

## NOTICE TO BIDDERS

Notice is hereby given that Tulare City School District (hereinafter referred to as "Owner") will receive sealed bids prior to the date and time stated for the Bid Opening for the award of the Contract to construct:

### *ROOF INSTALLATION AT VARIOUS SITES*

As per drawings and specifications which may now be obtained electronically from the District

The lowest bid shall be determined on the amount of the base bid.

This Contract is not subject to prequalification pursuant to Public Contract Code section 20111.6.

Public works projects shall be subject to compliance monitoring and enforcement by the Department of Industrial Relations. For all projects over Twenty-Five Thousand Dollars (\$25,000), a contractor or subcontractor shall not be qualified to submit a bid or to be listed in a bid proposal subject to the requirements of Public Contract Code section 4104 unless currently registered and qualified under Labor Code section 1725.5 to perform public work as defined by Division 2, Part 7, Chapter 1 (§§ 1720 et seq.) of the Labor Code. For all projects over Twenty-Five Thousand Dollars (\$25,000), a contractor or subcontractor shall not be qualified to enter into, or engage in the performance of, any contract of public work (as defined by Division 2, Part 7, Chapter 1 (§§ 1720 et seq.) of the Labor Code) unless currently registered and qualified under Labor Code section 1725.5 to perform public work.

Bids must be sealed and filed in the Business Office of the Owner at 600 N. Cherry Street, Tulare, CA, 93274 by June 4, 2019 before 1:15 p.m. on the clock designated by the Owner or its representative as the bid clock, after which time bids will be opened. No bid will be accepted by Owner after this time. Facsimile (FAX) copies of the bid will not be accepted.

A **mandatory** pre-bid job walk will be held on May 8, 2019, at 9:00 a.m. at Tulare City School District Office, 600 N. Cherry Street, Tulare, CA. Bidders not attending the entire job walk will result in the bid being rejected and disqualified.

Bids must be accompanied by a bidder's bond, cashier's check, or certified check for at least ten percent (10%) of the amount of the base bid and made payable to the Owner.

Pursuant to the Contract Documents, the successful bidder will be required to furnish a Payment (Labor and Material) Bond in the amount of one hundred percent (100%) of the Contract Sum, and a Faithful Performance Bond in the amount of one hundred percent (100%) of the Contract Sum, as set forth in the Contract Documents.

The successful bidder will be allowed to substitute securities or establish an escrow in lieu of retainage, pursuant to Public Contract Code Section 22300, and as described in the Agreement Between Owner and Contractor and General Conditions.

The Owner will not consider or accept any bids from contractors who are not licensed to do business in the State of California, in accordance with the California Public Contract Code, providing for the licensing of contractors. In accordance with Section 3300 of said Code, the bidder shall have a Class "C-2" license and shall maintain that license in good standing through Contract completion and all applicable warranty periods. For all projects over Twenty-five Thousand Dollars (\$25,000), bidder shall state the public works contractor registration number on the Designation of Subcontractors form for each subcontractor performing more than one-half of one percent (0.5%) of the bidder's total bid.

The Director of Industrial Relations of the State of California, in the manner provided by law, has ascertained the general prevailing rate of per diem wages and rate for legal holidays and overtime works. The Contractor must pay for any labor therein described or classified in an amount not less than the rates specified. Copies of the required rates are on file at the Owner's business office and are available on request.

March 12, 2019

By order of the Board of Trustees  
Of Tulare City School District

By: Joyce Nunes  
Assistant Supt. of Business Services/Psych Services

Advertise:   Friday, April 19, 2019  
                  Friday, April 26, 2019

## **INSTRUCTIONS TO BIDDERS**

### ***ROOF INSTALLATION AT VARIOUS SITES***

#### **SECURING DOCUMENTS:**

Drawings and Specifications are available electronically from the District at: Tulare City School District, Attn: Annette Borges, 600 N. Cherry Street, Tulare, CA 93274 (559) 685-7380.

This Contract is not subject to prequalification.

The Owner will withhold retention of 5% from all progress payments.

#### **REGISTRATION:**

For all projects over Twenty-Five Thousand Dollars (\$25,000), the Owner shall not accept any bid or enter into any contract without proof of the bidder's current registration to perform public work under Labor Code section 1725.5.

For all projects over Twenty-five Thousand Dollars (\$25,000), the bidder shall not accept any sub-bid or enter into any subcontract without proof of the subcontractor's current registration to perform public work under Labor Code section 1725.5.

#### **BIDS:**

Bids to receive consideration shall be made in accordance with the following instructions:

1. Bids shall be made on a form therefor, obtained from the Owner. Bids not made on the proper form shall be disregarded. Numbers must be stated in words and figures, and the signatures of all individuals must be in longhand.
2. No bid will be considered which makes exceptions, changes, or in any manner makes reservations to the terms of the drawings or specifications. If prequalification is required for this Contract, no bid will be accepted from a contractor that has not been prequalified.
3. Questions regarding documents, discrepancies, omissions, or doubt as to meanings shall be referred immediately to the Architect who will send written instructions clarifying such questions to each bidder. Oral responses will not be binding on the Owner or Architect or any Construction Manager.
4. Each bid must give the full business address of the bidder and be signed by bidder with bidder's usual signature. Bids by partnerships must furnish the full name of all partners and must be signed in the partnership name by a general partner with authority to bind the partnership in such matters, followed by the signature and designation of the person signing. The name of the person signing shall also be typed or printed below the signature. Bids by corporations must be signed with the legal name of the corporation, followed by the name of the state of incorporation and by the signature and designation of the chairman of the board, president or any vice president, and then followed by a second signature by the secretary, assistant secretary, the chief financial officer or

assistant treasurer. All persons signing must be authorized to bind the corporation in the matter. The name of each person signing shall also be typed or printed below the signature. Satisfactory evidence of the authority of the officer signing on behalf of a corporation shall be furnished.

5. Pursuant to the provisions of Sections 4100 to 4114, inclusive, of the Public Contract Code of the State of California, which are hereby incorporated and made a part hereof and these Instructions to Bidders, every bidder shall set forth in its bid (using the Owner's form for Designation of Subcontractors:
  - A. The name and location of the place of business, the California contractor license number, and for all projects over Twenty-Five Thousand Dollars (\$25,000), the public works contractor registration number, of each subcontractor who will perform work or labor or render service to the bidder in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the bidder, specially fabricates and installs a portion of the Work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half ( $\frac{1}{2}$ ) of one percent (1%) of the bidder's total bid. An inadvertent error in listing a California contractor's license number shall not be grounds for filing a bid protest or for considering the bid nonresponsive if the bidder submits the corrected contractor's license number to the Owner within 24 hours after the bid opening, or any continuation thereof, so long as the corrected contractor's license number corresponds to the submitted name and location for that subcontractor.
  - B. The portion of the Work which will be done by each such subcontractor. If the bidder fails to specify a subcontractor for any portion of the Work to be performed under the Contract in excess of one-half ( $\frac{1}{2}$ ) of one percent (1%) of the bidder's total bid, the bidder agrees to perform that portion itself. The successful bidder shall not, without the consent of the Owner:
    - 1) Substitute any person as subcontractor in place of the subcontractor designated in the original bid.
    - 2) Permit any subcontract to be assigned or transferred or allow it to be performed by anyone other than the original subcontractor listed in the bid.
    - 3) Sublet or subcontract any portion of the Work in excess of one-half ( $\frac{1}{2}$ ) of one percent (1%) of the total bid as to which the original bid did not designate a subcontractor.
6. The Director of Industrial Relations of the State of California, in the manner provided by law, has ascertained the general prevailing rate of per diem wages and the rate for legal holidays and overtime works. The Contractor must pay for any labor therein described or classified in an amount not less than the rates specified.

7. All bids must be accompanied by a completed Non-Collusion Declaration and Sufficient Funds Declaration (Labor Code § 2810). All bids must be accompanied by an executed Fingerprinting Notice and Acknowledgment; Iran Contracting Act Certification, if required by law (see form); Workers' Compensation certification; Contractor Questionnaire, if required (see paragraph 13; and DVBE Certification of Participation and Good Faith Worksheet, if DVBE is required (see paragraph 10).
8. Bids must be accompanied by a certified check, cashier's check, or bidder's bond, for an amount not less than ten percent (10%) of the amount of the base bid, made payable to the order of the Owner. If a bidder's bond accompanies the bid, said bond shall be secured by an Admitted Surety (an insurance organization authorized by the Insurance Commissioner to transact business of insurance in the State of California during this calendar year). The surety insurer must, unless otherwise agreed to by Owner in writing, at the time of issuance of the bond, have a rating not lower than "A-" as rated by A.M. Best Company, Inc. or other independent rating companies. Owner reserves the right to approve or reject the surety insurer selected by Contractor and to require Contractor to obtain a bond from a surety insurer satisfactory to the Owner. Said check or bond shall be given as a guarantee that the bidder will enter into the Contract if awarded the Work, and in case of refusal or failure to enter into said Contract, the check or bond, as the case may be, shall be payable to the Owner and retained as liquidated damages.
9. Bids shall be sealed and filed as indicated in the Notice to Bidders. Irrespective of how a bidder chooses to deliver the bid and other documents to the Owner, the bidder is responsible for ensuring that the bid and other documents are actually received at the location designated in the Contract Documents for receipt of the bid and other documents prior to the time for the bid opening. Bids and other documents for any reason not actually received at the designated location prior to the time for the bid opening shall not be opened or considered.
10. **THIS CONTRACT IS NOT SUBJECT TO THE DVBE REQUIREMENTS OF EDUCATION CODE SECTION 17076.11.**
11. Contractor shall maintain its license in good standing through Completion of the Work and all applicable warranty periods. Owner reserves the right to reject any bid as nonresponsive if bidder or any subcontractor is not licensed in good standing from the time the bid is submitted to Owner up to award of the Contract, whether or not the bidder listed the subcontractor inadvertently, or if a listed subcontractor's license is suspended or expires prior to award of the Contract. Owner also reserves the right the reject any bid as nonresponsive if a listed subcontractor's license is not in good standing to perform the work for which it is listed from the time of submission of the bidder's bid to award of the Contract.
12. The Owner reserves the right to waive any irregularity and to reject any or all bids.
13. No Contractor Questionnaire is required to be submitted with a bid on this Contract.

14. To summarize, each bid for the Contract must include the following documents:

- a. Bid form
- b. Bid security
- c. Designation of Subcontractors
- d. Non-Collusion Declaration
- e. Sufficient Funds Declaration
- f. Fingerprinting Notice and Acknowledgement
- g. Workers' Compensation Certification
- h. DIR Registration Number
- i. Roof Project Certificate

**WITHDRAWAL OF BIDS:**

Bids may be withdrawn by bidders prior to the time fixed for the submittal of bids or any authorized postponement thereof. A successful bidder shall not be relieved of the bid unless by consent of the Owner or bidder's recourse to Public Contract Code §5100 et seq.

Unless otherwise required by law, no bidder may withdraw its bid for a period of sixty (60) days after the date set for the opening thereof or any extension thereof. The owner reserves the right to take more than sixty (60) days to make a decision regarding rejection of the bid or award of the Contract.

**OPENING OF BIDS:**

Opening of bids shall be as soon after the hour set as will be possible; opening and declaration to be as set forth in the Notice to Bidders. Any and all bidders will be permitted to attend.

**EXAMINATION OF CONTRACT DOCUMENTS AND SITE:**

Before submitting a bid, bidders shall examine the drawings, read the specifications, the form of Agreement between Contractor and Owner, and the other Contract Documents. Bidders shall visit the site of the proposed Work; examine the building, or buildings, if any, and any work that may have been done thereon. Bidders shall fully inform themselves of all conditions, in, at, and about the site, the building or buildings, if any, and any work that may have been done thereon.

Pursuant to Public Contract Code section 1104: 1) bidders shall not be required to assume responsibility for the completeness and accuracy of architectural or engineering plans and specifications, except on clearly designated design build projects; 2) however, bidders shall be required to review architectural or engineering plans and specifications prior to submission of their bids and to report any errors and omissions to the Architect or Owner; and 3) the review shall be confined to the bidder's capacity as a bidder and not as a licensed design professional.

**FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR:**

The form of Agreement between Owner and Contractor which the successful bidder will be required to execute, if awarded the Work, is a part of this Bid Package.

**ADDENDA OR BULLETINS:**

Any addenda or bulletins, issued during the time of bidding, shall form a part of the drawings and specifications loaned to the bidder for the preparation of its bid, shall be covered in the bid, and shall be made a part of the Contract Documents. All addenda or bulletins shall be signed by the Architect and approved by the Division of State Architect.

**EVIDENCE OF RESPONSIBILITY:**

Upon the request of Owner, a bidder shall submit promptly to the Owner or its designee satisfactory evidence showing the bidder's financial resources, the bidder's experience in the type of work required by the Owner, the bidder's organization available for the performance of the Contract, and any other required evidence of the bidder's or its subcontractor's qualifications to perform the proposed Contract. The Owner may consider such evidence before making its decision awarding the proposed Contract. Failure to submit evidence of the bidder's or its subcontractors' responsibility to perform the proposed Contract may result in rejection of the bid.

**AWARD OF CONTRACT:**

Rejection of any or all bids, to contract work with whomever and in whatever manner, to abandon work entirely, and/or to waive any informality in receiving of bids is reserved as the right of the Owner. Before the Contract is awarded, the Owner may at its sole discretion, require from the proposed Contractor on the Project further evidence of the reasonable qualifications of such contractor to faithfully, capably, and reasonably perform such proposed Contract and may consider such evidence before making its decision on the award of such proposed Contract.

The Contract shall be awarded to the lowest responsible and responsive bidder as interpreted by the Owner under California law and as specified herein and shall be entered into by the successful bidder within ten (10) days after mailing, faxing or delivery of the Notice of Award of Contract. Owner reserves the right, without any liability, to cancel the award of any bid for any reason at any time before the full execution of the Agreement between Owner and Contractor.

**EXECUTION OF AGREEMENT BETWEEN OWNER AND CONTRACTOR:**

The Agreement between Owner and Contractor shall be signed by the successful bidder in as many originals as the Owner deems necessary and returned, together with the required Contract bonds, insurance certificates, additional insured endorsement, declarations page, a Public Contract Code section 3006(a) Roof Project Certification, if required, Drug-Free Workplace Certification, and Independent Contractor Student Contact Form, within ten (10) days after receipt of the notice of award of the Contract. If the ten (10) day period would expire after the date for commencement of the Work, Contractor must submit the documents before the date of commencement of the Work. If the successful bidder does not comply with this paragraph, Owner may revoke and/or cancel the award to the successful bidder and award the Contract to the next lowest bidder, or may otherwise proceed as allowed by law. A Roof Project Certification is not required if (1) the Owner has ADA (average daily attendance) of 2,500 or less, or (2) the Work involves repair of 25% or less of the roof, or costs \$21,000 or less.

## **CONTRACT BONDS:**

As required by the Contract Documents, two bonds, as itemized below and in the forms presented in these Contract Documents, shall be furnished by the successful bidder on the Project at the time of entering into the Contract and filed with the Owner before the successful bidder commences any Work. They shall be in the form of surety bonds issued by Admitted Surety insurers (an insurance organization authorized by the Insurance Commissioner to transact business of insurance in the State of California during this calendar year). The surety insurers must, unless otherwise agreed to by Owner in writing, at the time of issuance of the bond, have a rating not lower than "A-" as rated by A.M. Best Company, Inc. or other independent rating companies. Owner reserves the right to approve or reject the surety insurers selected by Contractor and to require Contractor to obtain bonds from surety insurers satisfactory to the Owner.

**Performance Bond** in the amount of one hundred percent (100%) of the Contract Sum to insure Owner during construction, and for one year after Completion and during any warranty or guaranty period, against faulty or improper materials or workmanship and to assure Owner of full and prompt performance of the Contract.

**Payment Bond** (Labor and Material) in the amount of one hundred percent (100%) of the Contract Sum in accordance with the laws of the State of California to secure payment of any and all claims for labor and materials used or consumed in performance of this Contract.

## **PAYMENTS:**

Payments to the Contractor on account of the Contract shall be made in accordance with the terms of the Contract Documents.

## **TAXES:**

The Owner is generally exempt from payment of Federal Excise Tax on materials. The Owner will furnish exemption certificates to the Contractor to be used to obtain materials ordinarily subject to Federal Excise Tax without payment of the tax. Bidder shall deduct Federal Excise Taxes from their bid prices before submitting bids, so that such taxes will not be included in the Contract Sum.

## **EARLY TERMINATION:**

Notwithstanding any provision herein to the contrary, if for any fiscal year of this Contract the governing body of the Owner fails to appropriate or allocate funds for future periodic payments under the Contract after exercising reasonable efforts to do so, the Owner may upon thirty (30) days' notice, order Work on the Project to cease. The Owner will remain obligated to pay for the Work already performed but shall not be obligated to pay the balance remaining unpaid beyond the fiscal period for which funds have been appropriated or allocated and for which the Work has not been done.



**BID PROPOSAL FORM**

**TO:** Board of Trustees  
Tulare City School District School District  
600 N Cherry Street  
Tulare, Ca. 93274

The undersigned, doing business under the firm name of \_\_\_\_\_, having carefully examined the Notice to Bidders, the Instructions to Bidders, the Agreement, the Specifications, and the entire contract documents for the proposed **Roof Installation at various sites** project, proposes to perform the contract including all of its component parts, and to furnish all materials and labor called for by them for the entire order, including all taxes as follows:

**AMOUNT BID:** \_\_\_\_\_ **DOLLARS (\$ \_\_\_\_\_)**

**SUBMITTED BY:** \_\_\_\_\_

**COMPANY:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

\_\_\_\_\_

**CONTRACTOR'S LICENSE NUMBER:** \_\_\_\_\_

**EXP. DATE:** \_\_\_\_\_ **CLASS:** \_\_\_\_\_

**BY:** \_\_\_\_\_

(Please Print or Type)

**SIGNATURE:** \_\_\_\_\_

**TITLE:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**PHONE:** \_\_\_\_\_

Contractors are required by law to be licensed and regulated by the Contractors State License Board which has jurisdiction to investigate complaints against contractors. Any questions concerning a contractor may be referred to the Contractors State License Board, 9821 Business Park Drive, Sacramento, California 95827. Their telephone number is: (800) 321-2752.

## DESIGNATION OF SUBCONTRACTORS

Each bidder shall set forth below the name and the location of the place of business of each subcontractor and the California contractor license number, and public works contractor registration number (for all projects over Twenty-five Thousand Dollars (\$25,000)), of each subcontractor who will perform work or labor or render service to the Contractor in or about the construction of the Work or improvement, or to a subcontractor licensed by the State of California who, under subcontract to the Contractor, specially fabricates and installs a portion of the Work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of 1 percent (0.5%) of the bidder's total bid, and the portion of the Work which will be done by each subcontractor. An inadvertent error in listing a California contractor's license number shall not be grounds for filing a bid protest or for considering the bid nonresponsive if the bidder submits the corrected contractor's license number to the Owner within 24 hours after the bid opening, or any continuation thereof, so long as the corrected contractor's license number corresponds to the submitted name and location for that subcontractor. If the Contractor fails to specify a subcontractor for any portion of the Work to be performed under the Contract in excess of one-half of 1 percent (0.5%) of the Contractor's total bid, the Contractor shall be deemed to have agreed to perform such portion itself, and shall not be permitted to subcontract that portion of the Work except under the conditions hereinafter set forth.

Subletting or subcontracting of any portion of the Work 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 a public record of the legislative body of the Owner.

For all projects over Twenty-five Thousand Dollars (\$25,000): for any bid proposal submitted and for any contract for public work entered into, an inadvertent error in listing a subcontractor who is not registered under Labor Code section 1725.5 shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive, provided that either: the subcontractor is registered prior to the bid opening; or the subcontractor is registered and has paid the penalty registration fee specified in Labor Code section 1725.5(a)(2)(E), if applicable, within 24 hours after the bid opening; or the subcontractor is replaced by another registered subcontractor under Public Contract Code section 4107. Failure of a listed subcontractor to be registered shall be grounds under Public Contract Code section 4107 for the Contractor, with the Owner's consent, to substitute a registered subcontractor for the unregistered subcontractor.

Failure to provide this information in a legible manner may result in the rejection of an otherwise acceptable bid.

**NOTE:** *Reproduce page two of this section for additional listings needed beyond the length of this form.*



**WORKERS' COMPENSATION CERTIFICATE**

Labor Code Section 3700, in relevant part, provides:

"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 either as an individual employer or as one employer in a group of employers. Said certificate 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 due to his or her employees, ... "

I am aware of the provisions of the Labor Code Section 3700 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 the work of this contract. I shall supply the Owner with certificates of insurance evidencing that Workers' Compensation Insurance is in effect and providing that the Owner will receive thirty (30) days' notice of cancellation.

\_\_\_\_\_  
Name of Contractor

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Date

(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 the contract.)

## NONCOLLUSION DECLARATION

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

Owner: **Tulare City School District**

Contract for: **Roof Installation at various sites Project**

The undersigned declares:

I am the \_\_\_\_\_ of \_\_\_\_\_, the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on \_\_\_\_\_, 20\_\_, at \_\_\_\_\_ [city], \_\_\_\_\_ [state].

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name

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**Sufficient Funds Declaration**

**(Labor Code section 2810)**

**To Be Executed by Bidder and Submitted with Bid**

Owner: **Tulare City School District**

Contract for: **Roof Installation at various sites Project**

I, \_\_\_\_\_, declare that I am the \_\_\_\_\_ of \_\_\_\_\_, the entity making and submitting the bid for the above Project that accompanies this Declaration, and that such bid includes sufficient funds to permit \_\_\_\_\_ [insert name of entity] to comply with all local, state or federal labor laws or regulations during the performance of the Contract for the Project, including payment of prevailing wage, and that \_\_\_\_\_ [the entity] will comply with the provisions of Labor Code section 2810(d) if awarded the Contract.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and executed on \_\_\_\_\_ 20\_\_, at \_\_\_\_\_ [city], \_\_\_\_\_ [state].

Date: \_\_\_\_\_

Signature

Print Name: \_\_\_\_\_

Print Title: \_\_\_\_\_

**CERTIFICATION OF CONTRACTOR AND SUBCONTRACTOR DIVISION OF  
INDUSTRIAL REALTIONS REGISTRATION**

Pursuant to Labor Code Section 1725.5, a contractor or subcontractor must be registered with the Department of Industrial Relations in order to bid on, to be listed in a bid proposal or to engage in the performance of any defined public work contract.

\_\_\_\_\_, \_\_\_\_\_ certify that  
(Name) (Title)

\_\_\_\_\_ is currently registered as a contractor with the Department  
(Contractor Name)

Of Industrial relations (DIR):

Contractor's DIR Registration Number \_\_\_\_\_

Expiration date June 30, 20\_\_

Contract further acknowledges:

1. Contractor shall maintain DIR registration status for the duration of the project without gap in registration.
2. Contractor shall note in its invitation to bid the DIR registration requirement for all subcontractor and their subcontractors.
3. Contractor shall ensure that all subcontractors are registered at time of bid opening and maintain registered status for the duration of the project.
4. Contractor is to furnish DIR Registration Number for all subcontractors on the project within 24 hours of the bid opening.
5. Contractor shall substitute any subcontractor with a DIR registered contractor if listed subcontractor is unable to perform the work.

Failure to comply with any of the above may result in determination of non-responsiveness.

I declare under penalty of perjury under California law that the foregoing is true and correct.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**FINGERPRINTING NOTICE AND ACKNOWLEDGMENT**  
(Education Code Section 45125.2(a))

*Note: This document must be executed and submitted with the bid.*

Business entities entering into contracts with the Owner for the construction, reconstruction, rehabilitation or repair of a facility must comply with Education Code sections 45125.1 and 45125.2. Such entities are responsible for ensuring full compliance with the law and should therefore review all applicable statutes and regulations. The following information is provided simply to assist such entities with compliance with the law.

1. If the Owner determines your employee(s) or you as a sole proprietorship will have more than limited contact with students, then you must take one or more of the following steps:
  - a. Install a physical barrier at the worksite to limit contact with pupils.
  - b. Have an employee (if not a sole proprietorship), who the Department of Justice has ascertained has not been convicted of a violent or serious felony, continually monitor and supervise employees. The entity shall verify in the Independent Contractor Student Contact Form to the Owner that the employee charged with monitoring and supervising its employees has no such convictions. (See attached.)
  - c. Arrange, with Owner's approval, for surveillance by Owner's personnel.

If one or more of these steps is taken, you are not required to comply with Education Code section 45125.1.

2. If you are providing the services in an emergency or exceptional situation, you are not required to comply with Education Code section 45125.2. An "emergency or exceptional" situation is one in which pupil health or safety is endangered or when repairs are needed to make a facility safe and habitable. Owner shall determine whether an emergency or exceptional situation exists.

I have read the foregoing and agree to comply with the requirements of Education Code §§ 45125.1 and 45125.2 as applicable.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Signature

Name: \_\_\_\_\_

Title: \_\_\_\_\_



## ATTACHMENT

Under Education Code section 45125.1, no employee of a contractor or subcontractor, and no sole proprietor, who has been convicted of or has criminal proceedings pending for a violent or serious felony may come into contact with any student. A violent felony is any felony listed in subdivision (c) of Section 667.5 of the Penal Code. Those felonies are presently defined as:

- (1) Murder or voluntary manslaughter.
- (2) Mayhem.
- (3) Rape as defined in paragraph (2) or (6) of subdivision (a) of Section 261 or paragraph (1) or (4) of subdivision (a) of Section 262.
- (4) Sodomy as defined in subdivision (c) or (d) of Section 286.
- (5) Oral copulation as defined in subdivision (c) or (d) of Section 288a.
- (6) Lewd or lascivious act as defined in subdivision (a) or (b) of Section 288.
- (7) Any felony punishable by death or imprisonment in the state prison for life.
- (8) Any felony in which the defendant inflicts great bodily injury on any person other than an accomplice which has been charged and proved as provided for in Section 12022.7, 12022.8, or 12022.9 on or after July 1, 1977, or as specified prior to July 1, 1977, in Sections 213, 264, and 461, or any felony in which the defendant uses a firearm which use has been charged and proved as provided in subdivision (a) of Section 12022.3, or Section 12022.5 or 12022.55.
- (9) Any robbery.
- (10) Arson, in violation of subdivision (a) or (b) of Section 451.
- (11) Sexual penetration as defined in subdivision (a) or (j) of Section 289.
- (12) Attempted murder.
- (13) A violation of Section 18745, 18750, or 18755.
- (14) Kidnapping.
- (15) Assault with the intent to commit a specified felony, in violation of Section 220.
- (16) Continuous sexual abuse of a child, in violation of Section 288.5.
- (17) Carjacking, as defined in subdivision (a) of Section 215.
- (18) Rape, spousal rape, or sexual penetration, in concert, in violation of Section 264.1.
- (19) Extortion, as defined in Section 518, which would constitute a felony violation of Section 186.22 of the Penal Code.

- (20) Threats to victims or witnesses, as defined in Section 136.1, which would constitute a felony violation of Section 186.22 of the Penal Code.
- (21) Any burglary of the first degree, as defined in subdivision (a) of Section 460, wherein it is charged and proved that another person, other than an accomplice, was present in the residence during the commission of the burglary.
- (22) Any violation of Section 12022.53.
- (23) A violation of subdivision (b) or (c) of Section 11418.

A serious felony is any felony listed in subdivision (c) Section 1192.7 of the Penal Code. Those felonies are presently defined as:

- (1) Murder or voluntary manslaughter; (2) Mayhem; (3) Rape; (4) Sodomy by force, violence, duress, menace, threat of great bodily injury, or fear of immediate and unlawful bodily injury on the victim or another person; (5) Oral copulation by force, violence, duress, menace, threat of great bodily injury, or fear of immediate and unlawful bodily injury on the victim or another person; (6) Lewd or lascivious act on a child under the age of 14 years; (7) Any felony punishable by death or imprisonment in the state prison for life; (8) Any felony in which the defendant personally inflicts great bodily injury on any person, other than an accomplice, or any felony in which the defendant personally uses a firearm; (9) Attempted murder; (10) Assault with intent to commit rape, or robbery; (11) Assault with a deadly weapon or instrument on a peace officer; (12) Assault by a life prisoner on a non-inmate; (13) Assault with a deadly weapon by an inmate; (14) Arson; (15) Exploding a destructive device or any explosive with intent to injure; (16) Exploding a destructive device or any explosive causing bodily injury, great bodily injury, or mayhem; (17) Exploding a destructive device or any explosive with intent to murder; (18) Any burglary of the first degree; (19) Robbery or bank robbery; (20) Kidnapping; (21) Holding of a hostage by a person confined in a state prison; (22) Attempt to commit a felony punishable by death or imprisonment in the state prison for life; (23) Any felony in which the defendant personally used a dangerous or deadly weapon; (24) Selling, furnishing, administering, giving, or offering to sell, furnish, administer, or give to a minor any heroin, cocaine, phencyclidine (PCP), or any methamphetamine-related drug, as described in paragraph (2) of subdivision (d) of Section 11055 of the Health and Safety Code, or any of the precursors of methamphetamines, as described in subparagraph (A) of paragraph (1) of subdivision (f) of Section 11055 or subdivision (a) of Section 11100 of the Health and Safety Code; (25) Any violation of subdivision (a) of Section 289 where the act is accomplished against the victim's will by force, violence, duress, menace, or fear of immediate and unlawful bodily injury on the victim or another person; (26) Grand theft

involving a firearm; (27) carjacking; (28) any felony offense, which would also constitute a felony violation of Section 186.22; (29) assault with the intent to commit mayhem, rape, sodomy, or oral copulation, in violation of Section 220; (30) throwing acid or flammable substances, in violation of Section 244; (31) assault with a deadly weapon, firearm, machine gun, assault weapon, or semiautomatic firearm or assault on a peace officer or firefighter, in violation of Section 245; (32) assault with a deadly weapon against a public transit employee, custodial officer, or school employee, in violation of Sections 245.2, 245.3, or 245.5; (33) discharge of a firearm at an inhabited dwelling, vehicle, or aircraft, in violation of Section 246; (34) commission of rape or sexual penetration in concert with another person, in violation of Section 264.1; (35) continuous sexual abuse of a child, in violation of Section 288.5; (36) shooting from a vehicle, in violation of subdivision (c) or (d) of Section 26100; (37) intimidation of victims or witnesses, in violation of Section 136.1; (38) criminal threats, in violation of Section 422; (39) any attempt to commit a crime listed in this subdivision other than an assault; (40) any violation of Section 12022.53; (41) a violation of subdivision (b) or (c) of Section 11418; and (42) any conspiracy to commit an offense described in this subdivision

**ROOF PROJECT CERTIFICATION**

(Public Contract Code §3006(a) and (b))

I, \_\_\_\_\_ [name], \_\_\_\_\_ [name of employer], certify that I have not offered, given, or agreed to give, received, accepted, or agreed to accept, any gift, contribution, or any financial incentive whatsoever to or from any person in connection with the roof project contract. As used in this certification, "person" means any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals. Furthermore, I, \_\_\_\_\_ [name], \_\_\_\_\_ [name of employer], certify that I do not have, and throughout the duration of the contract, I will not have, any financial relationship in connection with the performance of this contract with any architect, engineer, roofing, consultant, materials manufacturer, distributor, or vendor that is not disclosed below.

I, \_\_\_\_\_ [name], \_\_\_\_\_ [name of employer], have the following financial relationships, with an architect, engineer, roofing consultant, materials manufacturer, distributor, or vendor, or other person in connection with the following roof project contract:

\_\_\_\_\_  
[Name and address of building, contract date and number]

\_\_\_\_\_  
[Name and address of building, contract date and number]

\_\_\_\_\_  
[Name and address of building, contract date and number]

\_\_\_\_\_  
[Name and address of building, contract date and number]

I certify that to the best of my knowledge, the contents of this disclosure are true, or are believed to be true.

\_\_\_\_\_ Signature \_\_\_\_\_ Date

\_\_\_\_\_ Print Name

\_\_\_\_\_ Print Name of Employer

**BID BOND**

KNOW ALL MEN BY THESE PRESENTS that we the undersigned \_\_\_\_\_ as Principal and \_\_\_\_\_ as Surety, are hereby held and firmly bound unto the \_\_\_\_\_ "Owner" in the sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) for payment of which sum, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

The condition of the above obligation is such that whereas the Principal has submitted to the Owner a certain bid, attached hereto and hereby made a part hereof, to enter into a Contract in writing for the construction of \_\_\_\_\_ in strict accordance with Contract Documents.

NOW, THEREFORE,

- a. If said bid shall be rejected, or, in the alternative;
- b. If said bid shall be accepted and the Principal shall execute and deliver a contract in the form of agreement attached hereto and shall execute and deliver Performance and Payment Bonds in the forms attached hereto (all properly completed in accordance with said bid), and shall in all other respects perform the agreement created by the acceptance of said bid;

Then this obligation shall be void, otherwise the same shall remain in full force and effect, it being expressly understood and agreed that the liability of the Surety for any and all default of the Principal hereunder shall be the amount of this obligation as herein stated.

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 hereunder, or the specifications accompanying the same, shall in any way 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 WITNESS WHEREOF, the above-bounden parties have executed this instrument under several seals this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, the name and corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body. In the presence of:

(Notary Seal)

\_\_\_\_\_  
(Principal)

\_\_\_\_\_  
(Business Address)

\_\_\_\_\_  
(Corporate Surety)

\_\_\_\_\_  
Business Address)

By: \_\_\_\_\_

The rate or premium of this bond is \_\_\_\_\_ per thousand, the total amount of premium charged, \$ \_\_\_\_\_.

(The above must be filled in by Corporate Surety).

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**TULARE CITY SCHOOL DISTRICT  
ROOF INSTALLATION AT TCSD TRANSPORTATION BUILDING  
SPECIFICATIONS**

1. Clean off roofs to bare wood.
2. Remove roof material in an orderly manner to prevent a mess on the grass or playing area.
3. Replace all roof vents and roof jacks.
4. Replace flashing. Handle rain gutters with care, if damaged will need to be replaced.
5. Five (5) inch edge flashing needs to be zinc chromate or organic zinc.
6. Need to coordinate with other contractor's so that all work that is required will be completed and properly installed.
7. Mastic around all roof jacks – asbestos free mastic.
8. Roofing felt over existing shingles
9. Install 40 year asphalt shingle

Section 07310

ASPHALT SHINGLE ROOFING

TULARE CITY SCHOOL DISTRICT

NEW TRANSPORTATION OFFICE



## **GAF ASPHALT SHINGLE GUIDE SPECIFICATION**

### **PART I GENERAL**

- A. U.S. Green Building Council (USGBC)

#### **1.02 DEFINITIONS**

- A. Roofing Terminology: Refer to ASTM D1079 and the glossary of the National Roofing Contractors Association (NRCA) Roofing and Waterproofing Manual for definitions of roofing terms related to this section.

#### **1.03 SUBMITTALS**

- A. Submit copies of GAF product data sheets, detail drawings and samples for each type of roofing product.

#### **1.04 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Provide all primary roofing products, including shingles, underlayment, leak barrier, and ventilation, by a single manufacturer.
- B. Installer Qualifications: Installer must be approved for installation of all roofing products to be installed under this section.

#### **1.05 REGULATORY REQUIREMENTS**

- A. Provide a roofing system achieving an Underwriters Laboratories (UL) Class A fire classification.
- B. Install all roofing products in accordance with all federal, state and local building codes.
- C. All work shall be performed in a manner consistent with current OSHA guidelines.

#### **1.06 PREINSTALLATION MEETING**

- A. General: For all projects in excess of 250 squares of roofing, a pre-installation meeting is strongly recommended.
- B. Timing: The meeting shall take place at the start of the roofing installation, no more than 2 weeks into the roofing project.
- C. Attendees: Meeting to be called for by manufacturer's certified contractor. Meeting's mandatory attendees shall include the certified contractor and the manufacturer's representative. Non-mandatory attendees shall include the owner's representative, architect or engineer's representative, and the general contractor's representative.
- D. Topics: Certified contractor and manufacturer's representative shall review all pertinent requirements for the project, including but not limited to, scheduling, weather considerations, project duration, and requirements for the specified warranty.

#### **1.07 DELIVERY, STORAGE, AND HANDLING**

- A. Store all products in manufacturer's unopened, labeled packaging until they are ready for installation.
- B. Store products in a covered, ventilated area, at temperature not more than 110 degrees F (43 degrees C); do not store near steam pipes, radiators, or in direct sunlight.
- C. Store bundles on a flat surface. Maximum stacking height shall not exceed GAF's recommendations. Store all rolls on end.
- D. Store and dispose of solvent-based materials in accordance with all federal, state and local regulations.

#### **1.08 WEATHER CONDITIONS**

- A. Proceed with work only when existing and forecasted weather conditions will permit work to be performed in accordance with GAF's recommendations

## GAF ASPHALT SHINGLE GUIDE SPECIFICATION

### 1.09 WARRANTY

- A. Provide to the owner a **GAF® Shingle & Accessory Ltd. Warranty**.
  - a Any other type of owner or building – 40 years with the first 5 years non - prorated.

## PART II PRODUCTS

### 2.01 MANUFACTURERS

- A. Acceptable Manufacturer: GAF, 1 Campus Drive, Parsippany NJ 07054. Tel: 1-973-628-3000.
- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

### 2.02 SHINGLES

- A. Self sealing, granule surfaced, asphalt shingle with a strong fiberglass reinforced Micro Weave® core and StainGuard® protection, which prevents pronounced discoloration from blue-green algae through formulation/unique blends of granules. Architectural laminate styling provides a wood shake appearance with a 5 5/8 inch exposure. Features GAF®'s patented High Definition® color blends and enhanced shadow effect. UL 790 Class A rated with UL 997 Wind Resistance Label; ASTM D 7158, Class H; ASTM D 3161, Type 1; ASTM D 3018, Type 1; ASTM D 3462; AC438; CSA A123.5-98; Dade County Approved, Florida Building Code Approved, Texas Dept of Insurance Approved, ICC Report Approval. **Timberline® HD Lifetime High Definition Shingles**, by GAF®.

### 2.03 HIP AND RIDGE SHINGLES

- A. Distinctive self sealing hip and ridge cap shingle complementing the color of selected roof shingle. Each bundle covers approx. 31 lineal feet (9.45m) with an 8 inch (203mm) exposure **Ridglass™ 8" Ridge Cap Shingles** by GAF.

### 2.04 STARTER STRIP

- A. Self sealing starter shingle designed for all roof shingles. Each bundle covers approx. 120 lineal feet (36.58m). **ProStart™ Starter Strip** by GAF.

### 2.05 SHINGLE UNDERLAYMENT

- A. #15 Roofing Underlayment – By Others: Water repellent breather type cellulose fiber building paper. Meets or exceeds the requirements of ASTM D-4869 Type I.

### 2.06 ROOFING CEMENT

- A. Asphalt Plastic Roofing Cement meeting the requirements of ASTM D 4586, Type I or II.

### 2.07 ROOF ACCESSORIES

- A. Exterior acrylic rust resistant aerosol roof accessory paint. Each 6 oz can is available in boxes of 6 and in a wide variety of colors to compliment the roof. **Shingle-Match™ Roof Accessory Paint** by GAF.

### 2.08 ATTIC VENTILATION

#### A. Ridge Vents

1. Flexible ridge ventilator designed to allow the passage of hot air from attics. For use in conjunction with eave/ soffit intake ventilation products. Provides 16.9 inches (1430 mm/m) NFVA (Hand Nail) and 14.1 inches (1193 mm/m) NFVA (Nail Gun) per lineal foot. **Cobra® Exhaust Vent**, by GAF.

## **GAF ASPHALT SHINGLE GUIDE SPECIFICATION**

### **B. Roof Louvers**

1. Rooftop mounted, square-top metal utility ventilator designed to evacuate hot air from attics, bathrooms, and kitchen ducts. Each vent provides 50 sq in NFVA.  
**MasterFlow™ RV50A Metal Utility Vent**, by GAF.

### **2.09 NAILS**

- A. Standard round wire, zinc-coated steel or aluminum; 10 to 12 gauge, smooth, barbed or deformed shank, with heads 3/8 inch (9mm) to 7/16 inch (11mm) in diameter. Length must be sufficient to penetrate into solid wood at least 3/4 inch (19mm) or through plywood or oriented strand board by at least 1/8 inch (3.18mm).

### **2.10 METAL FLASHING**

- A. .24 gauge hot-dip galvanized steel sheet, complying with ASTM A 653/A 653M, G90/Z275.

## **PART III EXECUTION**

### **3.01 EXAMINATION**

- A. Do not begin installation until the roof deck has been properly prepared.
- B. If roof deck preparation is the responsibility of another installer, notify the architect or building owner of unsatisfactory preparation before proceeding.

### **3.02 PREPARATION**

- A. Remove all existing roofing down to the roof deck.
- B. Verify that the deck is dry, sound, clean and smooth. It shall be free of any depressions, waves, and projections. Cover with sheet metal, all holes over 1 inch (25mm) in diameter, cracks over 1/2 inch (12mm) in width, loose knots and excessively resinous areas.
- C. Replace damaged deck with new materials.
- D. Clean deck surfaces thoroughly prior to installation of eaves protection membrane and underlayment.

### **3.03 INSTALLATION OF UNDERLAYMENTS**

#### **A. General:**

1. Install using methods recommended by GAF, in accordance with local building codes. When local codes and application instructions are in conflict, the more stringent requirements shall take precedence.

#### **B. Eaves:**

1. Install eaves edge metal flashing tight with fascia boards; lap joints 2 inches (51mm) and seal with plastic cement or high quality urethane sealant; nail at the top of the flange.
2. In the north, and on all roofs between 2/12 and 4/12 (low slopes) install GAF leak barrier up the slope from eaves edge a full 36 inches (914mm) or to at least 24 inches (610 mm) beyond the interior "warm wall". Lap ends 6 inches (152mm) and bond.

#### **C. Hips and Ridges:**

1. Install GAF leak barrier along entire lengths. If ridge vents are to be installed, position the GAF leak barrier so that the ridge slots will not be covered.

#### **D. Roof Deck:**

1. Install one layer of GAF roof deck protection over the entire area not protected by GAF leak barrier at the eaves or valley. Install sheets horizontally so water sheds and nail in place.

## **GAF ASPHALT SHINGLE GUIDE SPECIFICATION**

2. On roofs sloped at more than 4 in 12, lap horizontal edges at least 2 inches (51mm) and at least 2 inches (51mm) over eaves protection membrane.
3. On roofs sloped between 2 in 12 and 4 in 12, lap horizontal edges at least 19 inches (482 mm) and at least 19 inches (482mm) over eaves protection membrane.
4. Lap ends at least 4 inches (102 mm). Stagger end laps of each layer at least 36 inches (914 mm).
5. Lap GAF roof deck protection over GAF leak barrier in valley at least 6 inches (152mm).

### **E. Penetrations:**

1. Vent pipes: Install a 24 inch (610 mm) square piece of eaves protection membrane lapping over roof deck underlayment; seal tightly to pipe.
2. Vertical walls: Install eaves protection membrane extending at least 6 inches (152mm) up the wall and 12 inches (305mm) on to the roof surface. Lap the membrane over the roof deck underlayment.
3. Skylights and roof hatches: Install eaves protection membrane from under the built-in counterflashing and 12 inches (305mm) on to the roof surface lapping over roof deck underlayment.
4. Chimneys: Install eaves protection membrane around entire chimney extending at least 6 inches (152mm) up the wall and 12 inches (305mm) on to the roof surface. Lap the membrane over the roof deck underlayment.
5. Rake Edges: Install metal edge flashing over eaves protection membrane and roof deck underlayment; set tight to rake boards; lap joints at least 2 inches (51mm) and seal with plastic cement; secure with nails.

## **3.04 INSTALLATION OF SHINGLES**

### **A. General:**

1. Install in accordance with GAF's instructions and local building codes. When local codes and application instructions are in conflict, the more stringent requirements shall take precedence.
2. Minimize breakage of shingles by avoiding dropping bundles on edge, by separating shingles carefully (not by "breaking" over ridge or bundles), and by taking extra precautions in temperatures below 40 degrees F (4 degrees C).
3. Handle carefully in hot weather to avoid scuffing the surfacing, or damaging the shingle edges.

### **B. Placement and Nailing:**

1. Beginning with the starter strip, trim shingles so that they "nest" within the shingle located beneath it. This procedure will yield a first course that is typically 3" (76mm) to 4" (102mm) rather than a fully exposed shingle.
2. For maximum wind resistance along rakes, install any GAF starter strip containing sealant or cement shingles to underlayment and each other in a 4" (102mm) width of asphalt plastic roof cement.
3. Laterally, offset the new shingles from the existing keyways, to avoid waves or depressions caused by excessive dips in the roofing materials.
4. Using the bottom of the tab on existing shingles, align subsequent courses.

## **GAF ASPHALT SHINGLE GUIDE SPECIFICATION**

5. \*Note: DO NOT install standard sized shingles (5" exposure) over metric (5 5/8" exposure) shingles, as it will overexpose the shingles and reveal the nails. Use standard alignment methods to assure proper shingle placement.
6. Secure with 4, 5, or 6 nails per shingle per GAF's instructions or local codes.
7. Placement of nails varies based on the type of shingle specified. Consult the application instructions for the specified shingle for details.
8. Nails must be driven flush with the shingle surface. Do not overdrive or under drive the nails.
9. Shingle offset varies based on the type of shingle specified. Consult the application instructions for the specified shingle for details.
  - a Run shingles from the upper roof slope into the valley and trim 2 inches (51mm) from the center line.

### **C. Penetrations**

1. All Penetrations are to be flashed according to GAF, ARMA and NRCA application instructions and construction details.

## **3.05 INSTALLATION OF ATTIC VENTILATION**

### **A. General**

1. Ventilation must meet or exceed current F.H.A., H.U.D. and local code requirements.

### **B. Ridge / Soffit ventilation**

1. Install ridge vent along the entire length of ridges:
2. Cut continuous vent slots through the sheathing, stopping 6 inches (152mm) from each end of the ridge.
3. On roofs without ridge board, make a slot 1 inch (25mm) wide, on either side of the peak (2" (51mm) overall).
4. On roofs with ridge board, make two slots 1-3/4 inches (44.5mm) wide, one on each side of the peak (3 1/2" (89mm) overall).
5. Install ridge vent material along the full length of the ridge, including uncut areas.
6. Butt ends of ridge vent material and join using roofing cement.
7. Install eaves vents in sufficient quantity to equal or exceed the ridge vent area.

### **C. Roof and Gable Louvers:**

1. Cut vent hole through sheathing as specified by the manufacturer for the type of vent to be installed.
2. Install a 24 inches (610mm) square of leak barrier, centered around the hole for roof louvers
3. Install according to manufacturers instructions for flashing vent penetrations
4. Install eave vents in sufficient quantity to equal or exceed the exhaust vent area, calculated as specified by manufacturer.

## **3.06 PROTECTION**

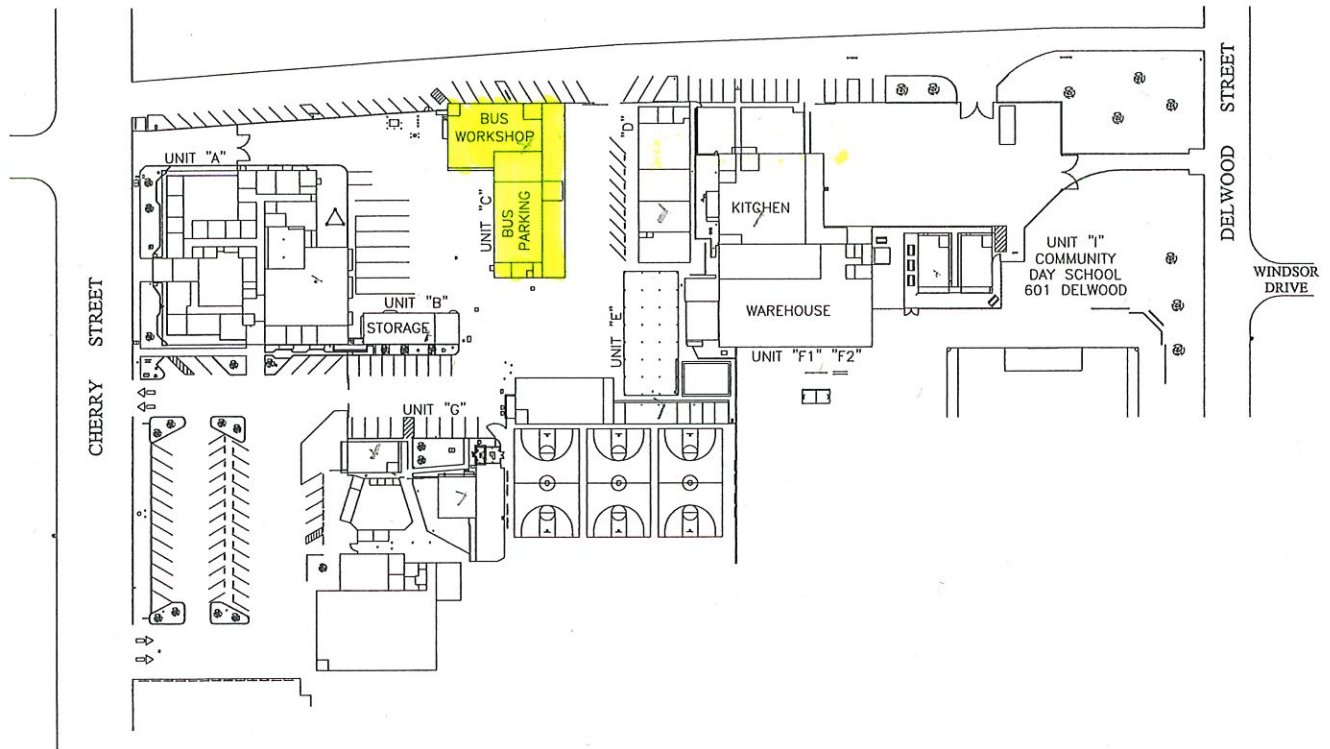
- A. Protect installed products from foot traffic until completion of the project.
- B. Any roof areas that are not completed by the end of the workday are to be protected from moisture and contaminants.

**GAF ASPHALT SHINGLE GUIDE SPECIFICATION**

END OF SECTION

Tulare City Elementary School District  
 District Administration, Tulare County  
 New Construction  
 Modernization/Reconstruction

Diagram of Building Area  
 Existing 1-A  
 Proposed 2-A  
 Final 3-A



Siteplan  
 District Administration  
 600 North Cherry Street - Tulare, CA 93274  
 Web Site - [www.tcsdk8.org](http://www.tcsdk8.org)  
 Phone (559) 685-7200 FAX (559) 685-7248

The above is measured in accordance with the laws and regulations governing the State School Building Lease-Purchase Program.  
[cadxservices@yahoo.com](mailto:cadxservices@yahoo.com)

July 1, 2009  
 Scale: 1"=150'-0"  
 D.S.A.# 000000  
 Page 1 of 33

SECTION 07540

THERMOPLASTIC SINGLE-PLY ROOFING

***Tulare City School District  
Cherry Ave Wood Shop  
Garden School 602 & 603  
Frank Kohn 503  
Maple Special Service Preschool***



**GAF EVERGUARD® TPO DESIGN LINE  
GUIDE SPECIFICATION**

**PART 1 GENERAL**

**1.01 SUMMARY**

- A. Section Includes
  - 1. Thermoplastic Polyolefin Single-Ply Roofing Membrane
- B. Related Sections
  - 1. Section 06100: Rough Carpentry
  - 2. Section 07620: Sheet Metal Flashing and Trim
  - 3. Section 15430: Plumbing Specialties

**1.02 REFERENCES**

- A. Factory Mutual (FM Global) - *Approval Guide*
- B. Underwriters Laboratories (UL) - *Roofing Systems and Materials Guide (TGFU R1306)*
- C. American Society for Testing and Materials (ASTM) - *Annual Book of ASTM Standards*
- D. Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA) - *Architectural Sheet Metal Manual*
- E. National Roofing Contractors Association (NRCA)
- F. American Society of Civil Engineers (ASCE)
- G. U.S. Green Building Council (USGBC)

**1.03 DEFINITIONS**

- A. Roofing Terminology: Refer to ASTM D1079 and the glossary of the National Roofing Contractors Association (NRCA) *Roofing and Waterproofing Manual* for definitions of roofing terms related to this section.

**1.04 SUBMITTALS**

- A. Product Data: Provide product data sheets for each type of product indicated in this section.
- B. Shop Drawings: Provide manufacturers standard details and approved shop drawings for the roof system specified.
- C. Samples: Provide samples of insulations, fasteners, membrane materials and accessories for verification of quality.
- D. Certificates: Installer shall provide written documentation from the manufacturer of their authorization to install the roof system, and eligibility to obtain the warranty specified in this section.

**1.05 QUALITY ASSURANCE**

- A. Manufacturer's Qualifications: GAF shall provide a roofing system that meets or exceeds all criteria listed in this section.
- B. Installer's Qualifications:
  - 1. Installer shall be classified as a *Master or Master Select™* contractor as defined and certified by GAF.

**GAF EVERGUARD® TPO DESIGN LINE  
GUIDE SPECIFICATION**

- C. Source Limitations: All components listed in this section shall be provided by a single manufacturer or approved by the primary roofing manufacturer.
- D. Final Inspection  
Manufacturer's representative shall provide a comprehensive final inspection after completion of the roof system. All application errors must be addressed and final punch list completed.

1.06 PRE-INSTALLATION CONFERENCE

- A. Prior to scheduled commencement of the roofing installation and associated work, conduct a meeting at the project site with the installer, architect, owner, GAF representative and any other persons directly involved with the performance of the work. The installer shall record conference discussions to include decisions and agreements reached (or disagreements), and furnish copies of recorded discussions to each attending party. The main purpose of this meeting is to review foreseeable methods and procedures related to roofing work.

1.07 PERFORMANCE REQUIREMENTS

- A. Provide an installed roofing membrane and base flashing system that does not permit the passage of water, and will withstand the design pressures calculated in accordance with the most current revision of ASCE 7.
- B. GAF shall provide all primary roofing materials that are physically and chemically compatible when installed in accordance with manufacturers current application requirements.

1.08 REGULATORY REQUIREMENTS

- A. All work shall be performed in a safe, professional manner, conforming to all federal, state and local codes.

1.09 DELIVERY, STORAGE AND HANDLING

- A. Deliver all roofing materials to the site in original containers, with factory seals intact. All products are to carry either a GAF® or BMCA® label.
- B. Store all pail goods in their original undamaged containers in a clean, dry location within their specified temperature range.
- C. Do not expose materials to moisture in any form before, during, or after delivery to the site. Reject delivery of materials that show evidence of contact with moisture.
- D. Remove manufacturer supplied plastic covers from materials provided with such. Use "breathable" type covers such as canvas tarpaulins to allow venting and protection from weather and moisture. Cover and protect materials at the end of each work day. Do not remove any protective tarpaulins until immediately before the material will be installed.
- E. Materials shall be stored above 55°F (12.6°C) a minimum of 24 hours prior to application.

1.10 PROJECT CONDITIONS

- A. Weather
  1. Proceed with roofing only when existing and forecasted weather conditions permit.
  2. Ambient temperatures must be above 45°F (7.2°C) when applying hot asphalt or water based adhesives.

**GAF EVERGUARD® TPO DESIGN LINE  
GUIDE SPECIFICATION**

1.11 WARRANTY

- A. Provide Manufacturers GUARRANTEE with single source coverage and no monetary limitation where the manufacturer agrees to repair or replace components in the roofing system, which cause a leak due to a failure in materials or workmanship.

1. Duration: Twenty (20) years from the date of completion.

**PART 2 PRODUCTS**

2.01 ACCEPTABLE MANUFACTURER

- A. GAF® - 1 Campus Drive, Parsippany, NJ 07054

2.02 SEPARATION MEMBRANE

- A. Fire resistant glass fiber mat used as a separation sheet over polystyrene foam insulation or beneath insulation over wood substrates. Each roll contains ten (10) squares (1,000 sq. ft.) of material, 4' x 250' (1.2m x 76.9m), 80 lbs. (36.4 kg), **Fiberglass Fire Sheet 10**.

2.03 MEMBRANE MATERIALS

- A. A smooth type, polyester scrim reinforced thermoplastic polyolefin membrane with a nominal 0.060 inch (60 mil) thickness, for use as a single ply roofing membrane. Meets or exceeds the minimum requirements of ASTM D-6878. UL Listed, FM Approved, Dade County Product Approval, Florida Building Code Approved. White membrane is Energy Star Listed, CRRC Listed and Title 24 Compliant. Each full roll contains approximately 1000 sq.ft. of roofing material, 10' X 100', weighing 322 lbs. Each half sheet roll contains approximately 500 sq.ft. of roofing material, 5' X 100', weighing 162 lbs. **half sheet roll required for roof perimeter use in mechanically attached systems. Ever Guard® TPO 60 mil** thermoplastic single-ply roofing membrane by GAF.

2.04 FLASHING MATERIALS

- A. A smooth type, polyester scrim reinforced thermoplastic polyolefin membrane with a nominal 0.060 inch (60 mil) thickness, for use as a single ply roofing membrane. Meets or exceeds the minimum requirements of ASTM D-6878. UL Listed, FM Approved, Dade County Product Approval, Florida Building Code Approved. White membrane is Energy Star Listed, CRRC Listed and Title 24 Compliant. Each full roll contains approximately 1000 sq.ft. of roofing material, 10' X 100', weighing 322 lbs. Each half sheet roll contains approximately 500 sq.ft. of roofing material, 5' X 100', weighing 162 lbs. **Ever Guard® TPO 60 mil** thermoplastic single-ply roofing membrane by GAF.

2.05 ADHESIVES, SEALANTS and PRIMERS

- A. Low VOC solvent-based Bonding Adhesive: Solvent based rubberized adhesive for use with Ever Guard TPO membranes, **Ever Guard® Low VOC Bonding Adhesive**, by GAF.
- B. Low VOC solvent based primer for preparing surfaces to receive butyl based adhesive tapes, **Ever Guard® TPO Low VOC Primer**, by GAF.
- C. Low VOC TPO cleaner designed to clean exposed or contaminated seams prior to heat welding to remove any residual soap or revitalize aged membranes. Contains only 50 grams per liter of Volatile Organic Content and has been formulated using a blend of primarily VOC-exempt ingredients to be in compliance with air quality

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regulations for single ply roofing products. **Ever Guard® Clean Weld® Low VOC Cleaner/Conditioner** by GAF®.

- D. One part butyl based high viscosity sealant suitable for sealing between flashing membrane and substrate surface behind exposed termination bars and for sealing between roofing membrane and drain flange. **Ever Guard® Water Block**, by GAF.
- E. 100% solids epoxy based two-part sealant suitable for filling sealant pans at irregularly-shaped penetrations. Epoxy is part A. Polyamide is part B. **Ever Guard® 2-Part Pourable Sealant**, by GAF.
- F. One-part, moisture-cure, self-leveling sealant designed for use in pitch pans on single ply roof systems. **Ever Guard® One-Part Pourable Sealant**.

2.06 ACCESSORIES

A. Mechanical Fasteners

- 1. **Drill Tec™ HD Screws**: Heavy gauge alloy steel fastener with CR-10 coating with a .245" diameter thread. Miami Dade and Factory Mutual Standard 4470 Approved, #3 Phillips truss head for use on wood, concrete and steel decks.
- 2. **Drill Tec™ XHD Plates**: Galvalume, 2 3/8" (6 cm) diameter, with a barbed underside. Suitable for use with Drill•Tec™ Standard, HD, and XHD Screws, and Drill•Tec™ Spikes.

B. FLASHING ACCESSORIES

- 1. A smooth type, unreinforced thermoplastic polyolefin based membrane for use as an alternative flashing/reinforcing material for penetrations and corners. Required whenever preformed vent boots cannot be used, available in White, Tan, Gray, Regal Red, Regal Blue, and Hartford Green, 0.055 inches (55 mils) nominal thickness and sheet size: 24in x 50ft. **Ever Guard® TPO Detailing Membrane**, by GAF.
- 2. An 8 inch (20 cm) wide smooth type, polyester scrim reinforced thermoplastic polyolefin membrane strip for use as a cover strip over coated metal and stripping-in coated metal flanges and general repairs: 0.045 inches (45 mils) nominal thickness with 100 foot length, available in White, Tan, Gray, Regal Red, Regal Blue, and Hartford Green **Ever Guard® TPO Flashing Membrane**, by GAF.
- 3. Extruded aluminum termination bar with angled lip caulk receiver and lower leg bulb stiffener. Pre-punched slotted holes at 6" on center or 8" on center. 3/4" x 10' with 0.090" cross section, **Ever Guard® Lip Termination Bar**, by GAF.
- 4. A 6 inch (14 cm) wide, smooth type, heat-weldable polyester scrim reinforced thermoplastic polyolefin membrane strip. Designed for use as a cover strip over non-coated metal edges and flanges. Each full roll contains approximately 100 Lineal Ft. of material, 6" X 100'. **Ever Guard® TPO Heat-Weld Cover Tape**, by GAF.
- 5. .045" reinforced TPO membrane with pressure sensitive adhesive, to be installed on horizontal surfaces using plates and fasteners as a base attachment in fully adhered systems. Size 6" x 100', **Ever Guard® RTA (Roof Transition Anchor) Strip™**, by GAF
- 6. 24 gauge steel with 0.025" thick TPO based film as required for fabrication into metal gravel stop and drip edge profiles, metal base and curb flashings, sealant pans, and scupper sleeves. Standard sheet size 4' x 10', sheet weight 47 lbs. Custom sizes available, **Ever Guard® TPO Coated Metal**, by GAF.

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C. WALL & CURB ACCESSORIES

1. 55 mil TPO membrane and 24 gauge coated metal prefabricated into standard and custom size thru wall scuppers. Available in two sizes: 4" x 6" x 12" (l x w x d) with a 5.75" x 3.75" opening and 8" x 10" x 12" (l x w x d) with a 9.75" x 7.75" opening, **Ever Guard® TPO Scupper**, by GAF
2. .045" thick reinforced TPO membrane fabricated corners. Available in four standard sizes to flash curbs. Four corners are required to flash the curb, **Ever Guard® Corner Curb Wraps**, by GAF.
3. 0.045" thick molded TPO membrane outside corners of base and curb flashing. Hot-air welds directly to Ever Guard TPO membrane. Size 4" x 4" with 6" flange, **Ever Guard® TPO Universal Corners** by GAF.
4. 0.055" molded TPO membrane inside corners of base and curb flashing. Hot-air welds directly to Ever guard TPO membrane. Size 6" x 6" x 5.5" high **Ever Guard® TPO Preformed Corners** by GAF.
5. 8" diameter, nominal .050" vacuum formed unreinforced TPO membrane for use in flashing outside corners of base and curb flashings, **Ever Guard® TPO Fluted Corner**, by GAF.

D. PENETRATION ACCESSORIES

1. 0.075" thick molded TPO membrane sized to accommodate most common pipe and conduits, (1" to 6" diameter pipes), including square tube. Hot-air welded directly to Ever Guard TPO membrane, supplied with stainless steel clamping rings, **Ever Guard® TPO Preformed Vent Boots** by GAF.
2. 0.045" thick molded TPO membrane preformed boots are split to accommodate most common pipes and conduits and available in three standard sizes, **Ever Guard® TPO Split Pipe Boots**, by GAF.
3. 0.045" thick molded TPO membrane preformed square boots are split to accommodate most common square penetrations and conduits and available in three standard sizes, **Ever Guard® TPO Square Tube Wraps**, by GAF.
4. .070 thick molded penetration pocket to provide structure and foundation for the application of a pourable sealant for a variety of roof penetrations, weldable and 9" x 6" x 4" (l x w x h). **Ever Guard® TPO Pourable Sealer Pocket**
5. .055" thick smooth type, unreinforced thermoplastic polyolefin membrane designed for use as a conforming membrane seal over T-joints in 60 and 80 mil membrane applications. **Ever Guard® TPO Drain** by GAF

E. FIELD OF ROOF ACCESSORIES

1. Pre-manufactured expansion joint covers used to bridge expansion joint openings in a roof structure. Fabricated to accommodate all roof to wall and roof to roof applications, made of .060" reinforced TPO membrane, available in 5 standard sizes for expansion joint openings up to 8" wide. **Ever Guard® TPO Expansion Joint Covers**, by GAF
2. .055" thick smooth type, unreinforced thermoplastic polyolefin membrane designed for use as a conforming membrane seal over T-joints in 60 and 80 mil membrane applications. **Ever Guard® T-Joint Patches**, by GAF.
3. 1/8" thick extruded and embossed TPO roll 34" x 50", heat welds directly to roofing membrane. Unique herringbone traction surface. Available in gray or yellow, **Ever Guard® TPO Walkway Rolls**, GAF.

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**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify that the surfaces and site conditions are ready to receive work.
- B. Verify that the deck is supported and secured.
- C. Verify that the deck is clean and smooth, free of depressions, waves, or projections, and properly sloped to drains, valleys, eaves, scuppers or gutters.
- D. Verify that the deck surfaces are dry and free of ice or snow.
- E. Verify that all roof openings or penetrations through the roof are solidly set, and that all flashings are tapered.

**3.02 SUBSTRATE PREPARATION**

- A. Plywood Deck
  - 1. Plywood sheathing must be exterior grade, minimum 4 ply, and not less than 15/32" (12 mm) thick.
  - 2. Preservatives or fire retardants used to treat the decking must be compatible with roofing materials.
  - 3. The deck must be installed over joists that are spaced 24" (61 cm) o.c. or less.
  - 4. The deck must be installed so that all four sides of each panel bear on and are secured to joist and cross blocking. "H" clips are not acceptable.
  - 5. Panels must be installed with a 1/8" to 1/4" (3mm – 6mm) gap between panels and must match vertically at joints to within 1/8" (3mm).
  - 6. Decking should be kept dry and roofed promptly after installation.
- B. Recover
  - 1. Suitable roofs for recover shall be free of dust, dirt, debris, and any contaminants that may adversely affect the performance of the new roof. Areas of substantial deck deflection or membrane imperfections shall be corrected prior to installing any new roofing.
  - 2. For recover installations over single-ply, fluid applied, coal tar and metal roofs, contact GAF Contractor Services for prior approval and technical requirements.
  - 3. Taking test cuts to verify the existing roof construction and condition. Three test cuts should be made for roofs under 100 squares and one test cut per 100 squares above the minimum amount. It is highly recommended and in certain circumstances, required, that a moisture survey be made to determine the extent of wet insulation and moisture entrapment. Contact GAF Contractor Services for more information on moisture surveys.
  - 4. Existing substrates and insulation (if applicable) must be dry over the majority of the roof area. Wet or deteriorated areas of insulation and substrate must be removed and replaced with new materials. When adhering insulation or new roofing directly to the existing roof surface, the existing roof system components must be well attached to each other and their substrate.
  - 5. All applicable code requirements must be met for recover over an existing roofing system.
  - 6. GAF does not recommend partial recover or re-roofing of a single roof area due to the potential for defects in the portion of the roof system not replaced or negatively affecting the performance of the new membrane. When required by project conditions or budget considerations, GAF requires full separation of the old and new roof areas by means of a full curb mounted expansion joint or area divider installed to provide a complete watertight seal or break between areas. Tie-in constructions, in which the old and new membranes are adhered directly to each other and stripped in are not acceptable for coverage under certain guarantees.

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3.03 INSTALLATION - GENERAL

- A. Install GAF's Ever Guard® TPO roofing system according to all current application requirements in addition to those listed in this section.
- B. GAF Ever Guard® TPO Specification #: TMARN60
- C. Start the application of membrane plies at the low point of the roof or at the drains, so that the flow of water is over or parallel to, but never against the laps.

3.04 MEMBRANE APPLICATION

- A. Mechanically Attached:
  - 1. Place membrane so that wrinkles and buckles are not formed. Any wrinkles or buckles must be removed from the sheet prior to permanent attachment. Roof membrane shall be mechanically fastened immediately after it is rolled out, followed by welding to adjacent sheets.
  - 2. Overlap roof membrane a minimum of 6" for side laps and 3" for end laps.
  - 3. Install membrane so that the side laps run across the roof slope lapped towards drainage points.
  - 4. All exposed sheet corners shall be rounded a minimum of 1".
  - 5. Use full width rolls in the field of roof and half width rolls in the perimeter and corner region of the roof and mechanically fastened in the side lap area to the roof deck.
  - 6. Membrane laps shall be heat-welded together. All welds shall be continuous, without voids or partial welds. Welds shall be free of burns and scorch marks.
  - 7. Weld shall be a minimum of 1-1/2" in width for automatic machine welding and a minimum 2" in width for hand welding.
  - 8. All cut edges of reinforced membrane must be sealed with Ever Guard® TPO Cut Edge Sealant.
  - 9. The membrane shall be mechanically fastened in the side lap area to the roof deck with appropriate Drill-Tec™ fasteners and plates as required by roof system specification and/or Factory Mutual classification requirements.
  - 10. The metal plates must be placed within ¼" to ½" of the membrane edge. Plates shall not be placed less than ¼" from the membrane edge.
  - 11. In the corner regions, additional fasteners shall be installed through the perimeter membrane to form a grid pattern, with an 8" (40.5 cm) wide Ever Guard® TPO reinforced membrane flashing-strip welded over the additional fasteners. Corners include both outside and inside corners that measure 75 - 105 angle degrees.
  - 12. Membrane attachment to the roof deck is required at locations of deck angle changes in excess of five (5) angle degrees (1" in 12").
  - 13. Supplemental membrane attachment is required at the base of all walls and curbs, and where the angle of the substrate changes by more than ten (10) degrees (1" in 12"). Roofing membrane shall be secured to the structural deck with screws and plates of the same type and spacing used for in-lap attachment. The screws and plates must be installed no less than ½" from the membrane edge. Alternatively, the roofing membrane may be turned up the vertical plane a minimum of 3" and secured with screws and termination bar. Fastener spacing is the same as is used for in-lap attachment. The termination bar must be installed within 1-1/2" to 2" of the plane of the roof membrane, with a minimum of 1" of membrane extending above the termination bar.
  - 14. Supplemental membrane attachment to the structural deck is required at all penetrations. Roofing membrane shall be secured to the deck with appropriate Drill-Tec™ screws and plates.
  - 15. Fasteners must be installed to achieve the proper embedment depth. Install fasteners without lean or tilt.
  - 16. Install fasteners so that the plate or termination bar is drawn down tightly to the membrane surface. Properly installed fasteners will not allow the plate or termination bar to move (underdriving), but will not cause wrinkling of the membrane (overdriving).

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3.05 FLASHINGS

A. General:

1. All penetrations must be at least 24" (61 cm) from curbs, walls, and edges to provide adequate space for proper flashing.
2. Flash all perimeter, curb, and penetration conditions with coated metal, membrane flashing, and flashing accessories as appropriate to the site condition.
3. All coated metal and membrane flashing corners shall be reinforced with preformed corners or non-reinforced membrane.
4. Hot-air weld all flashing membranes, accessories, and coated metal. A minimum 2" wide (hand welder) weld or minimum 1 - 1/2" automatic machine weld is required.
5. All cut edges of reinforced membrane must be sealed with Ever Guard® TPO Cut Edge Sealant.
6. Consult the Ever Guard® *Application and Specifications Manual* or GAF Contractor Services for more information on specific construction details, or those not addressed in this section.

B. Coated Metal Flashings:

1. Coated metal flashings shall be formed in accordance with current Ever Guard construction details and SMACNA guidelines.
2. Coated metal sections used for roof edging, base flashing and coping shall be butted together with a ¼" gap to allow for expansion and contraction. Hot-air weld a 6" wide reinforced membrane flashing strip to both sides of the joint, with approximately 1" on either side of the joint left un-welded to allow for expansion and contraction. 2" wide aluminum tape can be installed over the joint as a bond-breaker, to prevent welding in this area.
3. Coated metal used for sealant pans, scupper inserts, corners of roof edging, base flashing and coping shall be overlapped or provided with separate metal pieces to create a continuous flange condition, and pop-riveted securely. Hot-air weld a 6" wide reinforced membrane flashing strip over all seams that will not be sealed during subsequent flashing installation.
4. Provide a ½" hem for all exposed metal edges to provide corrosion protection and edge reinforcement for improved durability.
5. Provide a ½" hem for all metal flange edges whenever possible to prevent wearing of the roofing and flashing membranes at the flange edge.
6. Coated metal flashings shall be nailed to treated wood nailers or otherwise mechanically attached to the roof deck, wall or curb substrates, in accordance with construction detail requirements.

C. Reinforced Membrane Flashings:

1. The thickness of the flashing membrane shall be the same as the thickness of the roofing membrane.
2. Membrane flashing may either be installed loose or fully adhered to the substrate surface in accordance with "Construction Detail Requirements".
3. Where flashings are to be fully adhered, apply bonding adhesive at a rate resulting in 60 square feet/gallon of finished roofing material for solvent-based bonding adhesives, and at a rate of 125 square feet/gallon of finished roofing material for water-borne bonding adhesive. Apply bonding adhesive to both the underside of the membrane and the substrate surface at 120 square feet per gallon (Solvent Based) and 250 square feet per gallon (Water Based). A greater quantity of bonding adhesive may be required based upon the substrate surface condition. The bonding adhesive must be allowed to dry until tacky to the touch before flashing membrane application.
4. Apply the adhesive only when outside temperature is above 40°F. Recommended minimum application temperature is 50°F to allow for easier adhesive application.
5. The membrane flashing shall be carefully positioned prior to application to avoid wrinkles and buckles.

D. Un-reinforced Membrane Flashings:

1. Un-reinforced membrane is used to field-fabricate penetration or reinforcement flashings in locations where preformed corners and pipe boots cannot be properly installed.



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2. Penetration flashings constructed of un-reinforced membrane are typically installed in two sections, a horizontal piece that extends onto the roofing membrane and a vertical piece that extends up the penetration. The two pieces are overlapped and hot-air welded together.
  3. The un-reinforced membrane flashing shall be adhered to the penetration surface. Apply bonding adhesive at a rate resulting in 60 square feet/gallon of finished roofing material for solvent-based bonding adhesives, and at a rate of 125 square feet/gallon of finished roofing material for water-borne bonding adhesive. Apply bonding adhesive to both the underside of the membrane and the substrate surface at 120 square feet per gallon (Solvent Based) and 250 square feet per gallon (Water Based). A greater quantity of bonding adhesive may be required based upon the substrate surface condition. The bonding adhesive must be allowed to dry until tacky to the touch before flashing membrane application.
- E. Roof Edges:
1. Roof edge flashings are applicable for gravel stop and drip edge conditions as well as for exterior edges of parapet walls.
  2. Flash roof edges with metal flanges nailed 4" O.C. to pressure-treated wood nailers. Where required, hot-air weld roof membrane to coated metal flanges.
  3. When the fascia width exceeds 4", coated metal roof edging must be attached with a continuous cleat to secure the lower fascia edge. The cleat must be secured to the building no less than 12" O.C.
  4. Alternatively, roof edges may be flashed with a 2-piece snap on fascia system, adhering the roof membrane to a metal cant and face nailing the membrane 8" on center prior to installing a snap-on fascia.
  5. Flash roof edge scuppers with a coated metal insert that is mechanically attached to the roof edge and integrated as a part of the metal edging.
- F. Parapet and Building Walls:
1. Flash walls with Ever Guard TPO membrane adhered to the substrate with bonding adhesive, loose applied (Less than 24" in height) or with coated metal flashing nailed 4" on center to pressure-treated wood nailers.
  2. Secure membrane flashing at the top edge with a termination bar. Water Block shall be applied between the wall surface and membrane flashing underneath all exposed termination bars. Exposed termination bars shall be mechanically fastened 8" on center; termination bars that are counter flashed shall be fastened 12" on center.
  3. Roof membrane must be mechanically attached along the base of walls with screws and plates (deck securement) or screws and inverted termination bar (wall securement) at the following rate:

Mechanically Attached Systems	Per in-lap on center spacing, with a 12" maximum
-------------------------------	--
  4. All coated metal wall flashings and loose applied membrane flashings must be provided with separate metal counterflashings, or metal copings.
  5. Metal counterflashings may be optional with fully adhered flashings depending on guarantee requirements. Exposed termination bars must be sealed with Flexseal® roofing cement or Flexseal® caulk grade.
  6. Flash wall scuppers with a coated metal insert that is mechanically attached to the wall and integrated as part of the wall flashing.
- G. Curbs and Ducts:
1. Flash curbs and ducts with Ever Guard TPO membrane adhered to the curb substrate with bonding adhesive, loose applied (Less than 18" in height) or with coated metal flashing nailed 4" on center to pressure-treated wood nailers.
  2. Secure membrane flashing at the top edge with a termination bar. Water Block shall be applied between the curb/duct surface and membrane flashing underneath all termination bars. Exposed termination bars shall be mechanically fastened every 8" o.c.; termination bars that are counter flashed shall be fastened 12" on center.
  3. Roof membrane must be mechanically attached along the base of walls with screws and plates (deck securement) or screws and inverted termination bar (wall securement) at the following rate:

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Mechanically Attached Systems      Per in-lap on center spacing, with a 12" maximum

4. All coated metal curb flashings and loose applied membrane flashings must be provided with separate metal counterflashings, or metal copings.
5. Metal counterflashings may be optional with fully adhered flashings depending on guarantee requirements. Exposed termination bars must be sealed with Flexseal® roofing cement or Flexseal® caulk grade.

H. Roof Drains:

1. Roof drains must be fitted with compression type clamping rings and strainer baskets. Original-type cast iron and aluminum drains, as well as retrofit-type cast iron, aluminum or molded plastic drains are acceptable.
2. Roof drains must be provided with a minimum 36" x 36" sump. Slope of tapered insulation within the sump shall not exceed 4" in 12".
3. Extend the roofing membrane over the drain opening. Locate the drain and cut a hole in the roofing membrane directly over the drain opening. Provide a ½" of membrane flap extending past the drain flange into the drain opening. Punch holes through the roofing membrane at drain bolt locations.
4. For cast iron and aluminum drains, the roofing membrane must be set in a full bed of water block on the drain flange prior to securement with the compression clamping ring. Typical water block application is one 10.5 ounce cartridge per drain.
5. Lap seams shall not be located within the sump area. Where lap seams will be located within the sump area, a separate roof membrane drain flashing a minimum of 12" larger than the sump area must be installed. The roof membrane shall be mechanically attached 12" on center around the drain with screws and plates. The separate roof drain flashing shall be heat welded to the roof membrane beyond the screws and plates, extended over the drain flange, and secured as above.
6. Tighten the drain compression ring in place.

3.06 TRAFFIC PROTECTION

- A. Install walkway rolls at all roof access locations and other designated locations including roof-mounted equipment work locations and areas of repeated rooftop traffic.
- B. Walkway pads must be spaced 2" apart to allow for drainage between the pads.
- C. Heat-weld walkway rolls to the roof membrane surface continuously around the perimeter of the roll.
- D. Walkway rolls may be installed with TPO primer and 3" seam tape.
  1. Roll or brush the TPO primer on the back of the TPO pad along the edges and down the middle length of the pad.
  2. Clean and prime the roof membrane where the pad will be installed.
  3. Install tape to the back of the cleaned area of the pad and roll in with a silicone hand roller.
  4. Remove release paper and install the tapes pads directly onto the roof membrane. Roll pads to secure in place

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**3.07 ROOF PROTECTION**

- A. Protect all partially and fully completed roofing work from other trades until completion.
- B. Whenever possible, stage materials in such a manner that foot traffic is minimized over completed roof areas.
- C. When it is not possible to stage materials away from locations where partial or complete installation has taken place, temporary walkways and platforms shall be installed in order to protect all completed roof areas from traffic and point loading during the application process.
- D. Temporary tie-ins shall be installed at the end of each workday and removed prior to commencement of work the following day.

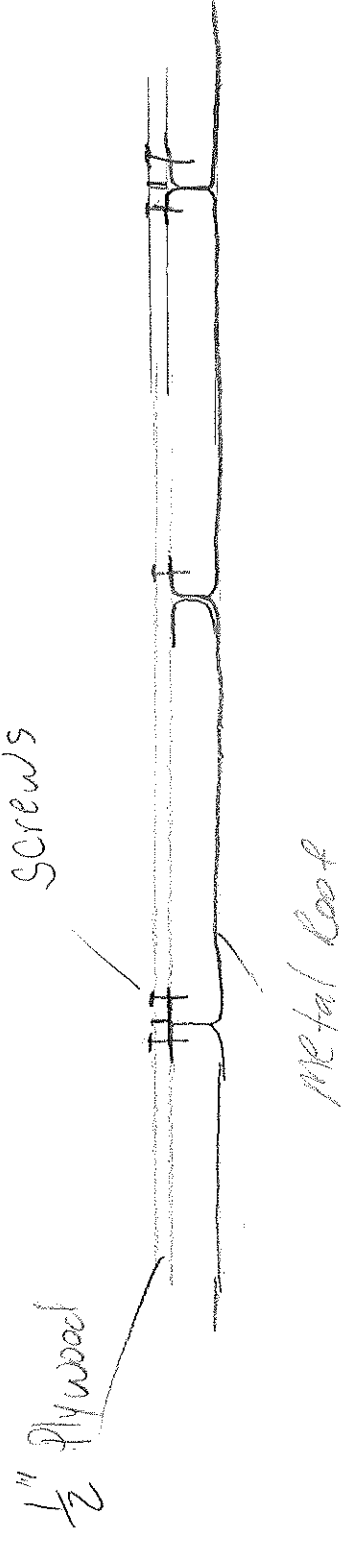
**3.08 CLEAN-UP**

- A. All work areas are to be kept clean, clear and free of debris at all times.
- B. Do not allow trash, waste, or debris to collect on the roof. These items shall be removed from the roof on a daily basis.
- C. All tools and unused materials must be collected at the end of each workday and stored properly off of the finished roof surface and protected from exposure to the elements.
- D. Dispose of or recycle all trash and excess material in a manner conforming to current EPA regulations and local laws.
- E. Properly clean the finished roof surface after completion, and make sure the drains and gutters are not clogged.
- F. Clean and restore all damaged surfaces to their original condition.

END OF SECTION

Garden 602 603  
Kohn 503

TPO Roof  
20 years

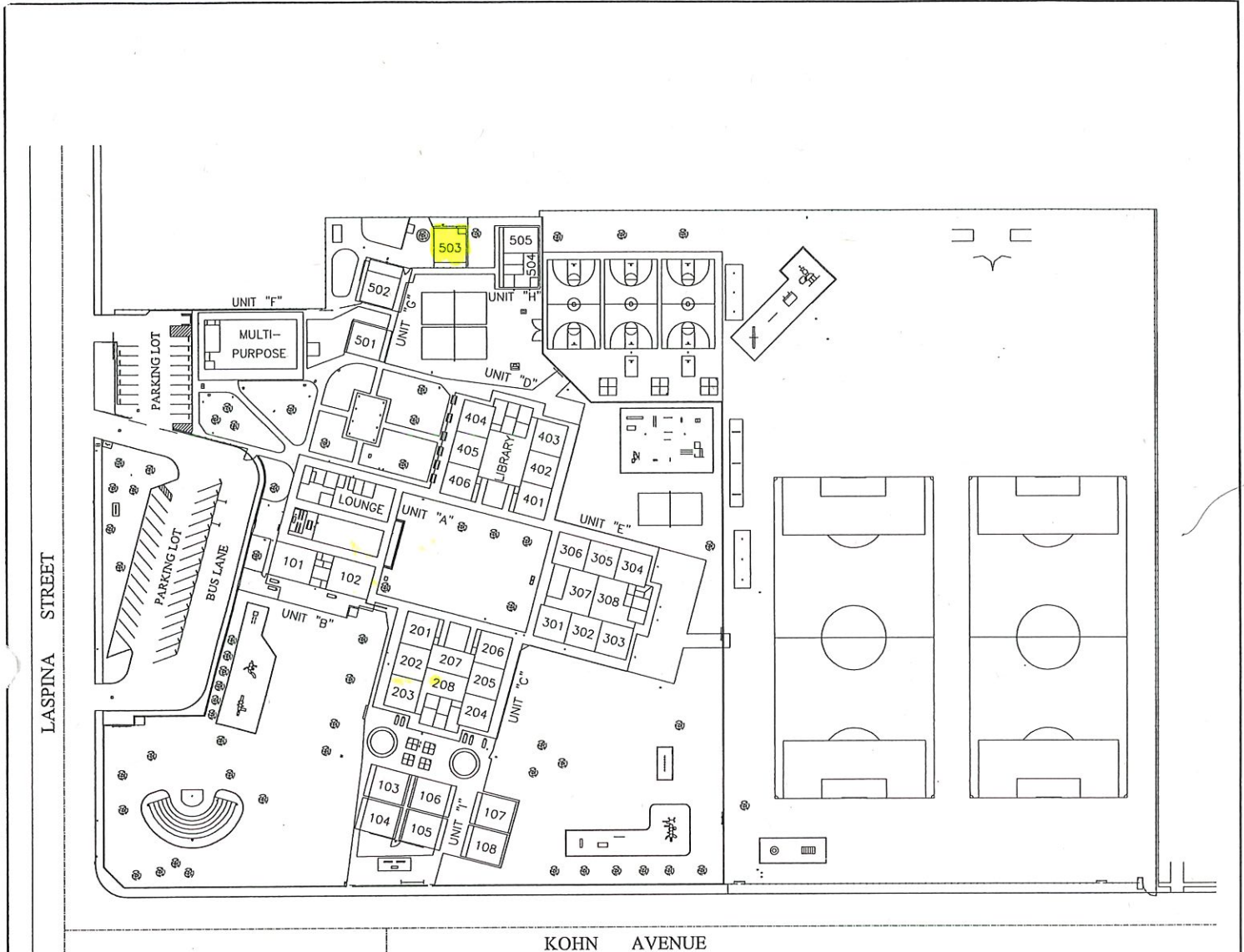


Tulare City Elementary School District  
 Frank Kohn Elementary School, Tulare County

- New Construction
- Modernization/Reconstruction

Diagram of Building Area

- Existing 1-A
- Proposed 2-A
- Final 3-A

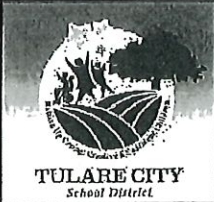
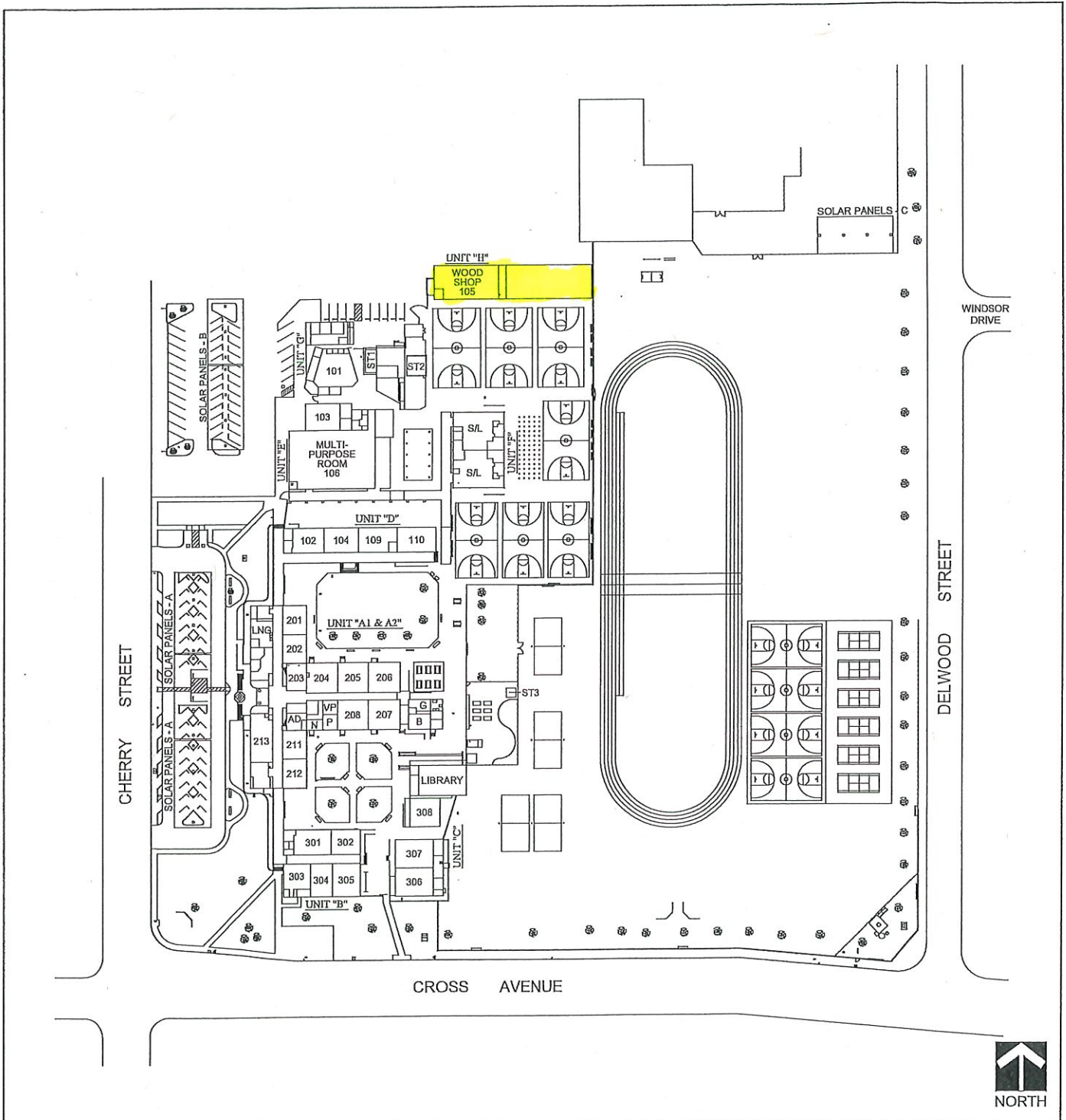


Siteplan  
 Frank Kohn Elementary School  
 500 South Laspina Street - Tulare, CA 93274  
 Web Site - [www.tcsdk8.org](http://www.tcsdk8.org)  
 Phone (559) 685-7340 FAX (559) 685-7343

The above is measured in accordance with the laws and regulations governing the State School Building Lease-Purchase Program.  
[cadxservices@yahoo.com](mailto:cadxservices@yahoo.com)

- New Construction
- Modernization/Reconstruction

- Existing 1-A
- Proposed 2-A
- Final 3-A



**SITE PLAN**  
**CHERRY AVENUE MIDDLE SCHOOL**  
 540 North Cherry Street - Tulare, CA 93274  
 Web Site: [www.tcsdk8.org](http://www.tcsdk8.org)  
 Phone: (559) 685-7200, Fax: (559) 685-7248

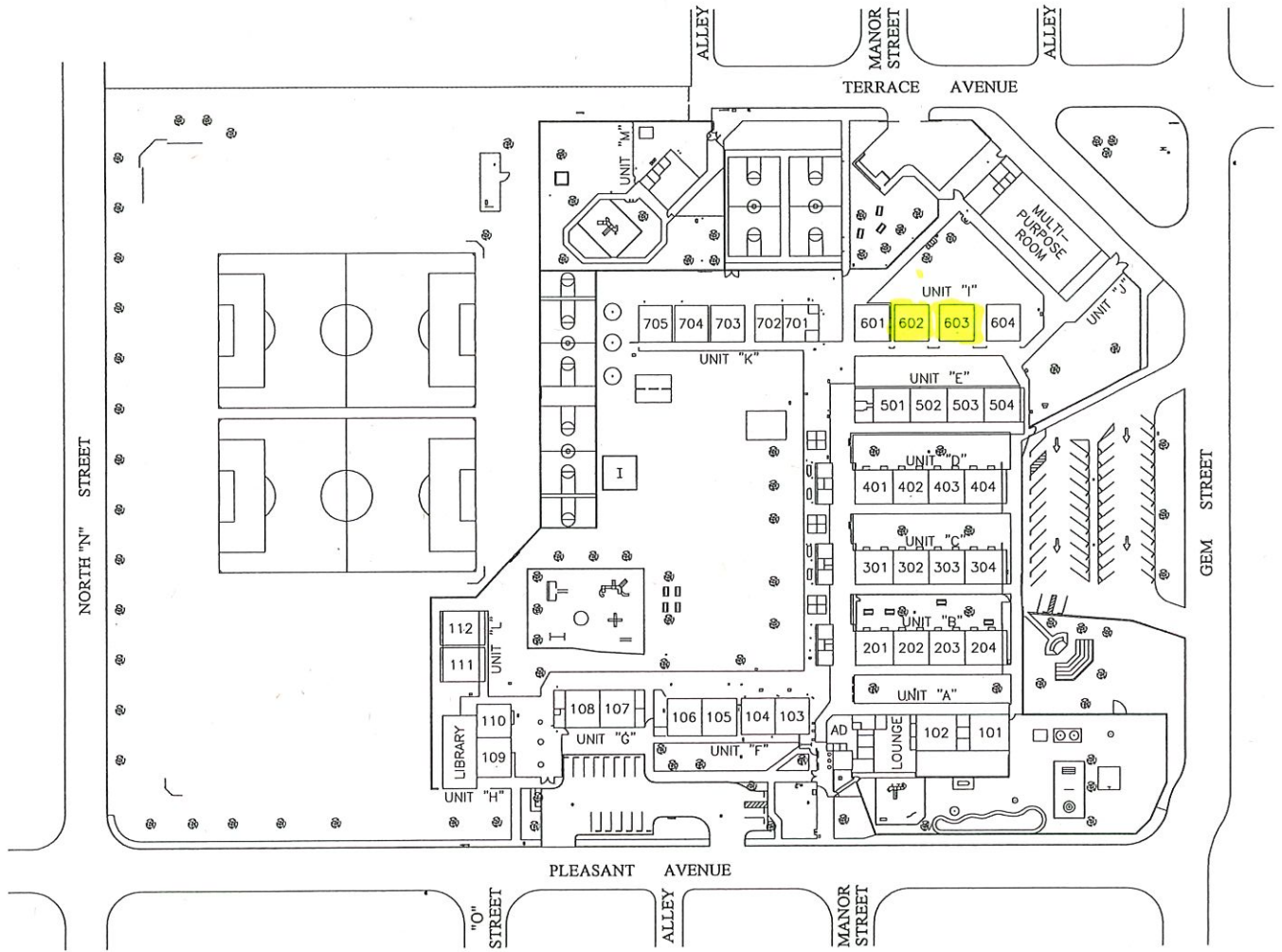


Tulare City Elementary School District  
 Garden Elementary School, Tulare County

- New Construction
- Modernization/Reconstruction

Diagram of Building Area

- Existing 1-A
- Proposed 2-A
- Final 3-A



Siteplan  
 Garden Elementary School  
 640 East Pleasant Avenue - Tulare, CA 93274  
 Web Site - [www.tcsdk8.org](http://www.tcsdk8.org)  
 Phone (559) 685-7330 FAX (559) 685-7331

The above is measured in accordance with the laws and regulations governing the State School Building Lease-Purchase Program.  
[cadxservices@yahoo.com](mailto:cadxservices@yahoo.com)

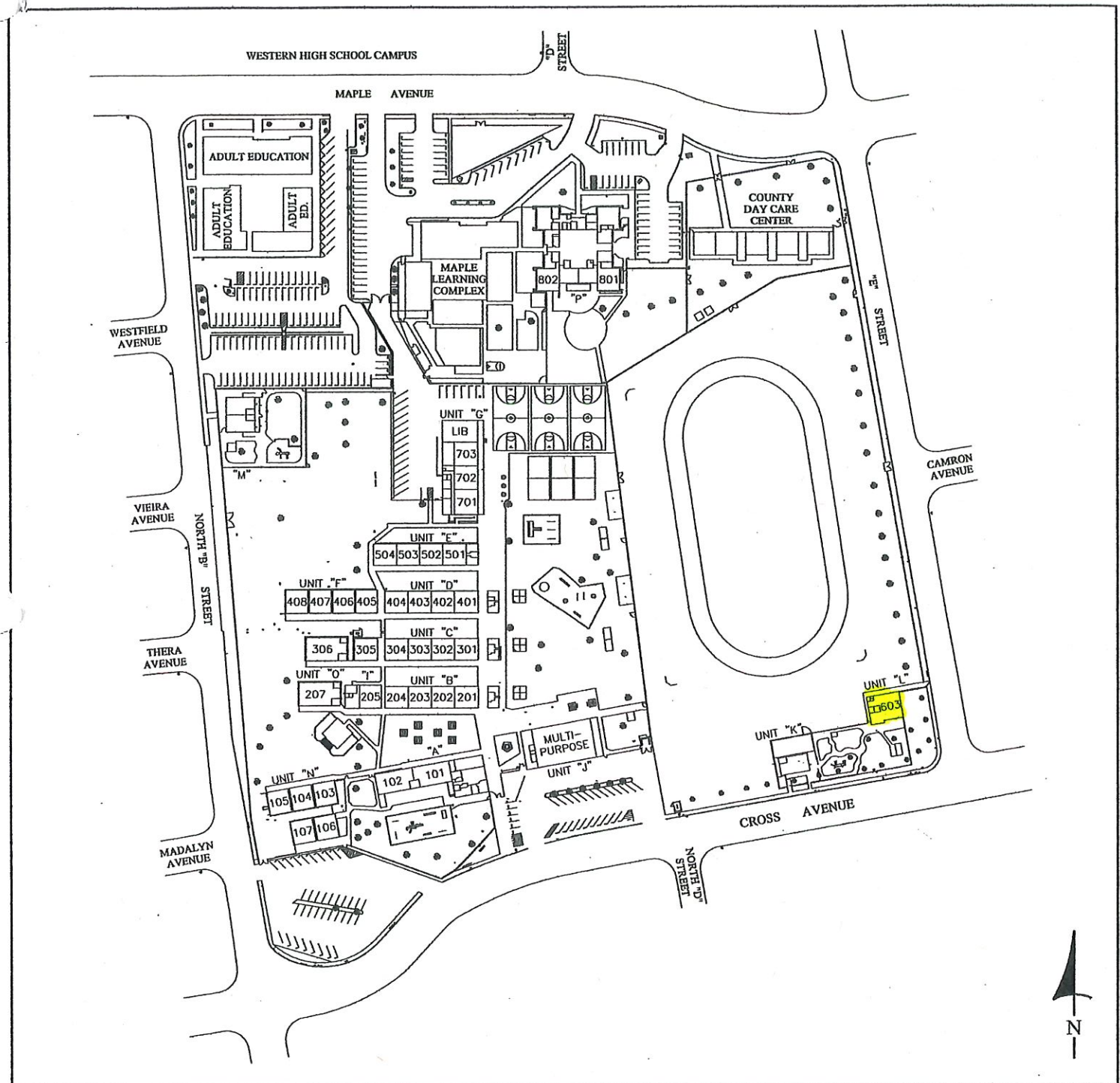
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Tulare City Elementary School District  
 Maple Elementary School, Tulare County

- New Construction
- Modernization/Reconstruction

Diagram of Building Area

- Existing 1-A
- Proposed 2-A
- Final 3-A



**Siteplan**  
 Maple Elementary School  
 640 West Cross Avenue - Tulare, CA 93274  
 Web Site - [www.tcsdk8.org](http://www.tcsdk8.org)  
 Phone (559) 685-7270 FAX (559) 685-7272

The above is measured in accordance with the laws and regulations governing the State School Building Lease-Purchase Program.  
[cadxservices@yahoo.com](mailto:cadxservices@yahoo.com)

February 17, 2010  
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