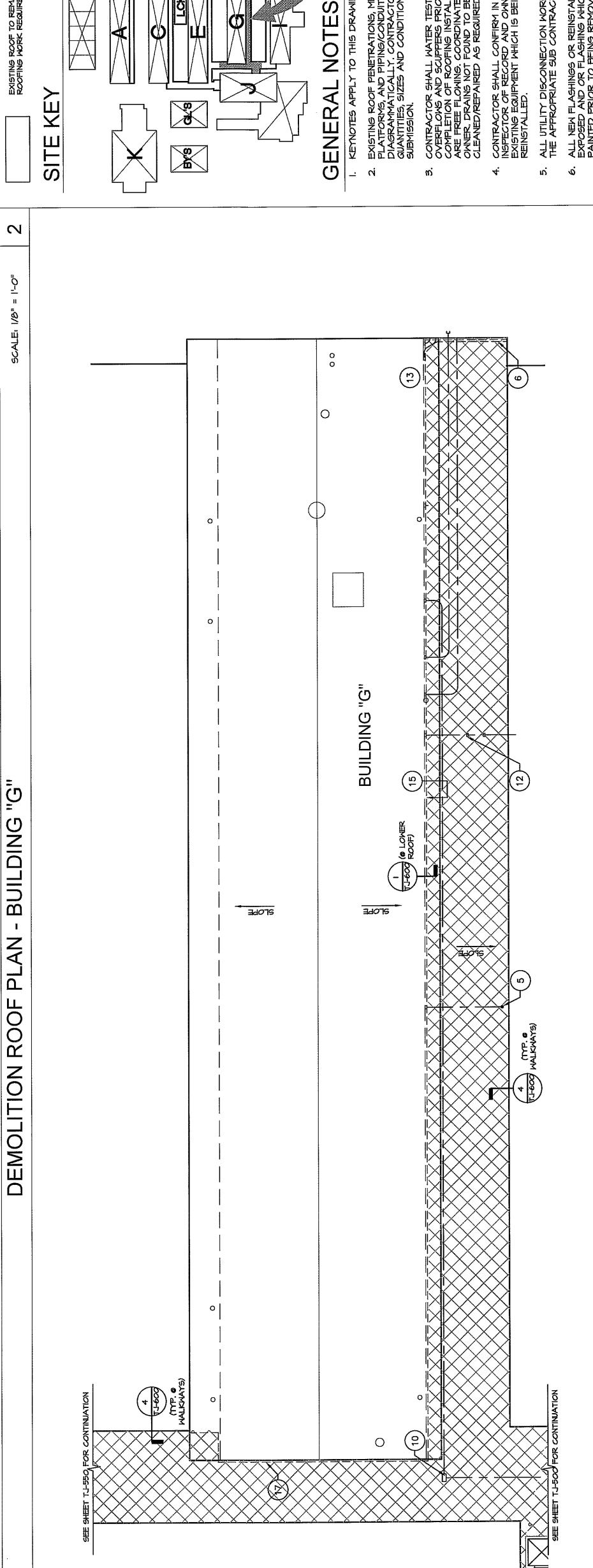
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EXISTING ROOF TO REMAIN, NO ROOFING WORK REQUIRED



X	KEYNOTES
<u> </u>	EDGE OF EXISTING ROOF (TYP.)
ri.	EXISTING COUNTER FLASHING TO BE REMOVED FOR REINSTALLATION
w <sub>i</sub>	DENOTES EXISTING CONDUIT TO BE TEMPORARILY RELOCATED / SUPPORTED TO ACCOMMODATE ROOFING MORK (TYP.)
4.	REMOVE EXISTING FLASHING AT CONDUIT PENETRATION. (TYP.)
īŲ.	NEW FLASHING AT CONDUIT PENETRATION (TYP.)
ø.	REINSTALLED EXISTING COUNTER FLASHING.
۲	EXISTING GUTTER TO BE REMOVED.
ø.	EXISTING JUNCTION BOX ATTACHED TO EXISTING COUNTER FLASHING TO REMAIN.
<u>a.</u>	TEMPORARILY SUPPORT / RELOCATE DATA CONDUIT / JUNCTION BOX TO ACCOMMODATE ROOFING MORK.
<u>o</u>	SET DATA CONDUIT JUNCTION BOX ON WALK WAY PAD.
<u>-</u>	EXISTING RUBBER BLOCKS TO BE REMOVED FOR REINSTALLATION. TEMPORARILY SUPPORT CONDUITS (TYP.)
<u>7</u>	REINSTALLED EXISTING RUBBER BLOCKS. (TYP.)
<u>m</u> ;	INSTALL LEAD FLASHINGS WHERE EXISTING CONDUIT / PIPES PENETRATE VERTICALLY INSTALLED ROOFING (TYP.)
<u>4</u> .	EXISTING COUNTER FLASHING TO REMAIN.
<u>ಸ್</u>	NEW GALVANIZED SHEET METAL WALL FLASHING TO BE INSTALLED UNDER AND ATTACHED TO THE EXISTING WALL COUNTER FLASHING.
<u>ø</u>	EXISTING COUNTER FLASHING TO HAVE THE LOWER





BUILDING "G"

PROPOSED ROOF PLAN

TJ-560

PROJECT NO.

THOMAS JEFFERSON MIDDLE SCHOOL KOOF PLANS - BUILDING F

**DRAWINGTITLE:** 

MADERA, CALIFORNIA MADERA UNIFIED SCHOOL DISTRICT REROOFING PROJECTS AT VARIOUS DISTRICT SITES

125 S. BRIDGE ST. 150. VISALIA, CA 93291. 559.625.5246 1232 N. PALM AVE. 201 • FRESNO, CA 93711 • 559.437.0887

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TO HAVE THE LOWER NEW FLASHING AT CONDUIT PENETRATION (TYP.) REINSTALLED EXISTING COUNTER FLASHING REMOVE EXISTING FLASHING AT CONDUIT PENETRATION. (TYP.) KEYNOTES APPLY TO THIS DRAWING ONLY. EXISTING ROOF TO REMAIN, NO ROOFING WORK REQUIRED EXISTING COUNTER FLASHING PORTION REMOVED. NEW MODIFIED BITUMINOUS EXISTING ROOF TO BE REI DOWN TO EXISTING ROOF SUBSTRATE. GENERAL NOTES EDGE OF EXISTING NEW GALVANIZED KEYNOTES ΚEΥ LEGEND SITE <u>o</u> ᢐ 9 F 4. m $\dot{w}$ =2

