

**COUNTY OF MENDOCINO
STANDARD SERVICES AGREEMENT**

This Agreement, dated as of May 16, 2017, is by and between the COUNTY OF MENDOCINO, hereinafter referred to as the "COUNTY", and Dan George Roofing, 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 Roofing Repair Work at Building 32, 841 Low Gap Road, Ukiah; 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, and the following described exhibits, all of which are incorporated into this Agreement by this reference (with Exhibit F only incorporated to the extent referenced by Exhibit A):

- Exhibit A Definition of Services
- Exhibit B Payment Terms
- Exhibit C Insurance Requirements
- Exhibit D Additional Contract Provisions
- Exhibit E Additional Terms and Conditions
- Exhibit F RFB# 41-16

The term of this Agreement shall be from February 17, 2017 through October 30, 2017.

The compensation payable to CONTRACTOR hereunder shall not exceed One Hundred Two Thousand dollars (\$102,000) for the term of this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

DEPARTMENT FISCAL REVIEW:

[Signature] 5/3/17
DEPARTMENT HEAD DATE

Budgeted: Yes No

Budget Unit: 1710; CI792

Line Item: 864360

Grant: Yes No

Grant No.: N/A

COUNTY OF MENDOCINO

By: [Signature]
JOHN MCCOWEN, Chair
BOARD OF SUPERVISORS MAY 16 2017

ATTEST:

CARMEL J. ANGELO, Clerk of said Board

By: [Signature]
Deputy MAY 16 2017

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

CARMEL J. ANGELO, Clerk of said Board

By: [Signature]
Deputy MAY 16 2017

INSURANCE REVIEW:

RISK MANAGER

By: [Signature]
ALAN D. FLORA, Risk Manager

CONTRACTOR/COMPANY NAME

By: [Signature]

NAME AND ADDRESS OF CONTRACTOR:

Dan George Roofing

1390 N. McDowell Blvd #125

Petaluma, CA 94954

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

COUNTY COUNSEL REVIEW:

APPROVED AS TO FORM:

KATHARINE L. ELLIOTT,
County Counsel

By: [Signature]
Deputy

FISCAL REVIEW:

By: [Signature]
Deputy CEO/Fiscal

EXECUTIVE OFFICE REVIEW:

APPROVAL RECOMMENDED

By: [Signature]
CARMEL J. ANGELO, Chief Executive Officer

Signatory Authority: \$0-25,000 Department; \$25,001- 50,000 Purchasing Agent; \$50,001+ Board of Supervisors
Exception to Bid Process Required/Completed

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:** CONTRACTOR shall indemnify, defend, and hold harmless the COUNTY, its officers, agents, and employees, from and against any and all claims, liabilities, and losses whatsoever including damages to property and injuries to, or death of persons, reasonable attorney's fees, expert fees and court costs occurring or resulting, or alleged to be occurring or resulting, to any and all persons, firms or corporations furnishing or supplying work, services, materials, or supplies in connections with the CONTRACTOR'S performance or its obligations under this AGREEMENT, and from any and all claims, liabilities, and losses occurring or resulting, or alleged to be occurring or resulting, to any person, firm, or corporation for damage, injury, or death arising out of or connected with the CONTRACTOR'S performance of its obligations under this AGREEMENT, unless such claims, liabilities, or losses arise 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.
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.
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 agrees to provide to a private, not-for-profit, successor and if there is none then 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.

CONTRACTOR shall pay all royalties and license fees which may be due for any patented or copyrighted materials, methods or systems selected by the CONTRACTOR and incorporated into the work as set forth in Exhibit "A", and

shall defend, indemnify and hold the COUNTY harmless from any claims for infringement of patent or copyright arising out of such selection.

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: Dan George Roofing
1390 N. McDowell Blvd # 125
Petaluma, CA 94954
ATTN: Dan George

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 and state laws pertaining to equal employment opportunity and that it shall not engage in any unlawful discrimination.
 - 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, disability, sex, sexual orientation, national origin, age, religion, Veteran's status, political affiliation, or any other non-merit factor.
 - 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 and display the same in a location that is reasonably conspicuous, as well as file copies of same with the County Executive Office.
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 prior written notice. 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 Roofing Repair Work at Building 32, 841 Low Gap Road, Ukiah shall not exceed \$102,000 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.
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. CONTRACTOR shall use subcontractors identified in Exhibit "A" and shall not substitute subcontractors without COUNTY's prior written approval.
 - 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. PATENT AND COPYRIGHT INDEMNITY: CONTRACTOR represents that it knows of no allegations, claims, or threatened claims that the materials, services, hardware or software ("CONTRACTOR Products") provided to COUNTY under this Agreement infringe any patent, copyright or other proprietary right. CONTRACTOR shall defend, indemnify and hold harmless COUNTY of, from and against all losses, claims, damages, liabilities, costs expenses and amounts (collectively, "Losses") arising out of or in connection with an assertion that any CONTRACTOR Products or the use thereof, infringe any patent, copyright or other proprietary right of any third party.
 - a. COUNTY will: (1) notify CONTRACTOR promptly of such claim, suit or assertion; (2) permit CONTRACTOR to defend, compromise, or settle the claim; and, (3) provide, on a reasonable basis, information to enable CONTRACTOR to do so. CONTRACTOR shall not agree without COUNTY's prior written consent, to any settlement, which would require COUNTY to pay money or perform some affirmative act in order to continue using the CONTRACTOR Products.
 - b. If CONTRACTOR is obligated to defend COUNTY pursuant to this Section 32 and fails to do so after reasonable notice from COUNTY, COUNTY may defend itself and/or settle such proceeding, and CONTRACTOR shall pay to COUNTY any and all losses, damages and expenses (including attorney's fees and costs) incurred in relationship with COUNTY's defense

and/or settlement of such proceeding.

- c. 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.
- d. Notwithstanding this Section 32, COUNTY retains the right and ability to defend itself, at its own expense, against any claims that CONTRACTOR Products infringe any patent, copyright, or other intellectual property right.

33. OTHER AGENCIES:

Other tax supported agencies within the State of California who have not contracted for their own requirements may desire to participate in this contract. The CONTRACTOR is requested to service these agencies and will be given the opportunity to accept or reject the additional requirements. If the CONTRACTOR elects to supply other agencies, orders will be placed directly by the agency and payments made directly by the agency.

[END OF GENERAL TERMS AND CONDITIONS]

EXHIBIT A

DEFINITION OF SERVICES

CONTRACTOR shall provide the following services:

Provide Roof Restoration and Full Roof Coating at building No 32 located at 841 Low Gap Road, Ukiah as stated in Bid Alternate #2 of Mendocino County RFB # 41-16. All work shall conform to the requirements as set forth in RFB # 41-16 as attached in Exhibit F.

Work shall include:

BID Alternate #2 – Restoration and full Roof Coating (Owner Supplied Materials)

- Water Test Ridge Vent units as identified at job walk. Seal mouth of vents at water test.
- Clean the roof seams, flashings around all penetrations, curbs, and perimeter edges thoroughly with pressure washer, brush and TSP cleaner and rinse.
- Allow to dry for 24 hours.
- Apply base coat of polyurethane coating at a rate of 2 gallons per 100 sq. ft. at all seams, fasteners and flashings 8 inches wide into the field and up the curbs.
- Install a 4, 8 or 12 inch wide polyester soft fabric into the polyurethane at all seams, flashing and edges immediately with approximately 60% bleed through.
- Allow to cure for 24 hrs.
- Install a top coat of Polyurethane across the entire field of the roof and walls at a rate of 2 gallons per 100 sq. ft.
- The contractor has provided the county with the following material quantities which represents the total of all materials provided to the contractor by the county.
 - 15 each of 6" x 300' rolls of Grip Polyester reinforcement
 - 17 each of 3 gallon pails of White Knight Metal Primer
 - 20 each of 5 gallon pails of White Knight Plus WC Base Coat
 - 3 each of 5 gallon pails of White Knight Plus WC Top Coat
 - 7 each of 55 gallon drums of White Knight Plus WC Top Coat

The contractor shall be responsible for all sealant and any incidental materials required to complete the project.

- All work will be in accordance with The Garland Company project specifications included in RFB #41-16 and subject to regular inspections by Garland representatives. All work must meet the installation standards required by The Garland Company to provide the County with their 10 year product warranty for the roof coating system installed by the Contractor.

EXHIBIT B

PAYMENT TERMS

COUNTY will pay CONTRACTOR for the services described in this Agreement, for the amount of One Hundred Two Thousand dollars (\$102,000). 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.

CONTRACTOR agrees to indemnify and hold harmless COUNTY, its elected or appointed officials, employees or volunteers against any claims, actions, or demands against them, or any of them, and against any damages, liabilities or expenses, including costs of defense and attorney's fees, for personal injury or death, or for the loss or damage to the property, or any or all of them, to the extent arising out of the performance of this Agreement by CONTRACTOR.

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 CONTRACTOR'S and subcontractors' employees.

CONTRACTOR shall furnish to COUNTY certificates of insurance with Automobile Liability/General Liability Endorsements evidencing at a minimum the following:

- 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.

[END OF INSURANCE REQUIREMENTS]

EXHIBIT D
ADDITIONAL CONTRACT PROVISIONS

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:
<http://www.co.mendocino.ca.us/planning/stormwater.htm>
 - 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:
<http://www.co.mendocino.ca.us/planning/Apps.htm>.
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.

EXHIBIT E
ADDITIONAL TERMS AND CONDITIONS

In addition to the terms and conditions presented elsewhere in this contract, the Contractor shall comply with the following:

1. **BONDS**

The Contractor is required to furnish a Labor and Material Bond and a Performance Bond each in the amount equal to one hundred percent (100%) of the contract price. Said Bonds shall be obtained from a surety company satisfactory to County. The actual cost of such bonds shall be paid for by the owner.

2. **TIME OF COMPLETION AND LIQUIDATED DAMAGES**

In case of failure on the part of Contractor to complete the work within the time stipulated in RFB 41-16 plus any duly authorized extension of time granted in writing by County, Contractor shall pay to County the sum of \$250.00 per calendar day for each day's delay beyond the time prescribed as liquidated damages, but not as a penalty.

3. **NON-COLLUSION STIPULATION**

No person, firm or corporation shall make or file or be interested in more than one bid for the same work, except insofar as alternate bids may be called for. No person, firm or corporation shall submit a collusive or sham bid or seek directly or indirectly to induce any other bidder to submit a collusive or sham bid or to refrain from submitting a bid or to seek in any way to control or fix the price of the bid or any portion of the bid price in order to secure an advantage against County or any other person interested in the proposed contract. However, a person, firm or corporation submitting a sub-proposal to a bidder or quoting prices on materials to a bidder is not hereby disqualified from submitting sub-proposals or quoting prices to other bidders. The Contractor shall execute the attached Non-Collusion Affidavit as part of this contract.

4. **ANTI-TRUST CLAIM ASSIGNMENT**

Pursuant to California Labor Code Section 7103.5, the following certification is hereby set forth and made a part of these specifications:

In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the contractor or subcontractor offers and agrees to assign to the awarding body all rights, title and interest in and to all causes of action it may have under Section 4 of the



Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the contractor, without further acknowledgment by the parties.

5. PUBLIC CONTRACT CODE QUESTIONNAIRE

In accordance with California Public Contract Code Section 7106, the following questionnaire must be completed by the Bidder:

Has the Bidder, any officer of the Bidder, or any employee of the Bidder who has a proprietary interest in the Bidder, ever been disqualified, removed, or otherwise prevented from bidding on or completing a federal, state, or local government project because of a violation of law or a safety regulation?

Yes

No

If 'yes', explain the circumstances in the space below.



NON-COLLUSION AFFIDAVIT

In accordance with California Public Contract Code Section 7106, the following affidavit must be completed by the Bidder:

Non-Collusion Affidavit to be executed by Bidder
and submitted with bid

State of California)
) ss.
County of Mendocino)

_____, being first duly sworn,
deposes and says that he or she is _____ of
_____ the party making the foregoing bid that the bid
is not made in the interest of, or on behalf of, any undisclosed person, partnership,
company, association, organization, or corporation; that the bid is genuine and not
collusive or sham; that the bidder has not directly or indirectly induced or solicited any
other bidder to put in a false or sham bid, and has not directly or indirectly colluded,
conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or
that anyone shall refrain from bidding; that the bidder has not in any manner, directly or
indirectly, sought by agreement, communication, or conference with anyone to fix the
bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element
of the bid price, or of that of any other bidder, or to secure any advantage against the
public body awarding the contract of anyone interested in the proposed contract; that all
statements contained in the bid are true; and, further, that the bidder has not, directly or
indirectly, submitted his or her bid price or any breakdown thereof, or the contents
thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee
to any corporation, partnership, company association, organization, bid depository, or to
any member or agent thereof to effectuate a collusive or sham bid.



Signature

REQUEST FOR BIDS



County of Mendocino
Facilities & Fleet

Bid No. 41-16

Job/Project Description: Roof Repairs at Building 32

Issue Date: 9-16-2016

Due Date: 10-7-2016

Mendocino County is seeking bids from Roofing contractors to repair the existing metal roof located at 841 Low Gap Road, Ukiah, CA.

Sealed Bids will be accepted at the Facilities and Fleet Division Office, at 851 Low Gap Road, Ukiah, until 2:00 p.m. Friday October 7th, 2016.

REQUIRED LICENSING

The CSLB license required for this Project is "C-39" License. Contractor's License# _____ Expires _____

Contractor has registered with the State of California's DIR (Department of Industrial Relations) website.

DIR Registration # _____.

Contractor's current Mendocino County Business License # _____. At the time of contract award, all contractors who are not exempt and do not already have a MCBL shall apply for one, which shall be obtained prior to performance of any work by that contractor.

AWARD OR REJECTION OF BIDS

The contract shall be awarded to the lowest responsive and responsible bidder complying with these instructions, provided the bid is deemed reasonable and in the best interest of the County of Mendocino.

TIME OF COMPLETION

Bidder agrees to commence work on or before a date to be specified and to fully complete the project within Thirty (30) calendar days.

MANDATORY WALK THROUGH

A mandatory pre-quote conference will be held on Friday September 23, 2016 at 10:00 a.m. at the Project site, 841 Low Gap Road, Ukiah, California.

FOR MORE INFORMATION

Plans and bid documents are available online at <http://www.co.mendocino.ca.us/gs/central/rfps.thm#construction>. For additional details and information, contact Doug Anderson, Facilities and Fleet, at (707) 234-6054.

SCOPE OF WORK

Provide Roofing repairs per the attached plans and specifications.

BID #1 Base Bid – Restoration and Leak Repair

Scope of Work:

- Water Test Ridge Vent units as identified at job walk. Seal mouth of vent at water test.
- Clean the roof flashings around all penetrations, curbs, and perimeter edges thoroughly with pressure washer, brush and TSP cleaner and rinse
- Allow to dry for 24 hrs.
- Apply base coat of polyurethane coating at a rate of 2 gallons per 100 sq ft on all seams, curbs, penetrations, flashings and fasteners 8 inches wide into the field and up the curb
- Install a 4, 8 or 12 inch wide polyester soft fabric into the polyurethane at all seams, flashing and edges immediately with approximately 60% bleed through
- Allow to cure for 24 hours
- Install a top coat of Polyurethane across the coated areas at a rate of 2 gallons per 100 sq ft
- Install a second coat of polyurethane coating on all appropriate areas that need supplemental coverage for 32 mils in final thickness.

This is a repair system only of the noticeable failed areas at this time not a roof. This approach is to attack the current roof failures and attain water tight status until proper funds can be organized for an entire re-roofing strategy.

Garland will provide assistance with all aspects if needed through assessment, budget, specifications, pre-bid,

EXHIBIT F

preconstruction, minimum 3 days a week inspection during installation of roofing system, photo analysis and weekly progress reports, final inspection and year inspections.

Total Base Bid Price : _____ (\$ _____)

BID Alternate #2 – Restoration and Full Roof Coating (OWNER SUPPLIED MATERIALS)

- Water Test Ridge Vent units as identified at job walk. Seal mouth of vent at water test.
- Clean the roof seams, flashings around all penetrations, curbs, and perimeter edges thoroughly with pressure washer, brush and TSP cleaner and rinse
- Allow to dry for 24 hrs.
- Apply base coat of polyurethane coating at a rate of 2 gallons per 100 sq ft all seams, fastners and flashings 8 inches wide into the field and up the curb
- Install a 4, 8 or 12 inch wide polyester soft fabric into the polyurethane at all seems, flashing and edges immediately with approximately 60% bleed through
- Allow to cure for 24 hours
- Install a top coat of Polyurethane across the entire field of the roof and walls at a rate of 2 gallons per 100 sq ft.

Contractor is required to provide material quantities to Owners Representative.

This is a repair system only of the noticeable failed areas at this time not a roof. This approach is to attack the current roof failures and attain water tight status until proper funds can be organized for an entire re-roofing strategy.

Garland will provide assistance with all aspects if needed through assessment, budget, specifications, pre-bid, preconstruction, minimum 3 days a week inspection during installation of roofing system, photo analysis and weekly progress reports, final inspection and year inspections.

Alternate #2 Total Bid Price : _____ (\$ _____)

ADDENDUM ACKNOWLEDGEMENT: I have received the following addendum pertaining to the bid and they are included as part of my bid. Addendum Numbers: _____

THIS FORM MUST BE COMPLETED, SIGNED AND DATED FOR YOUR BID TO BE VALID:

Signature: _____ Date: _____
 Print Name _____ Address: _____
 Company: _____
 E-mail: _____ Phone: () - _____

An engineer's estimate has not been prepared for this project. For the convenience of bidders this project has been placed in the budget category noted below. Acceptance or rejection of bids is not limited by the range indicated.

- Less than \$45,000 * No bonding required

EXHIBIT F

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>

CONTRACTOR REGISTRATION

Per Labor Code Section 1771.1(a) 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.

CERTIFIED PAYROLL RECORDS

Per Labor Code Section 1776 each contractor and subcontractor 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. Per SB 854 contractors and subcontractors are required to furnish certified payroll reports directly to the Department of Industrial Relations.

EMPLOYMENT OF APPRENTICES

Each contractor and subcontractor performing work in an apprenticeable craft or trade shall comply with Section 1777.5 relating to Apprentices on public works projects.

LAWS AND GOVERNANCES

In the performance of the work contemplated by this contract, the contractor shall conform to and abide by all labor requirements and provisions of State and Federal Laws and City and County Ordinances and Regulations which may in any manner affect those engaged or employed on the work project, including but not limited to the overtime provisions of the Labor Code section 1813 and 1815 of the State of California.

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.

CONTRACTOR agrees to indemnify and hold harmless COUNTY, its elected or appointed officials, employees or volunteers against any claims, actions, or demands against them, or any of them, and against any damages, liabilities or expenses, including costs of defense and attorney's fees, for personal injury or death, or for the loss or damage to the property, or any or all of them, to the extent arising out of the performance of this Agreement by CONTRACTOR.

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 CONTRACTOR'S and subcontractors' employees.

CONTRACTOR shall furnish to COUNTY certificates of insurance with Automobile Liability/General Liability Endorsements evidencing at a minimum the following:

- 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.

EXHIBIT F
ATTACHMENT A
GENERAL PROVISIONS

1. CONTRACT DOCUMENTS

The contract documents shall consist of the County's standard form contract as well as this Request for Bids, all documents listed in the above SCOPE OF WORK section, all addenda issued prior to bid and information provided at any mandatory pre-bid walkthrough. As a public project, applicable provisions of the California Public Contract code shall apply, as does the California State Labor Code, the federal Davis Bacon Act and the Americans with Disabilities Act of 1990. Regardless of any information presented to the contrary, all work shall comply with the California Building Code, Mendocino County Building Code, Title 24 and any referenced code standards required in the jurisdiction where the work shall take place. A copy of the County's standard form contract will be furnished to bidders upon request.

2. BIDDING REQUIREMENTS

To be considered for award, the bid form must be completed in its entirety. Successful responses must include the contractor's license number and expiration date, valid DIR registration number, the bid price in words and numbers, acknowledgement of all addenda issued by the County for this project, the bidders signature, the date signed, the bidder's printed name, and the company name and address under which the contractor's license is issued. Any missing information or invalid license or registration information will be grounds for disqualification. All correspondence will be by US mail unless the contractor provides the email or phone information requested. The County of Mendocino reserves the right to reject any and all bids, to waive any informality in the bids, and to accept the responsive and responsible bid that appears to be in the best interest of the County of Mendocino.

3. SUBMISSION OF BIDS

Bids must be received by the due date and time at the location specified above. Post marks do not count. Bids and modifications or corrections thereof received after the closing time specified above will not be considered. Quotations will not be accepted via email, telephone or facsimile unless specifically authorized within the contract documents.

4. PRODUCTS

Unless otherwise stated, the use of the name or a manufacturer, or of any special brand or make in describing any item contained in these plans and specifications does not restrict bidders to that manufacturer's specific article with the exception of carpet, tile, and paint (the County must adhere to a specific brand/style of carpet, tile, and paint which will be specified within the Scope of Work). The manufacturer, brand and products named are used simply to indicate the character or quality of the article desired. The equipment on which proposals are submitted must be acceptable as equal in character, quality, and utility to brand and/or make indicated herein. The selected contractor will be required to comply with all submittal requirements in the contract documents where it will be the contractor's burden to demonstrate that the submitted product is equal to that specified. The decision of the County will be final.

5. TAXES and FEES

All bids shall include required California State sales tax, freight and shipping costs to the project site, and all licensing, registration, permits and application fees required to complete the work. The County will secure planning and building approvals and is exempt from building permit fees. Encroachment permits and public works inspections and fees are the responsibility of the contractor.

All contractors must have a Mendocino County Business License (MCBL), as required by Mendocino County Code Chapter 6.04, to work on this contract. At the time of contract award, all contractors who are not exempt and do not already have a MCBL shall apply for one, which shall be obtained prior to performance of any work by that contractor.

The contractor/bidder is responsible for ensuring that all of its non-exempt subcontractors have a valid MCBL.

6. SAMPLES

Samples of items, when required, must be furnished free of expense to the County of Mendocino and if not destroyed by tests will, upon request, be returned at the bidder's expense. Samples of selected items may be retained for comparison.

7. PAYMENT

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.

8. ADDENDA/RFI

Addenda will be issued by the County, as required, to clarify the bidding documents and in response to bidder's questions. Addenda questions must be submitted at least 10 days prior to bid opening to be included in the addendum. Requests for Information may be forwarded to the County to provide written notice of discrepancies in the contract documents or conditions differing from those represented in the documents or observable at the time of bid.

9. CHANGES

The contractor shall secure written authorization before proceeding with any additional work, whether requested by the County or required to complete the contract. The cost for any changes to the contract price, whether requested by the County or the Contractor will be approved only after submitting the contractor's true costs for the work and related equipment costs and site expenses. The final change order price may include a fee for administrative overhead and profit not to exceed 15%.

10. COMPLIANCE WITH COUNTY POLICIES

The Board of Supervisors has passed various policies regarding the preservation of our natural resources which may impose specific requirements on the contractor.

- 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 County Planning and Building web page.

- Purchase products that minimize environmental impacts, toxics, pollution, and hazards to worker and community safety to the greatest extent practicable, and purchase products that include recycled content, are durable and long-lasting, conserve energy and water, use agricultural fibers and residues, reduce greenhouse gas emissions, and use unbleached or chlorine free manufacturing processes, are lead-free and mercury-free.

- 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 County Planning and Building web page.

11. MSDS SHEETS

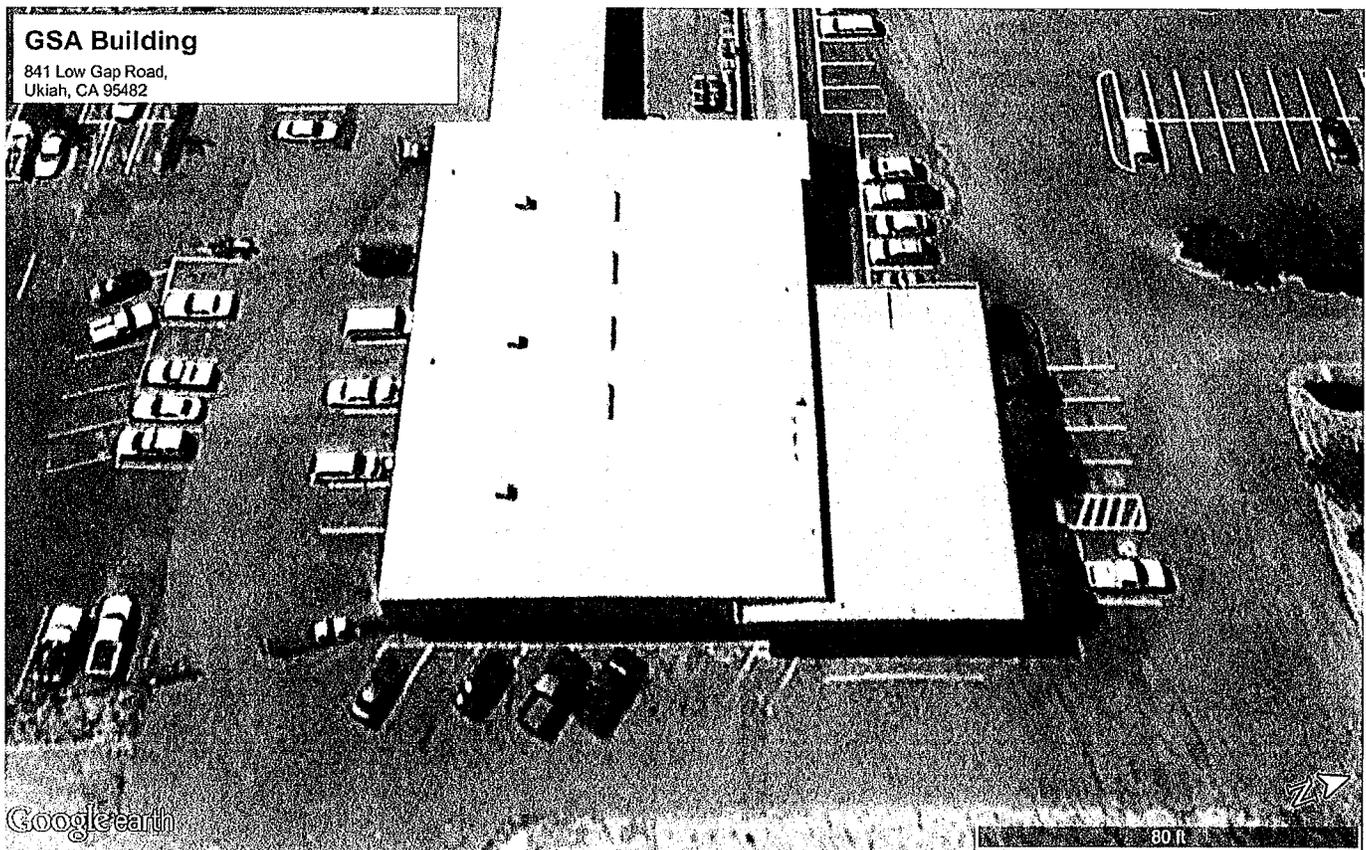
Material Safety Data Sheets for all materials used in all phases of the project shall be presented to the County prior to beginning work. No materials, other than those that have MSDS sheets, shall be permitted on County premises.

County of Mendocino
GSA Building Repair 2016

BID #1 Base Bid - Restoration and Leak Repair

Scope of Work:

- Water Test Ridge Vent units as identified at job walk. Seal mouth of vent at water test.
- Clean the roof flashings around all penetrations, curbs, and perimeter edges thoroughly with pressure washer, brush and TSP cleaner and rinse
- Allow to dry for 24 hrs.
- Apply base coat of polyurethane coating at a rate of 2 gallons per 100 sq ft on all seams, fasteners and flashings 8 inches wide into the field and up the curb
- Install a 4, 8 or 12 inch wide polyester soft fabric into the polyurethane at all seems, flashing and edges immediately with approximately 60% bleed through
- Allow to cure for 24 hours
- Install a top coat of Polyurethane across the coated areas at a rate of 2 gallons per 100 sq ft
- Install a second coat of polyurethane coating on all appropriate areas that need supplemental coverage for 32 mils in final thickness.



BID #2 Add Alternate - Restoration and Full Roof Coating (OWNER SUPPLIED MATERIALS)

- Water Test Ridge Vent units as identified at job walk. Seal mouth of vent at water test.
 - Clean the roof flashings around all penetrations, curbs, and perimeter edges thoroughly with pressure washer, brush and TSP cleaner and rinse
 - Allow to dry for 24 hrs.
 - Apply base coat of polyurethane coating at a rate of 2 gallons per 100 sq ft all seams, fastners and flashings 8 inches wide into the field and up the curb
 - Install a 4, 8 or 12 inch wide polyester soft fabric into the polyurethane at all seems, flashing and edges immediately with approximately 60% bleed through
 - Allow to cure for 24 hours
 - Install a top coat of Polyurethane across the entire field of the roof and walls at a rate of 2 gallons per 100 sq ft
- Contractor required to provide material quantities to Owners Representative.

EXHIBIT F

County of Mendocino
GSA Building Repair 2016
Sheet Metal Flashing & Trim



SECTION 076200

SHEET METAL FLASHING AND TRIM

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Provide all labor, equipment, and materials to fabricate and install the following.
 - 1. Edge strip and flashing
 - 2. Fascia, scuppers, and trim.
 - 3. Coping cap at parapets.
 - 4. Expansion joint and area divider covers.
 - 5. Fascia and edge metal.
 - 6. Gutters, scuppers and down spouts.
- B. Related Sections:
 - 1. Division 07 Section Common Work Results for Thermal and Moisture Protection.
- C. Related Work Specified Elsewhere:
 - 1. Division 07 Section Joint Sealants
 - 2. Division 07 Section Manufactured Metal Roof Panels
 - 3. Division 07 Section Manufactured Metal Wall Panels

1.3 REFERNECES

- A. American Society for Testing and Materials (ASTM)
 - 1. ASTM A653 Standard Specification for Steel Sheet, Zinc-Coated (galvanized) or Zinc-Iron Alloy-Coated (galvannealed) by the Hot-Dip Process.
 - 2. ASTM A792 Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy Coated by Hot Dip Process.
 - 3. ASTM B209 Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
 - 4. ASTM B221 Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
 - 5. ASTM D692 Standard Specification for Coarse Aggregate for Bituminous Paving Mixtures.
- B. American National Standards Institute and Single Ply Roofing Institute (ANSI/SPRI)
 - 1. ANSI/SPRI ES-1 Testing and Certification Listing of Shop Fabricated Edge Metal.
- C. Warnock Hersey International, Inc., Middleton, WI (WH)

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- D. Factory Mutual Research Corporation (FMRC)
- E. Underwriters Laboratories (UL)
- F. Sheet Metal and Air Conditioning Contractors National Association (SMACNA)
 - 1. 1993 Edition Architectural Sheet Metal Manual
- G. National Roofing Contractors Association (NRCA)
 - 1. Roofing and Waterproofing Manual
- H. American Society of Civil Engineers (ASCE)
 - 1. ASCE 7-05 Minimum Design Loads for Buildings and Other Structures.

1.4 SUBMITTALS FOR REVIEW

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

1.5 SUBMITTALS FOR INFORMATION

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

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Sheet Metal Flashing & Trim

F. Certifications:

1. Submit roof manufacturer's certification that metal fasteners furnished are acceptable to roof manufacturer.
2. Submit roof manufacturer's certification that metal furnished is acceptable to roofing manufacturer as a component of roofing system and is eligible for roof manufacturer's system warranty.

1.6 CONTRACT CLOSEOUT SUBMITTALS

- A. General: Comply with Requirements of Section 01 78 00 – Closeout Submittals.
- B. Special Project Warranty: Provide specified warranty for the Project, executed by the authorized agent of the Manufacturer.
- C. Roofing Maintenance Instructions. Provide a manual of manufacturer's recommendations for maintenance of installed roofing systems.
- D. Insurance Certification: Assist Owner in preparation and submittal of roof installation acceptance certification as may be necessary in connection with fire and extended coverage insurance on roofing and associated work.

1.7 QUALITY ASSURANCE

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

1.8 DELIVERY, STORAGE, AND HANDLING

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

1.9 PROJECT CONDITIONS

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

1.10 DESIGN AND PERFORMANCE CRITERIA

- A. Thermal expansion and contraction:

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Sheet Metal Flashing & Trim

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

1.11 WARRANTIES

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

PART 2 – PRODUCTS

2.1 PRODUCTS, GENERAL

- A. Refer to Division 01 Section "Common Product Requirements."
- B. Basis of Design: Materials, manufacturer's product designations, and/or manufacturer's names specified herein shall be regarded as the minimum standard of quality required for work of this Section. Comply with all manufacturer and contractor/fabricator quality and performance criteria specified in Part 1.
- C. Substitutions: Products proposed as equal to the products specified in this Section shall be submitted in accordance with Bidding Requirements and Division 01 provisions.
 1. Proposals shall be accompanied by a copy of the manufacturer's standard specification section. That specification section shall be signed and sealed by a professional engineer licensed in the state in which the installation is to take place. Substitution requests containing specifications without licensed

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Sheet Metal Flashing & Trim

2. engineer certification shall be rejected for non-conformance.
2. Include a list of three (3) projects of similar type and extent, located within a one hundred mile radius from the location of the project. In addition, the three projects must be at least five (5) years old and be available for inspection by the Architect, Owner or Owner's Representative.
3. Equivalency of performance criteria, warranty terms, submittal procedures, and contractual terms will constitute the basis of acceptance.
4. The Owner's decision regarding substitutions will be considered final. Unauthorized substitutions will be rejected.

2.2 ACCEPTABLE MANUFACTURERS

- A. The design is based upon roofing systems engineered and manufactured by

The Garland Company
3800 East 91st Street
Cleveland, Ohio 44105
Telephone: (800) 762-8225
Website: www.garlandco.com

2.3 MATERIALS

- A. General: Product designations for the materials used in this section shall be based on performance characteristics of the R-MER Edge System manufactured by The Garland Company, Cleveland, OH, and shall form the basis of the contract documents.

- B. Materials:

1. Minimum gauge of steel or thickness of Aluminum to be specified in accordance with Architectural Sheet Metal Manual, Sheet Metal and Air Conditioning Contractor's National Association, Inc. recommendations
2. Unexposed base metal material:

R-Mer Edge Fascia or Extruded Fascia Continuous Cant

- A. Zinc-coated steel, ASTM A653, coating designation G-90, in thickness of 0.0299 nom./22 gauge, 36" to 48" by coil length, chemically treated, commercial or lock-forming quality.

R-Mer Edge Coping Chairs

- A. Zinc-coated steel, ASTM A653, coating designation G-90, in thickness of 0.0635 nom./ 16 gauge, 36" to 48" by coil length, chemically treated, commercial or lock-forming quality.

3. Exposed base metal material:

R-Mer Edge Fascia

- A. Zinc-coated steel, ASTM A653, coating designation G-90, in thickness of 24 gauge, 22

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gauge or 20 gauge, 36" to 48" by coil length, chemically treated, commercial or lock-forming quality.

- A. Aluminum, ASTM B209, alloy 3105-H14, in thickness of .032" nom. or .040" nom. or .050" nom. or .063" nom.

R-Mer Edge Extruded Fascia

- A. Aluminum, ASTM B209, alloy 3105-H14, in thickness of .063" nom.

R-Mer Edge Coping

- A. Zinc-coated steel, ASTM A653, coating designation G-90, in thickness of 24 gauge, 22 gauge or 20 gauge, 36" to 48" by coil length, chemically treated, commercial or lock-forming quality.
- A. Aluminum, ASTM B209, alloy 3105-H14, in thickness of .032" nom. or .040" nom. or .050" nom. or .063" nom.

C. Finishes:

- 1. Exposed surfaces for coated panels:
 - a. Steel Finishes: fluorocarbon finish. Epoxy primer baked both sides, .2-.25 mils thickness as approved by finish coat manufacturer.

Weathering finish as referred by National Coil Coaters Association (NCCA).

| PROPERTY | TEST METHOD | FLUOROCARBON |
|----------------------|---------------------------|---------------------------------|
| Pencil Hardness | ASTM D3363 NCCA II-2 | HB-H |
| Bend | ASTM D-4145 NCCA II-19 | O-T |
| Cross-Hatch Adhesion | ASTM D3359 | no loss of adhesion |
| Gloss (60° angle) | ASTM D523 | 25+/-5% |
| Reverse Impact | ASTM D2794 | no cracking or loss of adhesion |
| Nominal Thickness | ASTM D1005 | |

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| | |
|---------|----------|
| Primer | 0.2 mils |
| Topcoat | 0.8 mils |
| TOTAL | 1.0 mils |

*Subject to minimum quantity requirements

- b. Color shall be as specified
2. Exposed and unexposed surfaces for mill finish flashing, fascia, and coping cap, shall be as shipped from the mill.
3. Exposed and unexposed surfaces for anodized aluminum flashing, fascia, and coping cap, shall be as shipped from mill.

2.4 RELATED MATERIALS AND ACCESSORIES

- A. Metal Primer: Zinc chromate type.
- B. Plastic Cement: ASTM D 4586
- C. Sealant: Specified in Section 07900 or on drawings.
- D. Underlayment: ASTM D2178, No15 asphalt saturated roofing felt.
- E. Slip Sheet: Rosin sized building paper.
- F. Fasteners:
 1. Corrosion resistant screw fastener as recommended by metal manufacturer. Finish exposed fasteners same as flashing metal.
 2. Fastening shall conform to Factory Mutual requirements or as stated on section details, whichever is more stringent.
- G. Gutter and Downspout Anchorage Devices: Material as specified for system.

PART 3 – EXECUTION

3.1 EXECUTION, GENERAL

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

3.2 PROTECTION

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

3.3 GENERAL

- A. Secure fascia to wood nailers at bottom edge with a continuous cleat.
- B. Fastening of metal to walls and wood blocking shall comply with building code standards.

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- C. All accessories or other items essential to the completeness of sheet metal installation, whether specifically indicated or not, shall be provided and of the same material as item to which applied.
- D. Allow sufficient clearances for expansion and contraction of linear metal components. Secure metal using fasteners as required by the system. Exposed face fastening will be rejected.

3.4 INSPECTION

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

3.5 MANUFACTURED SHEET METAL SYSTEMS

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

3.6 SHOP-FABRICATED SHEET METAL

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

3.7 FLASHING MEMBRANE INSTALLATION

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

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- B. Snap On Fascia Detail
1. Position base plies of the Built-Up and/or Modified Roofing membrane over the roof edge covering nailers completely, fastening eight (8) inches on center. Install membrane and cap sheet with proper material and procedure according to manufacturer's recommendations.
 2. Install scupper boxes and miters first.
 3. Cant Dam: Install Cant Dam with roofing nails twelve (12) inches on center through the top of metal flange and outside face.
 4. BUR or Modified Flashing: Prime Cant Dam at a rate of one hundred (100) square feet per gallon and allow to dry. Strip in Cant Dam with base flashing membrane extending six (6) inches into roof field, followed with a cap sheet extending nine (9) inches into the roof field. Install membrane and cap sheet with proper material and procedure according to manufacturer's recommendations.
 5. Fascia Cover: Install fascia cover with a splice plate under one end by pressing downward firmly until "snap" occurs and cover is engaged along entire length of miter. Field cut where necessary with fine tooth saw. Sealant is to be placed approximately one (1) inch from fascia cover joint.
- C. Extruded Fascia Detail
1. Position base plies of the Built-up and/or Modified Roofing membrane over the roof edge covering nailers completely, fastening eight (8) inches on center. Install membrane and cap sheet with proper material and procedure according to manufacturer's recommendations.
 2. Install scupper boxes and miters first.
 3. Cant Dam: Install Cant Dam with roofing nails twelve (12) inches on center through the top of metal flange and outside face.
 4. BUR or Modified Flashing: Prime Cant Dam at a rate of one hundred (100) square feet per gallon and allow to dry. Strip in Cant Dam with base flashing membrane extending six (6) inches into roof field, followed with a cap sheet extending nine (9) inches into the roof field. Install membrane and cap sheet with proper material and procedure according to manufacturer's recommendations.
- D. Drip Edge Detail
1. Position base plies of the Built-Up and/or Modified Roofing membrane over the roof edge covering nailers completely, fastening eight (8) inches on center. Install membrane and cap sheet with proper material and procedure according to manufacturer's recommendations.
 2. Install continuous cleat on face of nailer and fasten six (6) inches on center.
 3. Install new Drip Edge hooked to continuous cleat. Set metal flange into roofing cement, nail every three (3) inches on center, and prime at a rate of one hundred (100) square feet per gallon.
 4. Drip Edge flange with base flashing membrane extending six (6) inches into roof field, followed with a cap sheet extending nine (9) inches into the roof field. Install membrane and cap sheet with proper material and procedure according to manufacturer's recommendations.
- E. Gravel Stop Detail
1. Position base plies of the Built-Up and/or Modified Roofing membrane over the roof edge covering nailers completely, fastening eight (8) inches on center. Install membrane and cap sheet with proper material and procedure according to manufacturer's recommendations.
 2. Install continuous cleat on face of nailer and fasten six (6) inches on center.

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

F. Edge Metal With Gutter

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

G. Snap-On Coping Cap Detail

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

3.8 CLEANING

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

3.9 CONSTRUCTION WASTE MANAGEMENT

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

3.10 FINAL INSPECTION

- A. At completion of installation and associated work, meet with Contractor, Architect, installer, installer of associated work, Owner, roofing system manufacturer's representative, and other representatives directly concerned with performance of

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roofing system.

- B. Inspect work and flashing of roof penetrations, walls, curbs and other equipment. List all items requiring correction or completion and furnish a copy of list to each party in attendance.
- 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 [Contractor] [Architect] [Owner] upon completion of corrections.
- E. Following the final inspection, provide written notice of acceptance of the installation from the roofing system manufacturer.
- F. Immediately correct roof leakage during construction. If the Contractor does not respond within twenty-four (24) hours, the Owner will exercise rights to correct the Work under the terms of the Conditions of the Contract.

3.11 DEMONSTRATION AND TRAINING

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

END OF SECTION

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SECTION 07563

FLUID APPLIED ROOFING RESTORATION

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Metal Surface Roof Restoration (1.4.B)(2.3)

1.2 RELATED SECTIONS

- A. Section 07620 - Sheet Metal Flashing and Trim: Metal cap flashing and expansion joints.
- B. Section 07620 - Sheet Metal Flashing and Trim: Weather protection for base flashings.
- C. Section 07710 - Manufactured Roof Specialties: Counter flashing gravel stops, and fascia, scuppers, gutters and downspouts.
- D. Section 15430 - Plumbing Specialties: Piping vents and roof drains.

1.3 REFERENCES

- A. ASTM C 920 - Standard Specification for Elastomeric Joint Sealants.
- B. ASTM C 1250 - Standard Test Method for Nonvolatile Content of Cold Liquid-Applied Elastomeric Waterproofing Membranes.
- C. ASTM D 3960 - Standard Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings.
- D. ANSI/SPRI ES-1 - Testing and Certification Listing of Shop Fabricated Edge Metal
- E. National Roofing Contractors Association (NRCA) - Roofing and Waterproofing Manual.

1.4 SYSTEM DESCRIPTION

- A. Metal Surface Roof Restoration: Renovation work includes:
 - 1. Surface preparation: Remove loose flaking rust, dust, dirt, debris, secure all gaped panels and replace all loose fasteners with next size larger.
 - 2. Metal Flashings: Repair/Replace metal flashings, pitch pockets, etc.
 - 3. Primer: Prime entire roof surface.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.

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- C. Shop Drawings: Submit shop drawings including installation details of roofing, flashing, fastening, insulation and vapor barrier, including notation of roof slopes and fastening patterns of insulation and base modified bitumen membrane, prior to job start.
- D. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
- E. Closeout Submittals: Provide manufacturer's maintenance instructions that include recommendations for periodic inspection and maintenance of all completed roofing work. Provide product warranty executed by the manufacturer. Assist Owner in preparation and submittal of roof installation acceptance certification as may be necessary in connection with fire and extended coverage insurance on roofing and associated work.

1.6 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.
- E. Product Certification: Provide manufacturer's certification that materials are manufactured in the United States and conform to requirements specified herein, are chemically and physically compatible with each other, and are suitable for inclusion within the total roof system specified herein.
- 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.

1.7 PRE-INSTALLATION CONFERENCE

- A. Convene a pre-roofing conference approximately two weeks before scheduled commencement of roofing system installation and associated work.
- B. Require attendance of installers of deck or substrate construction to receive roofing, installers of rooftop units and other work in and around roofing which must precede or follow roofing work including mechanical work, Architect, Owner, roofing system manufacturer's representative.
- C. Objectives include:
 - 1. Review foreseeable methods and procedures related to roofing work, including set up and mobilization areas for stored material and work area.
 - 2. Tour representative areas of roofing substrates, inspect and discuss condition of substrate, roof drains, curbs, penetrations and other preparatory work.
 - 3. Review structural loading limitations of deck and inspect deck for loss of flatness and for required attachment.
 - 4. Review roofing system requirements, Drawings, Specifications and other Contract

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Documents.

5. Review and finalize schedule related to roofing work and verify availability of materials, installer's personnel, equipment and facilities needed to make progress and avoid delays.
6. Review required inspection, testing, certifying procedures.
7. Review weather and forecasted weather conditions and procedures for coping with unfavorable conditions, including possibility of temporary roofing.
8. Record conference including decisions and agreements reached. Furnish a copy of records to each party attending.

1.8 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.
- E. Avoid stockpiling of materials on roofs without first obtaining acceptance from the Architect/Engineer.
- F. Adhesive storage shall be between the range of above 50 degree F (10 degree C) and below 80 degree F (27 degree C). Area of storage shall be constructed for flammable storage.

1.9 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
- B. Weather Condition Limitations: Do not apply roofing system during inclement weather or when a 40 percent chance of precipitation or greater is expected.
- C. 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.
- D. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed during same day.
- E. When applying materials with spray equipment, take precautions to prevent over spray and/or solvents from damaging or defacing surrounding walls, building surfaces, vehicles or other property. Care should be taken to do the following:
 1. Close air intakes into the building.
 2. Have a dry chemical fire extinguisher available at the jobsite.

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3. Post and enforce "No Smoking" signs.
- F. Avoid inhaling spray mist; take precautions to ensure adequate ventilation.
- G. Protect completed roof sections from foot traffic for a period of at least 48 hours at 75 degrees F (24 degrees C) and 50 percent relative humidity or until fully cured.
- H. Take precautions to ensure that materials do not freeze.
- I. Minimum temperature for application is 40 degrees F (4 degrees C) and rising for solvent based materials and 50 degrees F (10 degrees C) and rising for water based.

1.10 WARRANTY

- A. Upon completion of the work, provide the Manufacturer's written and signed Limited Warranty, warranting that, if a leak develops in the roof during the term of this warranty, due to defective material, the manufacturer shall provide the Owner, at the Manufacturer's expense, with the materials necessary to return the defective area to a watertight condition.
 1. Warranty Period:
 - a. 5 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 MANUFACTURERS

- A. Acceptable Manufacturer: Garland Company, Inc. (The), which is located at: 3800 E. 91st St.; Cleveland, OH 44105; Toll Free Tel: 800-321-9336; Tel: 216-641-7500; Fax: 216-641-0633; Email:[request info \(\)](mailto:request_info); Web:www.garlandco.com
- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 ROOF RESTORATION SYSTEM FOR METAL SURFACE ROOFS

- A. Cold Applied White-Knight Plus WC:
 1. Primer: White-Knight Metal Primer/ White-Stallion Metal Primer:
 2. Coating: White-Knight Plus WC:
 3. Flashing: None or repair as needed.
 4. Reinforcement: None.
 5. Surfacing: None

2.3 EDGE TREATMENT AND ROOF PENETRATION FLASHINGS

- A. Flashing Boot - Rubbertite Flashing Boot: Neoprene pipe boot for sealing single or multiple pipe penetrations adhered in approved adhesives as recommended and furnished by the membrane manufacturer.
- B. Vents and Breathers: Heavy gauge aluminum and fully insulated vent that allows moisture and air to escape but not enter the roof system as recommended and furnished by the membrane manufacturer.
- C. Pitch pans, Rain Collar 24 gauge stainless or 20oz (567gram) copper. All joints should be

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welded/soldered watertight. See details for design.

- D. Drain Flashings should be 4lb (1.8kg) sheet lead formed and rolled.
- E. Plumbing stacks should be 4lb (1.8kg) sheet lead formed and rolled.
- F. Liquid Flashing - Tuff-Flash: An asphaltic-polyurethane, low odor, liquid flashing material designed for specialized details unable to be waterproofed with typical modified membrane flashings.
 - 1. Tensile Strength, ASTM D 412: 400 psi
 - 2. Elongation, ASTM D 412: 300%
 - 3. Density @77 degrees F 8.5 lb/gal typical
- G. Fabricated Flashings: Fabricated flashings and trim are specified in Section 07620.
 - 1. Fabricated flashings and trim shall conform to the detail requirements of SMACNA "Architectural Sheet Metal Manual" and/or the CDA Copper Development Association "Copper in Architecture - Handbook" as applicable.
- H. Manufactured Roof Specialties: Manufactured copings, fascia, gravel stops, control joints, expansion joints, joint covers and related flashings and trim are specified in Section 07710.
 - 1. Manufactured roof specialties shall conform to the detail requirements of SMACNA "Architectural Sheet Metal Manual" and/or the NRCA "Roofing and Waterproofing Manual" as applicable.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. Verify that work penetrating the roof deck, or which may otherwise affect the roofing, has been properly completed.
- C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 ROOF PREPARATION AND REPAIR

- A. General:
 - 1. Remove existing roof flashings from curbs and parapet walls down to the surface of the roof. Remove existing flashings at roof drains and roof penetrations.
 - 2. Existing roof surfaces shall be primed as necessary and allowed to dry prior to installing the roofing system.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Repair all defects such as deteriorated roof decks; replace saturated insulation board, replace loose or brittle membrane or membrane flashings. Verify that exiting conditions meet the following requirements:
 - 1. Existing membrane is either fully adhered or that the membranes mechanical fasteners are secured and functional.
 - 2. Application of roofing materials over a brittle roof membrane is not recommended.
- D. Remove all loose dirt and foreign debris from the roof surface. Do not damage roof membrane in cleaning process.

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- E. Clean and seal all parapet walls, gutters and coping caps, and repair any damaged metal where necessary. Seal watertight all fasteners, pipes, drains, vents, joints and penetrations where water could enter the building envelope.
- F. Clean the entire roof surface by removing all dirt, algae, paint, oil, talc, rust or foreign substance. Use a 10 percent solution of TSP (tri-sodium phosphate), Simple Green and warm water. Scrub heavily soiled areas with a brush. Rinse with fresh water to remove all TSP solution. Allow roof to dry thoroughly before continuing.
- G. Repair existing roof membrane as necessary to provide a sound substrate for the liquid membrane. All surface defects (cracks, blisters, tears) must be repaired with similar materials.
- H. Power washing of metal roof surfaces to remove all loose rust or scale is mandatory before application. Use a high volume air broom or compressed air to remove residual dust rust perforations, etc. Deteriorated metal roof decks must be repaired or replaced prior to the application of the coating system.

3.3 INSTALLATION

- A. General Installation Requirements:
 - 1. Install in accordance with manufacturer's instructions. Apply to minimum coating thickness required by the manufacturer.
 - 2. Cooperate with manufacturer, inspection and test agencies engaged or required to perform services in connection with installing the roof system.
 - 3. Insurance/Code Compliance: Where required by code, install and test the roofing system to comply with governing regulation and specified insurance requirements.
 - 4. Protect work from spillage of roofing materials and prevent materials from entering or clogging drains and conductors. Replace or restore work damaged by installation of the roofing system.
 - 5. All primers must be top coated within 24 hours of application. Re-prime if more time passes after priming.
 - 6. Keep roofing materials dry during application. Phased construction can be allowed as long as no, more than 7 days pass between coats excluding primers.
 - 7. Coordinate counter flashing, cap flashings, expansion joints and similar work with work specified in other Sections under Related Work.
 - 8. Coordinate roof accessories and miscellaneous sheet metal accessory items, including piping vents and other devices with work specified in other Sections under Related Work.
- B. Metal Surface Roof Restoration: Renovation work includes:
 - 1. Surface Preparation: Remove loose flaking rust, dust, dirt, debris, secure all gaped panels and replace all loose fasteners with next size larger.
 - a. Remove rust by the most rigorous method suitable for the particular project and as approved by Garland.
 - b. Tighten all fasteners and verify that neoprene washers are in place.
 - c. Replace missing fasteners using oversize fasteners as necessary.
 - d. Seal all fastener heads by applying a heavy dab of compatible sealant to the tops and around of all fastener heads.
 - 1) White-Knight Plus WC
 - 2. Flashings: Repair/Replace metal flashings, pitch pockets, etc.
 - 3. Primer:
 - a. Immediately after rust has been removed, prime surfaces with White-Knight Metal Primer/ Stallion Metal Primer at 1/4 gallon per 100 SF to prevent rust from reoccurring.

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4. Reinforcement: Base coat and treatment of field seams and around penetrations:
 - a. Application of White-Knight Plus Base Coat/ White-Stallion Plus Base Coat or White-Knight Plus Base Coat WC on field seams, flashings and around penetrations
 - 1) Verify that the surface to be coated is properly prepared.
 - 2) Restore the surface to a suitable condition if roof surface becomes contaminated with dirt, dust or other materials that will interfere with adhesion of the coatings.
 - 3) Apply materials at specified dry film thickness.
 - 4) Apply White-Knight Plus Base Coat/ White-Stallion Plus Base Coat or White-Knight Plus WC Base Coat at minimum 6 inch wide stripes over all seams, flashings and around penetrations at 2.0 gallons per 100 SF.
 - 5) Use fabric reinforcement when panels are gapped and cannot be be cured tightly together.
 - 6) Allow to dry for a minimum of 24 hours before applying finish coats.
 - 7) On vertical surfaces to achieve proper application rate cut your application into two coats to avoid sagging and runs of coating.
5. Coating:
 - a. Material: Apply in a uniform manner at 2.0 gallons per 100 SF over the entire roof surface.
 - 1) White-Knight Plus WC
 - b. Use special attention to coating flashings and other critical areas to build adequate membrane thickness.
 - c. Use multiple coats on verticals to prevent sagging.
 - d. Apply to Garland's minimum membrane thickness over the entire roof surface.

3.4 INSTALLATION EDGE TREATMENT AND ROOF PENETRATION FLASHING

- A. Fabricated Flashings: Fabricated flashings and trim are provided as specified in Section 07620.
- B. Manufactured Roof Specialties: Manufactured copings, fascia, gravel stops, control joints, expansion joints, joint covers and related flashings and trim are provided as specified in Section 07710.

3.5 CLEANING

- A. Clean-up and remove daily from the site all wrappings, empty containers, paper, loose particles and other debris resulting from these operations.
- B. Remove asphalt markings from finished surfaces.
- C. Repair or replace defaced or disfigured finishes caused by Work of this section.

3.6 PROTECTION

- A. Provide traffic ways, erect barriers, fences, guards, rails, enclosures, chutes and the like to protect personnel, roofs and structures, vehicles and utilities.
- B. Protect exposed surfaces of finished walls with tarps to prevent damage.
- C. Plywood for traffic ways required for material movement over existing roofs shall be not less than 5/8 inch (16 mm) thick.
- D. In addition to the plywood listed above, an underlayment of minimum 1/2 inch (13 mm) recover board is required on new roofing.

EXHIBIT F

County of Mendocino
GSA Building Repair 2016
Fluid Applied Roofing Restoration

- E. Special permission shall be obtained from the Manufacturer before any traffic shall be permitted over new roofing.

3.7 FIELD QUALITY CONTROL

- A. Require attendance of roofing materials manufacturers' representatives at site during installation of the roofing system.
- B. Perform field inspection and [and testing] as required under provisions of Section 01410.
- C. Correct defects or irregularities discovered during field inspection.

3.8 FINAL INSPECTION

- A. At completion of roofing installation and associated work, meet with Contractor, installer, installer of associated work, roofing system manufacturer's representative and others directly concerned with performance of roofing system.
- B. Walk roof surface areas, inspect perimeter building edges as well as flashing of roof penetrations, walls, curbs and other equipment. Identify all items requiring correction or completion and furnish copy of list to each party in attendance.
- C. If core cuts verify the presence of damp or wet materials, the installer shall be required to replace the damaged areas at his own expense.
- D. Repair or replace deteriorated or defective work found at time above inspection as required to produce an installation that is free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
- E. Following the final inspection, provide written notice of acceptance of the installation from the roofing system manufacturer.

3.9 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

3.10 SCHEDULES

- A. Coatings:
 - 1. Coating: White-Knight Plus WC: highly reflective multi- purpose, single-component aliphatic urethane, liquid waterproofing membrane. VOC compliant and meets South Coast AQMD standards.
 - a. Tensile Strength: ASTM D 412, 2100 psi
 - b. Tear Resistance: ASTM D 624, 160 lbs./in
 - c. Elongation: ASTM D 412, 320%
 - d. Density @ 77 degrees F (25 degrees C, ASTM D 2939) 10.4 lb./gal (1.2 g/m3)
 - e. Flash Point: ASTM D 93, 110 degrees F min. (43 degrees C)
 - f. Non-Volatile: ASTM D 75, Typical 83%
 - g. Viscosity @ 77 degrees F (25 degrees C); Brookfield RVT, #4 Spindle 10 rpm 9200 cP
 - h. Wet Film Thickness @ 2 gal./100 sq. ft. (0.82 l/m2)
 - i. VOC: 50 g/l
 - j. Reflectance: 0.87
 - k. Emittance: 0.89
 - l. SRI: 110

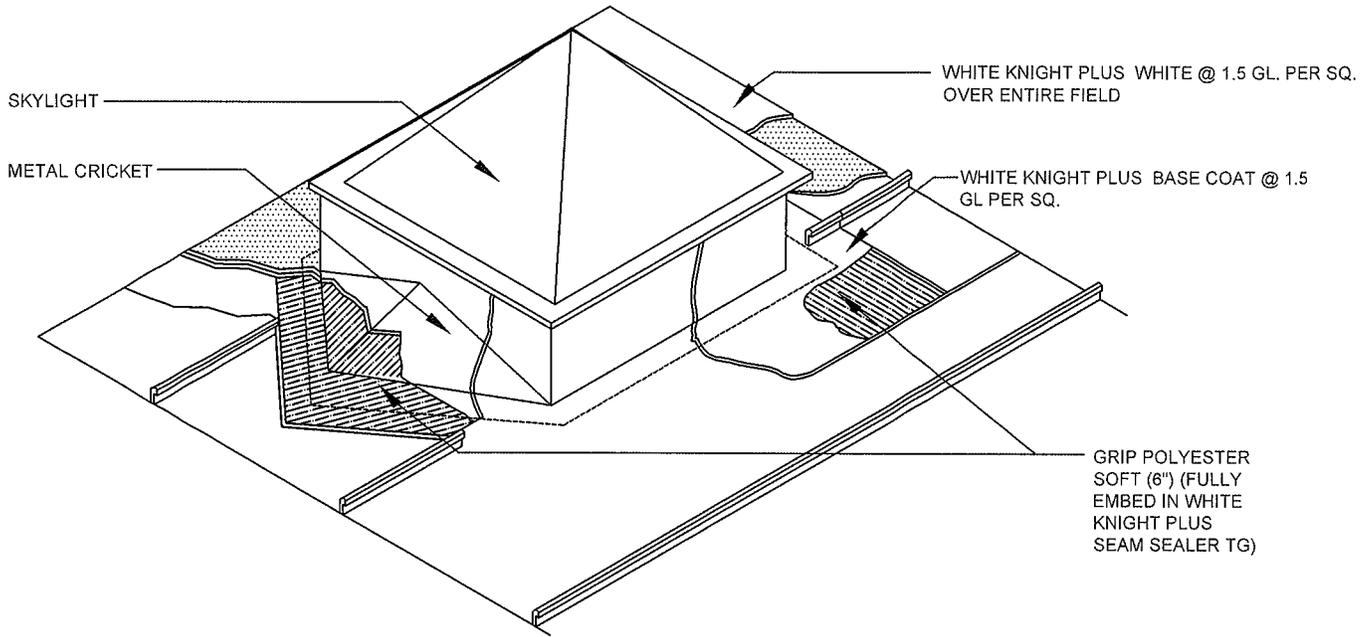
EXHIBIT F

County of Mendocino
GSA Building Repair 2016
Fluid Applied Roofing Restoration

B. Flashings

1. Flashings: White-Knight Plus WC: highly reflective multi- purpose, single-component aliphatic urethane, liquid waterproofing membrane. VOC compliant and meets South Coast AQMD standards.
 - a. Tensile Strength: ASTM D 412, 2100 psi
 - b. Tear Resistance: ASTM D 624, 160 lbs./in
 - c. Elongation: ASTM D 412, 320%
 - d. Density @ 77 degrees F (25 degrees C, ASTM D 2939) 10.4 lb./gal (1.2 g/m3)
 - e. Flash Point: ASTM D 93, 110 degrees F min. (43 degrees C)
 - f. Non-Volatile: ASTM D 75, Typical 83%
 - g. Viscosity @ 77 degrees F (25 degrees C); Brookfield RVT, #4 Spindle 10 rpm9200 cP
 - h. Wet Film Thickness @ 2 gal./100 sq. ft. (0.82 l/m2)
 - i. VOC: 50 g/l
 - j. Reflectance: 0.87
 - k. Emittance: 0.89
 - l. SRI: 110

END OF SECTION



NOTES:

NEW CRICKETS SHALL BE "SEALED" BY PLACING A BEAD OF TUFF-STUFF UNDER THE FLANGES BEFORE THEY ARE MECHANICALLY ATTACHED

RUSTED AREAS MUST BE PRIMED WITH RUST-GO PRIMER

REINFORCEMENT MUST BE USED WITH WHITE KNIGHT PLUS SEAM SEALER ON ANY GAPS LARGER THAN AN 1/8"

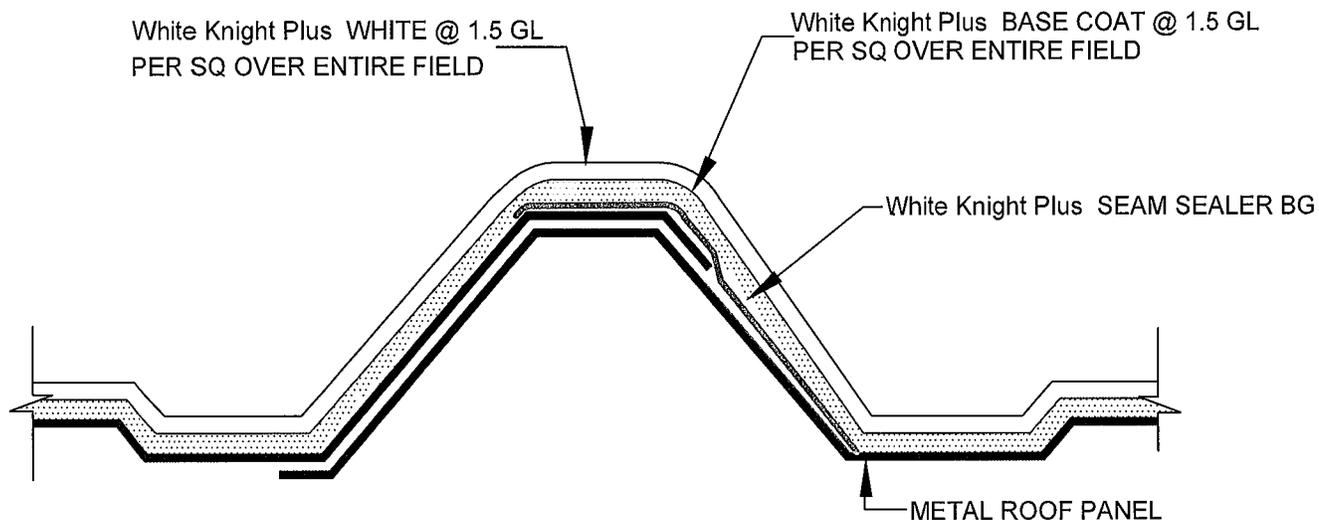


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DETAIL:

WHITE KNIGHT PLUS CURB DETAIL

WHITE KNIGHT PLUS FLUID APPLIED METAL



NOTES:

RUSTED AREAS MUST BE PRIMED WITH RUST-GO PRIMER

REINFORCEMENT MUST BE USED WITH White Knight Plus SEAM SEALER ON ANY GAPS LARGER THAN AN 1/8"

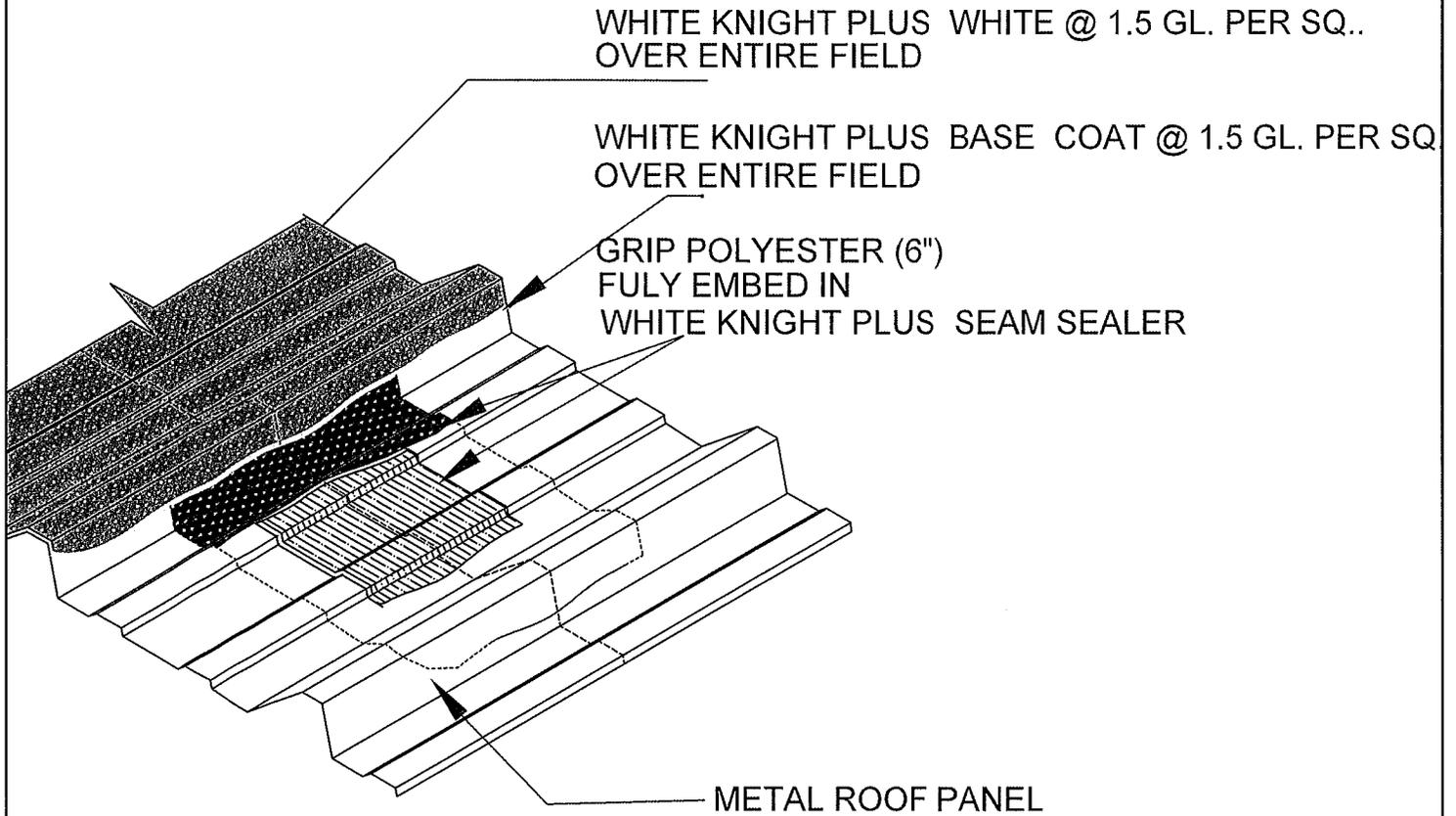


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DETAIL:

White Knight Plus TYPICAL ROOF PANEL

White Knight Plus FLUID APPLIED METAL



ALL AREAS MUST BE PRIMED WITH RUST-GO PRIMER
 REPAIRMENT MUST BE USED WITH WHITE KNIGHT PLUS SEAM
 SEALER ON ANY GAPS LARGER THAN AN 1/8"

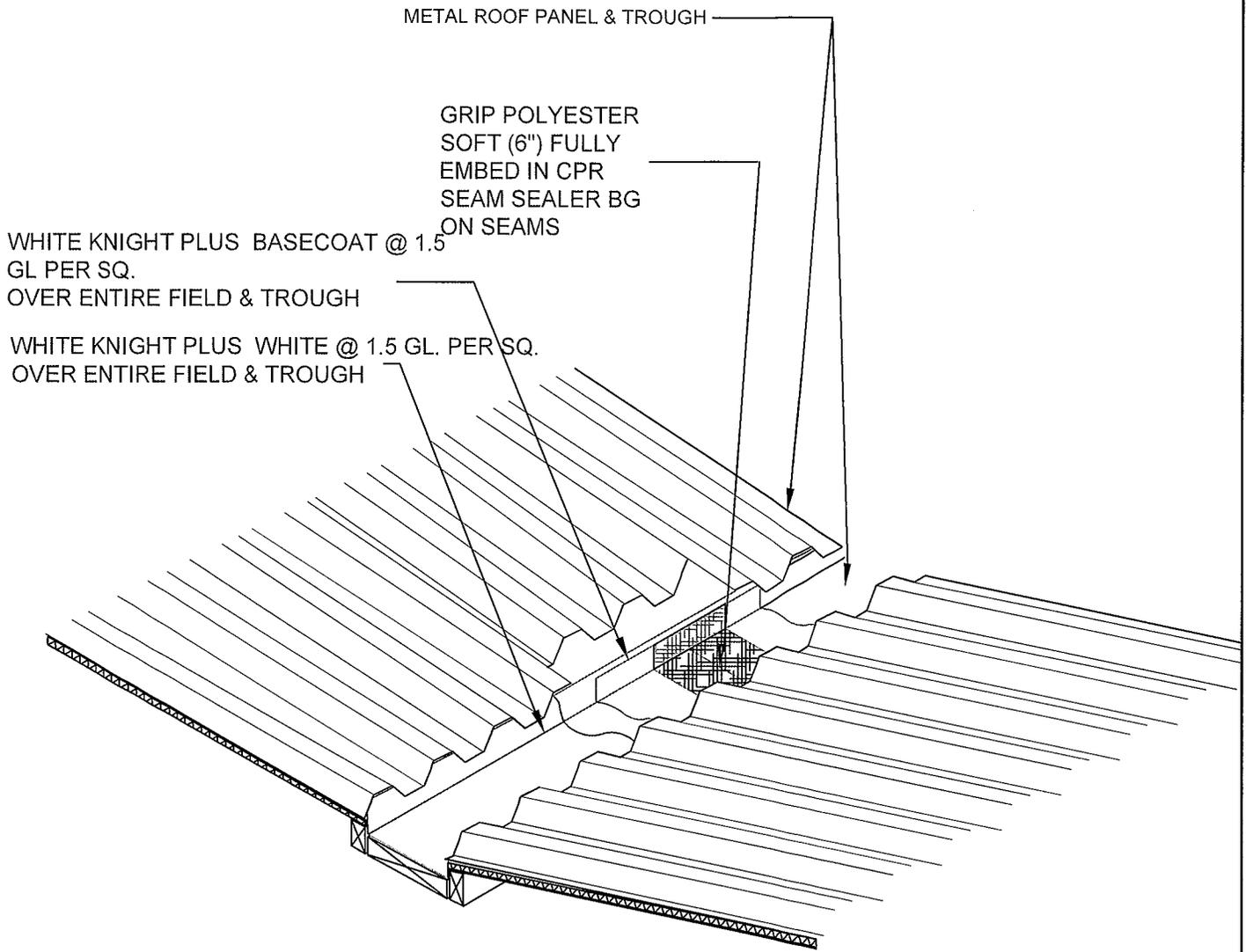


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DETAIL:

WHITE KNIGHT PLUS TYPICAL SEAM DETAIL

WHITE KNIGHT PLUS FLUID APPLIED METAL



WHITE KNIGHT PLUS BASECOAT @ 1.5
GL PER SQ.
OVER ENTIRE FIELD & TROUGH

WHITE KNIGHT PLUS WHITE @ 1.5 GL. PER SQ.
OVER ENTIRE FIELD & TROUGH

METAL ROOF PANEL & TROUGH

GRIP POLYESTER
SOFT (6") FULLY
EMBED IN CPR
SEAM SEALER BG
ON SEAMS

NOTES:

RUSTED AREAS MUST BE
PRIMED WITH RUST-GO PRIMER
REINFORCEMENT MUST BE USED
ON ANY GAPS LARGER THAN 1/8"



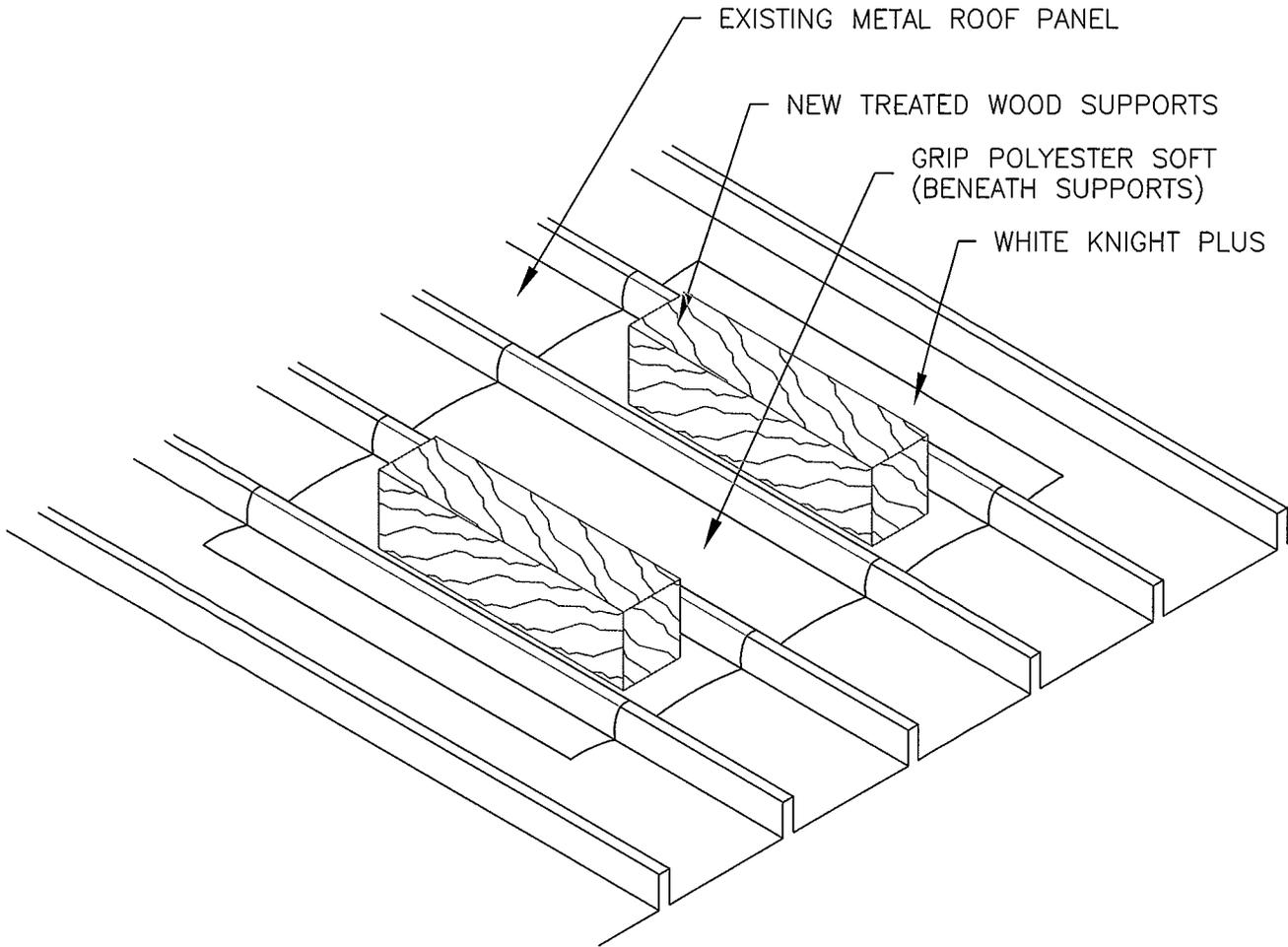
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DETAIL:

WHITE KNIGHT PLUS INTERNAL DRAIN DETAIL

WHITE KNIGHT PLUS FLUID APPLIED METAL

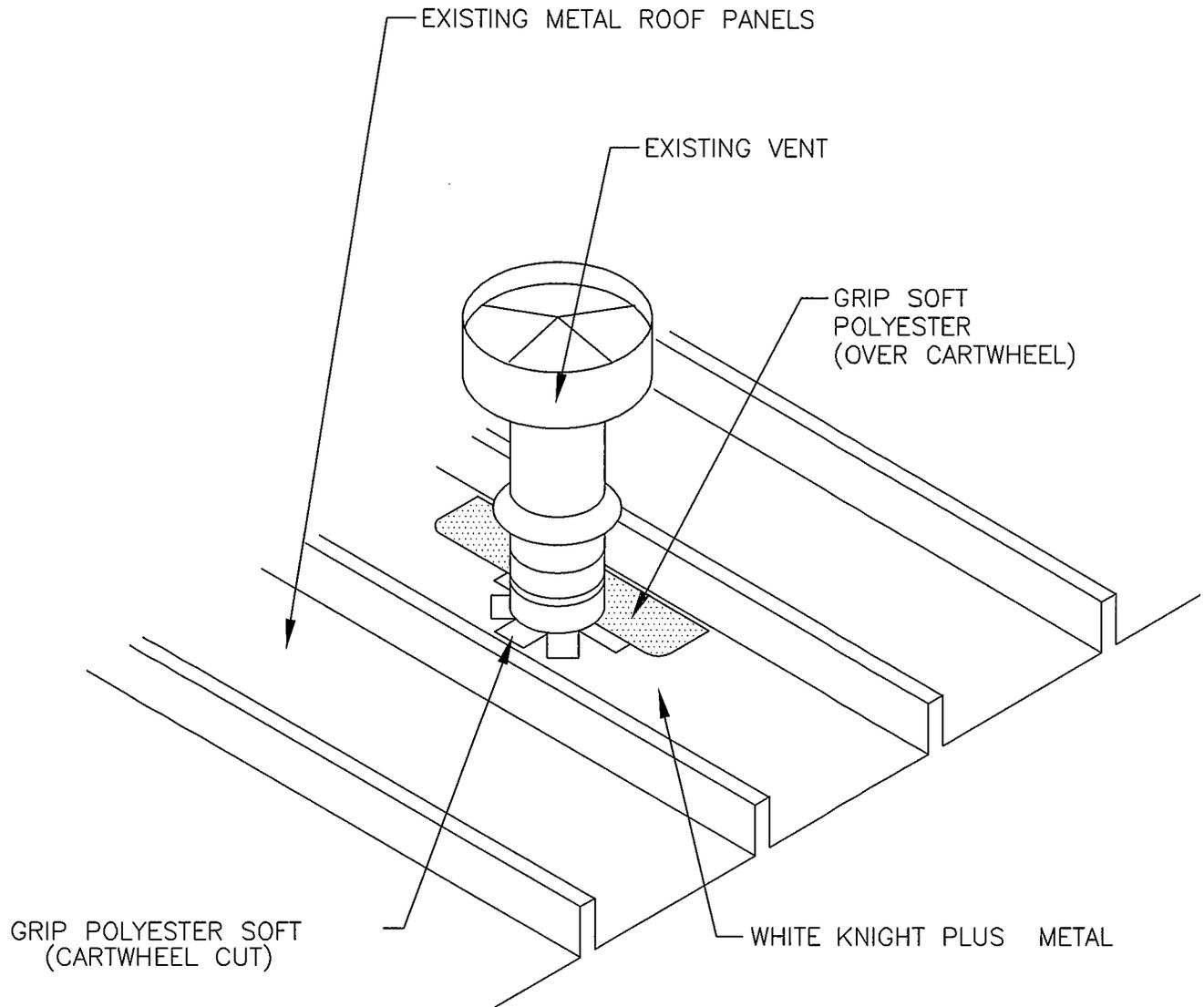


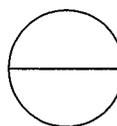
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DETAIL:

EQUIPMENT SUPPORT

METAL COATING RESTORATION



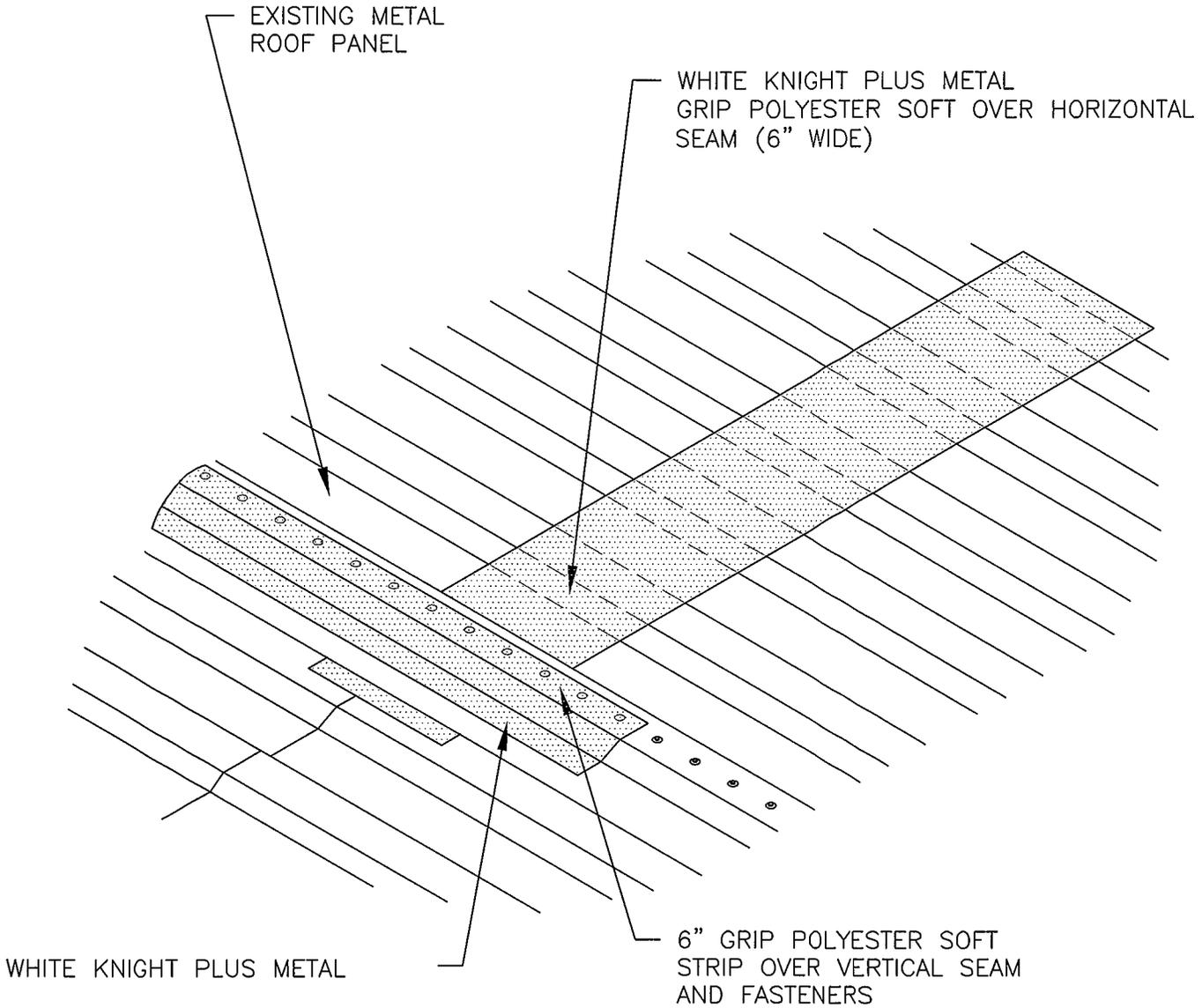

 VENT STACK FLASHING
 N.T.S.



1 8 9 5

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DETAIL:
 ROOF VENT STACK FLASHING



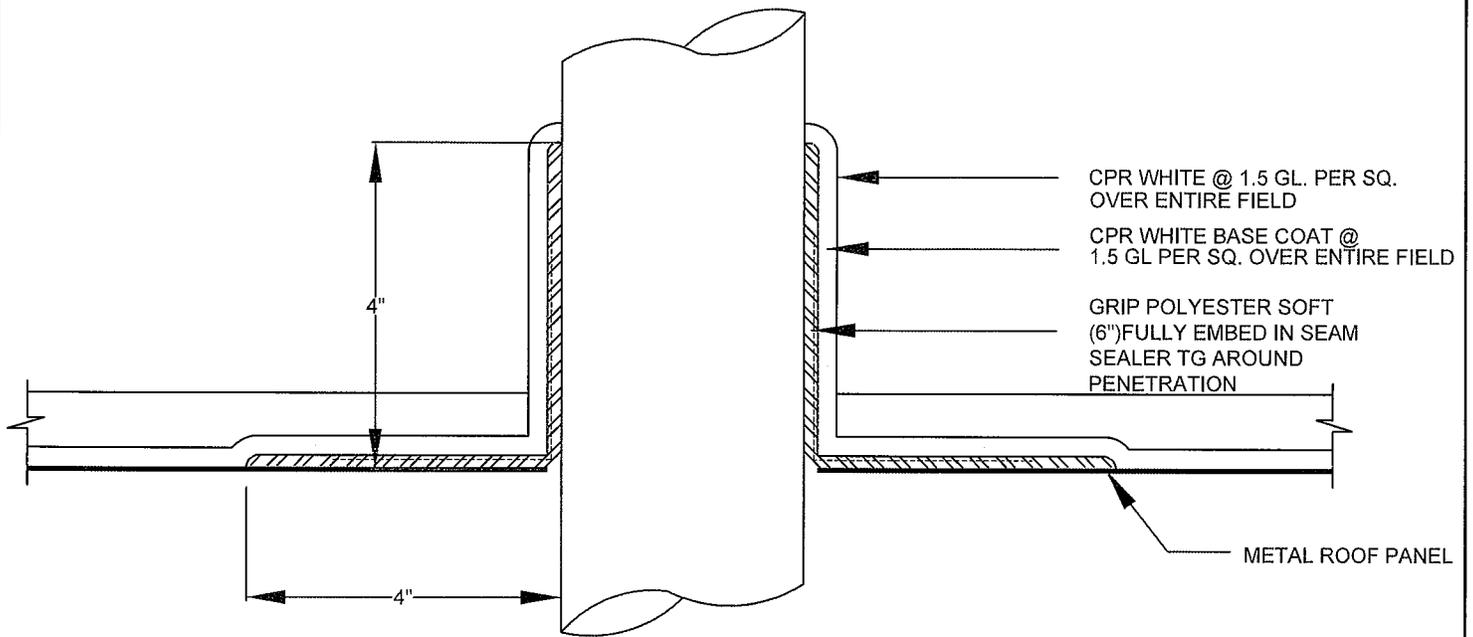
SEAMING DETAILS
 N.T.S.



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DETAIL
 ROOF SEAMING DETAILS

52 COLD APPLIED



NOTES:

RUSTED AREAS MUST BE PRIMED WITH RUST-GO PRIMER

REINFORCEMENT MUST BE USED WITH CPR SEAM SEALER ON ANY GAPS LARGER THAN AN 1/8"

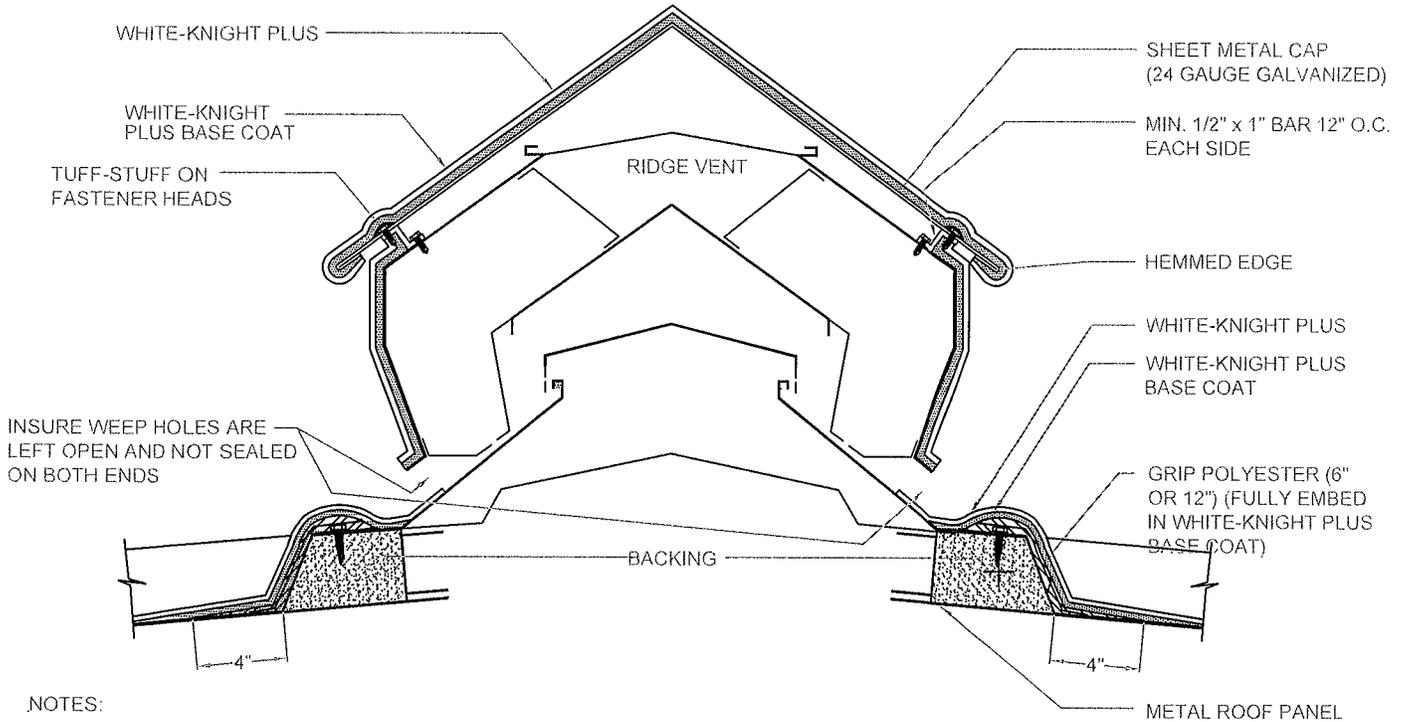


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DETAIL:

White Knight Plus PIPE DETAIL

White Knight Plus FLUID APPLIED METAL



NOTES:
 BACKING CAN BE POLYURETHANE FOAM; SHEET METAL CAPS ARE RECOMMENDED WHEN CORROSION HAS STARTED ON THE INSIDE OF OPEN RIDGE VENTS (SHOWN ABOVE);
 END CAPS SHALL ALLOW VENTILATION, AND CAN BE FIELD FABRICATED.



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DETAIL:

WHITE KNIGHT PLUS RIDGE VENT DETAIL

WHITE KNIGHT PLUS FLUID APPLIED METAL



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White-Knight®/White-Stallion® Plus Base Coat

White-Knight/-Stallion Plus Base Coat • White-Knight Plus Base Coat WC

PRODUCT DESCRIPTION

White-Knight/White-Stallion Plus Base Coat is a gray, multi-purpose, single-component aliphatic urethane, liquid waterproofing membrane, designed as the initial layer of a White-Knight/White-Stallion Plus system to maintain, restore and upgrade the performance of existing, aged single-ply, metal, smooth BUR, and modified bitumen roof systems. The White-Knight Plus Base Coat WC formula is VOC compliant and meets South Coast AQMD standards.

PRODUCT ADVANTAGES

Waterproofing Protection - White-Knight/White-Stallion Plus Base Coat will provide 32 wet mils (26 dry mils) of additional waterproofing protection to an existing roof system as just a base coat. This process will effectively extend the life of the roof system and allow reasonable time to budget for replacement or recoat.

UV Resistant - This high performance aliphatic urethane coating protects the existing roof from the harmful effects of UV, greatly reducing thermal shock. The coating itself is UV resistant due to its aliphatic chemistry.

User Friendly - The ease of application makes White-Knight/White-Stallion Plus Base Coat extremely fast and simple to install. This superior coating can be used to reinforce and seal laps, make spot repairs or restore entire roofing systems.

USES

White-Knight/White-Stallion Plus Base Coat can be used to coat an entire aged single-ply, metal, smooth BUR, and modified bitumen roof system. It can also be used as a repair material for maintenance applications. It is designed to be the base coat in the White-Knight/White-Stallion Plus system.

APPLICATION

White-Knight/White-Stallion Plus can be applied by brush, roller or spray.

Restoration Overview - Ensure that all wet insulation is removed. An infrared scan is highly recommended. Remove all dirt, dust, and debris from the roof surface. Make any necessary repairs and also verify that all repairs are securely bonded. Prior to coating any surface, be sure the coating will adhere by performing an adhesion test (ASTM D 903). Proper coverage rate is critical to the success of all coating projects. Use a wet mil gauge to ensure proper coverage rates.

Single-Ply Restoration System - Power wash the entire surface including flashings with TSP or Simple Green and then thoroughly rinse. The first coat of White-Knight/White-Stallion Plus Base Coat should be applied at approximately 2 gal./100 sq. ft. (0.82 l/m²), 32 wet mils, stripped in over all seams, flashings, and repaired areas. Allow roof system to dry for 24-48 hours but no more than 72 hours. In the field of the roof, apply an additional 2 gal./100 sq. ft. (0.82 l/m²) for the finish coat (32 wet mils). The first layer may still be tacky at 24 hours; this is normal.

Modified/BUR Restoration System - Power wash the entire surface including flashings with TSP or Simple Green. Allow roof system to dry for 24-48 hours, then prime the entire roof surface with All-Knight®/All-Stallion® Primer at a rate of 1/2 gal./100 sq. ft. (0.21 l/m²). For the field of the roof and flashings, apply 2 gal./100 sq. ft. (0.82 l/m²) of White-Knight/White-Stallion Plus Base Coat (32 wet mils). Allow roof system to dry for 24-48 hours but no more than 72 hours. In the field of the roof, apply an additional 2 gal./100 sq. ft. (0.82 l/m²) for the finish coat. The first layer may still be tacky at 24 hours; this is normal.

Metal Restoration System - Power wash the entire surface including flashings with TSP or Simple Green®. When coating a metal surface, all rust must be removed and then treated. All surfaces must be sound, dry, clean, and free of oil, dirt, grease, wax, mildew, loose or flaking paint, and rust by scraping, sanding, wire brushing or blasting. Apply White-Knight/White-Stallion Metal Primer over a small area at 1/4 gal./100 sq. ft. (0.11 l/m²) and let set for twenty (20) minutes.

Monitor to ensure adhesion and note if sag occurs. If any sag occurs, adjust coverage as necessary. Once adhesion is confirmed, then apply White-Knight/White-Stallion Metal Primer over the entire surface at 1/4 gal./100 sq. ft. (0.11 l/m²). The first coat of White-Knight/White-Stallion Plus Base Coat should be applied at approximately 2 gal./100 sq. ft. (0.82 l/m²), 32 wet mils, stripped in over all seams, around penetrations, and fasteners. Allow roof system to dry for 24-48 hours but no more than 72 hours. Next, install the finish coat at 2 gal./100 sq. ft. (0.82 l/m²) over the entire roof (32 wet mils). The first layer may still be tacky at 24 hours; this is normal.

White-Knight®/White-Stallion® Plus Base Coat

White-Knight/-Stallion Plus Base Coat • White-Knight Plus Base Coat WC

| Technical Data | White-Knight/White-Stallion Plus Base Coat |
|---|--|
| Tensile Strength (ASTM D 412) | 2100 psi |
| Tear Resistance (ASTM D 624) | 160 lbs./in. |
| Elongation (ASTM D 412) | 320% |
| Density @ 77°F (25°C) (ASTM D 2939) | 10.4 lbs./gal. (1.2 g/cm ³) |
| Flash Point (ASTM D 93) | 110° F (44° C) |
| Non-Volatile (ASTM D 75) | Typical 83% |
| Viscosity @ 77°F (25°C); 10 rpm Brookfield RVT, #4 Spindle | 9,100 cP |
| Shelf Life | 1 yr. (unopened container) |
| Wet Film Thickness @ 2 gal./100 sq. ft. (0.82 l/m ²) | 32 mils (812.8 micros) |
| Color | Gray |
| Coverage Single-ply Basecoat (seams) Topcoat (entire roof) | 2 gal./100 sq. ft. (0.82 l/m ²) 2 gal./100 sq. ft. (0.82 l/m ²) |
| Modified/BUR Basecoat (entire roof) Topcoat (entire roof) | 2 gal./100 sq. ft. (0.82 l/m ²) 2 gal./100 sq. ft. (0.82 l/m ²) |
| Metal Basecoat (seams) Topcoat (entire roof) | 2 gal./100 sq. ft. (0.82 l/m ²) 2 gal./100 sq. ft. (0.82 l/m ²) |
| Packaging | 5 gallon (18.9 l) pail 55 gallon (208.2 l) drum |

| Eco-Facts | White-Knight/ White-Stallion Plus Base Coat | White-Knight Plus Base Coat WC |
|------------|---|-----------------------------------|
| VOC | 225 g/l | 50 g/l |

PRECAUTIONS

- Do not apply when temperatures are below 40°F (4.4°C) or if rain is in the forecast. Spray application is not recommended below 50°F (10°C)
- In areas where the roof is subject to foot traffic, it is recommended to apply a granule walkway surface
- Excess water on the roof surface can cause the roof to become slippery
- If spraying, consult the White-Knight/White-Stallion Plus spray application guide
- Prior to coating any surface, be sure the coating will adhere by performing an adhesion test (ASTM D 903)
- Not intended to restore glaze coats of asphalt
- A reinforcement fabric should be used when coating over heavily alligatored areas or any type of surface irregularities

For specific application recommendations and coverage rates, please contact your local Garland Representative or Garland Technical Service Department.



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The Garland Company, Inc.

3800 East 91st Street
Cleveland, OH 44105
FAX: 216-641-0633
Phone: 216-641-7500
Toll Free: 800-321-9336

Garland Canada Inc.

209 Carrier Drive
Toronto, Ontario
Canada, M9W 5Y8
FAX 416-747-1980
Phone: 416-747-7995
Toll Free: 800-387-5991
(Only in Canada)

The Garland Company UK, LTD

Unit 5 Glevum Works, Upton Street
Gloucester, United Kingdom GL1 4LA
FAX: 01452 330 657
011 44 1452 330 657 (Outside UK)
Phone: 01452 330 646
011 44 1452 330 646 (Outside UK)
Toll Free: 0800 328 5560
(Only in UK)

Tests verified by independent laboratories. Actual roof performance specifications will vary depending on test speed and temperature. Data reflects samples randomly collected. A ± 10% variation may be experienced. The above data supersedes all previously published information. Consult your local Garland Representative or Garland Corporate Office for more information.

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White-Knight®/White-Stallion® Metal Primer

PRODUCT DESCRIPTION

White-Knight®/White-Stallion® Metal Primer is a high-performance, single-component all-purpose, aromatic urethane, moisture curing primer for use where rust inhibiting and chemical corrosion resistance are required on metal systems. Its non-lifting properties make it an ideal primer to use with urethane topcoats. White-Knight/White-Stallion Metal Primer has excellent corrosion resistance and should be used as a primer surface with the White-Knight/White-Stallion coating system when used over metal substances.

PRODUCT ADVANTAGES

Durable - White-Knight/White-Stallion Metal Primer has excellent adhesion to properly prepared metal surfaces. Its resistance to mild industrial fumes and light chemical conditions make it an excellent primer in a restoration coating system.

User Friendly - The ease of application makes White-Knight/White-Stallion Metal Primer fast and simple to install. This primer can be used over a variety of properly prepared metal substrates.

Seals & Conditions - White-Knight/White-Stallion Metal Primer combined with the White-Knight/White-Stallion coating system offers the customer the opportunity to protect and to preserve their investments before the roof needs to be replaced due to oxidation and rust.

Protect & Maintain - The White-Knight/White-Stallion Metal Primer is designed to maintain and protect metals from rusting and breaking down, while giving you a clean surface for your coating system.

USES

White-Knight/White-Stallion Metal Primer is used as a primer with the White-Knight/White-Stallion or White-Knight Plus/White-Stallion Plus coating systems on metal roof systems. It is designed for application to steel, galvanized, galvalume, kynar coated, copper, aluminum, and stainless steel metal roof systems.

SURFACE PREPARATION

Wearing protective clothing, gloves and glasses, remove any mildew by washing with a solution of three quarts of warm water and TSP or Simple Green solution. It is important to rinse thoroughly to remove any residue left by the cleaner.

Repair gaps, holes and joints in the metal roof with appropriate patching materials. Dull all glossy surfaces by sanding to assure maximum adhesion. Wipe galvanized surfaces clean with MEK prior to application.

For optimum surface preparation, grit blasting is recommended. Please contact Garland Technical for various substrates when grit blasting is permitted. All surfaces should be cleaned and degreased prior to grit blasting with organic solvents, caustic solutions, or pressure washing with a solution of TSP or Simple Green (2500 psi recommend).

NOTE: A spray nozzle of 15 degrees or greater will help eliminate pin point penetration and ensure water does not penetrate the substrate or interior of the structure.

Kynar® Coated Metal - Recommended 80 mesh or finer grit abrasive. Then wipe surface with solvent.

New Galvanized Steel or Galvalume - Brush blast using caution not to remove galvanizing. The surface should be prepared to a SSPC-SP-7 or Nace No. 4 brush blast specification.

Steel - The surface should be grit blasted to an SSPC-SP-6 or Nace No. 2 commercial blast. The finish should be free of loose mill scale, rust scale and old coatings.

Stainless Steel - There are various types of stainless steel, including 304 (the softest), 316, 316 L, and 904. Use a 120 psi blast nozzle. Do not grit blast with iron or steel grit abrasives.

Aluminum - Recommended 80 mesh or finer grit abrasive.

Copper - Brush blasting to remove oxides. Follow specifications of SSPC-SP-7 or Nace No. 4 surface preparation.

APPLICATION

All surfaces must be sound, dry, clean and free of oil, dirt, grease, wax, mildew, loose or flaking paint and rust by scraping, sanding, wire brush or blasting.

Mix for 5 minutes before application, ensuring that the product is an even color. Then, apply White-Knight/White-Stallion Metal Primer over a small area at 1/4 gal/100 sq. ft. (0.11 l/m²) and let set for 3 hours before applying top coat. Monitor to ensure adhesion and note if sag occurs. If any sag occurs, adjust coverage as necessary.

White-Knight/White-Stallion Metal Primer

Brush & Roller - Apply with synthetic brush or roller (short nap) of appropriate size and/or nap for the surface being painted.

Spray - Consult the White-Knight/White-Stallion Metal Primer Spray Application Guide.

SAFETY

It is good practice to wear chemical splash goggles to avoid contact with eyes. Avoid prolonged contact with skin. Wash thoroughly after handling.

See Material Safety Data Sheet for additional safety information and specific product analysis.

PRECAUTIONS

- Do not apply when temperatures are below 40°F (4.4°C)
- Not recommended for use when there is a 40% chance of rain in the forecast
- Must be top coated within 48 hours of application
- Not recommended for use on lead roof systems
- Prior to coating any surface, be sure the coating will adhere by performing an adhesion test
- Use low-speed mixing equipment to avoid inducing moisture into the primer

| Technical Data | White-Knight/White-Stallion Metal Primer |
|--|---|
| Flash Point (ASTM D 93) | 107°F (41.6°C) |
| Solids by Volume | 50% |
| Dry Time @ 77°F (25°C) 50° RH | |
| To Touch | 45 min. |
| To Tack Free | 1.5 hours |
| To Top Coat | 3 hours |
| Shelf Life | 12 months in an unopened container |
| Color | Non-leafing aluminum |
| Clean up | Lacquer Thinner |
| Wet Film Thickness @ 1/4 gal. (0.94 l) | 4 mils (101.6 microns) |
| Dry Mil | 2 mils (50.8 microns) |
| Coverage | 1/4 gal/100 sq. ft. (0.11 l/m ²) |
| Packaging | 3 gallon pail (10.6 l) |

| Eco-Facts | White-Knight/White-Stallion Metal Primer |
|------------|--|
| VOC | 400 g/l |

For specific recommendations and coverage rates, please contact your local Garland Representative or Garland Technical Service Department.



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The Garland Company, Inc.
3800 East 91st Street
Cleveland, OH 44105
FAX: 216-641-0633
Phone: 216-641-7500
Toll Free: 800-321-9336

Garland Canada Inc.
209 Carrier Drive
Toronto, Ontario
Canada, M9W 5Y8
FAX 416-747-1980
Phone: 416-747-7995
Toll Free: 800-387-5991
(Only in Canada)

The Garland Company UK, LTD
Unit 5, Glevum Works, Upton Street
Gloucester, United Kingdom GL1 4LA
FAX: 01452 330 657
011 44 1452 330 657 (Outside UK)
Phone: 01452 330 646
011 44 1452 330 646 (Outside UK)
Toll Free: 0800 328 5560
(Only in UK)

Tests verified by independent laboratories. Actual roof performance specifications will vary depending on test speed and temperature. Data reflects samples randomly collected. A ± 10% variation may be experienced. The above data supersedes all previously published information. Consult your local Garland Representative or Garland Corporate Office for more information.

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WK WS MP 1115



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White-Knight® Plus

White-Knight Plus • White-Knight Plus WC

PRODUCT DESCRIPTION

White-Knight Plus is an ENERGY STAR® qualified, highly reflective multi-purpose, single-component, aliphatic urethane liquid waterproofing membrane designed to maintain, restore and upgrade the performance of existing, aged single-ply, metal, smooth BUR, and modified bitumen roof systems. It provides a white reflective surface. The White-Knight Plus WC formula is VOC compliant and meets South Coast AQMD standards.

PRODUCT ADVANTAGES

Energy Efficient - Provides added UV protection to prolong the life of the roof, while helping maintain internal temperatures and reducing cooling costs.

Waterproofing Protection - The White-Knight Plus system will provide 32–64 wet mils (26–53 dry mils) of additional waterproofing protection to an existing roof system. This process will effectively extend the life of the roof system and allow reasonable time to budget for replacement or recoat.

UV Resistant - This high-performance aliphatic urethane coating protects the existing roof from the harmful effects of UV, greatly reducing thermal shock. The coating itself is UV resistant due to its aliphatic chemistry.

Chemical Resistant - White-Knight Plus is uniquely formulated to provide superior chemical resistance to many oils, acids, and other contaminants. Contact your local Garland Representative for specific chemicals and concentration levels.

User Friendly - The ease of application makes White-Knight Plus extremely fast and simple to install. This superior coating can be used to reinforce, without additional reinforcing fabrics and seal laps, make spot repairs, or restore entire roofing systems.

USES

White-Knight Plus system can be used to coat an entire aged single-ply, metal, smooth BUR, and modified bitumen roof system. It can also be used as a repair material for maintenance applications.

APPLICATION

White-Knight Plus can be applied by brush, roller or spray.

Restoration Overview - Ensure that all wet insulation is removed. An infrared scan is highly recommended. Remove all dirt, dust, and debris from the roof surface. Make any necessary repairs and also verify that all repairs are securely

bonded. Prior to coating any surface, be sure the White-Knight Plus Base Coat will adhere by performing an adhesion test (ASTM D 903). Proper coverage rate is critical to the success of all coating projects. Use a wet mil gauge to ensure proper coverage rates.

Single-Ply Restoration System - Power wash the entire surface including flashings with TSP or Simple Green and then thoroughly rinse, paying special attention to drains and low spots. The first coat of White-Knight Plus Base Coat should be applied at approximately 2 gal./100 sq. ft. (0.82 l/m²) 32 wet mils stripped in over all seams, flashings, and repaired areas. Any repaired areas must use cured membranes for the repairs. Allow roof system to dry for 24–48 hours but no more than 72 hours. In the field of the roof, apply an additional 2 gal./100 sq. ft. (0.82 l/m²) of White-Knight Plus (32 wet mils). The first layer may still be tacky at 24 hours; this is normal.

Modified/BUR Restoration System - Power wash the entire surface including flashings with TSP or Simple Green. Allow roof system to dry for 24–48 hours, then prime the entire roof surface with All-Knight® Primer at a rate of 1/2 gal./100 sq. ft. (0.21 l/m²). For the field of the roof and flashings, apply 2 gal./100 sq. ft. (0.82 l/m²) of White-Knight Plus Base Coat (32 wet mils). Allow roof system to dry for 24–48 hours but no more than 72 hours. In the field of the roof, apply an additional 2 gal./100 sq. ft. (32 wet mils) of White-Knight Plus (0.82 l/m²). The first layer may still be tacky at 24 hours; this is normal.

Metal Restoration System - Power wash the entire surface including flashings with TSP or Simple Green. When coating a metal surface, all rust must be removed and then treated. All surfaces must be sound, dry, clean, and free of oil, dirt, grease, wax, mildew, loose or flaking paint and rust by scraping, sanding, wire brushing or blasting. Apply White-Knight Metal Primer over a small area at 1/4 gal./100 sq. ft. (0.11 l/m²) and let set for twenty (20) minutes. Monitor to ensure adhesion and note if sag occurs. If any sag occurs, adjust coverage as necessary. Once adhesion is confirmed, then apply White-Knight Metal Primer over the entire surface at 1/4 gal./100 sq. ft. (0.11 l/m²). The first coat of White-Knight Plus Base Coat should be applied at approximately 2 gal./100 sq. ft. (0.82 l/m²), 32 wet mils, stripped in over all seams, around penetrations, and fasteners. Allow roof system to dry for 24–48 hours but no more than 72 hours. Next, install the finish coat of White-Knight Plus at 2 gal./100 sq. ft. (0.82 l/m²) over the entire roof (32 wet mils). The first layer may still be tacky at 24 hours; this is normal.

White-Knight® Plus

White-Knight Plus • White-Knight Plus WC

| Technical Data | White-Knight Plus & White-Knight Plus WC |
|--|--|
| Tensile Strength (ASTM D 412) | 2100 psi |
| Tear Resistance (ASTM D 624) | 160 lbs./in |
| Elongation (ASTM D 412) | 320% |
| Density @ 77° F (25° C) (ASTM D 2939) | 10.4 lb./gal (1.2 g/m ³) |
| Flash Point (ASTM D 93) | 110°F min. (43°C) |
| Non-Volatile (ASTM D 75) | Typical 83% |
| Viscosity @ 77° F (25° C); 10 rpm Brookfield RVT, #4 Spindle | 9200 cP |
| Shelf Life | 1 yr. (unopened container) |
| Wet Film Thickness @ 2 gal./100 sq. ft. (0.82 l/m ²) | 32 mils (812.8 micros) |
| Coverage | |
| Single-ply | |
| Basecoat (seams) | 2 gal./100 sq. ft. (0.82 l/m ²) |
| Topcoat (entire roof) | 2 gal./100 sq. ft. (0.82 l/m ²) |
| Modified/BUR | |
| Basecoat (entire roof) | 2 gal./100 sq. ft. (0.82 l/m ²) |
| Topcoat (entire roof) | 2 gal./100 sq. ft. (0.82 l/m ²) |
| Metal | |
| Basecoat (seams) | 2 gal./100 sq. ft. (0.82 l/m ²) |
| Topcoat (entire roof) | 2 gal./100 sq. ft. (0.82 l/m ²) |
| Packaging | 5 gallon (18.9 l) pail 55 gallon (208.2 l) drum |

| Eco-Facts | White-Knight Plus | White-Knight Plus WC |
|--------------------|-------------------|----------------------|
| VOC | 225 g/l | 50 g/l |
| Reflectance | 0.87 | 0.83 |
| Emittance | 0.90 | 0.89 |
| SRI | 111 | 104 |

PRECAUTIONS

- Do not apply when temperatures are below 40°F (4.4°C) or if rain is in the forecast within 48 hours. Spray application is not recommended below 50°F (10°C)
- In areas where the roof is subject to foot traffic, it is recommended to apply a granule walkway surface
- Excess water on the roof surface can cause the roof to become slippery
- If spraying, consult the White-Knight/White-Stallion Plus Spray Application Guide
- Prior to coating any surface, be sure the coating will adhere by performing an adhesion test (ASTM D 903)
- Not intended to restore glaze coats of asphalt
- A reinforcement fabric should be used when coating over heavily alligatored areas, areas that pond water, and over any type of surface irregularities

For specific application recommendations and coverage rates, please contact your local Garland Representative or Garland Technical Service Department.



since 1895 For more information, visit us at: www.garlandco.com



The Garland Company, Inc.
3800 East 91st Street
Cleveland, OH 44105
FAX: 216-641-0633
Phone: 216-641-7500
Toll Free: 800-321-9336

Garland Canada Inc.
209 Carrier Drive
Toronto, Ontario
Canada, M9W 5Y8
FAX 416-747-1980
Phone: 416-747-7995
Toll Free: 800-387-5991
(Only in Canada)

The Garland Company UK, LTD
Unit 5 Glevum Works, Upton Street
Gloucester, United Kingdom GL1 4LA
FAX: 01452 330 657
011 44 1452 330 657 (Outside UK)
Phone: 01452 330 646
011 44 1452 330 646 (Outside UK)
Toll Free: 0800 328 5560
(Only in UK)

Tests verified by independent laboratories. Actual roof performance specifications will vary depending on test speed and temperature. Data reflects samples randomly collected. A ± 10% variation may be experienced. The above data supersedes all previously published information. Consult your local Garland Representative or Garland Corporate Office for more information.

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WK Plus 0315