

ADDENDUM #2



CONTRA COSTA COMMUNITY COLLEGE DISTRICT

Project: L-1203 VOTECH ROOF REPLACEMENT

College: Los Medanos College, 2700 East Leland Road, Pittsburg, CA 94565

Date: August 24, 2022

NOTICE TO ALL CONTRACTORS

You are hereby notified of the following changes, clarifications and/or modifications to the original Contract Documents, Project Manual, Drawings, Specifications and/or previous Addenda. This Addendum shall supersede the original Contract Documents and previous Addenda wherein it contradicts the same, and shall take precedence over anything to the contrary therein. All other conditions remain unchanged.

This Addendum forms a part of the Contract Documents and modifies the original Contract Documents dated **August 20, 2022**. Acknowledge receipt of this Addendum in space provided on the Bid Proposal Form. Failure to acknowledge may subject Bidder to disqualification.

A. SPECIFICATIONS: DELETIONS, ADDITIONS, CHANGES, REVISIONS

Item:

1. **REPLACE: Specification Section 00300 – BID PROPOSAL FORM**
DELETE existing Section 00300 – BID PROPOSAL FORM, in its entirety, and **REPLACE WITH** new Section 00300 – BID PROPOSAL FORM – ADDENDUM #2 (attached), in its entirety. Note: The Bid Proposal Form was updated to remove bid alternate.
2. **REPLACE: Specification Section 00800 – Supplementary General Conditions**
DELETE existing Section 00800 – Supplementary General Conditions, in its entirety, and **REPLACE WITH** new Section 00800 – Supplementary General Conditions – ADDENDUM #2 (attached), in its entirety. Note: Section 2.2 Material Escalation was added.
3. **REPLACE: Specification Section 07 52 16 Modified Bituminous Membrane Roofing.**
DELETE existing Section 07 52 16 Modified Bituminous Membrane Roofing, in its entirety, and **REPLACE WITH** new Specification Section 07 52 16 Modified Bituminous Membrane Roofing – ADDENDUM #2, (attached), in its entirety. Note: There are changes throughout.

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4. REPLACE: Specification Section 07 54 05 Thermoplastic Membrane Roofing System.

DELETE existing Section 07 54 05 Thermoplastic Membrane Roofing System, in its entirety, and **REPLACE WITH** new Specification Section 07 54 05 Thermoplastic Membrane Roofing System – ADDENDUM #2, (attached), in its entirety. Note: There are changes throughout.

5. REPLACE: Specification Section 07 72 00 Roofing Accessories.

DELETE existing Specification Section 07 72 00 Roofing Accessories, in its entirety, and **REPLACE WITH** new Specification Section 07 72 00 Roofing Accessories – ADDENDUM #2, (attached), in its entirety. Note: There are changes throughout.

B. DRAWINGS: DELETIONS, ADDITIONS, CHANGES, REVISIONS

1. REPLACE: Drawings A1.5, A2.0, A2.1, A2.2, A10.40, A10.41, and A10.45.

DELETE existing Drawings A1.5, A2.0, A2.1, A2.2, A10.40, A10.41, and A10.45, in their entirety, and **REPLACE WITH** new Drawings A1.5, A2.0, A2.1, A2.2, A10.40, A10.41, and A10.45, – ADDENDUM #2 (attached), in their entirety. Note: There are changes throughout.

C. Bidder's Questions and District's Responses

Q1. Question:

Attached is detail A10.40/9 and a picture of the west side existing window flashing. we need to get some clarification on how this is supposed to be done without damaging the existing window flashing, or if this section does not need reglet and counterflashing.

Response:

Detail has been clarified. See sheet A10.40 – Addendum #2.

Q2. Question:

Section 07-52-16, Part 1.06.D requests an "Additive Alternative: Manufacturer Umbrella Warranty that includes roof inspection and preventative maintenance during warranty period."

The GAF Diamond Pledge NDL warranty provides a final inspection at substantial completion of the roofing assembly and does not include preventative maintenance during warranty period. The language in this part of the specification would make this a proprietary spec which only 1 manufacturer listed in this specification would be able to meet. Please clarify this requirement as the basis-of-design manufacturer cannot meet this requirement.

Response:

This additive alternate has been deleted.

Q3. Question:

The referenced spec section calls out a roofing assembly that does not qualify for a 20-year NDL warranty. The top ply would need to be Ruberoid Mop Plus Granule FR instead of Ruberoid Mop Granule. Please clarify the required roofing assembly.

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Response:

The cap sheet specification has been revised. See "07 54 05 Thermoplastic Membrane Roofing System - Addendum 2".

Q4. Question:

07 52 16 does not indicate minimum thickness of tapered insulation. Detail 7/A10.40, with 3" = 1' scales the rigid insulation at 1". What is the minimum thickness for the tapered insulation?

Response:

The tapered insulation is for thermal only. The minimum thickness is 3 in. (See Question 5).

Q5. Question:

Reference detail 1/A10.40 calling out 1/4" : 12" tapered insulation. Based on insulation starting 3" at drain, the ridge thickness will be 11.9" without the cover board. Existing thickness of LWIC based on core sample taken during 8/10 job walk is 6.5" at ridge and +/-3" at drain. Utilizing 1/4" : 12" tapered insulation will create several elevation issues at the insulated pipe sleepers, exhaust fan sleepers, finished base flashing at windows, walls and parapets. Insulated pipes and exhaust fan sleepers will need to be raised to accommodate new elevations. Please clarify how to address the added elevation. If we are to raise these items, an additional site walk, and additional time will be needed for subcontractors to walk the site.

Response:

The minimum tapered insulation thickness shall be 3 in., matching the 3 in. minimum thickness of the existing concrete (at drains).

Q6. Question:

Are there any buried electrical conduits in the lightweight insulating concrete?

Response:

We understand that there is no buried conduit in the concrete.

Q7. Question:

Reference detail 6/A10.40, Note (1) stating to remove and reconnect pipes to curb. During the job walk, it was mentioned the pipes and metal flashing caps are to remain. Please confirm pipes are to be disconnected, removed, and reconnected.

Response:

The note has been revised to delete the remove and reconnect.

Q8. Question:

I don't see an R value confirmation on the roofing scope out at Los Medanos. Can we confirm if its taper with a .5" start or if a specified min R value is to be provided?

Response:

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The tapered insulation is for thermal only. The design assumes a minimum thickness of 1/2 in.

Q9. Question:

Mod Bit has a 20-year and single ply has a 15-year, would you prefer 20 years on both? Would you want this under a single warranty?

Response:

The warranties for both roof types will be the same (20 year).

Q10. Question:

Will you accept a cool title 24 rated cap in lieu of adding coatings?

Response:

A Title 24-rated coated cap sheet would be acceptable; the Contractor will need to apply coating where the factory-applied coating is damaged or stained such that it does not provide the specified reflectance.

Q11. Question:

Is it acceptable to use the Sika Sarnafil G 410-60 mil min fully adhered PVC roofing system in place of the PVC roofing on the project?

Response:

Yes - Sika Sarnafil is considered an approved equal for the single-ply roofs.

D. If you have any questions regarding this Addendum, please contact:

Ben Cayabyab, Contracts Manager
Contra Costa Community College District
500 Court St., Martinez, CA 94553
Email: bcayabyab@4cd.edu;
Phone: 925-229-6956;

All other terms and conditions of BID are to remain the same.

ATTACHMENTS

1. SPECIFICATION SECTION 00300 – BID PROPOSAL FORM – Addendum 2
2. SPECIFICATION SECTION 00800 – Supplementary General Conditions – Addendum 2
3. SPECIFICATION SECTION 07 52 16 Modified Bituminous Membrane Roofing - Addendum 2
4. SPECIFICATION SECTION 07 54 05 Thermoplastic Membrane Roofing System - Addendum 2
5. SPECIFICATION SECTION 07 72 00 - Roofing Accessories – Addendum 2
6. DRAWINGS A1.5, A2.0, A2.1, A2.2, A10.40, A10.41, and A10.45, – ADDENDUM #2
7. Meeting Minutes from Mandatory Pre-Bid Meeting

END OF ADDENDUM #2

**SECTION 00300
BID PROPOSAL FORM
Addendum #2**

PROJECT NUMBER / NAME: L- 1203 Votech Roof Replacement

CAMPUS / LOCATION: Los Medanos College, 2700 E Leland Rd, Pittsburg, CA 94565

DISTRICT: CONTRA COSTA COMMUNITY COLLEGE DISTRICT
500 Court St, Martinez, CA 94553

Herein Referred to as "District"

1. INTRODUCTION

- A. The Bidder proposes to perform the Work for the Contract Sum and within the proposed Contract Time, based upon an examination of the site and the Bid and Contract Documents.
- B. The Bidder certifies this Bid is submitted in good faith.
- C. The Bidder agrees that the Contract Sum and other proposed terms will be considered in evaluating Bids and may be negotiated and adjusted before awarding of Contract.
- D. The signed copy of the Certification of the Visit to the Site shall be attached to the Bid Form Submittal.
- E. A fully executed Non-Collusion Affidavit signed by an authorized officer of the Bidder submitting Bid shall be attached to the Bid Form.
- F. **The District shall award the contract to the lowest responsive and responsible Bidder. The evaluation of the low bid shall be based on the total of Item 2.A Base Bid, and listed Additive/Deductive Alternates 3.1.**
- G. The District reserves the right to delete any or all Add Alternates, if any, through change orders within **30 calendar days** after the Award of Contract. If deleted by the District, the deleted dollar amount shall be the amount listed for the specific Add Alternate. The Contract Time will remain the same regardless if any Add Alternate is deleted.

2. CONTRACT SUM

A. BASE BID

For labor, materials, bonds, fixtures, equipment, tools, transportation, services, sales taxes, overhead and profit, and other costs necessary to complete the general construction in accordance with the Contract Documents, for a stipulated Contract Sum in the amount of:

_____ Dollars (\$ _____)
write amount above

3. ADDITIVE/DEDUCTIVE ALTERNATES

(SEE SPECIFICATION SECTION 07 52 16 SUBSECTIONS 2.04 FOR FULL DESCRIPTION OF SCOPE FOR ALTERNATES #1.)

1. Install lightweight insulating concrete instead of tapered insulation

Add/Deduct (circle one)

_____ Dollars (\$ _____)

write amount above

4. COMPLETION TIME

- A.** For establishing the Date of Final Completion, the contract time for the Base Bid shall be as indicated in Section 00600, Construction Agreement. This time may be subject to modification to facilitate the work, as mutually agreed upon at a later date.
- B.** The Bidder certifies that the Bid is based on the Contract Time for completion as stated in Section 00600, Construction Agreement. Bidder further certifies that the Base Bid amount is sufficient to cover all labor, materials, central office and construction site overhead, profit, and all other costs related to the completion of the Project for the entire Project construction time for both the General Contractor and all Subcontractors, as stated above in paragraphs 2 and 3.

5. ADDENDA

- A.** The Bidder acknowledges receipt of the following Addenda, and certifies the Bid has provided for all modifications and considerations required therein.

None [☐]

Addendum No.: _____ dated _____

Addendum No.: _____ dated _____

Addendum No.: _____ dated _____

Addendum No.: _____ dated _____

- B.** List of Additional Addenda Attached: Yes [☐] No. [☐].

6. DESIGNATION OF SUBCONTRACTORS

- A.** The Bidder has set forth a complete list indicating the type of work, name, and business address of each Subcontractor who will perform work in excess of one-half of one percent of the Contract Sum.

- B. Any portion of the work in excess of the specified amount having no designated Subcontractor shall be performed by the Bidder.
- C. Substitution of listed Subcontractors will not be permitted unless approved in advance by the District.
- D. Prior to signing the Contract, the District reserves the right to reject any listed Subcontractor.

	Type of Work	Subcontractor's Name	Business Address/Phone	CSLB License # and DIR Registration #
1				
2				
3				

- E. Complete list of Subcontractors is attached: Yes ☐ No ☐
- F. Continuation list of Subcontractors is attached: Yes ☐ No ☐

7. ACCEPTANCE AND AWARD

- A. The District reserves the right to reject this Bid and to negotiate changes before or after execution of the Contract. This Bid shall remain open and shall not be withdrawn for a period of 90 days after Bid Opening date.
- B. If written notice of acceptance of this Bid is mailed or delivered to the Bidder within 90 days after the date set for the receipt of this Bid, or other time before it is withdrawn, the Bidder will execute and deliver to the District a Contract prepared by District with the required Surety Bonds and Certificates of Insurance, within 10 days after personal delivery or deposit in the mail of the notification of acceptance.
- C. Notice of acceptance or request for additional information may be addressed to the Bidder at the address provided.

8. BID SECURITY

- A. The required 10 percent (10%) Bid Security for this Bid is attached in the form of:
 - () Bid Bond Issued By: _____
 - () Certified or Cashier's Check No. _____

Issued by: _____

9. BIDDER'S BUSINESS INFORMATION

A. Individual []: _____

Personal Name: _____

Business Name: _____

Address: _____

_____ Zip Code: _____

Telephone: _____

Fax Number: _____

B. Partnership []: _____

Co-partners' Names: _____

Business Name: _____

Address: _____

_____ Zip Code: _____

Telephone: _____

Fax Number: _____

C. Corporation []: _____

Firm Name: _____

Telephone: _____

Fax Number: _____

State of Incorporation: _____

President: _____

Secretary: _____

Treasurer: _____

Manager: _____

D. Power of Attorney: Name: _____

Title: _____

E. Contractor License No. _____ **State of** _____

F. Bidder is submitting this proposal on behalf of a Joint Venture. Names, license numbers, and relevant information are given on a separate attachment:
Yes [☐] No [☐].

G. Upon request, furnish appropriate documentation to substantiate and/or support the data given.

10. The undersigned hereby certifies under penalty of perjury under the laws of the State of California that all the information submitted by the Bidder in connection with this Bid and all the representations herein made are true and correct.

Executed this day of _____

CSLB License No.

Expiration Date

DIR Registration No.

Firm Name

Signature

By (Print or Type Name)

Title

End of Section 00300

SECTION 00800
SUPPLEMENTARY GENERAL CONDITIONS
Addendum #2

PART 1 - GENERAL

1.1 SCOPE OF WORK

In general, the Work consists of the following, but not limited to: Abatement and demolition of the existing built-up roof and underlying light weight concrete, installation of new tapered insulation, installation of new modified bitumen and single-ply roof systems, and all related work. See Section 00010, Table of Contents, for a list of all the Contract Documents (specifications) included in this the scope of work, including addendums issued and referenced in the Contractor's bid form (Section 00300).

1.2 REFERENCES

A. The publications listed below form a part of this specification by reference.

1. Current California Occupational Safety and Health Act Regulations
2. Current California Occupational Safety and Health Construction Safety Orders
3. This work will be contracted using the District's Construction Agreement; See Section 00600.

1.3 SUBMITTALS

A. Provide submittals in the format, and as described below:

1. **Submittals shall be submitted to the District, electronically, in PDF format, within fourteen (14) Calendar Days from the Notice to Proceed, except as otherwise noted.**
2. ~~N/A~~
3. Submittals that require local and State agency approval, shall conform to this Specification and the requirements of the local or State agency.
4. **District will review and provide a response to submittals within fourteen (14) calendar days (excluding holidays).** Submittals that include design documents prepared by a licensed California Engineer will be submitted for the District's records. Any District review and response to the Contractor's design documents by a licensed California Engineer will be for format and general compliance only. Contractor and Contractor's licensed California Engineer are responsible for compliance with all applicable State of California codes, laws and regulations applicable to this project.

B. Provide submittals for all equipment, if any, listed on the Drawings or in the Specifications.

- C. The Schedule of Values shall be submitted to the District within seven (7) calendar days after the Notice of Award. The Schedule of Values shall be broken down by the following minimum categories:

1. Submittals
2. Material Procurement
3. Demolition
4. Insulation installation
5. Roofing Installation
6. Owner and Maintenance Manuals and Warranties
7. As-Builts / Project Record Documents

The District will only pay for Work installed at the Site.

- D. CPM construction schedule shall be submitted as a Microsoft Project file within **ten (10) calendar days** from the Contract Award date. District and Contractor shall meet and review the schedule. The Notice to Proceed will not be issued until the District accepts the schedule or accepts it with conditional changes. Below are the minimum activity types that shall be included in the schedule:

1. Contractor Submittals
2. Submittal Reviews by District
3. Procurement
4. Construction activities corresponding to the Schedule of Values
5. Substantial Completion Milestone
6. Project Closeout Activities.
7. Final Completion Milestone

- E. Submittals are for review of conformance with the requirements of the Contract.

1.4 SUBSTITUTIONS.

- A. *One Product Specified.* Unless the Specifications state that no substitution is permitted, whenever the Contract Documents indicate any specific material, product, thing or service, or any specific name, make, trade name, or catalog number, with or without the words "or equal," such specification shall be deemed to be used for the purpose of facilitating description of the material, product, thing or service desired and shall be deemed to be followed by the words "or equal" unless the Contract Documents specify "no substitution allowed", "no equal", "no equivalent", or other language with similar meaning, in which case no substitutions will be allowed. Pursuant to Paragraph 1.3.F.3, the Contractor may, unless otherwise stated, within three (3) work days after the bid opening, submit a substitution

request for any material, product, thing or service, which shall be materially equal or better in every respect to that so indicated or specified ("Specified Item") and will completely accomplish the purpose of the Contract Documents.

1. *Products Specified which are Commercially Unavailable.* If the Contractor fails to make a request for substitutions for products, within three (3) work days after bid opening, and such products subsequently become commercially unavailable, the Contractor may request a substitution for such commercially unavailable item. The decision to grant this request is solely at the District's discretion. The written approval of the District, consistent with the procedure for Change Orders, shall be required for the use of a proposed substitute material. The District may condition its approval of the substitution upon the delivery to District of an extended warranty or guaranty or other assurances of adequate performance of the substitution as well as an equitable deduction in the contract sum should the substituted item cost less than the Specified Item. All risks of delay due the approval of a requested substitution by the District, DSA, or any other governmental agency having jurisdiction, shall be on the requesting party. All additional costs, all procurement and construction delays, and all costs for review by the Architect or its consultants shall be the responsibility of the Contractor and will be deducted from Contractor's pay request.

B. Substitution Request Form. Requests for substitutions of materials, products, things or services in place of a Specified Item must be submitted to the District in writing on the District's Substitution Request Form ("Request Form") within three (3) work days after bid opening, except as provided for in Paragraph 1.3.F.1.

1. The Substitution Request Form must be accompanied by evidence as to whether the proposed substitution:
 - (a) Is equal in quality/service/ability to the Specified Item;
 - (b) Will entail no changes in detail, construction, and scheduling of related work;
 - (c) Will be acceptable in consideration of the required design and artistic effect;
 - (d) Will provide no cost disadvantage to the District;
 - (e) Will require no excessive or more expensive maintenance, including adequacy and availability of replacement parts; and
 - (f) Will required no change of the construction schedule.
2. In completing the Substitution Request Form, the bidder shall state, with respect to each requested substitution, that the bidder will agree to provide the Specified Item in the event that the District denies the bidder's request for such requested substitution. In the event the District denies the bidder's requested substitution for a Specified Item, the bidder shall provide the Specified Item without any additional cost or charge to the District and waives all rights to submit a claim.

C. After Bid Opening. After bids are opened, the apparent lowest bidder shall provide, within three (3) days of opening such bids, any and all Drawing, Specifications, samples, performance data, calculations, and other information, as may be required to assist the Design Consultant and the District in determining whether the proposed substitution is acceptable. The burden of establishing these facts shall be upon the bidder.

1. After the District's receipt of such evidence by the bidder, the District will make its final decision as to whether the bidder's request for substitution for any Specified Items will be granted. The decision as to whether a proposed request for substitution is equal to a Specified Item shall be at the sole discretion of the District. Any request for substitution that is granted by the District shall be documented and processed through a Change Order. The District may condition its approval of any substitution upon delivery to the District of an extended warranty or guaranty or other assurances of adequate performance of the substitution. Any and all risks of delay due to approval by the District, DSA or any other governmental agency having jurisdiction shall be on the bidder.
2. If the Design Consultant and District accept a proposed substitution, the Contractor agrees to pay for all District expenses, including but not limited to Division of the State Architect fees, engineering and design services, compensation to the Design Consultant for their required time to process such substitution through the Division of the State Architect, if required, and to make all changes and adjustments in materials or the work of all trades directly or indirectly affected by the substituted item or items at no cost to the District

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Contractor Provided Materials: The Contractor provided materials shall include any associated equipment and appurtenances required for performing the contract properly and in accordance with the equipment manufacturer's literature.
- B. All materials shall be new, unless otherwise authorized or specified in the scope of work of this specification.

2.2 MATERIAL ESCALATION

- A. Contractor Provided Materials: The District will not accept any material escalation cost as a result of the project duration. All pricings at time of bid must be held for the duration of the project.
- B. The Contractor may include in its Request for Payment the value of any materials prepared specifically for the Project and unique to the Project so long as all of the following requirements are satisfied:
 - a. Title to such materials shall be vested in the District as evidenced by documentation satisfactory to the District.
 - b. The Contractor shall submit to the District a written list identifying each location where materials are stored off-site (which must be a bonded warehouse) and the value of the materials at each location. The Contractor shall procure insurance satisfactory to the District for materials stored off-site in an amount not less than the total value thereof;
 - c. The consent of any Surety shall be obtained to the extent required prior to payment for any materials stored off-site;
 - d. Representatives of the District shall have the right to make inspections of the storage areas at any time; and

- e. Such materials shall be (1) protected from diversion, destruction, theft and damage to the reasonable satisfaction of the District; (2) specifically marked for use on the Project; and (3) segregated from other materials at the storage facility.

PART 3 - EXECUTION AND RELATED REQUIREMENTS

3.1 GENERAL

- A. Work Restrictions:** Contractor shall maintain a safe path of travel for all pedestrians and vehicles during construction. Contractor is required to provide safety barricades and alternative routes of travel for pedestrians and vehicles at all times, unless otherwise approved by the District. Anytime the Contractor anticipates it will block and divert existing paths of travel for pedestrians or vehicles, it shall provide a hard copy plan along with proposed wayfinding signage for review by the District at least 5 work days prior to such blockage and diversion. Said plan shall be reviewed and approved by the District prior to commencement of this work by the Contractor.
 - 1. The contract duration accounts for the material lead time for tapered insulation.
 - 2. Demolition and Construction cannot start onsite until the beginning of Summer Break on May 22, 2023.
 - a. Construction must be completed by end of Summer Break August 18, 2023.
- B.** Contractor shall provide barricades, wayfinding signage, safety signage, and COVID-19 signage around the construction site through Substantial Completion to deter access by students, faculty, and the public to areas under the control of the Contractor.
- C.** Contractor will be allowed to have access and use Campus utilities for temporary water and electricity, but Contractor shall be responsible to investigate prior to bid, and for all work necessary to connect to existing utilities for temporary use.
- D.** Contractor shall control all construction-generated dust during construction, and clean-up said dust and debris daily to prevent migration to other areas or rooms.
- E. Scheduling and Coordination:** Before commencing work on a specific area, the Contractor shall confirm that all requirements have been met pertaining to scheduling of the work. The Contractor shall further determine that all required written notices have been given to the District.
- F. Scheduling and Sequence of Work:** The work shall be prosecuted in such a manner as to cause the least interference with the normal functions of the campus activity in the adjacent

areas. Prior to beginning any work, the Contractor shall meet with the District and the Contractor's schedule shall be approved as noted in Article 1.3D above.

- G. **Interruption of Utilities Services:** Interruptions shall be kept to a minimum and shall be at such times and duration as approved ahead of time by the District. No interruption shall occur unless scheduled with the District and approved in advance in writing as to time and duration of such interruption. No utility interruptions that impact building operation during classes will be allowed, and these types of interruptions, if any, shall be scheduled for after normal hours when classes are not in session.
- H. **Material, equipment, tools and workmen** shall be scheduled and delivered to the Site in a timely manner to avoid delay in the work. Materials provided shall be inspected by the Contractor to make certain they follow the specifications and are free from defects and damage.
- I. **Measurements:** Before fabrication, obtain necessary field measurements and verify all measurements.
- J. **Bathroom Facilities:** The Contractor will NOT be allowed to use College bathroom facilities and the Contractor shall provide porta-potties and cleaning stations to wash hands for construction personnel located at the Site. The location shall be approved in writing by the District before locating the porta-potties.
- K. **Workmanship:** Skilled personnel shall execute in a careful, neat, and proficient manner and in compliance with accepted trade practices for all work. All work shall be executed in accordance with Cal/OSHA standards and safety orders. And all work on this contract shall comply with all Local, State, and Federal Environmental Laws.
- L. **Incidental Work:** Minor incidental materials and work not specifically mentioned herein, but necessary for the proper completion of the specified work, shall be provided without additional cost to the District
- M. **Administrative Forms:** District shall provide its standard forms for use by Contractor.

3.2 EXISTING CONDITIONS & DRAWINGS

- A. See Section 00210, Information Available to Bidders for documents available for review by the Contractor and its subcontractors prior to and after bid.

3.3 WORK BY CALIFORNIA LICENSED ENGINEER

- A. Note that modifications to existing building structures, fire systems, or ADA changes, if any are discovered during construction, will require DSA approval. Contractor will be granted a

non-compensable time extension for the duration it takes to obtain DSA approval. A change order will be negotiated for added direct labor field construction costs, if any.

3.4 NOISE CONTROL

- A.** Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to building occupants.
 - 1. Notify District's Representative not less than two days in advance of proposed disruptive operations.
 - 2. Obtain District's Representative's written permission before proceeding with disruptive operations.

3.5 SITE WORK-Not Used

3.6 PROJECT CLOSEOUT REQUIREMENTS (After Substantial Completion & Before Final Completion)

- A.** Refer to the Drawings listed in Section 00010, Table of Contents for requirements, and these Supplementary General Conditions.
- B.** Provide final clean-up of Site prior to Final Completion.
- C.** Warranty
 - 1. The Contractor warrants to the District that material and equipment furnished under the Contract will be of the highest quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects not inherent in the quality required or permitted, and that the Work will conform with the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. Contractor's warranty and guaranty to District includes, but is not limited to the following representations:
 - a. In addition to any other warranties and guaranties provided elsewhere, Contractor shall, and hereby does, warrant all Work after the Certificate of Substantial Completion date issued by District and shall repair or replace any or all such work, together with any other work, which may be displaced in so doing that may prove defective in workmanship or materials within a one (1) year period from date of completion as defined in Public Contract Code Section 7107(c) without expense whatsoever to District, ordinary wear and tear, unusual abuse or neglect excepted. District will give notice of observed defects with reasonable promptness. Contractor shall notify District upon completion of repairs.
 - b. In the event of failure of Contractor to comply with above mentioned conditions within one week after being notified in writing, District is hereby authorized to proceed to have defects repaired and made good at expense of Contractor who hereby agrees to pay costs and charges therefore immediately on demand.
 - c. If, in the opinion of the District, defective Work creates a dangerous condition or requires immediate correction or attention to prevent further loss to the District, the District will attempt to give the notice required by this Article. If

the Contractor cannot be contacted or does not comply with the District's requirements for correction within a reasonable time as determined by the District, the District may, notwithstanding the provisions of this article, proceed to make such correction or attention which shall be charged against Contractor. Such action by the District will not relieve the Contractor of the guarantee provided in this Article or elsewhere in this Contract.

- d. This Article does not in any way limit the guarantee on any items for which a longer warranty or guaranty is specified in the **technical specifications** or on any items for which a manufacturer gives a guarantee for a longer period. Contractor shall furnish District all appropriate guaranty or warranty certificates upon completion of the project.

2. Format - All Warranties/Guaranties and shall include:

- a. Contractor, subcontractor, and equipment supplier shall provide Warranties and Guaranties on their original company letterhead with original signature.
- b. Contractor shall provide original Warranties and Guaranties. Photocopies, fax and e-mail copies are not acceptable.

3. Preparation

- a. Contractor shall obtain warranties and guaranties, executed in duplicate by each applicable and/or responsible subcontractor(s), supplier(s), and manufacturer(s), within fifteen (15) days after Certificate of Substantial Completion date of the applicable Work. **Contractor shall leave date of beginning of time of warranty or guaranty blank until the date of Final Completion is determined by District as detailed in the Technical Specifications.**
- b. Contractor's Response to Construction Warranty and Guaranty Service Requirements: Following oral or written notification by the District, respond to construction warranty and guaranty service requirements within 24 hours, or earlier in case of emergency.

4. Warranty and/or Guaranty Tags

- a. At the time of installation of mechanical equipment or other major system elements, tag each warranted or guaranteed item with a durable, oil and water-resistant tag approved by the District. Attached each tag with a copper wire and spray with a silicone waterproof coating. The date of Substantial Completion and the Contractor Authorized signature must remain blank until the date the District makes a determination of Substantial Completion. Show the following information on the tag:

WARRANTY/GUARANTY INFORMATION – [insert project number and name on actual tag]

- a. Type of product/material_____.
- b. Model number_____.
- c. Serial number_____.
- d. Contract number_____.
- e. Warranty/Guaranty period _____ (months) from _____ to _____.
- f. Inspector's signature_____.
- g. Construction Contractor_____.
- Address_____.
- Telephone number_____.
- h. Warranty or Guaranty contact_____.
- Address_____.
- Telephone number_____.
- i. WARNING - PROJECT PERSONNEL TO PERFORM ONLY OPERATIONAL MAINTENANCE DURING THE WARRANTY PERIOD.

3.7 Project As-Built

- A. Contractor shall dedicate one complete full-size set of the Contract Drawings and one complete Project Manual for use in documenting as-built conditions, including but not limited to; RFIs, ASI, PCOs and Change Order.
- B. Contractor shall submit to District in hard copy one original and two copies of all Project As-Built Documents. In addition, one electronic copy shall be submitted to District. District reserves the right to require resubmittal in accordance with these Supplementary General Conditions if the documents are inaccurate or incomplete, or otherwise fail to meet the requirements of these Contract Documents.
- C. Electronic Media Format: Electronic media format for all Project As-Built Documents shall be Adobe PDF, with chapter markers and/or bookmarks inserted in place of the equivalent hard copy section tabs. Electronic copy shall include all tables, charts, drawings, codes and all other matters reflected in hard copies. Electronic media files shall be delivered on a unique CD-ROM or flash drive.

3.8 TIME OF COMPLETION

- A. See Section 00300, Bid Proposal Form for specific requirements to complete the Work. Time requirements are also included in Section 00600, Construction Agreement.
- B. Substantial Completion: The date on which the Work or designated portion thereof, as certified by the District and Architect, is sufficiently complete, in accordance with the Contract Documents, so the District may occupy or utilize the Work or designated portion thereof for the use for which it is intended.
- C. Remaining Work after Substantial Completion: If the Architect or District determines that the work required by the Contract is Substantially Complete during any inspection conducted pursuant to this Agreement, the Contractor shall be notified of that determination and the District shall determine if there is Remaining Work. A list of Remaining Work shall be issued only by the District or the Architect and only after the District has certified Substantial Completion. The District or Architect shall give the Contractor the necessary instructions for

correction or completion of the Remaining Work, and the Contractor shall immediately comply with and execute such instructions within the Contract Time. Upon completion of the Remaining Work, another inspection shall be made that shall constitute the Final Inspection, provided the Remaining Work has been completed to the satisfaction of the District. If the remaining work has been completed to the satisfaction of the District, the District shall make the final acceptance and notify the Contractor in writing of this acceptance as of the date of Final Inspection.

- D. Final Completion:** The date when all Work for the total project has been completed in accordance with the terms of the Contract Documents and has been inspected following completion of Work identified in the Punch List Inspection and accepted by the Architect and the District. Final Completion is also sometimes referred to as Final Acceptance.

3.9 ADDITIONAL REQUIREMENTS FOR DSA-APPROVED PROJECTS

- A.** All substitutions affecting DSA regulated items shall be considered as a Construction Change Document or Addenda and shall be approved by DSA prior to fabrication and installation, as required by IR A-6 and Section 4-338(c), Part 1. Substitutions shall be for any material, system or product that would otherwise be regulated by DSA.
- B.** All Addenda must be signed by **Engineer of Record** and approved by DSA (Section 4-338, Part 1).
- C.** The Construction Change Documents (Section 4-338(c), Part 1) must be signed by all the following:
1. A/E of Record
 2. Structural Engineer (when applicable)
 3. Delegated Professional Engineer (when applicable)
 4. DSA



CONTRA COSTA COMMUNITY COLLEGE DISTRICT

500 Court Street, Martinez, CA 94553

SUBSTITUTION REQUEST FORM

Contractor Name: _____

Contract #:

RFS # _____

Date: _____

DSA Application #: _____

Campus: _____

Contra Costa College

Project No., Name: _____

Contractor pursuant to General Conditions submits the proposed items. If the District accepts such items so described, the undersigned may furnish such item with all necessary labor, materials, equipment and incidentals to perform and complete the Work.

Item No.	SPECIFIED ITEM OR DRAWING	SPECIFICATION SECTION	PROPOSED SUBSTITUTION (and name of Subcontractor if different)

CERTIFICATION

Under penalty of perjury under the Laws of California, I certify that the proposed substitution will be readily available, perform adequately the functions and achieve the results called for by the design concept, be similar in substance to that specified, and be suited to the same use as that specified in Contract Documents.

Contractor: _____

(Please print name of company)

Name and Title (print/type)

Contractor Authorized Representative

Date

A. Does the substitution affect dimensions shown on Drawings?

B. Will the undersigned pay for changes to the building design, including engineering and detailing costs caused by the requested substitution?

C. What effect does the substitution have on other trades?

D. Will substitution cause change to Project Schedule, or to critical delivery dates? Add ? Shorten ?

E. Differences between proposed substitution and specified item?

F. What is the Cost Differential including all mark-ups?

G. Are Manufacturer's guarantees for the proposed item the same as for item specified? Explain differences.

H. The undersigned accepts full responsibility for delays caused by redesign of other items of the Work necessitated by substitution.

I. The undersigned states that the function, appearance and quality are equivalent or superior to the specified item.

A/E Response:

☐ Accepted

☐ Not Accepted

☐ Accepted As Noted

☐ Received Too Late

BY: _____ Date: _____

District Representative Response:

☐ Accepted

☐ Not Accepted

☐ Accepted As Noted

☐ Received Too Late

By: _____ Date: _____

END OF SECTION 00800

SECTION 07 52 16

MODIFIED BITUMINOUS MEMBRANE ROOFING

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. This Section specifies requirements for the new roof systems of the main building roofs as shown on the Drawings:
 - 1. Provide new 2-ply, cold process adhesive, modified bitumen roof membrane, 2-ply modified bitumen base flashings and strippings.

1.02 RELATED SECTIONS

- A. Section 07 60 05 – Roof-Related Flashing and Sheet Metal
- B. Section 07 90 05 – Roof-Related Sealants

1.03 SUBMITTALS

- A. Certificates of Compliance: Roof membrane manufacturer's certification that materials are chemically and physically compatible with each other and suitable for inclusion in roof system and are acceptable for warranty specified. Do not submit materials without obtaining membrane manufacturer's written certification. Explicitly identify in writing, difference between manufacturer's written requirements and these specifications, and membrane manufacturer's approval of proposed asphalt source.
- B. Product data: For each product specified in Part 2.
- C. Shop Drawings: Plans, elevations, sections, details, and attachments to other work.
 - 1. Base flashings, cants, and membrane termination.
- D. Samples:
 - 1. Smooth membrane sheet
 - 2. Mineral-surfaced membrane sheet.
- E. Warranties
- F. Contractor's letter certifying a minimum of 5-years commercial built-up roofing experience with list of project references, including names and phone numbers.

1.04 QUALITY ASSURANCE

A. Manufacturer Approval:

1. Installer Qualifications: Approved by manufacturer to install manufacturer's products. A single applicator with a minimum of five years previous successful experience in installations of similar systems.
2. Source Limitations: To greatest extent possible, obtain auxiliary materials for roofing system from roofing membrane manufacturer. Provide letter of acceptance from manufacturer for auxiliary materials from other sources.
3. System Approval: Provide statement from manufacturer that specified roof system meets requirements for requested warranty.
4. Comply with manufacturer's written instruction and these Specifications for roofing and associated work. Provide skilled tradesmen experienced in installation of 2-ply modified bitumen roofing systems. Foreman shall have a minimum of 5 years of previous membrane installation experience.
5. Identify in writing specific contract requirements that are not approved or warrantable by manufacturer.

B. Minimum quality standards: Comply with NRCA/ARMA publications "Quality Control Guidelines for the Application of Built-up Roofing" and "Quality Control Guidelines for Polymer Modified Bitumen Roofing". Standards within these specifications that exceed NRCA/ARMA shall prevail.

C. Regulatory Requirements

1. Federal regulations, safety standards, and codes mandated in the United States.
2. Products Manufactured in Countries Outside of United States: Products shall be approved by governing/sanctioning entity for country in which project is located and/or product is manufactured.
3. Classified by Underwriters' Laboratories, Inc. as a Class A roof covering.
4. Classified by Factory Mutual Engineering as a Class I, approved assembly.
 - a. 1-75
5. Install in accordance with manufacturer's current published application procedures and recommendations of the National Roofing Contractor's Association.

- D. Make no deviations made from this Specification or the approved shop drawings without prior written approval of Architect/Engineer.
- E. Perform entire work of this Section in accordance with the best standards of practice relating to the trades involved.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in manufacturer's original, unopened containers or packages with labels intact and legible.
- B. Store materials in accordance with manufacturer's recommendations. Store rolled goods on clean raised platforms. Store other materials in dry area, protected from water and direct sunlight, and maintain at a temperature of 60 to 80 degrees Fahrenheit.
- C. Provide continuous protection of materials against deterioration.
- D. Materials Stored on Roof Levels for Immediate Use.
 - 1. Distribute to prevent concentrated loads that would impose excessive strain on deck or structural members.
 - 2. Positively secure to prevent displacement by wind.
 - 3. Tarp for protection from exposure.
 - 4. Cut and remove manufacturer's plastic "shrink wrapping" from materials during storage.

1.06 PROJECT CONDITIONS

- A. Existing Conditions: Examine existing building and decking to determine physical conditions that affect installation of roofing.
- B. Environmental Requirements:
 - 1. Apply roofing in dry weather.
 - 2. Do not expose membrane and accessories to a constant temperature in excess of 180 degrees Fahrenheit.
- C. Protection
 - 1. Provide special protection or avoid heavy traffic on completed work when ambient temperature is above 80 degrees Fahrenheit.

2. Restore to original condition or replace work or materials damaged during handling or roofing materials.
- D. ~~Paragraph D is deleted Additive Alternate: Manufacturer Umbrella Warranty that includes roof inspection and preventative maintenance during warranty period.~~
- E. Emergency Equipment: Maintain on-site equipment necessary to apply emergency temporary edge seal in the event of sudden storms or inclement weather.
- F. A minimum of two fully charged 20-pounds dry chemical fire extinguishers in separate, easily accessible torch work locations at all times.

1.07 SEQUENCING AND SCHEDULING

- A. Do not install more roofing in one day than can be night sealed with roofing and flashing in the same day.

1.08 GUARANTEES AND WARRANTIES

- A. Roofing Material Manufacturer's Warranty: Install in such a manner that the roof system manufacturer will furnish a written warranty agreeing to replace/repair defective materials, including leakage of water, abnormal aging or deterioration of materials, and other failures of the materials to perform as required within warranty period. Warranty period is twenty (20) years.
- B. Contractor's Workmanship Warranty: In addition, furnish a written warranty agreeing to repair/replace defective installation and workmanship labor causing leakage of water, deterioration of materials, and other failures of the installed system, sealants, painting, coatings, and related work on this project, to perform as required within the warranty period. Warranty period is two (2) years.
- C. Additive Alternate: Provide an umbrella warranty for the specified manufacturer warranty period that includes roof inspection and preventative maintenance.

PART 2 – PRODUCTS

2.01 PRODUCT PERFORMANCE

- A. Provide products fully compatible with substrates and other assembly components. Materials shall be approved for UL Class A fire rating service and meet FM1-75 (minimum) wind uplift requirements.
- B. Modified bitumen products and systems shall comply with test methods designated in ASTM D 5147-91.
- C. Basis-of-Design: GAF. Other approved manufacturers: Johns Manville, Tremco.

2.02 MODIFIED BITUMENT SHEETS

- A. 2-ply Roofing Membrane: ASTM D 6163 and D 6164, Grade S, Type I or II, polyester-reinforced, SBS-modified asphalt sheet; smooth surfaced; suitable for cold process adhesive application. Base Ply: Ruberoid 20 by GAF or approved equal. Top Ply: Ruberoid Mop Granule by GAF or approved equal.
- B. Modified Bitumen Flashing Ply: ASTM D 6164, Grade S, Type I or II, polyester-reinforced, SBS-modified asphalt sheet; smooth surfaced; suitable for cold process adhesive application. Ruberoid Mop Plus Granule FR by GAF or approved equal.
- C. Modified Bitumen Top Ply: ASTM D 6164, Grade G, Type I or II, polyester-reinforced, SBS-modified asphalt sheet; white granule surfaced; suitable for application by torching. Base Ply: Ruberoid Mop Granule FR by GAF or approved equal.

2.03 AUXILIARY ROOFING MATERIALS

- A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with roofing membrane.
- B. Asphalt Primer: ASTM D 41
- C. Cold-Applied Adhesive: Roofing system manufacturer's standard asphalt-based, one- or two-part, asbestos-free, cold-applied modified bitumen adhesive specially formulated for compatibility and use with roofing membrane. Field Adhesive: Matrix 102 by GAF or approved equal. Vertical Adhesive: Matrix 202 by GAF or approved equal.
- D. Sealant: One-part polyurethane, gunnable grade, high performance elastomeric sealant: ASTM C 920, Type S, Grade NS, Class 25, use NT.
- E. Cant Strip: wood fiber cant strips.
- F. Termination Bar: 34 mm wide, pre-punched metal strip of a U-shaped profile with holes 150 mm (6 inches) on center minimum spacing used to secure vertical edge of the flashing top ply.
- G. Polyethylene Slip Sheet: 6 mil minimum thick polyethylene.
- H. Lap Bleed Finish Granules: Ceramic granules sized and colored to match flashing sheet surfacing as supplied by membrane manufacturer. Color: White.
- I. Base Flashing Coating: SBR or SEBS Butyl rubber based bright white coating engineered to be applied over the specified roof system and to resist the affects of ponded water.

- J. Insulation: EnergyGuard Tapered Polyiso Foam Roof Insulation Board by GAF or approved equal.
 - K. Cover Board: High density Wood Fiberboard, ASTM C-208.
 - L. Insulation Adhesive: GAF Olybond 500 or approved equal.
 - M. Coating: Topcoat MB Plus by GAF or approved equal.
 - N. Liquid-Reinforced Coating: Major Seal Liquid Flashing and fabric reinforcement by GAF or approved equal.
 - O. Fluid-Applied Waterproofing: Hydrostop by GAF or approved equal.
- 2.04 Additive Alternate: Instead of the tapered insulation specified in Paragraph 2.03.J, install light-weight insulating concrete. Manufacturer: Cell-Crete Corporation or approved equal.

PART 3 – EXECUTION

3.01 PREPARATION

- A. Verify that the substrate is suitable for membrane application.
- B. Remove any loose/flaking particles, including film from removed light-weight concrete; follow manufacturer substrate recommendations. Apply Fluid-Applied Waterproofing on the concrete deck substrate in accordance with manufacturers written installation instructions. Follow manufacturer-published drying and cure times.
- C. Prime masonry, concrete, and sheet metal surfaces in contact with bituminous materials, including sheet metal flanges (both sides) and lead sheet at drain sumps (both sides) with asphaltic primer prior to roofing or flashing installation. Allow primer to dry thoroughly prior to installing bituminous flashings.
- D. Do not deliver to site or install a material or system that has not been approved. Remove materials installed without prior approval upon Owner's request.
- E. Surfaces to receive new membrane and flashings shall be clean and thoroughly dry. Should surface moisture such as dew exist, provide necessary equipment to dry surface prior to application. Do not dry with open flames.
- F. Comply with Midwest Roofing Contractors Association MRCA publication "Safety in Torch Welded Roofing" specified to operation of liquefied petroleum gas (propane) hand torches and kettle.

- G. All reinforcing plies, self-adhering membrane envelopes, and base flashings must be installed concurrently with roof membrane installation work, and must be complete and up to date by end of each work week (i.e. Friday or next working day).

3.02 BASE PLY MEMBRANE SHEET INSTALLATION

- A. Sheets shall be laid parallel to longest dimension of tapered area to be roofed and/or perpendicular to slope of area. Application shall start at low point of area working to high point. Laps shall be parallel to slope of short dimension of tapered area and in no case shall laps buck flow of water. Stagger end laps and side laps relative to base sheet laps by 12 in., minimum.
- B. Unroll dry membrane on substrate and align with adjacent sheet, providing 3 in. side laps and 6 in. end laps. Stagger end laps of adjacent sheets by 12 in. minimum. Reroll approximately one-half of dry membrane sheet while maintaining alignment.
- C. Apply adhesive in accordance with roof manufacturer's written instructions. Membrane is not to be walked on while adhesive is not cured.
- D. Membrane sheets shall be applied free of wrinkles, creases, fishmouths, or voids. Maintain alignment of sheets utilizing marked lap lines. Should lap lines become misaligned while unrolling, cut sheet and establish a new end lap. Do not attempt to realign a partially adhered membrane roll.
- E. Inspect ply sheet application for defects. Cut wrinkles, creases, and fishmouths to relax membrane. Apply a full width strip of base ply membrane over defect in a full mopping of hot asphalt and lapped a minimum of 3 in. beyond cut. Unbonded lap seams of more than ½ in. wide shall be reheated and rolled-in.

3.03 REINFORCING PLY INSTALLATION

- A. Verify that repairs have been made to field membrane in areas adjacent to flashing area.
- B. Cut reinforcing plies for horizontal metal flange applications wide enough to provide full coverage of flange and 6 in. onto membrane. Ensure that membrane is solidly set with no voids. Provide 3 in. laps at end of strips.
- C. Cut reinforcing plies across width of roll for base flashings at walls, curbs, and other vertical applications to lengths sufficient to provide full coverage to top of vertical element, across cant, and 6-inches onto horizontal surface of built-up membrane.
- D. Provide 3-inch laps and stagger laps.

3.04 TOP PLY MEMBRANE SHEET INSTALLATION

- A. Verify that all repairs have been made to the field membrane and reinforcing plies have been properly installed. Surfaces should be free of sawdust, dirt, insulation debris, and other contaminants prior to starting installation.
- B. Sheets shall be laid perpendicular to the flow of water starting at the low point of the area and working to the high point. Unroll dry membrane and allow it to relax. Provide 3 in. side laps and 6 in. end laps, and stagger end laps of adjacent cap sheets by 24 in. Align the granulated side of the sheet over the selvage side of the adjacent sheet. While maintaining alignment, reroll approximately one-half of the dry membrane sheet.
- C. Apply adhesive in accordance with manufacturer's written instructions.
- D. Sheets shall be applied free of wrinkles, creases, fishmouths, or voids. Maintain alignment of sheets utilizing marked lap lines. Should the lap lines become misaligned while unrolling, cut the sheet and establish a new end lap. Do not attempt to realign a partially adhered membrane roll.
- E. Inspect sheet application for defects. Cut wrinkles, creases, and fishmouths to relax the membrane. Apply a full width strip of cap sheet membrane over the defect, lapped a minimum of 6 in. beyond the cut. Unbonded lap seams of more than 1/2 in. wide shall be reheated and rolled.

3.05 FLASHING AND STRIPPING SHEET INSTALLATION

- A. Apply stripping sheets using detail torch manufactured specifically for roofing membrane applications.
- B. Ensure that other wood, wood fiber, and other combustible components are enveloped with base sheet or ply sheet material. Maintain fire watch during and after torch applications.
- C. Verify repairs have been made to field membrane in area adjacent to cant to receive flashing sheet. Snap chalk line distance of 100-mm minimum from edge of reinforcing ply and on field side of roof.
- D. Install three-course flashing over termination bars and top of base flashing.

3.06 TEMPORARY PROTECTION

- A. Unfinished perimeter and penetration components: Provide temporary waterstops adequate to prevent moisture intrusion into newly installed work around exposed edges and incomplete flashing locations. Remove temporary materials completely prior to continuing with subsequent work.

- B. Tie-ins: Provide temporary waterstops at deck and tie-ins between newly installed and existing membrane as detailed. Inspect tie-ins thoroughly and repair as needed to provide watertight assembly prior to leaving site.

3.07 COATING

- A. Ensure roof system is clean, dry and acceptable for roof coating.
- B. Apply first coat over the existing exposed top ply using brush or spray applied techniques. Provide reinforcing mesh at inside and outside. Apply first coat using the manufacturer's recommended application rates but in no case less than 2 gallons per 9.2 sm.
- C. Allow first coat to dry 12-15 hours and apply second or top coat using the manufacturer's recommended application rates but in no case less than 2 gallons per 9.2 sm. The finished product shall provide a bright white appearance.

END OF SECTION

SECTION 07 54 05

THERMOPLASTIC MEMBRANE ROOFING SYSTEM

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Single-ply roof system complying with California Title 24 (Cool Roofing) regulations applied over the penthouse roof as shown on the Drawings.

1.02 RELATED SECTIONS

- A. Section 07 60 05 – Roof-Related Flashing and Sheet Metal
- B. Section 07 90 05 – Roof-Related Sealants

1.03 SCOPE

- A. Membrane and related items shall be classified by Underwriters Laboratories, Inc. as a Class A Sheathing Material for use in construction of Class A coverings and amendments.

1.04 APPLICATION

- A. This specially formulated thermoplastic-coated membrane classified as CPA in this section consists of a weft-inserted polyester scrim (18x14, 100 denier), laminated on both sides with a plasticized blend of vinyl and acrylic polymers. The membrane is pre-fabricated into various panel sizes with the largest being 2,500 sq.ft.
- B. Install new single-ply, fully-adhered reinforced PVC roofing system where designated.
- C. Install new fully-adhered membrane flashings and associated components along walls, curbs, or as shown in the Drawings and as required to properly terminate the roof membrane.
- D. Clean and restore all areas damaged, stained or otherwise affected by the Work.
- E. Include PVC repair kit with instructional course as provided by the manufacturer for use by the Owner's maintenance staff.

- F. Attend a roof-related preconstruction meeting after the submittals were transmitted and prior to the start of Work.

1.05 PHYSICAL PROPERTIES

- A. The single-ply membrane shall allow installation at any time of the year and shall provide resistance to ultra-violet rays, superb tear and puncture strength, the ability to be impervious to most caustic chemicals and acids, and show no ill effects to heat or cold.

1.06 ROOFING CONTRACTOR'S QUALIFICATIONS

- A. Contractor shall submit work history data showing successful warranted installation experience of the specified system, and of being authorized by the roofing system manufacturer to install the specified manufacturer's materials.
- B. The Contractor shall use adequate amounts of such qualified workmen to install the specified roofing system.
- C. The Contractor shall have an experienced, pre-qualified, superintendent having experience installing the roof system specified, familiar with the requirements of this project, on the job at all times when roofing system work is in progress. Training for superintendent shall include certification of completion of manufacturer's in-house training course and on-site training.

1.07 REQUIREMENTS OF THE MEMBRANE MANUFACTURER

- A. Roofing system components shall conform to the current published specifications and details of the membrane manufacturer.
- B. There shall be no deviation made from this specification without prior written approval of the membrane manufacturer and the Owner or Owner representative.
- C. Any manufacturer proposing to supply material for this project shall fourteen (14) days prior to bid date, provide financial information regarding their roofing company, i.e. a current D&B report. A manufacturer who has less than \$50,000,000 in annual roofing material sales, a net worth of less than \$3,000,000 or a history of late payments to creditors will not be permitted to submit their roofing material for use on this project. Manufacturer may be asked to submit an audited document listing the long-term warranty liability commitment of manufacturer.
- D. Provide primary thermoplastic membrane factory prefabricated roofing system from a single manufacturer, which has successfully manufactured raw materials into specified products for not less than five (5) years. No secondary private labels will be accepted. Provide secondary materials, such as insulation, gypsum board, vapor barriers as recommended and approved by manufacturer of primary materials.

- E. Products primary and secondary shall be manufactured in the United States of America by a company owned by citizens of the United States.

1.08 FIELD INSPECTION

- A. The Owner reserves the right to retain, at the Owner's expense, an independent inspection service to provide part-time or full-time inspection of the roofing system installation. The inspector shall have free access to the work area.
- B. The Contractor shall arrange for the membrane manufacturer to provide inspection of the roofing system installation. Upon completion of the installation, an inspection shall be made by a Quality Assurance Specialist of the membrane manufacturer at no extra charge to the Owner or Contractor. The inspection is to confirm the roofing system is installed in accordance with the membrane manufacturer's published specifications and details and Contract Documents.

1.09 DEFECTIVE WORK

- A. Should the roofing system not be approved by the manufacturer's technician, correcting the defective work shall be done by the Contractor until the roofing system satisfactorily meets all the specifications and manufacturer's requirements. Corrective work will be done with no additional expense to the Owner.

1.10 WARRANTIES

- A. The Contractor shall warrant the roof application with respect to workmanship and proper application for two (2) years from the date of acceptance by the membrane manufacturer. Should any leaks covered under the warranty occur during this period, corrective action will be taken by the Contractor to repair the roof to the satisfaction of the Owner and the manufacturer. All corrective work will be done at no cost to the Owner.
- B. The warranty shall be full roofing system repair and/or replacement twenty (20) year warranty covering materials and labor. The warranty shall be a no-dollar limit type and provide for completion of repairs, replacement of membrane or total replacement of the roofing system at the then current material and labor prices throughout the life of the warranty. Warranty shall contain no exclusions for ponded water, biological growth, incidental or consequential damages.
- C. Warranty shall be issued by the original manufacturer of the roofing membrane. No private label membranes will be accepted.
- D. No future work shall be done on the roof, including but without limitations, openings made for flues, vents, drains, sign braces, or other equipment fastened to or set on the roof, without prior notification of the Contractor or membrane manufacturer. Contractor or membrane manufacturer shall be given the

opportunity to make the necessary roofing application recommendations, and require such recommendations are complied with. Failure to observe this condition shall render the warranty null and void. The contractor or membrane manufacturer shall be paid for time and material expended in making recommendations or repairs occasioned by the work of others on said roof.

- E. Corrective measures on leaks shall be undertaken within seventy-two (72) hours after Owner notification has been received by the Contractor or the roofing manufacturer from the Owner.

1.11 MECHANICAL ATTACHMENT

- A. Deck membrane shall be fastened with approved fasteners, 12 inches on center along bottom of all parapet walls, elevation changes and perimeter edges.
- B. Deck membrane shall be fastened around cut-outs with approved fasteners 12 inches on center or a minimum of 1 fastener per round penetration having a diameter of not more than 6 inches.

1.12 SUBMITTALS

- A. The contractor shall submit the following:
 - 1. Written confirmation from membrane manufacturer of approved applicator status.
 - 2. Manufacturer literature on the following items:
 - a) Roofing membrane with dielectrically welded seams
 - b) Pre-manufactured parapet flashings
 - c) Pre-manufactured pipe flashing
 - d) Urethane sealant
 - e) PVC termination bar
 - f) Self-Leveling pourable sealer
 - g) Maintenance & repair instructions.
 - 3. Submit 6 in. long samples of the following items for approval prior to ordering:
 - a) Pre-manufactured pipe flashing
 - b) Termination Bar
 - c) Sample of membrane
 - d) Mechanical fasteners
 - e) Lap splice sample (factory and field)
 - f) Roofing insulation

4. Shop drawings including outline of the roof and roof size, perimeter and penetration details, special details and section layout, location of factory dielectric and field welds, accessory and material list.
5. Pullout Tests: Perform pullout tests and submit engineering results of manufacturer's random location pull tests. Manufacturer shall obtain at least one pull resistance test from indicated locations on the drawings. Submit pull test results with drawing indicating the locations of the tests. Engineering results shall demonstrate the manufacturer's reasons for selection of anchorage, frequency and the seaming patterns.
6. Membrane Data: Prior to receipt of bids, Contractor shall submit all forms and other required data to roofing system manufacturer for pre-approvals. Advise building Owner or Owner Representative in writing of any recommendations made or revisions required by manufacturer to particular job conditions. In the absence of any comments, the Owner and/or his representative shall assume the manufacturer's most recently published specifications shall be followed.
7. Provide repair procedures to the Owner and/or Owner's representative.

B. INSULATION

1. Submit a tapered insulation layout drawing (full size: 24 inch x 36 inch) from the insulation manufacturer. The drawing should include an outline of the roof area and locations of drains and major roof penetrations (i.e., smoke hatches and fan units). Provide a profile of tapered sections; indicate minimum and maximum thicknesses at perimeters, and R-values for the proposed insulation system. The Contractor shall verify dimensions and existing roof penetration locations to ensure proper layout and tapered insulation quantities.
2. Submit certification from each insulation manufacturer stating the roof membrane manufacturer for the specified warranty accepts the submitted products.

1.13 PRODUCT DELIVERY, STORAGE AND HANDLING PROCEDURES

- A. Deliver materials in original unopened packaging.
- B. Containers labeled with manufacturer's name, brand name, and identification of various items.
- C. Store materials in a dry area and protect from inclement weather. Damaged materials shall be replaced at contractor's expense.
- D. Do not allow roofing membrane to come in contact or be exposed to any materials that would be detrimental to or cause degradation of the roofing membrane.

1.14 JOB CONDITIONS

A. Environmental Conditions

1. In making field heat welds, make sure all welding surfaces are clean and free of moisture or foreign items.
2. Weather Precautions: Proceed with roofing work when existing and forecasted weather conditions permit work performance in compliance with manufacturer's recommendations.
3. Roofing system shall not be applied when the surrounding air, surface temperature, relative humidity or wind velocity is not within the range acceptable under the manufacturer's recommendations.

B. Protection

1. Prior to starting work, protect all work in an approved manner including all paving and faces of building walls. Provide special protection of the face of the building wall adjacent to hoist.
2. Complete the whole roofing section or any portion of the roof in a single day to avoid exposure to rain, dew, or moisture of any kind. If rain threatens during the day or in an emergency, protect the unfinished exposed roofing components and provide temporary water cut-offs around exposed edges and incomplete flashing areas.
3. All hoisting equipment shall bear on solid pad blocking. If on the roof surface, pad shall be large enough to evenly distribute the load to avoid crushing insulation and roof system. Pad shall consist of two separate layers of material to eliminate vibration and movement to directly affect the roofing membrane. Pad shall be of sufficient size to accommodate work tools and weights used around hoisting operations.
4. Repairs: Clean or repair surfaces damaged or soiled by operations under this contract to the satisfaction of the Owner or Owner's representative without additional cost to the Owner. These would include, but not be limited to, windows, doors, floors, walls, stairs, elevators, steps, walks, curbs, lawn areas, or other roofs.

PART 2 – MATERIALS

2.01 ROOF MEMBRANE

- A. A special formulated, permanent, thermoplastic alloy, bonded to a high tenacity, low shrinkage weft inserted polyester fabric with resistance to ultraviolet rays, microorganisms and impervious to most caustic chemicals.

- B. Membrane shall be factory dielectrically welded, prefabricated sheets up to 2,500 square feet or as determined by job condition.
- C. The new roofing shall be a prefabricated fully adhered installation of single-ply reinforced co-polymer alloy (CPA) membrane. Product: 60 mil thick membrane. Basis-of-Design: Duro-Last. Other approved manufacturers: GAF, Johns Manville, Tremco.
- D. Membrane Adhesive: Duro-Last WB or approved equal.
- E. Flashing Adhesive: Duro-Last SB or approved equal.
- F. Slip Sheet: Atlas FR-50 or approved equal
- G. Manufacturer
 - 1. Manufacturers requesting approval must submit acceptable information certifying that they are the direct manufacturer from raw material into specified membrane, factory prefabricate the membrane into roofing panels, and meet the performance and financial criteria required.
 - 2. Fire resistance of CPA roofing system shall meet UL Class A. All packaging of membrane and insulation shall bear UL Class A label.
 - 3. Membrane color shall be white.

2.02 MATERIALS

A. Membrane-Related Materials

- 1. All membrane components, including pipe and curb flashings, shall be factory prefabricated from the same fabric reinforced material used for the deck membrane.
- 2. Termination Sealant: Compatible with materials to which membrane is to be bonded, conforming to Federal Specifications TT-598 and TT-S-00230C as furnished by the membrane manufacturer.
- 3. Distribution Plates: Factory Mutual approved stress distribution plates formed from a minimum 24 gauge, G-90 C.Q. steel with a galvalume coating for insulation attachment, or 20 gauge G-90-C.Q. steel with galvalume coating or high strength polyblend for membrane attachment.
- 4. Water Cut-Off Mastic: Compatible with materials with which it is used and furnished by the membrane manufacturer.

5. Fasteners: Compatible with roof deck as furnished by the membrane manufacturer. Fasteners shall be furnished by the membrane manufacturer and be Duro-Guard coated #14 and must pass 30 cycles in the Kesternich Cabinet, DIN #50018-2 Liter. The FM approved fastener is inserted through the hole in the distribution plate and properly secured to the roof deck.
6. Terminations/Edge Details: Shall be manufactured from rigid exterior vinyl with slotted holes for securement and furnished by membrane manufacturer. All other terminations/edge details must be approved and warranted by the membrane manufacturer.
7. Termination Bars: Duro-Last or approved equal.
8. Pourable Sealer: Duro-Last Pitch Pocket Filler or approved equal.
9. Trowelable Mastic: Duro-Last Sure-Bond-240 Mastic or approved equal.

2.03 COVERBOARD & INSULATION

- A. Cover Board: Board insulation over the filler insulation and ribs shall be a minimum of 1/4 inch thick by 4 feet by 8 feet. Dens-Deck Prime by Georgia Pacific or approved equal.
- B. Tapered and Flat Stock Insulation: A rigid isocyanurate board with factory-applied fiberglass bituminous felts on both sides. Conforming to HH-I-530A (Type II, unfaced) and C1289-02, Type II, Class 1, Grade 2 with an average density of 2.0 lbs. per cubic foot. Manufacturer: Johns Manville, ENRGY 3 or an approved equal. The board size: 4 foot by 8 foot by 1 in. thick.
- C. Adhesive: Olybond 500 or an approved equal.

2.04 MISCELLANEOUS

- A. Roofing Nails: Stainless Steel "Stronghold" type: (for use on parapet walls, wood nailers).
- B. Pipe Clamps: Stainless steel draw band clamps.
- C. Fasteners and Accessories
 1. Fasteners for securement of each layer of gypsum fire barrier board under pvc roof system through the isocyanurate insulation (where applicable) and into the wood deck shall be fluorocarbon-coated, No. 12 self-drilling, self-tapping screws, long enough to penetrate the receiving substrate 1-¼ inches minimum and 1-½ inches maximum. Fasteners shall be in conformance with 470 specifications.

2. Provide screws with stress distribution plates by Duro-Last, minimum 0.375 inch thick, 3 inch diameter.

D. Nailers & Blocking

1. Blocking/Lumber: S4S 1500 f'c Construction Grade Douglas fir conforming to standard 15 grading and dressing rules of the West Coast Lumber Inspection Bureau, or other species of wood of equal strength. All lumber shall be grade marked at the mill and pressure treated by a method approved by the roofing membrane manufacturer: "Wolmanized" or "Osmose K-33" is acceptable.
2. Nailer Fasteners: Nailers shall be securely anchored to the deck to resist the minimum force required in the recent edition of Loss Prevention Data Sheet I-49, "Perimeter Flashing," Factory Mutual Systems.
3. PVC(Vinyl)-Clad Metal Flashing: GSM flashing coated on one side by membrane manufacturer with weldable, PVC-clad surface or pre-manufactured with factory/shop welded piece of membrane pre-welded to surface by membrane manufacturer.
4. Other Accessories: Shall be furnished and approved by the membrane manufacturer.

PART 3 – EXECUTION

3.01 SUBSTRATE INSPECTION AND PREPARATION

- A. Inspect all surfaces to receive roofing for condition that will adversely affect execution, performance, or
- B. All roof surfaces and all sloped surfaces to gutters and outlets shall be checked and approved by the roofing contractor prior to the start of the roofing work.
- C. quality of work.
- D. Install roofing material only under satisfactory conditions as specified by the membrane manufacturer.
- E. Scheduling: Schedule the roofing work in areas and sections in such a manner as to keep the new and existing insulation, roofing materials, and building dry and watertight during new roofing work.
- F. Damage sustained to the facility or contents as a result of the scheduling of roofing work shall be the Contractor's responsibility.
- G. Preparation shall comply with the membrane manufacturer's recommendations.

- H. Mechanically secure separation material units to roofing deck independent of membrane attachment and cover immediately with membrane. Butt units tightly together, limiting joint separation to 1/8 inch, maximum. Meet attachment pattern requirements of the membrane manufacturer.
- I. Prior to insulation installation, remove all dirt, debris and dust from deck surfaces with a vacuum. Insulation systems shall be installed on properly installed, clean, dry surfaces. Should surface moisture such as dew exist, the Contractor shall provide the necessary equipment to dry the surface prior to application. Do not dry with open flames.
- J. Inspect insulation boards for defects, including but not limited to: broken corners, improperly adhered skins, excessive moisture content, dimensional irregularities, or other defects which may adversely effect the replacement roof system. Mark defective insulation boards and remove them from site.
- K. Cut insulation to the minimum dimension of 12 inches; the minimum surface area shall be 2 square feet.
- L. Do not deliver to site or install any material or system that has not been approved. Materials installed without approval may be required to be removed. All containers must bear the label and material classification of the manufacturer. Partially used containers and unlabeled containers may not be incorporated into the work.
- M. Comply with the manufacture's written instructions and these specifications. In case of discrepancies, the greater quantity and/or better quality of work, as determined by the Owner, will be provided by the contractor at no additional cost.
- N. Flashings shall be installed concurrently with the roof membrane to assure watertight terminations.
- O. Do not cut any material with a solvent or dilutant unless approve by the owner in writing.
- P. Keep covers tightly sealed on all canned and evaporative products to prevent premature curing.
- Q. Report any damaged or unsuitable deck sections immediately to the Owner's representative prior to covering and replacing.
- R. The contractor shall ensure that all applicable safety requirements are strictly followed. This includes OSHA, CALOSHA and other applicable requirements regarding work with construction equipment for workers and building occupants.
- S. Welded seams shall be checked after cooling for continuity with a dull, flat head screwdriver or other suitable object. Daily, on-site evaluation of welded seams shall be made by the Contractor at locations as directed by the Owner's representative or

membrane materials representative. Two inch wide cross-section cuts shall be taken through completed seams. Correct weld displays failure from shearing of the membrane prior to separation of the weld. Each test cut cross-section area shall be patched by the Contractor at no extra charge to the Owner.

- T. Membrane specified to be fully adhered to insulation and various other horizontal and vertical substrates must be adhered completely without voids, bridging of membrane or unattached membrane.

3.02 GENERAL REQUIREMENTS

A. Precautions

1. Do not lay out or expose insulation that cannot be covered by membrane on the same day.
 2. In making field heat welds, make sure edges are clean and free of tar, mastic or other foreign items.
 3. Do not expose membrane and accessories to a constant temperature in excess of 120 degrees Fahrenheit.
 4. Sealants and adhesives should be applied according to the manufacturer's specifications and all containers shall be disposed of properly.
 5. Start securing the membrane at the highest point and work towards the drains.
 6. Storing, wheeling, or trucking directly on roof insulation or membrane surface is not recommended. Smooth, clean plywood or plank walkways, runways and platforms shall be provided as necessary.
- B. Comply with local, state, and federal regulations regarding the removal and disposal of roofing materials.
 - C. Roofing shall not be applied when ambient temperature is less than 40° F. Materials which have a temperature other than the recommended application temperature of the manufacturer shall not be installed.
 - D. Surfaces to receive membrane or flashings shall be thoroughly dry. Should surface moisture such as dew exist, the Contractor shall provide the necessary equipment to dry the surface prior to application. No open flames will be allowed.
 - E. Completed roof areas shall not be trafficked. Work shall be coordinated to prevent this situation by working toward the roof edges and access ways. Should access to

completed roof areas be necessary, the Contractor shall provide (membrane covered) plywood protection for the trafficked areas.

- F. Temporary waterstops shall be installed at the end of each day's work, and shall be removed before proceeding with the next day's work. Waterstops shall be compatible with all materials and shall not emit dangerous or incompatible fumes.
- G. The Contractor is cautioned that thermoplastic membranes are incompatible with oil-based and asphaltic-based cement. Creosote and penta-based materials are also incompatible. The Contractor should consult the manufacturer with respect to material compatibility and shall provide protection against contamination of PVC membrane and flashings.
- H. The Contractor shall provide necessary temporary protection and barriers to segregate the work area and to prevent damages to adjacent areas.
- I. Prior to and during application, dirt, debris and dust shall be removed from surfaces either by vacuuming, sweeping or similar methods.
- J. Liquid materials such as solvents and adhesives shall be stored and used away from open flames, sparks and excessive heat.
- K. The Contractor shall be a licensed and approved applicator recommended by the manufacturer of the roof system specified. The Contractor shall notify the manufacturer prior to initiating the construction. It is the responsibility of the Contractor to arrange for the membrane manufacturer's technical representative to be on site when construction commences and a minimum of once per week until construction is completed. The Owner and Owner's Representative should be notified of scheduled visits so that they may attend.
- L. The building will be open to normal use during the time of construction. The Contractor shall take all precautions to create as little disruption as possible during the course of the work.
- M. The Contractor shall provide and equip as many work crews as is necessary to complete the project within the Contract period and according to the Contract Specifications without sacrificing quality.
- N. The Contractor shall closely follow adhesive application rates when adhering membranes and flashings. The contents within adhesive containers shall be thoroughly mixed prior to application. Submit adhesive container tags to the Owner's Representative on a daily basis.

3.03 INSULATION INSTALLATION

- A. Tapered Insulation

1. Insulation shall be installed with approved adhesive. Comply with FM I-75.
2. Insulation shall have a maximum dimension of 4 feet by 8 feet
3. The insulation shall be staggered 50% from row to row.
4. Butt each insulation board firmly to the adjacent board. Do not jam insulation boards or allow cracks between insulation boards.
5. Cut boards to allow a maximum ¼ in. gap away from vertical surfaces.

B. Crickets

1. Install coverboard over tapered isocyanurate insulation. Crickets shall be constructed to ensure a minimum slope of 1/2 in. per foot along the valley towards the drainage point.
2. Butt each insulation board firmly to the adjacent board. Do not jam insulation boards or allow cracks between insulation boards.
3. Cut boards to allow a maximum ¼ in. gap away from vertical surfaces.

3.04 COVERBOARD INSTALLATION

A. Filler Insulation

1. Cover board shall be installed with approved adhesive.
2. Cover boards shall have a maximum dimension of 4 feet by 8 feet.
3. The cover boards shall be staggered 50% from row to row.
4. Butt each insulation board firmly to the adjacent board. Do not jam cover boards or allow cracks between cover boards.
5. Cut boards to allow a maximum ¼ in. gap away from vertical surfaces.

3.05 MEMBRANE INSTALLATION

A. Layout

1. Select the proper factory marked rolled sheet of roofing membrane for an outside corner or high point.

2. Orient the roofing membrane so the membrane is perpendicular to the flow of the roof.
3. When laying out, pull the membrane tight.

B. Roof Sections

The intent of this Specification Section is to provide the Owner with a fully adhered membrane, 100% bonded to the substrate.

1. Ensure all bituminous substances and contaminants of the original system are removed. Clean flashings, etc., of all bitumen residue.
2. Install membrane system in accordance with the recommendations and requirements of the membrane materials manufacturer, as amended in these Specifications.
3. Water-based adhesive shall be used as the contact adhesive for the roof membrane.
4. Solvent-based adhesive, specially formulated for vertical surfaces, shall be used as the contact adhesive for flashings installed.
5. Inspect surface of roof insulation prior to installation of roof membrane. Surfaces shall be clean and smooth with no excessive surface roughness. Contaminated surfaces or unsound surfaces shall be cleaned and voids shall be filled.
6. Over the properly installed and prepared gypsum fiberglass mat fire barrier board substrate, the water-based adhesive shall be poured out of the pail and spread using 9 in. medium nap paint roller. The adhesive shall be applied at a rate of 1 gallons per 70 - 90 square feet or as recommended otherwise the manufacturer. Apply the adhesive in an even coating with no globs, puddles, or similar irregularities. Allow the adhesive to dry slightly but not completely.
7. The membrane shall be carefully unrolled into the wet adhesive. The adhesive shall be spread and the membrane rolled out until the entire roll has been set into adhesive. The membrane shall be pressed firmly in place with a weighted foam covered lawn roller by frequent rolls in two directions. Lap the adjacent sheets a minimum of 3 inches. Note that adhesive shall not be applied in seam areas.

C. Field Welding

1. Weld adjacent sheets in accordance with the manufacturer's written instructions. Both sides and end lap joints shall be hot-air welded. Hand welded laps shall be 4 inches wide minimum; machine welded laps shall be

- 3 inches wide minimum. Sheets must be welded immediately after installation.
2. Use welding equipment provided by the membrane materials manufacturer. All technicians shall successfully complete a course of instruction provided by the roof membrane manufacturer's representatives prior to welding. All weld surfaces must be clean and dry. No adhesive or other contaminant shall be present within the lap areas.
 3. Hand welded seams shall be completed in three (3) stages. Warm up equipment for at least one (1) minute prior to welding.
 - a. Tack weld the lap every 3 feet to hold seam in place.
 - b. Weld the back edge of the lap with a thin, continuous weld to prevent loss of the hot air during the final weld.
 - c. Insert the hot air nozzle into the lap, keeping the welding equipment at a 45° angle to the side lap. Once the material starts to flow, apply the hand roller at a right angle to the welding gun and press lightly. For straight laps, use the 1-1/2 inch wide nozzle. Correct weld speed will complete approximately 20 inches per minute. The hot air weld equipment shall have temperature adjustments to provide this proper speed and weld.
 4. Alternately, an automatic lap welding machine may be used. Follow the manufacturer's strict requirements, instructions and local codes for electric supply, grounding and over current protection. The automatic weld machines power requirement is 218 to 230 volts at 30 amps. The availability of this voltage shall be verified at the work site on the roof before using the automatic welding machine. The use of portable generators is recommended. Prior to utilizing the automatic weld machine on the roof, detailed instructions and operating procedure shall be obtained from the membrane manufacturer's technical representatives.
 5. Terminate the membrane at perimeters and penetrations once welding of adjacent sheet seams is completed. Membrane shall be terminated with the manufacturer's recommended metal termination bar fastened at 6 inches (maximum) on center.
 6. Flashings shall be installed concurrently with the roof membrane in order to achieve a watertight condition as the work progresses. When a situation arises where a break in the day's work occurs in the central area of a roof, a temporary waterstop shall be constructed to provide a 100% watertight seal utilizing a raised temporary waterstop. Sweep back and totally clean a 6 inch edge along the existing roof and set a 2 inch x 4 inch stud atop the prepared area in roof cement. Carry the new membrane up and over 2 inch

x 4 inch waterstop. Seal the edge of the membrane in a continuous heavy application of water cut-off mastic. Weight the membrane down in the sealant with a 2 inch x 10 inch wood member with ballast on top. Ballast should be approximately 20 pounds per linear foot. When restarting work, remove all sealant, membrane, insulation fillers, etc. from the work area. Do not reuse any of the temporary cut-off material in the new work. Cut off contaminated membrane and dispose of immediately. If inclement weather occurs while a temporary waterstop is in place, the Contractor shall provide the labor necessary to monitor the situation to maintain a watertight condition.

7. Inspect all field welds with a probe. Re-weld loose laps at the end of each workday.

D. Perimeter Nailing

1. The membrane shall be mechanically fastened at all roof perimeters, parapets, curbs, walls, penetrations, in accordance with the Contract Documents and roofing manufacturer's specifications and details.

E. Cut-Outs

1. Make cut-outs in roofing membrane for protrusions through the roof. Some situations might require that the deck membrane be slit to the section edge for fitting around protrusions.
2. Fasten around cut-outs with approved fasteners, 12 inches on center or a minimum of one per side.
3. The skirts on factory prefabricated accessories when welded to deck will cover these.

F. Membrane Flashings

1. All flashings shall be installed concurrently with the roof membrane as the job progresses. No temporary membrane flashings shall be allowed without the prior written approval of the Owner. Approval shall only be given for specific locations on specific dates.
2. Follow the manufacturer's requirements and these Specifications. Ensure that shop drawings and material submittals have been approved.
3. Fully adhere polyester separation layer at specified locations as detailed. Ensure that felt isolates bituminous products (new and existing) from new PVC flashings.
4. Wall flashings shall be fully adhered to the plywood/wood substrates using a solvent-based adhesive. Cut the Membrane in six (6) foot long sections. Over the plywood apply the adhesive at a rate of 1 gallon per 50-60 square feet using 9-inch medium nap paint roller. The adhesive shall be applied in a smooth, even coating with no holidays, globs, puddles, or similar irregularities. Coat the underside of the membrane at a rate of 1 gallon per 50-60 square feet. Do not apply adhesive in lap areas. Allow the adhesive to become tacky when touched with a dry finger on both surfaces. The product on the membrane cannot be permitted to dry completely. The coated membrane shall be rolled onto the coated substrate being careful to avoid wrinkles. Adjacent sheets shall be overlapped 3-inches. Bring the top of the membrane up and over the parapet wall or wood blocking and secure with annular ring nails as shown in the contract drawings. The wall flashing membrane shall extend 4 inches onto the roof membrane.
5. Membrane flashings shall be hot-air welded at their seams and at their connections with the roof membrane or membrane clad metal flashings.
6. Vent pipes shall be flashed to the top of the pipe. Asphalt contaminated vent pipes which cannot be thoroughly cleaned shall be wrapped with aluminum tape prior to the installation of membrane flashing. Field or shop fabricated pipe caps of the PVC membrane shall be installed as shown in the detail drawings. Provide stainless steel pipe clamp terminations at all locations.
7. Membrane termination shall be flashed in with reinforced membrane. Termination bars shall be utilized as detailed in the contract drawings. Set termination bars in a bed of sealant with fasteners spaced at 3 inches on center.

3.06 SPECIAL REQUIREMENTS:

- A. Do not apply adhesive in lap areas

- B. The applicator shall keep track of the amount of adhesive used to confirm adhesive rate.

3.07 CLEAN-UP

- A. Upon completion of the membrane installation, the Contractor shall remove all foreign matter, rubbish and scrap material from the roof.
- B. The membrane surface shall be cleaned using cleaners recommended by the membrane manufacturer.

3.08 INSPECTION & WARRANTY

- A. Inspection: The Contractor shall submit all required drawings, details, and completed questionnaires to the roofing manufacturer before obtaining the specified warranty. After the authorized Manufacturer has inspected the roof for determining acceptability for warranty issuance, deficiencies on the final inspection report shall be corrected by the Contractor and made ready for reinspection within five (5) working days.
- B. Warranty: Upon receipt of required materials, certifying inspection, and acceptance of the roofing system by the roofing manufacturer, the warranty shall be duly executed and issued to the Owner.

3.09 REPAIRS

- A. Future repairs or additions to the roofing system shall be made using the heat welding process.
- B. Adhesive bonded or butyl tape repairs shall not be allowed for the life of the roof.
- C. Contractor shall provide repair procedures to the Owner and/or Owner's representative.

3.10 CONSTRUCTION DAMAGE

- A. Upon completion of work, repair or replace as required, building materials damaged as a result of the roofing operations. Match existing materials and construction as determined by the Owner.

END OF SECTION

SECTION 07 72 00

ROOF ACCESSORIES

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Installation of one wall-mounted ladder and two ship ladders.

1.02 RELATED SECTIONS

- A. Section 07 52 16 – Modified Bituminous Membrane Roofing
- B. Section 07 60 05 – Roof-Related Sheet Metal

1.03 REFERENCES

- A. AA – Aluminum Association
- B. ASTM B209 – Standard Specification for Aluminum and Aluminum – Alloy Sheet and Plate.
- C. ASTM B221 – Standard Specification for Aluminum – Alloy Extruded Bars
- D. OSHA 1910.27 – Fixed Ladders

1.04 SUBMITTALS

- A. Product Data: For each product specified in Part 2.
- B. Shop Drawings
 - 1. Detail fabrication and erection of each ladder indicated on the Drawings. Include plans, elevations, sections and details of metal fabrications and the associated connection.
- C. Calculations from the manufacturer for the ladders and the connections to the building wall or curb on the roof. The calculations shall be stamped by a California-licensed Structural or Civil Engineer.

1.05 QUALITY ASSURANCE

- A. Manufacture Qualifications: A firm experienced in producing aluminum metal ladders similar to these shown on the Drawings.

1. Record of successful in-service performance.
 2. Sufficient production capacity to produce required units.
 3. Professional engineering competent in design and structural analysis to fabricate ladders in compliance with local codes.
- B. Installer Qualifications: Competent and experienced company in installing ladders.
- 1.06 DELIVERY, STORAGE, AND HANDLING
- A. Store products in manufacture's unopened packaging until ready for installation.
- 1.07 PROJECT CONDITIONS
- A. Field verify the dimensions before fabrication.
- 1.08 WARRANTY
- A. Manufacturer: 5 years.

PART 2 – PRODUCTS

- 2.01 MANUFACTURERS
- A. O'Keefe's, Inc. or approved equal.
- 2.02 LADDERS
- A. Fixed Wall Ladder: Model 500 by O'Keefe's, Inc. or approved equal.
- B. Ship Ladder: Model 520 by O'Keefe's, Inc. or approved equal.
- 2.03 FINISHES
- A. Mill finish, as extruded.
- 2.04 MATERIALS
- A. Aluminum Sheet: Alloy 5005 – H34 to comply with ASTM B209.
- B. Aluminum Extrusions: Alloy 6063 – T6 to comply with ASTM B221.
- 2.05 FABRICATION

- A. Rungs: Not less than 1-1/4 inches (32 mm) in section and 18-3/8 inches (467mm) long, formed from tubular aluminum extrusions. Squared and deeply serrated on all sides.
 - 1. Rungs shall withstand a 1,500 (454 kg) load without deformation or failure.
- B. Channel Side Rails: Not less than 1/8 inch (3 mm) wall thickness by 3 inches (76 mm) wide.
- C. Heavy Duty Tubular Side Rails: Assembled from two interlocking aluminum extrusions no less than 1/8 inch (3 mm) wall thickness by 3 inches (76 mm) wide. Construction shall be self-locking stainless steel fasteners, full penetration TIG welds and clean, smooth and burr-free surfaces.
- D. Ship Ladders: Not less than 1-1/4 inches (32mm) high, 4-1/8 inch (105 mm) deep and 2 feet (610 mm) wide; tread spacing shall be 1 foot (305 mm) on center. Handrails shall be aluminum pipe, not less than 1-1/2 inches (38 mm) in diameter with hemispheric end caps.
- E. Landing Platform: 1-1/2 inches (38 mm) or greater diameter, tubular aluminum guardrails and decks of serrated aluminum treads.
- F. Ship Ladder Seismic Bottom Support: Manufacturer's standard; two isolation bearings per stringer.

PART 3 – EXECUTION

3.01 EXAMINATION

- A. Coordinate anchorages. Furnish setting drawings, templates, and anchorage structural loads for fastener resistance.
- B. Do not begin installation until supporting structure is complete and ladder installation will not interfere with supporting structure work.
- C. If supporting structure is the responsibility of another installer, notify Architect of unsatisfactory supporting work before proceeding.

3.02 INSTALLATION

- A. Install in accordance with manufacturer's instructions and in proper relationship with adjacent construction.

3.03 PROTECTION

- A. Protect installed products until completion of project.

- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

BID SET


NOT FOR CONSTRUCTION

Steelhead Engineers, Inc.
Consulting+Design
2708 Wasatch Drive
Mountain View, Ca 94040
P 650.941.1112
F 650.396.4000
steelheadengineers.com

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PROJECT
ROOF REPLACEMENT-VOTECH
LOS MEDANOS COLLEGE
2700 EAST LELAND ROAD, PITTSBURG, CALIFORNIA

OWNER
CONTRA COSTA COMMUNITY COLLEGE DISTRICT
500 COURT STREET
MARTINEZ, CALIFORNIA

	8/23/22	ADDENDUM 2	EY	
	7/19/22	BID SET	EY	
NO.	DATE	DESCRIPTION	BY	
PROJECT NO.		22014		
CADD FILE				
DESIGNED BY		AEB		
DRAWN BY		EY		
CHECKED BY				
DATE		17 MARCH 22		
DRAWING SCALE		AS NOTED		

OVERALL
ROOF DEMOLITION
PLAN

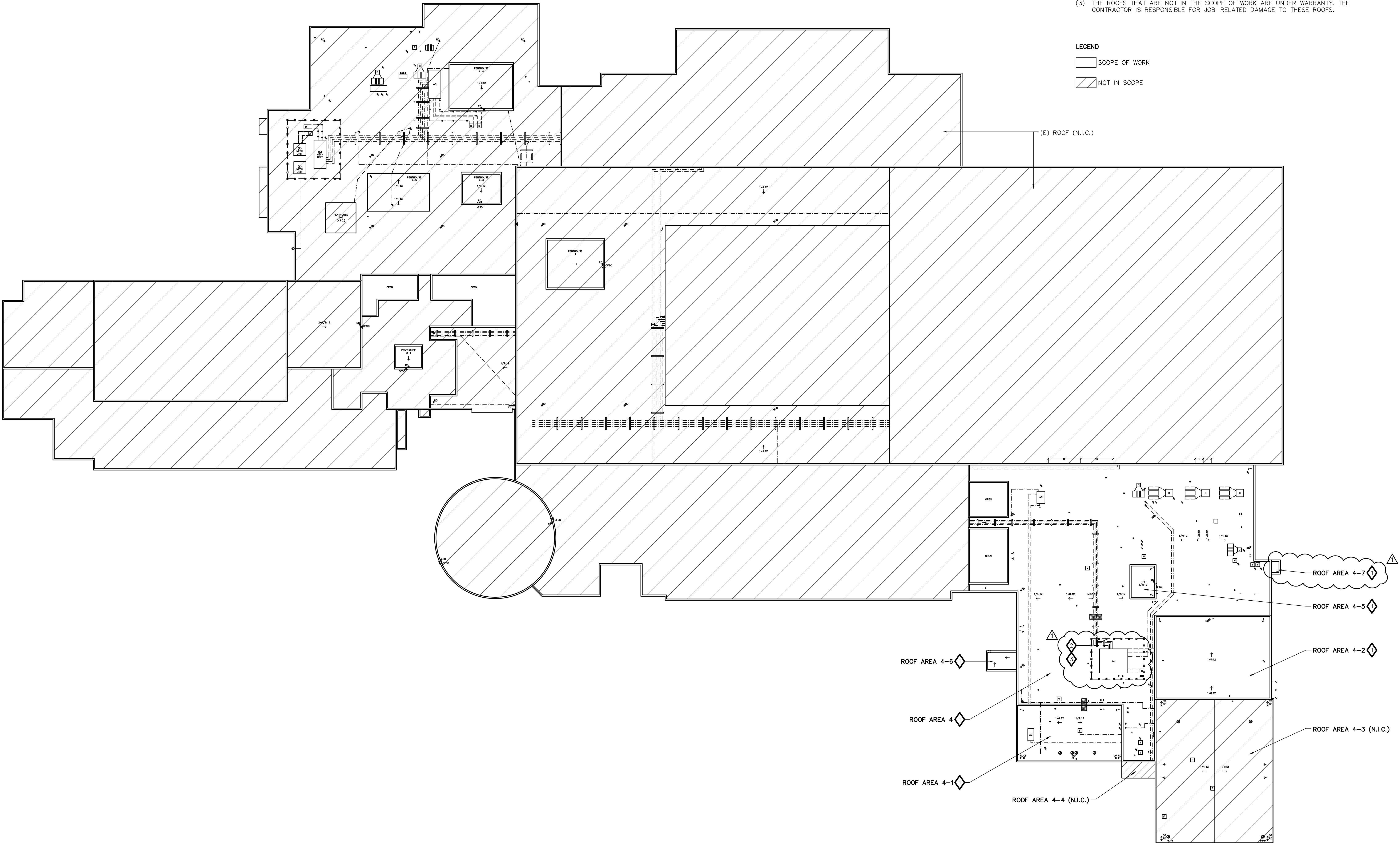
DRAWING NO.
A1.5
OF

- DEMOLITION NOTES:
- REMOVE (E) BUILT-UP ROOF, LIGHT-WEIGHT CONCRETE AND ASSOCIATED SHEET FLASHINGS.
 - REMOVE TOP AND BOTTOM SHEET METAL FASCIA AT (E) EQUIPMENT SCREEN.
 - REMOVE 50% OF (E) STEEL COLUMNS (OWNER TO SELECT COLUMNS).
- NOTES:
- REFER TO SPECIFICATION SECTION 024100 FOR SUPPLEMENTAL DEMOLITION INFORMATION.
 - RETAIN EXISTING LADDERS THAT PROVIDE ACCESS ACROSS INSULATED PIPES.
 - THE ROOFS THAT ARE NOT IN THE SCOPE OF WORK ARE UNDER WARRANTY. THE CONTRACTOR IS RESPONSIBLE FOR JOB-RELATED DAMAGE TO THESE ROOFS.

LEGEND

SCOPE OF WORK

NOT IN SCOPE



1 OVERALL ROOF DEMOLITION PLAN
SCALE: NOT TO SCALE


BID SET

NOT FOR
CONSTRUCTION

Steelhead Engineers, Inc.
Consulting+Design
2708 Wasatch Drive
Mountain View, Ca 94040
P 650.941.1112
F 650.396.4000
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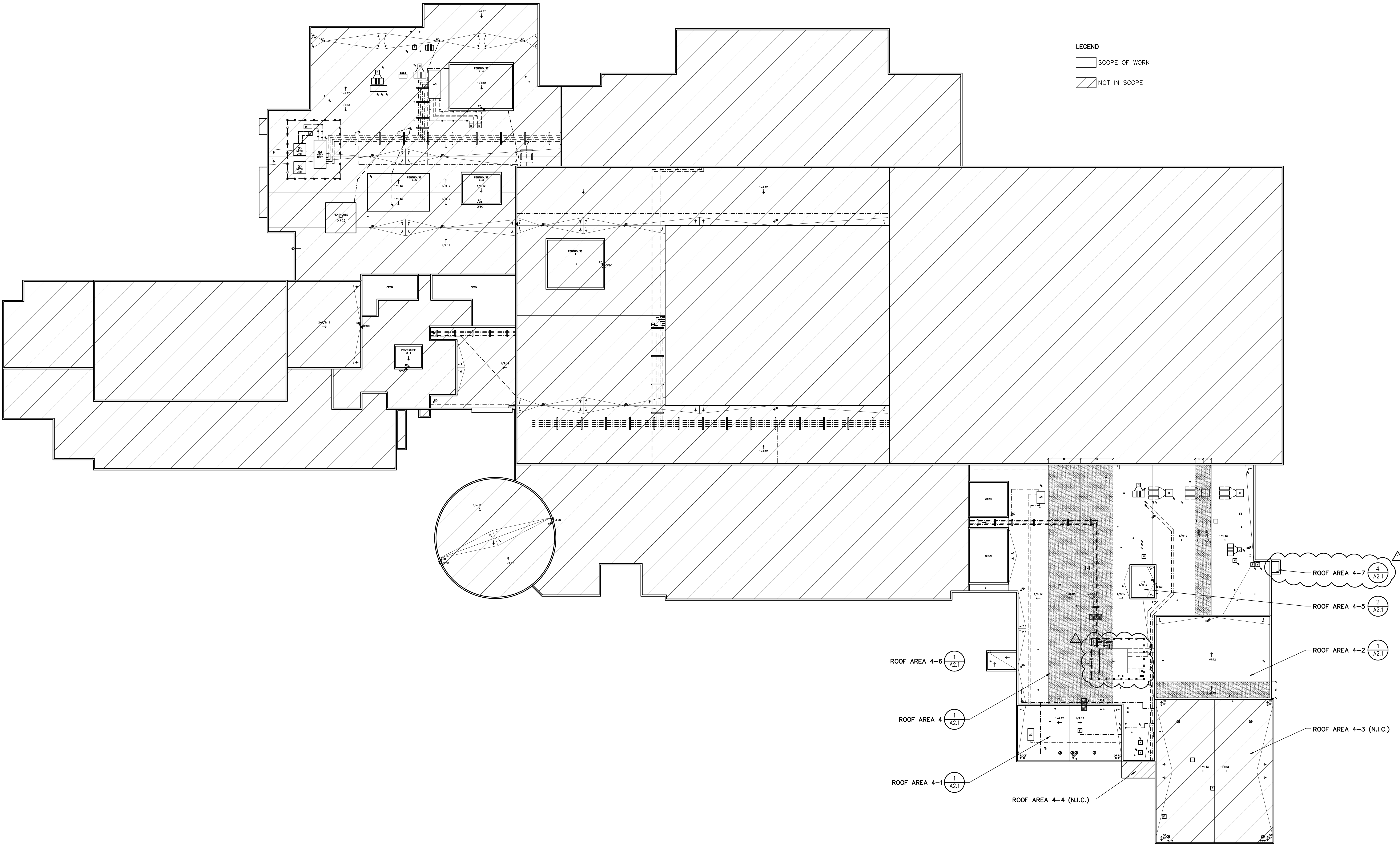
PROJECT
ROOF REPLACEMENT-VOTECH
LOS MEDANOS COLLEGE
2700 EAST LELAND ROAD, PITTSBURG, CALIFORNIA
OWNER
CONTRA COSTA COMMUNITY COLLEGE DISTRICT
500 COURT STREET
MARTINEZ, CALIFORNIA

	8/23/22	ADDENDUM 2	EY	
	7/19/22	BID SET	EY	
NO.	DATE	DESCRIPTION	BY	
PROJECT NO.		22014		
CADD FILE				
DESIGNED BY		AEB		
DRAWN BY		EY		
CHECKED BY				
DATE		17 MARCH 22		
DRAWING SCALE		AS NOTED		
SHEET TITLE				

OVERALL
ROOF PLAN

DRAWING NO.
A2.0
OF

LEGEND
SCOPE OF WORK
NOT IN SCOPE

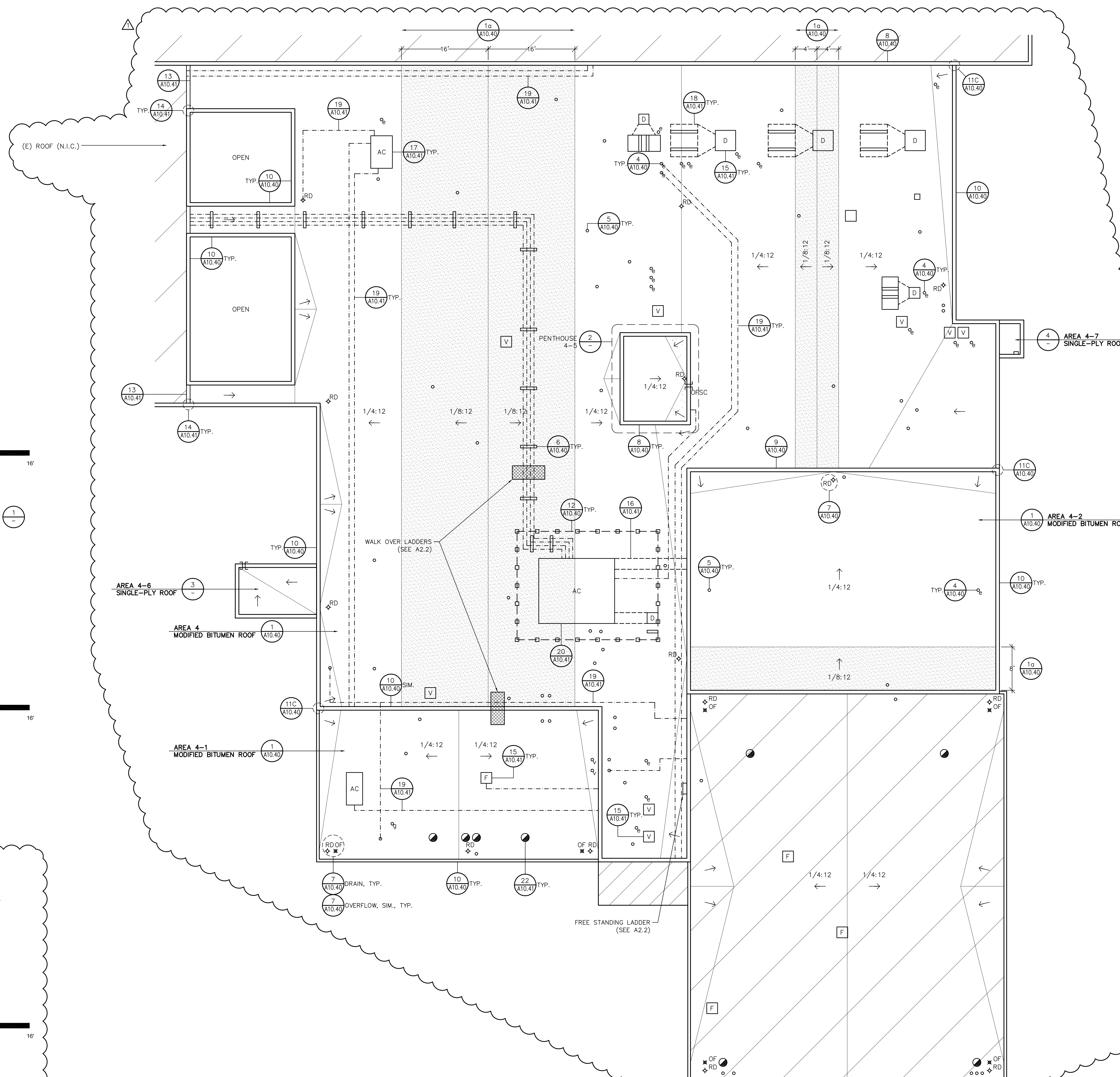
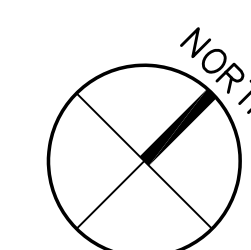


**NOT FOR
CONSTRUCTION**

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01




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Steelhead Engineers, Inc.
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F 650.396.4000
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PROJECT	ROOF REPLACEMENT – VOTECH LOS MEDANOS COLLEGE 2700 EAST LELAND ROAD, PITTSBURG, CALIFORNIA
OWNER	CONTRA COSTA COMMUNITY COLLEGE DISTRICT 500 COURT STREET MARTINEZ, CALIFORNIA

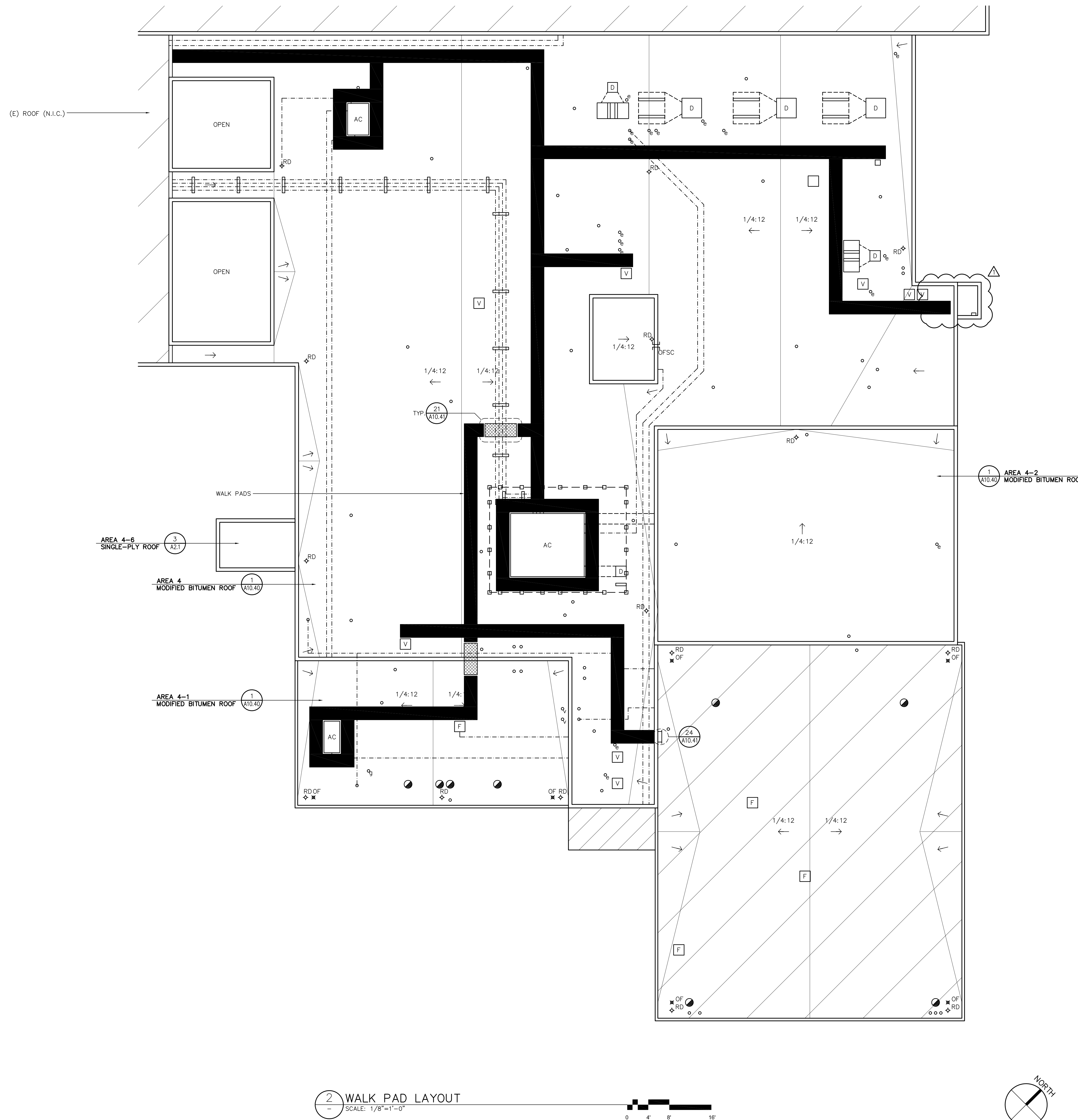
	8/23/22	ADDENDUM 2	EY
	7/19/22	BID SET	EY
NO.	DATE	DESCRIPTION	BY
PROJECT NO.		22014	
CADD FILE			
DESIGNED BY		AEB	
DRAWN BY		EY	
CHECKED BY			
DATE		17 MARCH 22	
DRAWING SCALE		AS NOTED	

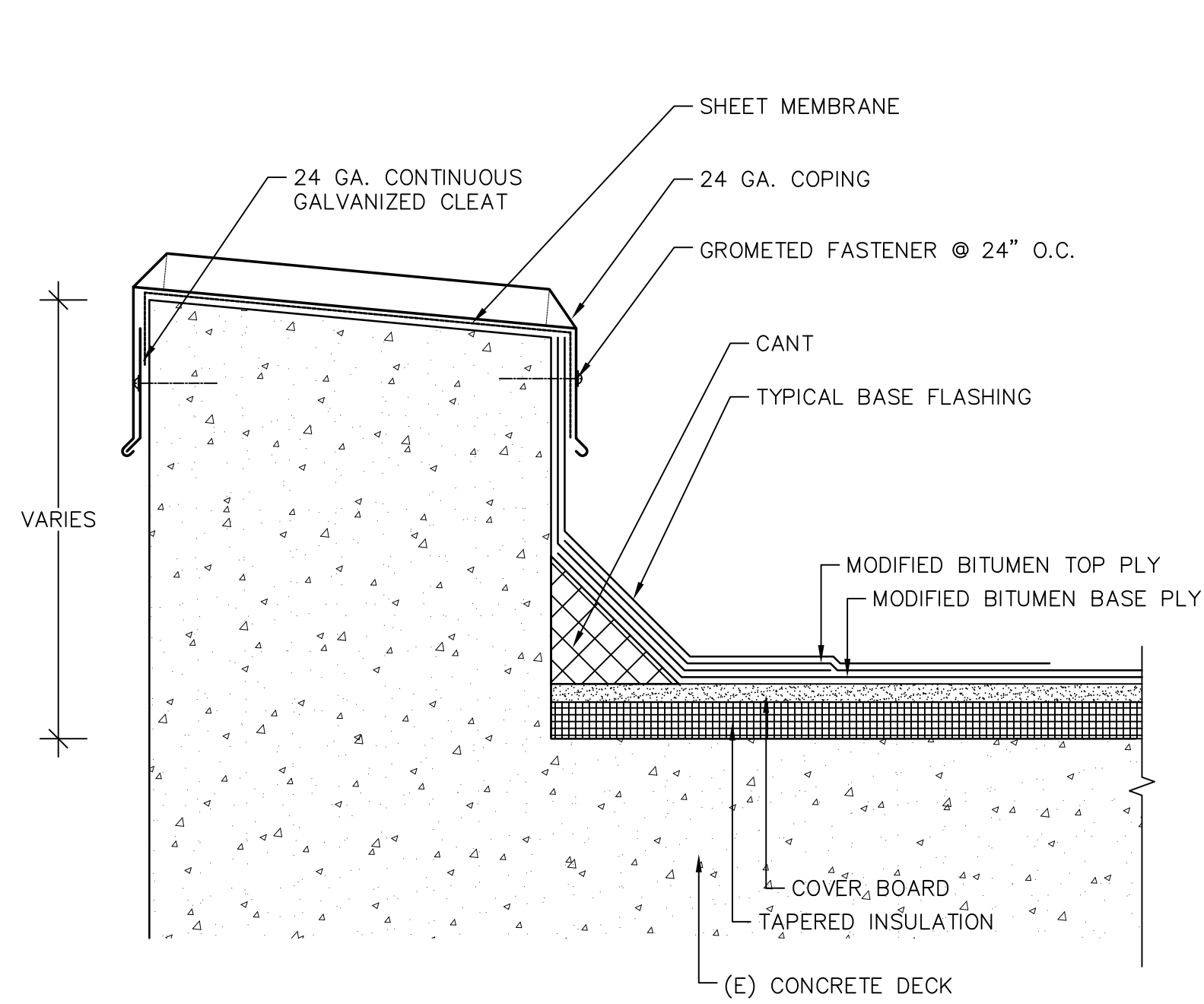
WALK PAD
LAYOUT
VOTECH

DRAWING NO.

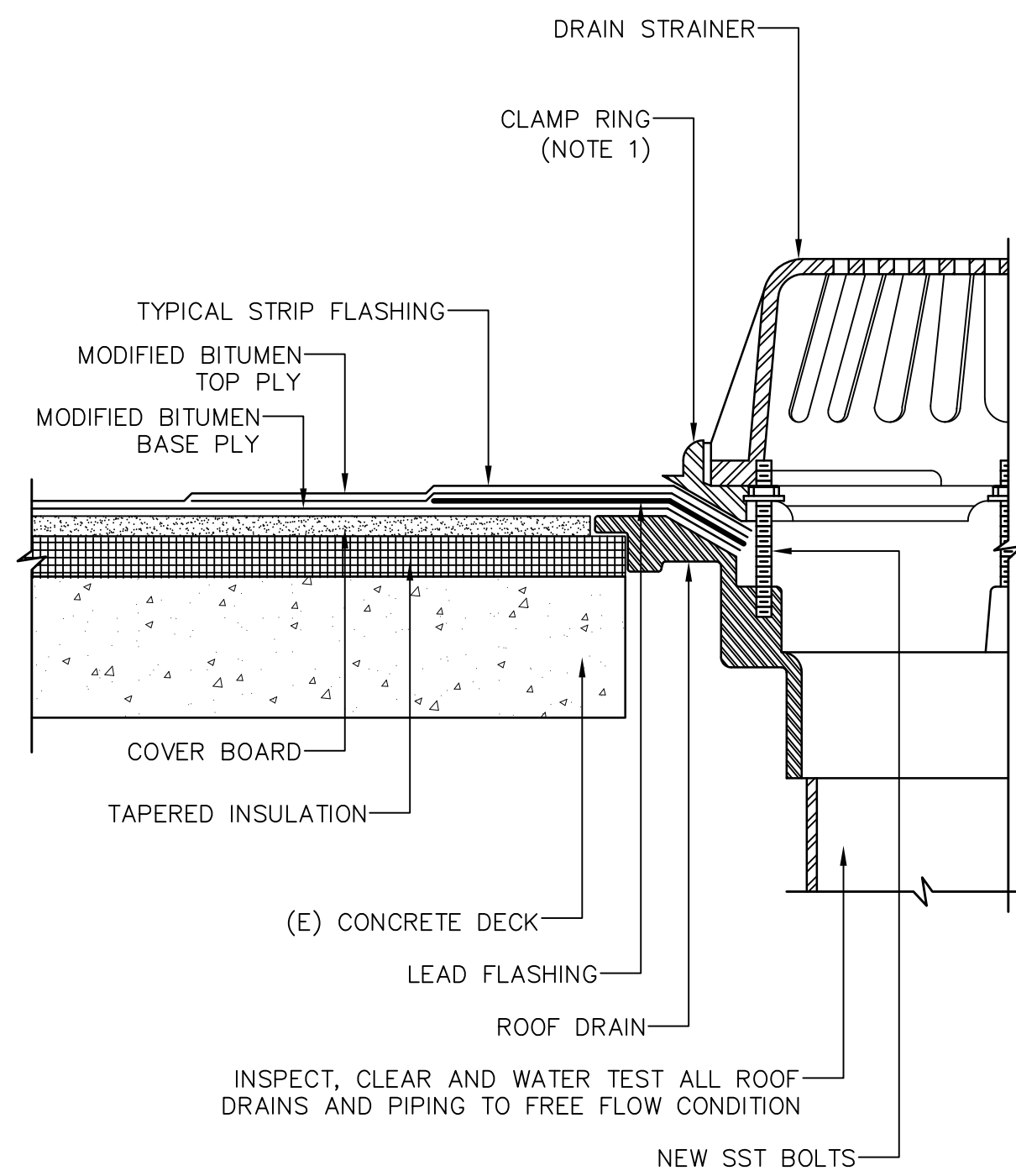
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OF



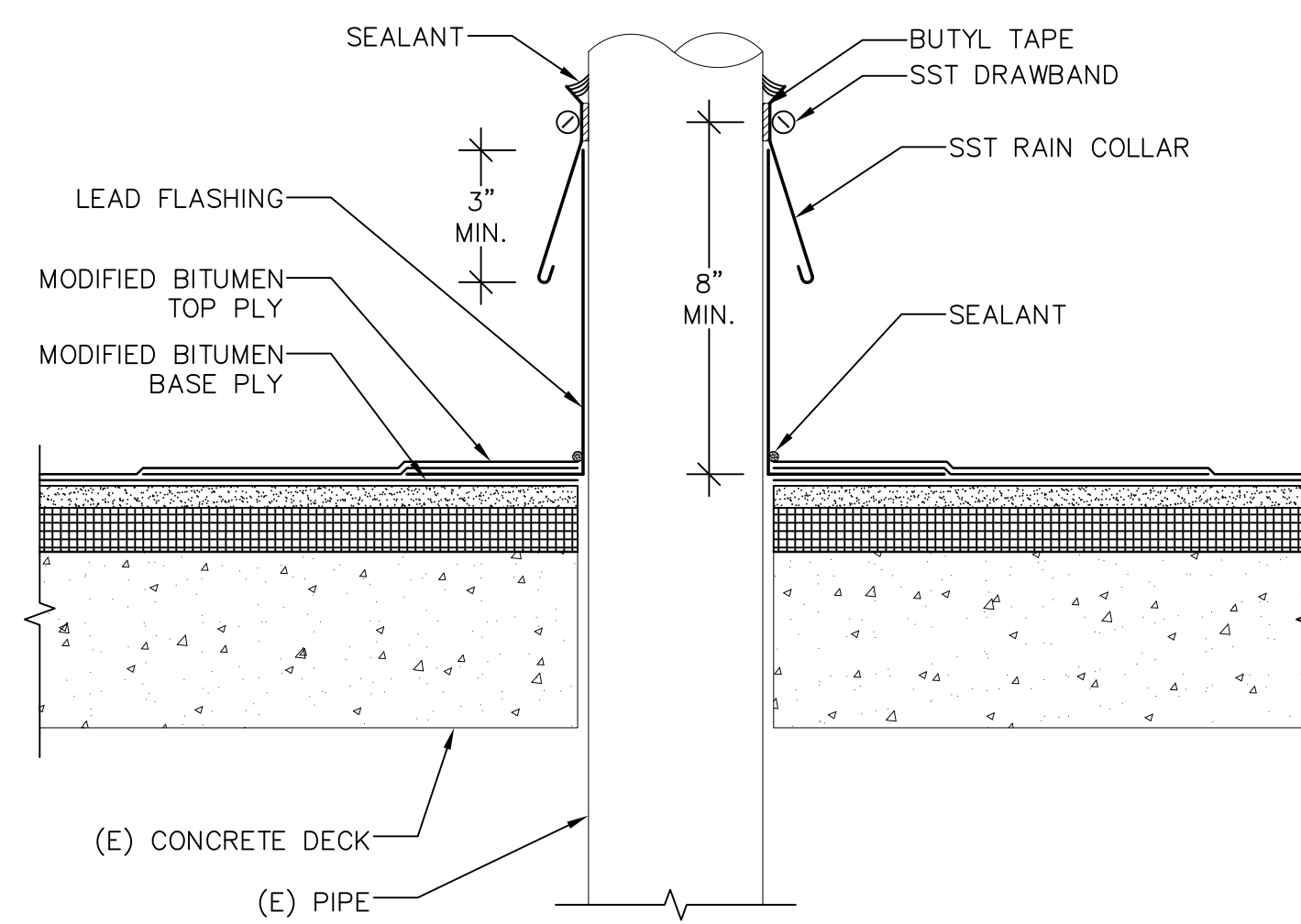


10 PARAPET
A10.40 SCALE: 3"=1'-0"

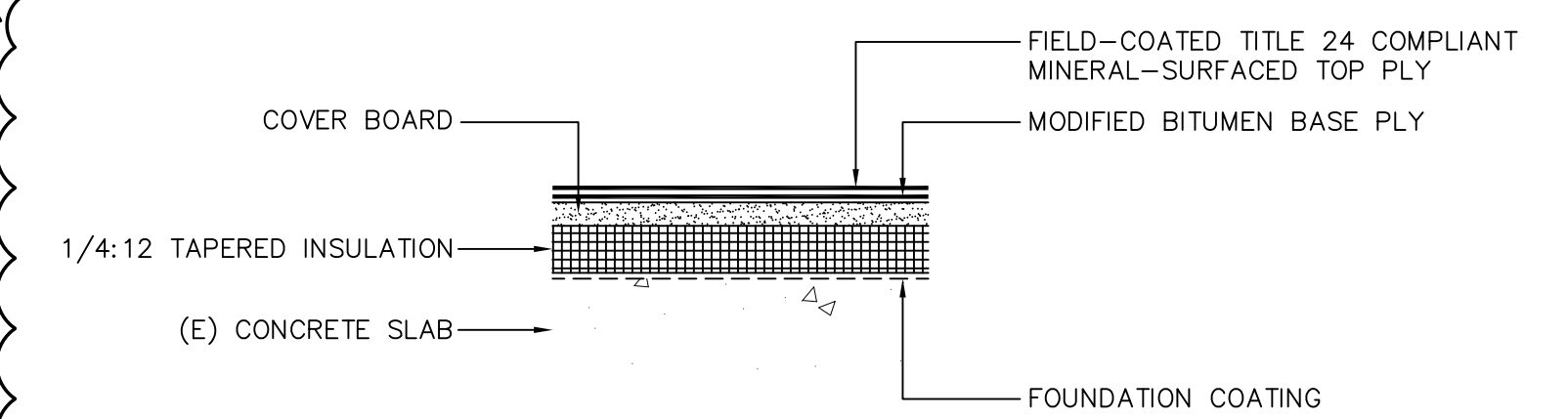


NOTE:
(1) FOR OVERFLOW DRAIN, INSTALL 2" COLLAR (NOT SHOWN).

7 DRAIN
A10.40 SCALE: 3"=1'-0"

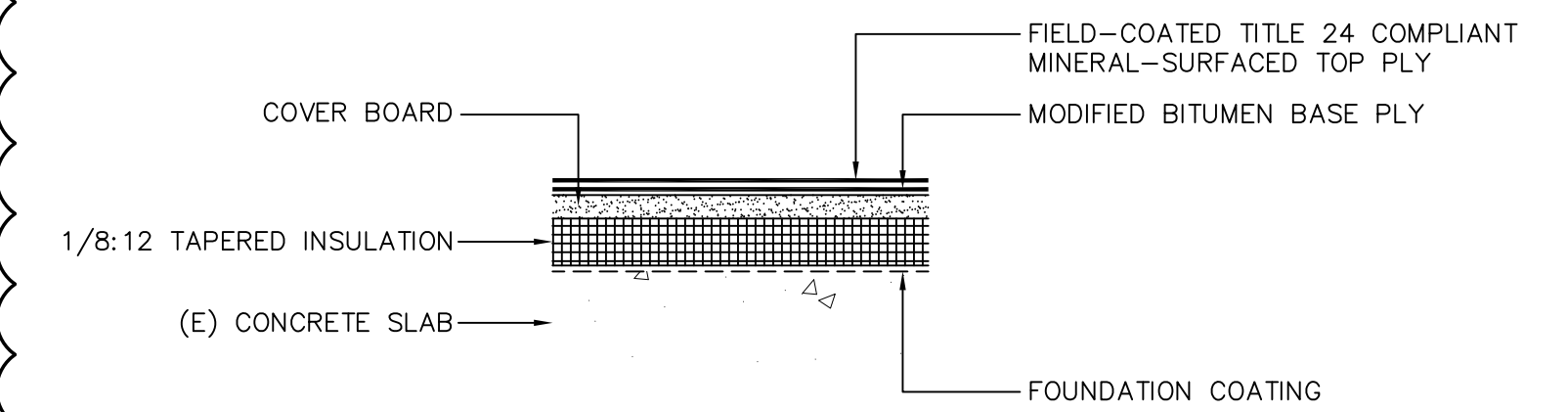


4 CONDUIT FLASHING
A10.40 SCALE: 3"=1'-0"



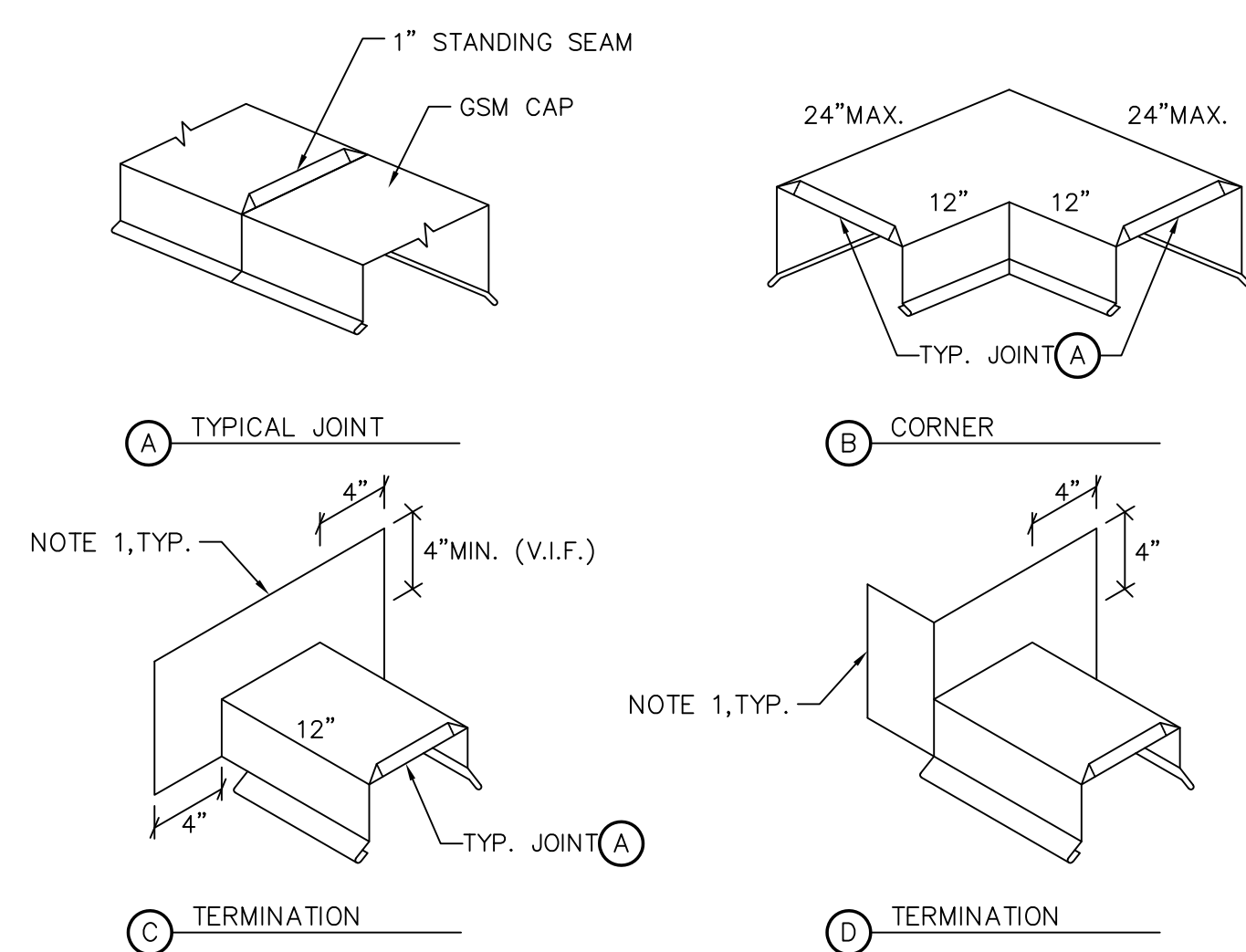
NOTE:
(1) REFER TO 10/A10.45 FOR ADDITIVE ALTERNATE ROOF ASSEMBLY.

1 MODIFIED BITUMEN ROOF ASSEMBLY (1/4:12)
A10.40 SCALE: NOT TO SCALE



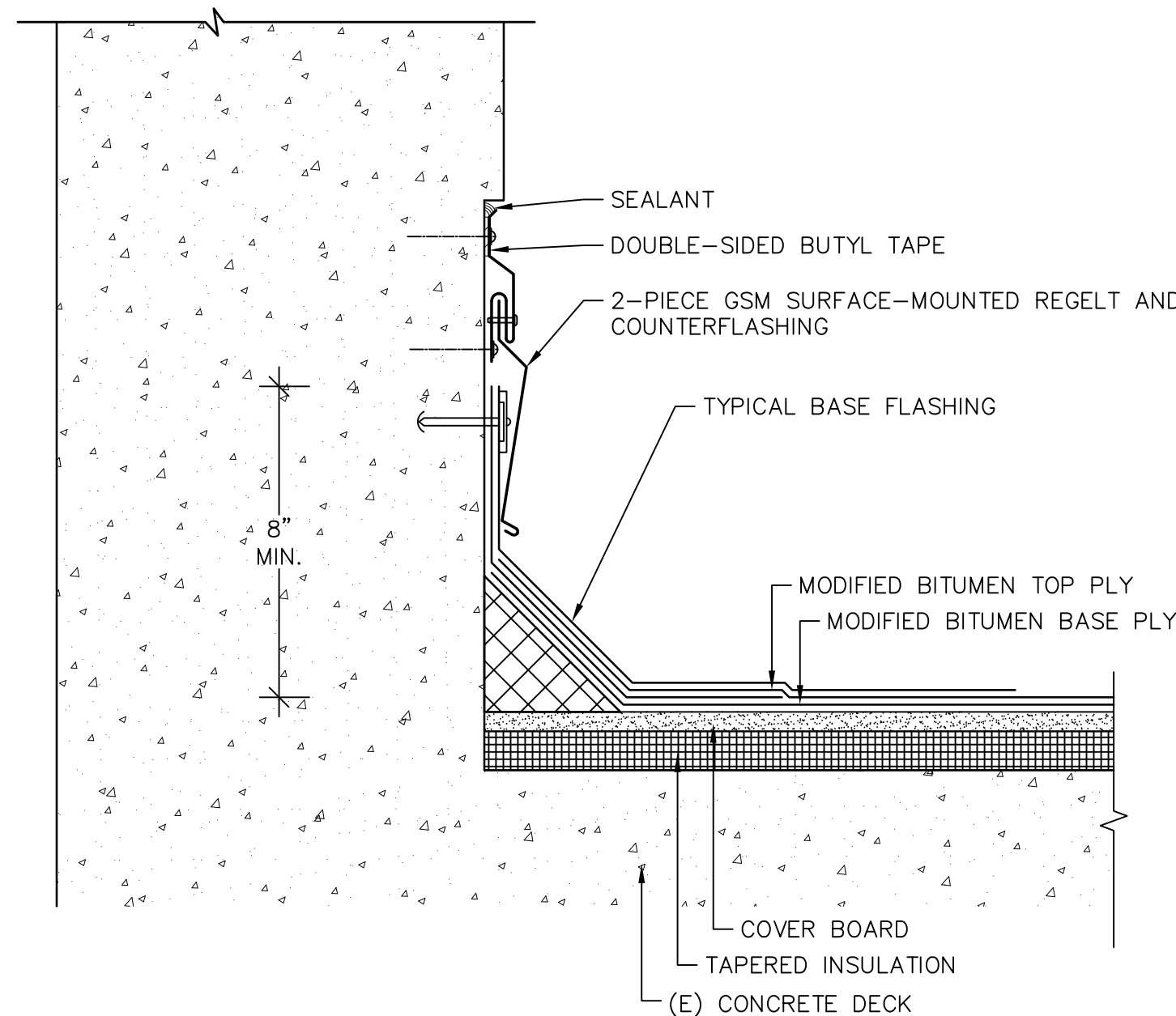
NOTE:
(1) REFER TO 10/A10.45 FOR ADDITIVE ALTERNATE ROOF ASSEMBLY.

1a MODIFIED BITUMEN ROOF ASSEMBLY (1/8:12)
A10.40 SCALE: NOT TO SCALE



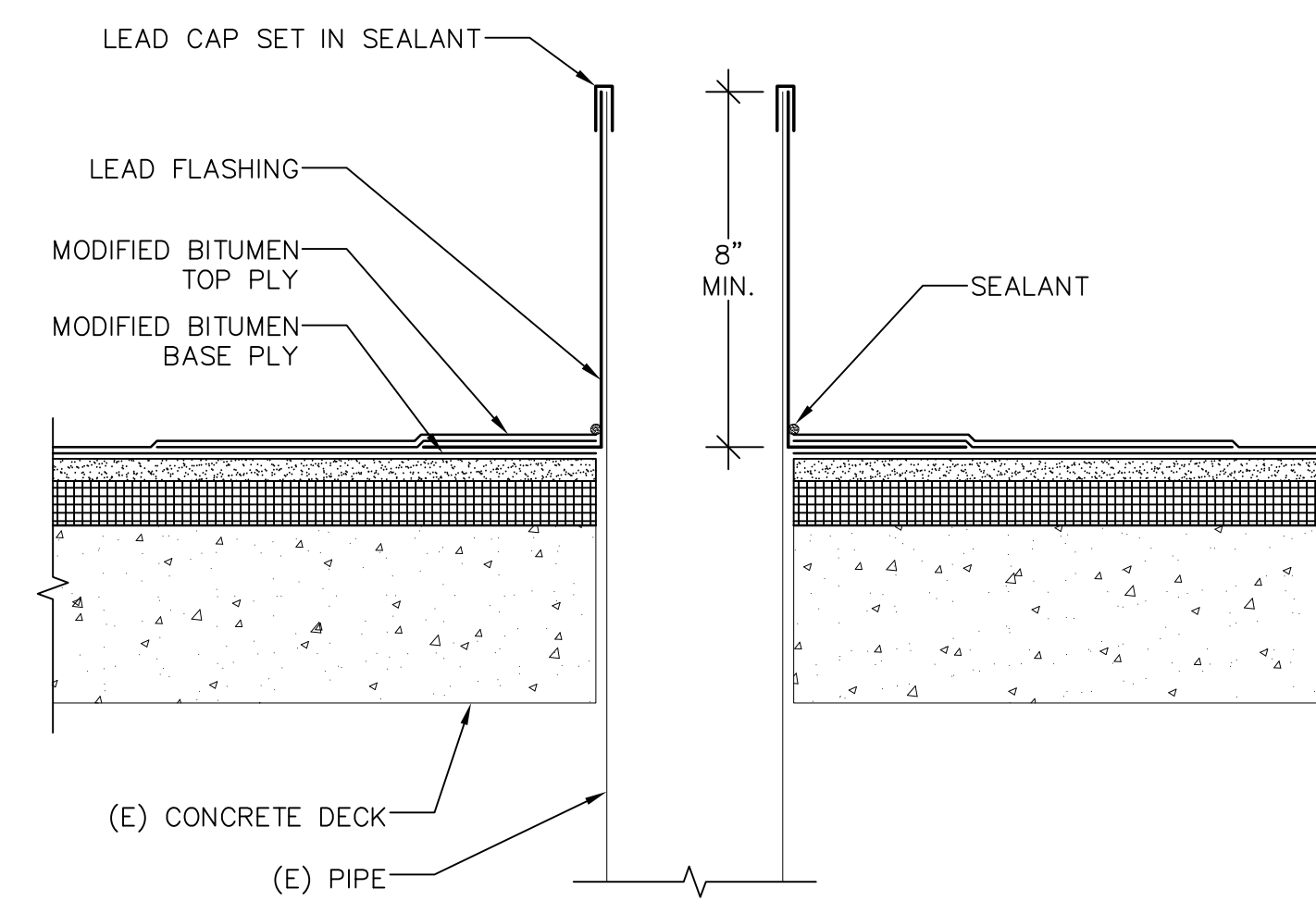
NOTES:
(1) VERIFY DIMENSIONS IN FIELD PRIOR TO FABRICATION.
(2) MECHANICALLY FASTEN AND SOLDER JOINTS WATERTIGHT UNLESS NOTED OTHERWISE.
(3) REFER TO 14B/A10.41 FOR CLOSURE PIECE FOR FLANGE.

11 PARAPET CAPS
A10.40 SCALE: NOT TO SCALE

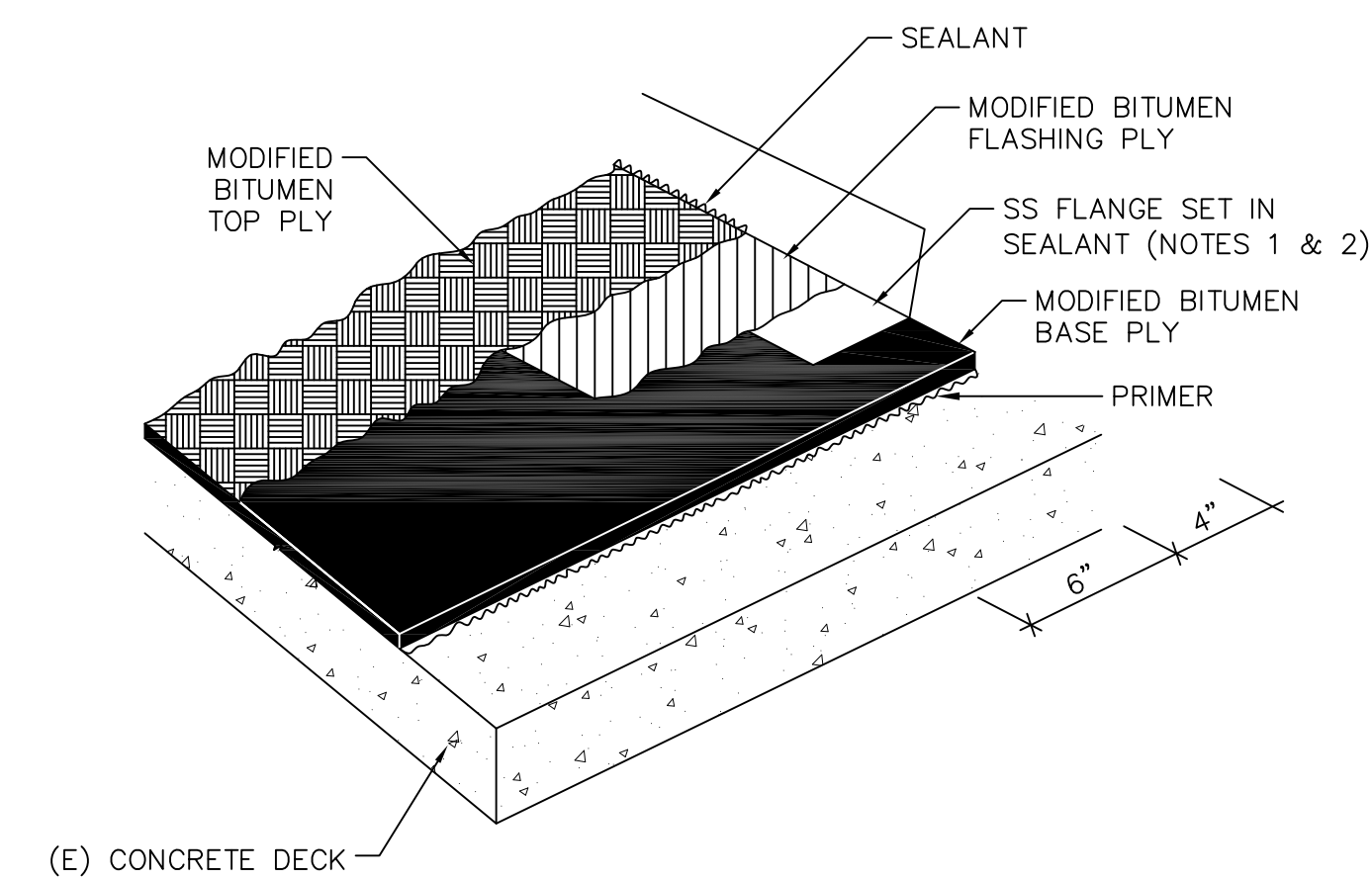


NOTE:
(1) REMOVE (E) GSM REGLET AND COUNTERFLASHING.

8 ROOF/WALL-TYPE I
A10.40 SCALE: 3"=1'-0"

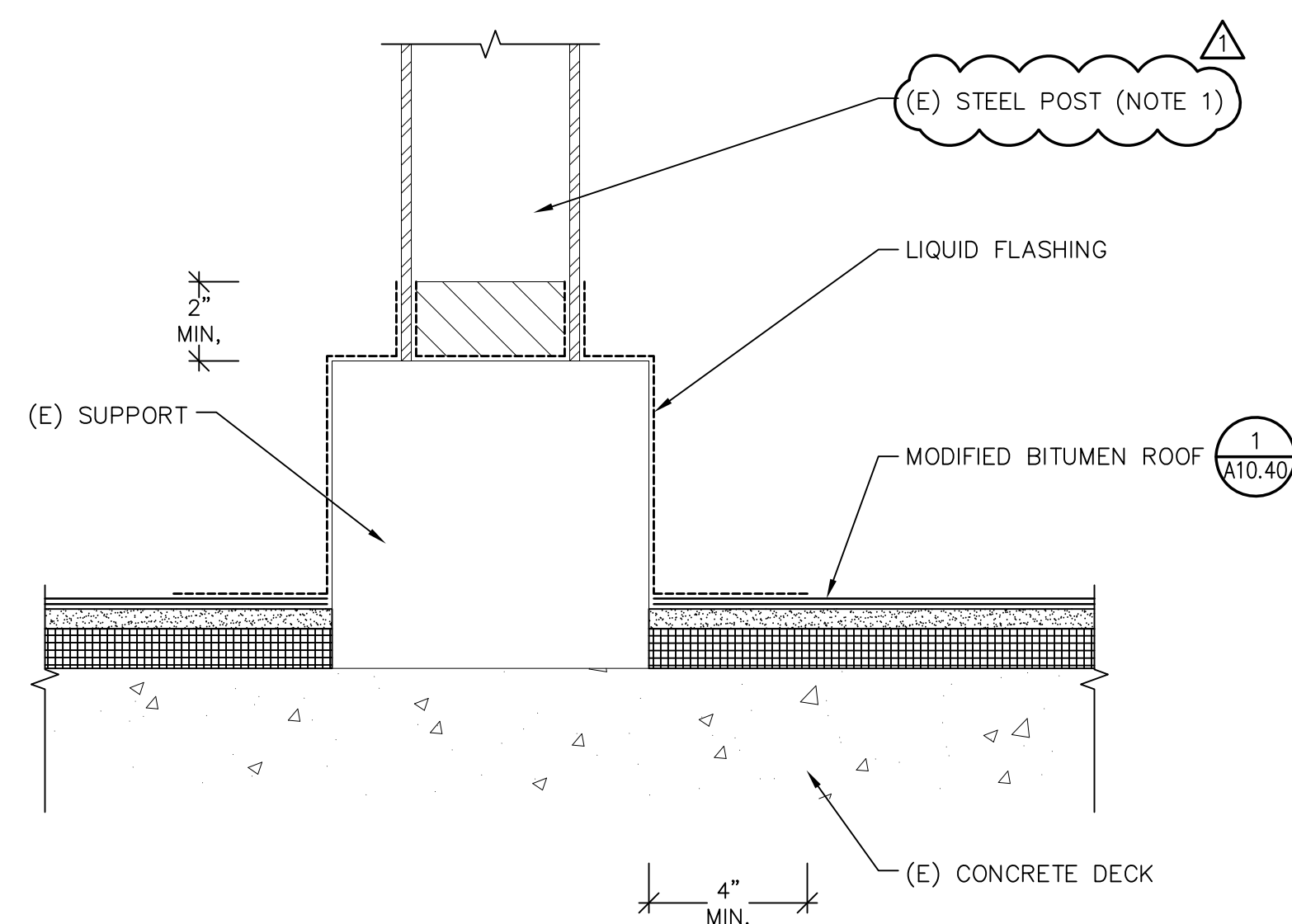


5 VENT PIPE FLASHING
A10.40 SCALE: 3"=1'-0"



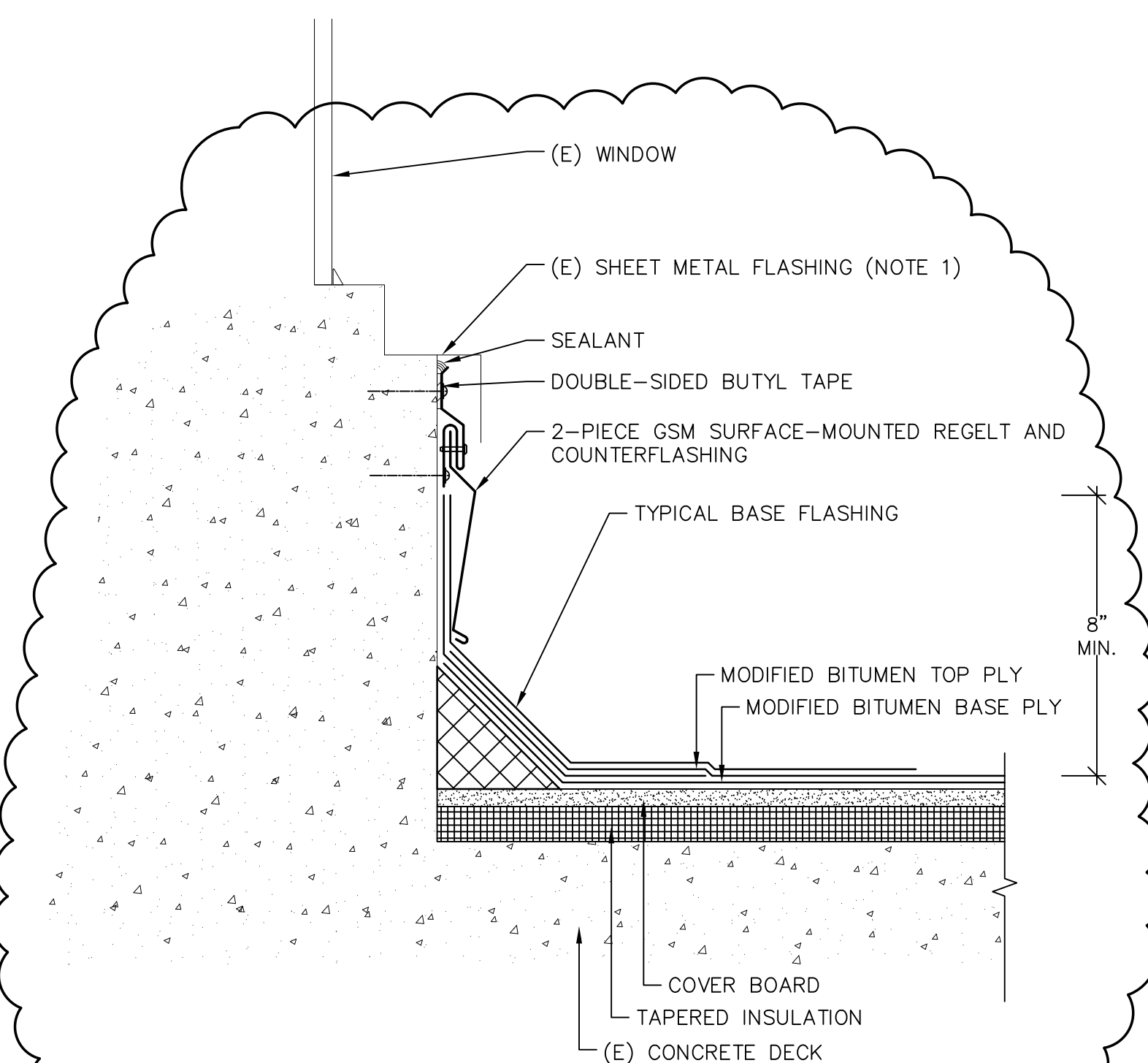
NOTES:
(1) FLANGE NAILING IS NOT SHOWN FOR CLARITY (FASTENERS AT 3" O.C.).
(2) APPLY PRIMER TO TOP AND BOTTOM AND SET IN SEALANT.

2 TYPICAL STRIP FLASHING
A10.40 SCALE: NOT TO SCALE



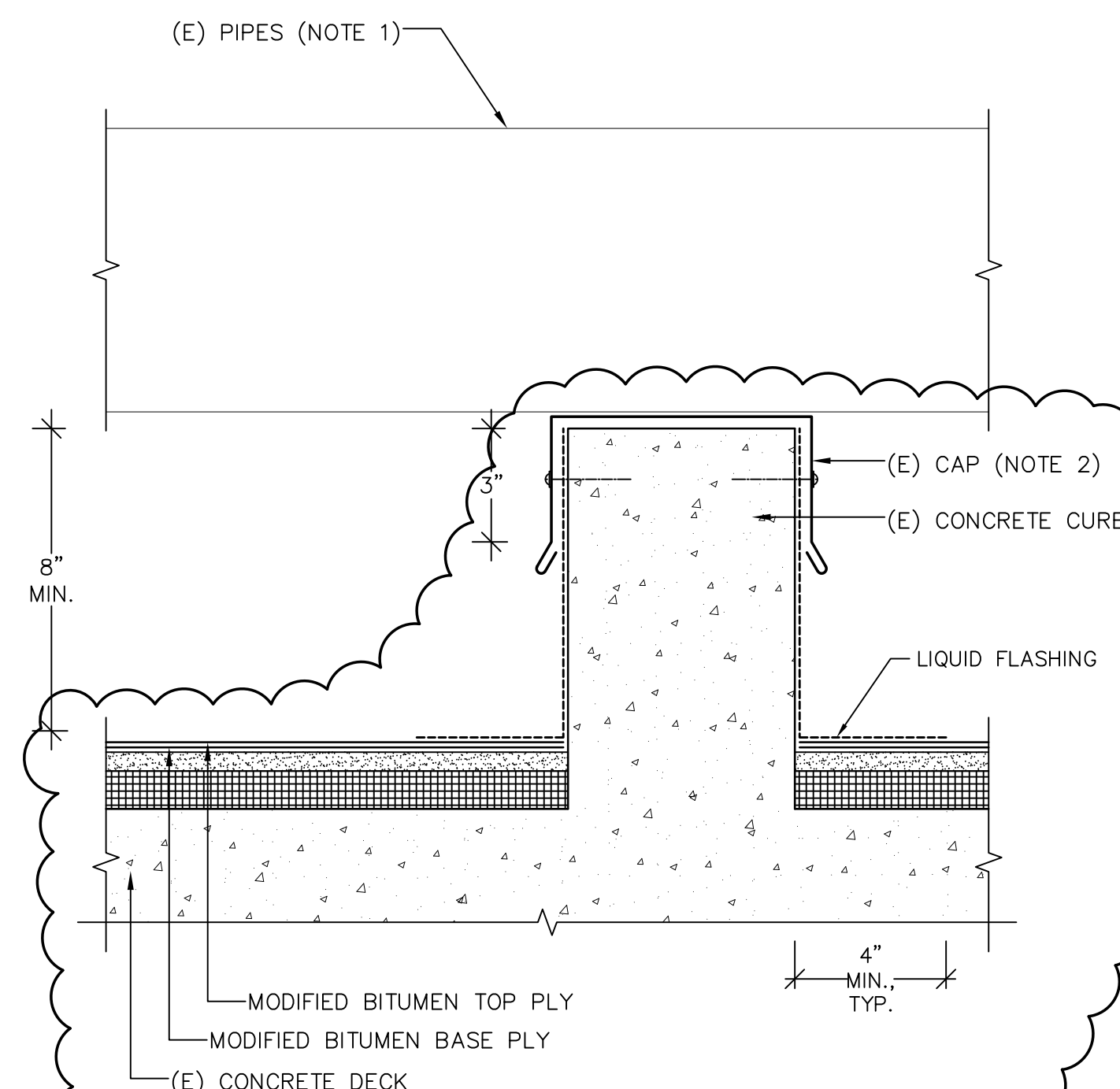
NOTE:
(1) HALF THE COLUMNS WILL BE REMOVED (OWNER TO SELECT COLUMNS).

12 EQUIPMENT SCREEN SUPPORT
A10.40 SCALE: NOT TO SCALE



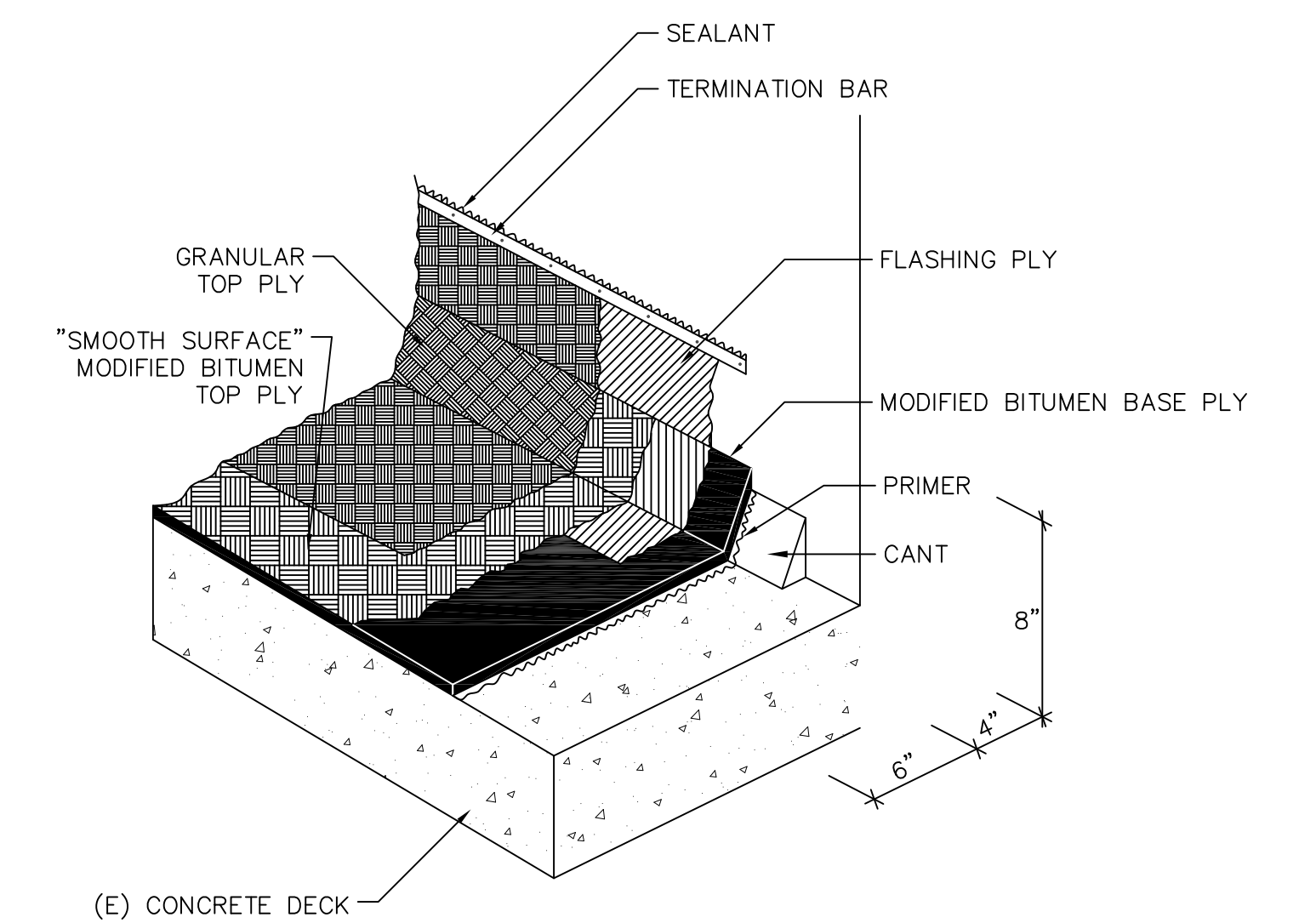
NOTE:
(1) LIFT FLASHING AS REQUIRED TO INSTALL BASE FLASHING. REPAIR SEAMS AS REQUIRED.

9 ROOF/WALL-TYPE II (WINDOW)
A10.40 SCALE: 3"=1'-0"



NOTES:
(1) REMOVE PIPES AS REQUIRED TO INSTALL THE ROOF.
(2) LIFT AND REPAIR JOINTS AS REQUIRED TO INSTALL FLASHING.

6 CURB
A10.40 SCALE: 3"=1'-0"



NOTES:
(1) PRIME CONCRETE SUBSTRATE TO RECEIVE MEMBRANE.
(2) INSTALL BASE SHEET STRIP OVER WOOD BLOCKING PER DETAILS. EXTEND 6" BEYOND WOOD BLOCKING.

3 TYPICAL BASE FLASHING
A10.40 SCALE: NOT TO SCALE

BID SET

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Steelhead Engineers, Inc.
Consulting+Design
2708 Wasatch Drive
Mountain View, Ca 94040
P 650.941.1112
F 650.396.4000
steelheadengineers.com

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PROJECT
ROOF REPLACEMENT-VOTECH
OWNER
LOS MEDANOS COLLEGE
2700 EAST LELAND ROAD, PITTSBURG, CALIFORNIA
CONTRA COSTA COMMUNITY COLLEGE DISTRICT
500 COURT STREET
MARTINEZ, CALIFORNIA

8/23/22	ADDENDUM 2	EY
7/19/22	BID SET	EY
NO.	DATE	DESCRIPTION

PROJECT NO.	22014
CADD FILE	
DESIGNED BY	AEB
DRAWN BY	EY
CHECKED BY	
DATE	17 MARCH 22
DRAWING SCALE	AS NOTED

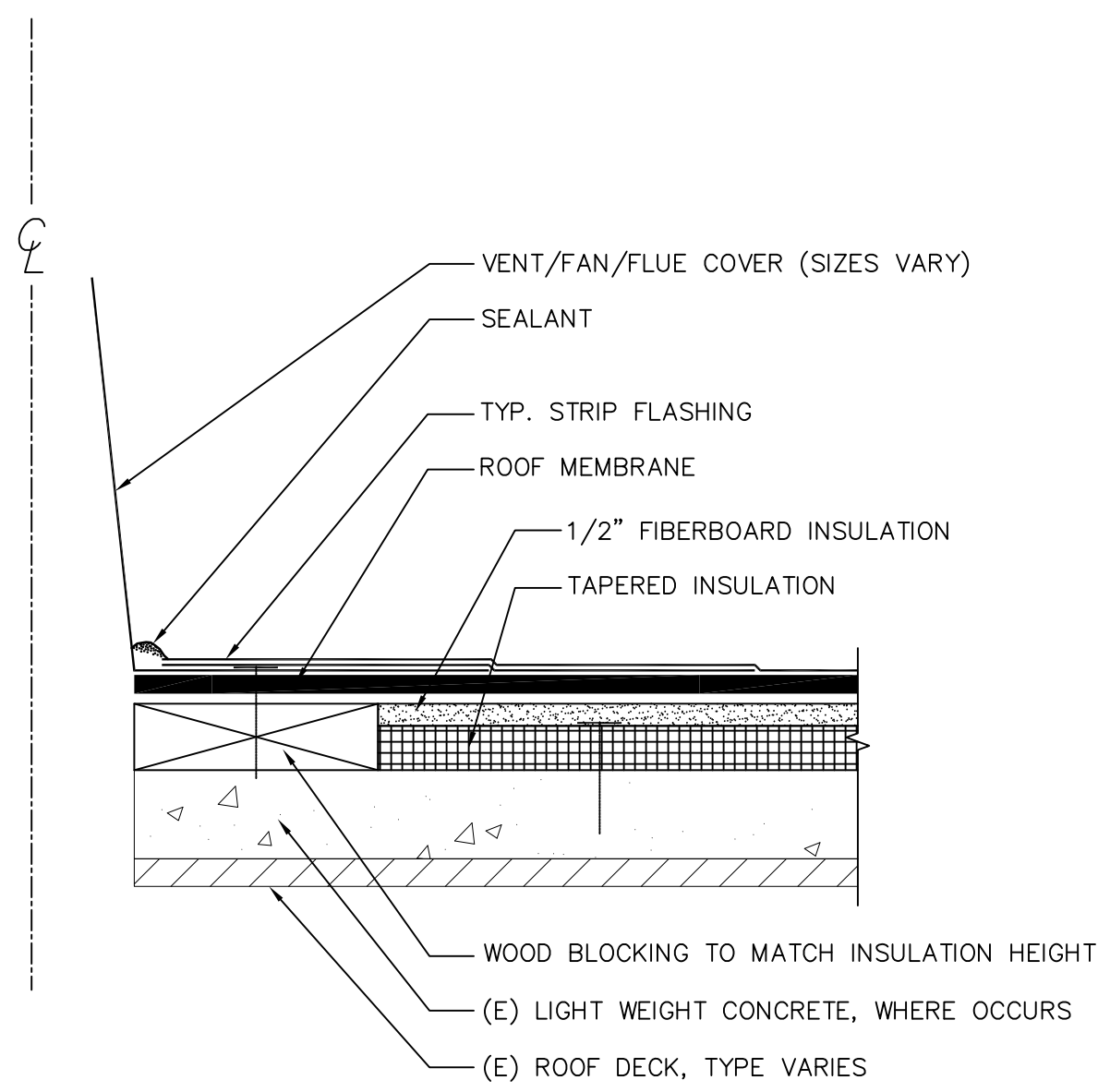
SHEET TITLE

MODIFIED BITUMEN ROOF DETAILS

DRAWING NO.

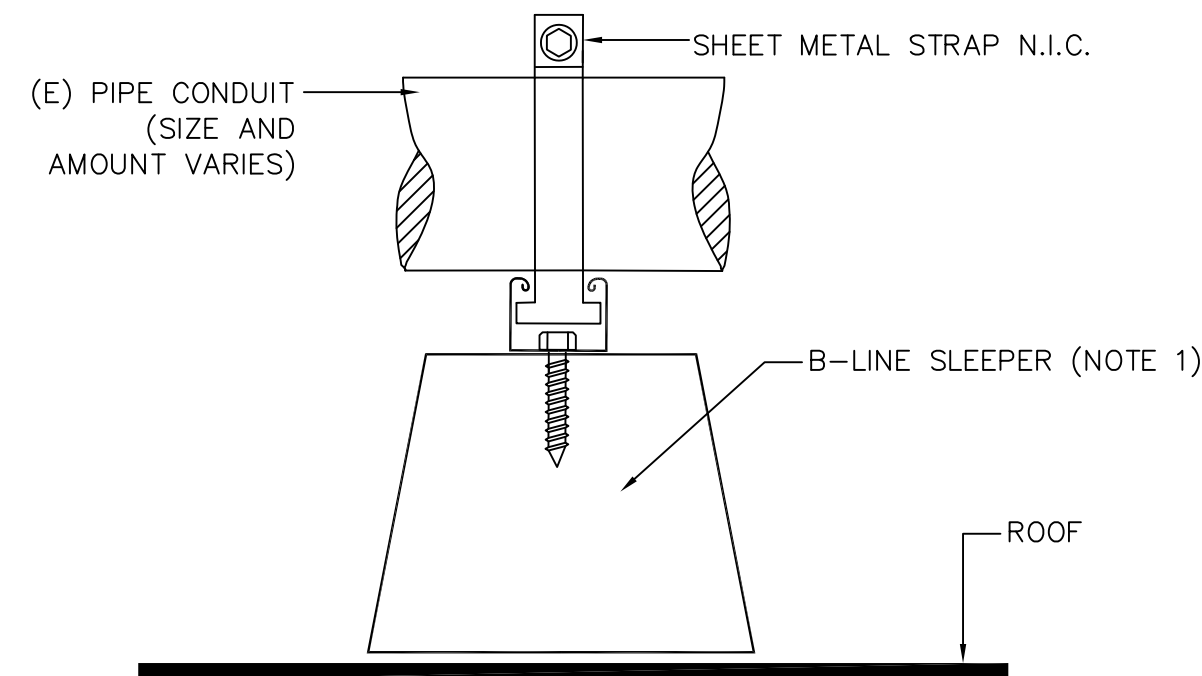
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OF



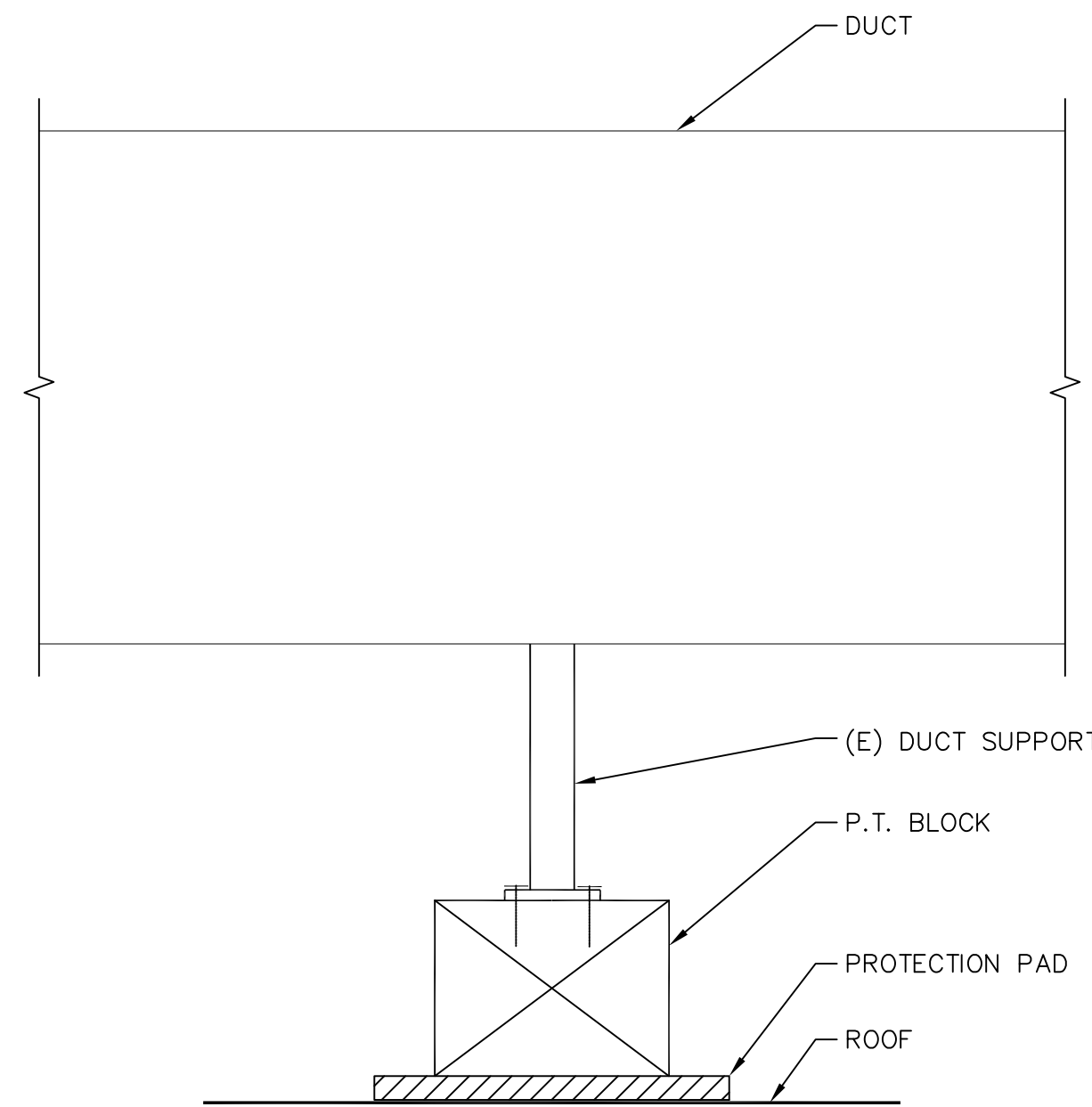
NOTE:
(1) IF (E) FLANGE DOES NOT SATISFY THE DIMENSION LISTED IN THE FLANGE SCHEDULE ON DETAIL, MECHANICALLY FASTEN AND SOLDER ADDITIONAL PIECE OF SHEET METAL TO ACHIEVE DIMENSION LISTED IN SCHEDULE.

22 FLANGED UNIT
A10.41 SCALE: NOT TO SCALE



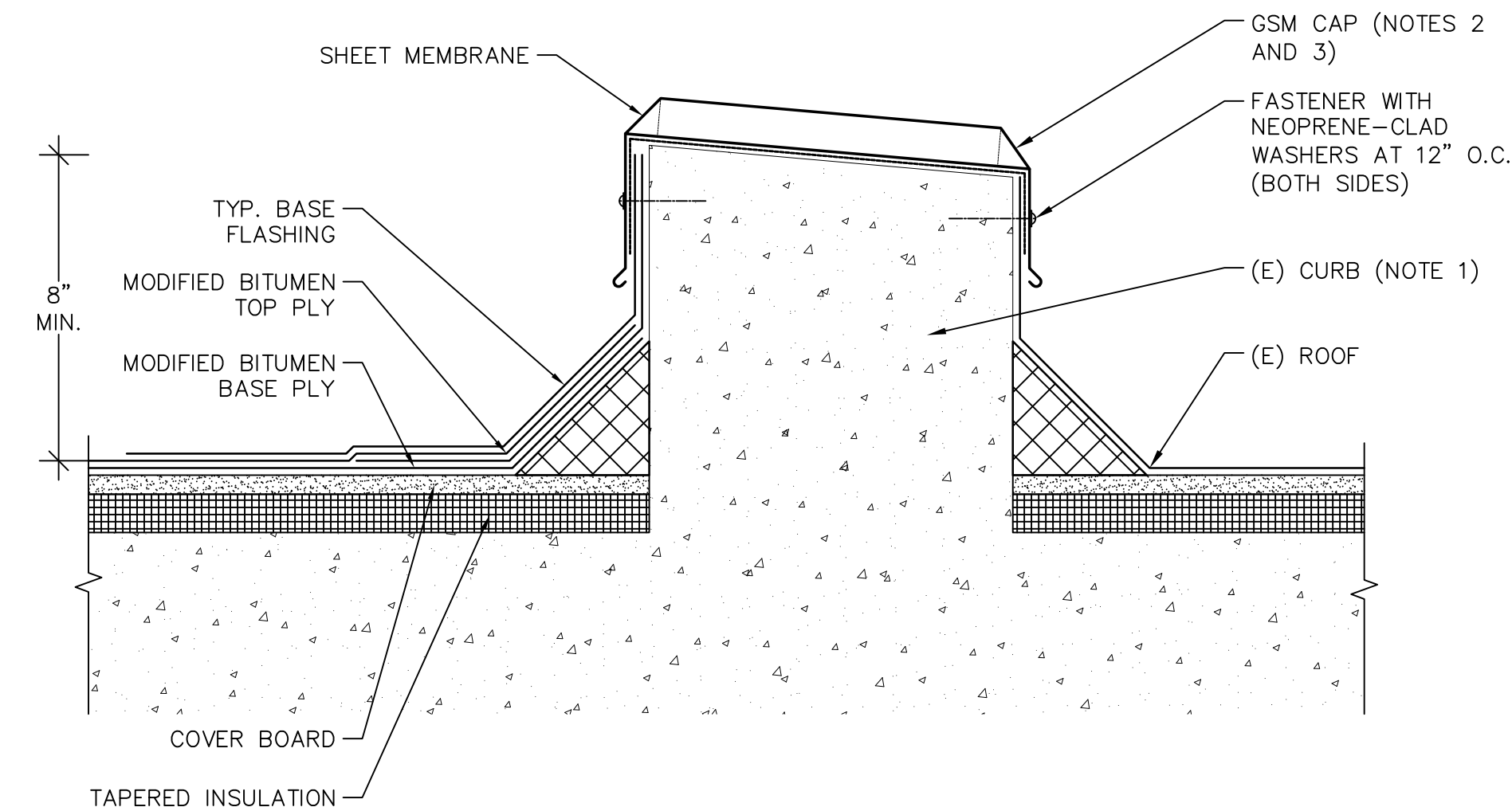
NOTE:
(1) REMOVE (E) SLEEPER AND REPLACE AS SHOWN IN DETAIL.

19 CONDUIT
A10.41 SCALE: 3"=1'-0"



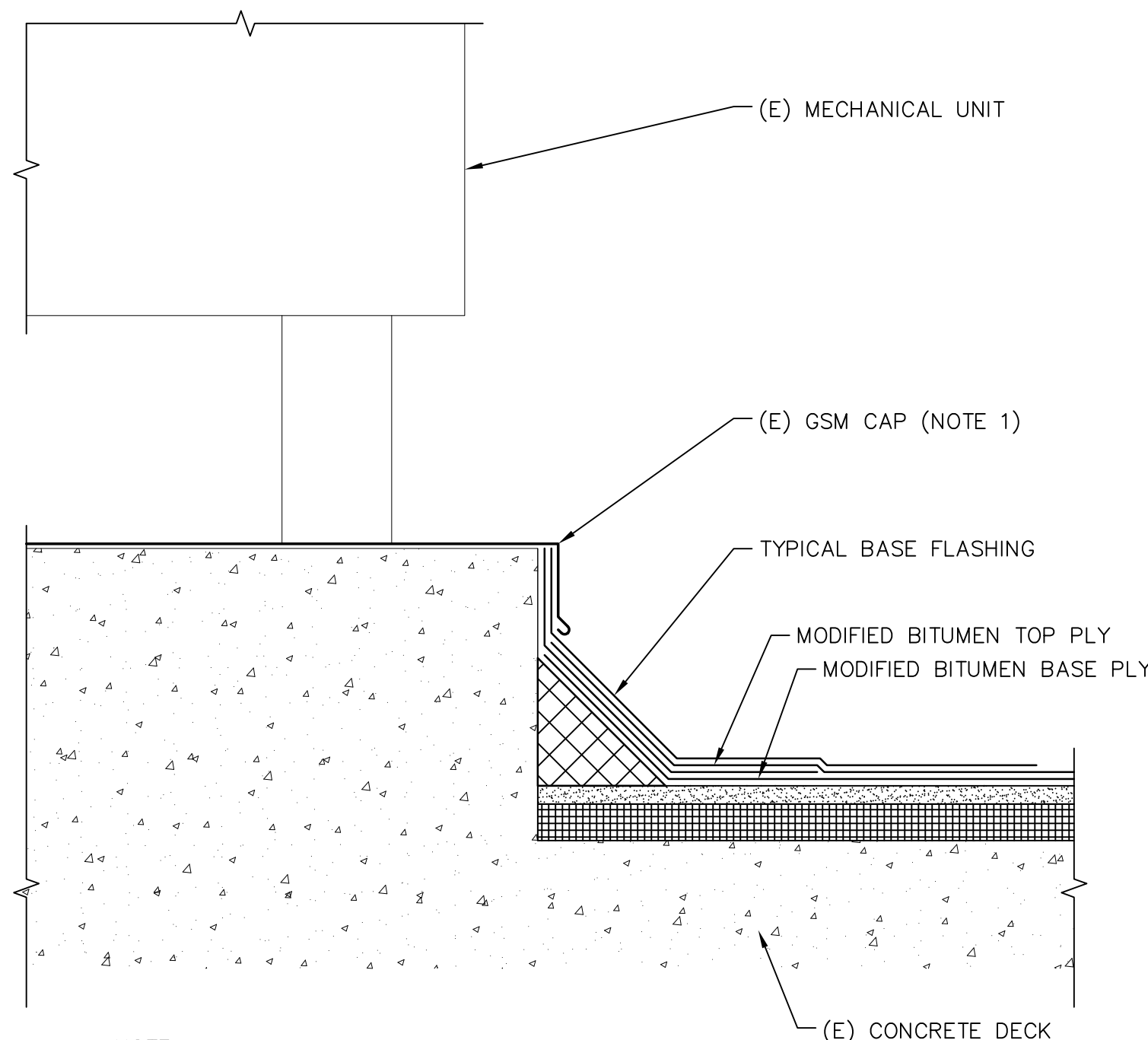
NOTE:
(1) CUT EXISTING DUCT SUPPORT AS REQUIRED TO INSTALL PRESSURE-TREATED BLOCK.

16 DUCT SUPPORT
A10.41 SCALE: NOT TO SCALE



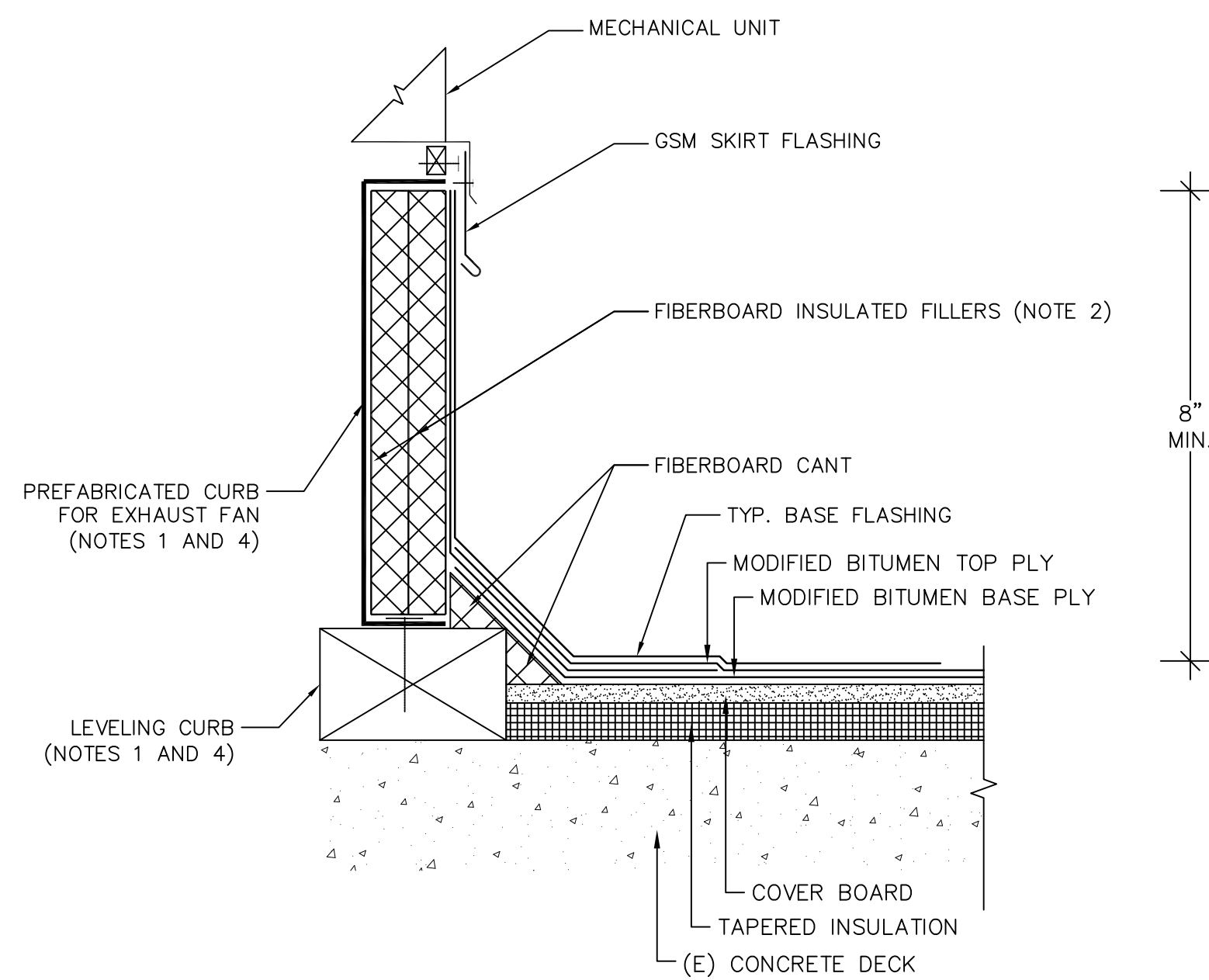
NOTES:
(1) CURB MAY BE FRAME INSTEAD OF CAST-IN-PLACE CONCRETE AS SHOWN ON THE DRAWINGS.
(2) REMOVE AND REPLACE (E) GSM CURB.
(3) REFER TO DETAIL 11 FOR CAP TERMINATION.

13 DIVIDING PARAPET
A10.41 SCALE: 3"=1'-0"



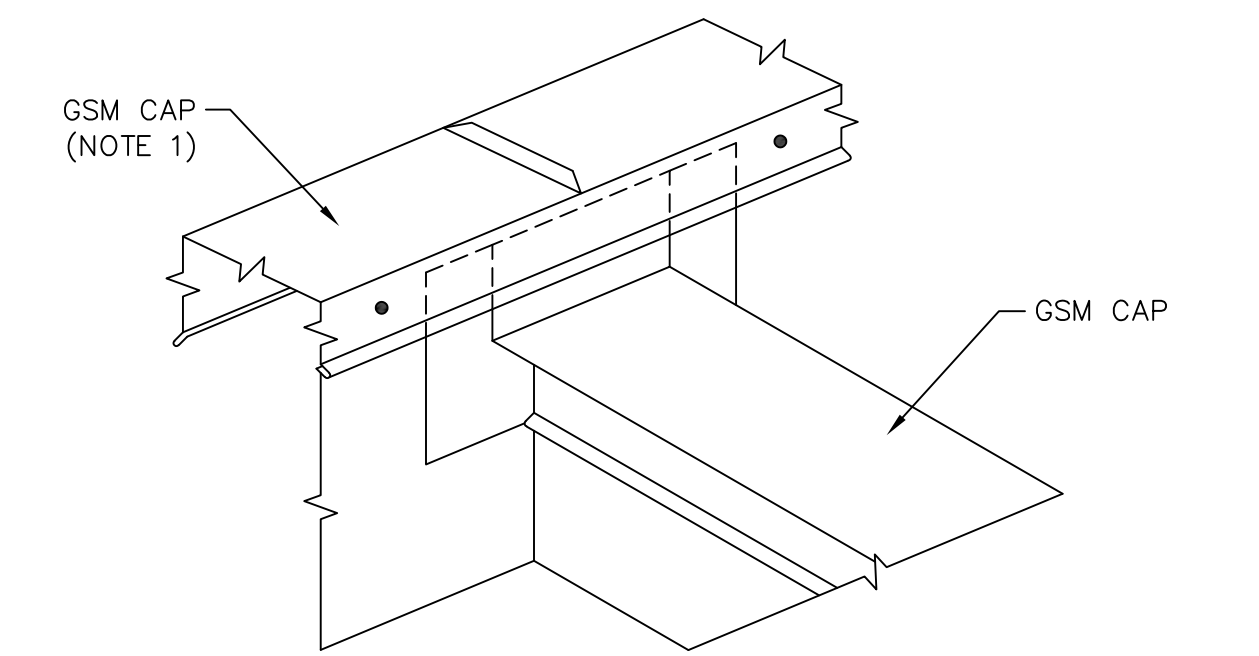
NOTE:
(1) LIFT VERTICAL LEG TO INSTALL NEW BASE FLASHINGS. INSTALL NEW MECHANICALLY FASTENED AND SOLDERED JOINTS AT CORNERS.

20 MECHANICAL UNIT-TYPE III
A10.41 SCALE: NOT TO SCALE

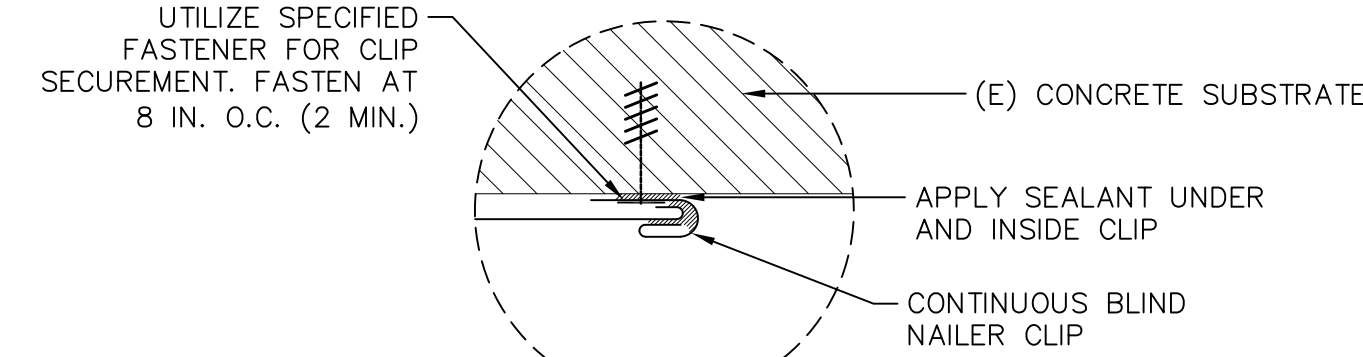


NOTES:
(1) REFER TO MECHANICAL DRAWINGS.
(2) PRIME CURB PRIOR TO INSTALLING FILLER.
(3) SIZE CANT TO ENSURE SMOOTH TRANSITION FROM ROOF TO CURB.
(4) REFER TO MECHANICAL DRAWINGS FOR LEVELING CURB INFORMATION.

17 MECHANICAL UNIT-TYPE I
A10.41 SCALE: 3"=1'-0"



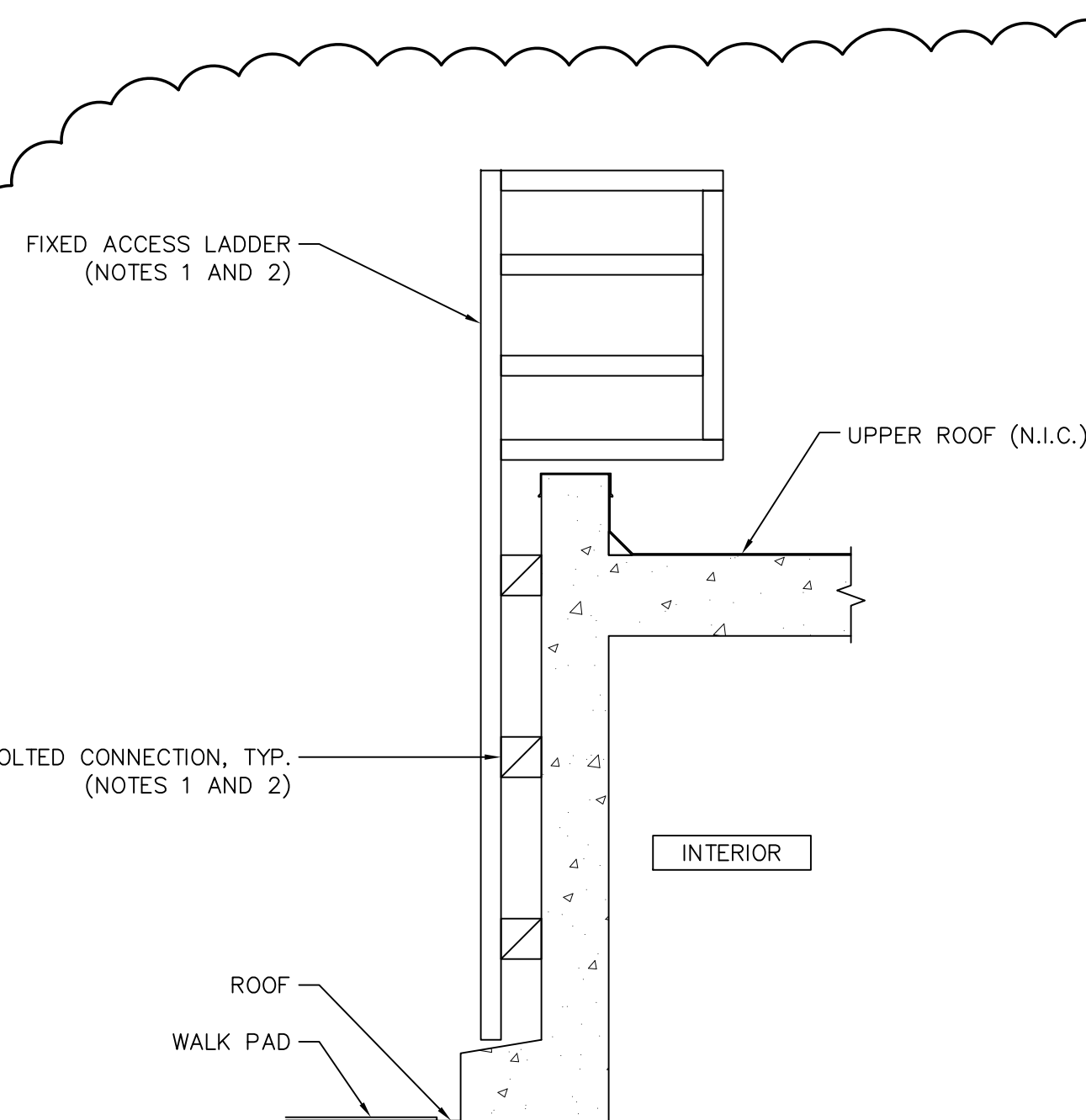
A ISOMETRIC



B SECTION

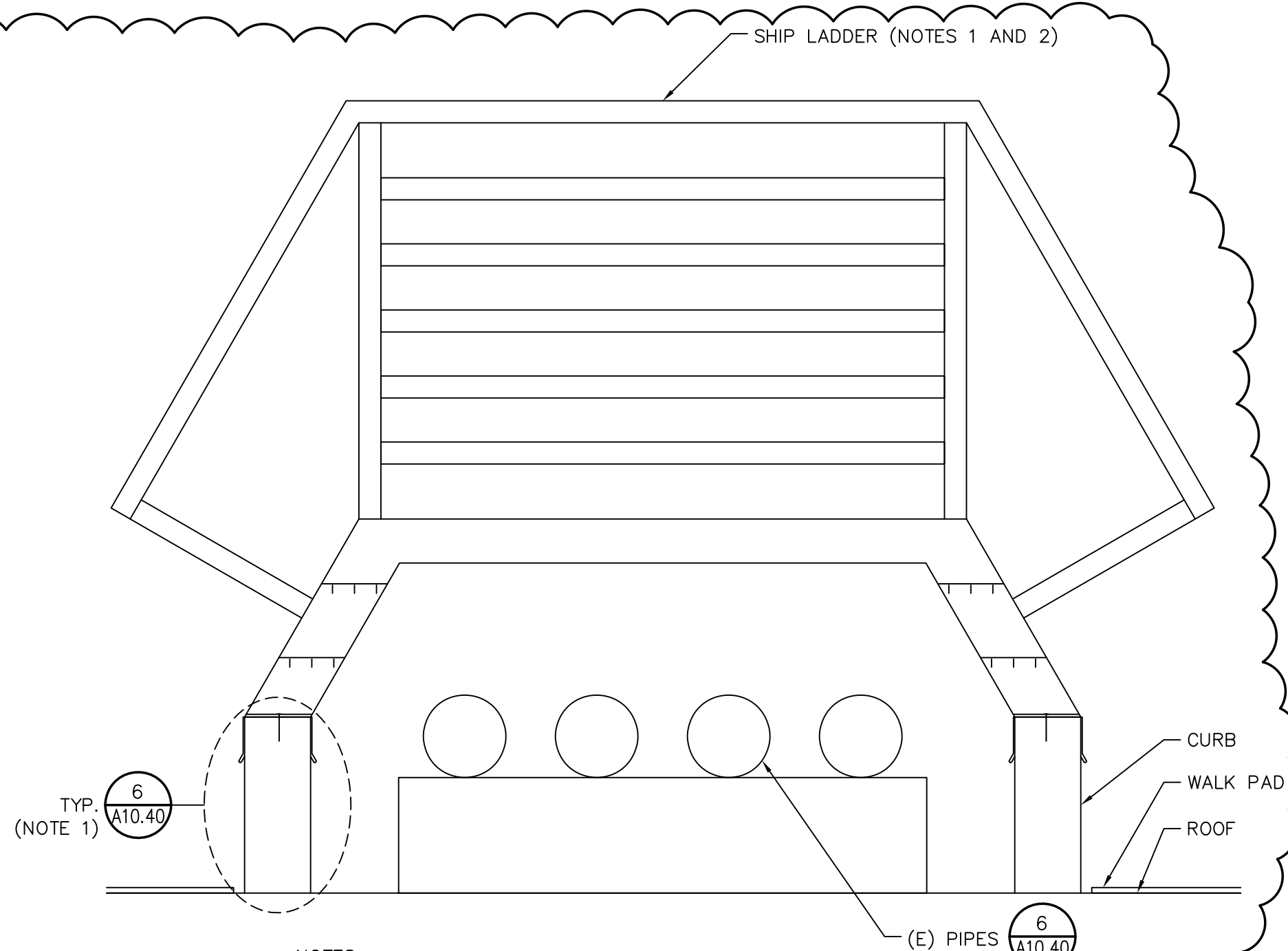
NOTE:
(1) PROVIDE STANDING SEAM JOINT AT TIE-IN OF NEW AND EXISTING CAPS.

14 DIVIDING PARAPET/WALL
A10.41 SCALE: NOT TO SCALE



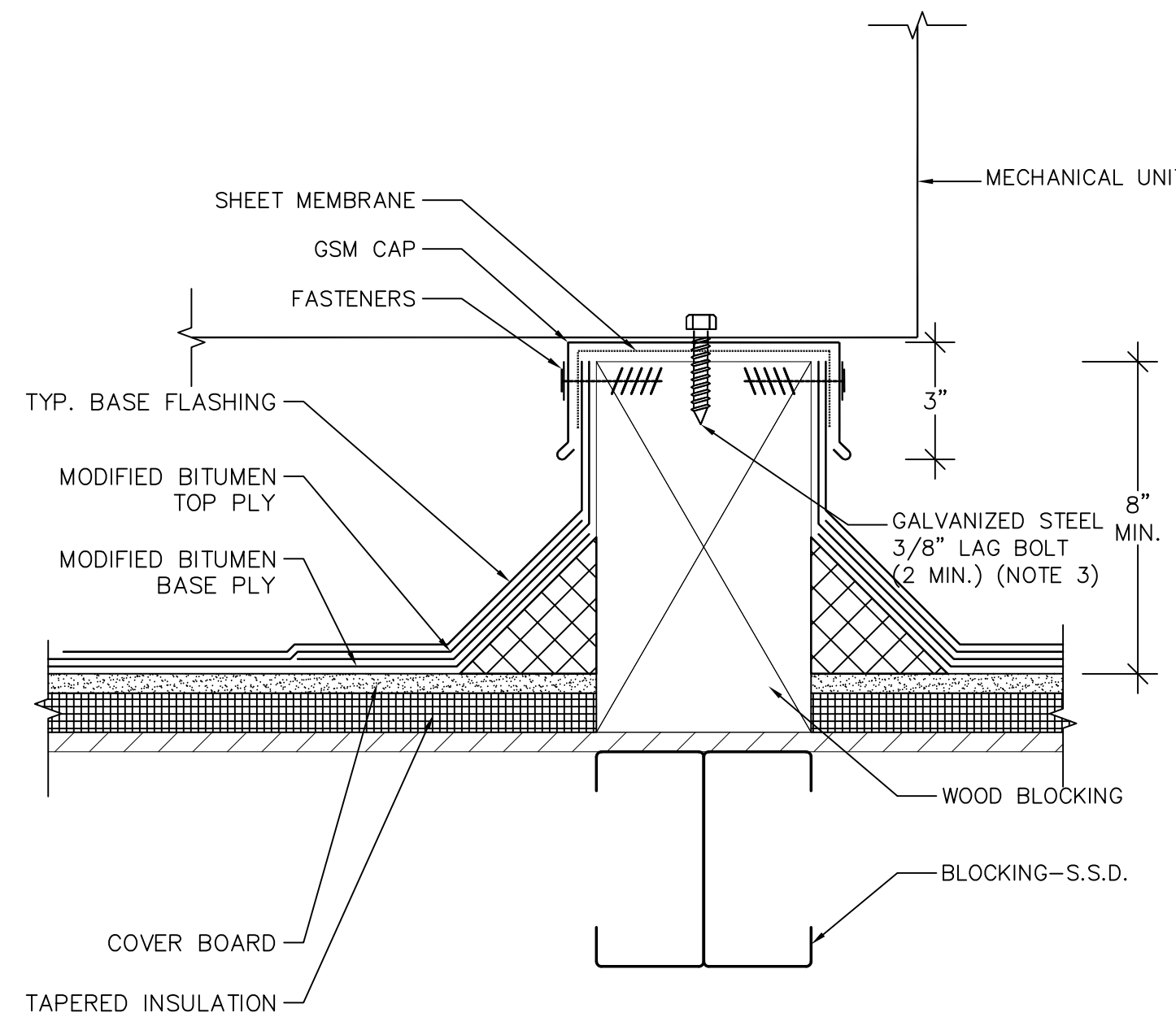
NOTES:
(1) FIELD VERIFY DIMENSIONS PRIOR TO ORDERING LADDER.
(2) CONTRACTOR SHALL PROVIDE MANUFACTURER CALCULATIONS FOR LADDER (SEE SPECIFICATIONS).

24 LADDER-WALL MOUNTED
A10.41 SCALE: 1/2"=1'-0"



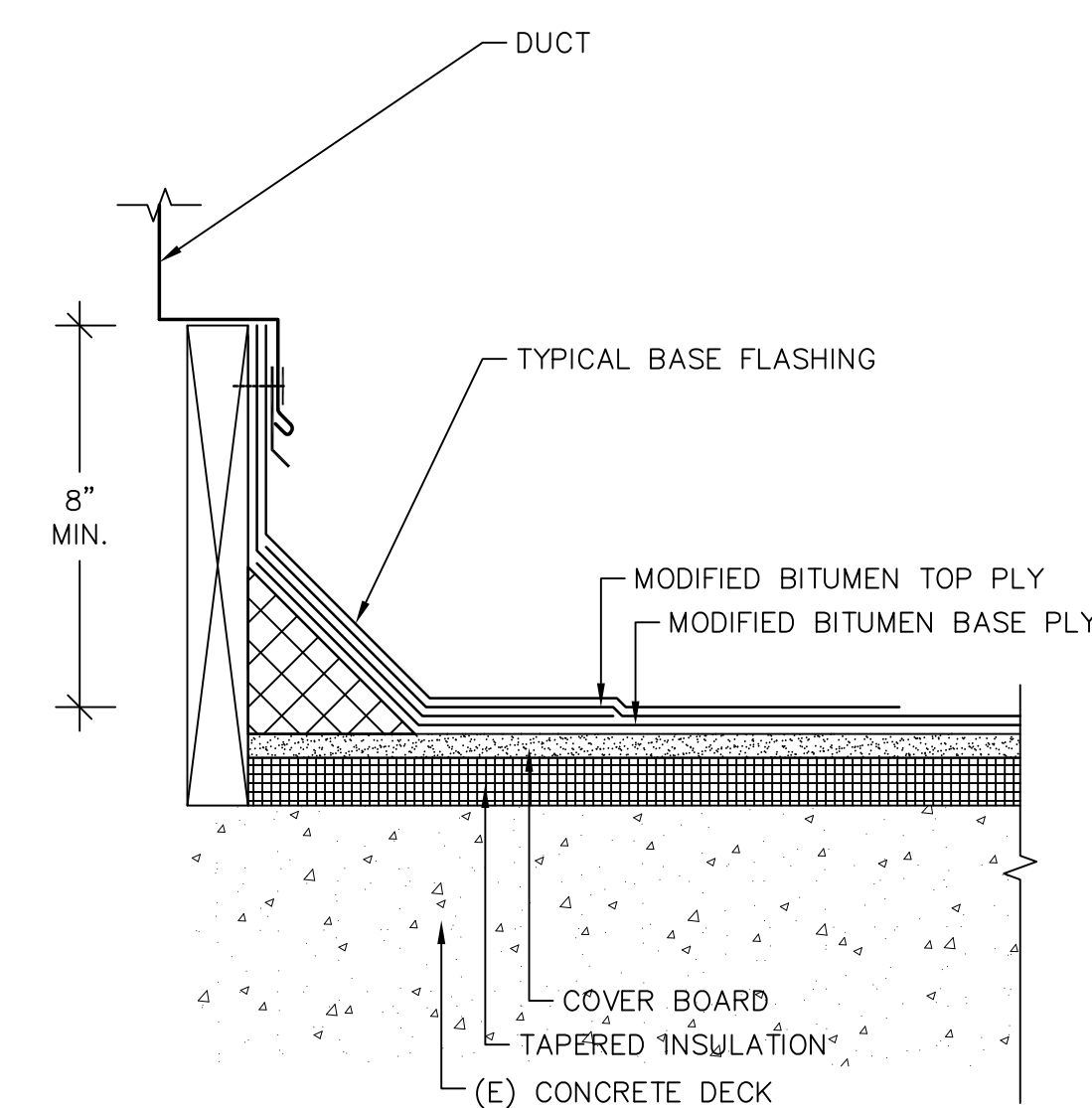
NOTES:
(1) INSTALL NEW 16" HIGH BY 6" WIDE BY 36" LONG CONCRETE CURB. CONNECT TO SLAB WITH THREE #5 DOWELS, EQUALLY SPACED.
(2) CONTRACTOR SHALL PROVIDE MANUFACTURER CALCULATIONS FOR LADDER (SEE SPECIFICATIONS).
(3) FIELD VERIFY DIMENSIONS PRIOR TO ORDERING LADDERS.

21 LADDER-OVER PIPES
A10.41 SCALE: 1"=1'-0"



NOTES:
(1) INSTALL CRICKET IF BLOCK LENGTH IS GREATER THAN 2 FT. AND IF ORIENTED PERPENDICULAR TO ROOF SLOPE.
(2) PROVIDE BOND BREAKER TAPE BETWEEN DISSIMILAR METALS.
(3) EMBED FASTENERS INTO CURB IN SEALANT.
(4) REFER TO MECHANICAL DRAWINGS FOR SPACING.

18 MECHANICAL UNIT-TYPE II
A10.41 SCALE: 3"=1'-0"



15 DUCT
A10.41 SCALE: 3"=1'-0"

BID SET

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Steelhead Engineers, Inc.
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F 650.396.4000
steelheadengineers.com

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PROJECT
ROOF REPLACEMENT-VOTECH
OWNER
LOS MEDANOS COLLEGE
2700 EAST LELAND ROAD, PITTSBURG, CALIFORNIA
CONTRA COSTA COMMUNITY COLLEGE DISTRICT
500 COURT STREET
MARTINEZ, CALIFORNIA

8/23/22	ADDENDUM 2	EY	
7/19/22	BID SET	EY	
NO.	DATE	DESCRIPTION	BY

PROJECT NO.	22014
CADD FILE	
DESIGNED BY	AEB
DRAWN BY	EY
CHECKED BY	
DATE	17 MARCH 22
DRAWING SCALE	AS NOTED
SHEET TITLE	

MODIFIED BITUMEN
ROOF DETAILS

DRAWING NO.

A10.41

OF

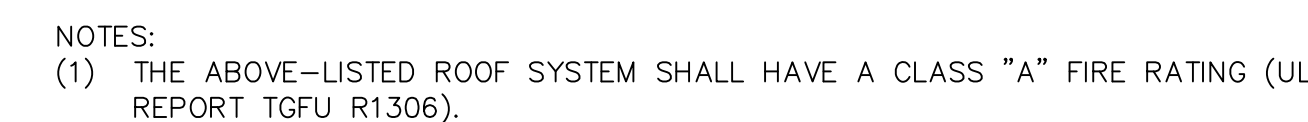
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7 (E) VERTICAL CHANNEL
A10.45 SCALE: NOT TO SCALE



8 ROOF/WALL
A10.45 SCALE: NOT TO SCALE



1	8/23/22	ADDENDUM 2	EY
	7/19/22	BID SET	EY
NO.	DATE	DESCRIPTION	BY

SINGLE-PLY ROOF DETAILS

DRAWING NO.

A10.45

OF

MEETING Minutes



PROJECT NAME/NO.: L-1203 Votech Roof Replacement

PRE-BID MEETING, Mandatory

Date: August 10, 2022
Time: 1:00 PM
Location: Los Medanos College
Automotive Technology / Votech Parking lot
2700 E Leland Rd., Pittsburg, CA 94565

I. INTRODUCTIONS AND SIGN IN

- Stefan Johnson, Construction Manager

a. Introduction of Project Team Members in Attendance:

Carlos Montoya, Ed.D.	Vice President of Business & Administrative Services
Michael Schenone	Buildings and Grounds (B&G) Manager, LMC
Alan Burnett	Steelhead Engineers
Stefan Johnson	Construction Manager - Critical Solutions, Inc. (CSI)

- b. Sign-in sheet will be circulated and collected by Stefan Johnson; It will be posted to the District's bids webpage.

II. WELCOME AND INTRODUCTORY REMARKS

- L-1203 Votech Roof Replacement to demo and replace the existing roof with lightweight insulation and a modified bitumen roofing system.
- An on-site job walk/ field presentation follows this meeting.
- Review bid documents and submit RFIs by Wednesday August 17, so responses can be provided in a timely manner.

III. INTRODUCTION & ADDITIONAL REMARKS

- Public Safety**
Currently have COVID-19 pandemic guidelines in place for Contra Costa County. District policy requires masks indoors at all times.

IV. BRIEF PROJECT DESCRIPTION

- Alan Burnett with Steelhead Engineers to go over project over in detail:

V. PROJECT WORK RESTRICTIONS (see SECTION 00800 Supplementary General Conditions)

- a. Project has a limited timeframe over the summer for actual construction – goal is to issue NTP the end of September to allow ordering of long lead materials.
- b. Contractor may not use the bathroom facilities for the duration of the project and must provide porta-potties and cleaning stations. Location of bathroom facilities to be coordinated with District and approved prior to placement.
- c. Staging of material & equipment by contractor to be secured and locked. Staging area or contractor's storage container to be coordinated with District in advance.
- d. Interruptions to utility service shall be kept to a minimum and shall be as such times and durations as approved ahead of time by the District.
- e. Bidders are encouraged to carefully review Division 0 & 1, specifically Section 00800, referencing Work Restrictions.
- f. Additional work restriction information may be added by addendum.

VI. BID PHASE COMMUNICATIONS & CORRESPONDENCE:

- a. All project-related questions/RFIs must be submitted in writing (email is preferable) to:
Ben Cayabyab, Contracts Manager
Contra Costa Community College District
500 Court St., Martinez, CA 94553
Email: bcayabyab@4cd.edu
- b. **Deadline for receipt of RFIs is August 17, 2022, prior to 5:00 PM.**

VII. ADDENDA UPDATE:

- a. Addendum #1 was issued to address RFIs received.
- b. Addendum forthcoming to confirm specifications on access ladder.

VIII. BID PHASE SCHEDULE MILESTONES

- **Last day for RFI:** **August 17, 2022, prior to 5:00 p.m.**
- **Last Addendum Issued:** August 24, 2022
- **Bid Opening:** **August 31, 2022, 2:00 p.m.**
- **Award of Contract:** September 15, 2022
- **Notice to Proceed** September 29, 2022 (approximate)

IX. BID OPENING:

- a. **Bids must be received at the Contra Costa Community College District Office at 500 Court St, Martinez, CA by Wednesday, August 31, 2022, prior to 2:00 PM.**
- b. All bids will be time stamped at the reception counter in the building lobby.
- c. Any bid received after the bid opening time will be rejected.

X. BID PACKAGE:

- a. Review your bid package carefully before submitting it. Be sure to include all required documentation, or bid will be rejected.
 - Completed Bid Proposal Form (Section 00300), to include bidder's name and signature.
 - An active CLSB license number, as required in the bid documents.
 - Acknowledgement of any addenda issued.
 - Listing of actively-licensed subcontractors, including license numbers.
 - Bid Bond – 10% of bid Amount.
 - Non-Collusion Affidavit, fully executed.
 - Other documents as required by the Contract Documents.
- b. Bid bond must accompany bid; company checks can be accepted, but no cash will be accepted.
- c. Contact **Ben Cayabyab** if you have additional questions.

XI. CONTRACT DURATION DISCUSSION

- a. Review carefully Section 00600, Construction Agreement
- b. 323 Calendar Days to Substantial Completion (SC)
- c. 30 Calendar Days between SC and Final Completion
- d. Award of contract (NOA) scheduled to be issued the day after approval by the District Board.
- e. Successful Contractor will be required to submit bonds and insurance expeditiously.

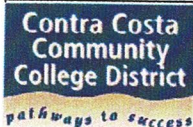
XII. SUBSTITUTION REQUESTS MUST COMPLY WITH CONTRACT DOCUMENTS

- a. Reference SECTION 00800, General Conditions, Article 1.4
- b. Sample Substitution Request Form is included in bid package.

XIII. SITE JOB WALK/ FIELD PRESENTATION

- Alan Burnett to give overall review of project scope.
- Review project site, rooftop unit.

XIV. MISCELLANEOUS



PRE-BID Meeting Sign-in Sheet

PROJECT TITLE: L-1203 Votech Roof Replacement

DATE / TIME: Wednesday, April 12, 2022, 1:00 p.m.

LOCATION: Votech Building, Los Medanos College

COMPANY NAME	NAME	TITLE / ROLE IN THIS PROJECT
--------------	------	------------------------------

STATE ROOFING SYSTEMS	DAN EDGE	PM
-----------------------	----------	----

Please provide
business card

Office Phone 510-317-1477

Cell Phone 510-772-7204

Email Address dane@stateroofingsystems.com

De Bois Roofing		
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Please provide
business card

Office Phone _____

Cell Phone 408-687-6883

Email Address jose@genesissv.com

ENTERPRISE ROOFING	KEN NAKAO	ESTIMATOR
--------------------	-----------	-----------

Please provide
business card

Office Phone 925 689-8100

Cell Phone 925 250-8138

Email Address KNAKAO@ENTERPRISEROOFING.COM

MARTINEZ SHEET METAL	NATE BIRDSON	
----------------------	--------------	--

Please provide
business card

Office Phone 925 228 3380

Cell Phone 925 812 6430

Email Address NBIRDSON@MARTINEZSHEETMETAL.COM

PRE-BID Meeting Sign-In Sheet

PROJECT TITLE: L-1203 Votech Roof Replacement

DATE / TIME: Wednesday, April 12, 2022, 1:00 p.m.

LOCATION: Votech Building, Los Medanos College

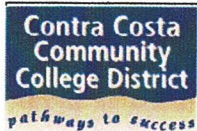
COMPANY NAME	NAME	TITLE / ROLE IN THIS PROJECT
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<u>CWS</u>	<u>Kameron whipkey</u>	<u>Super</u>
Please provide business card	Office Phone	<u>415-599-6545</u>
	Cell Phone	<u>415-599-6545</u>
	Email Address	<u>charliejr.cws@gmail.com</u>

<u>Kings Roofing</u>	<u>RYAN Cornwell</u>	<u>Estimator</u>
Please provide business card	Office Phone	<u>209-892-3386</u>
	Cell Phone	<u>209-595-9574</u>
	Email Address	<u>ryan@kingsroofing.net</u>

<u>Best Contracting Services</u>	<u>DARRELL GALLACHER</u>	
Please provide business card	Office Phone	<u>310-328-6969 x 215</u>
	Cell Phone	<u>310-345-2391</u>
	Email Address	<u>estimating@bestcontracting.com</u>

<u>Alcal Specialty Contracting</u>	<u>Wyatt Foreman</u>	<u>Project Manager</u>
Please provide business card	Office Phone	
	Cell Phone	<u>510-458-0156</u>
	Email Address	<u>Wyatt.Foreman@alcal.com</u>



PRE-BID Meeting Sign-in Sheet

PROJECT TITLE: L-1203 Votech Roof Replacement

DATE / TIME: Wednesday, April 12, 2022, 1:00 p.m.

LOCATION: Votech Building, Los Medanos College

COMPANY NAME	NAME	TITLE / ROLE IN THIS PROJECT
--------------	------	------------------------------

<u>ROOFING + SOLAR CONST.</u>	<u>CARY FABIANI</u>	<u>ESTIMATOR</u>
-------------------------------	---------------------	------------------

Please provide
business card

Office Phone 415 606 0314

Cell Phone 510 634 2333

Email Address caryfabiani@roofingsolarinc.com

<u>B & M Tear off</u>		
---------------------------	--	--

Please provide
business card

Office Phone _____

Cell Phone 925-628-3866

Email Address jose@bmttearoff.com

Please provide
business card

Office Phone 650) 315-1927

Cell Phone 650) 315-3375

Email Address Alan@iaccontractorinc.com

<u>ANDY'S ROOFING CO.</u>		
---------------------------	--	--

Please provide
business card

Office Phone 510) 777-1100

Cell Phone 408) 593-0077

Email Address don@andysroofing.com

PRE-BID Meeting Sign-in Sheet

PROJECT TITLE: L-1203 Votech Roof Replacement

DATE / TIME: Wednesday, April 12, 2022, 1:00 p.m.

LOCATION: Votech Building, Los Medanos College

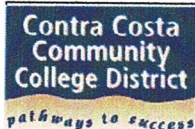
COMPANY NAME	NAME	TITLE / ROLE IN THIS PROJECT
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Alliance Contracting Serv.	NAME	Alejandro Gomez	PA
	Office Phone	510-667-9934	
	Cell Phone	408-839-7835	alejandros@alliance-cs.net
	Email Address	ademoterror@yahoo.com	rooftear@sbcglobal.net

Western Roofing Service	NAME	Jose Lozano	PM/ESTIMATOR
	Office Phone	415-648-6472	
	Cell Phone	415-850-5268	
	Email Address	jlozano@westroof.com	

Stronger Building S.	NAME	Ismael Avila	PM
	Office Phone	415) 823-6355	
	Cell Phone	415) 823-6355	
	Email Address	Ismael@strongerbuilding.com	

Singh group inc	NAME	Haydy Homid	PM
	Office Phone		
	Cell Phone	760-213-5462	
	Email Address	Asher@sgwebsite.com	



PRE-BID Meeting Sign-in Sheet

PROJECT TITLE: L-1203 Votech Roof Replacement

DATE / TIME: Wednesday, April 12, 2022, 1:00 p.m.

LOCATION: Votech Building, Los Medanos College

COMPANY NAME	NAME	TITLE / ROLE IN THIS PROJECT
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<u>Solano County Roofing</u>	<u>Rich Solbrack</u>	<u>Super</u>
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Please provide business card	Office Phone	<u>707-864-6000</u>
	Cell Phone	<u>707-628-0102</u>
	Email Address	<u>RichardSCR@sbcglobal.net</u>

<u>THE MCO</u>	<u>RICHT EGAN</u>	<u>SENIOR ADVISOR</u>
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Please provide business card	Office Phone	<u>SAWR</u>
	Cell Phone	<u>925 570 6991</u>
	Email Address	<u>REGAN@THEMCOINC.COM</u>

Please provide business card	Office Phone	
	Cell Phone	
	Email Address	

Please provide business card	Office Phone	
	Cell Phone	
	Email Address	