

NOTICE TO BIDDERS

Notice is hereby given that Tulare City Elementary 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 TCSD PROFESSIONAL DEVELOPMENT CENTER & LINCOLN ELEMENTARY SCHOOL 400 WING

As per drawings and specifications which may now be obtained electronically from the District at <http://www.tcsdk8.org>.

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, labeled (Bid), and filed in the Business Office of the Owner Attn: Joyce Nunes at 600 North Cherry St., Tulare, CA 93274 by Wednesday, March 3, 2021, before 11:00 a.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 public reading of the bids will occur outside in the parking lot at 11:30 a.m. the same day.

A **mandatory** pre-bid "site visit" will be held on Tuesday, February 16, 2021 at 9:00 a.m. at TCSD Professional Development Center, 505 W. Maple, Tulare, CA. Bidders not attending the site visit" will be 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-39" 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. The required rates are on www.dir.ca.gov.

July 14, 2020
January 26, 2021

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

By: 

Assistant Supt. of Business Services/Psych. Services

Advertise: Friday, February 5, 2021
Friday, February 12, 2021

INSTRUCTIONS TO BIDDERS

ROOF INSTALLATION AT THE TCSD PROFESSIONAL DEVELOPMENT CENTER & LINCON ELEMENTARY SCHOOL 400 WING

Tulare City Elementary School District

SECURING DOCUMENTS:

Drawings and Specifications are available electronically from the Owner at:
<http://www.tcsdk8.org>.

This Contract is not subject to prequalification.

RETENTION:

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 "Bid Form" therefor, obtained from the Owner. Bids not made on the proper "Bid 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 (or Owner if there is no 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. Copies of the required rates are on file at the Owner's business office and are available to any interested party on request.
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; Roof Project 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. Workers' Compensation Certification
 - c. Designation of Subcontractors
 - d. Non-Collusion Declaration
 - e. Sufficient Funds Declaration
 - f. DIR Form
 - g. Fingerprinting Notice and Acknowledgement
 - h. Roof Project Certification
 - i. Bid Bond
 - j. Iran Contracting Act Certification, if required by law
 - k. Contractor Questionnaire, if required
 - l. DVBE Participation Certification, if required
 - m. DVBE Good Faith Worksheet, if required

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 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. If required, 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

SUBSTITUTION OF MATERIALS: The Contractor must ensure that the proposed substitutions by the Contractor or its subcontractors are submitted to the Owner a minimum of ten (10) calendar days prior to the bid opening for review and possible approval of any equipment or materials thought to be equal to or better than those specified in the drawings or specifications. An addendum may be issued prior to bid opening, including all equipment and materials deemed equivalent to those specified and approved by the Owner. Submittals shall include comparative spec-data of the specified equipment or material and the proposed substitution as set forth in the Contract Documents. Submittals without this information will be automatically rejected.

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.

TIME OF COMPLETION AND LIQUIDATED DAMAGES: Time is of the essence in this contract, the start date for this project will be June 16, 2021 and the time of Completion for the work is July 21, 2021. Liquidated damages for delay in Completion of the Work within the Contract Time will accrue and may be assessed as provided in the Contract Documents, including Article III of the Agreement. Should said work not be completed within the time limit as may be extended as herein provided, damages will be sustained by the owner. It is understood and agreed that it is and will be impracticable or extremely difficult to determine the actual amount of damages which the owner will sustain in the event of and by reason of such delay, and it is therefore agreed that the Contractor will pay the owner the sum of \$500.00 per calendar day for each & every day's delay beyond the time specified as and for liquidated damages, during or as a result of each calendar day by which completion of the Project is delayed beyond the completion date; in case the Contractor fails to make such payment, the Owner may deduct the amount thereof from any money due or that may become due the Contractor under the Contract. Should such money not be sufficient, the Owner shall have the right to recover the balance from the Contractor or its Sureties.

BID 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 INSTALLTION AT THE TCSD PROFESSIONAL DEVELOPMENT CENTER & LINCOLN ELEMENTARY SCHOOL 400 WING** 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.

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.)

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.*

NONCOLLUSION DECLARATION
TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

Owner: Tulare City Elementary School District

Contract for: Roof Installation at the TCSD Professional Development Center Project & Lincoln Elementary School 400 Wing.

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

Sufficient Funds Declaration
(Labor Code section 2810)

To Be Executed by Bidder and Submitted with Bid

Owner: Tulare City Elementary School District

Contract for: Roof Installation at the TCSD Professional Development Center Project & Lincoln Elementary School 400 Wing.

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 of In
(Contractor Name)

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

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], _____ and [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

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.

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 Tulare Elementary School District "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).

LINCOLN 400 WING ROOF

1. TEAR OFF OLD ROOFING. CHECK FOR DRY ROT.
2. ATTACH CLASS "A" SLIP SHEET TO DECK
3. INSTALL 60 MIL TPO SINGLE PLY MEMBRANE OVER SLIP SHEET
4. NEW EDGE, CURB, AND PIPE FLASHINGS
5. 20 YEAR WARRANTY

TCSO PROFESSIONAL DEVELOPMENT CENTER

SCOPE OF WORK

1. Tear off and dispose of asphalt cap sheet roof. Install new insulated, Class A TPO roof assembly according to provided specifications.
2. Removal and replacement of all fascia boards to include trimming of rafter tails on all sides of the structure.
 - a. Replacement materials should be common current day lumber. (Existing lumber is not readily available and may prove cost prohibitive to obtain)
 - b. Prime and paint to match as close as possible to existing colors.
3. Tile that is to be removed from the lower portions of the steep to low slope tie-in shall be reused to flush out the eave of the eastern eave where the rafter tails are to be trimmed flush and new fascia board installed.
4. Remove roof material in an orderly manner to prevent mess on the grass or playing area.
5. Handle rain gutters with care. Gutters must be cleaned and reseal all joints.
6. Need to coordinate with other Contractor's so that all work that is required will be completed and properly installed.



SECTION 07540

THERMOPLASTIC SINGLE-PLY ROOFING

***TCSD Professional Development Center
505 W Maple Avenue
Tulare, CA 93274***

PREPARED BY:
Dustin Shaff

Note: GAF does not practice architecture or engineering. This Design Line is provided as a guide specification and is based on criteria provided to GAF. GAF has not observed the jobsite conditions, contract specifications, or other documents and shall not be construed in any manner to be the designer of record.

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes
 - 1. Thermoplastic Polyolefin Single-Ply Roofing Membrane
 - 2. Thermoplastic Polyolefin Flashings
 - 3. Thermoplastic Polyolefin Accessories
 - 4. Insulation
- 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. American Society for Testing and Materials (ASTM) - Annual Book of ASTM Standards
 - 1. ASTM D-751 – Standard Test Methods for Coated Fabrics
 - 2. ASTM D-2137 - Standard Test Methods for Rubber Property—Brittleness Point of Flexible Polymers and Coated Fabrics
 - 3. ASTM E-96 - Standard Test Methods for Water Vapor Transmission of Materials
 - 4. ASTM D1204 - Standard Test Method for Linear Dimensional Changes of Nonrigid Thermoplastic Sheeting or Film at Elevated Temperature
 - 5. ASTM D-471 - Standard Test Method for Rubber Property—Effect of Liquids
 - 6. ASTM D-1149 - Standard Test Methods for Rubber Deterioration—Cracking in an Ozone Controlled Environment
 - 7. ASTM C-1549 - Standard Test Method for Determination of Solar Reflectance Near Ambient Temperature Using a Portable Solar Reflectometer
 - 8. ASTM C-1371 - Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers
 - 9. ASTM E 903 – Standard Test Method for Solar Absorptance, Reflectance, and Transmission of Materials Using Integrating Spheres
 - 10. ASTM G155 - Standard Practice For Operating Xenon Arc Light Apparatus For Exposure Of NonMetallic Materials
 - 11. ASTM D573 - Standard Test Method For Rubber - Deterioration In An Air Oven
- B. Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA) - *Architectural Sheet Metal Manual*
- C. National Roofing Contractors Association (NRCA)
- D. American Society of Civil Engineers (ASCE)
- E. U.S. Green Building Council (USGBC)
 - 1. Leadership in Energy and Environmental Design (LEED)
- F. California Title 24 Energy Efficient Standards
- G. ENERGY STAR
- H. Cool Roofing Rating Council (CRRC)

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.
- 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.
- C. Heat Aging
1. Test Method D573. Age sheet specimens for 150 days at 275°F. After exposure, the specimens shall be removed, wrapped around a 3 inch mandrel, and inspected for cracks and crazing. A specimen is rated "pass" if no cracks or crazing is observed.

D. Weather Resistance:

1. Test Method G151 and G155, using conditions detailed in ASTM D6878 except that the radiant exposure should be 40,320 kJ/m².nm at 340 nm (i.e. 4 times the D6878 standard). After exposure, the specimens shall be removed, wrapped around a 3 inch mandrel, and inspected for cracks and crazing. A specimen is rated "pass" if no cracks or crazing is observed.

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 a GAF® 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.

1.11 WARRANTY

- A. Provide Manufacturers standard EverGuard® Diamond Pledge□ Guarantee 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.
 - a) Materials and workmanship of listed products within this section are included when installed in accordance with current GAF application and specification requirements. Contact GAF Technical Support Services for the full terms and conditions of the guarantee.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURER

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

2.02 INSULATION

- A. Coated glass fiber and a special coated glass-fiber facer laminated to a closed-cell polyisocyanurate foam core. Conforms to or exceeds the requirements of ASTM C 1289 Type II, Class 2, Grade 2. **EnergyGuard™ Barrier Polyiso Insulation**, with the following characteristics:
1. Board Thickness: ½”
 2. Thermal Resistance (LTTR value) of: 2.9
 3. Compressive Strength: 20 psi

2.03 MEMBRANE MATERIALS

- A. A smooth type, polyester scrim reinforced thermoplastic polyolefin membrane for use as a single ply roofing membrane. Engineered to provide high solar reflectivity and extremely high UV and thermal resistance. These combined characteristics produce a single-ply membrane suitable for the most demanding solar installations as well as any other high heat or solar loading applications. 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.
1. **EverGuard Extreme® TPO 50 Mil Membrane by GAF.**
 - a) 10' X 100', each roll contains 1000 sq. ft. of material weighing 271 lbs.
 - b) Half sheet rolls are required to be used in the perimeter for mechanically attached systems.
 - c) Color: White

2.04 CURB/WALL FLASHING MEMBRANE

A. GENERAL

1. EverGuard® membrane flashing should be of the same type and thickness as the roof membrane. EverGuard® Freedom™ TPO can be used with EverGuard® TPO membrane for flashing in the same thickness as the field membrane.
2. The use of EverGuard Extreme® TPO flashings is required on EverGuard Extreme® systems.
3. Because colored TPO membranes may exhibit different welding characteristics, please call the GAF Technical Support Services hotline at 800-766-3411 before attempting to weld different-colored TPO membranes with white membranes or flashings.
4. EverGuard® TPO Fleece-Back membranes are optional flashing membranes for all EverGuard® TPO systems. These membranes may be a solution when a contaminated substrate is encountered.

B. FLASHING MEMBRANE

1. A smooth type, polyester scrim reinforced thermoplastic polyolefin membrane for use as a single ply roofing membrane. Engineered to provide high solar reflectivity and extremely high UV and thermal resistance. These combined characteristics produce a single-ply membrane suitable for the most demanding solar installations as well as any other high heat or solar loading applications. 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.
 - a) **EverGuard Extreme® TPO 50 Mil Membrane by GAF.**

2.05 ADHESIVES, SEALANTS AND PRIMERS

- A. Sprayable, Low VOC solvent-based contact adhesive used for bonding smooth EverGuard® and EverGuard® Extreme® TPO membranes. One canister covers 10 squares. **EverGuard® TPO Quick Spray Adhesive LV50** by GAF®.
- A. Solvent based seam cleaner used to clean exposed or contaminated seam prior to heat welding, **EverGuard® TPO Seam Cleaner**, by GAF®.

- B. 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.
EverGuard[®] Water Block, by GAF.
- C. One-part, moisture-cure, self-leveling sealant designed for use in pitch pans on single ply roof systems.
EverGuard[®] One-Part Pourable Sealant.

2.06 FASTENERS AND PLATES

A. Mechanical Fasteners & Plates

1. **Drill•Tec[™] Standard Screws**: Standard duty alloy steel insulation fastener with CR-10 coating with a .220" diameter thread. Factory Mutual Standard 4470 Approved, #3 Phillips head for use on steel and wood decks.
2. **Drill•Tec[™] HD Screws**: Heavy gauge alloy steel fastener with CR-10 coating with a .245" (6.2 mm) diameter thread. Miami Dade and Factory Mutual Standard 4470 Approved, #3 Phillips truss head for use on wood, concrete and steel decks.
3. **Drill•Tec[™] Insulation Plates**: Galvalume, 3" (76 mm) diameter, suitable for use with Drill•Tec[™] Standard and HD screws, and Drill•Tec[™] Spikes. Special design available for use with Drill•Tec[™] Polymer Screws.
4. **Drill•Tec[™] XHD Plates**: Galvalume, 2 3/8" (60 mm) diameter, with a barbed underside. Suitable for use with Drill•Tec[™] Standard, HD, and XHD Screws, Purlin Fasteners and Drill•Tec[™] Spikes.

2.07 FLASHING ACCESSORIES

A. GENERAL 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, 0.055 inches (55 mils) nominal thickness and sheet size: 24in x 50ft.
EverGuard[®] TPO Detailing Membrane, by GAF[®].
2. An 8 inch (203 mm) 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, **EverGuard[®] TPO Flashing Membrane**, by GAF[®].
3. 25 mil TPO membrane laminated to galvanized sheet metal for fabrication into metal gravel stop and drip edge profiles, metal base and curb flashings, sealant pans, and scupper sleeves. **EverGuard[®] TPO Coated Metal**, by GAF[®].
 - a) Metal type: Available in 24 gauge, 20 gauge, Aluminum, and Stainless steel
 - b) Sheets per pallet: Available in 5, 10, or 30
 - c) Sheet Size: 4' x 10' or Custom size
 - d) Sheet Color: White
 - i) Custom colors available
4. 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, **DRILL-TEC[™] Termination Bar**, by GAF[®].

B. FIELD OF ROOF 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, 0.055 inches (55 mils) nominal thickness and sheet size: 24in x 50ft. **EverGuard[®] TPO UN-55 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, **EverGuard[®] TPO Utility Flashing Membrane**, by GAF.

3. 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, **EverGuard® TPO Coated Metal**, by GAF.
4. .055" thick smooth type, unreinforced thermoplastic polyolefin membrane designed for use as a conforming membrane seal over T-joints in 60, 70 and 80 mil membrane applications. **EverGuard® T-Joint Patches**, by GAF®.

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, **EverGuard® TPO Scupper**, by GAF
3. .045" or .060" thick reinforced TPO membrane fabricated corners. Available in four standard sizes to flash curbs that are 24", 36", 48", and 60" in size. Four corners are required to flash the curb, **EverGuard® Corner Curb Wraps**, by GAF®.
4. 0.060" thick molded TPO membrane outside corners of base and curb flashing. Hot-air welds directly to EverGuard® TPO membrane. Size 4" x 4" with 6" flange, **EverGuard® TPO Universal Corners** by GAF®.
5. 8" diameter, nominal .050" vacuum formed unreinforced TPO membrane for use in flashing outside corners of base and curb flashings, **EverGuard® TPO Fluted Corner**, by GAF.
6. 0.050" molded TPO membrane inside corners of base and curb flashing. Hot-air welds directly to EverGuard TPO membrane. Size 6" x 6" x 5.25" high **EverGuard® TPO Inside Corners** by GAF.

D. PENETRATION ACCESSORIES

1. 0.075" thick molded TPO membrane sized to accommodate most common pipe and conduits, (1" (25.4 mm) to 6" diameter pipes), including square tube. Hot-air welded directly to EverGuard® TPO membrane, supplied with stainless steel clamping rings, **EverGuard® TPO Preformed Vent Boots** by GAF®.
2. 0.045" or 0.60" thick molded TPO membrane preformed boots are split to accommodate most common pipes and conduits and available in three standard sizes, **EverGuard® TPO Split Pipe Boots**, by GAF®.
3. 0.045" or 0.60" thick molded TPO membrane preformed square boots are split to accommodate most common square penetrations and conduits and available in three standard sizes, **EverGuard® 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). **EverGuard® TPO Pourable Sealer Pocket**
5. 0.055" 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. **EverGuard® TPO Drain** by GAF®

E. WALKWAYS

1. 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, **EverGuard® TPO Walkway Rolls**, GAF.

PART 3 EXECUTION

3.01 SITE CONDITIONS

- A. Obtain verification that the building structure can accommodate the added weight of the new roofing system.
- B. Confirm the adequacy of the new roofing system to provide positive slope to drain. Eliminate ponding areas by the addition of drainage locations or by providing additional pitch to the roof surface.
- C. Prepare substrate surfaces thoroughly prior to application of new roofing materials. This is particularly important for re-cover and reroofing applications. Providing a smooth, even, sound, clean, and dry substrate minimizes the likelihood that underlying deficiencies will cause premature deterioration or even failure of the new roofing system.

- D. All defects in the roof deck or substrate must be corrected by the responsible parties before new roofing work commences. Verify that the deck surface is dry, sound, clean, and smooth, and free of depressions, waves, or projections.
- E. Protect building surfaces against damage and contamination from roofing work.
- F. Where work must continue over completed roof areas, protect the finished roofing system from damage.
- G. Deck preparation is the sole responsibility of the building owner or roofing contractor. All defects in the roof deck or substrate must be corrected before roofing work commences.
- H. Refer to GAF Roof Guarantee Program for specific requirements for extended guarantees.

3.02 SUBSTRATE PREPARATION

- A. Tear-off
 1. Remove all existing roofing materials to the roof decking, including flashings, metal edgings, drain leads, pipe boots, and pitch pockets, and clean substrate surfaces of all asphalt and adhesive contaminants.
 2. Confirm the quality and condition of the roof decking by visual inspection. Fastener pull-out testing must be conducted by the roof fastener manufacturer.
 3. Secure all loose decking. Remove and replace all deteriorated decking.
 4. Remove abandoned equipment and equipment supports.
 5. Confirm that the height of equipment supports will allow the installation of full-height flashings.
- B. Plywood Deck
 1. Plywood sheathing must be C-D Exposure 1 APA Rated, minimum 4 ply, and not less than 15/32" 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. The panels must be secured in accordance with APA--The Engineered Wood Association recommendations, "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.
 7. Moisture content not to exceed 16%.
 8. Insulation above the deck may be necessary to prevent condensation from adversely affecting the deck.
 9. Must meet minimum pull out values. Minimum 5 test pulls per 1,000 sq. ft. (93 sq. m.).
 10. Code standards apply when their requirements exceed those listed here.

3.03 NAILER INSTALLATION

- A. Acceptable Wood
 1. Solid Blocking: Non-pressure treated wood as required, #2 Grade or better, nominal 1 1/4" (30 mm) x 4" (102 mm) with a minimum thickness of 3 1/2" (88 mm).
 2. Shim Material: Plywood, 1/2" (13 mm) x width to match solid blocking.
 3. Verify the condition of existing roof nailers and anchor to resist 250 lb. per ft. (550 kg) load applied in any direction. New nailers should meet same load requirements.
 4. DRILL-TEC™ HD screws 18" (457 mm) o.c. attachment to structural wood, steel decks with a 1" (25 mm) thread embedment.
 5. DRILL-TEC™ spikes or HD screws 18" (457 mm) o.c. attachment to concrete decks. Min. 1" (25 mm) shank or thread penetration.
 6. Wood nailers attached to gypsum, concrete, cellular concrete and cementitious wood fiber must be fastened 12" (305 mm) o.c., through the nailer into the substrate with substrate approved DRILL-TEC™ fasteners.

7. Three anchors per length of wood nailer minimum.

B. Metal Blocking

1. 20 Ga. galvanized steel box with pre-punched holes and supplied with corrosion-resistant fasteners.
2. Closure and finish strip required for metal decking.
3. Secure in place using provided #14 x 1½-in. universal fasteners through pre-punched holes to roof edge.
4. Install end cap and top of box section with #14 x 1½-in. universal fasteners.

3.04 INSTALLATION – GENERAL

- A. Install GAF's EverGuard® TPO roofing system according to all current application requirements in addition to those listed in this section.
- B. GAF EverGuard® TPO Specification #: TMA150EX
- 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.

3.05 INSULATION

A. GENERAL

1. Do not apply roof insulation or roofing until all other work trades have completed jobs that require them to traverse the deck on foot or with equipment. A vapor retarder coated lightly with asphalt may be applied to protect the inside of the structure prior to the insulation and final roofing installation. Before the application of the insulation, any damage or deterioration to the vapor retarder must be repaired.
2. Do not install wet, damaged or warped insulation boards.
3. Insulation boards installed in multiple layers must have the joints between boards staggered in all directions a minimum of 6" (152 mm) between layers.
4. Butt insulation boards together with a 1/4" (6.3 mm) maximum space between adjoining boards. Fit insulation boards around penetrations and perimeter with a 1/4" (6.3 mm) maximum space between board and penetration. Do not kick insulation boards into place.
5. Insulation boards installed over steel decking must have boards placed perpendicular to deck flutes with edges over flute surface for bearing support.
6. Install tapered insulation to provide a sump area a minimum of 36" x 36" (914 mm x 914 mm) where applicable.
7. Wood nailers must be 3-1/2" (8.9 cm) minimum width or 1" (25 mm) wider than metal flange. They shall be of equal thickness as the insulation, and be treated for rot resistance. All nailers must be securely fastened to the deck.
8. Miter and fill the edges of the insulation boards at ridges, valleys and other changes in plane to prevent open joints or irregular surfaces. Avoid breaking or crushing of the insulation at the corners.
9. Insulation should not be installed over new lightweight insulating concrete.
10. Remove and replace insulation boards that become wet or damaged after installation.
11. Pre-drilling is required for concrete decks, and may be required for gypsum concrete and cementitious wood fiber decks.
12. Do not install any more insulation than will be completely waterproofed each day.

3.06 INSULATION – BASE LAYER

A. MECHANICALLY ATTACHED

1. The insulation must be securely attached to the roof deck with Drill-Tec™ #12 Standard Fasteners and 3" plates using a preliminary fastening pattern. Refer to the attachment tables in the latest version of the EverGuard® specification manual.
2. Fasten using 6 fasteners per board in the field, perimeter and corner areas.
3. Use only fasteners with a minimum 3 inch (7.6 cm) stress plate when mechanically attaching insulation. Do not attach insulation with nails.

3.07 SINGLE PLY MEMBRANE APPLICATION

A. GENERAL

1. Substrates must be inspected and accepted by the contractor as suitable to receive and hold roof membrane materials.
2. Place roof membrane so that wrinkles and buckles are not formed. Any wrinkles or buckles must be removed from the sheet prior to permanent securement.
3. Membrane that has been exposed for more than 12 hours or has become contaminated will require additional cleaning methods.
 - a) Light Contamination - Membrane that has been exposed overnight up to a few days to debris, foot traffic, or dew or light precipitation can usually be cleaned with a white cloth moistened with EverGuard® TPO Cleaner (or EverGuard® CleanWeld™ Conditioner, a low-VOC cleaner) for TPO membranes.
 - b) Dirt-Based Contamination - Membrane that is dirt encrusted will require the use of a low-residue cleaner, such as Formula 409® and a mildly abrasive scrubbing pad to remove the dirt. This must be followed by cleaning with a white cloth moistened with EverGuard® TPO Cleaner (or EverGuard® CleanWeld™ Conditioner) for TPO membranes.
 - c) Exposure-Based Contamination - Membrane that is weathered or oxidized will require the use of EverGuard® TPO Cleaner, EverGuard® CleanWeld™ Conditioner and a mildly abrasive scrubbing pad to remove the weathered/oxidized top surface layer. This must be followed by cleaning with a white cloth moistened with EverGuard® TPO Cleaner (or EverGuard® CleanWeld™ Conditioner) for TPO membranes. Unexposed membrane left in inventory for a year or more may need to be cleaned as instructed above. Be sure to wait for solvent to flash off prior to welding.
 - d) Chemical-Based Contamination - Membrane that is contaminated with bonding adhesive, asphalt, flashing cement, grease and oil, and most other contaminants usually cannot be cleaned sufficiently to allow an adequate heat weld to the membrane surface. These membranes should be removed and replaced.

B. 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" (152 mm) for side laps of mechanically attached systems. Membranes are provided with lap lines along the side laps; the inside line is for mechanically attached system overlaps. TPO fastener spacing marks should resemble a "pyramid" pattern.
3. For selvage edge laps of EverGuard® TPO membrane, overlap the roof membrane a minimum of 3" (76 mm) and heat weld the laps. Non-salvage end laps of TPO Fleece-Back membranes are made by butting adjacent sheets and heat welding an 8" (203 mm) wide EverGuard® TPO reinforced membrane flashing strip over the end laps.
4. Install membrane so that the side laps run across the roof slope lapped towards drainage points.
5. On metal decking, install sheets perpendicular to deck direction so that fasteners will penetrate the top flanges and not the flutes; however, there will be limited areas of the roof (i.e., perimeter areas) where this is not practical. If the deck is running opposite the slope of the roof (flutes running horizontally), then the membrane should run ridge-to-gutter to ensure proper fastening to the top flanges of the deck.
6. All exposed sheet corners shall be rounded a minimum of 1".
7. 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. Width of the perimeter region must be determined in accordance with the Perimeter Half Sheet Table in the EverGuard® specification manual.
8. 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.
9. Weld shall be a minimum of 1-1/2" in width for automatic machine welding and a minimum 2" in width for hand welding.
10. All cut edges of reinforced membrane must be sealed with EverGuard® TPO Cut Edge Sealant.

11. The membrane shall be mechanically fastened in the side lap area to the roof deck with Drill-Tec[®] #14 HD Fasteners and 2 3/8" XHD Plates, 12" o.c.
12. The metal plates must be placed within 1/4" to 3/4" of the membrane edge. Plates shall not be placed less than 1/4" from the membrane edge.
13. Pre-drilling is required for concrete decks, and may be required for gypsum concrete and cementitious wood fiber decks.
14. 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 EverGuard[®] TPO reinforced membrane flashing-strip welded over the additional fasteners. Corners include both outside and inside corners that measure 75° - 105° angle.
15. Membrane attachment to the roof deck is required at locations of deck angle changes in excess of five (5) angle degrees (1" in 12").
16. 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 1/2" 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.
17. 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.
18. Fasteners must be installed to achieve the proper embedment depth. Install fasteners without lean or tilt.
19. 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).

3.08 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 nonreinforced 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 EverGuard[®] TPO Cut Edge Sealant.
6. Consult the EverGuard[®] *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 EverGuard construction details and SMACNA guidelines.
2. Coated metal sections used for roof edging, base flashing and coping shall be butted together with a 1/4" 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. Apply the adhesive only when outside temperature is above 40°F. Recommended minimum application temperature is 50°F to allow for easier adhesive application.
 4. The membrane flashing shall be carefully positioned prior to application to avoid wrinkles and buckles.
 5. Please note that solvent-based adhesives must be allowed to dry until tacky to the touch before mating flashing membrane. Water-based adhesive must be allowed to flash off completely.
 6. Heat-weld all laps in EverGuard® smooth-reinforced flashing membrane in accordance with heat-welding guidelines. All seams in fleece-back membrane and smooth field sheet must be stripped in with 8” (203 mm) flashing strip.
 7. For extended length guarantees, separate counterflashing is required; exposed termination bars are not acceptable.
- D. Self-Adhered Membrane Flashings:
1. Install self-adhering membrane flashings according to all applicable GAF® construction details.
 2. Apply flashing membrane only when outside temperature is above 40°F. Recommended minimum application temperature is 50°F to allow for improved adhesive performance.
 3. The membrane flashing shall be carefully positioned prior to removal of release film to avoid wrinkles and buckles.
 4. Adhere flashing membrane to the walls by removing the release film. Broom or roll all walls. All seams shall be rolled-in with a silicone roller.
- E. 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.
 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. Apply the adhesive only when outside temperature is above 40°F. Recommended minimum application temperature is 50°F to allow for easier adhesive application. Water-based adhesives are approved for use with smooth TPO membranes for flashings only.
 4. The membrane flashing shall be carefully positioned prior to application to avoid wrinkles and buckles.
 5. Please note that solvent-based adhesives must be allowed to dry until tacky to the touch before mating flashing membrane. Water-based adhesive must be allowed to flash off completely.
- F. 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 coated metal flanged edging with a minimum 3” (76 mm) wide flange nailed 4” (102 mm) on center to wood nailers, and heat weld 8” (203 mm) membrane strip to metal flanges.
 3. When the fascia width exceeds 4” (102 mm), 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” (305 mm) o.c.
 4. 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.

5. 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" (152 mm) on center prior to installing a snap-on fascia.
 - a) Submit design drawings for review and approval to Architect or Specifier before fabrication.
 - b) Installing contractor shall check as-built conditions and verify the manufacturer's roof edging details for accuracy to fit the wall assembly prior to fabrication. The installer shall comply with the roof edging manufacturer's installation guide when setting edging.
- G. Parapet and Building Walls:
1. Flash walls with EverGuard® TPO membrane adhered to the substrate with bonding adhesive, loose applied or with coated metal flashing nailed 4" (102 mm) on center to pressure-treated wood nailers.
 2. Maximum flashing height without intermediate fastening is 24" (610 mm) for loose-applied flashing and 54" (1.4 m) for adhered flashing
 3. Secure membrane flashing at the top edge with a termination bar. EverGuard® Water Block shall be applied between the wall surface and membrane flashing underneath all exposed termination bars. Exposed termination bars shall be mechanically fastened 6" (152 mm) on center for guarantees less than 20 years and 12" (305 mm) on center for guarantees greater than 20 years or that are counter-flashed.
 4. Exposed termination bars must be sealed with Flexseal™ Caulk Grade Sealant.
 5. Roof membrane must be mechanically attached along the base of walls with screws and plates 12" (305 mm) on center [6" (152 mm) on center for Ballasted Systems]
 6. Metal cap flashings must have continuous cleats or be face fastened 12" (305 mm) o.c. on both the inside and outside of the walls.
 7. Flash wall scuppers with a coated metal insert that is mechanically attached to the wall and integrated as part of the wall flashing.
 8. Roof Transition Anchor (R.T.A.) Strip may be installed as the alternate method of base securement for a RhinoBond® non-penetrating base attachment detail.
- H. Curbs and Ducts:
1. Flash curbs and ducts with EverGuard® TPO membrane adhered to the curb substrate with bonding adhesive, loose applied or with coated metal flashing nailed 4" on center to pressure-treated wood nailers.
 2. Maximum flashing height without intermediate fastening is 24" (610 mm) for loose-applied flashing and 54" (1.4 m) for adhered flashing
 3. Secure membrane flashing at the top edge with a termination bar. EverGuard® Water Block shall be applied between the wall surface and membrane flashing underneath all exposed termination bars. Exposed termination bars shall be mechanically fastened 6" (152 mm) on center for guarantees less than 20 years and 12" (305 mm) on center for guarantees greater than 20 years or that are counter-flashed.
 4. Exposed termination bars must be sealed with Flexseal™ Caulk Grade Sealant.
 5. Roof membrane must be mechanically attached along the base of walls with screws and plates 12" (305 mm) on center [6" (152 mm) on center for Ballasted Systems]
 6. Metal counterflashings may be optional with fully adhered flashings depending on guarantee requirements. Exposed termination bars must be sealed with Flexseal™ Roofing Cement.
 7. All coated metal curb flashings and loose applied membrane flashings must be provided with separate metal counterflashings, or metal copings.
- I. 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.

J. Expansion Joints:

1. Any prefabricated expansion joint metal nailing strips must be fastened to wood nailers, curbs or secured to walls with appropriate nails or DRILL-TEC™ Fasteners.
2. Roof membrane must be mechanically attached along the base of raised curb-expansion joints with screws and plates a minimum of 12" (305 mm) o.c. The expansion joint cover bellows shall be at least 2 times the expansion joint opening.
3. Metal nailing strip must be set in FlexSeal™ Caulk Grade Sealant and secured with fasteners and neoprene washers fastened 6" (152 mm) o.c
4. Expansion joints may be field fabricated. Reference appropriate Construction Detail.

K. Scuppers:

1. Coated-metal roof-edge scuppers must be provided with a min. 4" (102 mm) wide flange nailed to wood nailers, with hemmed edges and secured with continuous clips in accordance with the gravel stop assembly.
2. Coated-metal wall scuppers must be provided with 4" (102 mm) wide flanges, with additional corner pieces pop-riveted to the flanges to create a continuous flange. All flange corners must be rounded.
3. Install wall scuppers over the roof and flashing membrane and secure to the roof deck/wall with DRILLTEC™ Fasteners 6" (152 mm) o.c., a minimum of 2 fasteners per side.
4. All corners must be reinforced with EverGuard® PVC or EverGuard® TPO Universal Corners or fieldfabricated from EverGuard® non-reinforced materials.
5. Strip-in scupper with flashing membrane target sheet.
6. Alternately, a wall scupper box may be field-flashed using non-reinforced flashing membrane heat-welded to membrane on the wall face and roof deck. Fully adhere to the scupper box and terminate on the outside wall face with a termination bar and FlexSeal™ Caulk Grade sealant.
7. EverGuard® TPO has prefabricated scuppers in standard and custom sizes available

L. Wood Support Blocking:

1. Wood support blocking, typically 4" x 4" (102 mm x 102 mm), is usually installed under light-duty or temporary roof-mounted equipment, such as electrical conduit, gas lines, condensation, and drain lines.
2. Install wood support blocking over a protective layer of EverGuard® TPO walkway rolls or PVC walkway pads. Place wood blocking on oversized slip sheet, fold two sides vertically, and fasten with roofing nails into the blocking.

3.09 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 6" 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.

3.10 ROOF PROTECTION

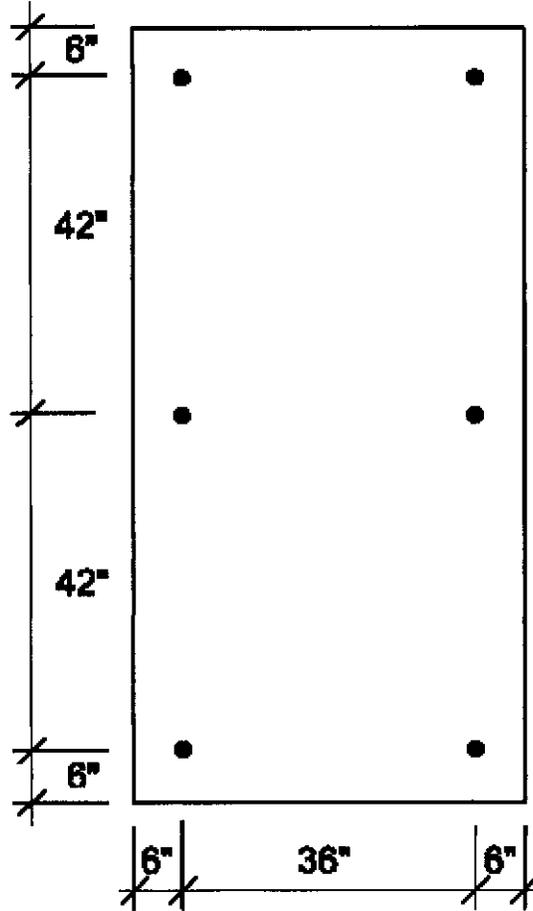
- A. Protect all partially and fully completed roofing work from other trades until completion.

- 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.

3.11 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



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Parsippany, NJ
07054

**FASTENING
PATTERNS**

INSULATION BOARD

6 FASTENERS PER 4' x 8' BOARD

SPECIFY CORNER - PERIMETER - FIELD

QUANTITY #

6

SCALE

N.T.S.

SYSTEM

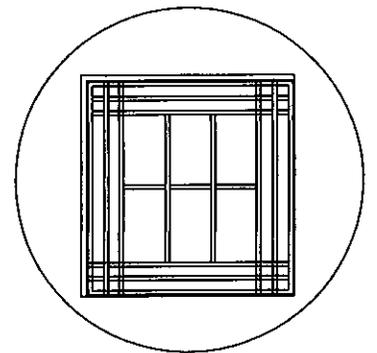
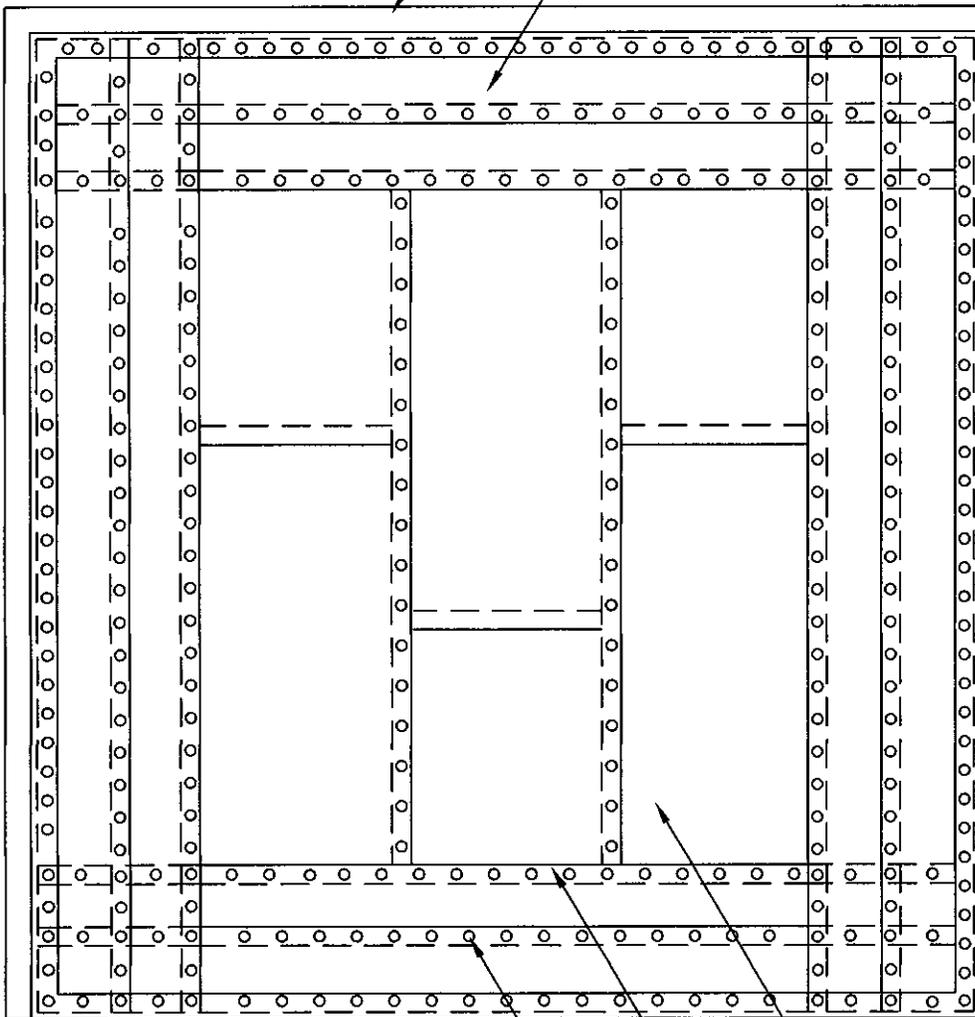
INFP-8'

INSTALLATION DATE

11-14-10

REFERENCE EVERGUARD® 300 SERIES
PARAPET WALL & CURB FLASHING DETAILS
FOR WALL TERMINATION

TYPICAL EVERGUARD® PERIMETER HALF
SHEETS



ALTERNATE

EVERGUARD® MEMBRANE

HEAT-WELDED SEAMS

DRILL-TEC™ PLATES & SCREWS

REFERENCE EVERGUARD® 200 SERIES ROOF
EDGE FLASHING DETAILS FOR EDGE
TERMINATION

NOTE:

1. SEE EVERGUARD® MECHANICALLY ATTACHED SYSTEM GUIDELINES TO DETERMINE FASTENER SPACING FOR VARIOUS DECK TYPES AND WIND UPLIFT REQUIREMENTS, AND FOR REQUIRED NUMBER OF PERIMETER HALF SHEETS.
2. FOR INSULATION THICKNESS GREATER THAN 8" (203 mm), A HARD BOARD IS REQUIRED ON MECHANICAL SYSTEMS ONLY.



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EverGuard
SINGLE-PLY ROOFING SYSTEMS
FIELD OF ROOF
SERIES

DRAWING #

101A

ROOF MEMBRANE LAYOUT DETAIL

SCALE
N.T.S.

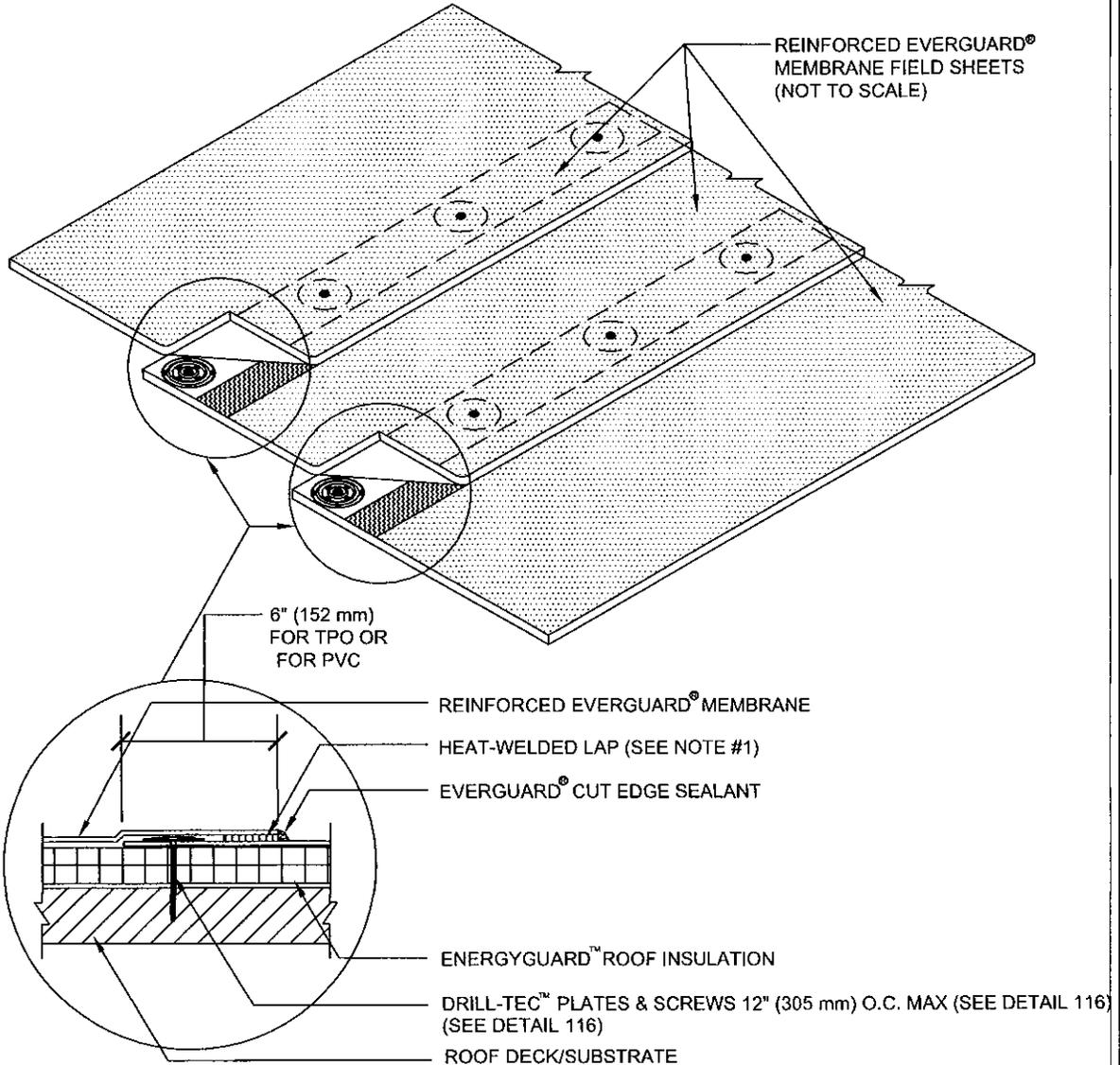
THIS DETAIL APPLIES TO:

Mechanically
Attached Systems

REVISION DATE
6-20-16

ARCHITECTURAL DETAIL DRAWINGS
 EverGuard® TPO/PVC Architectural Roofing Details Manual

100 Series
 Field of Roof



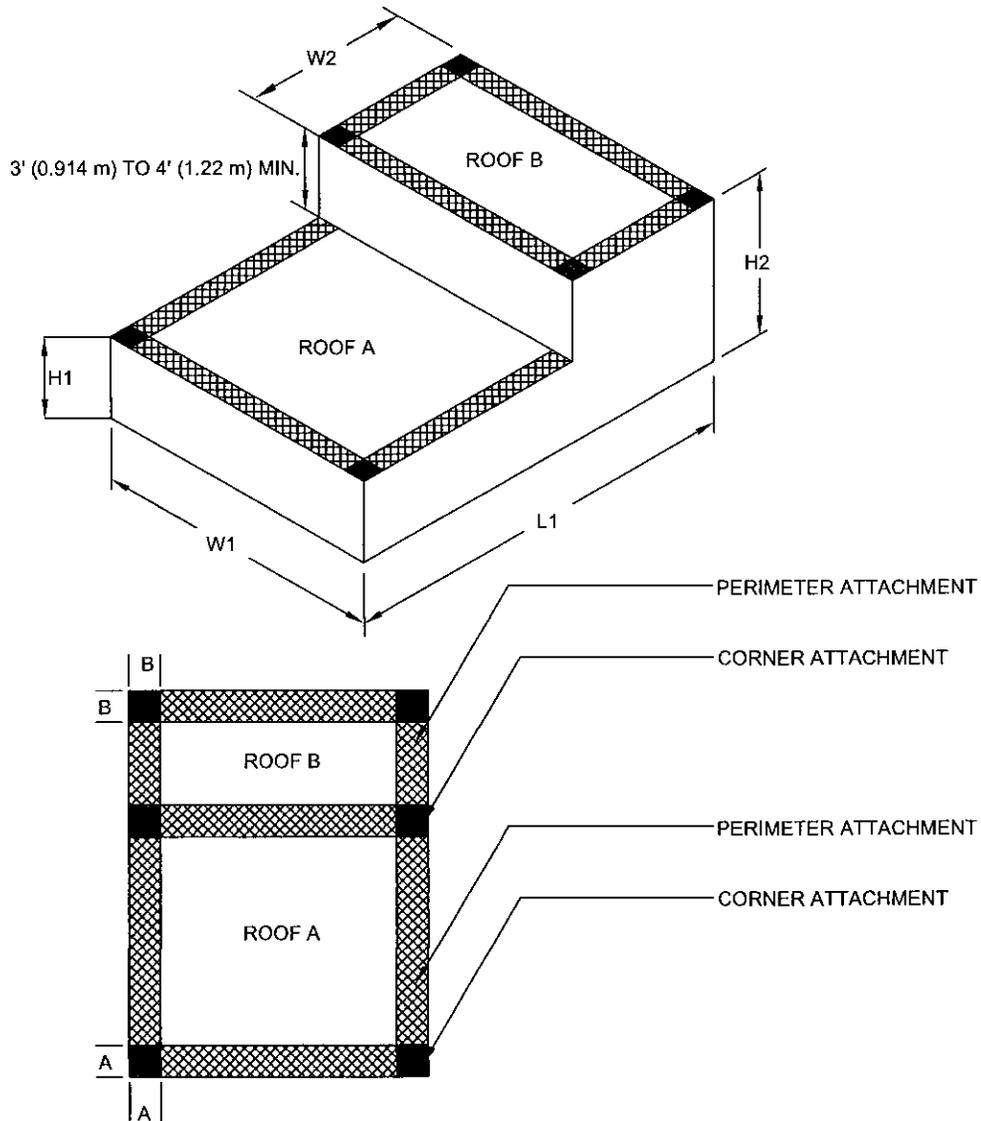
NOTE:

1. FOR HEAT-WELDING LAPS USE 1.5" MAX (25.4 mm) WELD WITH MACHINE AUTOMATIC WELDER AND 1.5" (127 mm) WELD WITH HAND WELDER.
2. FOR INSULATION THICKNESS GREATER THAN 8" (203 mm), A HARD BOARD IS REQUIRED ON MECHANICAL SYSTEMS ONLY.
3. APPLY EVERGUARD® TPO CUT EDGE SEALANT TO ALL CUT REINFORCED TPO EDGES (REFER TO EVERGUARD® DETAIL 115).

 www.gaf.com 1 Campus Drive, Parsippany, NJ 07054	 FIELD OF ROOF SERIES	DRAWING #	SIDE LAP DETAIL	THIS DETAIL APPLIES TO:
		102A		Mechanically Attached Systems
		SCALE		REVISION DATE
		N.T.S.		6-20-16

ARCHITECTURAL DETAIL DRAWINGS
 EverGuard® TPO/PVC Architectural Roofing Details Manual

100 Series
 Field of Roof



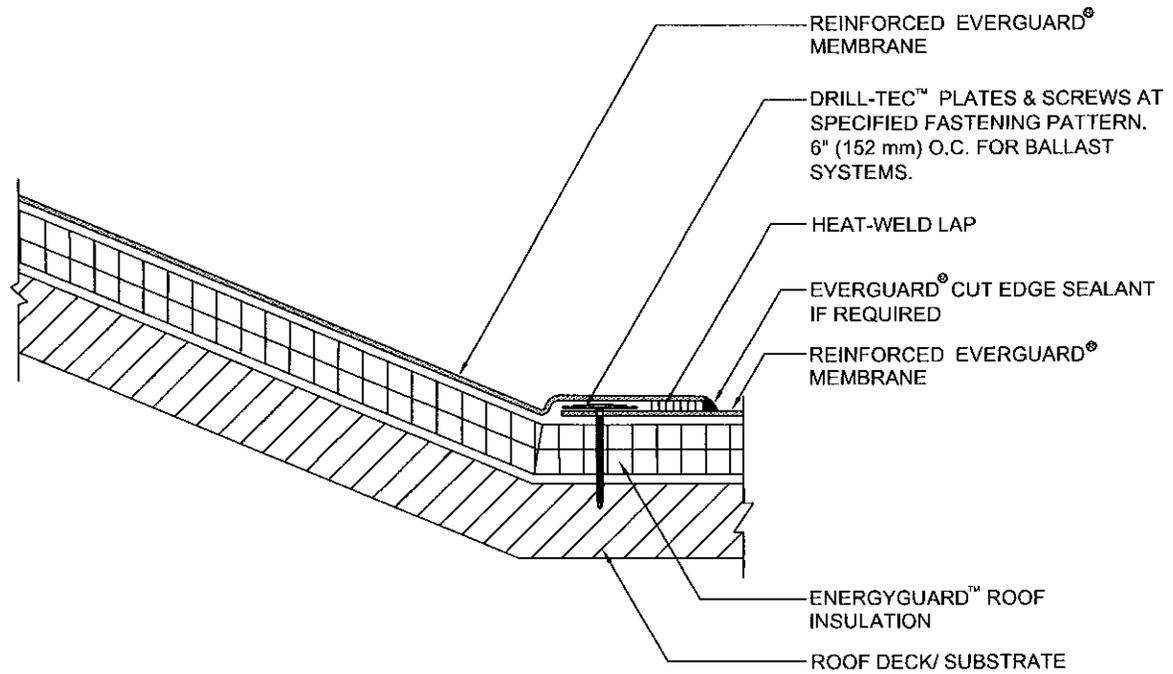
NOTE:

1. WIDTH OF PERIMETER TREATMENT (A OR B) SHALL BE 10% OF THE BUILDING'S NARROWEST WIDTH (W) OR 40% OF THE BUILDING EAVE HEIGHT (H), WHICHEVER IS LESS, WITH 4' (1.22 m) BEING THE MIN. FOR STANDARD GAF GUARANTEE REQUIREMENTS. SEE HALF-SHEET REQUIREMENTS IN MECHANICALLY ATTACHED SECTION.
2. FOR ADHERED, SELF-ADHERED, AND RHINO BOND SYSTEMS, SEE INSULATION TABLE FOR ENHANCEMENTS.

 www.gaf.com 1 Campus Drive Parsippany, NJ 07054	 FIELD OF ROOF SERIES	DRAWING #	106 ROOF AREA ZONE LAYOUT DETAIL	THIS DETAIL APPLIES TO: Adhered Systems Ballasted Systems Mechanically Attached Systems Self-Adhered Systems RhinoBond Systems
		SCALE		
		N.T.S.		6-1-16

ARCHITECTURAL DETAIL DRAWINGS
 EverGuard® TPO/PVC Architectural Roofing Details Manual

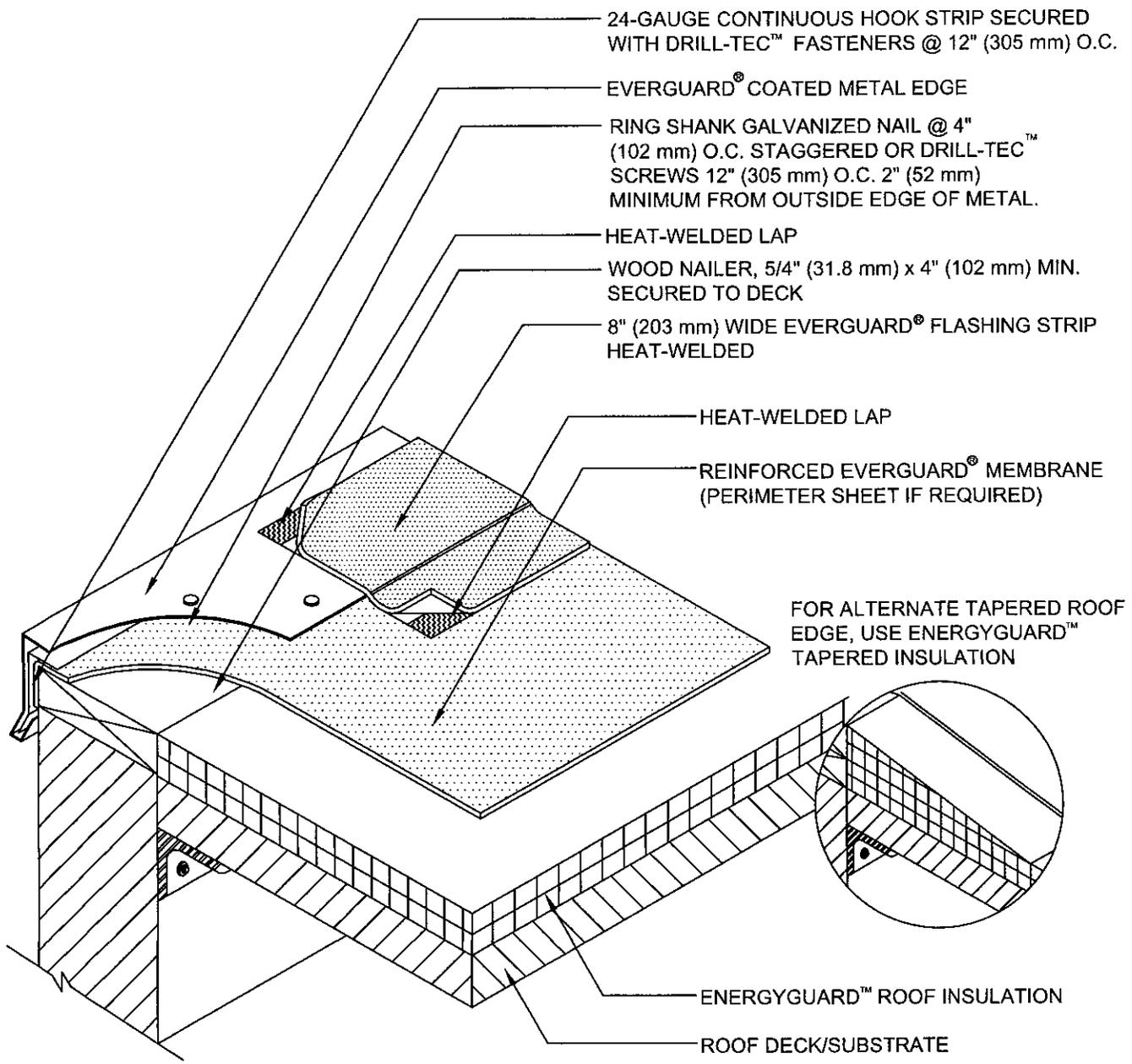
100 Series
 Field of Roof



NOTE:

1. ANYTHING 1:12 OR GREATER NEEDS TO BE FASTENED AT ANGLE CHANGE.
2. APPLY EVERGUARD® TPO CUT EDGE SEALANT TO ALL CUT REINFORCED TPO EDGES (REFER TO EVERGUARD® DETAIL 115).

 www.gaf.com 1 Campus Drive Parsippany, NJ 07054	 FIELD OF ROOF SERIES	DRAWING #	CHANGE OF DECK PLANE DETAIL	THIS DETAIL APPLIES TO:
		112		Adhered Systems RhinoBond Systems Mechanically Attached Systems
		SCALE		REVISION DATE
		N.T.S.		6-1-16



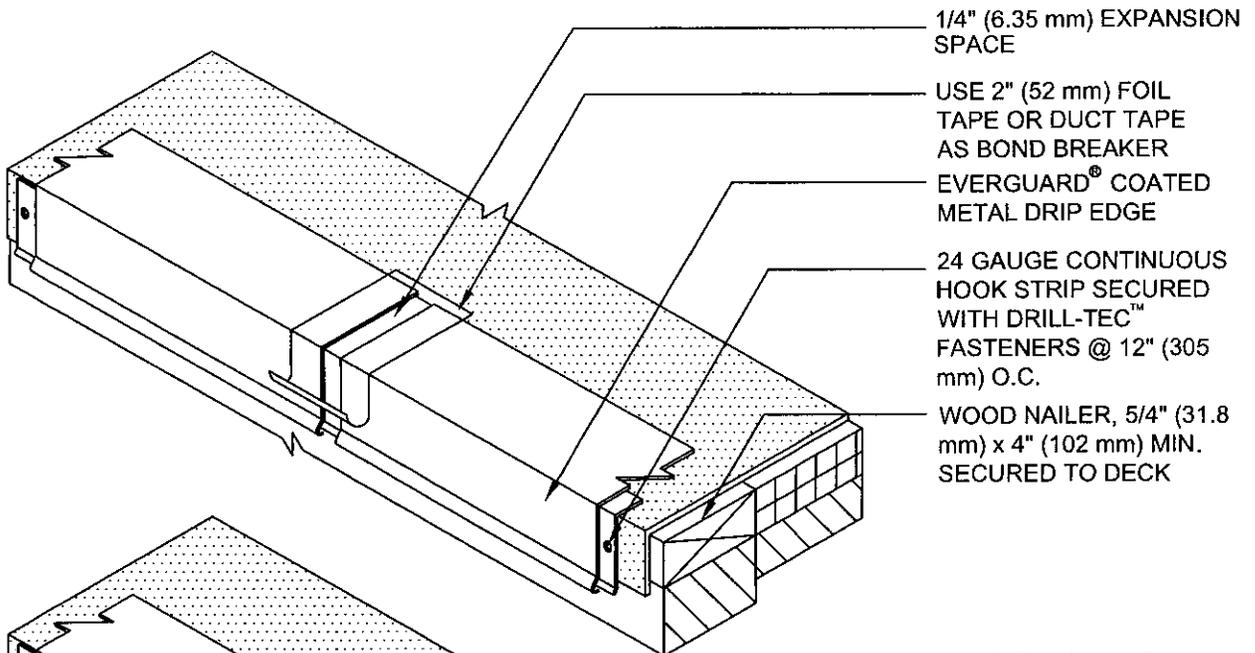
FOR ALTERNATE TAPERED ROOF
EDGE, USE ENERGYGUARD™
TAPERED INSULATION

NOTE:

1. FOR INSULATION THICKNESS GREATER THAN 8" (203 mm), A HARD BOARD IS REQUIRED ON MECHANICALLY FASTENED SYSTEMS ONLY.
2. 25-YEAR GUARANTEES AND ABOVE MUST USE EXTREME ACCESSORIES.
3. APPLY EVERGUARD® TPO CUT EDGE SEALANT TO ALL CUT REINFORCED TPO EDGES (REFER TO EVERGUARD® DETAIL 115).

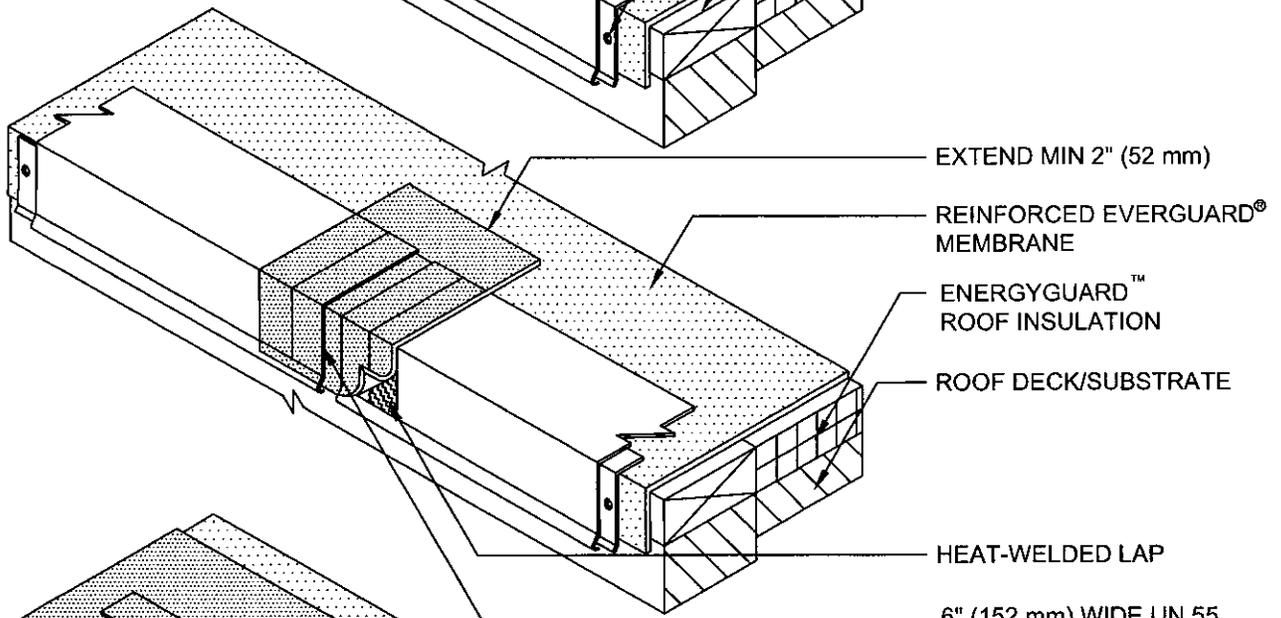
 www.gaf.com 1 Campus Drive Parsippany, NJ 07054	 ROOF EDGE SERIES	DRAWING #	202A COATED METAL ROOF EDGE DETAIL	THIS DETAIL APPLIES TO: Adhered Systems Self-Adhered Systems TriPosite Systems Mechanically Attached Systems
		SCALE		
		N.T.S.		6-20-16

STEP 1.



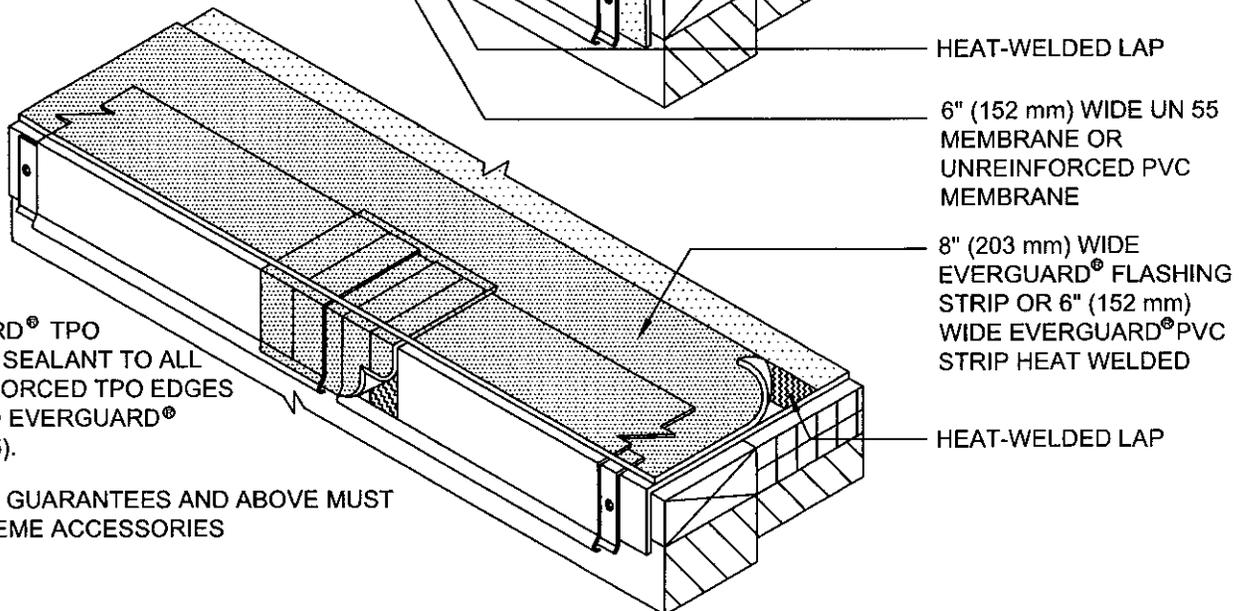
- 1/4" (6.35 mm) EXPANSION SPACE
- USE 2" (52 mm) FOIL TAPE OR DUCT TAPE AS BOND BREAKER
- EVERGUARD® COATED METAL DRIP EDGE
- 24 GAUGE CONTINUOUS HOOK STRIP SECURED WITH DRILL-TEC™ FASTENERS @ 12" (305 mm) O.C.
- WOOD NAILER, 5/4" (31.8 mm) x 4" (102 mm) MIN. SECURED TO DECK

STEP 2.



- EXTEND MIN 2" (52 mm)
- REINFORCED EVERGUARD® MEMBRANE
- ENERGYGUARD™ ROOF INSULATION
- ROOF DECK/SUBSTRATE

STEP 3.



- HEAT-WELDED LAP
- 6" (152 mm) WIDE UN 55 MEMBRANE OR UNREINFORCED PVC MEMBRANE
- 8" (203 mm) WIDE EVERGUARD® FLASHING STRIP OR 6" (152 mm) WIDE EVERGUARD® PVC STRIP HEAT WELDED
- HEAT-WELDED LAP

NOTE:

1. APPLY EVERGUARD® TPO CUT EDGE SEALANT TO ALL CUT REINFORCED TPO EDGES (REFER TO EVERGUARD® DETAIL 115).

2. 25 YEAR GUARANTEES AND ABOVE MUST USE EXTREME ACCESSORIES



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Parsippany, NJ 07054

EverGuard
SINGLE-PLY ROOFING SYSTEMS
ROOF EDGE SERIES

DRAWING #

204

SCALE
N.T.S.

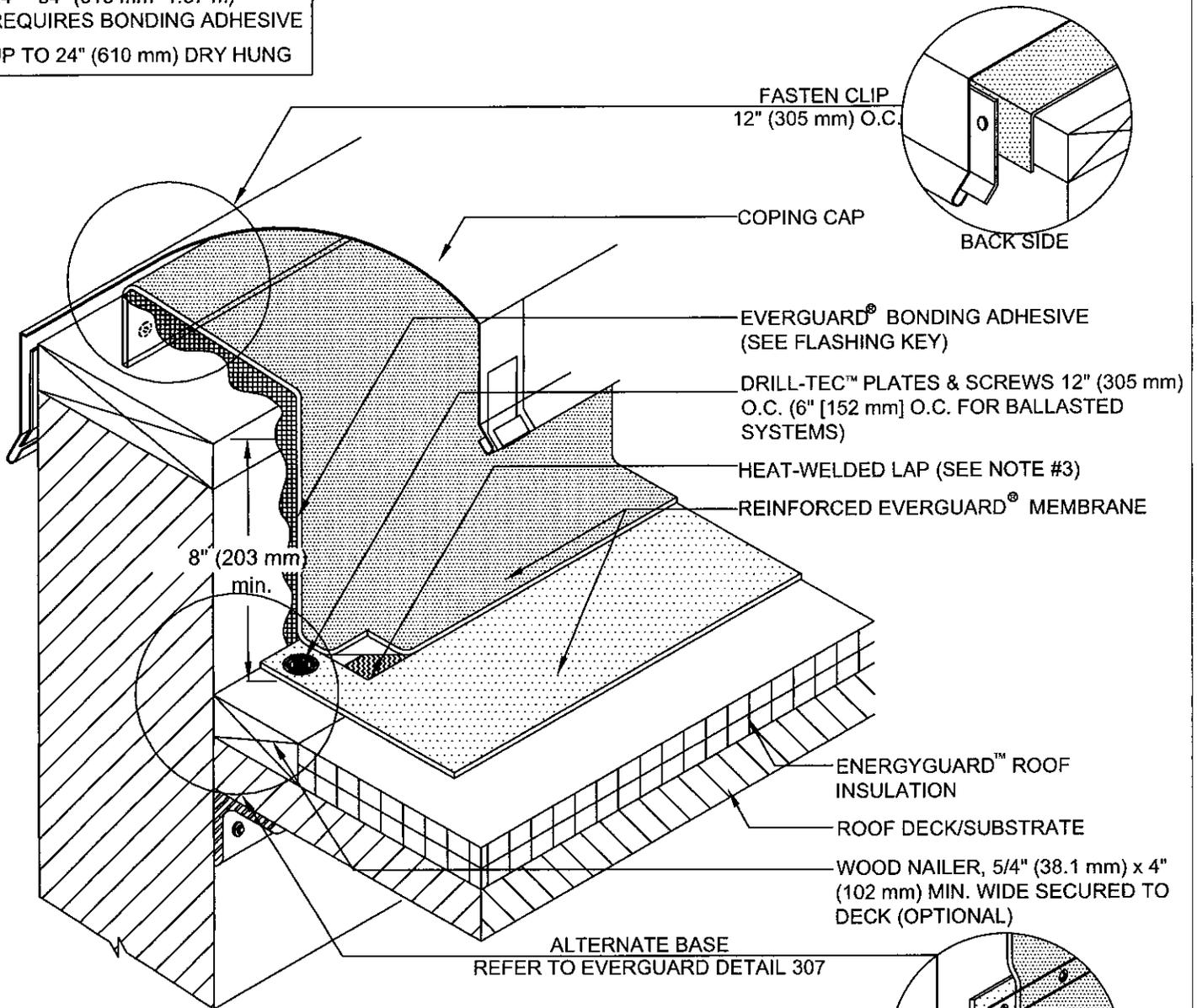
COATED METAL JOINT DETAIL

THIS DETAIL APPLIES TO:
Adhered Systems
Mechanically Attached Systems
Self-Adhered Systems
TriPosite Systems

REVISION DATE
6-20-16

FLASHING KEY

- 24" - 54" (610 mm - 1.37 m)
REQUIRES BONDING ADHESIVE
- UP TO 24" (610 mm) DRY HUNG



NOTE:

1. FOR INSULATION THICKNESS GREATER THAN 8" (203 mm), A HARD BOARD IS REQUIRED ON MECHANICALLY FASTENED SYSTEMS ONLY.
2. IF EVERGUARD®FREEDOM™ MEMBRANE IS USED, BONDING ADHESIVE IS NOT NEEDED AND WALL MUST BE PRIMED
3. APPLY EVERGUARD® TPO CUT EDGE SEALANT TO ALL CUT REINFORCED TPO EDGES (REFER TO EVERGUARD® DETAIL 115).
4. FOR SELF-ADHERED RAPIDSEAM™ TECHNOLOGY SYSTEMS, SEE EVERGUARD® DETAIL 330 FOR LAP APPLICATION.



EverGuard
SIMPLE-PLY ROOFING SYSTEMS
PARAPET WALL &
CURB SERIES

DRAWING #

303

WALL CAP DETAIL

THIS DETAIL APPLIES TO:

ALL SYSTEMS

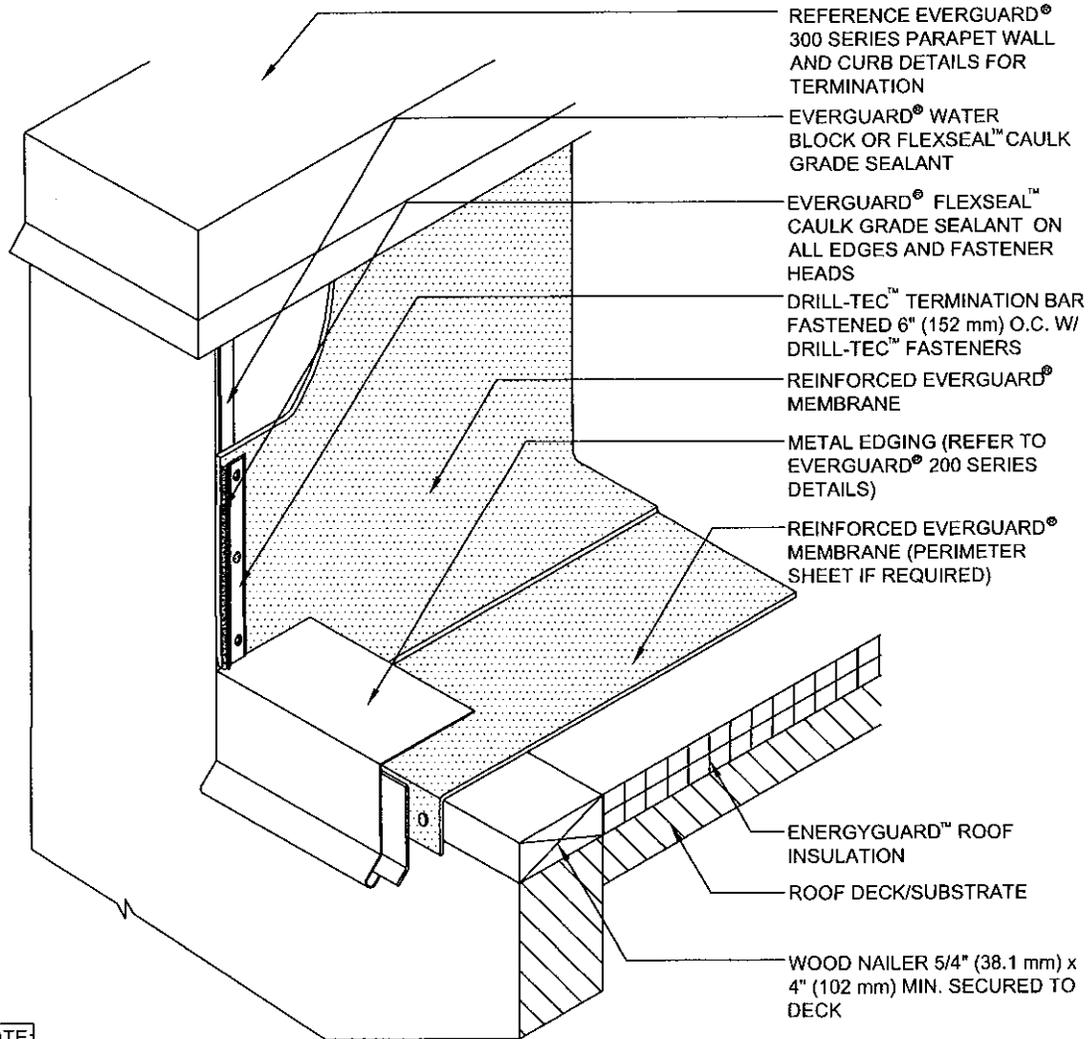
www.gaf.com
1 Campus Drive,
Parsippany, NJ 07054

SCALE
N.T.S.

REVISION DATE
6-20-16

ARCHITECTURAL DETAIL DRAWINGS
 EverGuard® TPO/PVC Architectural Roofing Details Manual

300 Series
 Wall and Curb



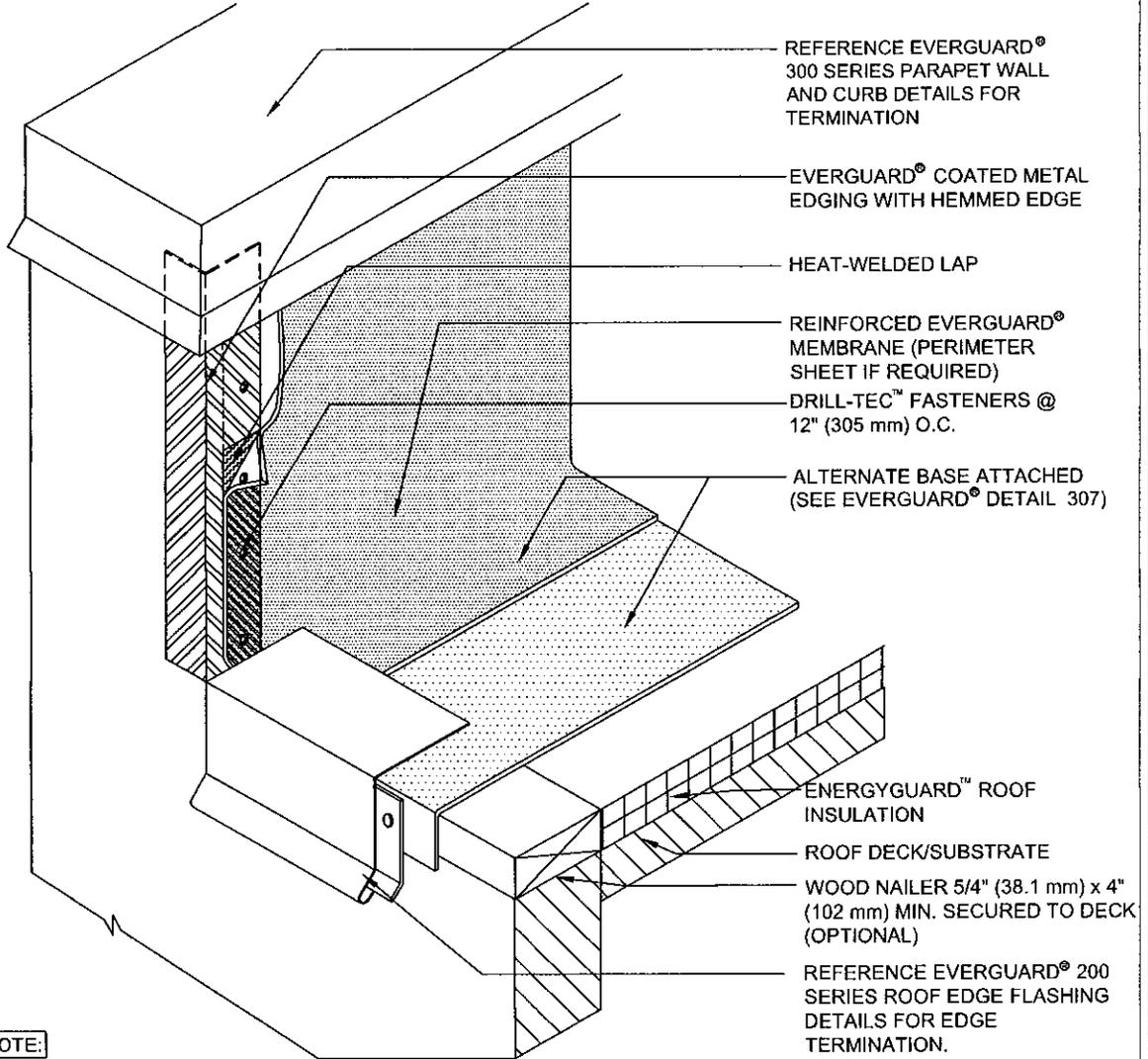
NOTE

1. FLEXSEAL™ CAULK GRADE SEALANT IS TO BE ADDED TO ALL TERMINATION BAR EDGES, OPEN HOLES, AND DRILL-TEC™ FASTENER HEADS.
2. FOR INSULATION THICKNESS GREATER THAN 8" (203 mm), A HARD BOARD IS REQUIRED ON MECHANICAL SYSTEMS ONLY.
3. IF EVERGUARD® FREEDOM™ MEMBRANE IS USED, BONDING ADHESIVE IS NOT NEEDED AND WALL MUST BE PRIMED.
4. FOR SELF-ADHERED RAPIDSEAM™ TECHNOLOGY SYSTEMS, SEE EVERGUARD® DETAIL 330 FOR LAP APPLICATION.
5. APPLY EVERGUARD® TPO CUT EDGE SEALANT TO ALL CUT REINFORCED TPO EDGES (REFER TO DETAIL EVERGUARD® 115).

 www.gaf.com 1 Campus Drive, Parsippany, NJ 07054	 PARAPET WALL & CURB SERIES	DRAWING #	WALL EDGE FLASHING WITH TERMINATION BAR DETAIL	THIS DETAIL APPLIES TO:
		313		Adhered Systems Ballasted Systems Mechanically Attached Systems Self-Adhered Systems
		SCALE		REVISION DATE
		N.T.S.		12-12-17

ARCHITECTURAL DETAIL DRAWINGS
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 Wall and Curb



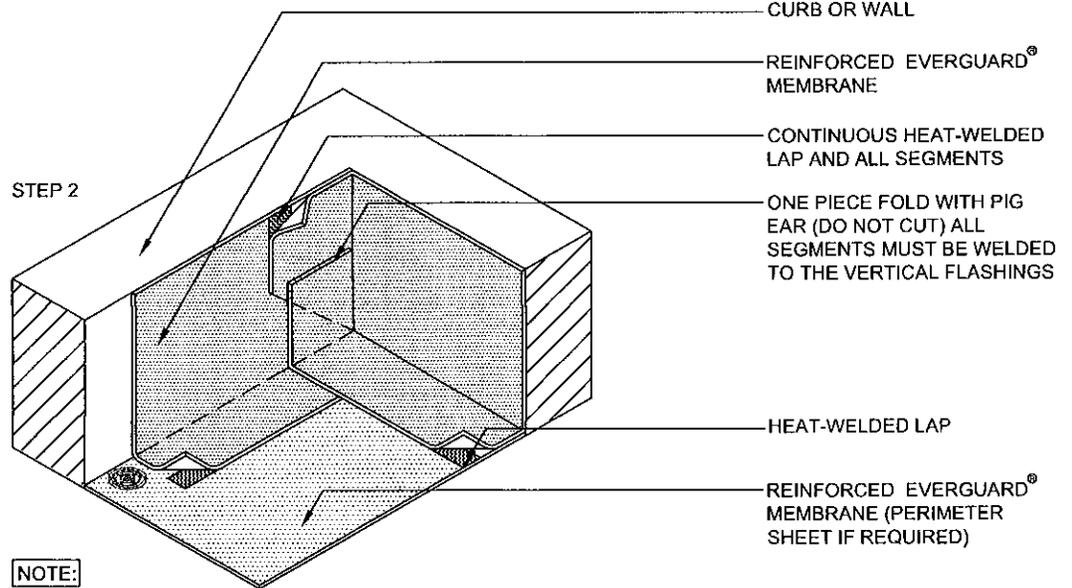
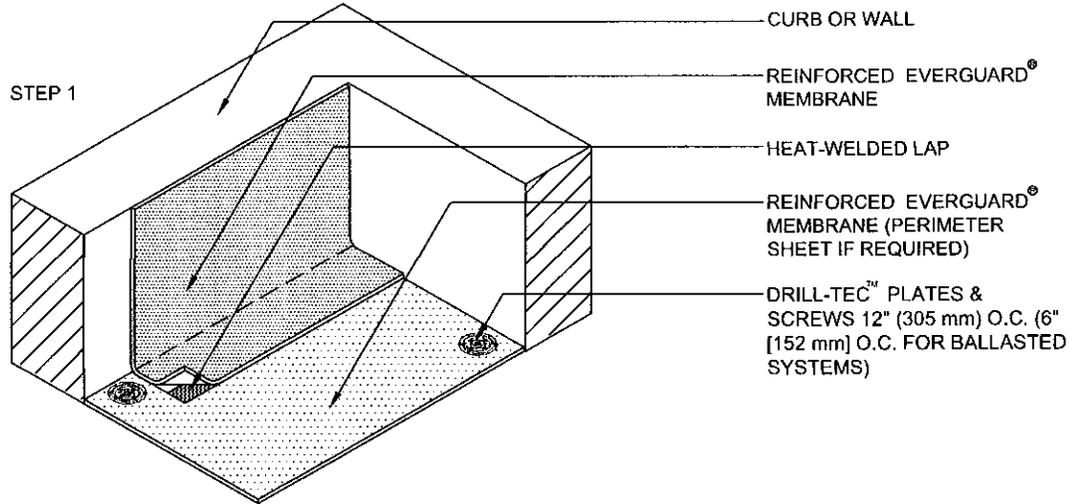
NOTE:

1. FOR INSULATION THICKNESS GREATER THAN 8" (203 mm), A HARD BOARD IS REQUIRED ON MECHANICAL SYSTEMS ONLY.
2. IF EVERGUARD® FREEDOM™ MEMBRANE IS USED, BONDING ADHESIVE IS NOT NEEDED AND WALL MUST BE PRIMED.
3. FOR SELF-ADHERED RAPIDSEAM™ TECHNOLOGY SYSTEMS, SEE EVERGUARD® DETAIL 330 FOR LAP APPLICATION.
4. FOR SELF-ADHERED RAPIDSEAM™ TECHNOLOGY SYSTEMS, SEE EVERGUARD® DETAIL 330 FOR LAP APPLICATION.
5. APPLY EVERGUARD® TPO CUT EDGE SEALANT TO ALL CUT REINFORCED TPO EDGES (REFER TO EVERGUARD® DETAIL 115).

 www.gaf.com 1 Campus Drive, Parsippany, NJ 07654	 PARAPET WALL & CURB SERIES	DRAWING #	314 VERTICAL WALL EDGE TERMINATION WITH COATED METAL DETAIL	THIS DETAIL APPLIES TO:
		SCALE		ALL SYSTEMS
				REVISION DATE 12-12-17

ARCHITECTURAL DETAIL DRAWINGS
 EverGuard® TPO/PVC Architectural Roofing Details Manual

300 Series
 Wall and Curb



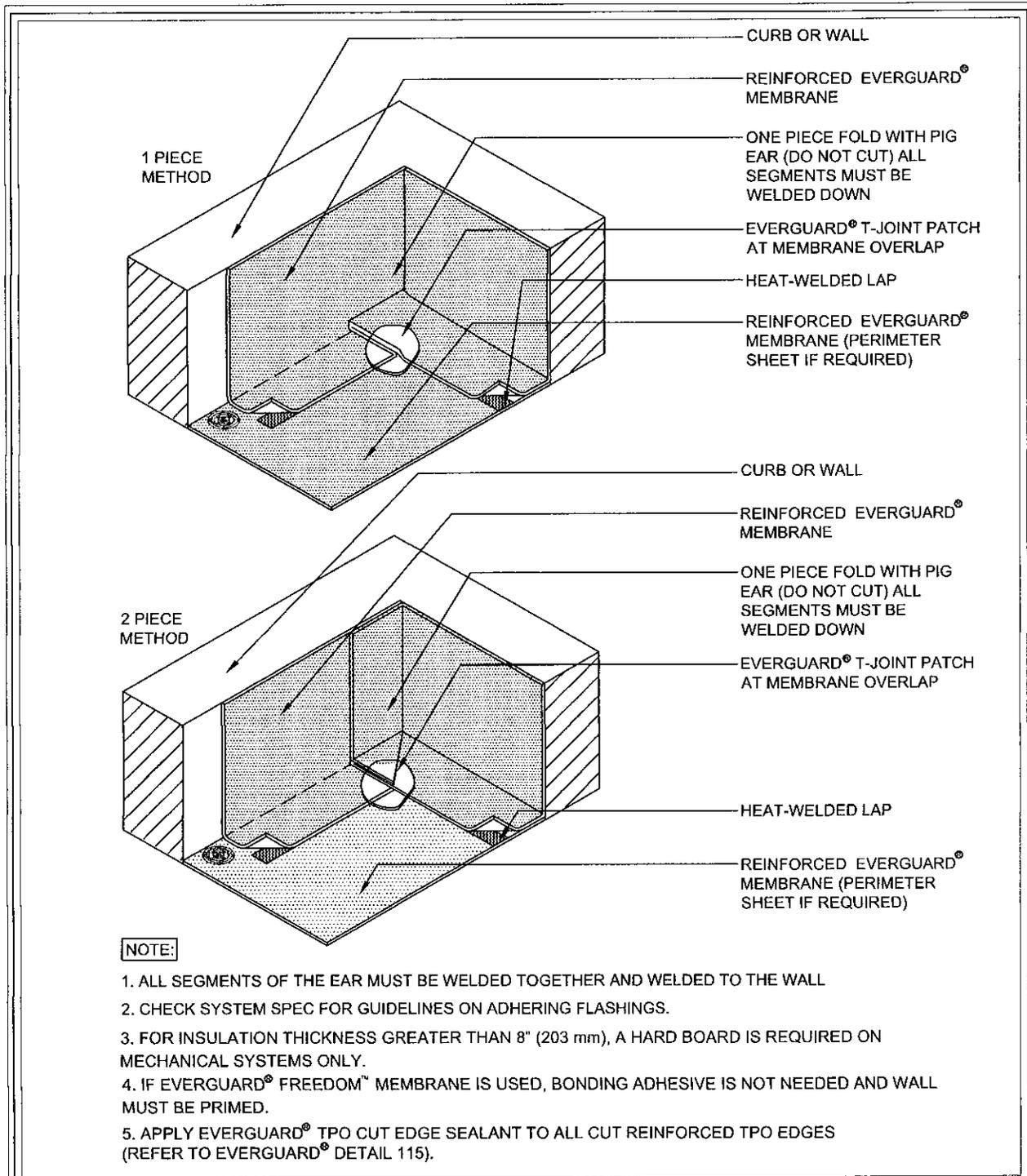
NOTE:

1. ALL SEGMENTS OF THE EAR MUST BE WELDED TOGETHER AND WELDED TO THE WALL
2. CHECK SYSTEM SPEC FOR GUIDELINES ON ADHERING FLASHINGS.
3. FOR INSULATION THICKNESS GREATER THAN 8" (203 mm), A HARD BOARD IS REQUIRED ON MECHANICAL SYSTEMS ONLY.
4. IF EVERGUARD® FREEDOM™ MEMBRANE IS USED, BONDING ADHESIVE IS NOT NEEDED AND WALL MUST BE PRIMED.
5. APPLY EVERGUARD® TPO CUT EDGE SEALANT TO ALL CUT REINFORCED TPO EDGES (REFER TO EVERGUARD® DETAIL 115).

 www.gaf.com 1 Campus Drive, Parsippany, NJ 07054	 SINGLE-PLY ROOFING SYSTEMS PARAPET WALL & CURB SERIES	DRAWING #	INSIDE CORNER FABRICATION - 2 STEP "PIG EAR" UP DETAIL	THIS DETAIL APPLIES TO:
		328A		SCALE
		N.T.S.		REVISION DATE
				6-27-17

ARCHITECTURAL DETAIL DRAWINGS
 EverGuard® TPO/PVC Architectural Roofing Details Manual

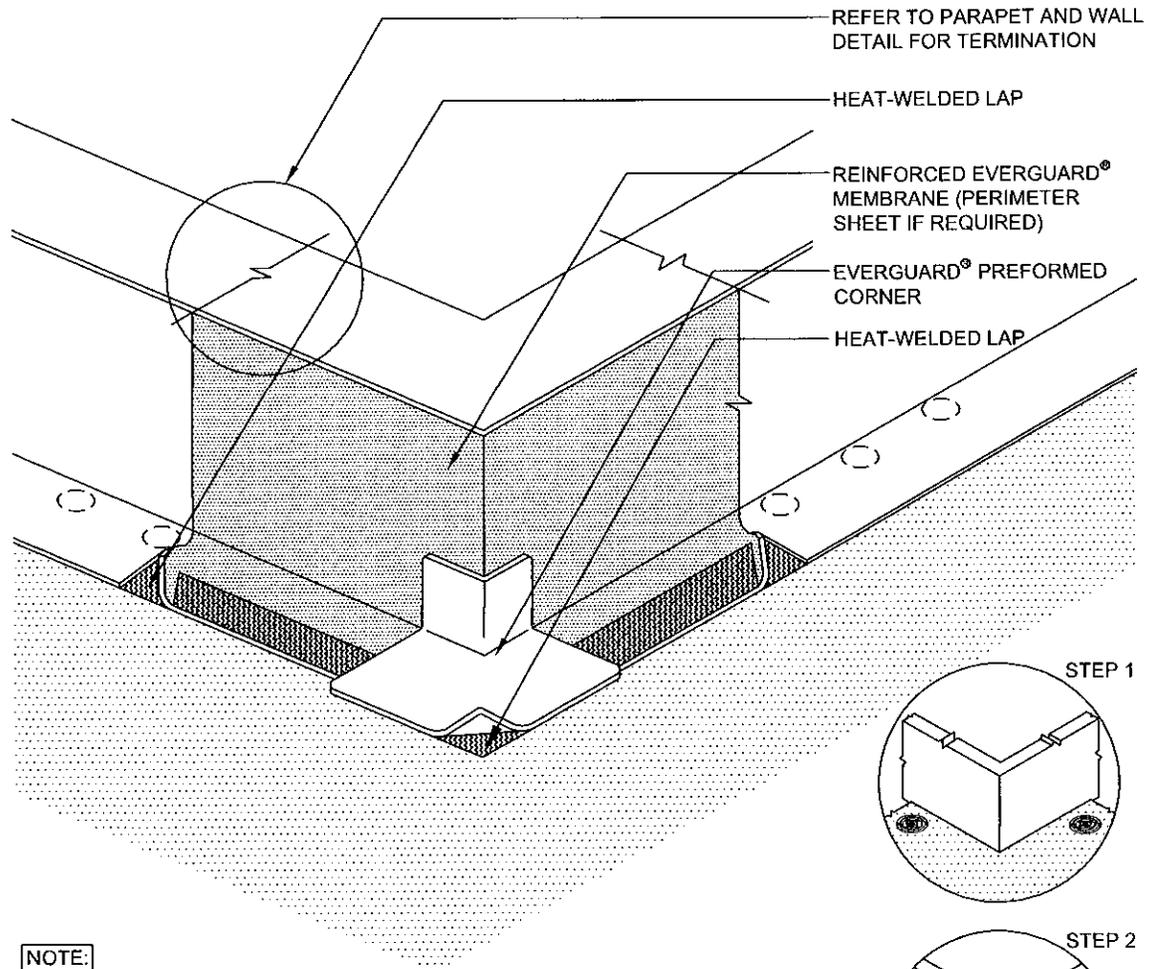
300 Series
 Wall and Curb



 www.gaf.com 1 Campus Drive, Parsippany, NJ 07054	 PARAPET WALL & CURB SERIES	DRAWING #	INSIDE CORNER FABRICATION - "PIG EAR" DOWN DETAIL	THIS DETAIL APPLIES TO:
		328B		ALL SYSTEMS
		SCALE	REVISION DATE	
		N.T.S.	6-28-17	

ARCHITECTURAL DETAIL DRAWINGS
 EverGuard® TPO/PVC Architectural Roofing Details Manual

300 Series
 Wall and Curb



NOTE:

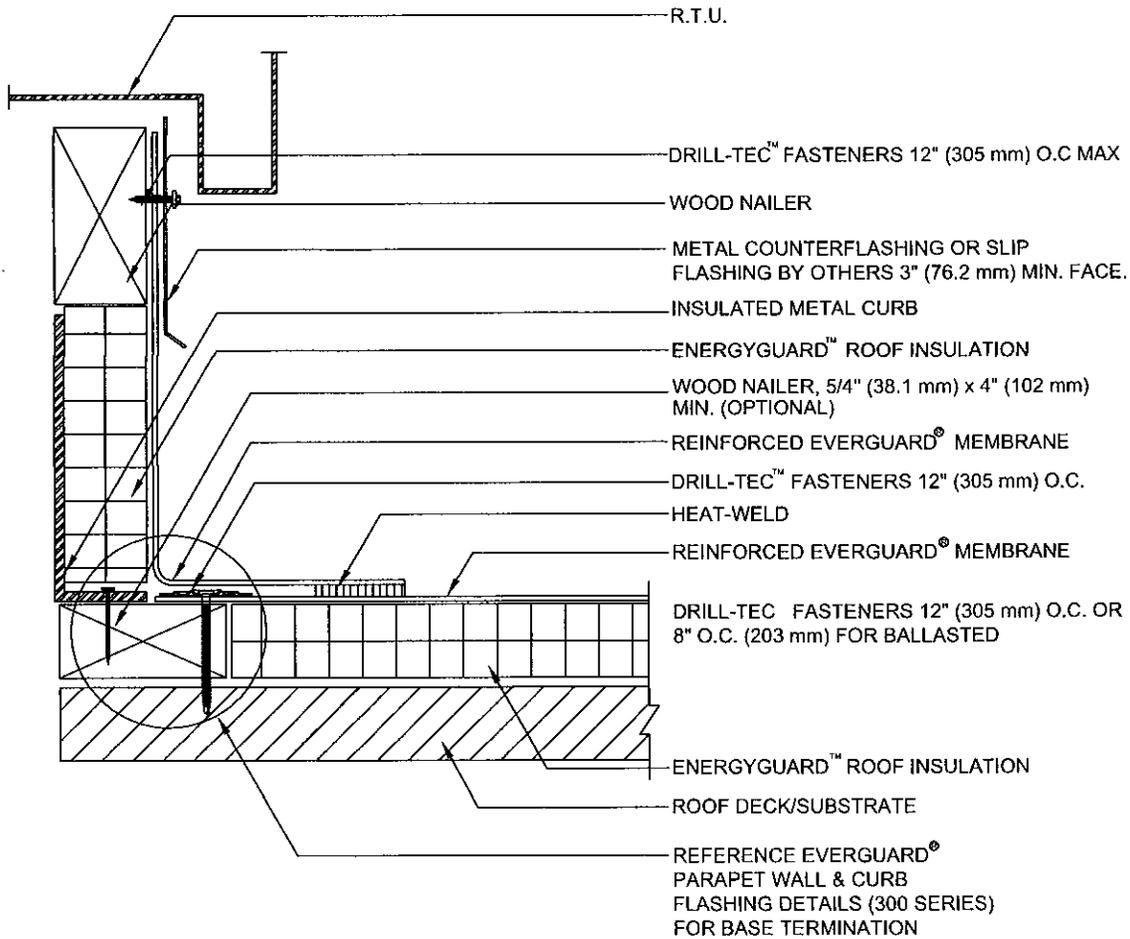
1. FOR INSULATION THICKNESS GREATER THAN 8" (203 mm), A HARD BOARD IS REQUIRED ON MECHANICAL SYSTEMS ONLY.
2. IF EVERGUARD® FREEDOM™ MEMBRANE IS USED, BONDING ADHESIVE IS NOT NEEDED AND WALL MUST BE PRIMED.
3. FLASHINGS MAY BE ADHERED OR INSTALLED DRY. SEE SPEC FOR DIRECTIONS.
4. KEEP FASTENERS BACK FROM CORNER 6" (152 mm) MAX. IN BOTH HORIZONTAL AND VERTICAL APPLICATIONS.
5. APPLY EVERGUARD® TPO CUT EDGE SEALANT TO ALL CUT REINFORCED TPO EDGES (REFER TO EVERGUARD® DETAIL 115).

ALTERNATE
 WALL/CURB ATTACHMENT

 www.gaf.com 1 Campus Drive, Parsippany, NJ 07054	 PARAPET WALL & CURB SERIES	DRAWING #	329A	OUTSIDE CORNER REINFORCEMENT - PREFORMED CORNER DETAIL	THIS DETAIL APPLIES TO:
		SCALE			ALL SYSTEMS
					REVISION DATE 6-26-17

ARCHITECTURAL DETAIL DRAWINGS
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500 Series
 Roof Penetration

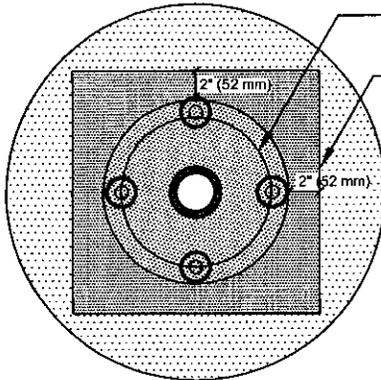


NOTE:

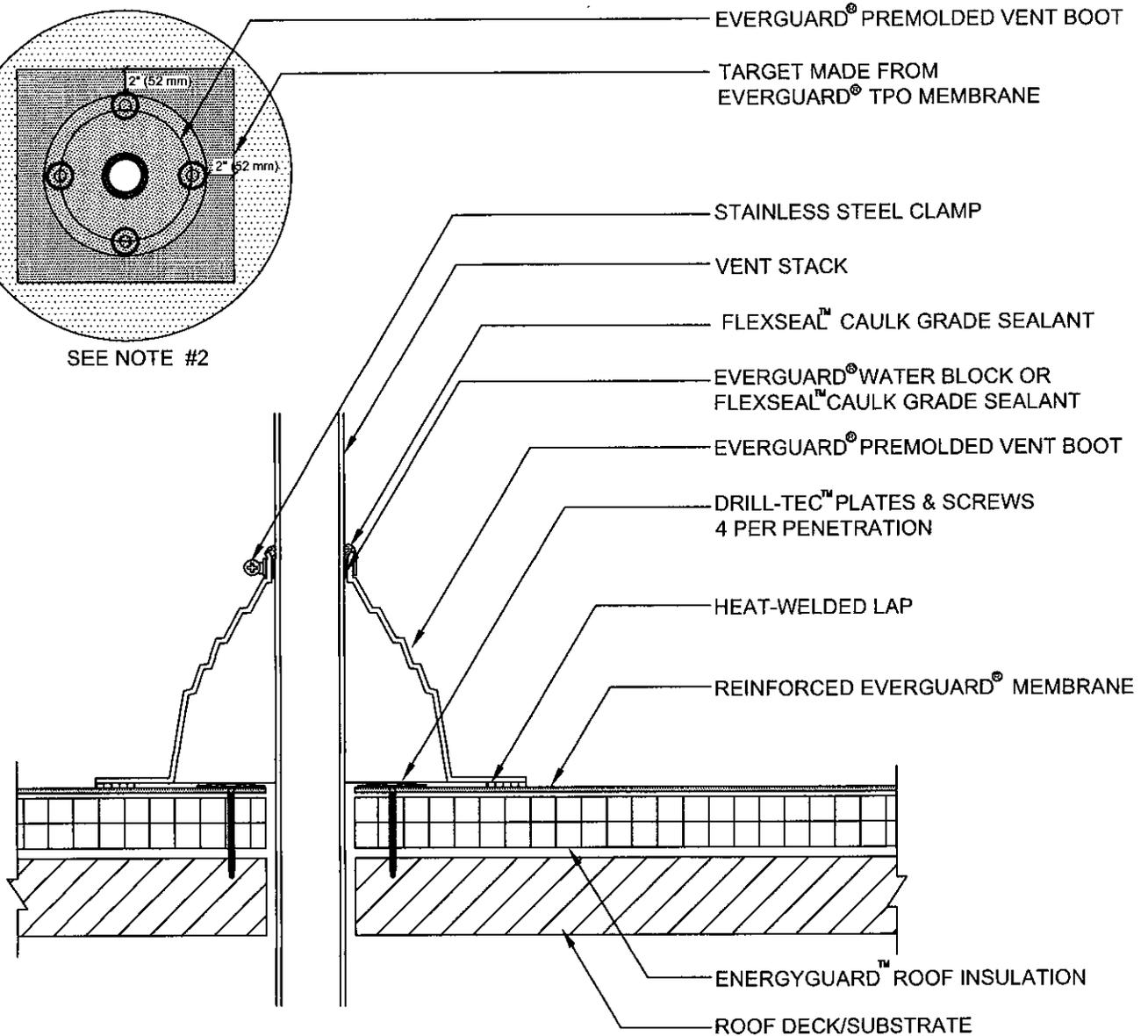
1. FOR INSULATION THICKNESS GREATER THAN 8" (203 mm), A HARD BOARD IS REQUIRED.
2. FOR SELF-ADHERED RAPIDSEAM™ TECHNOLOGY SYSTEMS, SEE EVERGUARD® DETAIL 330 FOR LAP APPLICATION.
3. IF EVERGUARD® FREEDOM™ MEMBRANE IS USED, BONDING ADHESIVE IS NOT NEEDED AND WALL MUST BE PRIMED.
4. APPLY EVERGUARD® TPO CUT EDGE SEALANT TO ALL CUT REINFORCED TPO EDGES (REFER TO EVERGUARD® DETAIL 115).

 www.gaf.com 1 Campus Drive Parsippany, NJ 07054	 EVERGUARD SINGLE-PLY ROOFING SYSTEMS ROOF PENETRATION SERIES	DRAWING #	TERMINATION AT EXISTING R.T.U. WITH COUNTERFLASHING DETAIL	THIS DETAIL APPLIES TO:
		503B		SCALE
		N.T.S.		REVISION DATE
				6-21-16

ALTERNATE INSTALLATION



SEE NOTE #2



NOTE:

1. DO NOT CUT SIDE OF PREMOLDED BOOT. IT MUST BE PULLED OVER VENT PIPE.
2. IF THE PLATES AND FASTENERS INTRUDE INTO BOOT FLANGE AREA, THEN A TARGET MUST FIRST BE INSTALLED OVER PLATES AND FASTENERS BEFORE BOOT INSTALLATION.
3. FOR INSULATION THICKNESS GREATER THAN 8" (203 mm), A HARD BOARD IS REQUIRED ON MECHANICAL SYSTEMS ONLY.
4. 25 YEAR GUARANTEES AND ABOVE MUST USE EXTREME ACCESSORIES
5. APPLY EVERGUARD® TPO CUT EDGE SEALANT TO ALL CUT REINFORCED TPO EDGES (REFER TO EVERGUARD® DETAIL 115).



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EverGuard
SINGLE-PLY ROOFING SYSTEMS
ROOF PENETRATION
SERIES

DRAWING #

506A

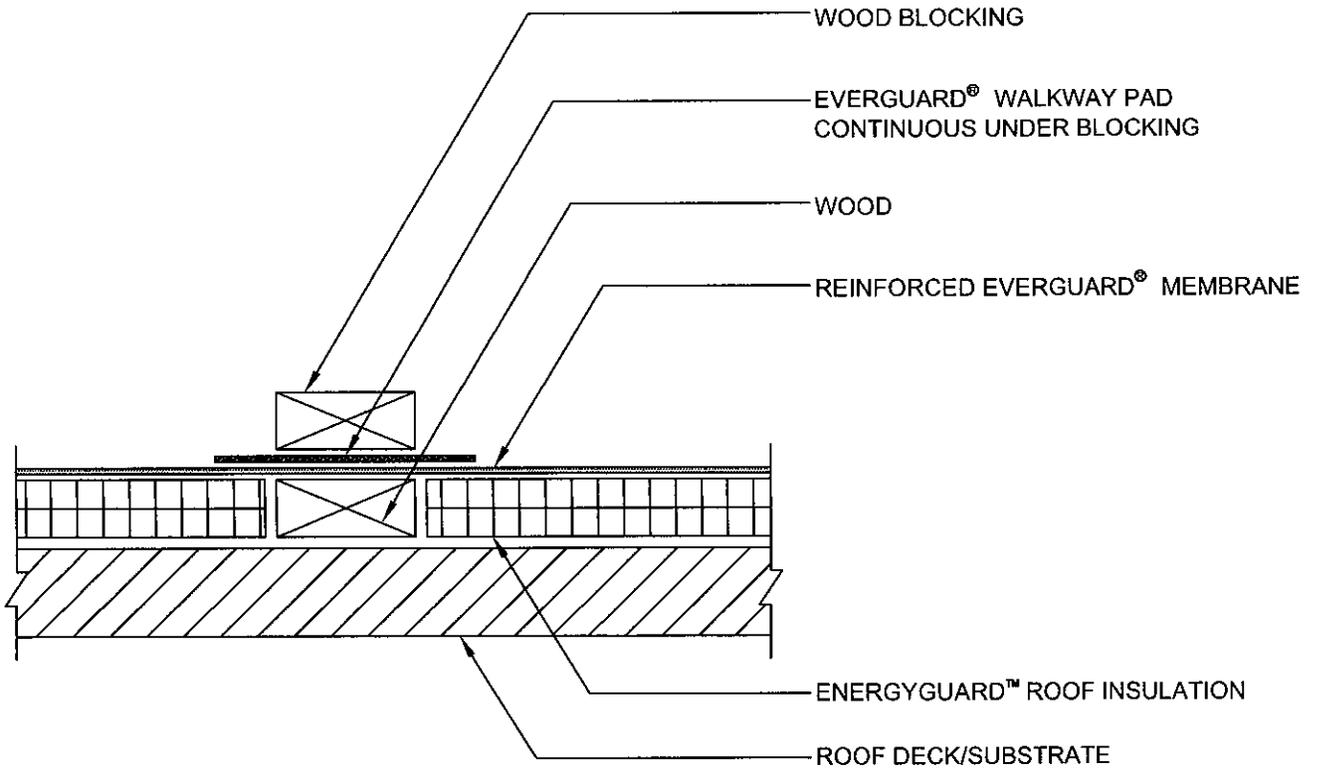
SCALE
N.T.S.

**PREMOLDED VENT BOOT
FLASHING DETAIL**

THIS DETAIL APPLIES TO:

ALL SYSTEMS

REVISION DATE
6-21-16



NOTE:

1. IF THE INSULATION COMPRESSIVE STRENGTH IS INSUFFICIENT FOR THE EQUIPMENT WEIGHT, INSTALL WOOD UNDER THE EQUIPMENT CARRYING SLEEPER, MATCHING THE HEIGHT OF THE INSULATION.



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SINGLE-PLY ROOFING SYSTEMS
ROOF PENETRATION
SERIES

DRAWING #

511

SCALE

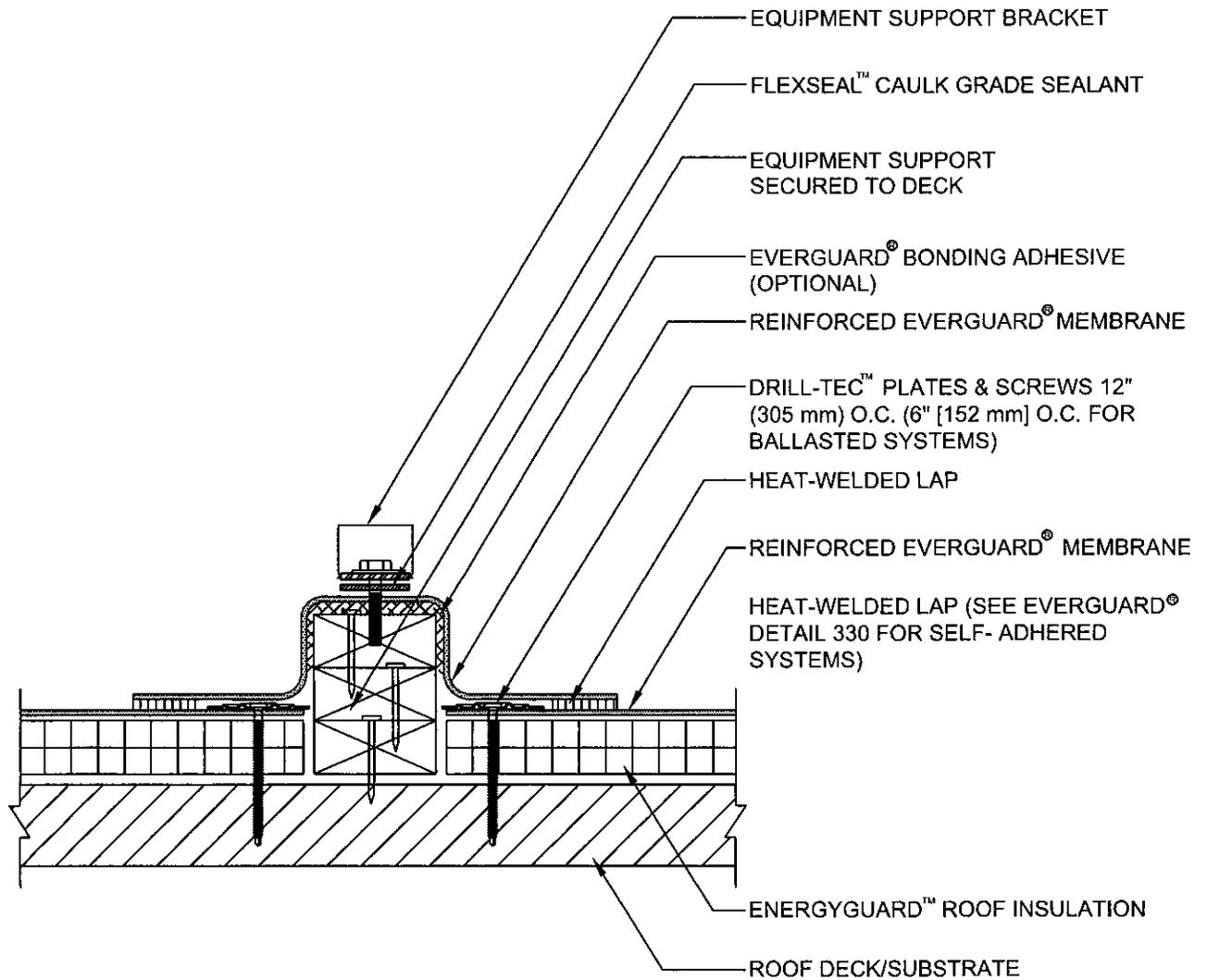
N.T.S.

**EXPOSED WOOD EQUIPMENT
SUPPORT SLEEPER DETAIL**

THIS DETAIL APPLIES TO:
Adhered Systems
Ballasted Systems
Mechanically Attached Systems
Self-Adhered Systems
TriPosite Systems

REVISION DATE

5-26-16



NOTE:

1. FOR INSULATION THICKNESS GREATER THAN 8" (203 mm), A HARD BOARD IS REQUIRED ON MECHANICAL SYSTEMS ONLY.
2. APPLY EVERGUARD® TPO CUT EDGE SEALANT TO ALL CUT REINFORCED TPO EDGES (REFER TO EVERGUARD® DETAIL 115).



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EverGuard
TRIPLE-PLY ROOFING SYSTEMS
ROOF PENETRATION
SERIES

DRAWING #

512

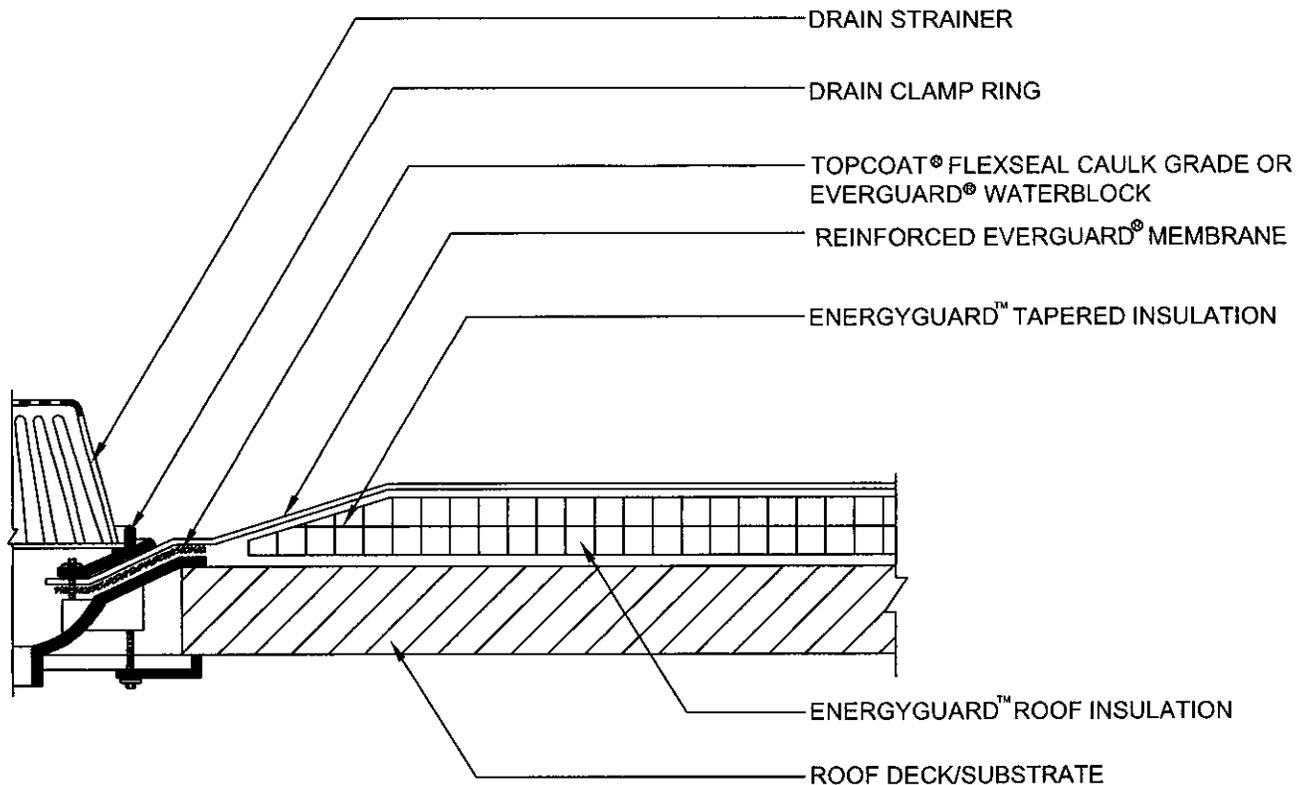
SCALE
N.T.S.

**CONCEALED WOOD EQUIPMENT
SUPPORT DETAIL**

THIS DETAIL APPLIES TO:

ALL SYSTEMS

REVISION DATE
6-21-16



NOTE:

1. A FIELD WELD CANNOT PASS WITHIN 9" (227 mm) OF THE CLAMPING, OR WITHIN THE DRAIN SUMP ITSELF.
2. MEMBRANE MUST EXTEND MINIMUM 1" (25.4 mm) BEYOND THE BOLT HOLES. THE CLAMPING RING BOLTS MUST PENETRATE THE MEMBRANE.
3. TAPERED INSULATION TO CREATE A ROOF SUMP MINIMUM 36" (0.914 m) x 36" (0.914 m) IN SIZE. (IF APPLICABLE)
4. USE ONE FULL TUBE OF FLEXSEAL™ CAULK GRADE SEALANT OR EVERGUARD WATER BLOCK PER DRAIN.
5. ASPHALT OR STONE PAVER MUST STOP AT DRAIN TAPER.



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EverGuard
SINGLE-PLY ROOFING SYSTEMS
ROOF PENETRATION
SERIES

DRAWING #

513

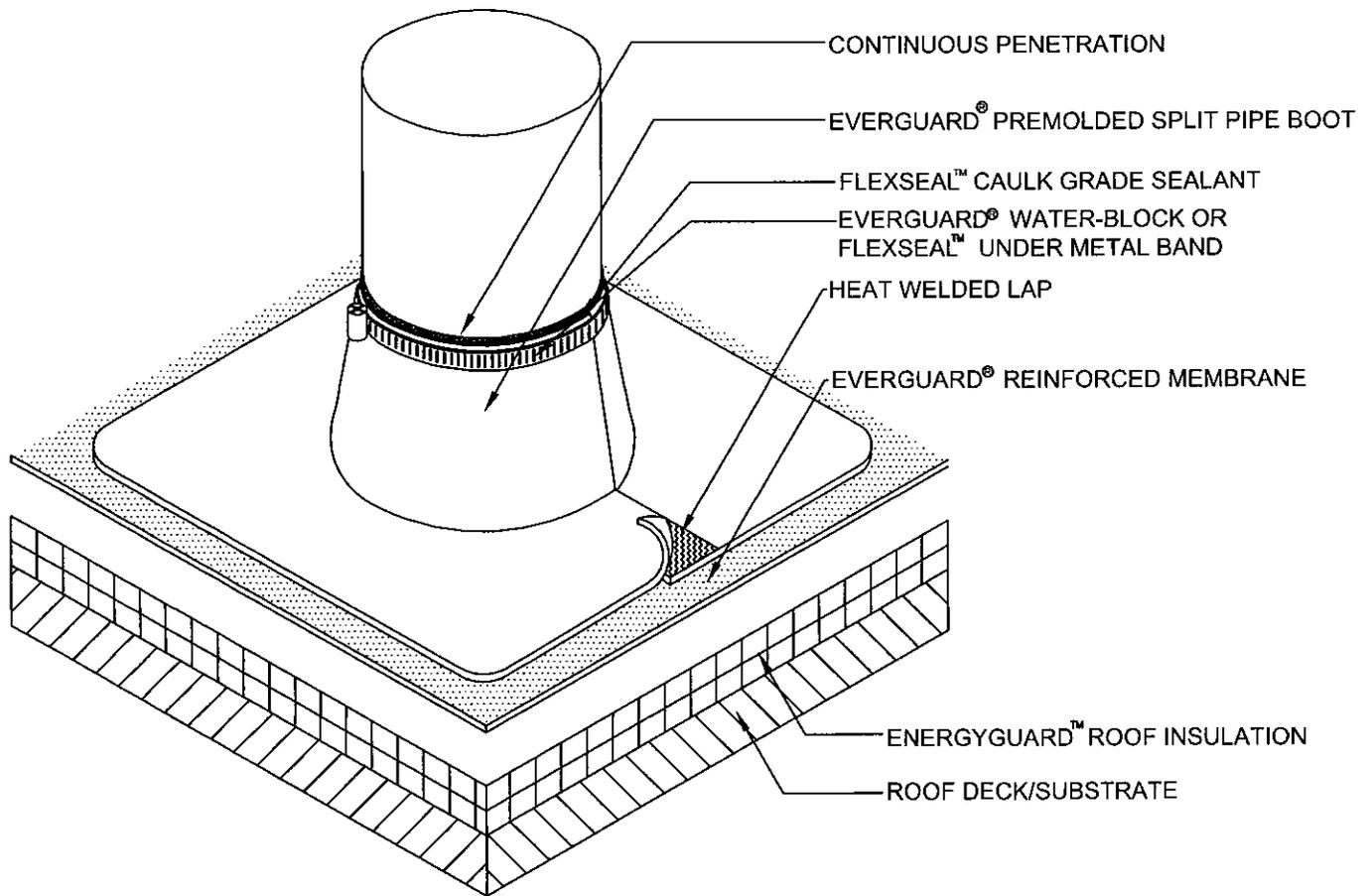
SCALE
N.T.S.

**DRAIN -STANDARD ROOF DRAIN
FLASHING DETAIL**

THIS DETAIL APPLIES TO:

ALL SYSTEMS

REVISION DATE
6-21-16



NOTE:

1. FOUR DRILL-TEC™ PLATES & SCREWS AROUND PENETRATION
2. IF PLATES AND FASTENERS ENCROACH INTO THE SEAM AREA OF THE POCKET, THEN A TARGET MUST BE ADDED FIRST TO COVER FASTENERS.
3. 25 YEAR GUARANTEES AND ABOVE MUST USE EXTREME ACCESSORIES
4. APPLY EVERGUARD® TPO CUT EDGE SEALANT TO ALL CUT REINFORCED TPO EDGES (REFER TO EVERGUARD® DETAIL 115).



EverGuard
SINGLE PLY ROOFING SYSTEMS
ROOF PENETRATION
SERIES

DRAWING #
524

SCALE
N.T.S.

SPLIT PIPE BOOT DETAIL

TPO ONLY

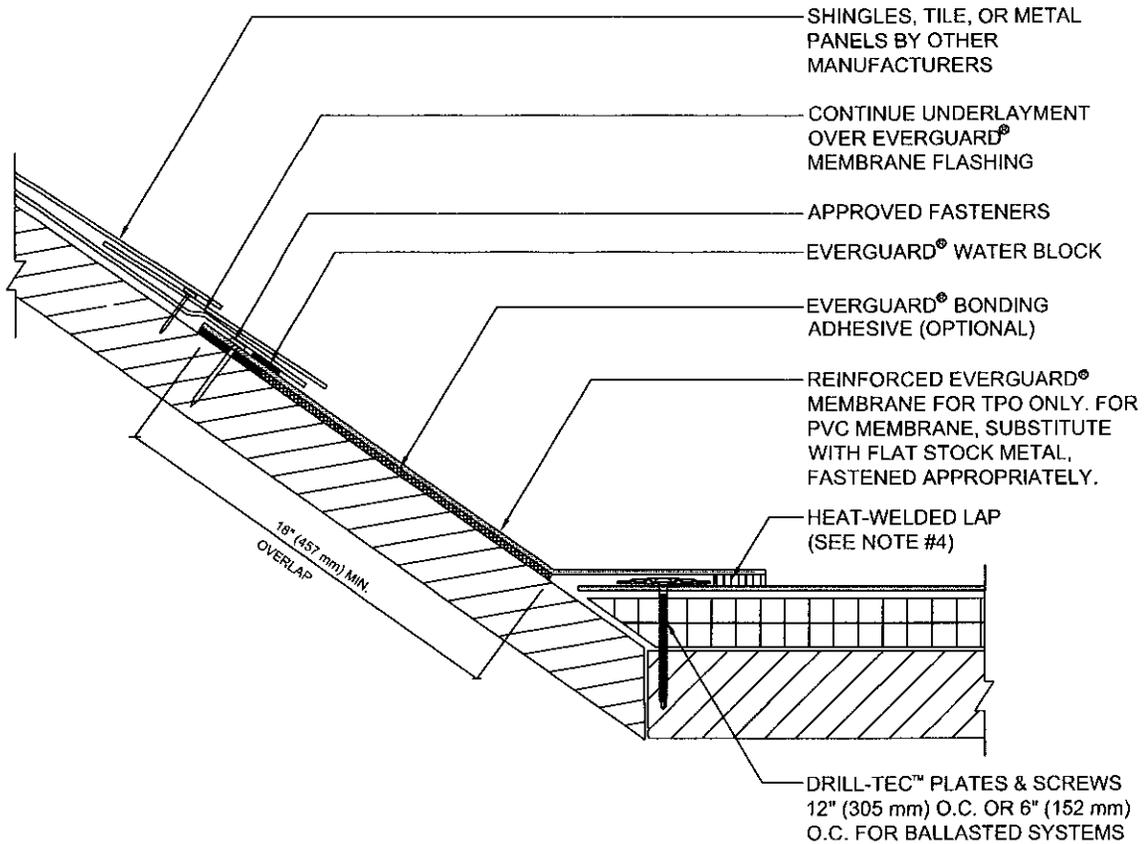
THIS DETAIL APPLIES TO:

ALL SYSTEMS

REVISION DATE
6-22-16

ARCHITECTURAL DETAIL DRAWINGS
 EverGuard® TPO/PVC Architectural Roofing Details Manual

600 Series
 Special Construction



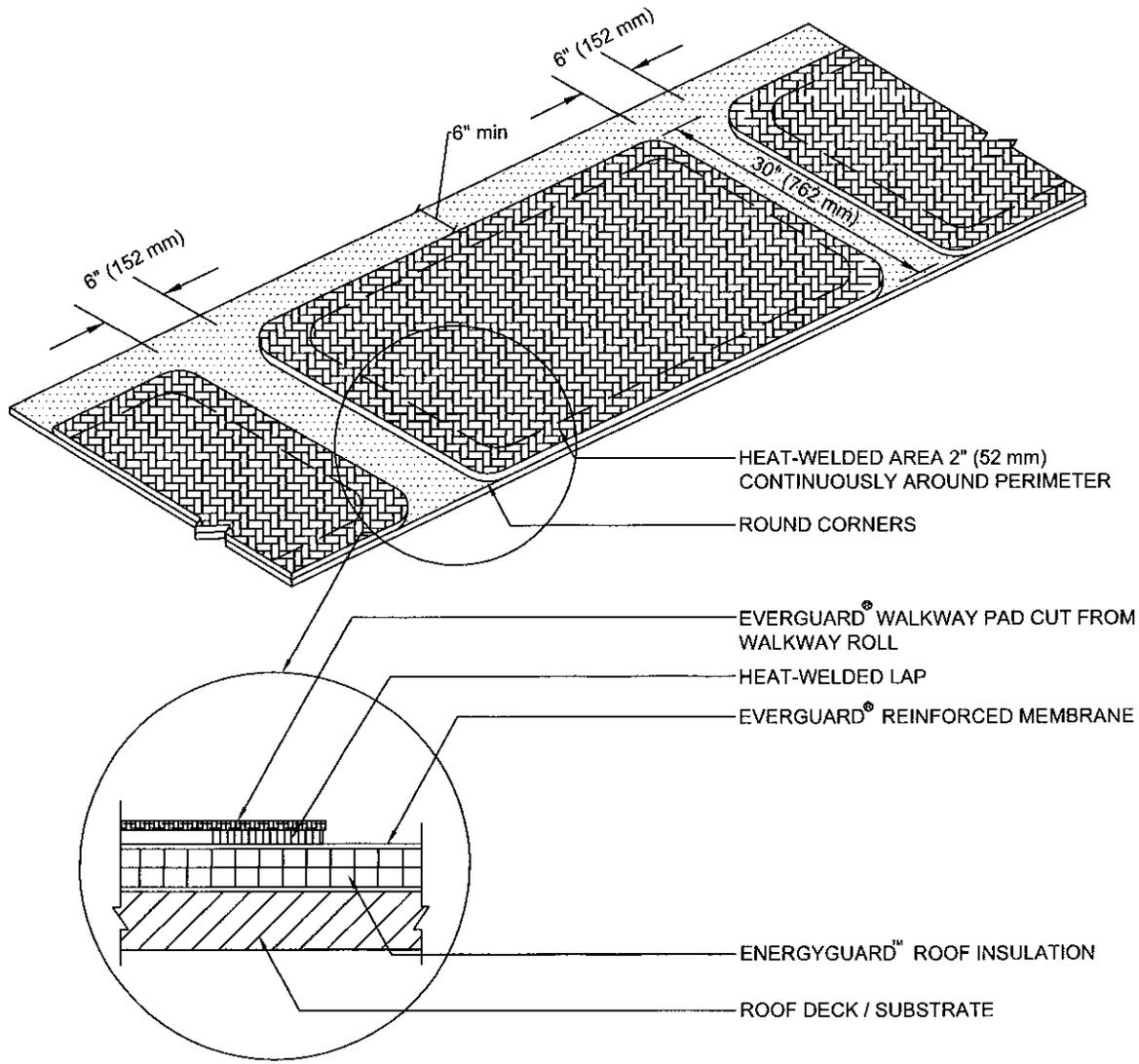
NOTE:

1. MINIMUM SLOPE IS 2:12.
2. FOR INSULATION THICKNESS GREATER THAN 8" (203 mm), A HARD BOARD IS REQUIRED ON MECHANICAL SYSTEMS ONLY.
3. ADD BALLAST PER SPECIFICATION FOR BALLASTED SYSTEMS.
4. FOR SELF-ADHERED SYSTEMS, SEE EVERGUARD® DETAIL 330 FOR LAP APPLICATION.
5. APPLY EVERGUARD® TPO CUT EDGE SEALANT TO ALL CUT REINFORCED TPO EDGES (REFER TO EVERGUARD® DETAIL 115).

 www.gaf.com 1 Campus Drive Parsippany, NJ 07654	 SPECIAL CONSTRUCTION SERIES	DRAWING #	STEEP SLOPE TIE-IN DETAIL	THIS DETAIL APPLIES TO:
		601A		ALL SYSTEMS
		SCALE	TPO ONLY	REVISION DATE
		N.T.S.		12-14-16

ARCHITECTURAL DETAIL DRAWINGS
 EverGuard® TPO/PVC Architectural Roofing Details Manual

600 Series
 Special Construction



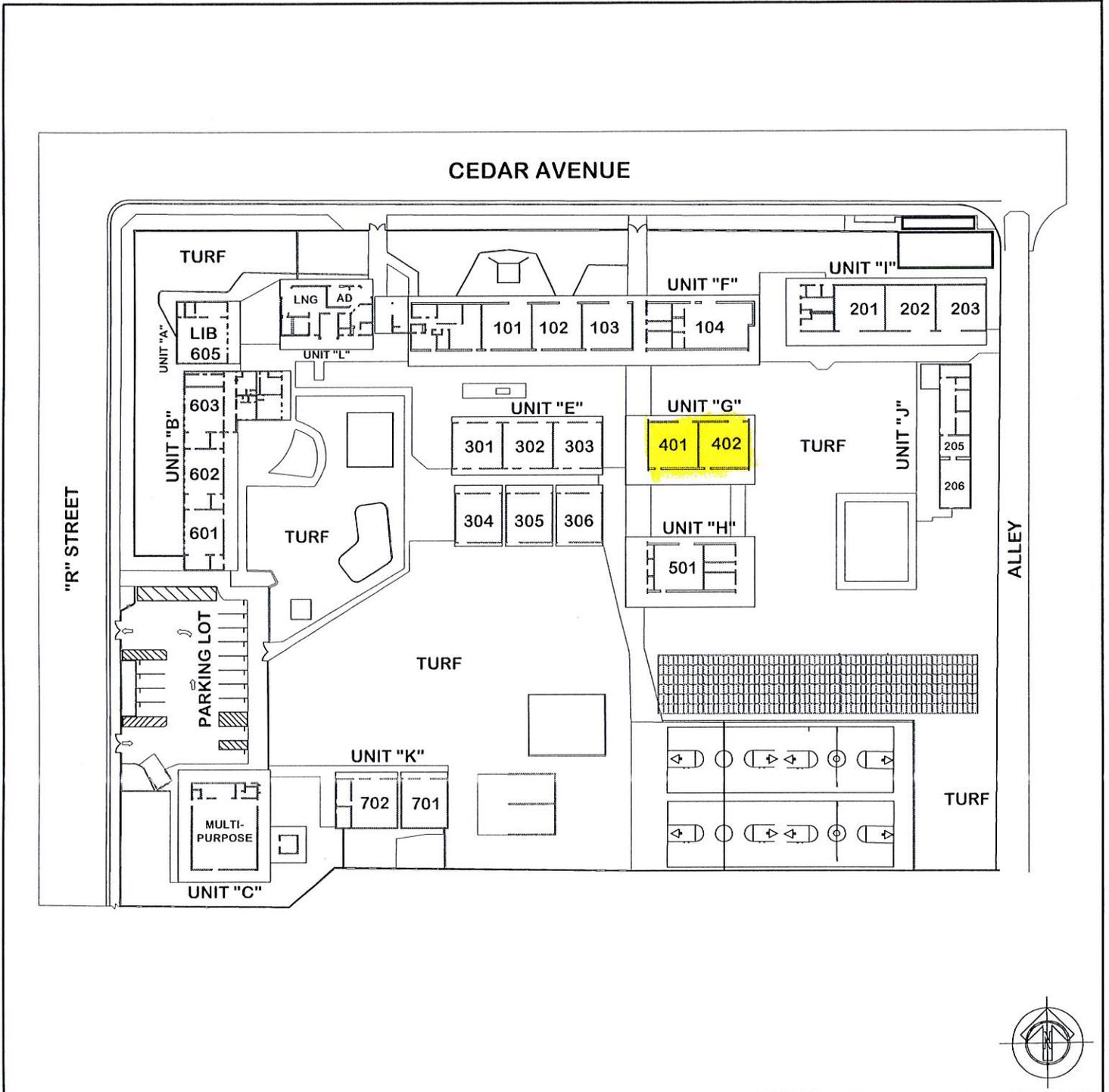
NOTE:

1. REMEMBER, DO NOT CROSS SEAMS WITH WALKWAY PADS 6" (152 mm) OFF EACH SEAM.
2. HEAT-WELD EDGE OF WALKWAY PADS CONTINUOUSLY.
3. REQUIRED AT ALL ROOF ACCESS POINTS.

 www.gaf.com 1 Campus Drive Parsippany, NJ 07054	 SPECIAL CONSTRUCTION SERIES	DRAWING #	HEAT WELDED WALKWAY INSTALLATION	THIS DETAIL APPLIES TO:
		604		ALL SYSTEMS
		SCALE		REVISION DATE
		N.T.S.		12-15-17

- New Construction
- Modernization/Reconstruction

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

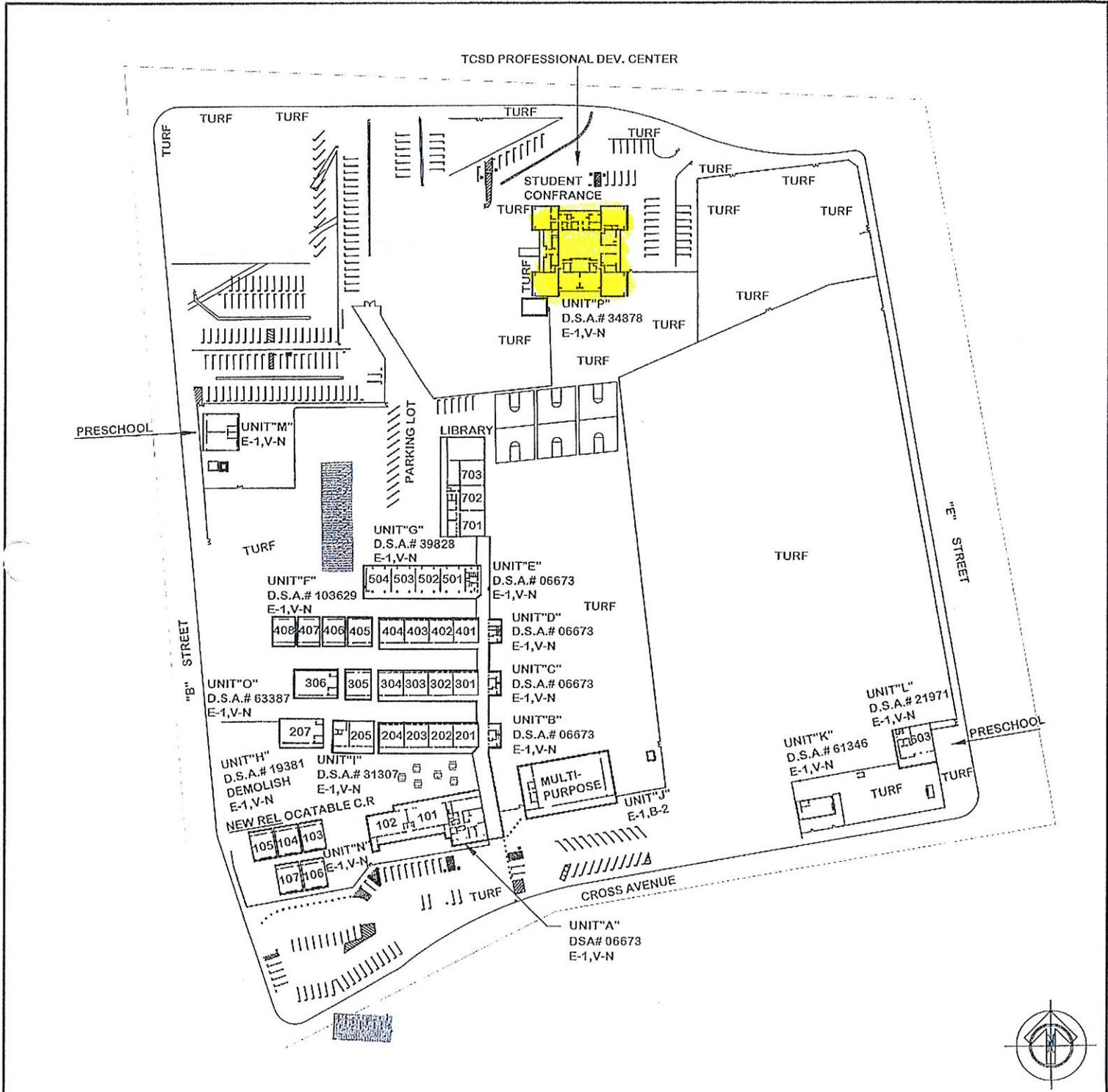


SITE PLAN
LINCOLN ELEMENTARY SCHOOL
 900 East Cedar Avenue - Tulare, CA 93274
 Web Site - www.tcsdk8.org
 Phone (559) 685-7350, FAX (559) 685-7355

April 25, 2019
 D.S.A.# 06070
 Page 1 of 43

- New Construction
- Modernization/Reconstruction

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



SITE PLAN - MISC. BUILDINGS
MAPLE ELEMENTARY SCHOOL
 640 West Cross Avenue - Tulare, CA 93274
 Web Site - www.tcsdk8.org
 Phone (559) 685-7270, FAX (559) 685-7272

April 26, 2019
 D.S.A.# 000000
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