

**COUNTY OF MENDOCINO
STANDARD SERVICES AGREEMENT**

This Agreement is by and between the COUNTY OF MENDOCINO, hereinafter referred to as the “COUNTY”, and Garland DBS, an Ohio corporation, hereinafter referred to as the “CONTRACTOR”.

WITNESSETH

WHEREAS, pursuant to Government Code Section 31000, COUNTY may retain independent contractors to perform special services to or for COUNTY or any department thereof; and,

WHEREAS, COUNTY desires to obtain CONTRACTOR for its services to remove and replace the roofing at the 890 North Bush Street, Ukiah, CA 95482 as defined in Exhibit A; and,

WHEREAS, CONTRACTOR is willing to provide such services on the terms and conditions set forth in this AGREEMENT and is willing to provide same to COUNTY.

NOW, THEREFORE it is agreed that COUNTY does hereby retain CONTRACTOR to provide the services described in Exhibit “A”, and CONTRACTOR accepts such engagement, on the General Terms and Conditions hereinafter specified in this Agreement, the Additional Provisions attached hereto, and the following described exhibits, all of which are incorporated into this Agreement by this reference:

- | | |
|-----------|--|
| Exhibit A | Definition of Services |
| Exhibit B | Payment Terms |
| Exhibit C | Insurance Requirements |
| Exhibit D | Mendocino County ePayables Information |
| Exhibit E | Public Project Provisions |
| Exhibit F | Garland/DBS Proposal #: 25-CA-230691 |
| Exhibit G | Specification Sections |
| Exhibit H | Plan Set & Roof Vent Plan |

The term of this Agreement shall be from the date this Agreement becomes fully executed by all parties (the “Effective Date”) and shall continue through December 29, 2023.

The compensation payable to CONTRACTOR hereunder shall not exceed Three Hundred Ninety-Nine Thousand Eight Hundred Sixty-four Dollars and no cents (\$399,864.00) for the term of this Agreement.

IN WITNESS WHEREOF

DEPARTMENT FISCAL REVIEW:

CONTRACTOR/COMPANY NAME:

Janette Raulo **08/15/2023**

DEPARTMENT HEAD DATE

By: See page 2A

Budgeted: ☒ Yes ☐ No

NAME AND ADDRESS OF CONTRACTOR:

Budget Unit: 1710

Garland/DBS, a Delaware corporation

Line Item: 864360 CI076

3800 East 91st Street

Grant: ☐ Yes ☒ No

Cleveland, OH44105

Grant No.: _____

COUNTY OF MENDOCINO

By: Glenn McGourty
GLENN MCGOURTY, Chair
BOARD OF SUPERVISORS

By signing above, signatory warrants and represents that he/she executed this Agreement in his/her authorized capacity and that by his/her signature on this Agreement, he/she or the entity upon behalf of which he/she acted, executed this Agreement

Date: 08/29/2023

ATTEST:

DARCIE ANTLE, Clerk of said Board

COUNTY COUNSEL REVIEW:

APPROVED AS TO FORM:

By: Antle
Deputy 08/29/2023

CHRISTIAN M. CURTIS,
County Counsel

By: Christian M. Curtis
Deputy

I hereby certify that according to the provisions of Government Code section 25103, delivery of this document has been made.

DARCIE ANTLE, Clerk of said Board

Date: **08/15/2023**

By: Antle
Deputy 08/29/2023

INSURANCE REVIEW:

EXECUTIVE OFFICE/FISCAL REVIEW:

By: Darcie Antle
Risk Management

By: Li Hoh
Deputy CEO

Date: **08/15/2023**

Date: **08/15/2023**

Signatory Authority: \$0-25,000 Department; \$25,001- 50,000 Purchasing Agent; \$50,001+ Board of Supervisors

Exception to Bid Process Required/Completed ☒ EB 23-121

Mendocino County Business License: Valid ☐

Exempt Pursuant to MCC Section: _____

IN WITNESS WHEREOF

DEPARTMENT FISCAL REVIEW:
see page 2

DEPARTMENT HEAD _____ DATE _____

Budgeted: ☒ Yes ☐ No

Budget Unit: 1710

Line Item: 864360 CI076

Grant: ☐ Yes ☒ No

Grant No.: _____

CONTRACTOR/COMPANY NAME:

By: Brian Lambert

Brian Lambert - President

NAME AND ADDRESS OF CONTRACTOR:

Garland/DBS, a Delaware corporation

3800 East 91st Street

Cleveland, OH44105



COUNTY OF MENDOCINO

By: see page 2

GLENN MCGOURTY, Chair
BOARD OF SUPERVISORS

Date: _____

ATTEST:

DARCIE ANTLE, Clerk of said Board

By: see page 2

Deputy

I hereby certify that according to the provisions of
Government Code section 25103, delivery of this
document has been made.

DARCIE ANTLE, Clerk of said Board

By: see page 2

Deputy

INSURANCE REVIEW:

By: see page 2

Risk Management

Date: _____

COUNTY COUNSEL REVIEW:

APPROVED AS TO FORM:

CHRISTIAN M. CURTIS,
County Counsel

By: see page 2

Deputy

Date: _____

EXECUTIVE OFFICE/FISCAL REVIEW:

By: see page 2

Deputy CEO

Date: _____

Signatory Authority: \$0-25,000 Department; \$25,001 - 50,000 Purchasing Agent; \$50,001+ Board of Supervisors

Exception to Bid Process Required/Completed ☒ EB 23-121

Mendocino County Business License: Valid ☐

Exempt Pursuant to MCC Section: _____

GENERAL TERMS AND CONDITIONS

1. **INDEPENDENT CONTRACTOR:** No relationship of employer and employee is created by this Agreement; it being understood and agreed that CONTRACTOR is an Independent Contractor. CONTRACTOR is not the agent or employee of the COUNTY in any capacity whatsoever, and COUNTY shall not be liable for any acts or omissions by CONTRACTOR nor for any obligations or liabilities incurred by CONTRACTOR.

CONTRACTOR shall have no claim under this Agreement or otherwise, for seniority, vacation time, vacation pay, sick leave, personal time off, overtime, health insurance medical care, hospital care, retirement benefits, social security, disability, Workers' Compensation, or unemployment insurance benefits, civil service protection, or employee benefits of any kind.

CONTRACTOR shall be solely liable for and obligated to pay directly all applicable payroll taxes (including federal and state income taxes) or contributions for unemployment insurance or old age pensions or annuities which are imposed by any governmental entity in connection with the labor used or which are measured by wages, salaries or other remuneration paid to its officers, agents or employees and agrees to indemnify and hold County harmless from any and all liability which COUNTY may incur because of CONTRACTOR's failure to pay such amounts.

In carrying out the work contemplated herein, CONTRACTOR shall comply with all applicable federal and state workers' compensation and liability laws and regulations with respect to the officers, agents and/or employees conducting and participating in the work; and agrees that such officers, agents, and/or employees will be considered as Independent Contractors and shall not be treated or considered in any way as officers, agents and/or employees of COUNTY.

CONTRACTOR does, by this Agreement, agree to perform his/her said work and functions at all times in strict accordance with all applicable federal, state and County laws, including but not limited to prevailing wage laws, ordinances, regulations, titles, departmental procedures and currently approved methods and practices in his/her field and that the sole interest of COUNTY is to ensure that said service shall be performed and rendered in a competent, efficient, timely and satisfactory manner and in accordance with the standards required by the County agency concerned.

Notwithstanding the foregoing, if the COUNTY determines that pursuant to state and federal law CONTRACTOR is an employee for purposes of income tax withholding, COUNTY may upon two (2) week's written notice to CONTRACTOR, withhold from payments to CONTRACTOR hereunder federal and state income taxes and pay said sums to the federal and state governments.

2. **INDEMNIFICATION:** To the furthest extent permitted by law (including without limitation California Civil Code sections 2782 and 2782.8, if applicable), Contractor shall assume the defense of, indemnify, and hold harmless the COUNTY, its officers, agents, and employees, from and against any and all claims, demands, damages, costs, liabilities, and losses whatsoever alleged to be occurring or resulting in connection with the CONTRACTOR'S performance or its obligations under this AGREEMENT, unless arising out of the sole negligence or willful misconduct of COUNTY. "CONTRACTOR'S performance" includes CONTRACTOR'S action or inaction and the action or inaction of CONTRACTOR'S officers, employees, agents and subcontractors.
3. **INSURANCE AND BOND:** CONTRACTOR shall at all times during the term of the Agreement with the COUNTY maintain in force those insurance policies and bonds as designated in the attached Exhibit C, and will comply with all those requirements as stated therein.
4. **WORKERS' COMPENSATION:** CONTRACTOR shall provide Workers' Compensation insurance, as applicable, at CONTRACTOR's own cost and expense and further, neither the CONTRACTOR nor its carrier shall be entitled to recover from COUNTY any costs, settlements, or expenses of Workers' Compensation claims arising out of this Agreement.

CONTRACTOR affirms that s/he is aware of the provisions of Section 3700 of the California Labor Code which requires every employer to be insured against liability for the Workers' Compensation or to undertake self-insurance in accordance with the provisions of the Code and CONTRACTOR further assures that s/he will comply with such provisions before commencing the performance of work under this Agreement. CONTRACTOR shall furnish to COUNTY certificate(s) of insurance evidencing Worker's Compensation Insurance coverage to cover its employees, and CONTRACTOR shall require all subcontractors similarly to provide Workers' Compensation Insurance as required by the Labor Code of the State of California for all of subcontractors' employees.

5. **CONFORMITY WITH LAW AND SAFETY:**
 - a. In performing services under this Agreement, CONTRACTOR shall observe and comply with all applicable laws, ordinances, codes and regulations of governmental agencies, including federal, state, municipal, and local governing bodies, having jurisdiction over the scope of services, including all applicable provisions of the California Occupational Safety and Health Act. CONTRACTOR shall indemnify and hold COUNTY harmless from any and all liability, fines, penalties and consequences from any of CONTRACTOR's failures to comply with such laws, ordinances, codes and regulations.

- b. Accidents: If a death, serious personal injury or substantial property damage occurs in connection with CONTRACTOR's performance of this Agreement, CONTRACTOR shall immediately notify Mendocino County Risk Manager's Office by telephone. CONTRACTOR shall promptly submit to COUNTY a written report, in such form as may be required by COUNTY of all accidents which occur in connection with this Agreement. This report must include the following information: (1) name and address of the injured or deceased person(s); (2) name and address of CONTRACTOR's sub-contractor, if any; (3) name and address of CONTRACTOR's liability insurance carrier; and (4) a detailed description of the accident and whether any of COUNTY's equipment, tools, material, or staff were involved.
 - c. CONTRACTOR further agrees to take all reasonable steps to preserve all physical evidence and information which may be relevant to the circumstances surrounding a potential claim, while maintaining public safety, and to grant to the COUNTY the opportunity to review and inspect such evidence, including the scene of the accident.
6. PAYMENT: For services performed in accordance with this Agreement, payment shall be made to CONTRACTOR as provided in Exhibit "B" hereto as funding permits.

If COUNTY over pays CONTRACTOR for any reason, CONTRACTOR agrees to return the amount of such overpayment to COUNTY, or at COUNTY's option, permit COUNTY to offset the amount of such overpayment against future payments owed to CONTRACTOR under this Agreement or any other agreement.

In the event CONTRACTOR claims or receives payment from COUNTY for a service, reimbursement for which is later disallowed by COUNTY, State of California or the United States Government, the CONTRACTOR shall promptly refund the disallowance amount to COUNTY upon request, or at its option COUNTY may offset the amount disallowed from any payment due or that becomes due to CONTRACTOR under this Agreement or any other agreement.

All invoices, receipts, or other requests for payment under this contract must be submitted by CONTRACTOR to COUNTY in a timely manner and consistent with the terms specified in Exhibit B. In no event shall COUNTY be obligated to pay any request for payment for which a written request for payment and all required documentation was first received more than six (6) months after this Agreement has terminated, or beyond such other time limit as may be set forth in Exhibit B.

7. TAXES: Payment of all applicable federal, state, and local taxes shall be the sole responsibility of the CONTRACTOR.

8. **OWNERSHIP OF DOCUMENTS:** CONTRACTOR hereby assigns the COUNTY and its assignees all copyright and other use rights in any and all proposals, plans, specification, designs, drawings, sketches, renderings, models, reports and related documents (including computerized or electronic copies) respecting in any way the subject matter of this Agreement, whether prepared by the COUNTY, the CONTRACTOR, the CONTRACTOR's subcontractors or third parties at the request of the CONTRACTOR (collectively, "Documents and Materials"). This explicitly includes the electronic copies of all above stated documentation.

CONTRACTOR shall be permitted to retain copies, including reproducible copies and computerized copies, of said Documents and Materials. CONTRACTOR agrees to take such further steps as may be reasonably requested by COUNTY to implement the aforesaid assignment. If for any reason said assignment is not effective, CONTRACTOR hereby grants the COUNTY and any assignee of the COUNTY an express royalty – free license to retain and use said Documents and Materials. The COUNTY's rights under this paragraph shall apply regardless of the degree of completion of the Documents and Materials and whether or not CONTRACTOR's services as set forth in Exhibit "A" of this Agreement have been fully performed or paid for.

The COUNTY's rights under this Paragraph 8 shall not extend to any computer software used to create such Documents and Materials.

9. **CONFLICT OF INTEREST:** The CONTRACTOR covenants that it presently has no interest, and shall not have any interest, direct or indirect, which would conflict in any manner with the performance of services required under this Agreement.
10. **NOTICES:** All notices, requests, demands, or other communications under this Agreement shall be in writing. Notices shall be given for all purposes as follows:

Personal delivery: When personally delivered to the recipient, notices are effective on delivery.

First Class Mail: When mailed first class to the last address of the recipient known to the party giving notice, notice is effective three (3) mail delivery days after deposit in a United States Postal Service office or mailbox. **Certified Mail:** When mailed certified mail, return receipt requested, notice is effective on receipt, if delivery is confirmed by a return receipt.

Overnight Delivery: When delivered by overnight delivery (Federal Express/Airborne/United Parcel Service/DHL WorldWide Express) with charges prepaid or charged to the sender's account, notice is effective on delivery, if delivery is confirmed by the delivery service.

Facsimile transmission: When sent by facsimile to the facsimile number of the recipient known to the party giving notice, notice is effective on receipt, provided that, (a) a duplicate copy of the notice is promptly given by first-class or certified mail or by overnight delivery, or (b) the receiving party delivers a written confirmation of receipt. Any notice given facsimile shall be deemed received on the next business day if it is received after 5:00 p.m. (recipient's time) or on a non-business day.

Addresses for purpose of giving notice are as follows:

To COUNTY: COUNTY OF MENDOCINO
851 Low Gap Road
Ukiah, CA 95482
Attn: Dan Mazzanti

To CONTRACTOR: Garland/DBS Inc.
3800 East 91st Street
Cleveland, OH 44105

ATTN: Matt Egan

Any correctly addressed notice that is refused, unclaimed, or undeliverable because of an act or omission of the party to be notified shall be deemed effective as of the first date that said notice was refused, unclaimed, or deemed undeliverable by the postal authorities, messenger, or overnight delivery service.

Any party may change its address or facsimile number by giving the other party notice of the change in any manner permitted by this Agreement.

11. USE OF COUNTY PROPERTY: CONTRACTOR shall not use County property (including equipment, instruments and supplies) or personnel for any purpose other than in the performance of his/her obligations under this Agreement.
12. EQUAL EMPLOYMENT OPPORTUNITY PRACTICES PROVISIONS: CONTRACTOR certifies that it will comply with all Federal, State, and local laws, rules and regulations pertaining to nondiscrimination in employment.
 - a. CONTRACTOR shall, in all solicitations or advertisements for applicants for employment placed as a result of this Agreement, state that it is an "Equal Opportunity Employer" or that all qualified applicants will receive consideration for employment without regard to their race, creed, color, pregnancy, disability, sex, sexual orientation, gender identity, ancestry, national origin, age, religion, Veteran's status, political affiliation, or any other factor prohibited by law.

- b. CONTRACTOR shall, if requested to so do by the COUNTY, certify that it has not, in the performance of this Agreement, engaged in any unlawful discrimination.
 - c. If requested to do so by the COUNTY, CONTRACTOR shall provide the COUNTY with access to copies of all of its records pertaining or relating to its employment practices, except to the extent such records or portions of such records are confidential or privileged under State or Federal law.
 - d. Nothing contained in this Agreement shall be construed in any manner so as to require or permit any act which is prohibited by law.
 - e. The CONTRACTOR shall include the provisions set forth in this paragraph in each of its subcontracts.
13. DRUG-FREE WORKPLACE: CONTRACTOR and CONTRACTOR's employees shall comply with the COUNTY's policy of maintaining a drug-free workplace. Neither CONTRACTOR nor CONTRACTOR's employees shall unlawfully manufacture, distribute, dispense, possess or use controlled substances, as defined in 21 U.S. Code § 812, including, but not limited to, marijuana, heroin, cocaine, and amphetamines, at any COUNTY facility or work site. If CONTRACTOR or any employee of CONTRACTOR is convicted or pleads *nolo contendere* to a criminal drug statute violation occurring at a County facility or work site, the CONTRACTOR, within five days thereafter, shall notify the head of the County department/agency for which the contract services are performed. Violation of this provision shall constitute a material breach of this Agreement.
14. ENERGY CONSERVATION: CONTRACTOR agrees to comply with the mandatory standards and policies relating to energy efficiency in the State of California Energy Conservation Plan, (Title 24, California Administrative Code).
15. COMPLIANCE WITH LICENSING REQUIREMENTS: CONTRACTOR shall comply with all necessary licensing requirements and shall obtain appropriate licenses. To the extent required by law, CONTRACTOR shall display licenses in a location that is reasonably conspicuous. Upon COUNTY's request, CONTRACTOR shall file copies of same with the County Executive Office.

CONTRACTOR represents and warrants to COUNTY that CONTRACTOR and its employees, agents, and any subcontractors have all licenses, permits, qualifications, and approvals of whatsoever nature that are legally required to practice their respective professions.

16. AUDITS; ACCESS TO RECORDS: The CONTRACTOR shall make available to the COUNTY, its authorized agents, officers, or employees, for examination any and all ledgers, books of accounts, invoices, vouchers, cancelled checks, and

other records or documents evidencing or relating to the expenditures and disbursements charged to the COUNTY, and shall furnish to the COUNTY, within sixty (60) days after examination, its authorized agents, officers or employees such other evidence or information as the COUNTY may require with regard to any such expenditure or disbursement charged by the CONTRACTOR.

The CONTRACTOR shall maintain full and adequate records in accordance with County requirements to show the actual costs incurred by the CONTRACTOR in the performance of this Agreement. If such books and records are not kept and maintained by CONTRACTOR within the County of Mendocino, California, CONTRACTOR shall, upon request of the COUNTY, make such books and records available to the COUNTY for inspection at a location within County or CONTRACTOR shall pay to the COUNTY the reasonable, and necessary costs incurred by the COUNTY in inspecting CONTRACTOR's books and records, including, but not limited to, travel, lodging and subsistence costs. CONTRACTOR shall provide such assistance as may be reasonably required in the course of such inspection. The COUNTY further reserves the right to examine and reexamine said books, records and data during the four (4) year period following termination of this Agreement or completion of all work hereunder, as evidenced in writing by the COUNTY, and the CONTRACTOR shall in no event dispose of, destroy, alter, or mutilate said books, records, accounts, and data in any manner whatsoever for four (4) years after the COUNTY makes the final or last payment or within four (4) years after any pending issues between the COUNTY and CONTRACTOR with respect to this Agreement are closed, whichever is later.

17. **DOCUMENTS AND MATERIALS:** CONTRACTOR shall maintain and make available to COUNTY for its inspection and use during the term of this Agreement, all Documents and Materials, as defined in Paragraph 8 of this Agreement. CONTRACTOR's obligations under the preceding sentence shall continue for four (4) years following termination or expiration of this Agreement or the completion of all work hereunder (as evidenced in writing by COUNTY), and CONTRACTOR shall in no event dispose of, destroy, alter or mutilate said Documents and Materials, for four (4) years following the COUNTY's last payment to CONTRACTOR under this Agreement.
18. **TIME OF ESSENCE:** Time is of the essence in respect to all provisions of this Agreement that specify a time for performance; provided, however, that the foregoing shall not be construed to limit or deprive a party of the benefits of any grace or use period allowed in this Agreement.
19. **TERMINATION:** The COUNTY has and reserves the right to suspend, terminate or abandon the execution of any work by the CONTRACTOR without cause at any time upon giving to the CONTRACTOR notice. Such notice shall be in writing and may be issued by any county officer authorized to execute or amend the contract, the County Chief Executive Officer, or any other person designated by the County Board of Supervisors. In the event that the COUNTY should

abandon, terminate or suspend the CONTRACTOR's work, the CONTRACTOR shall be entitled to payment for services provided hereunder prior to the effective date of said suspension, termination or abandonment. Said payment shall be computed in accordance with Exhibit B hereto, provided that the maximum amount payable to CONTRACTOR for its services to remove and replace the roofing at the 390 North Bush Street, Ukiah, CA 95482 as defined in Exhibit A shall not exceed \$399,864.00 payment for services provided hereunder prior to the effective date of said suspension, termination or abandonment or lack of funding.

20. NON APPROPRIATION: If COUNTY should not appropriate or otherwise make available funds sufficient to purchase, lease, operate or maintain the products set forth in this Agreement, or other means of performing the same functions of such products, COUNTY may unilaterally terminate this Agreement only upon thirty (30) days written notice to CONTRACTOR. Upon termination, COUNTY shall remit payment for all products and services delivered to COUNTY and all expenses incurred by CONTRACTOR prior to CONTRACTOR'S receipt of the termination notice.
21. CHOICE OF LAW: This Agreement, and any dispute arising from the relationship between the parties to this Agreement, shall be governed by the laws of the State of California, excluding any laws that direct the application of another jurisdiction's laws.
22. VENUE: All lawsuits relating to this contract must be filed in Mendocino County Superior Court, Mendocino County, California.
23. WAIVER: No waiver of a breach, failure of any condition, or any right or remedy contained in or granted by the provisions of this Agreement shall be effective unless it is in writing and signed by the party waiving the breach, failure, right or remedy. No waiver of any breach, failure, right or remedy shall be deemed a waiver of any other breach, failure, right or remedy, whether or not similar, nor shall any waiver constitute a continuing waiver unless the writing so specifies.
24. ADVERTISING OR PUBLICITY: CONTRACTOR shall not use the name of County, its officers, directors, employees or agents, in advertising or publicity releases or otherwise without securing the prior written consent of COUNTY in each instance.
25. ENTIRE AGREEMENT: This Agreement, including all attachments, exhibits, and any other documents specifically incorporated into this Agreement, shall constitute the entire agreement between COUNTY and CONTRACTOR relating to the subject matter of this Agreement. As used herein, Agreement refers to and includes any documents incorporated herein by reference and any exhibits or attachments. This Agreement supersedes and merges all previous understandings, and all other agreements, written or oral, between the parties

and sets forth the entire understanding of the parties regarding the subject matter thereof. This Agreement may not be modified except by a written document signed by both parties. In the event of a conflict between the body of this Agreement and any of the Exhibits, the provisions in the body of this Agreement shall control.

26. HEADINGS: Herein are for convenience of reference only and shall in no way affect interpretation of this Agreement.
27. MODIFICATION OF AGREEMENT: This Agreement may be supplemented, amended or modified only by the mutual agreement of the parties. No supplement, amendment or modification of this Agreement shall be binding unless it is in writing and signed by authorized representatives of both parties.
28. ASSURANCE OF PERFORMANCE: If at any time the COUNTY has good objective cause to believe CONTRACTOR may not be adequately performing its obligations under this Agreement or that CONTRACTOR may fail to complete the Services as required by this Agreement, COUNTY may request from CONTRACTOR prompt written assurances of performance and a written plan acceptable to COUNTY, to correct the observed deficiencies in CONTRACTOR's performance. CONTRACTOR shall provide such written assurances and written plan within thirty (30) calendar days of its receipt of COUNTY's request and shall thereafter diligently commence and fully perform such written plan. CONTRACTOR acknowledges and agrees that any failure to provide such written assurances and written plan within the required time is a material breach under this Agreement.
29. SUBCONTRACTING/ASSIGNMENT: CONTRACTOR shall not subcontract, assign or delegate any portion of this Agreement or any duties or obligations hereunder without the COUNTY's prior written approval.
 - a. Neither party shall, on the basis of this Agreement, contract on behalf of or in the name of the other party. Any agreement that violates this Section shall confer no rights on any party and shall be null and void.
 - b. Only the department head or his or her designee shall have the authority to approve subcontractor(s).
 - c. CONTRACTOR shall remain fully responsible for compliance by its subcontractors with all the terms of this Agreement, regardless of the terms of any agreement between CONTRACTOR and its subcontractors.
30. SURVIVAL: The obligations of this Agreement, which by their nature would continue beyond the termination on expiration of the Agreement, including without limitation, the obligations regarding Indemnification (Paragraph 2),

Ownership of Documents (Paragraph 8), and Conflict of Interest (Paragraph 9), shall survive termination or expiration for two (2) years.

31. SEVERABILITY: If a court of competent jurisdiction holds any provision of this Agreement to be illegal, unenforceable, or invalid in whole or in part for any reason, the validity and enforceability of the remaining provisions, or portions of them, will not be affected, unless an essential purpose of this Agreement would be defeated by the loss of the illegal, unenforceable, or invalid provision.
32. INTELLECTUAL PROPERTY WARRANTY: CONTRACTOR warrants and represents that it has secured all rights and licenses necessary for any and all materials, services, processes, software, or hardware ("CONTRACTOR PRODUCTS") to be provided by CONTRACTOR in the performance of this AGREEMENT, including but not limited to any copyright, trademark, patent, trade secret, or right of publicity rights. CONTRACTOR hereby grants to COUNTY, or represents that it has secured from third parties, an irrevocable license (or sublicense) to reproduce, distribute, perform, display, prepare derivative works, make, use, sell, import, use in commerce, or otherwise utilize CONTRACTOR PRODUCTS to the extent reasonably necessary to use the CONTRACTOR PRODUCTS in the manner contemplated by this agreement.

CONTRACTOR further warrants and represents that it knows of no allegations, claims, or threatened claims that the CONTRACTOR PRODUCTS provided to COUNTY under this Agreement infringe any patent, copyright, trademark or other proprietary right. In the event that any third party asserts a claim of infringement against the COUNTY relating to a CONTRACTOR PRODUCT, CONTRACTOR shall indemnify and defend the COUNTY pursuant to Paragraph 2 of this AGREEMENT.

In the case of any such claim of infringement, CONTRACTOR shall either, at its option, (1) procure for COUNTY the right to continue using the CONTRACTOR Products; or (2) replace or modify the CONTRACTOR Products so that that they become non-infringing, but equivalent in functionality and performance.

33. ELECTRONIC COPIES:

The parties agree that an electronic copy, including facsimile copy, email, or scanned copy of the executed Agreement, shall be deemed, and shall have the same legal force and effect as, an original document.

34. COOPERATION WITH COUNTY

Contractor shall cooperate with County and County staff in the performance of all work hereunder.

35. PERFORMANCE STANDARD

Contractor shall perform all work hereunder in a manner consistent with the level of competency and standard of care normally observed by a person practicing in Contractor's profession. County has relied upon the professional ability and training of Contractor as a material inducement to enter into this Agreement. Contractor hereby agrees to provide all services under this Agreement in accordance with generally accepted professional practices and standards of care, as well as the requirements of applicable Federal, State, and local laws, it being understood that acceptance of Contractor's work by County shall not operate as a waiver or release. If County determines that any of Contractor's work is not in accordance with such level of competency and standard of care, County, in its sole discretion, shall have the right to do any or all of the following: (a) require Contractor to meet with County to review the quality of the work and resolve matters of concern; (b) require Contractor to repeat the work at no additional charge until it is satisfactory; (c) terminate this Agreement pursuant to the provisions of paragraph 19 (Termination) or (d) pursue any and all other remedies at law or in equity.

36. ATTORNEYS' FEES

In any action to enforce or interpret the terms of this agreement, including but not limited to any action for declaratory relief, each party shall be solely responsible for and bear its own attorneys' fees, regardless of which party prevails.

[END OF GENERAL TERMS AND CONDITIONS]

EXHIBIT A

DEFINITION OF SERVICES

CONTRACTOR shall provide the following services: Remove and replace Roofing at 890 North Bush Street, Ukiah, CA as per the attached Proposal #: 25-CA-230691, Project plans titled "COUNTY OF MENDOCINO, AGRICULTURE & FARM ADVISOR ROOF REPLACEMENT" dated 04/23/2023, Roof Vent Plan, and Specifications referenced and included herein including:

- Exhibit F:
 - Roofing Material and Services Proposal #: 25-CA-230691 Dated: 07/05/2023
- Exhibit G:
 - Specification Section 07311 Composition Shingles
 - Specification Section 07550 Modified Bituminous Membrane Roofing
 - Specification Section 07610 Sheet Metal Flashing & Trim
- Exhibit H:
 - Drawing Sheet R0 - Cover
 - Drawing Sheet R1 - Roof Plan
 - Drawing Sheet R2 - Details
 - Drawing Sheet R3 - Details
 - Drawing Sheet R4 - Details
 - Roof Vent Plan and Details

[END OF DEFINITION OF SERVICES]

EXHIBIT B

PAYMENT TERMS

COUNTY will pay CONTRACTOR for the services described in this Agreement the amount of Three Hundred Ninety-Nine Eight Hundred Sixty-Four Dollars and No Cents (\$399,864.00). The contract payments shall be made upon receipt of an approved invoice. The COUNTY will approve progress invoices for projects lasting more than 28 calendar days for work completed prior to the invoice date based on the percentage completion of an approved schedule of values. Final invoices will be approved after all work has been completed and all required certified payroll reports, lien releases, manuals, training, as-build drawings and warranties have been received by the COUNTY.

[END OF PAYMENT TERMS]

EXHIBIT C

INSURANCE REQUIREMENTS

Insurance coverage in a minimum amount set forth herein shall not be construed to relieve CONTRACTOR for liability in excess of such coverage, nor shall it preclude COUNTY from taking such other action as is available to it under any other provisions of this Agreement or otherwise in law. Insurance requirements shall be in addition to, and not in lieu of, Contractor's indemnity obligations under Paragraph 2 of this Agreement.

CONTRACTOR shall obtain and maintain insurance coverage as follows:

- a. Combined single limit bodily injury liability and property damage liability - \$1,000,000 each occurrence.
- b. Vehicle / Bodily Injury combined single limit vehicle bodily injury and property damage liability - \$500,000 each occurrence.

CONTRACTOR shall furnish to COUNTY certificates of insurance evidencing the minimum levels described above.

[END OF INSURANCE REQUIREMENTS]

EXHIBIT D

MENDOCINO COUNTY EPAYABLES INFORMATION

The County of Mendocino is currently making credit card payments to all of our vendors and suppliers who qualify. To qualify, vendors need to currently accept credit card payments. To achieve this more efficient form of payment, the County has partnered with Bank of America and their ePayables credit card program. This electronic initiative will yield many benefits to its participants:

- Expedited receipt of cash – electronic credit card payments provide cash flow benefits by eliminating mail and paper check float
- Elimination of check processing costs
- Remittance data transmitted with payment for more efficient back-end reconciliation
- No collection costs associated with lost or misplaced checks
- Reduced exposure to check fraud
- More efficient handling of exception items
- Fits with existing accounting software – requires no purchase of software, no modifications to existing accounts receivable system and no change to bank accounts.
- Going green with paperless electronic credit card payments help conserve the environment by eliminating printing and mailing of paper checks.

For information regarding the payment process, please email Auditorap@mendocinocounty.org.

Additional information regarding the Bank of America Program is also available at:

http://corp.bankofamerica.com/business/ci/landing/epayables-vendors?cm_mmc=sb-general_-vanity_-sg01vn000r_epayablesvendors_-na

EXHIBIT E

PUBLIC PROJECT PROVISION

CONTRACTOR shall additionally comply with the following provisions in carrying out this AGREEMENT.

1. COMPLIANCE WITH COUNTY POLICIES: The CONTRACTOR shall comply with the various policies regarding the preservation of our natural resources which may impose specific requirements on the CONTRACTOR.
 - a. The Storm Water Management Program includes specific requirements for grading and construction projects within the County including the implementation of Best Management Practices (BMP) to prevent the discharge of construction waste, debris, sediment, or contamination from entering the storm drainage system or natural waterways. For more information, refer to the following web page of the County Department of Planning and Building Services:
<https://www.mendocinocounty.org/government/planning-building-services/stormwater/>
 - b. The CONTRACTOR shall be responsible for purchasing products that minimize environmental impacts, toxics, pollution, hazards to workers, and community safety to the greatest extent practicable. The CONTRACTOR shall also be responsible for the purchasing of products that include recycled content, are durable and long-lasting, conserve energy and water, use agricultural fibers and residues, reduce greenhouse gas emissions, use unbleached or chlorine free manufacturing processes, and are lead-free and mercury-free.
 - c. Waste Stream Reduction goals include programs to maximize the salvage and recycling of demolition and construction debris and document waste stream diversion. For more information refer to the Construction and Demolition Forms handout on the following web page of the County Department of Planning and Building Services:
<https://www.mendocinocounty.org/government/planning-building-services/forms-and-handouts/>
2. MSDS SHEETS: The CONTRACTOR must present to the COUNTY all Material Safety Data Sheets for all materials used in all phases of the project prior to beginning work. No materials, other than those that have MSDS sheets, shall be permitted on the COUNTY premises.
3. PAYMENT OF PREVAILING WAGES: Pursuant to the provisions of the Labor Code of the State of California, the Department of Industrial Relations has made

a determination of the rate of per diem wages to be paid on the prevailing rate of pay for regular, holiday and overtime work in the locality in which the public work is to be performed, for each craft, classification, or type of workman needed to execute the contract. All County of Mendocino projects greater than \$1,000 require that contractors adhere to Prevailing Wage requirements (California Labor Code, Sections 1770 through 1775). The rates can be found online here: <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>.

4. **CERTIFIED PAYROLL RECORDS:** Pursuant to Labor Code Section 1776, the CONTRACTOR and any or all subcontractors shall keep accurate payroll records. A certified copy of all payroll records for work performed under this contract shall be furnished upon request to a representative of the awarding body. Pursuant to Senate Bill 854 (Stats. 2014, chapter 28), the CONTRACTOR and subcontractors are required to furnish certified payroll reports directly to the Department of Industrial Relations.
5. **EMPLOYMENT OF APPRENTICES:** The CONTRACTOR and subcontractor performing work in an apprentice-able craft or trade shall comply with Section 1777.5 relating to Apprentices on public works projects.
6. **LABOR CODE SECTION 1771.1(a).** The CONTRACTOR, on behalf of itself and all subcontractors performing work under this agreement, certifies that it is aware of the requirements of Labor Code Section 1771.1(a), which is restated below, and has provided proof of the CONTRACTOR and all subcontractors' current registration to perform public work pursuant to Labor Code Section 1725.5.

A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.

7. This project is subject to compliance monitoring and enforcement by the California Department of Industrial Relations.
8. **BONDING:** Any contractor awarded a public works contract in excess of twenty-five thousand dollars (\$25,000) shall provide approved payment and performance bonds to the county before commencement of work.



Garland/DBS, Inc.
3800 East 91st Street
Cleveland, OH 44105
Phone: (800) 762-8225
Fax: (216) 883-2055



ROOFING MATERIAL AND SERVICES PROPOSAL

County of Mendocino
Agriculture & Farm Advisor
890 N. Bush Street
Ukiah, CA 95482

Date Submitted: 07/05/2023
Proposal #: 25-CA-230691
MICPA # PW1925

California General Contractor License #: 949380

Purchase orders to be made out to: Garland/DBS, Inc.

Please Note: The following budget/estimate is being provided according to the pricing established under the Master Intergovernmental Cooperative Purchasing Agreement (MICPA) with Racine County, WI and OMNIA Partners, Public Sector (U.S. Communities). Garland/DBS, Inc. administered an informal competitive process for obtaining quotes for the project with the hopes of providing a lower market-adjusted price whenever possible.

Scope of Work: Base Bid

Shingles:

1. Full removal and disposal of existing roofing materials.
2. Locate and repair/replace all areas of damaged substrate. Paint to match exposed conditions.
3. Install 1/2" of CDX sheathing, mechanically attached to the deck per fastening manufacturer. Install ONLY where Skip or plank sheathing exists.
4. Installation of R-Mer Seal Underlayment, per data sheet.
5. Cut rafter tails, install New 2X6" DF, Primed and Painted, fascia where gutter installed.
6. Remove and replace all sheet metal penetrations, painted with epoxy. Install water diverter above curbs that are greater or equal to 18".
7. Install new sloped Kynar 22 gauge gutters to match the existing profile and new 3"x4" downspouts. All per SMACNA. Install metal nosing, Expansion joint and all associated details with Kynar Metal.
8. Install new gutter screen where gutters are installed, GreenScreen Coated Screen, or equal.
9. Install (56) O'Hagin Standard 26 Gauge, G-90 Galvanized Steel Low Profile vents as indicated on the Calculation sheet provided by the manufacturer, all set in Garla-flex, then sealed around the perimeter with an additional layer of R-Mer Seal Underlayment.

EXHIBIT F

10. Install new composition shingles per the manufacturer's specifications.

Low Slope and BUR Sections:

1. Tear off existing roof systems down to the deck. Replace damaged decking s needed.
2. Mechanically fasten polyisocyanurate insulation in sloped areas from 0 to 2" at 1/4" per 12" for 8'. No Ponding water will be accepted.
3. Install 1/4" Densdeck prime in bonding adhesive.
4. All vertical transitions to have cant strip.
5. All BUR to Shingle locations to be installed a minimum of 2' up the slope of the asphalt shingle roof, shingled with a layer of R-Mer Seal underlayment.
6. Install New Scupper at the existing locations, and increase scupper size to a minimum 4".
7. Install one ply 80 mil heavy-duty modified base sheet membrane in specified Green-Lock Adhesive.
8. Install in one ply of Stressply FR Min cap sheet in Green-lock Adhesive.
9. Install 2-ply of Modified BUR system in flashing Adhesive, extending on to the roof field a minimum of 8".
10. On Roof Sections B2 & B3 of the plans Install a flood coat on the roof sections with one layer of Weather Screen at a rate of 4 gal./sq., and disperse minerals in the flood coat to match adjacent shingles.
11. On Roof Sections B1, install (2) coats of Pyramic Plus LO at a rate of 1 gal./sq per coat.
12. Install termination bar and counter flashing 8" above the completed roof system.
13. Install 22-ga. Kynar coater coping cap on parapet wall with proper saddle detail at wall conditions.
14. Clean up, etc.

Base Bid:

Proposal Price Based Upon Market Experience:	\$ 399,864
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Garland/DBS Price Based Upon Local Market Competition:

San Francisco Roofing Services, Inc.	\$ 399,864
Westech Roofing	\$ 548,438
Western Roofing Service	Declined to Bid

Cost Breakdown - Base Bid:

Labor & Non Garland Materials (San Francisco Roofing Services):	\$ 262,000
Garland Materials:	\$ 67,421
Freight:	\$ 7,000
Insurance:	\$ 3,030
Bonds:	\$ 4,416
California Material Use Tax (8.75%)	\$ 5,899
<u>*General Conditions:</u>	<u>\$ 50,098</u>
TOTAL:	\$ 399,864

***General Conditions include: Engineering and Overhead & Profit**

EXHIBIT F

Potential issues that could arise during the construction phase of the project will be addressed via unit pricing for additional work beyond the scope of the specifications. This could range anywhere from wet insulation, to the replacement of deteriorated wood nailers.

Please Note – The construction industry is experiencing unprecedented global pricing and availability pressures for many key building components. Specifically, the roofing industry is currently experiencing long lead times and significant price increases with roofing insulation and roofing fasteners. Therefore, this proposal can only be held for 90 days. DBS greatly values your business, and we are working diligently with our long-term suppliers to minimize price increases and project delays which could effect your project. Thank you for your understanding and cooperation.

Clarifications/Exclusions:

1. Permit Fees are excluded.
2. Plumbing, Mechanical, Electrical work is excluded.
3. Masonry work is excluded.
4. Interior Temporary protection is excluded.
5. Any work not exclusively described in the above proposal scope of work is excluded.

If you have any questions regarding this proposal, please do not hesitate to call me at my number listed below.

Respectfully Submitted,

Matt Egan

Matt Egan
Garland/DBS, Inc.
(216) 430-3662

EXHIBIT G

SECTION 07311 COMPOSITION SHINGLES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Provide all labor, equipment, and materials to install a composition shingle roof system over the properly prepared substrate. The scope of work includes but is not limited to:
 - 1. Full removal and disposal of existing roofing materials.
 - 2. Locate and repair/replace all areas of damaged substrate. Paint to match exposed conditions.
 - 3. Install 1/2" of CDX sheathing, mechanically attached to the deck per fastening manufacturer. Install ONLY where Skip or plank sheathing exists.
 - 4. Installation of R-Mer Seal Underlayment, per data sheet.
 - 5. Cut rafter tails, install New 2X6" DF, Primed and Painted, fascia where gutter installed.
 - 6. Remove and replace all sheet metal penetrations, painted with epoxy. Install water diverter above curbs that are greater or equal to 18".
 - 7. Install new sloped 3" base Kynar 22 gauge gutters to match the existing profile and new 3"x4" downspouts, CONTRACTOR TO PROVIDE CONTINUOUS FORMED GUTTER FROM COIL All per SMACNA. Install metal nosing, Expansion joint, and all associated details with Kynar Metal.
 - 8. Install new gutter screen where gutters are installed, GreenScreen Coated Screen, or equal.
 - 9. Install (56) O'Hagin Standard 26 Gauge, G-90 Galvanized Steel Low Profile vents as indicated on the Calculation sheet provided by the manufacturer, all set in Garla-flex, then sealed around the perimeter with an additional layer of R-Mer Seal Underlayment.
 - 10. Install new composition shingles per the manufacturer's specifications.

1.2 RELATED SECTION

- A. Section 06 5100 ROUGH CARPENTRY
- B. Section 07550 MODIFIED BITUMINOUS MEMBRANE ROOFING
- C. Section 07 6100 SHEET METAL FLASHING AND TRIM

1.3 REFERENCES

- A. ASTM B209 - Aluminum-Alloy Sheet and Plate
- B. ASTM D226 - Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
- C. ASTM D228 - Method of Testing Asphalt Roll Roofing, Cap Sheets and Shingles.
- D. ASTM D4586 - Asphalt Roof Cement, Asbestos Free.
- E. ASTM D3161 - Wind Resistance of Asphalt Shingles
- F. ASTM D3018 - Class A Asphalt Shingles Surfaced with Mineral Granules.
- G. ASTM A361 - Sheet Steel, Zinc Coated (Galvanized) by the Hot-Dip Process for Roofing and Siding.
- H. ASTM B370 - Copper Sheet and Strip for Building Construction.

EXHIBIT G

- I. NRCA - Steep Roofing Manual.
- J. ARMA - Residential Asphalt Roofing Manual.
- K. UL 790 - Tests for Fire Resistance of Roof Covering Materials.
- L. UL 997 - Wind Resistance of Prepared Roof Covering Materials.

1.4 SYSTEM DESCRIPTION

- A. It is the intent of this specification to install a long-term, quality roof system that meets or exceeds all current NRCA guidelines as stated in the most recent edition of the NRCA Roofing and Waterproofing Manual. Please discuss any concerns with the Architect and Roofing System Manufacturer.

1.5 SUBMITTALS

- A. Submit under provisions of Section 07311.
- B. Product Data: Provide manufacturer's technical product data for each type of roofing product specified. Include data substantiating that materials comply with specified requirements.
- C. Samples: Submit two (2) samples of each product specified.
- D. Manufacturer's Installation Instructions: Submit installation instructions and recommendations indicating special precautions required.
- E. Submit one color board for color approval from the Owner.
- F. Submit a copy of an unexecuted manufacturer's warranty for review.

1.6 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing the products specified in this section with minimum 12 years documented experience.
- B. Installer: Company specializing in steep slope roofing installation with a minimum 5 years experience and authorized by roofing system manufacturer as qualified to install manufacturer's roofing materials.
- C. Installer's Field Supervision: Maintain a full-time Supervisor/Foreman on job site during all phases of roofing work and at any time roofing work is in progress. Maintain proper supervision of workmen. Maintain a copy of the specifications in the possession of the Supervisor/Foremen and on the roof at all times.
- D. Immediately correct roof leakage during construction. If the Contractor does not respond within twenty four (24) hours, the Owner has the right to hire a qualified contractor and back charge the original contractor.

1.7 PRE-INSTALLATION CONFERENCE

- A. Pre-Roofing Conference: Convene a pre-roofing conference approximately two (2) weeks before scheduled commencement of roofing system installation and associated work.

EXHIBIT G

- B. Require attendance of installer of each component of associated work, installers of deck or substrate construction to receive roofing work, installers of rooftop units and other work in and around roofing which must precede or follow roofing work (including mechanical work if any), Owner, roofing system manufacturer's representative.
- C. Objectives of conference to include:
 - 1. Review foreseeable methods and procedures related to roofing work.
 - 2. Tour representative areas of roofing substrates (decks), inspect and discuss condition of substrate, roof drains, curbs, penetrations and other preparatory work performed by others.
 - 3. Review roofing system requirements (drawings, specifications and other contract documents).
 - 4. Review and finalize construction schedule related to roofing work and verify availability of materials, installer's personnel, equipment and facilities needed to make progress and avoid delays.
 - 5. Review weather and forecasted weather conditions and procedures for coping with unfavorable conditions, including possibility of temporary roofing (if not mandatory requirement).

1.8 DELIVERY, STORAGE AND HANDLING

- A. Deliver products to site with seals and labels intact, in manufacturer's original containers, dry and undamaged.
- B. Store and handle roofing in a dry, well-ventilated, weather-tight place to ensure no possibility of significant moisture exposure. Store rolls of felt and other sheet materials on pallets or other raised surface. Stand all roll materials on end. Cover roll goods with a canvas tarpaulin or other breathable material (not polyethylene).
- C. Do not leave unused materials on the roof overnight or when roofing work is not in progress unless protected from weather and other moisture sources.
- D. It is the responsibility of the contractor to secure all material and equipment on the job site. If any material or equipment is stored on the roof, the contractor must make sure that the integrity of the deck is not compromised at any time. Damage to the deck caused by the contractor will be the sole responsibility of the contractor and will be repaired or replaced at his expense.

1.9 MANUFACTURER'S INSPECTIONS

- A. When the project is in progress, the roofing system manufacturer will provide the following at no charge:
 - 1. Keep the Owner informed as to the progress and quality of the work as observed.
 - 2. Provide job site inspections a minimum of two days a week with photo conformation and reported to the owner.
 - 3. Report to the Owner in writing any failure or refusal of the Contractor to correct unacceptable practices called to the Contractor's attention.

EXHIBIT G

4. Confirm after completion that manufacturer has observed no applications procedures in conflict with the specifications other than those that may have been previously reported and corrected.

1.10 PROJECT CONDITIONS

- A. Proceed with roofing work only when existing and forecasted weather conditions will permit unit of work to be installed in accordance with manufacturer's recommendations and warranty requirements.
- B. Do not apply roofing materials or membrane to damp deck surface.
- C. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed during same day.
- D. Nailing requirements of composition shingles must conform to all applicable local codes.

1.11 SEQUENCING AND SCHEDULING

- A. Sequence installation of composition roofing with related units of work specified in other sections to ensure that roof assemblies including roof accessories, flashing, trim and joint sealers are protected against damage from effects of weather, corrosion and adjacent construction activity.
- B. Every stage of progress completed must be inspected by owner or owner's representative prior to moving forward to next stage of the installation.

1.12 WARRANTY

- A. Upon completion of roof installation, and acceptance Manufacturer will supply to the Owner a manufacturer's composition shingle warranty.
- B. Contractor will submit a minimum of a two-year workmanship warranty to the Owner with a copy directly to the membrane manufacturer.

1.13 PRODUCT OPTIONS AND SUBSTITUTIONS

- A. Any item or materials submitted as a substitution to the manufacturer specified must comply in all respects as to the quality and performance of the brand name specified. The Owner shall be the sole judge as to whether or not an item submitted as a substitute is truly equal. All items as listed under section 07311 1.5 submittals must be presented to the district a minimum of (10) days prior to the bid date for review.

PART 2 PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. When a particular trade name or performance standard is specified it shall be indicative of a standard required.
- B. Provide products as manufactured by

EXHIBIT G

- Underlayment: High Temp Self-Healing 45 mil. Underlayment by The Garland Company –R-Mer Seal.
- dimensional shingle
 - GAF HDZ
 - Certaineed Landmark Pro
 - Malarkey
 - Or Equal

2.2 DESCRIPTION

- A. Asphalt Shingles: UL Class A Rating and Wind Resistance Label, glass fiber mat base, mineral surface, color selected by Owner.

2.3 SHEET MATERIALS

- A. Underlayment: R-Mer Seal by The Garland Company, Inc.

2.4 RELATED MATERIALS

- A. Nails: Standard round wire shingle type, Zinc coated steel, 10-12 gauge, barbed or deformed shank, with heads 3/8" to 7/16" in diameter. Nails must be long enough to penetrate into solid wood deck at least 3/4" or just through plywood and oriented strand board decks.
- B. Plastic Cement: ASTM D4586 Type I or Type II. Flashing Bond by The Garland Co.
- C. New, non-corrosive, metal step flashing, minimum 24 gauge (or equivalent) to be used as step flashing around chimneys, dormers, and side walls.
- D. New four pound lead roof jacks with factory tops to be used around all plumbing vents. Paint all pipes when completed.
- E. Urethane Sealant: One part, non-sag sealant as recommended and furnished by the membrane manufacturer for moving joints. Tuff Stuff by The Garland Company.
- | | | |
|----|-------------------------------|---------|
| 1. | Tensile Strength (ASTM D412) | 250 psi |
| 2. | Elongation (ASM D412) | 950% |
| 3. | Hardness, Shore A (ASTM C920) | 35 |
| 4. | Adhesion-in-Peel (ASTM C920) | 30 pli |

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that deck surfaces and project conditions are ready to receive work of this section.
- B. Verify that deck is supported and secured to structural members.
- C. Verify that deck is clean and smooth, free of depressions, projections or ripples, and is properly sloped to drains.
- D. Verify that adjacent roof members do not vary more than 1/4 inch in height.
- E. Verify that deck surfaces are clean and dry.

EXHIBIT G

3.2 GENERAL INSTALLATION REQUIREMENTS

- A. Place one ply of underlayment as manufactured by The Garland Company and have ends lapped a minimum of 4 inches over itself. Stagger end laps of each consecutive layer a minimum of 3 feet. In valleys, run Underlayment minimum of 6 inches over valley protection. Nail in place per manufacturer's requirements.
- B. At all vent pipes, install a 2-square-foot piece of underlayment.
- C. At all vertical walls, install underlayment so that it extends at least 6 inches up the vertical wall and 12 inches onto the horizontal roof.
- D. At all chimneys, install underlayment around the entire chimney extending up all vertical surfaces at least 6 inches and 12 inches onto the horizontal roof.
- E. Install shingles in accordance with the manufacturer's instructions.
- F. Install 6 nails per shingle, as recommended by local building codes. Staples are not acceptable.
- G. Install Hip and Ridge shingles per manufacturer's instructions.

3.3 FIELD QUALITY CONTROL

- A. Perform field inspection and testing as required under provisions of Section 07311.
- B. Correct defects or irregularities discovered during field inspection.
- C. Require attendance of roofing materials manufacturers' representative at site during installation of the roofing system.

3.4 CLEANING

- A. In areas where finished surfaces are soiled by asphalt or any other sources of soiling caused by work of this section, consult manufacturer of surfaces for cleaning instructions and conform to their instructions.
- B. Repair or replace defaced or disfigured finishes caused by work of this section.
- C. Perform daily cleanup around building. Magnet on wheels to be used to pick up all metal shavings, staples, nails, etc.

3.5 FINAL INSPECTION

- A. At completion of roofing installation and associated work, meet with Contractor, installer, installer of associated work, Owner, roofing system manufacturer's representative and other representatives directly concerned with performance of roofing system.
- B. Walk roof surface areas of the building, inspect perimeter building edges as well as flashing of roof penetrations, walls, curbs and other equipment. List all items requiring correction or completion and furnish copy of list to each party in attendance.

EXHIBIT G

- C. Repair or replace deteriorated or defective work found at time above inspection as required to produce an installation which is free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
- D. Notify the material manufacturer and the district upon completion of corrections.
- E. Following the final inspection, provide written notice of acceptance of the installation from the roofing system manufacturer.

END OF SECTION

EXHIBIT G

SECTION 07550 MODIFIED BITUMINOUS MEMBRANE ROOFING

PART 1 GENERAL

1.1 SCOPE OF WORK

- A. Provide all labor, equipment and materials to install modified bitumen roof system over the properly prepared substrate. The scope of work includes but is not limited to reroofing buildings for County of Mendocino:
 - 1. Tear off existing roof systems down to the wood deck. Replace damaged wood decking as needed.
 - 2.
 - 3. Mechanically fasten polyisocyanurate insulation in sloped areas from 0 to 2" at 1/4" per 12" for 8'.
 - 4. Install 1/4" Densdeck prime in bonding adhesive.
 - 5. Install new through wall metal scupper to match drainage calculation.
 - 6. Install one ply 80 mil heavy duty modified base sheet membrane in specified cold process adhesive.
 - 7. Install in 2 ply SBS & SBS/SIS modified flashing system on all curbs in specified cold adhesive.
 - 8. Install in 1 ply of specified 145mil mineral surface SBS/SIS modified cap sheet in specified cold adhesive.
 - 9. Apply 2 coats @ 1.5 gals per/sq of specified white "Cool Roof", Pyramic coating per Title 24 requirements.
 - 10. Install termination bar and counter flashing 8" above completed roof system.
 - 11. Install coping cap on parapet wall with proper saddle detail at wall.
 - 12. Clean up, etc.

1.2 RELATED SECTIONS

- A. Section 06 5100 ROUGH CARPENTRY
- B. Section 07311 COMPOSITION SHINGLES
- C. Section 07 6100 SHEET METAL FLASHING AND TRIM

1.3 REFERENCES

- A. ASTM D 41 - Standard Specification for Asphalt Primer Used in Roofing, Dampproofing, and Waterproofing.
- B. ASTM D 312 - Standard Specification for Asphalt used in Roofing.
- C. ASTM D 451 - Standard Test Method for Sieve Analysis of Granular Mineral Surfacing for Asphalt Roofing Products.
- D. ASTM D 1079 Standard Terminology Relating to Roofing, Waterproofing and Bituminous Materials.
- E. ASTM D 2178 Standard Specification for Asphalt Glass Felt Used as a Protective Coating for Roofing.

EXHIBIT G

- F. ASTM D 2822 Standard Specification for Asphalt Roof Cement.
- G. ASTM D 4601 Standard Specification for Asphalt Coated Glass Fiber Base Sheet Used in Roofing.
- H. ASTM D 5147 Standard Test Method for Sampling and Testing Modified Bituminous Sheet Materials.
- I. ASTM E 108 - Standard Test Methods for Fire Test of Roof Coverings
- J. Factory Mutual Research (FM): Roof Assembly Classifications.
- K. National Roofing Contractors Association (NRCA): Roofing and Waterproofing Manual.
- L. Underwriters Laboratories, Inc. (UL): Fire Hazard Classifications.
- M. Warnock Hersey (WH): Fire Hazard Classifications.

1.4 DESIGN / PERFORMANCE REQUIREMENTS

- A. Perform work in accordance with all federal, state and local codes.
- B. Energy Star: Roof System shall comply with the initial and aged reflectivity required by the U.S. Federal Government's Energy Star program.
- C. LEED: Roof system shall meet the reflectivity and emissivity criteria to qualify for one point under the LEED credit category, Credit 7.2, Landscape & Exterior Design to Reduce Heat Island - Roof.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Submit certification that the roof system furnished is tested and approved by Underwriters Laboratories or Warnock Hersey for external fire tests of ASTM E – 108 Class A.
- C. Product Data for each type of product specified include manufacturer's technical product data, installation instructions, and recommendations for each type of roofing product required. Include data substantiating that materials comply with specified requirements.
- D. For all modified bituminous sheet roofing Include independent test data according to ASTM designation D-5147-91 "Standard Test Methods for Sampling and Testing Modified Bituminous Sheet Material" substantiating that materials comply with specified requirements.
- E. Any material submitted as an equal to specified material must be submitted and approved at least 10 days prior to bid due date. Included with the submittal will be a stamped letter from a Structural II engineer licensed in the State certifying that all code requirements are met and include wind uplift calculations per ASCE 7-10 specific to the project. The manufacturer will provide a letter, signed by an officer of the company, stating that the proposed system meets all performance and warranty requirements and that all inspection requirements will be met.
- F. Show evidence that the products and materials are manufactured in the United States and that the materials provided conform to all requirements specified herein, and are chemically and physically compatible with each other and are suitable for inclusion within the total roof system specified herein.
- G. Show evidence that the installer specializes in modified bituminous roof application with a minimum 5 years experience and who is certified by the roofing system manufacturer as

EXHIBIT G

qualified to install manufacturer's roofing materials.

- H. Provide a sample of each product.
- I. Unexecuted Manufacturer's warranty.
- J. Certified copy of ISO 9001 compliance.
- K. Any deficiencies in performance, warranty terms or improper submittal procedure will constitute grounds for immediate rejection of alternate.

1.6 QUALITY ASSURANCE

- A. Perform Work in accordance with NRCA Roofing and Waterproofing Manual.
- B. Manufacturer Qualifications: Manufacturer: Company specializing in manufacturing products specified in this section with documented ISO 9001 certification and minimum twelve years and experience.
- C. Installer Qualifications: Company specializing in performing Work of this section with minimum five years documented experience and a certified Pre-Approved Garland Contractor.
- D. Installer's Field Supervision: Maintain a full-time Supervisor/Foreman on job site during all phases of roofing work while roofing work is in progress. A copy of the specification shall be in the possession of the Supervisor/Foremen and on the roof at all times.
- E. It is the intent of the owner to use sustainable materials wherever possible. The specification is based upon roofing materials that incorporate minimum 20% recycled content in their manufacture. The specified modified cap sheet use "crum" rubber from waste vehicle tires in its productions. Any alternate materials submitted are to include a minimum 20% verifiable recycled content.
- F. Source Limitations: Obtain all components of roof system from a single manufacturer. Secondary products that are required shall be recommended and approved in writing by the roofing system Manufacturer. Upon request of the Architect or Owner, submit Manufacturer's written approval of secondary components in list form, signed by an authorized agent of the Manufacturer.
- G. It shall be the contractor's responsibility to respond immediately to correction of roof leakage during construction.
- H. Disqualification of Bidders: A Bidder can be disqualified by the Owner for any of the following reasons, but not limited to:
 - 1. The Failure to attend the Pre-Bid conference at the time and place so described under Bidding Dates.
 - 2. Incorrect use of the "Proposal" as provided by the Owner. Any changes in said format shall be accepted by the Owner only when requested and approved, in writing, prior to the bid opening. Changes in the Proposal after the opening of the bids will not be accepted.
 - 3. Lack of Proficiency as shown by past work or incomplete work under other contracts which, in the judgment of the Owner, might hinder or prevent, the prompt completion of additional work if so awarded or any involvement in any legal actions which relate to past or present performance. This includes, but is not limited to, law suits, court appointed actions, and/or ongoing litigation.
- I. Insurance Certification: Assist Owner in preparation and submittal of roof installation acceptance certification as may be necessary in connection with fire and extended coverage

EXHIBIT G

insurance on roofing and associated work.

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

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store products in manufacturer's unopened packaging with labels intact until ready for installation.
- B. Store all roofing materials in a dry place, on pallets or raised platforms, out of direct exposure to the elements until time of application. Store materials at least 4 inches above ground level and covered with "breathable" tarpaulins.
- C. Stored in accordance with the instructions of the manufacturer prior to their application or installation. Store roll goods on end on a clean flat surface. No wet or damaged materials will be used in the application.
- D. Store at room temperature wherever possible, until immediately prior to installing the roll. During winter, store materials in a heated location with a 50 degree F (10 degree C) minimum temperature, removed only as needed for immediate use. Keep materials away from open flame or welding sparks.

1.8 MANUFACTURER'S INSPECTIONS

- A. When the project is in progress, the Roofing System Manufacturer will provide the following:
1. Keep the owner informed as to the progress and quality the work as observed.
 2. Provide Job site inspections a minimum of two days a week.
 3. Report to the Owner in writing, any failure or refusal of the Contractor to correct unacceptable practices called to the Contractor's attention.

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4. Confirm, after completion of the project and based on manufacturer's observations and tests, that manufacturer has observed no application procedures in conflict with the specifications other than those that may have been previously reported and corrected.

1.9 PROJECT CONDITIONS

- A. Weather Condition Limitations: Do not apply roofing membrane during inclement weather or when a 40% chance of precipitation is expected.
- B. Do not apply roofing insulation or membrane to damp deck surface.
- C. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed during same day.
- D. Proceed with roofing work only when existing and forecasted weather conditions will permit units of work to be installed in accordance with manufacturer's recommendations and warranty requirements.

1.10 SEQUENCING AND SCHEDULING

- A. Sequence installation of modified bituminous sheet roofing with related units of work specified in other sections to ensure that roof assemblies, including roof accessories, flashing, trim and joint sealers, are protected against damage from effects of weather, corrosion and adjacent construction activity.
- B. All work must be fully completed on each day. Phased construction will not be accepted.

1.11 WARRANTY

- A. Upon completion of the work, provide the Manufacturer's written and signed NDL System Warranty, warranting that, if a leak develops in the roof during the term of this warranty, due either to defective material or defective workmanship by the installer, the manufacturer shall provide the Owner, at the Manufacturer's expense, with the labor and material necessary to return the defective area to a watertight condition.
 1. Warranty Period: 30 years from date of acceptance.
- B. Installer is to guarantee all work against defects in materials and workmanship for a period indicated following final acceptance of the Work.
 1. Warranty Period:
 - a. 2 years from date of acceptance.

PART 2 PRODUCTS

2.1 GENERAL

- A. When a particular trade name or performance standard is specified it shall be indicative of a standard required.
- B. Provide products as manufactured by The Garland Company or pre-approved equal. Bidders proposing substitutes shall submit all required information under Sections 01600 and 07550 to Owner at least 10 days prior to bid due date.
- C. Any systems or materials submitted as an alternate to the manufacturer specified must meet all code, engineering, performance, warranty, and inspection requirements as stated in this specification. Alternate systems, whether listed or not in this specification, must meet all requirements as indicated. The Owner shall be the sole judge as to whether or not an item submitted as an equal is truly equal. Should the contractor choose to submit on the equal basis, he shall assume all risk involved, monetary or otherwise, should the Owner find it unacceptable.

EXHIBIT G

2.2 DESCRIPTION

- A. Modified bituminous roofing work including but not limited to:
 - 1. One layer of ½" fiberboard mechanically attached to the wood deck per wind uplift calculations.
 - 2. One ply of 80 mil modified bitumen base sheet mopped with cold process adhesive
 - 3. All flashing will be set in adhesive and will be one ply of 80 mil SBS modified base sheet as flashing ply covered by an additional layer of modified bitumen membrane.
 - 4. The modified membrane will be:
 - a. 145 mil SIS/SBS mineral surfaced rubber modified roofing membrane reinforced with a dual fiberglass scrim and polyester mat.

2.3 BITUMINOUS MATERIALS

- A. Asphalt Primer: V.O.C. compliant, ASTM D-41.
- B. Asphalt Roofing Mastic: V.O.C. Compliant, ASTM D-2822, Type II
- C. Adhesive: Weatherking Cold Applied Membrane Adhesive
- D. Flashing Ply Adhesive: Green Lock Flashing Adhesive

2.4 SHEET MATERIALS

- A. FIELD AND BASE FLASHING PLY
 - 1. StressBase 80: SBS modified, 80 mil membrane with woven fiberglass scrim reinforcement with the following minimum performance requirements according to ASTM D-5147

Tensile Strength (ASTM D5147)

2 in/min. @ 73.4 ± 3.6°F MD 100 lbf/in CMD 100 lbf/in
50mm/min. @ 23 ± 3°C MD 39 kN/m CMD 39 kN/m

Tear Strength (ASTM D5147)

2 in/min. @ 73.4 ± 3.6°F MD 110 lbf CMD 110 lbf
50mm/min. @ 23 ± 3°C MD 1335 N CMD 1335 N

Elongation at Maximum Tensile (ASTM D5147)

2 in/min. @ 73.4 ± 3.6°F MD 2.5 % CMD 2.5 %
50mm/min @ 23 ± 3°C MD 2.5 % CMD 2.5 %

- B. MODIFIED MEMBRANE CAP SHEET

- 1. Modified membrane: Stressply Plus FR Mineral ASTM D6162, Type III Grade G

Tensile Strength (ASTM D5147)

2 in/min. @ 73.4 ± 3.6°F MD 310 lbf/in CMD 310 lbf/in
50 mm/min. @ 23 ± 3°C MD 54.2 kN/m CMD 54.2 kN/m

Tear Strength (ASTM D5147)

2 in/min. @ 73.4 ± 3.6°F MD 500 lbf CMD 500 lbf
50 mm/min. @ 23 ± 3°C MD 2224 N CMD 2224 N

Elongation at Maximum Tensile (ASTM D5147)

2 in/min. @ 73.4 ± 3.6°F MD 3.5% CMD 3.5%
50 mm/min. @ 23 ± 3°C MD 3.5% CMD 3.5%

Low Temperature Flexibility (ASTM D5147): Passes -30°F (-34°C)

2.5 SURFACINGS

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- A. White Roof Coating: Application of 2 coats of white, Acrylic "Cool Roof" coating. Apply coating at the rate of 1.5 gallons per square for the base coat and 1.5 gallons per square for the top coat. Garland Pyramic or pre-approved equal.

2.6 RELATED MATERIALS

- A. Roof Coating: White, Acrylic roof coating to meet Title 24 standards. Must be furnished by the membrane manufacturer, Garland Pyramic or pre-approved equal.
- B. Nails and Fasteners: Non-ferrous metal or galvanized steel, except that hard copper nails shall be used with copper; aluminum or stainless steel nails shall be used with aluminum; and stainless steel nails shall be used with stainless steel. Nails and fasteners shall be flush-driven through flat metal discs of not less than 1-inch diameter. Metal discs may be omitted when one piece composite nails or fasteners with heads not less than 1-inch diameter are used.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. Inspect and approve the deck condition, slopes and fastener backing if applicable, parapet walls, expansion joints, roof drains, stack vents, vent outlets, nailers and surfaces and elements.
- C. Verify that work penetrating the roof deck, or which may otherwise affect the roofing, has been properly completed.

3.2 GENERAL INSTALLATION REQUIREMENTS

- A. Cooperate with manufacturer, inspection and test agencies engaged or required to perform services in connection with installing modified bitumen roofing system.
- B. Insurance/Code compliance: Where required, install and test modified bitumen roofing system to comply with governing regulations and specified insurance requirements.
- C. Protect other work from spillage of modified bitumen roofing materials, and prevent liquid materials from entering or clogging drains and conductors. Replace or restore other work damaged by installations of modified bituminous roofing system work.
- D. Coordinate installing roofing system components so that insulation and roofing plies are not exposed to precipitation or left exposed overnight. Provide cut offs at end of each day's work to cover exposed ply sheets and insulation with two plies of #15 organic felt set in full mopping's of adhesive and with joints and edges sealed with roofing cement. Remove cut offs immediately before resuming work.
- E. Adhesive Mopping Weights: For interplay mopping. Apply WeatherKing adhesive at the minimum rate of 2.5 gallons per 100 square feet.
- F. Substrate Joint Penetrations: Prevent adhesive from penetrating substrate joints, entering building or damaging roofing system components or adjacent building construction.
- G. Apply roofing materials as specified herein unless recommended otherwise by manufacturer's instructions. Keep roofing materials dry before and during application. Do not permit phased construction. Complete application of roofing plies, modified sheet and flashing in a continuous operation. Begin and apply only as much roofing in one day as can

EXHIBIT G

be completed that same day.

- H. Cut-Offs: At end of each days roofing installation, protect exposed edge of incomplete work, including ply sheets and insulation. Provide temporary covering of two plies of #15 organic roofing felts set in full moppings of adhesive with joints and edges sealed.
- I. Broadcast minerals into the bleed out of adhesive to achieve uniform color throughout.

3.3 MODIFIED PLY INSTALLATION

- A. Modified Membrane Ply: Install one 80 mil modified membrane ply in minimum 2.5 gallons per square of Weatherking adhesive shingled uniformly to achieve two plies throughout over the prepared substrate. Shingle in proper direction to shed water on each area of roof. Backnailing is required on slopes greater than 2" per foot. Follow NRCA guidelines for backnailing installation where required.
- B. Lap ply sheet ends eight inches. Stagger end laps twelve inches minimum.
- C. Extend plies two inches beyond top edges of cants at wall and projection bases.
- D. Install base flashing ply of same membrane to all perimeter and projection details.

3.4 HPR MODIFIED MEMBRANE APPLICATION

- A. The modified membrane shall then be solidly bonded to the base layers with specified adhesive at the minimum rate of 2.5 gallons per 100 square feet.
- B. The roll must push a puddle of asphalt in front of it with adhesive slightly visible at all side laps. Care should be taken to eliminate air entrapment under the membrane.
- C. Apply pressure to all seams to ensure that the laps are solidly bonded to substrate.
- D. Subsequent rolls of modified shall be installed across the roof as above with a minimum of 4" side laps and 8" end laps. The end laps shall be staggered. The modified membrane shall be laid in the same direction as the underlayers, but the laps shall not coincide with the laps of the base layers.
- E. Apply adhesive no more than five feet ahead of each roll being embedded
- F. Extend membrane 2" beyond top edge of all cants in full mopping of the specified adhesive

3.5 FLASHING MEMBRANE INSTALLATION (GENERAL)

- A. All curb, wall and parapet flashings shall be sealed with an application of mastic and mesh on a daily basis. No condition should exist that will permit moisture entering behind, around or under the roof or flashing membrane.
- B. Prepare all walls, penetration and expansion joints to be flashed with asphalt primer at the rate of one gallon per 100 square feet. Allow primer to dry tack free.
- C. The modified membrane will be used as the flashing membrane and will be adhered to an underlying base flashing ply with specified adhesive and nailed off 8" O.C. at all vertical surfaces.
- D. The entire sheet of flashing membrane must be solidly adhered to the substrate.
- E. Seal all vertical laps of flashing membrane with a three course application of flashing bond and fiberglass mesh.

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- F. Counter flashing, cap flashings, expansion joints and similar work to be coordinated with modified bitumen roofing work are specified in other sections.
- G. Roof accessories, miscellaneous sheet metal accessory items, including piping vents and other devices to be coordinated with modified bituminous roof system work are in other sections.

3.6 APPLICATION OF SURFACING

A. MINERAL SURFACED MEMBRANE SYSTEM

1. Once asphalt has cured, apply 2 coats of white "Cool Roof" coating at a rate of 1.5 gallons per square for the base coat and 1.5 gallons per square for the top coat.

3.7 CLEANING

- A. Remove drippage of adhesive, mastic and paint from all walls, windows, floors, ladders, and finished surfaces.
- B. In areas where finished surfaces are soiled by asphalt or any other sources of soiling caused by work of this section, consult manufacturer of surfaces for cleaning advice and conform to their instructions.

3.8 FINAL INSPECTION

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

END OF SECTION

EXHIBIT G

SECTION 07610 SHEET METAL FLASHING AND TRIM

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Fabricated sheet metal items, including flashings, counterflashings, and other items indicated on drawings and as follows:
 - 1. Counterflashing.
 - 2. Skirt flashing.
 - 3. Coping.
 - 4. Etc.

1.02 RELATED SECTIONS

- A. Section 07550 – MODIFIED BITUMINOUS MEMBRANE ROOFING
- B. Section 07311 - COMPOSITION SHINGLES

1.03 REFERENCE STANDARDS

- A. ASTM A 653/A 653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- B. ASTM A 666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
- C. ASTM A792 Steel Sheet, Aluminum-Zinc Alloy-Coated, by the Hot-Dip Process
- D. ASTM B 32 - Standard Specification for Solder Metal.
- E. ASTM B486 Paste Solder
- F. ASTM B 749 - Standard Specification for Lead and Lead Alloy Strip, Sheet, and Plate Products.
- G. ASTM D 226 - Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
- H. ASTM D 2178 - Standard Specification for Asphalt Glass Felt Used in Roofing and Waterproofing.
- I. ASTM D 4586 - Standard Specification for Asphalt Roof Cement, Asbestos-Free.
- J. FS QQ-L-201 Specification for Lead Sheet
- K. SMACNA (ASMM) - Architectural Sheet Metal Manual; Sheet Metal and Air Conditioning Contractors' National Association.

1.04 SUBMITTALS

- A. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.
 - 1. For manufactured and shop fabricated gravel stops, fascia, scuppers, and all other sheet metal fabrications.
 - 2. Indicate type, gauge and finish of metal.
- B. Product data: Provide manufacturer's specification data sheets for each product:
 - 1. Metal material characteristics and installation recommendations.

EXHIBIT G

2. Submit color chart prior to material ordering and/or fabrication so that equivalent colors to those specific can be approved.
- C. Manufacturer's installation instructions for reglets.
- D. Samples: Submit two samples 8x10 inch in size illustrating metal finish color.
 1. Submit two samples, 12 x 12 inch in size illustrating typical external corner, internal corner, and valley, junction to vertical dissimilar surface, material and finish.
- E. Certification:
 1. Submit roof manufacturer's certifications that metal fasteners furnished are acceptable to roof manufacturer.
 2. Submit roof manufacturer's certification that metal furnished is acceptable to roofing manufacturer as a component of roofing system and is eligible for roof manufacturer's system warranty.
 3. Submit certification that metal and fastening system furnished is Tested and Approved by Factory Mutual for 1-90 Wind Up-Lift Requirements.
- F. Provide approval letters from metal manufacturer for use of their metal within this particular roofing system type.
- G. Proof of fabricator and installer qualifications.
- H. ANSI-SPRI ES-1 test results for all coping and edge metal.

1.05 QUALITY ASSURANCE

- A. Perform work in accordance with SMACNA Architectural Sheet Metal Manual requirements, except as otherwise indicated.
 1. Factory Mutual Loss Prevention Data Sheet 1-49 windstorm resistance: 1-90.
- B. Manufacturer's Warranty: Pre-finished metal material shall require a written 20-year non-prorated warranty covering fade, chalking and film integrity. The material shall not show a color change greater than 5 NBS color units per ASTM D-2244 or chalking excess of 8 units per ASTM D-659. If either occurs material shall be replaced per warranty, at no cost to the Owner.
- C. Contractor's Warranty: The Contractor shall provide the Owner with a notarized written warranty assuring that all sheet metal work including caulking and fasteners to be water-tight and secure for a period of five years from the date of final acceptance of the building. Warranty shall include all materials and workmanship required to repair any leaks that develop, and make good any damage to other work or equipment caused by such leaks or the repairs thereof.

1.06 DELIVERY, STORAGE, AND HANDLING

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

PART 2 PRODUCTS

2.01 SHEET MATERIALS

- A. Galvanized Steel: ASTM A 653/A 653M, with G90/Z275 zinc coating; minimum 0.02 inch thick base metal, minimum thickness 22 gauge and greater as required by referenced standards for specific applications.

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2.02 ACCESSORIES

- A. Fasteners:
 - 1. Corrosion resistant screw fastener as recommended by metal manufacturer. Finish exposed fasteners same as flashing metal.
 - 2. Fastening shall conform to Factory Mutual 1-90 requirements or as stated on section details, whichever is more stringent.
- B. Plastic Cement: ASTM D 4586, Type I.

2.03 FABRICATION - GENERAL

- A. Fabricate in accordance with referenced standards. Form sections true to shape, accurate in size, square, and free from distortion or defects. Form pieces as recommended by SMACNA standard for conditions required.
 - 1. Provide reinforcements and supports as required for secure anchorage.
 - 2. Make joints rigid. Seams mechanically strong and soldered or sealed to make watertight
 - 3. Fabricate corners in one piece with legs extending 30-inches each way to field joint. Lap, rivet, and solder or seal corner seams watertight.
 - 4. Turn up "end dam" flanges at ends of opening sill flashing pieces, lap with wall flashing and membranes to shed water.
 - 5. Fabricate cleats of same material as sheet, minimum 3/4 inches wide, interlockable with sheet.
 - 6. Hem exposed edges on underside 1/2 inch; miter and seam corners.
 - 7. Solvent clean all sheet metal. Coat surfaces to be in contact with roofing or otherwise concealed with specified asphaltic paint; 0.015-inch minimum uniform thickness.
- B. Form pieces in longest possible lengths.
- C. Hem exposed edges on underside 1/2 inch; miter and seam corners.
- D. Form material with flat lock seams, except where otherwise indicated. At moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.
- E. Fabricate corners from one piece with minimum 18 inch long legs; seam for rigidity, seal with sealant.
- F. Fabricate vertical faces with bottom edge formed outward 1/4 inch (6 mm) and hemmed to form drip.

2.04 EDGE METAL SYSTEM, METAL COPING AND GUTTERS.

- A. R-mer Coping system by The Garland Company or approved equal.
 - 1. ANSI SPRI ES-1 tested and certified.
- B. Custom Radius Coping Fabricated from R-Mer Flat Stock, 22 g. Kynar Coated, Surface mounted and attached to appropriate hold down cleats.
 - 1. SMACNA Standards.
- C. Gutters formed gutters to match the shape of existing gutters and be made in lengths as long as practical. All gutters shall be sloped to promote drainage. Formed Gutter - 22 Gauge Kynar Roll.
 - 1. Field form rolled gutters

2.05 ROOF-RELATED SHEET METAL AND FLASHINGS

- A. Roof-Related Sheet Metal and Flashings: As indicated, as specified in related sections, as required by roofing material manufacturers and referenced

EXHIBIT G

standards. Coordinate work of this section with related sections. Provide complete systems without conflict or omission.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify roof openings, curbs, pipes, sleeves, ducts, and vents through roof are solidly set, reglets in place, and nailing strips located.
- B. Verify roofing termination and base flashings are in place, sealed, and secure.
- C. Beginning of installation means acceptance of existing conditions.
- D. Field measure site conditions prior to fabricating work.

3.02 PREPARATION

- A. Install starter and edge strips, and cleats before starting installation.
- B. Back paint concealed metal surfaces with protective backing paint to a minimum dry film thickness of 15 mil.

3.03 INSTALLATION

- A. Install work watertight, without waves, warps, buckles, fastening stress, or distortion, allowing for expansion and contraction. Conform to referenced standards. Make metal joints watertight.
- B. Fastening of metal to walls and wood blocking shall comply with SMACNA Architectural Sheet Metal Manual, Factory Mutual 1-90 wind uplift specifications and/or manufacturer's recommendations whichever is of the highest standard.
- C. All accessories or other items essential to the completeness of sheet metal installation and water tight envelope of the building, whether specifically indicated or not, shall be provided.
- D. Reglets: Install in accordance with manufacturer's installation instructions.
- E. Metal fascia and copings shall be secured to wood nailers at the bottom edge with a continuous cleat. Cleats shall be at least one gauge heavier than the metal it secures.
- F. Install Sheet Membrane Waterproofing at closure flanges, under metal copings, caps and platforms; fully adhered, free of voids, blisters and buckling; roll as soon as practical following layout. Minimize exposure time to that period recommended by the manufacturer.
- G. Flashing: Joints at 10-foot maximum spacing and at 2-1/2-feet from corners. Butt joints with 3/16-inch space centered over matching 8-inch long backing plate with sealer tape in laps.
- H. Flanged flashings and roof accessories: Set on continuous sealer tape. Nail flanges through sealer tape and at 3-inch maximum spacing.
- I. Isolate metal from dissimilar metal with 2 coats of specified asphaltic paint, sealer tape or other approved coating, specifically made to stop electrolytic action.. Use only stainless steel fasteners to connect isolated dissimilar metals.
- J. Joints, fastenings, reinforcements and supports: Sized and located as required to preclude distortion or displacement due to thermal expansion and contraction. Conceal fastenings wherever possible.

EXHIBIT G

- K. Secure flashings in place using concealed fasteners. Use exposed fasteners only where permitted.
 - L. Flexible Flashing Installation:
 - 1. Prime substrates as recommended by flexible flashing manufacturer, allow to dry.
 - 2. Install flexible flashings in maximum feasible lengths to minimize lap joints.
 - 3. Peel release paper from roll to expose rubberized asphalt and position flashing to center over joint location before applying. Move along opening or joint, being careful to put flashing as evenly as possible over the opening. Avoid fishmouths.
 - 4. Press flashing firmly into place with heavy hand pressure. Ensure continuous and intimate contact with substrate.
 - 5. If wrinkles develop, carefully cut out affected area and replace as outlined above.
 - M. Apply plastic cement compound between metal flashings and felt flashings.
 - N. Fit flashings tight in place. Make corners square, surfaces true and straight in planes, and lines accurate to profiles.
 - O. Seal prefinished metal joints watertight.
 - P. Solder other metal joints for full metal surface contact. After soldering, wash metal clean with neutralizing solution and rinse with water.
 - Q. Connect downspouts and rainwater leaders to storm sewer system. Seal connection watertight.
 - R. Install hatches and ladders per manufacturer's recommendations.
 - X. Install roof drains per manufacturer's recommendations.
- 3.04 FIELD QUALITY CONTROL
- A. Inspection will involve surveillance of work during installation to ascertain compliance with specified requirements.
 - B. Tolerances
 - 1. Exposed surfaces: Free of dents, scratches, abrasions, or other visible defects; clean, ready for painting.
 - 2. Set flashings and sheet metal to straight, true lines with exposed faces aligned in plane as indicated.
- 3.05 SHOP FABRICATED SHEET METAL
- A. Installing Contractor shall be responsible for determining if the sheet metal systems are in general conformance with roof manufacturer's recommendations.
 - B. Metal work shall be shop fabricated to configurations and forms in accordance with recognized sheet metal practices.
 - C. Hem exposed edges.
 - D. Angle bottom edges of exposed vertical surfaces to form drip.
 - E. All corners for sheet metal shall be lapped with adjoining pieces fastened and set in sealant.
 - F. Joints for gravel stop fascia system, cap flashing, and surface-mount counterflashing shall be formed with a 1/4" opening between sections. The opening shall be covered by a cover plate or backed by an internal drainage

EXHIBIT G

plate formed to the profile of fascia piece. The cover plate shall be embedded in mastic, fastened through the opening between the sections and loose locked to the drip edges.

- G. Install sheet metal to comply with Architectural Sheet Metal manual, Sheet Metal and Air Conditioning Contractor's National Associations, Inc.

END OF SECTION

COUNTY OF MENDOCINO

GENERAL SERVICES AGENCY - FACILITIES AND FLEET DIVISION

AGRICULTURE & FARM ADVISOR

ROOF REPLACEMENT

890 N. BUSH ST. UKIAH, CA 95482

**PROJECT ROOF****SHEET INDEX**

R0 TITLE SHEET
R1 ROOF PLAN, NOTES LEGENDS, WINDZONE PLAN
R2 ROOF DETAILS
R3 ROOF DETAILS
R4 ROOF DETAILS

PROJECT TEAM

COUNTY OF MENDOCINO
GENERAL SERVICES AGENCY
FACILITIES & FLEET DIVISION

PROJECT MANAGER:
RYAN BARTOW
BARTOW@MENDOCINOCOUNTY.ORG
(707) 234-6658

APPLICABLE CODES

2019 CALIFORNIA BUILDING CODE
2019 CALIFORNIA MECHANICAL CODE
2019 CALIFORNIA ELECTRICAL CODE
2019 CALIFORNIA PLUMBING CODE
2019 CALIFORNIA FIRE CODE
2019 CALIFORNIA ENERGY CODE
2019 CALIFORNIA GREEN CODE

PROJECT DATA

BUILDING: Agriculture / Farm Advisor (B654)
BUILDING TYPE: Office Commercial
BUILDING SIZE: 7,600 S.F. approx.
AREA OF WORK: 9,500 S.F. approx.
OCCUPANCY TYPE: Office

SCOPE OF WORK

Shingles:

1. Full removal and disposal of existing roofing materials.
2. Locate and repair/replace all areas of damaged substrate. Paint to match exposed conditions.
3. Install 1/2" of CDX sheathing, mechanically attached to the deck per fastening manufacturer. Install ONLY where Slip or plank sheathing exists.
4. Installation of R-Rite G-90 Underlayment, per data sheet.
5. Cut rafter tails, install New 2X6 DF, Primed and Painted, fascia where gutter installed.
6. Remove and replace all sheet metal penetrations, painted with epoxy. Install water diverter above curbs that are greater or equal to 18".
7. Install new sloped Kynar 22 gauge gutters to match the existing profile and new 3"x4" downspouts. All per SMACNA. Install metal nosing, Expansion joint and all associated details with Kynar Metal.
8. Install new gutter screen where gutters are installed, GreenScreen Coated Screen, or equal.
9. Install (56) O'Hagin Standard 25 Gauge, G-90 Galvanized Steel Low Profile vents as indicated on the Calculation sheet provided by the manufacturer, all set in Gaflex, then sealed around the perimeter with an additional layer of R-Mer Seal Underlayment.
10. Install new composition shingles per the manufacturer's specifications.

Low Slope and BUR Sections:

1. Tear off existing roof systems down to the deck. Replace damaged decking if needed.
2. Mechanically fasten polyisocyanurate insulation in sloped areas from 0 to 2" at 14" per 12" for 0". No Ponding water will be accepted.
3. Install 1/2" Densdeck prime in bonding adhesive.
4. All vertical transitions to have cant strip.
5. All BUR to Shingle locations to be installed a minimum of 2' up the slope of the asphalt shingle roof, shingled with a layer of R-Mer Seal underlayment.
6. Install New Scupper at the existing locations, and increase scupper size to a minimum of 6".
7. Install one ply 80 mil heavy-duty modified base sheet membrane in specified Green-Lock Adhesive.
8. Install in 1-ply KEE-Store flashing system on all curbs and flashings extending a minimum of 6" onto the deck in Green-Lock Flashing Adhesive.
9. Install in 1-ply of specified 60mil FB KEE-Store cap sheet in specified KEE-Lock Adhesive.
10. Install 1 ply of specified 30mil KEE-Store cap sheet in specified KEE-Lock Adhesive, extending on to the roof field a minimum of 6".
11. Install terminator bar and counter flashing 8" above completed roof system.
12. Install 22-ga. Kynar cooler roofing cap on parapet wall with proper saddle detail at wall conditions.
13. Clean up, etc.

GENERAL NOTES

1. NEW CONSTRUCTION, IF SPECIFICALLY NOTED IN THE ARCHITECTURAL DRAWINGS, SHALL EITHER BE UNPREFIXED OR PREFIXED BY "NEW" OR "IN".
2. THE GENERAL CONTRACTOR SHALL VERIFY ALL CONDITIONS AND MEASUREMENTS OF AS-BUILT CONSTRUCTION AFFECTING PROPOSED WORK. ANY/ALL INCONSISTENCIES SHALL BE BROUGHT TO THE ATTENTION OF THE COUNTY BEFORE PROCEEDING WITH WORK.
3. OBSERVED CONDITIONS ARE ASSUMED TO BE REPRESENTATIVE. HOWEVER, ACTUAL CONDITIONS MAY VARY. THE GENERAL CONTRACTOR SHALL EXERCISE DUE DILIGENCE IN VERIFYING ACTUAL CONDITIONS.

COUNTY OF MENDOCINO
GENERAL SERVICES AGENCY - FACILITIES AND FLEET DIVISION

AGRICULTURE & FARM ADVISOR
ROOF REPAIR
RYAN BARTOW@MENDOCINOCOUNTY.ORG

NO.	REVISION
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COVER SHEET

DESIGNED BY
MWH
CHECKED BY
DATE
10/23/2023

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OF
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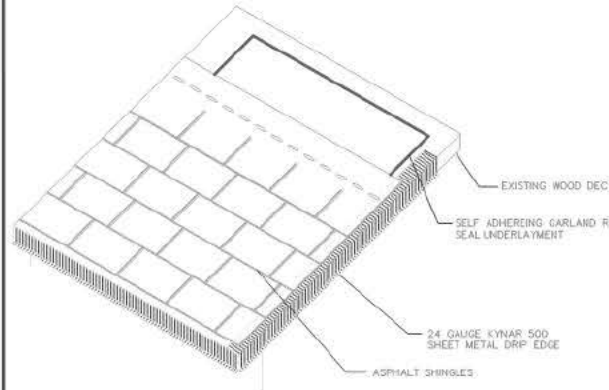
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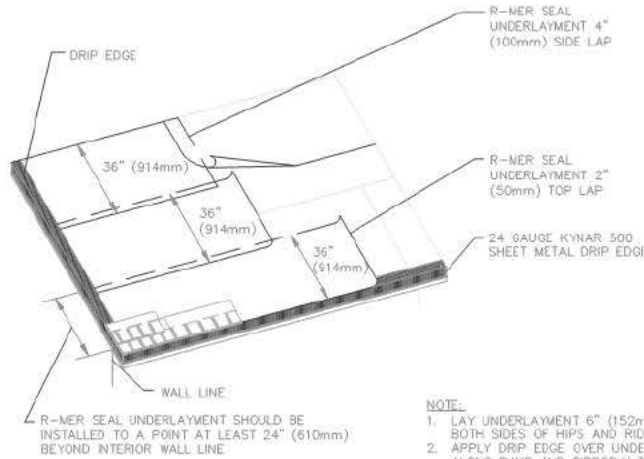
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EXHIBIT H

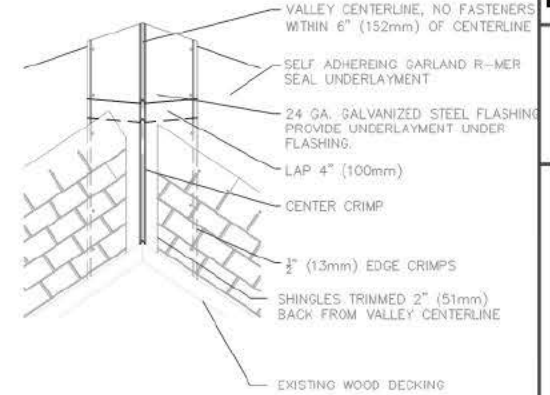


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R2
TYPICAL ROOF SECTION
SCALE: N.T.S.

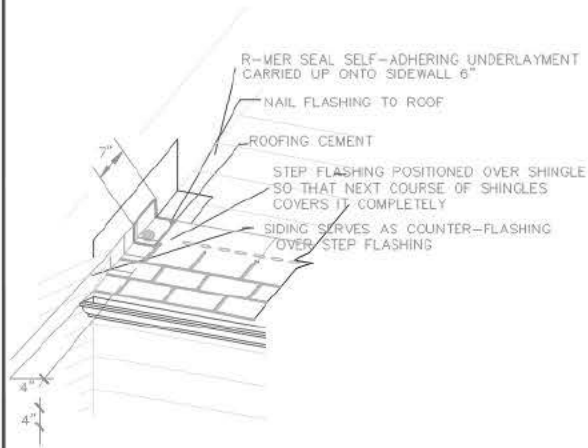


2
R2
UNDERLAYMENT DETAIL
SCALE: N.T.S.

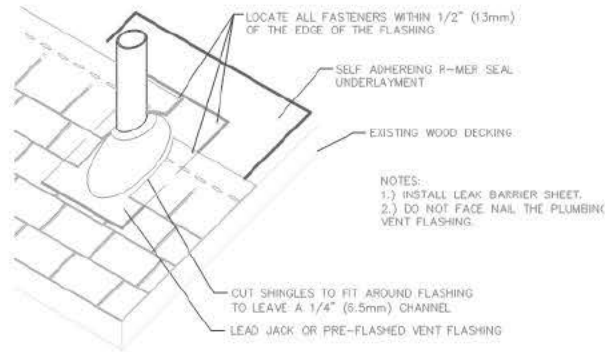
- NOTE:
1. LAY UNDERLAYMENT 6" (152mm) BOTH SIDES OF HIPS AND RIDGE
2. APPLY DRIP EDGE OVER UNDERLAP RAKE AND DIRECTLY TO DECK ALONG THE EAVE.



3
R2
OPEN VALLEY FLASHING DETAIL
SCALE: N.T.S.

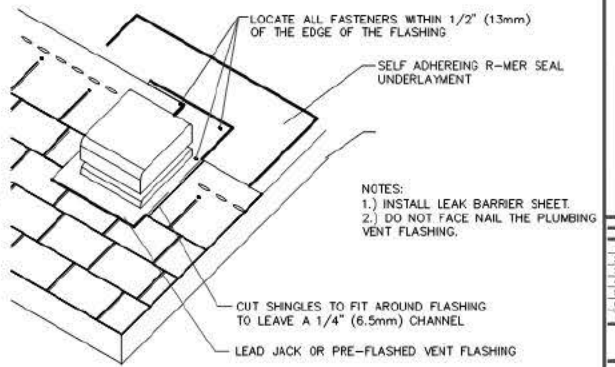


4
R2
STEP FLASHING AT WALL
SCALE: N.T.S.



5
R2
VENT/PIPE PENETRATION FLASHING DETAIL
SCALE: N.T.S.

- NOTES:
1.) INSTALL LEAK BARRIER SHEET.
2.) DO NOT FACE NAIL THE PLUMBING VENT FLASHING.



6
R2
VENT FLASHING DETAIL
SCALE: N.T.S.

- NOTES:
1.) INSTALL LEAK BARRIER SHEET.
2.) DO NOT FACE NAIL THE PLUMBING VENT FLASHING.



COUNTY OF MENDOCINO
GENERAL SERVICES AGENCY - FACILITIES AND FLEET DIVISION
AGRICULTURE & FARM ADVISOR
ROOF REPAIR
PROJECT NUMBER: 2023-001

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COUNTY OF MENDOCINO
GENERAL SERVICES AGENCY - FACILITIES AND FLEET DIVISION

AGRICULTURE & FARM ADVISOR
ROOF REPAIR

PRINTED BY: JEFFREY L. GUNDEL

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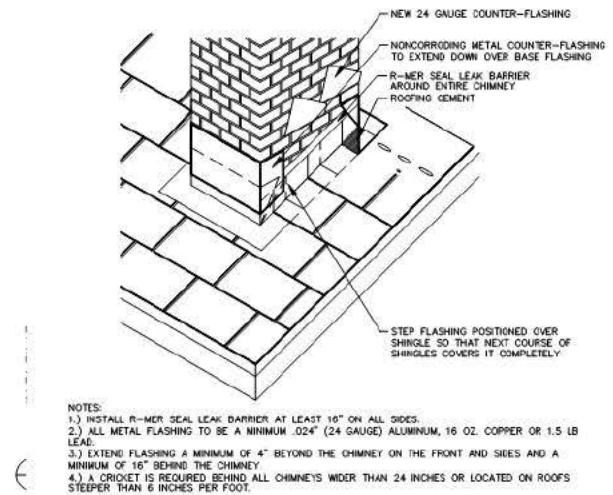
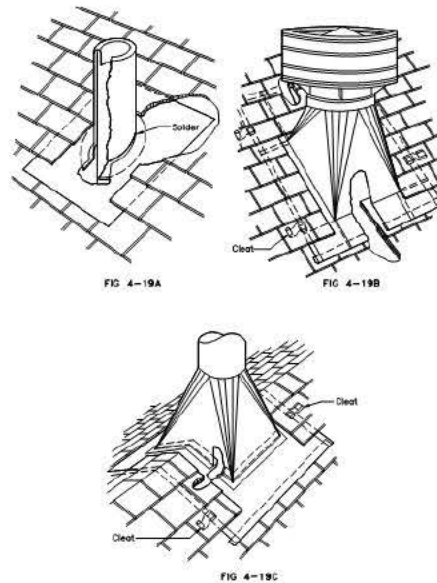
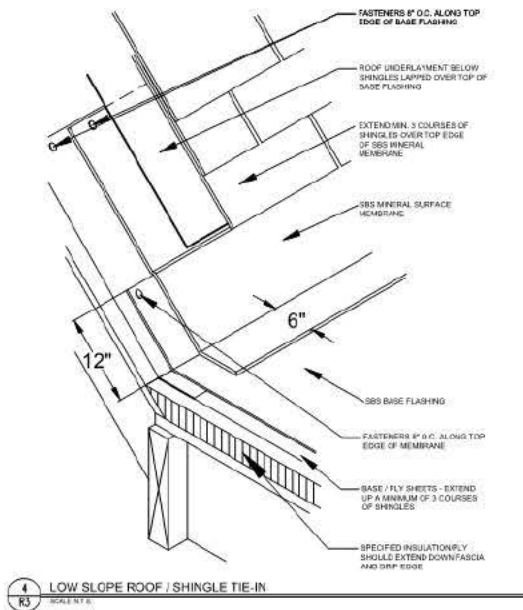
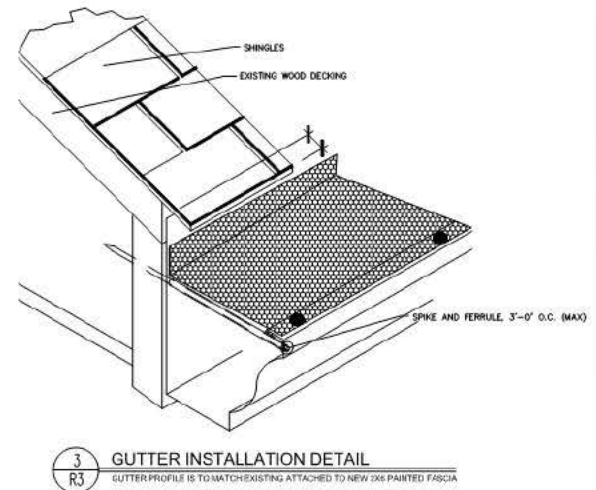
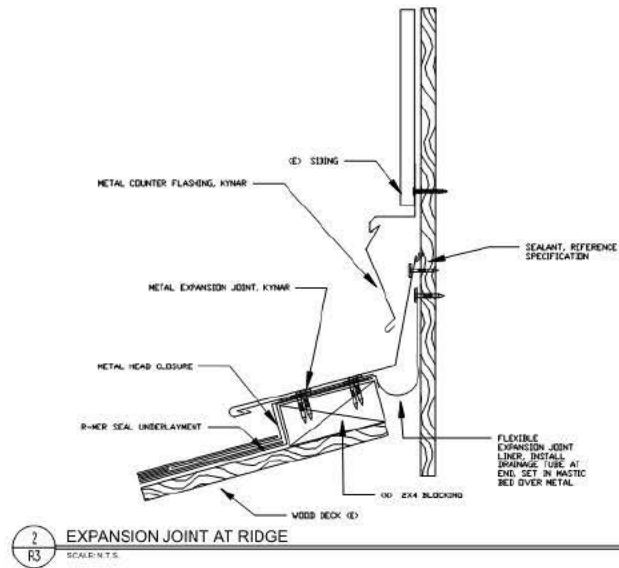
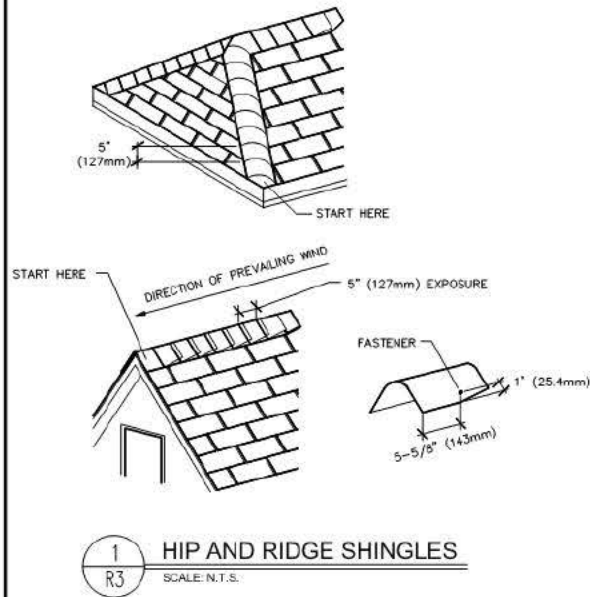
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04/23/2023

R3

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- NOTES:
- 1.) INSTALL R-MER SEAL LEAK BARRIER AT LEAST 16" ON ALL SIDES.
 - 2.) ALL METAL FLASHING TO BE A MINIMUM .024" (24 GAUGE) ALUMINUM, 16 OZ. COPPER OR 1.5 LB LEAD.
 - 3.) EXTEND FLASHING A MINIMUM OF 4" BEYOND THE CHIMNEY ON THE FRONT AND SIDES AND A MINIMUM OF 16" BEHIND THE CHIMNEY.
 - 4.) A CRICKET IS REQUIRED BEHIND ALL CHIMNEYS WIDER THAN 24 INCHES OR LOCATED ON ROOFS STEEPER THAN 6 INCHES PER FOOT.



COUNTY OF MENDOCINO
GENERAL SERVICES AGENCY - FACILITIES AND FLEET DIVISION

AGRICULTURE & FARM ADVISOR
ROOF REPAIR

RFI NUMBER: 07-000004, CA-016007

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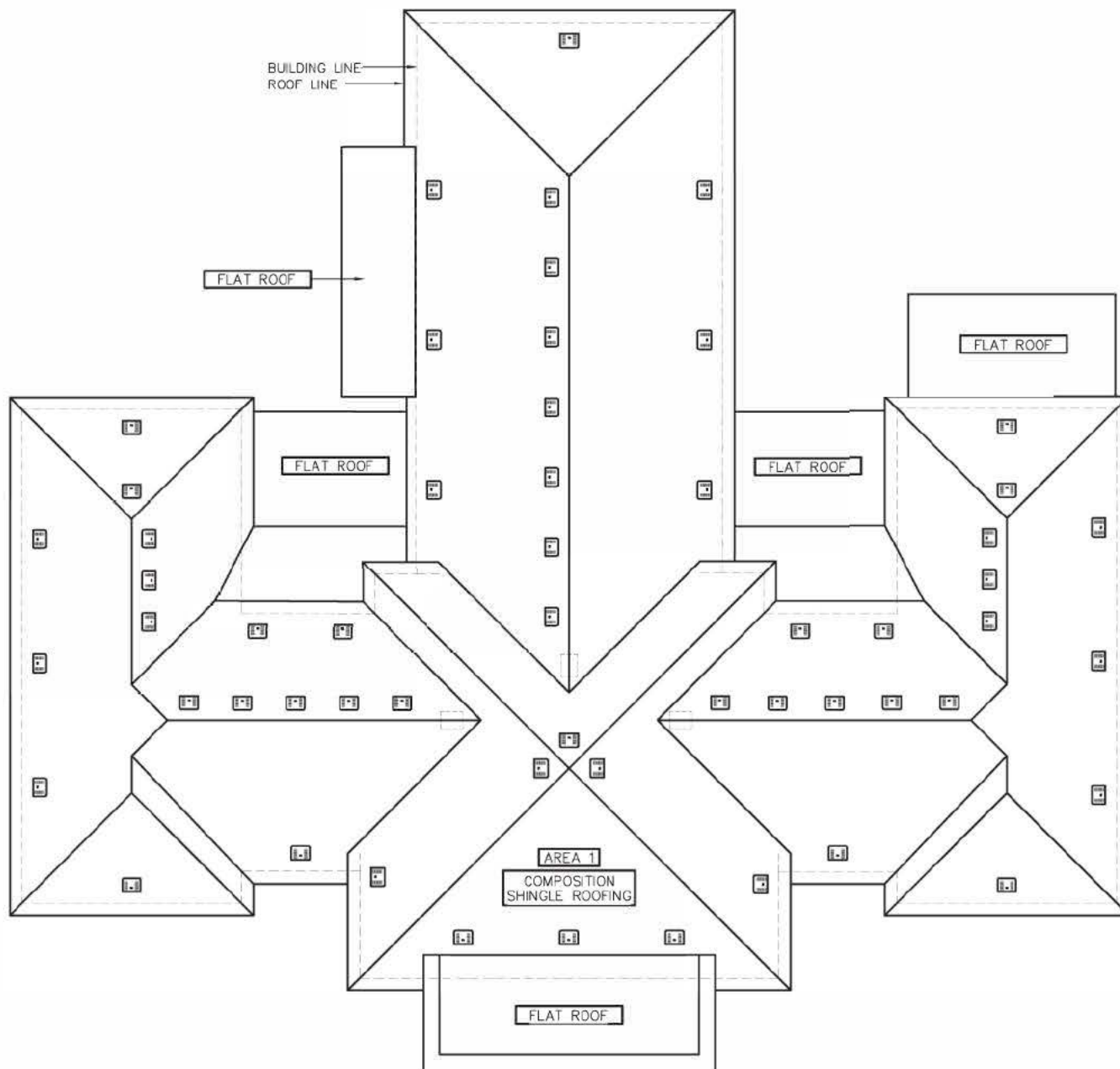
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ATTIC VENTILATION ANALYSIS CALCULATIONS					
LEGEND			NOTES		
O'HAGIN FIRE&ICE** WITH 1/8" MESH COMPOSITION SHINGLE 64.80 SQUARE INCHES OF NFVA**				ALL REQUIRED ATTIC VENTILATION SHALL COMPLY WITH THE CALIFORNIA BUILDING CODE, (2019), CHAPTER 12 INTERIOR ENVIRONMENT; SECTION 1202 VENTILATION (PAGE 647) AND CHAPTER 7A MATERIALS AND CONST. METHODS FOR EXTERIOR WILDFIRE EXPOSURE; SECTION 706A (PAGE 298)	
22" x 30" OPENING AT ROOF FRAME/FILL AREAS FOR REQUIRED ATTIC ACCESS & AIRFLOW (OPENING MUST REMAIN UNOBSTRUCTED)				DO NOT INSTALL O'HAGIN VENTS BELOW AREAS OF CONCENTRATED WATER RUNOFF. PLACEMENT ASSUMES GUTTERS ARE INSTALLED IN ALL APPLICABLE AREAS. FOR INSTALLATION INSTRUCTIONS, TECHNICAL BULLETINS, RECOMMENDED PAINTING PROCEDURES AND WARRANTY INFORMATION PLEASE VISIT O'HAGIN'S WEBSITE AT WWW.OHAGIN.COM .	
*WILDFIRE & EXTREME WEATHER RESISTANT ATTIC VENTS INDEPENDENT LABORATORY TESTED TO RESIST THE INTRUSION OF WIND-DRIVEN FLAME, FIREBRAND (EMBER), SNOW & RAIN (MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED) SEE NOA.			FOR HIGH-VELOCITY WIND AREAS (70-110 MPH) OR WILDLAND URBAN INTERFACE (WUI) APPLICATIONS, PLEASE CONTACT O'HAGIN TOLL FREE AT 877/324-0444.		
**NET FREE VENTILATION AREA (FIGURES BASED ON INDEPENDENT EVALUATION REPORTS)			O'HAGIN VENTS ARE DESIGNED TO BE PART OF A COMPLETE ROOFING SYSTEM. FAILURE TO PROPERLY INSTALL ALL COMPONENTS WILL NEGATIVELY IMPACT OVERALL PERFORMANCE AND WILL VOID WARRANTY PROTECTIONS.		
ATTIC VENTILATION METHOD (O'HAGIN'S BALANCED SYSTEM)					
ATTIC AREAS	ATTIC SQUARE FEET	APPLIED CODES OR EXCEPTIONS	SQUARE INCHES NFVA** REQUIRED	O'HAGIN FIRE&ICE** VENTS REQ. (EXHAUST/INTAKE)	SQUARE INCHES NFVA** PROVIDED
AREA 1	7494.00	1/300	3597.00	28 HIGH & 28 LOW	3628.80
TOTALS	7494.00	N/A	3597.00	56 @ 64.80 S.I.	3628.80

ATTIC VENTILATION ANALYSIS

890 N. BUSH ST —







1. SELECT METAL

Standard:

 26 Gauge, G-90 Galvanized Steel
20 Year Warranty

Upgrade Options:







 .032" Aluminum
50 Year Warranty

 16 Oz. Copper
50 Year Warranty

2. SELECT FINISH

Upgrade Options:

Pre-Painted Galvanized Steel Finish*

 BLACK  BROWN  CHARCOAL  GRAY  TERRA COTTA  WHITE

3. SELECT OPTIONS

Standard:

4" Flange

Upgrade Options:

6" Extended Flange

High Wind Diverter***

4. SELECT WIRE MESH

NFVA**

Standard:

1/4" Galvanized 72.00 sq. in.

Upgrade Options:

1/4" Stainless Steel 72.00 sq. in.

  72.00 sq. in.

1/8" Galvanized 64.80 sq. in.

1/8" Stainless Steel 64.80 sq. in.

* Colors may vary between lots, subject to increased lead times based on availability.

** Net Free Ventilation Area figures based on independent evaluation reports.

*** Standard in Florida.

www.ohagin.com

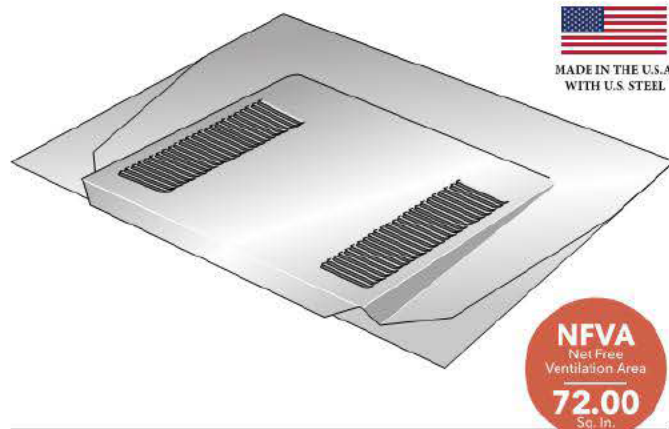
210 Classic Court, Suite 100 • Rohnert Park, CA 94928
Toll Free 877-324-0444 • Fax 707-588-9187

MATERIAL:

COMPOSITION SHINGLE

PRODUCT:

LOW PROFILE (TAPERED)



**UNIQUE LOW-PROFILE DESIGN
FITS BELOW MOST ROOF MOUNTED
SOLAR PANEL INSTALLATIONS**



FREE VENT LAYOUT AND CALCULATIONS

Send us your plans.

No plans? No problem.

Provide us with your address and roofing material. We'll figure out the rest. vent@ohagin.com



WATCH OUR INSTALL VIDEOS

Scan this QR Code with your smart phone to watch easy step-by-step install videos.



If you live in a Wildland Urban Interface area (WUI), upgrade to our **FIRE&ICE®** product line. Scan the QR Codes below with your smart phone to learn more.

LOCAL AND NATIONAL APPROVALS

O'Hagin is a recognized leader in attic ventilation testing and design.



O'HAGIN IS PROUD TO WORK WITH THESE AND MANY OTHER QUALITY MANUFACTURERS



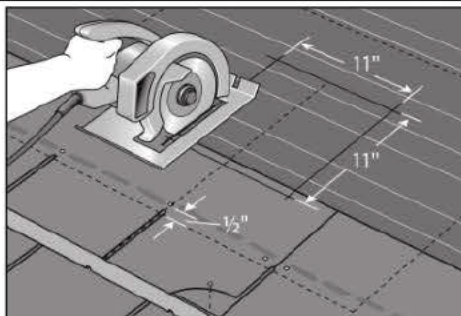
O'Hagin vents are manufactured and protected under one or more of the following patents: D456,531, D457,234, D458,391, D458,392, D469,889, D479,885, D504,172, D512,774, D549,316, 6,050,039, 6,129,628, 6,354,051, 6,390,914, 6,447,390, 6,491,579, 9,011,221. Other U.S. and foreign patents are pending. 51

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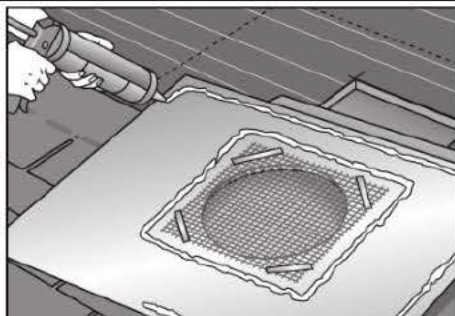
ROOF VENT PLAN-2

O'HAGIN STANDARD AND O'HAGIN FIRE & ICE ATTIC VENTS

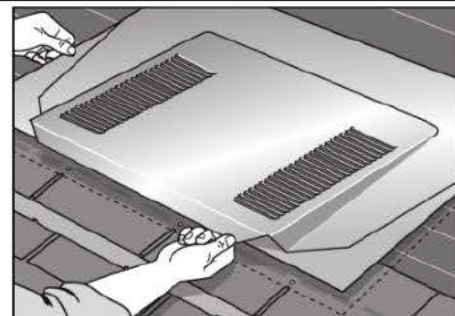
INSTALLATION INSTRUCTIONS FOR COMPOSITION SHINGLE, SHAKE AND SLATE (NATURAL/SYNTHETIC) ROOF APPLICATIONS



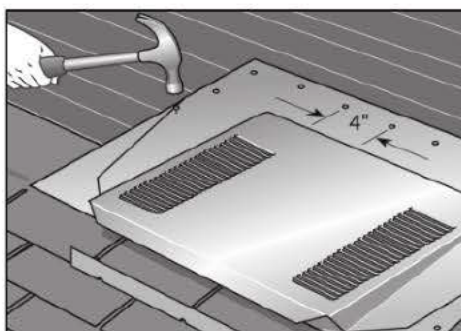
1. MARK & CUT* Align front of vent 1/2 inch below nail line and mark outline of vent for placement later. Mark outline of 11 x 11 inch hole. With blade set to thickness of sheathing, cut hole in roof deck.



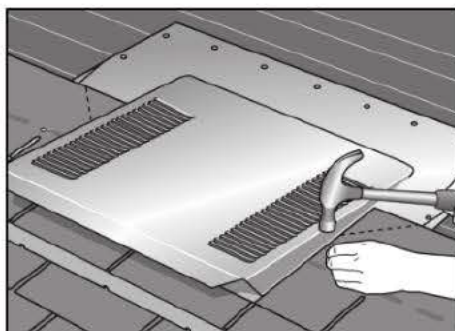
2. SEAL using a sufficient amount of locally-approved sealant (Class A where required by code for flame and ember resistance) around inner and outer flange.



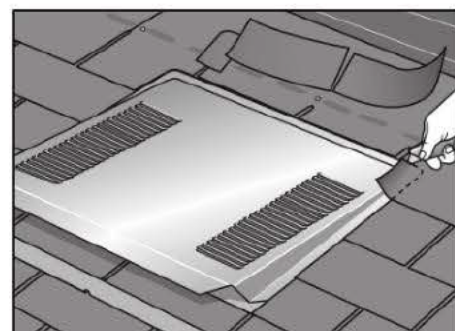
3. PLACE vent directly over 11 x 11 inch hole using previously marked outline as a guide.



4. SECURE at 4 inch centers, using locally-approved roofing nails or screws of sufficient length to penetrate sheathing. **SEAL** all penetrations using locally-approved sealant (Class A where required by code for flame and ember resistance).

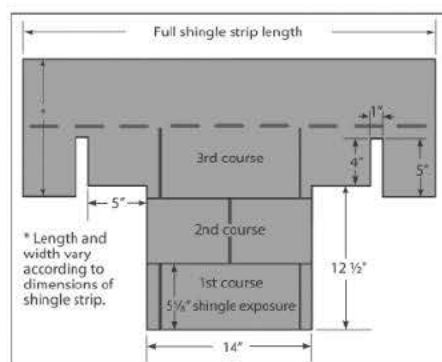


5. COVER with roofing material around vent. Based on local best practices, a 45 degree angle cut must be made on the material terminating at the vent. (See Step 5A if installing shingle-over finish method).

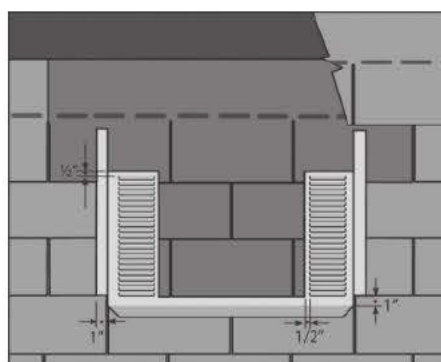


6. TRIM roofing material back 1 inch on top and sides of vent cover to allow for proper drainage.

5A. ALTERNATE SHINGLE-OVER FINISH METHOD



1. TRIM Cut 2 shingle strips to lengths shown for Courses 1 and 2. Using a full length of shingle strip, trim to pattern dimensions shown for Course 3.



2. BEGINNING WITH COURSE 1 Align and attach to top of vent as shown using locally-approved peel and stick, two-sided tape, or sealant (Class A where required by code for flame and ember resistance). Repeat with courses 2 and 3 to complete shingle-over finish method.

***Optional Wind Diverter** (Wind speeds between 70-110 mph) installation should occur before securing lower course of shingles at vent placement. Mark diverter location (centered in alignment with vent location) one course below lower edge of vent. Apply bead of locally-approved sealant (Class A where required by code for ember and flame resistance) to underside of diverter; install on mark so that next shingle course can be installed over base of diverter, leaving 1/4 inch to 1/2 inch channel between edge of shingle course above diverter and inside diverter wall. Secure with four evenly-spaced, locally-approved roofing nails or screws of sufficient length to penetrate sheathing. Continue with Step 1.

GENERAL INSTRUCTION NOTES:

1. Class A materials should be used on installation of **FIRE&ICE**® attic ventilation products where required by local code.
2. Do not install vents below areas of concentrated water runoff, particularly if partially under, near, or adjacent to solar array installations. Placement assumes gutters are installed and are in good working order in all applicable areas.
3. Standard installation is at 3:12 pitch or greater.
4. All low vents (intake) shall be uniformly installed a minimum of 6 inches above attic insulation. The width of any eave overhang must be taken into consideration so, for example, the insulation does not block the attic vent opening.
5. All high vents (exhaust) shall be uniformly installed 2 to 3 courses below the ridge assembly, unless prevented by structural framing or other design limitations.
6. O'Hagin vents are designed to be part of a complete roofing system. Failure to properly install all components will negatively impact overall performance and will void warranty protection.
7. For specific information regarding high velocity wind areas (70-110 mph) contact O'Hagin.

210 Classic Court, Suite 100
Rohnert Park, CA 94928
Toll Free 877-324-0444
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THE TECHNOLOGICAL LEADER IN ATTIC VENTILATION
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ROOF VENT PLAN-3