



# REQUEST FOR PROPOSAL

RFP 122015

Bay County Juvenile Home Facility  
Roof Project

THOMAS HICKNER  
BAY COUNTY EXECUTIVE

**REQUEST FOR PROPOSAL---THIS IS NOT AN ORDER OR OFFER**

IF FOR ANY REASON YOU CANNOT RETURN THIS PROPOSAL, PLEASE RETURN THIS FORM INDICATING SO TO INSURE THAT YOUR NAME MAY BE RETAINED ON OUR BIDDER LIST.

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<b>DATE OF REQUEST</b>	AUGUST 28, 2015
<b>REFERENCE PROPOSAL NUMBER</b>	RFP 122015
<b>WALK-THROUGH TIME &amp; LOCATIONS</b> <b>***MANDATORY***</b>	SEPTEMBER 9, 2015 10:00 AM BAY COUNTY JUVENILE HOME 520 W. HAMPTON RD. ESSEXVILLE, MI 48732
<b>QUESTIONS FROM PROPOSERS DUE</b>	SEPTEMBER 11, 2015 5:00 PM EDT
<b>RESPONSES DUE FROM COUNTY</b>	SEPTEMBER 16, 2015 5:00 PM EDT
<b>PROPOSED DATE/TIME REQUIRED</b>	SEPTEMBER 23, 2015 11:00 A.M.
<b>SUBMIT PROPOSAL TO</b>	BAY COUNTY FINANCE DEPARTMENT PURCHASING DIVISION ATTN: FRANCES MOORE BAY COUNTY BUILDING 515 CENTER AVENUE BAY CITY, MI 48708-5128
<b>MARK PROPOSAL</b>	“BAY COUNTY JUVENILE HOME FACILITY ROOF PROJECT” DELIVER TO THE PURCHASING OFFICE IMMEDIATELY

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The Bay County Finance Department is soliciting sealed proposals on behalf of the Buildings & Grounds Division for the installation of a new white .060 Mill TPO roof on the original portion of the Bay County Juvenile Home, located at 520 W. Hampton Road, Essexville, MI 48732. The current roof is an EPDM ballasted roof membrane. The original built up roof was removed before the current ballasted roof was

installed in 1987. The roof structure is made up of concrete flexi-core panels. The area is approximately 10,000 square feet. See attached "**EXHIBIT A**" for aerial view of the roof.

**SUMMARY:**

Three circular core samples and one 14" X 14" opening show the rubber roofing was installed over 1 1/2" of foam insulation. Notes from the project state the original built up roof was stripped down to the concrete flexi-core panels. There is a very thin layer of tar paper on the concrete deck that came off the deck panels very easily. This roofing material shall be removed. See attached "**EXHIBIT B**".

**SPECIFICATIONS:**

1. Roofing material shall be .060-mill TPO and installed according to the following specifications on "**EXHIBIT C**".
2. New flashing shall be installed at re-roofing area per specifications.
3. Successful contractor shall provide dumpster/container and a chute or an appropriate method from removal of the roof to the container.
4. The County will provide an area for the stone to be piled. The County will also be responsible for moving stone once the project is completed.

**REQUIREMENT OF BIDDERS:**

1. Prevailing wage will be required on this project. Bay County will require certified payroll to be sent before releasing request for payment.
2. Successful bidder will be required to field verify square footage and conditions.
3. Successful bidder will be required to secure a building permit if required. Permits and associated costs are the contractor's responsibility.
4. Roofing warranty shall be a minimum of 15 years on both material and labor. Also, an alternate quote for a 20 year warranty on both material and labor is requested.
5. All bids shall be good for ninety (90) days after the previous stated proposal date.
6. All State of Michigan and local building codes shall be followed.
7. Bids will only be accepted on the attached Bid Summary form (**ATTACHMENT A**).

8. Each bidder must provide with its formal Proposal a written sworn statement certifying that it has not colluded with any competing bidder or County employee or entered into any type of agreement of any nature to fix, maintain, increase or reduce prices or competition regarding the items covered by this Request for Proposal. **(ATTACHMENT B)**.
9. Each bidder shall list three (3) references of similar roofing installations on Reference form. **(ATTACHMENT C)**.
10. Bidder must be present at the **MANDATORY WALK-THROUGH** at the facility on **SEPTEMBER 9, 2015 @ 10:00 a.m.** in order to submit a proposal for this project. Failure to attend the walk-through will result in the rejection of your bid.
11. Project shall be completed in 60 days from contract signing, weather permitting.
12. A Bid-bond will be required in the form of **5%** of the project cost from each bidder.
13. A Performance and payment bond of **100%** of the bid will be required by the successful bidder.

**GENERAL INFORMATION:**

1. **CHANGES TO RFP:** All additions, corrections or changes to the solicitation documents will be made in the form of a written Change Form signed by Purchasing Agent, Frances Moore, only. Bidders shall not rely upon interpretations, corrections, or changes made in any other manner, whether by telephone or in person. Additions, corrections, and changes shall not be binding unless made by such a written, signed Change Form. All written, signed Change Forms issued shall become part of the Agreement documents. Change Forms will be sent to all known potential bidders by e-mail.
2. **CONTACT INFORMATION:** To receive future communications related to this RFP, possible bidders are asked to immediately send contact information by email to Frances Moore, Bay County Purchasing Agent, at [mooref@baycounty.net](mailto:mooref@baycounty.net); failure to do so may limit your ability to submit a complete, competitive proposal.
3. **RIGHT TO WITHDRAW BIDS:** By submitting a Proposal in response to this RFP, Bidder agrees to be bound by this RFP's terms and conditions. Proposals may be withdrawn by the Bidder without penalty at any time before notification that the Bidder's Proposal has been selected. However, if the Bidder withdraws after selection of its Proposal but before executing the Contract for any reason ("Late Withdrawal"), Bidder shall pay liquidated damages to the County in an amount equal to five percent (5%) of the amount of the Proposal ("Liquidated Damages"). The County and Bidder intend these Liquidated Damages to constitute compensation and not a penalty. The parties acknowledge and agree that the harm caused to the County by such a Late Withdrawal of a Proposal would be impossible or very difficult to accurately estimate at the time of the Late Withdrawal and that the Liquidated Damages are a reasonable estimate of the anticipated or actual harm that might arise from such a Late Withdrawal. Bidder's payment of the Liquidated Damages shall be Bidder's sole liability and entire obligation and County's

exclusive remedy for Late Withdrawal of Bidder's Proposal.

4. RFP, PROPOSALS AND ACCEPTANCE DO NOT OBLIGATE: The parties agree that they will not consider either distribution of this RFP or receipt of Proposals by the County or even notification of Proposal acceptance by the County as an obligation or commitment by the County to either purchase equipment from the Bidder or to enter into a contractual agreement. Rather, the parties understand that the County will have no binding obligation until it signs the Contract approved by its legal counsel.
5. TAX-EXEMPT STATUS: Bay County is a tax exempt entity. A tax exempt form will be provided to the successful bidder.
6. FOIA: All bids are confidential until the listed bid opening time and date; however, as a public entity, Bay County is subject to the Michigan Freedom of Information Act (FOIA). Information contained in proposals may be subject to FOIA requests.
7. RESPONSIBILITY: Bidders are solely responsible for ensuring their bid is received by the Bay County Purchasing Agent in accordance with the solicitation requirements, before the date and time specified in this Request, and at the place specified.

The Bay County Purchasing Agent shall not be responsible for any delays in mail or by common carrier or mistaken delivery. Delivery of bid shall be made to the Bay County Purchasing Agent, Bay County Building, 7<sup>th</sup> Floor, Bay City, MI 48708.

Deliveries made before the due date and time but to the wrong office will be considered non-responsive unless re-delivery is made to the office specified before the due date and time specified in this Request.

8. INSURANCE: The Bidder shall purchase and maintain insurance sufficient to protect it from any and all claims which may arise out of or result from the Bidder's services related to this RFP and any resultant contract, whether such service be by the Bidder individually or by anyone directly or indirectly employed by Bidder, or by anyone for whose acts Bidder may be liable, including independent contractors. Insurance policies purchased and maintained shall include, but are not limited to, the following:
  - a. Worker's compensation insurance for claims under Michigan's Workers' Compensation Act or other similar employee benefit act of any other state applicable to an employee in the minimum amount as specified by statute;
  - b. Employer's liability insurance, in conjunction with workers' compensation insurance, for claims for damages because of bodily injury, occupational sickness or disease or death of an employee when workers' compensation may not be an exclusive remedy, subject to a limit of liability of not less than \$100,000 each incident;

- c. Motor vehicle liability insurance required by Michigan law including no-fault coverage for claims arising from ownership, maintenance or use of a motor vehicle with liability limits of not less than \$1,000,000 per occurrence. Coverage shall include all owned vehicles, all non-owned vehicles, and all hired vehicles.
- d. Commercial General Liability insurance for claims for damages because of bodily injury or death of any person, other than the Bidder's employees, or damage to tangible property of others, including loss of use, which provides coverage for contractual liability, with a limit of not less than \$1,000,000 each occurrence and a mandatory \$2,000,000 annual aggregate.
- e. Professional Liability: The Contractor shall procure and maintain during the life of this contract, Professional Liability insurance in an amount not less than \$1,000,000 per occurrence and aggregate. If this policy is claims made form, then the contractor shall be required to keep the policy in force, or purchase "tail" coverage, for a minimum of 3 years after the termination of this contract.

Insurance required shall be in force until acceptance by the County of the entire completed work, and shall be written for not less than any limits of liability specified above. Certificates of insurance, acceptable to the County, shall be provided to the County's Department of Corporation Counsel no less than ten (10) working days prior to commencement of the project.

All coverage shall be with insurance carriers licensed and admitted to do business in Michigan, and are subject to the approval of the County.

All Certificates of Insurance and duplicate policies shall contain the following clauses:

- 1. "It is understood and agreed that thirty (30) days advance written notice of cancellation, non-renewal, reduction and/or material change in coverage will be mailed to Bay County's Department of Corporation Counsel, 515 Center Avenue, Suite 402, Bay City, MI 48708"; and
  - 2. "It is understood and agreed that the following are listed as additional insureds: The County of Bay, including all elected and appointed officials, all employees and volunteers, all boards, commissions, departments and/or authorities and their board members, employees and volunteers."
9. COST OF DEVELOPING PROPOSAL: The Bidder shall be responsible for all costs incurred in the development and submission of its Proposal.
10. PROPOSAL DELIVERY: Proposals must be returned no later than **SEPTEMBER 23, 2015 @ 11:00 a.m.** in a sealed envelope clearly marked "**Bay County Juvenile Home Facility Roof Project**"--- **Deliver to the Purchasing Office immediately.** Please provide five (5) printed copies of the submission. The same should be mailed or hand delivered to the Bay County Purchasing Office, Bay County Building, 7<sup>th</sup> Floor, Bay City, Michigan 48708.

**The County will not accept proposals sent by FAX machine or E-mail.**

11. NON-DISCRIMINATION: In the performance of the proposal and resultant contract, bidder agrees not to discriminate against or grant preferential treatment to any individual or group on the basis of race, sex, color, ethnicity, or national origin in the operation of public employment, public education, or public contracting. Bidder shall not discriminate against any employee or applicant for employment to be employed in the submission of this Proposal or in performance of the duties necessitated by an award of the proposed contract with respect to his or her hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment, because of his or her race, color, religion, national origin, ancestry, gender, height, weight, marital status, age, except where a requirement as to age is based on a bona fide occupational qualification, or disability that is unrelated to the individual's ability to perform the duties of a particular job or position. Any breach of this provision will be regarded as a material breach of the contract.
12. PROPOSAL OPENING: There will be a public proposal opening immediately following the deadline to receive proposals in the Bay County Finance Department conference room located in the Bay County Building, 7<sup>th</sup> Floor, 515 Center Avenue, Bay City, Michigan. All bidders are invited to attend and hear the proposals read.
13. PROPOSAL REJECTION/ACCEPTANCE: The County reserves the right to accept or reject any or all proposals, to waive any irregularities and to make the final determination as to the best low qualified proposal.
14. PROPOSAL AWARD: In the event the proposal is awarded directly by the Finance Officer, a Notice of Intent to Award will be used to notify all bidders of her intent to award the proposal to the Bidder providing the best value to the County.
15. CONTRACT: The County's award of any proposal is subject to and conditioned upon execution of a formal agreement for products and services between the successful bidder and the County. In submitting a proposal, the bidder acknowledges that the contents of the RFP will become incorporated within any formal agreement. This RFP does not include every term and provision which shall be included in the formal agreement. In the event that the bidder fails to execute the formal agreement within 14 days of its presentment by the County, the County may reject the selected bidder, and proceed to accept another qualified proposal, or reject all proposals.  
  
A copy of a bidder's suggested terms and conditions may be submitted with bidder's Proposal, however, neither the County's acceptance of any proposal nor award of any contract pursuant to this RFP shall be construed as any definitive acceptance by the County of Bidder's suggested terms and conditions. In the event of a conflict in terms, the order of precedence to resolve the conflict will be as follows: Michigan State law, the terms and conditions of the signed contract, the terms and conditions of the RFP, and last, the Bidder's Proposal.
16. DISPUTES: In the event a bidder disagrees with the recommendation of the Bay County Finance Officer concerning this award, the bidder may obtain a Bid Protest Form from the Purchasing Office which must be completed and returned to Frances Moore, Bay County Purchasing Agent, Bay County Purchasing Division, 7<sup>th</sup> Floor, Bay County Building, 515 Center Avenue, Bay City, MI 48708-5128, **within ten (10) working days from the date of the notice of intent to award.**

17. QUESTIONS: All questions about this RFP must be directed by September 11, 2015, 5:00 p.m. in writing, via email, to:

Frances Moore  
Purchasing Agent  
[mooref@baycounty.net](mailto:mooref@baycounty.net)

Responses to any inquires will be issued in one (1) Addendum no later than September 16, 2015 and will be sent to all known bidders. Every attempt to answer your inquiries will be made however Bay County has the right to not answer any questions received after the August 28, 2015 due date.

Correspondence or inquiries made directly to bidders regarding their proposals from all other persons are to be directed to those County employees designated above for appropriate review and response. Contact with other County staff or County Board Commissioner could be reason for disqualification.

Any significant explanation desire by a proposer, regarding the meaning or interpretation of the Request for Proposals must be requested with sufficient time allowed for a reply to reach all prospective proposers to submit their proposals. Any information giving to a prospective bidder concerning the Request for Proposal will be furnished to all prospective bidders as an amendment or addendum to the Request for Proposal, if such information would be of significance to uninformed bidders. The County shall make the sole determination as to the significance to uninformed bidders.

**ADA ASSISTANCE:** The County of Bay will provide necessary and reasonable auxiliary aids and services, such as signers for the hearing impaired and audio tapes of printed materials being considered, to individuals with disabilities upon two days' notice to the County of Bay. Individuals with disabilities requiring auxiliary aids or services should contact the County of Bay by writing or calling:

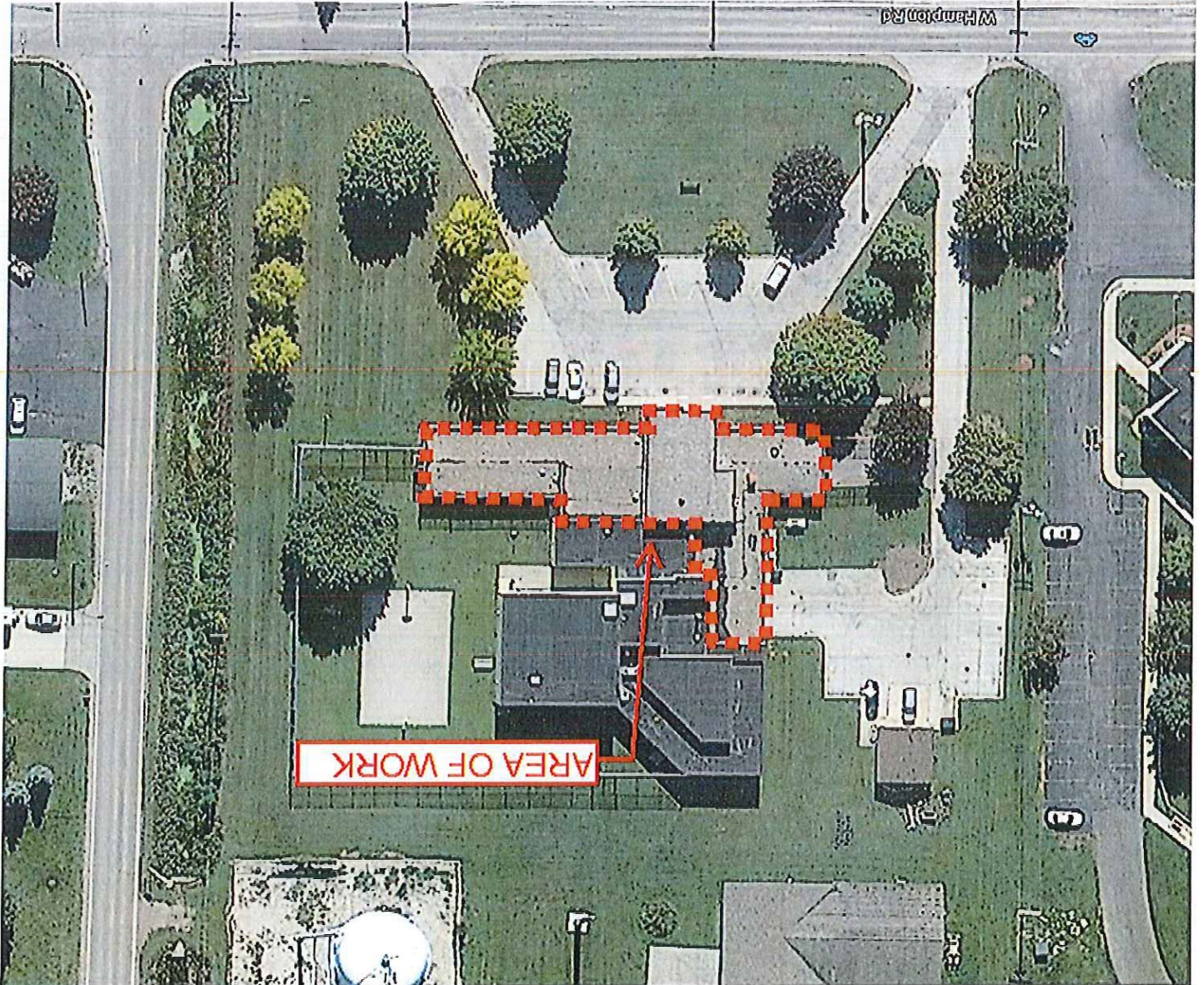
Tim Quinn  
Director of Personnel and Employee Relations  
Bay County Building  
515 Center Ave. 3<sup>rd</sup> Floor  
Bay City, MI 48708-5128  
(989) 895-4098  
(989) 895-4049 TDD

Frances Moore, Purchasing Agent  
Bay County Finance Department  
Bay County Building  
515 Center Ave. 7<sup>th</sup> Floor  
Bay City, MI 48708  
989-895-4037  
[mooref@baycounty.net](mailto:mooref@baycounty.net)

**This proposal process will be conducted in conformity with the Bay County Purchasing Policy as found on the Bay County website [www.baycounty-mi.gov](http://www.baycounty-mi.gov).**



AERIAL VIEW OF JUVENILE HOME FACILITY BUILDING

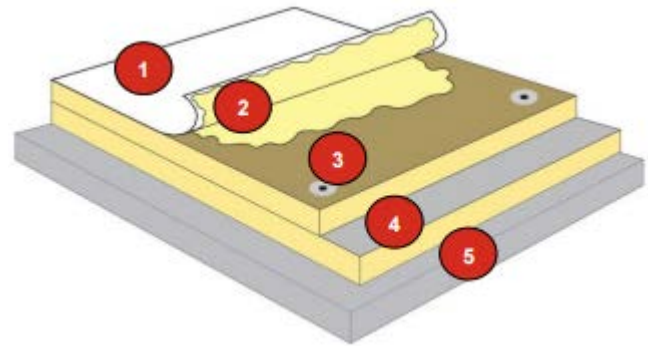


**SECTION 075423 – THERMOPLASTIC POLYOLEFIN (TPO) MEMBRANE ROOFING**

**PART 1 - GENERAL**

1.1 SECTION INCLUDES

1. TPO Adhered membrane roofing system.
2. Bonding Adhesive
3. Adhered Cover board Alternate.
4. Adhered Roof insulation.
5. Existing Concrete Deck



1.2 REFERENCES

- A. Roofing Terminology: Refer to the following publications for definitions of roofing work related terms in this Section:
  1. ASTM D 1079 "Terminology Relating to Roofing and Waterproofing."
  2. Glossary of NRCA's "The NRCA Roofing and Waterproofing Manual."
  3. Roof Consultants Institute "Glossary of Roofing Terms."
- B. Sheet Metal Terminology and Techniques: SMACNA Architectural Sheet Metal Manual.

1.3 DESIGN CRITERIA

- A. General: Installed roofing membrane system shall remain watertight; and resist specified wind uplift pressures, thermally induced movement, and exposure to weather without failure.
- B. Material Compatibility: Roofing materials shall be compatible with one another under conditions of service and application required, as demonstrated by roofing system manufacturer based on testing and field experience.

- C. Wind Uplift Performance: Roofing system shall be identical to systems that have been successfully tested by a qualified testing and inspecting agency to resist wind uplift pressure calculated in accordance with ASCE 7.
  - 1. Field-of-Roof Uplift Pressure: neg.10 lbf/sq. ft.
  - 2. Perimeter Uplift Pressure: neg.10 lbf/sq. ft.
  - 3. Corner Uplift Pressure: neg.14 lbf/sq. ft
  
- D. FMG Listing: Roofing membrane, base flashings, and component materials shall comply with requirements in FMG 4450 and FMG 4470 as part of a roofing system and that are listed in FMG's "RoofNav" for Class 1 or noncombustible construction, as applicable. Identify materials with FMG markings.
  - 1. Fire/Windstorm Classification: Class 1A-40
  - 2. Hail Resistance: SH

#### 1.4 SUBMITTALS

- A. Product Data: Manufacturer's data sheets for each product to be provided.
  
- B. Details: Provide roofing system details, and details of attachment to other Work, including:
  - 1. Base flashings, cants, and membrane terminations.
  - 2. Tapered insulation, including slopes.
  - 3. Crickets, saddles, and tapered edge strips, including slopes.
  - 4. Insulation fastening patterns.
  
- C. Installer Certificates: Signed by roofing system manufacturer certifying that Installer is approved, authorized, or licensed by manufacturer to install roofing system.
  
- D. Manufacturer Certificates: Signed by roofing manufacturer certifying that roofing system complies with requirements specified in "Performance Requirements" and "Guarantees" Article.
  - 1. Provide evidence of meeting performance requirements and intent to guarantee.
  
- E. Qualification Data: For Installer and manufacturer.
  
- F. Product Test Reports: Based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified testing agency, for components of roofing system.
  
- G. Maintenance Data: Refer to Johns Manville's latest published documents on [www.specJM.com](http://www.specJM.com).
  
- H. Guarantees: Special guarantees specified in this Section.

## 1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive the specified manufacturer's guarantee.
- B. Manufacturer Qualifications: Qualified manufacturer that has FMG approval for roofing system identical to that used for this Project.
- C. Testing Agency Qualifications: An independent testing agency with the experience and capability to conduct the testing indicated, as documented according to ASTM E 548.
- D. Test Reports:
  - 1. Roof drain and leader test or submit plumber's verification.
  - 2. Core cut (if requested).
- E. Source Limitations: Obtain all components from the single source roofing manufacturer guaranteeing the roofing system. All products used in the system must be labeled by the single source roofing manufacturer issuing the guarantee.
- F. Fire-Test-Response Characteristics: Provide roofing materials with the fire-test-response characteristics indicated as determined by testing identical products per test method below by UL[, FMG,] or another testing and inspecting agency acceptable to authorities having jurisdiction. Materials shall be identified with appropriate markings of applicable testing and inspecting agency.
  - 1. Exterior Fire-Test Exposure: Class C; ASTM E 108, for application and roof slopes indicated.
  - 2. Fire-Resistance Ratings: ASTM E 119, for fire-resistance-rated roof assemblies of which roofing system is a part.

## 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver roofing materials in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, and directions for storage.
- B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer.
- C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.

- D. Handle and store roofing materials and place equipment in a manner to avoid permanent deflection of deck.

1.7 PROJECT CONDITIONS

- A. Weather Limitations: Proceed with installation only when current and forecasted weather conditions permit roofing system to be installed in accordance with manufacturer's written instructions and guarantee requirements.

1.8 GUARANTEE

- A. Provide manufacturer's system guarantee equal to Johns Manville's Peak Advantage No Dollar Limit Roofing System Guarantee.
  - 1. Single-Source special guarantee includes roofing plies, base flashings, liquid applied flashing, roofing membrane accessories, roof insulation, fasteners, walkway products, manufacturer's expansion joints, manufacturer's edge metal products, and other single-source components of roofing system marketed by the manufacturer.
  - 2. Guarantee Period: 20 or 15 years from date of Substantial Completion – see bid form.
  - 3. Wind Rider: Guarantee shall not exclude coverage for wind events up to 100 mph.
  - 4. Hail Rider: Guarantee shall have no exclusions for hail events up to 2 inches
  - 5. Accidental Puncture Rider: Guarantee shall provide coverage for accidental puncture for up to 8 billed repair hours per year for the life of the guarantee.
- B. Installer's Guarantee: Submit roofing Installer's guarantee, including all components of roofing system for the following guarantee period:
  - 1. Guarantee Period: 2 Years from date of Substantial Completion.

**PART 2 - PRODUCTS**

2.1 MANUFACTURERS

- A. Basis of Design: Johns Manville
- B. Where substitutions are noted as approved by architect, the following manufacturers will be considered equal:
  - 1. Carlisle
  - 2. Firestone
  - 3. No other manufacturers will be considered

## 2.2 THERMOPLASTIC POLYOLEFIN (TPO) ROOFING MEMBRANE

- A. Fabric-Reinforced Thermoplastic Polyolefin (TPO) Sheet: ASTM D 6878, uniform, flexible sheet formed from a thermoplastic polyolefin, internally fabric or scrim reinforced. Basis of Design: JM TPO or architect approved equal.
1. Thickness: 60 mils (1.52 mm), nominal.
  2. Accelerated Weathering: Minimum of 24,000 hours without cracking or crazing as tested using ASTM G155.
  3. Tensile Strength: Minimum of 300 lbf as tested using ASTM D751
  4. Tearing Strength: Minimum of 85 lbs as tested using ASTM D751

## 2.3 AUXILIARY ROOFING MATERIALS

- A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with membrane roofing.
1. Liquid-type auxiliary materials shall meet VOC limits of authorities having jurisdiction.
- B. Sheet Flashing: Manufacturer's sheet flashing of same material, type, reinforcement, thickness, and color as sheet membrane. Basis of Design: JM TPO or architect approved equal
- C. Sheet Flashing: Manufacturer's unreinforced sheet flashing of same material as sheet membrane. Basis of Design: JM TPO Detail Membrane or architect approved equal
- D. Bonding Adhesive: Manufacturer's standard water-based bonding adhesive for membrane, and solvent-based bonding adhesive for base flashings. Basis of Design: JM TPO Membrane Adhesive (Low VOC), JM TPO Water Based Membrane Adhesive or architect approved equal.
- E. Slip Sheet: Manufacturer's recommended slip sheet, of type required for application.
- F. Metal Termination Bars: Manufacturer's standard predrilled stainless-steel or aluminum bars, with anchors. Basis of Design: JM Termination Systems or architect approved equal.
- G. Fasteners: Factory-coated steel fasteners and metal or plastic plates meeting corrosion-resistance provisions in FMG 4470, designed for fastening membrane to substrate, and acceptable to membrane roofing system manufacturer. Basis of Design: High Load Pre-Assembled Fasteners] or architect approved equal
- H. Miscellaneous Accessories: Provide pourable sealers, preformed cone and vent sheet flashings, preformed inside and outside corner sheet flashings, T-joint covers, termination reglets, cover strips, and other accessories. Basis of Design: JM TPO Pourable Sealer A & B, JM TPO Pipe Boots, JM TPO Universal Corners, JM TPO Edge Sealant, JM TPO T-Joint Patch, JM TPO Membrane Cleaner, JM TPO Membrane Primer, JM TPO Sealing Mastic, JM TPO Cover

Tape, JM TPO Detail Membrane, JM TPO Peel & Stick 10" RPS, JM TPO Peel & Stick 6" RTS, JM TPO-Coated Metal and JM Single Ply Caulk or architect approved equals.

#### 2.4 AUXILIARY ROOFING SYSTEM COMPONENTS

- A. Expansion Joints: Provide factory fabricated weatherproof, exterior covers for expansion joint openings consisting of flexible rubber membrane, supported by a closed cell foam to form flexible bellows, with two metal flanges, adhesively and mechanically combined to the bellows by a bifurcation process. Provide product manufactured and marketed by single-source membrane supplier that is included in the No Dollar Limit guarantee. Basis of Design: Expand-O-Flash or architect approved equal.
- A. Coping System: Manufacturer's factory fabricated coping consisting of a base piece and a snap-on cap. Provide product manufactured and marketed by single-source membrane supplier that is included in the No Dollar Limit guarantee. Basis of Design: Presto-Lock Coping or architect approved equal.
- A. Fascia System: Manufacturer's factory fabricated fascia consisting of a base piece and a snap-on cover. Provide product manufactured and marketed by single-source membrane supplier that is included in the No Dollar Limit guarantee. Basis of Design: Presto-Tite Fascia or architect approved equal.

#### 2.5 WALKWAYS

- A. Flexible Walkways: Factory-formed, nonporous, heavy-duty, slip-resisting, surface-textured walkway pads sourced from membrane roofing system manufacturer. Basis of Design: JM TPO Walkpad or architect approved equal.

#### 2.6 COVER BOARD ALTERNATE (SEE BID FORM)

- A. High-Density Polyisocyanurate: High-density polyisocyanurate technology bonded in-line to mineral-surfaced, fiber glass reinforced facers with greater than 125 lbs of compressive strength. Basis of Design: Invinsa Roof Board or architect approved equal.

#### 2.7 ROOF INSULATION

- A. General: Preformed roof insulation boards that comply with requirements and referenced standards, selected from manufacturer's standard sizes and of thicknesses indicated.
- B. Polyisocyanurate Board Insulation: ASTM C 1289, Type II, Basis of Design: ENRGY 3 or architect approved equal.
  - 1. Provide insulation package with R Value greater than 19.
  - 2. Provide insulation package with minimum thickness 3".

## 2.8 TAPERED INSULATION

- A. Tapered Insulation: ASTM C 1289, provide factory-tapered insulation boards fabricated to slope of 1/4 inch per 12 inches (1:48), unless otherwise indicated. Basis of Design: Tapered ENRGY 3 or architect approved equal.

## 2.9 INSULATION ACCESSORIES

- A. General: Roof insulation accessories recommended by insulation manufacturer for intended use and compatible with membrane roofing.
- B. Provide factory preformed saddles, crickets, tapered edge strips, and other insulation shapes where indicated for sloping to drain. Fabricate to slopes indicated. Basis of Design: Tapered Pre-Cut Cricket, Tapered Pre-Cut Miter, Tapered Fesco Edge Strip, or architect approved equal.
- C. Urethane Adhesive: Manufacturer's two component urethane adhesive formulated to adhere insulation to substrate. Basis of Design: JM Two-Part Urethane Insulation Adhesive or architect approved equal.

## **PART 3 - EXECUTION**

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions for compliance with requirements affecting performance of roofing system:
  - 1. Verify that roof openings and penetrations are in place and set and braced and that roof drains are securely clamped in place.
  - 2. Verify that wood cants, blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.
  - 3. Verify that concrete curing compounds that will impair adhesion of roofing components to roof deck have been removed.
  - 4. Verify that concrete substrate is visibly dry and free of moisture. Test for capillary moisture by plastic sheet method according to ASTM D 4263.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Clean and remove from substrate sharp projections, dust, debris, moisture, and other substances detrimental to roofing installation in accordance with roofing system manufacturer's written instructions.



- B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place or when rain is forecast.
- C. Prime surface of concrete deck with asphalt primer at a rate recommended by roofing manufacturer and allow primer to dry.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.3 RE-ROOF PREPARATION

- A. Remove all roofing membrane, surfacing, coverboards, insulation, fasteners, asphalt, pitch, adhesives, etc.
  - 1. Remove an area no larger than can be re-roofed in one day.
- B. Tear out all base flashings, counterflashings, pitch pans, pipe flashings, vents and like components necessary for application of new membrane.
- C. Remove abandoned equipment curbs, skylights, smoke hatches, and penetrations.
  - 1. Install decking to match existing as directed by Owner's Representative.
- D. Raise (disconnect by licensed craftsmen, if necessary) all HVAC units and other equipment supported by curbs to conform with the following:
  - 1. Modify curbs as required to provide a minimum 8" base flashing height measured from the surface of the new membrane to the top of the flashing membrane.
  - 2. Nail top of flashing and install new metal counterflashing prior to re-installation of unit.
  - 3. Perimeter nailers must be elevated to match elevation of new roof insulation.
- E. Immediately remove all debris from roof surface. Demolished roof system may not be stored on the roof surface.
- F. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.4 RECOVER PREPARATION

- A. Prepare existing roof according to roofing system manufacturer's written instructions, applicable recommendations of the roofing manufacturer, and requirements in this Section.
- B. Tear out all base flashings, counterflashings, pitch pans, pipe flashings, vents and like components necessary for application of new membrane.
- C. Disable existing roof membrane by cutting a minimum 5 foot x 5 foot grid pattern.

- D. "Skin" existing membrane at substrate.
- E. Remove existing membrane at fasteners.
- F. Remove and replace wet, deteriorated or damaged roof insulation and decking as identified in moisture survey.
- G. Remove abandoned equipment curbs, skylights, smoke hatches, and penetrations. Install decking to match existing as directed by Owner's Representative.
- H. Raise, (disconnect by licensed craftsmen, if necessary) all HVAC units and other equipment supported by curbs to conform with the following:
  - 1. Modify curbs as required to provide a minimum 8" base flashing height measured from the surface of the new membrane to the top of the flashing membrane.
  - 2. Nail top of flashing and install new metal counterflashing prior to re-installation of unit.
  - 3. Perimeter nailers must be elevated to match elevation of new roof insulation.
- I. Immediately remove all debris from roof surface. Demolished roof system may not be stored on the roof surface.
- J. Prime existing cap sheet to prepare for recover application.
- K. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.5 INSULATION INSTALLATION

- A. Coordinate installation of roof system components so insulation and cover board is not exposed to precipitation or left exposed at the end of the workday.
- B. Comply with roofing system manufacturer's written instructions for installation of roof insulation and cover board.
- C. Install tapered insulation under area of roofing to conform to slopes indicated.
- D. Install insulation boards with long joints in a continuous straight line with end joints staggered between rows, abutting edges and ends between boards. Fill gaps exceeding 1/4 inch (6 mm) with like material.
- E. Install one or more layers of insulation under area of roofing to achieve required thickness. Where overall thickness is 3 inches or greater, install 2 or more layers with joints of each succeeding layer staggered from joints of previous layer a minimum of 6 inches (150 mm) in each direction.
- F. Trim surface of insulation boards where necessary at roof drains so completed surface is flush and does not restrict flow of water.

- G. Install tapered edge strips at perimeter edges of roof that do not terminate at vertical surfaces.
- H. Adhered Insulation: Install each layer of insulation and cover board and adhere to substrate as follows:
  - 1. Install each layer in a two-part urethane adhesive according to roofing system manufacturer's instruction.
- I. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.6 ALTERNATE COVER BOARD INSTALLATION

- A. Coordinate installing membrane roofing system components so cover board is not exposed to precipitation or left exposed at the end of the workday.
- B. Comply with membrane roofing system manufacturer's written instructions for installing roof cover board.
- C. Install cover board with long joints of cover board in a continuous straight line with end joints staggered between rows, abutting edges and ends between boards. Fill gaps exceeding 1/4 inch (6 mm) with cover board.
  - 1. Cut and fit cover board within 1/4 inch (6 mm) of nailers, projections, and penetrations.
- D. Trim surface of cover board where necessary at roof drains so completed surface is flush and does not restrict flow of water.
  - 1. Install tapered edge strips at perimeter edges of roof that do not terminate at vertical surfaces.
- E. Adhered Cover Board: Adhere cover board to substrate as follows:
  - 1. Install in a two-part urethane adhesive according to roofing system manufacturer's instruction.
- F. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.7 ROOFING MEMBRANE INSTALLATION, GENERAL

- A. Install roofing membrane in accordance with roofing system manufacturer's written instructions, applicable recommendations of the roofing manufacturer and requirements in this Section.
- B. Start installation of roofing membrane in presence of roofing system manufacturer's technical personnel.

- C. Where roof slope exceeds 1/2 inch per 12 inches (1:24, contact the membrane manufacturer for installation instructions regarding installation direction and backnailing
- D. Cooperate with testing and inspecting agencies engaged or required to perform services for installing roofing system.
- E. Coordinate installing roofing system so insulation and other components of the roofing membrane system not permanently exposed are not subjected to precipitation or left uncovered at the end of the workday or when rain is imminent.
  - 1. Provide tie-offs at end of each day's work to cover exposed roofing membrane sheets and insulation.
  - 2. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system.
  - 3. Remove and discard temporary seals before beginning work on adjoining roofing.
- F. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.8 ADHERED ROOFING MEMBRANE INSTALLATION

- A. Install roofing membrane specification ST6RA over area to receive roofing in accordance with membrane roofing system manufacturer's written instructions. Unroll roofing membrane and allow to relax before installing.
- B. Start installation of roofing membrane in presence of membrane roofing system manufacturer's technical representative.
- C. Accurately align roofing membrane and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.
- D. Bonding Adhesive: Apply water-based bonding adhesive to substrate at rate required by manufacturer and immediately install roofing membrane. Do not apply bonding adhesive to splice area of roofing membrane.
- E. Mechanically fasten roofing membrane securely at terminations, penetrations, and perimeter of roofing.
- F. Apply roofing membrane with side laps shingled with slope of roof deck where possible.
- G. Seams: Clean seam areas, overlap roofing membrane, and hot-air weld side and end laps of roofing membrane according to manufacturer's written instructions to ensure a watertight seam installation.
  - 1. Test lap edges with probe to verify seam weld continuity. Apply lap sealant to seal cut edges of roofing membrane.

2. Verify field strength of seams a minimum of twice daily and repair seam sample areas.
    - a. Remove and repair any unsatisfactory sections before proceeding with Work.
  3. Repair tears, voids, and lapped seams in roofing membrane that do not meet requirements.
- H. Spread sealant or mastic bed over deck drain flange at deck drains and securely seal roofing membrane in place with clamping ring.
- I. Install roofing membrane and auxiliary materials to tie in to existing roofing.
- J. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.9 FLASHING INSTALLATION

- A. Install sheet flashings and preformed flashing accessories and adhere to substrates according to membrane roofing system manufacturer's written instructions.
- B. Apply solvent-based bonding adhesive to substrate and underside of sheet flashing at required rate and allow to partially dry. Do not apply bonding adhesive to seam area of flashing.
- C. Flash penetrations and field-formed inside and outside corners with sheet flashing.
- D. Flash penetrations and field-formed inside and outside corners with cured or uncured sheet flashing.
- E. Clean seam areas and overlap and firmly roll sheet flashings into the adhesive. Weld side and end laps to ensure a watertight seam installation.
- F. Terminate and seal top of sheet flashings and mechanically anchor to substrate through termination bars.
- G. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.10 WALKWAY INSTALLATION

- A. Flexible Walkways: Install walkway products in locations indicated. Adhere with compatible adhesive and heat weld walkway products to substrate according to roofing system manufacturer's written instructions.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.11 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified independent testing and inspecting agency to perform roof tests and inspections and to prepare test reports.
- B. Final Roof Inspection: Arrange for roofing system manufacturer's Registered Roof Observer (RRO) to inspect roofing installation on completion and submit report to Architect.
  - 1. Notify Architect or Owner 48 hours in advance of date and time of inspection.
- C. Repair or remove and replace components of roofing system where test results or inspections indicate that they do not comply with specified requirements.
- D. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

3.12 PROTECTION AND CLEANING

- A. Protect roofing system from damage and wear during remainder of construction period.
- B. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION 075423

**BID SUMMARY**

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Cost to furnish and install approximately 10,000 square feet of .060 mill reinforced white TPO Roofing.

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**Cost for the above project with a 15 year warranty on material & labor**      \$ \_\_\_\_\_

**Cost for the above project with a 20 year warranty on material & labor**      \$ \_\_\_\_\_

**CERTIFICATION**

The individual signing below certifies:

1. They are fully authorized to submit this bid, including all assurances, understanding and representations contained within it which shall be enforceable as specified.
2. The individual has been duly authorized to act as the official representative of the bidder, to provide additional information as required and, if selected, to consummate the transaction subject to additional, reasonable standard terms and conditions presented by County.
3. This proposal was developed solely by the Bidder indicated below and was prepared without any collusion with any competing bidder or County employee.
4. The content of this proposal has not and will not knowingly be disclosed to any competing or potentially competing bidder prior to the proposal opening date, time, and location indicated.
5. No action to persuade any person, partnership, or corporation to submit or withhold a bid has been made.

Signature: \_\_\_\_\_

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

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

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

Company Address: \_\_\_\_\_

\_\_\_\_\_

Phone Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

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



REFERENCES

REFERENCE #1:

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

Address: \_\_\_\_\_

\_\_\_\_\_

Contact Person: \_\_\_\_\_

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

Phone Number: \_\_\_\_\_

Email: \_\_\_\_\_

REFERENCE #2:

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

Address: \_\_\_\_\_

\_\_\_\_\_

Contact Person: \_\_\_\_\_

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

Phone Number: \_\_\_\_\_

Email: \_\_\_\_\_

**REFERENCE #3**

**Customer Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

\_\_\_\_\_

**Contact Person:** \_\_\_\_\_

**Contact Title:** \_\_\_\_\_

**Phone Number:** \_\_\_\_\_

**Email:** \_\_\_\_\_