



Request for Bid (RFB)

Boone County Purchasing
601 E. Walnut Street, Room 208
Columbia, MO 65201

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Bid Number: 28-21APR09
Commodity Title: Roof Replacement Project

DIRECT BID FORMAT OR SUBMISSION QUESTIONS TO THE PURCHASING DEPARTMENT

Pre-Bid Conference

Day / Date: **MONDAY – April 13, 2009**
Time: **9:00 A.M. C.S.T**
Location **Boone County Johnson Building**
Conference Room 213
601 E. Walnut Street
Columbia, MO 65201

Bid Submission & Opening Address and Deadline

Day / Date: **TUESDAY – April 21, 2009**
Time: **10:30 A.M. C.T. (Bids received after this time will be returned unopened)**
Location / Mail Address: **Boone County Purchasing Department**
Boone County Johnson Building
601 E. Walnut, Room 208
Columbia, MO 65201

Directions: The Johnson Building is located on the Northeast corner at 6th Street and Walnut Street. Enter the building from the East Side. Wheel chair accessible entrance is available on the West side of the building.

Bid Contents

- 1.0: Introduction & General Conditions of Bidding
 - 2.0: Primary Specifications
 - 3.0: Response Presentation and Review
 - 4.0: Response Form
- References
Standard Terms and Conditions
Statement of Bidder's Qualifications
Work Authorization Certification
"No Bid" Response Form
Prevailing Wage Order Number 15 (with Notice of Excessive Unemployment in effect)

NOTICE TO BIDDERS

**Boone County Request for Bid Number: 28-21APR09
Roof Replacement Project**

Boone County Purchasing Department will accept bids for the furnishing of all equipment, material, and labor necessary to complete the roof replacement project for (Part A) - Roof Replacement Project for half of County Building located at 605 East Walnut, Columbia, Missouri and (Part B) – the porch and vestibule roof on south side of 607 East Ash Street (Alternative Sentencing Center).

PRE-BID MEETING AND PRE-BID SITE TOUR:

A Pre-Bid Meeting followed by Site Tour is scheduled for Monday, April 13, 2009 at 9:00 A.M. central time. The Pre-Bid Meeting will be held at the Boone County Johnson Building, 601 East Walnut Street, Room 213, Columbia, Missouri 65201. Immediately after the Pre-Bid Meeting, all bidders will convene to 605 East Walnut Street to view project site.

BID TIME, DATE AND RECEIVING LOCATION:

Sealed bids will be accepted until 10:30 a.m. central time on Tuesday, April 21, 2009 at the Boone County Johnson Building, 601 East Walnut Street, Purchasing Office, Room 208, Columbia, Missouri 65201. Bids received after the above specified time for acceptance will be returned to the sender/bidder unopened.

Bids will be publicly opened after 10:30 a.m. on Tuesday, April 21, 2009, in the Boone County Johnson Building, Conference Room 213, 601 East Walnut Street, Columbia, Missouri 65201.

The County reserves the right to select and award the bid item or items which best suit its needs, whether the price is the lowest or not and also reserves the right to reject any and all bids or waive any informalities or irregularities.

Not less than the prevailing hourly rate of wages, as found by the Department of Labor and Industrial Relations of Missouri, shall be paid to all workers performing work under this Contract. The System Contractor's bond shall include such provisions as will guarantee the faithful performance of the prevailing hourly wage rate as provided by the Contract.

The current Prevailing Wage Statement can be viewed and downloaded from www.showmeboone.com/purchasing. If you can not view/download current prevailing wage, contact Boone County purchasing, located at 601 East Walnut Street, Room 208, Columbia, Missouri 65201, telephone (573) 886-4391, or fax (573) 886-4390 for copies.

Boone County notifies all Bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds or race, color, religion, creed, sex, age, ancestry, or national origin in consideration for an award. The Bidder will insure that Disadvantage Business Enterprises will have the opportunity to participate in the performance of this contract or any subcontracts.

Bid Responses must be on forms provided and all unit price bids, extensions and totals provided thereon shall be completed fully.

END OF SECTION

1. Introduction and General Conditions of Bidding

- 1.1. **INVITATION** - The County of Boone Purchasing Department invites responses, which offer to provide the goods and/or services identified on the title page, and described in greater detail in Section 2.
- 1.2. **DEFINITIONS**
- 1.2.1. **County** - This term refers to the County of Boone, a duly organized public entity. It may also be used as a pronoun for various subsets of the County organization, including, as the context will indicate:
Purchasing - The Purchasing Department, including its Purchasing Director and staff.
Department(s) or Office(s) - The County Department(s) or Office(s) for which this Bid is prepared, and which will be the end user(s) of the goods and/or services sought.
Designee - The County employee(s) assigned as your primary contact(s) for interaction regarding Contract performance.
- 1.2.2. **Bidder / Contractor / Supplier** - These terms refer generally to businesses having some sort of relationship to or with us. The term may apply differently to different classes of entities, as the context will indicate.
Bidder - Any business entity submitting a response to this Bid. Suppliers, which may be invited to respond, or which express interest in this bid, but which do not submit a response, have no obligations with respect to the bid requirements.
Contractor - The Bidder whose response to this bid is found by Purchasing to meet the best interests of the County. The Contractor will be selected for award, and will enter into a Contract for provision of the goods and/or services described in the Bid.
Supplier - All business(s) entities which may provide the subject goods and/or services.
- 1.2.3. **Bid** - This entire document, including attachments. A Bid may be used to solicit various kinds of information. The kind of information this Bid seeks is indicated by the title appearing at the top of the first page. A "Request for Bid" is used when the need is well defined. A "Request for Proposal" is used when the County will consider solutions, which may vary significantly from each other or from the County's initial expectations.
- 1.2.4. **Response** - The written, sealed document submitted according to the Bid instructions.
- 1.3. **BID CLARIFICATION** - Questions regarding this Bid should be directed in writing, preferably by fax or e-mail, to the Purchasing Department. Answers, citing the question asked but not identifying the questioner, will be distributed simultaneously to all known prospective Bidders. Note: written requirements in the Bid or its Amendments are binding, but any oral communications between County and Bidder are not.
- 1.3.1. **Bidder Responsibility** - The Bidder is expected to be thoroughly familiar with all specifications and requirements of this Bid. Bidder's failure or omission to examine any relevant form, article, site or document will not relieve them from any obligation regarding this Bid. By submitting a Response, Bidder is presumed to concur with all terms, conditions and specifications of this Bid.
- 1.3.2. **Bid Amendment** - If it becomes evident that this Bid must be amended, the Purchasing Department will issue a formal written Amendment to all known prospective Bidders. If necessary, a new due date will be established.
- 1.4. **AWARD** - Award will be made to the Bidder(s) whose offer(s) provide the greatest value to the County from the standpoint of suitability to purpose, quality, service, previous experience, price, lifecycle cost, ability to deliver, or for any other reason deemed by Purchasing to be in the best interest of the County. Thus, the result will not be determined by price alone. The County will be seeking the least costly outcome that meets the County needs as interpreted by the County.
- 1.5. **CONTRACT EXECUTION** - This Bid and the Contractor's Response will be made part of any resultant Contract and will be incorporated in the Contract as set forth, verbatim.
- 1.5.1. **Precedence** - In the event of contradictions or conflicts between the provisions of the documents comprising this Contract, they will be resolved by giving precedence in the following order:
1) the provisions of the Contract (as it may be amended);
2) the provisions of the Bid;
3) the provisions of the Bidder's Response.
- 1.6. **COMPLIANCE WITH STANDARD TERMS AND CONDITIONS** - Bidder agrees to be bound by the attached County's standard "boilerplate" Terms and Conditions for Contracts.

2. **Primary Specifications**

- 2.1. **SCOPE OF WORK** – The County of Boone is seeking bids for **(Part A) - Roof Replacement Project for half of County Building located at 605 East Walnut, Columbia, Missouri and (Part B) – the porch and vestibule roof on south side of 607 East Ash Street (Alternative Sentencing Center)**. Scope of work includes the removal of existing roof systems down to wood deck and the disposal of such according to all local, state and national codes. The bid price shall include any and all labor and material necessary to complete roof replacement project.
- 2.1.1. Contractor shall install a minimum, five (5) inches of isocyanurate insulation (R-30) over decking. Install fully adhered EPDM roof system over insulation. Cover south and west parapet walls to the tile cap with EPDM. Install flashing on east parapet wall at a minimum of 20 inches from insulation. Terminate all with termination bar and pin on counter flashing and below tile cap. Gutter and downspout shall be reinstalled, if removed. Metal edge at the north wall shall be installed new.
- 2.1.2. **Warranty:** A 20 year Manufacturer’s warranty must be furnished. Please remit sample of warranty with bid response.
- 2.1.3. **Work Schedule:** On-site work shall be performed on **Monday through Friday** during normal business hours from 7:00 a.m. to 5:00 p.m. and date/time scheduled with Facilities Maintenance Manager. Any deviation from the date/time schedule shall be approved by the Facilities Maintenance Manager.
- 2.1.4. **Contract Documents** - The successful bidder(s) shall be obligated to enter into a written contract with the County within thirty (30) days of award on contract forms provided by the County. If bidders desire to contract under their own written agreement, any such proposed agreement shall be submitted in blank with their bid. County reserves the right to modify any proposed form agreement or withdraw its award to a successful bidder if any proposed agreement contains terms and conditions inconsistent with its bid or are unacceptable to County legal counsel.
- 2.1.5. **PRE BID CONFERENCE:** A pre-bid conference is scheduled for Monday, April 13, 2009 at 9:00 a.m. at the Boone County Johnson Building, 601 E. Walnut St, Columbia, MO 65201. Upon completion of the pre-bid conference, a site tour will be conducted. Bidders should bring a copy of the RFB since it will be used as the agenda for the pre-bid conference.
- 2.1.5.1. Bidders are strongly encouraged to advise the Purchasing Department of Boone County within five (5) days of the scheduled pre-bid conference/site visit of any special accommodations needed for disabled personnel who will be attending the conference so that these accommodations can be made.

Technical Specifications

SECTION 07531 - ADHERED EPDM ROOFING SYSTEM

- 2.2. **PART I GENERAL**
- 2.2.1. **DEFINITIONS**
- 2.2.1.a. Named Brand – One of the roof systems identified by the system’s name, and the manufacturer’s name in PART 2 PRODUCTS, Acceptable Systems.
- 2.2.2. **SYSTEM DESCRIPTION**
- 2.2.2.a. Type A Adhered EPDM System: EPDM fully adhered to insulation and/or coverboard with bonding adhesive, and the insulation and/or underlayment board bonded together and to the substrate with hot steep asphalt.
- 2.2.2.b. Type B Adhered EPDM System: EPDM fully adhered to insulation and/or coverboard with bonding adhesive, and the insulation and/or underlayment board bonded together and to the substrate with adhesive.
- 2.2.2.c. Type C Adhered EPDM System: EPDM fully adhered to insulation and/or coverboard with bonding adhesive, and the insulation and/or underlayment board mechanically attached to the structural deck
- 2.2.3. **SUBMITTALS**
- 2.2.3.a. Waiver of Submittals
1. "Named Brand" Roofing Systems: The "Waiver of Certain Submittal Requirements" in Section

- 01330 applies to this Section only if a "Named Brand" roofing system is furnished.
2. "Or Equal" Roofing Systems: The "Waiver of Certain Submittal Requirements" in Section 01330 does not apply to this Section if an "or equal" is submitted.
- 2.2.3.b. "Named Brand" Submittals: Submit for approval, one of the "named brand" roofing systems and any proposed deviations from the Contract Documents. Submit Product Data, Samples, Applicator's Certification, and Material's Certification, to the Director's Representative at the site for information purposes only.
- 2.2.3.c. "Or Equal" Submittals: Submit for approval, product data, samples, quality control submittals, and any proposed deviations from the Contract Documents.
- 2.2.3.d. Approvals: Approval of a "named brand" or "or equal" roofing system is with the understanding that the requirements of the Contract Documents will be met. Approval of a roofing system does not constitute blanket approval of the manufacturer's installation specifications or details.
1. If the requirements of the Contract Documents differ from or are more stringent than the requirements of the approved roof system manufacturer, the Contract Documents have precedence over the requirements of the approved manufacturer.
- 2.2.3.e. Proposed Deviations From The Contract Documents: Submit for approval proposed deviations when the roofing system is submitted. Proposed deviations submitted after the roofing system has been approved will not be considered for approval and may be cause for rejection of the previously approved roofing system.
1. Manufacturer's Details: Do not use or submit manufacturer's standard details unless there is an omission or a proposed deviation from the Contract Documents. In such instances, submit the revised detail for approval. Label each revised detail with the words "PROPOSED DEVIATION".
 2. Manufacturer's Specifications and Installation Instructions: When there is a proposed deviation from the Contract Documents, submit the proposed deviation for approval. Label each specification and instruction revision with the words "PROPOSED DEVIATION".
- 2.2.3.f. Product Data: Catalog sheets, specifications, installation instructions for each material specified.
- 2.2.3.g. Samples:
1. Sheet Membrane: One 6 inch square piece.
 2. Sheet Flashing: One 6 inch square piece.
 3. EPDM Cover Tape: One 12 inch square piece.
 4. Inseam Tape: One piece 3 inches wide by 12 inches long.
 5. Fasteners: Two each type.
 6. Insulation: One 3 inch square piece.
 7. Coverboard: One 3 inch square piece.
 8. Underlayment Board: One 3 inch square piece.
- 2.2.3.h. H. Quality Control Submittals:
1. Fire Hazard Certification: Written certification that the roof system, including the specific insulation, has been tested in conjunction with the type of structural roof deck and roof slope applicable to the project and has achieved an Underwriters Laboratories Class A external fire resistance rating.
 - a. Acceptable Certification: Letter from Underwriters Laboratories, or a copy of the Underwriters Laboratories classification listing for the roofing system.
 2. Wind Uplift Certification: Submit written certification that the roof system, including the specific insulation and fasteners, has been tested in conjunction with the type of structural roof deck applicable to this project, and has achieved a Factory Mutual Class 1-90 Wind Uplift rating.
 - a. Acceptable Certification: Letter from Factory Mutual, or a copy of the Factory Mutual Approval Report for the roofing system.
 3. Material Certification: Written certification from the roofing membrane manufacturer certifying that the insulation, insulation fasteners (if any), flashings and accessory products provided by the membrane manufacturer are approved for use with the roofing system and are included in the "15 year full system warranty".
 4. Membrane Manufacturer's Certification:
 - a. Written certification that the manufacturer has been actively marketing the submitted system for the

- past 5 years.
- b. Names and addresses of 5 previous EPDM roofing projects installed within the past 5 years. Include the type and size of each project, and name and telephone number of a contact person at the project locations.
5. Installer's Certification:
- a. Written certification from the membrane manufacturer certifying that the installer is licensed or approved to install the roof system.
- b. Names, addresses, and telephone numbers of 3 buildings where the installer has installed EPDM sheet membrane roof systems that have had the manufacturer's warranty issued. Include the types of EPDM systems installed, the manufacturer's names, and the warranty numbers.
- c. Written certification that the job supervisor or crew chief and at least one other member of the roofing crew have installed at least 3 EPDM sheet membrane roof systems and are thoroughly familiar with all aspects of the installation.
6. Warranty: Sample copy of the full system warranty specified.
- 2.2.3.i. Contract Closeout Submittals:
1. Warranty: Warranties as specified.
- 2.2.3.j. Material Safety Data Sheets (MSDS): Do not include the MSDS in the Submittals Package. Submit the MSDS to the Director's Representative at the Pre-Installation Conference.
- 2.2.3.k. Submit all items, except contract closeout submittals and MSDS, at one time as a complete package. Partial submittals will not be considered.
- 2.2.4. **QUALITY ASSURANCE**
- 2.2.4.a. Fire Hazard Classification: The sheet membrane roof system shall have an Underwriters Laboratories Class A or B External Fire Resistance rating, as determined by tests conducted in conformity with UL-790 "Tests for Fire Resistance of Roof Covering Materials".
1. The roof system, which includes a specific generic type of insulation, and in some instances a specific name brand insulation, shall have been tested in conjunction with the type of structural roof deck and roof slope applicable to the project.
- 2.2.4.b. Material Classification Identification: Materials delivered to the site that are a component of the roofing system shall bear the UL Classification mark.
- 2.2.4.c. Membrane Manufacturer's Qualifications:
1. The manufacturer shall have been actively marketing an EPDM roof system in the United States for a minimum of 5 years.
2. The manufacturer shall have the technical expertise and qualified technical representatives to resolve questions or problems that may arise both during and after the Work is completed.
3. The manufacturer shall furnish the names, addresses, and telephone numbers of at least 5 previous projects of comparable size, scope, and complexity as the Work of this Section.
4. The manufacturer shall require that the roof system be installed by a licensed or approved applicator.
- 2.2.4.d. Installer's Qualifications: The installation of the roofing system shall be performed by an installer licensed or approved by the membrane manufacturer. The installer shall have previously installed at least 3 EPDM sheet membrane systems for which the manufacturer's warranty was issued.
1. Workers: The supervisor or crew chief and at least one other member of the roofing crew shall have installed at least 3 EPDM sheet membrane roof systems and shall be thoroughly familiar with all aspects of the installation.
- 2.2.4.e. Pre-Installation Conference: Before the roofing work is scheduled to commence, a conference will be called by the County's Representative at the site for the purpose of reviewing the Drawings and the Specifications and discussing requirements for the Work. The conference shall be attended by the Contractor, the authorized roofing applicator, and the Company Field Advisor.
- 2.2.5. **DELIVERY, STORAGE, AND HANDLING**
- 2.2.5.a. Delivery: Deliver materials to the site in the manufacturer's labeled, unbroken containers.
- 2.2.5.b. Storage and Handling: Store materials in a dry, well-ventilated place protected from the weather.
1. Do not store materials so as to overload the deck or structural assembly.

2. Store all materials on raised platforms covered with properly secured breathable water resistant covers. Slit shrink wrapping to not permit condensation and cover with breathable tarp.
3. Remove all materials that become wet from the site.
4. Store volatile liquids in a separate storage building or trailer, or removed from the site at the end of each workday.
 - a. Store volatile liquids at temperatures recommended by the manufacturer.
 5. Do not remove materials from factory packaging until ready for use.
 6. Store adhesives, and sealants at temperatures between 60 degrees F and 80 degrees F.

2.2.6. **PROJECT CONDITIONS**

- 2.2.6.a. Unless otherwise directed, do not execute the work of this Section if the Director's Representative is not present.
- 2.2.6.b. Do not execute the work of this Section unless the substrate is dry and free of dirt and debris.
- 2.2.6.c. Moisture Protection:
 1. Cover, seal or otherwise protect the roof and flashings so that water cannot accumulate or flow under completed portions. When and where necessary to accomplish this, provide temporary water cut-offs in accordance with the membrane manufacturer's written specifications.
 2. Limit the removal of existing materials to areas that can be completely re-roofed or temporarily protected within the same day. At the discretion of the Director's Representative, a watertight built-up vapor barrier may be acceptable temporary protection for a maximum of 48 hours.
- 2.2.6.d. Do not smoke or use open flames near volatile materials.

2.2.7. **WARRANTY**

- 2.2.7.a. Warranty Extension: The one year period required by Paragraph 9.8 of the General Conditions is extended to 2 years for the Work of this Section. Refer to Supplementary Conditions.
- 2.2.7.b. Manufacturer's Warranty: In addition to the 2 year period specified above, furnish the membrane manufacturer's printed 15 Year Full System Warranty, covering workmanship, materials, and wind related damage, for the Work of this Section.
 1. The warranty shall include, but not be limited to, repair of leakage and the repair and/or replacement of the roofing system as necessary to correct defects or damage caused by; materials, workmanship, or wind speeds less than 72 MPH.
 - a. Materials shall include the membrane, insulation, fasteners, adhesives and tapes, flashing originally provided by the manufacturer, and all accessory products.
 - b. Repair and/or replacement of the roofing system shall include the replacement of wet insulation. For the purpose of this specification, insulation will be considered wet if either of the following exists:
 - 1) Free water is visible when the insulation is compressed.
 - 2) No free water is visible when the insulation is compressed, but the insulation is damp to the touch over a large enough area, as determined by the Director's Representative, to jeopardize the integrity of the roof system and any of it's components, or to significantly lower the specified R value of the insulation.

2.3. **PART 2 PRODUCTS**

2.3.1. **EPDM SHEET MEMBRANE, SHEET FLASHING, AND RELATED PRODUCTS**

- 2.3.1.a. The EPDM sheet membrane shall be visually free of streaks, particles of foreign matter, undispersed raw material, pinholes, cracks, tears, and shall be uniform in thickness. When unrolled in a relaxed position, the membrane shall be free of wrinkles, distortions, and blisters.
- 2.3.1.b. EPDM (Ethylene, Propylene, Diene, Monomer) Sheet Membrane:
 1. One of the following types as required to achieve a UL Class A or B external fire rating:
 - a. 60 mil, unreinforced, EPDM membrane.
 - b. 60 mil, fire retardant, unreinforced, EPDM membrane.
 - c. 90 mil, unreinforced, EPDM membrane.
 - d. 90 mil, fire retardant, unreinforced, EPDM membrane.
 2. The following systems are listed in the UL Materials Directory as having a UL Class A Exterior Fire Rating when installed with the type of deck, insulation, and roof slope applicable to this Project.
 - a. "Sure Seal Adhered Roofing System" by Carlisle Syntec Systems, P.O. Box 7000, Carlisle, PA

- 17013, (800) 479-6832, www.carlisle-syntec.com
- b. "Adhered Rubbergard Roofing System" by Firestone Building Products Company, 525 Congressional Blvd., Carmel, IN 46032, (800) 428-4442, www.firestonebpco.com
- c. "GenFlex Fully Adhered Roofing System", by Genflex Roofing Systems, P.O. Box 637, Maumee, OH 43537, (800) 443-4272, www.genflex.com
- d. "UltraGuard Adhered Roofing System" by Manville Roofing Systems, P.O. Box 5108, Denver, CO 80217-5108, (800) 654-3103, www.jm.com
- e. "VersiGard Fully Adhered Roofing System" by Versico Incorporated, P.O. Box 6424, Akron, OH 44312, (800) 992-7663, www.versico.com
- f. "Sure Seal Adhered Roofing System" by Carlisle Syntec Systems, P.O. Box 7000, Carlisle, PA 17013, (800) 479-6832, www.carlisle-syntec.com
- g. "Adhered Rubbergard Platinum" by Firestone Building Products Company, 525 Congressional Blvd., Carmel, IN 46032, (800) 428-4442, www.firestonebpco.com
- h. "UltraGuard Adhered Roofing System" by Manville Roofing Systems, P.O. Box 5108, Denver, CO 80217-5108, (800) 654-3103, www.jm.com
- i. "VersiGard Fully Adhered Roofing System" by Versico Incorporated, P.O. Box 6424, Akron, OH 44312, (800) 992-7663, www.versico.com
- 2.3.1.c. Sheet Flashing: Membrane manufacturer's cured and uncured EPDM as specified.
- 2.3.1.d. Inseam Tape: Membrane manufacturer's minimum 3 inch wide self adhering tape consisting of cured butyl double sided adhesive tape, for inseam splicing of rubber to rubber.
- 2.3.1.e. Cured EPDM Cover Tape: Membrane manufacturer's minimum 5 inch wide self adhering tape consisting of cured butyl adhesive laminated to cured EPDM, for installation over EPDM seams, cuts in field membrane, and for stripping in metal work.
- 2.3.1.f. Uncured EPDM Cover Tape: Membrane manufacturer's minimum 5 inch wide self adhesive tape, consisting of, cured butyl adhesive laminated to uncured EPDM, for installation over base flashing corners, inside and outside corners, pipe flashings and other detail work.
- 2.3.1.g. Related Products: Membrane manufacturer's bonding adhesive, splicing cement, lap sealant, water cut-off mastic, nite seal, pourable sealer, splice joint cleaning agent and primer, insulation adhesive, and all other products related to the sheet membrane system.
- 2.3.2. **INSULATION**
- 2.3.2.a. The total insulation thermal resistance averaged over the entire roof area shall produce an R-30.
- 2.3.2.b. The indicated insulation thickness is nominal, allowing for differences in insulating properties of various name brands. Minor variation in thickness is acceptable, provided the specified thermal value and other requirements of this Contract are met.
- 2.3.2.c. Approval of the insulation is contingent upon certification by the membrane manufacturer that the insulation is approved for use with the specified roof system and that the insulation is included in the full system warranty specified.
- 2.3.2.d. Uniform Thickness isocyanurate insulation and Tapered isocyanurate insulation: Membrane manufacturers approved closed cell isocyanurate foam core insulation skinned on both sides with factory applied fiberglass facers suitable for installation with hot asphalt and cold adhesive. ASTM C1289-02, Type II, Class 1, Grade 2. UL Classified and Factory Mutual Approved for direct application over steel deck. Minimum LTTR: 6.0 per inch thickness.
- l. Board Size:
- a. Adhesively Secured Insulation: Maximum board size 4 feet x 4 feet.
- b. Mechanically Fastened Insulation: Minimum board size 4 feet x 8 feet. E. Tapered Insulation System: Membrane manufacturer's approved 1/4 inch per foot factory tapered polyisocyanurate insulation.
- 2.3.2.e. Coverboard Insulation: 1/4 inch thick gypsum roof board composed of a silicone treated gypsum core with fiberglass facers. Acceptable Product: "Dens-Deck" by Georgia-Pacific Corporation, Gypsum Division, 133 Peachtree Street, N.E., Atlanta, GA 30303, (800) 225-6119, www.gp.com
- 2.3.2.f. Adhesively Attached Barrier Board: Maximum board size 4 feet x 4 feet. Mechanically Attached

- Barrier Board: Minimum board size 4 feet x 8 feet.
- 2.3.2.g. Tapered Cricket System: Membrane manufacturer's approved asphalt impregnated 1/2 inch per foot factory tapered wood fiberboard insulation conforming to ASTM C 208.
- 2.3.2.h. Tapered Edge Strips: Membrane manufacturer's approved asphalt impregnated 1/2 inch per foot factory tapered wood fiberboard insulation conforming to ASTM C 208.
- 2.3.3. **UNDERLAYMENT BOARD**
- 2.3.3.a. Underlayment Board: 1/4 inch thick gypsum roof board composed of a silicone treated gypsum core with fiberglass facers.
1. Acceptable Product: "Dens-Deck" by Georgia-Pacific Corporation, Gypsum Division, 2861 Miller Road, Decatur, GA 30035, (800) 2256119, www.gp.com
 2. Adhesively Attached Underlayment: Maximum board size 4 feet x 4 feet.
 3. Mechanically Attached Underlayment: Minimum board size 4 feet x 8 feet.
- 2.3.4. **FASTENERS**
- 2.3.4.a. Insulation and Membrane Fasteners: Approval of fasteners is contingent upon certification by the membrane manufacturer that the fasteners are approved for use with the specified roof system and that the fasteners are included in the full system warranty specified.
1. Wood Decks: Membrane manufacturer and Factory Mutual approved, hardened, self-tapping, anti-backout, Phillips pan head screws with round, square or hexagonal steel stress plates. Plate size as recommended by the manufacturer.
 - a. Minimum penetration one inch, minimum pull out resistance from deck 360 pounds unless specified otherwise by the membrane manufacturer.
 2. Steel Decks: Membrane manufacturer and Factory Mutual approved, hardened, self-tapping, anti-backout, Phillips pan head screws with round, square or hexagonal steel stress plates. Plate size as recommended by the membrane manufacturer.
 - a. Minimum penetration 1/2 inch, minimum pull out resistance from deck 400 pounds unless specified otherwise by the membrane manufacturer.
 3. Concrete Decks: Membrane manufacturer and Factory Mutual approved; hardened, self-tapping, anti-backout, Phillips pan head screws with round, square or hexagonal steel stress plates; or hammer driven spikes with deformed shanks and round, square, or hexagonal steel stress plates. Plate size as recommended by the membrane manufacturer.
 - a. Minimum penetration 1-1/4 inch, minimum pull out resistance from deck 400 pounds unless specified otherwise by the membrane manufacturer.
 4. Structural Wood Fiber Decks/Gypsum Decks/Lightweight Concrete Decks: Membrane manufacturer and Factory Mutual approved, non-metallic, anti-backout, reinforced polymer auger fastener with round, square or hexagonal steel stress plates.
 - a. Penetration Into Deck: Minimum 1-1/2 inches.
 - b. Structural Wood Fiber Decks: Minimum pullout resistance 300 pounds.
 - c. Gypsum Decks: Minimum pullout resistance 350 pounds.
 - d. Lightweight Concrete Decks: Minimum pullout resistance 350 pounds.
- 2.3.4.b. Base Flashing Fasteners (use along top edge of base, beneath in-wall cap flashings):
1. Concrete and/or Masonry Surfaces: Hardened masonry nails or zinc alloy hammer driven expansion anchors with stainless steel drive pins through 1 inch minimum sheet metal discs.
 2. Sheet Metal Surfaces: Hardened, self tapping, #10 sheet metal screws through 1 inch minimum sheet metal discs.
 3. Wood Surfaces: Hot dipped galvanized roofing nails with minimum 3/8 inch diameter head.
- 2.3.4.c. Termination Bar and Fasteners:
1. Termination Bar: Factory fabricated one inch wide x .100 inches thick, mill finish aluminum bar, with 1/4 inch x 3/8 inch slotted holes 8 inches on center and with a 1/4-inch wide 35 degree caulking

and stiffener flange. "TBI00-8 Termination Bar" by Tru-Fast Corporation, 02105 Williams City Road 12-C, Bryan, OH 43506, (800) 443-9602, www.tru-fast.com

2. Fasteners:

a. Concrete Or Masonry Surfaces: Slotted hex washer head masonry screws or zinc alloy hammer driven expansion anchors. Length as required to securely hold the compression bar tight against the wall surface.

b. Wood and Sheet Metal Surfaces: Hardened, self-tapping, slotted hex washer head screws.

2.3.4.d. EPDM Anchor Strips: 6 inch wide reinforced EPDM.

2.3.5. **BITUMEN**

2.3.5.a. Bitumen: Steep asphalt; ASTM D 312, Type III.

2.3.6. **INSULATION ADHESIVE**

2.3.6.a. Coverboard, Insulation And Underlayment Board Adhesive: Two-Part, Lowrise polyurethane foam adhesive, or the manufacturer's recommended insulation adhesive.

1. OlyBond Adhesive Fastener, by Olympic Manufacturing Group

2. Weather-Tite Adhesive, by Millenium Adhesive Products Inc.

2.3.7. **MISCELLANEOUS MATERIALS**

2.3.7.a. Pipe Flashing: Membrane manufacturer's cured premolded EPDM pipe boot.

2.3.7.b. Compression Clamp (for factory fabricated flashings only): Stainless steel or cadmium plated steel worm drive clamp.

2.3.7.c. Expansion Joint Tube: Compressible neoprene or polyethylene tube, twice the diameter of the width of the expansion joint.

2.3.7.d. Walkway, Protection Pads: Textured rubber pads, 3 feet wide by manufacturer's standard width and thickness; "Roof-Gard Pads" by Humane Manufacturing Co., P.O. Box 24, 805 Moore St, Baraboo, WI 53913, (800) 369-6263, www.humanemfg.com or "VersiGard Walkway Pads" by Versico, Inc., P.O. Box 6424, Akron, OH 44312, (800) 992-7663, www.versico.com

2.3.7.e. Retro-Fit Roof Drains: Metal or plastic roof drains designed specifically for installation into an existing roof drain and conductor pipe. The drain shall be formed with an expandable drop tube or with an expandable rubber boot to form a watertight seal between the drop tube and the existing conductor pipe. The drain shall also have a large flashing flange, clamping ring and an aluminum strainer.

1. Acceptable Products:

a. "Proliner CR Roof Drain" by Marathon Roofing Products Inc. 367 Nagel Drive, Buffalo, NY, 14225-4732, (800) 828-8424, www.marathondrains.com

b. "RAC Insert Drain System" by OMG Inc., 153 Bowles Road, Agawam, MA, 01001 (800) 633-3800, www.olyfast.com

c. "Portals Plus Reroof Drain" by Portals Plus, Inc., 639 N. Thomas Drive, Bensenville, IL 60106 (800) PPI-5240, www.portalsplus.com

2.3.7.f. Pitch Pocket Filler Material: Mortar: ASTM C 270, Type S. Pourable Sealer: Membrane manufacturer's 2 component liquid urethane.

2.3.7.g. Sealant: One-part, low modulus, silicone sealant: Dow Corning's 790, General Electric's Silpruf, Pecora's 864, or Tremco's TremPro 646.

2.3.7.h. Color Coating: Hypalon or acrylic coating as recommended and approved by the membrane manufacturer.

1. Color: White.

2.3.8. **MATERIALS FOR VAPOR BARRIER**

2.3.8.a. Materials For Repair Of Existing Vapor Barrier:

1. Primer: Quick drying asphalt primer; ASTM D 41.

2. Asphalt Fiberglass Base Sheet: Non porous asphalt coated glass fiber base sheet: ASTM 4601-98, Type II.

3. Plastic Roof Cement: Non-asbestos bearing, fibrated, flashing grade; ASTM D 4586.

4. Bitumen: Steep asphalt; ASTM D 312, Type III.

5. Interply Adhesive: Membrane manufacturer's cold process solvent based modified adhesive.

- a. Asphalt content: 42 percent ASTM D 4479-93
 - b. Density: 8 lbs/gal ASTM D 1475-90
 - c. Asbestos content: None.
- 2.3.8.b. Materials For Vapor Barrier and Underlayment On Steel Decks:
- 1. Fasteners: Membrane manufacturer and Factory Mutual approved, hardened, self-tapping, Phillips truss head screws with round, square or hexagonal steel stress plates. Plate size as recommended by the membrane manufacturer.
 - a. Minimum penetration 1/2 inch, minimum pull out resistance from deck 400 pounds unless specified otherwise by the membrane manufacturer.
 - 2. Underlayment Board: Isocyanurate insulation one inch thick. As specified in "INSULATION".
 - 3. Underlayment Board: 1/4 inch thick gypsum roof board composed of a silicone treated gypsum core with fiberglass facers. "Dens-Deck" by Georgia-Pacific Corporation, Gypsum Division, 2861 Miller Road, Decatur, GA 30035, (800) 225-6119, www.gp.com
 - 4. Steep Asphalt: ASTM D 312, Type III.
 - 5. Interply Adhesive: Membrane manufacturer's cold process solvent based modified adhesive. Asphalt content: 42 percent ASTM D 4479-93.
 - 6. Asphalt Fiberglass Base Sheet: Non porous asphalt coated glass fiber base sheet: ASTM 4601-98, Type II.
- 2.3.8.c. Materials For Vapor Barrier Over Concrete Decks:
- 1. Primer: Quick drying asphalt primer; ASTM D 41.
 - 2. Bitumen: Steep asphalt; ASTM D 312, Type III.
 - 3. Interply Adhesive: Membrane manufacturer's cold process modified adhesive. Asphalt content: 42 percent ASTM D 4479-93.
 - 4. Asphalt Fiberglass Base Sheet: Non porous asphalt coated glass fiber base sheet: ASTM 4601-98, Type II.
- 2.3.8.d. Materials For Vapor Barrier On Wood, Structural Wood Fiber Decks, Gypsum Decks and Lightweight Concrete Fill:
- 1. Fasteners for securing to wood decks: Annular ring roofing nails with one inch solid cap, "Cap Nail" by Simplex Nails Inc., 104 Swett Avenue, Americas, GA 31709, (800) 328-0857, www.simplexnails.com
 - 2. Fasteners for securing to structural wood fiber decks: "Tube Lok Nail" by Simplex Nails, Inc., Americas, GA 31709, (800) 328-0857, simplexnails.com
 - 3. Fasteners for securing to gypsum decks and lightweight fill: "Tube-Lok Nail" by Simplex Nails, Inc., 104 Swett Avenue, Americus, GA 31709, (912) 924-2767.
 - 4. Rosin Paper: Minimum weight 4 pounds per square.
 - 5. Bitumen: Steep Asphalt: ASTM D 312, Type III.
 - 6. Interply Adhesive: Membrane manufacturer's cold process modified adhesive. Asphalt content: 42 percent ASTM D 4479-93.
 - 7. Asphalt Fiberglass Base Sheet: Non porous asphalt coated glass fiber base sheet: ASTM 4601-98, Type II.
- 2.4. **PART 3 EXECUTION**
- 2.4.1. **SURFACE PREPARATION**
- 2.4.1.a. Ensure roof drain strainers are in place and secured during removal of insulation and other debris. Provide cast iron strainers where existing strainers are missing. Do not allow removal debris to enter drains.
- 2.4.1.b. Cleaning: Before the roofing installation commences, sweep and/or vacuum all surfaces as required to remove all dirt, dust, loose aggregate, foreign matter, and debris left from removals of existing roofing.
- 2.4.2. **PREPARATION**
- 2.4.2.a. Testing Existing Roof Drains and Conductor Pipes: Before commencing with the Work of this Section, water test existing roof drains and conductor pipes and submit a written report to the Director's Representative indicating which drains or conductors, if any, are not functioning properly. Repair of existing drains and conductors is not included in the Work. Repair work (if any) may, at the Director's

- option, be accomplished by an Order on Contract.
- 2.4.2.b. Testing Pull Out Resistance of Fasteners: Before commencing with the roofing work, in the presence of the Director's Representative, conduct fastener pull out tests to determine if the pull out values meet the requirements of the Contract Documents and the membrane manufacturer.
1. Conduct the tests at representative locations and/or where selected by the Director's Representative as follows:
 - a. Up to 5,000 square feet: 3 tests.
 - b. 5,000 to 10,000 square feet: 6 tests.
 - c. 10,000 to 50,000 square feet: 10 tests.
 - d. 50,000 to 100,000 square feet: 20 tests.
 2. Patch holes at the test locations.
 3. Do not proceed with the roofing work if the pull out resistance of the fasteners is less than specified in this Section.
- 2.4.2.c. Patching Existing Vapor Barrier: Remove loose and/or deteriorated portions of the existing vapor barrier. Patch defective areas with fiberglass felt embedded in and coated with asphalt plastic roof cement. Extend the patch a minimum of 12 inches beyond the defect on all sides.
- 2.4.2.d. Preparing Existing Roof Membrane:
1. Gravel Surfaced Roofs: Remove loose aggregate surfacing, dirt, debris and surface moisture by power sweeping and vacuuming. Only firmly bonded gravel may be left in place. Remove high spots of the gravel to produce a reasonably level and smooth surface.
 2. Smooth Surface Roofs: Remove dirt, debris, and surface moisture.
 3. Cut open blisters so they lay flat. Where blisters will not lay flat, cut off raised or loose portions.
 4. Patch holes, splits or cracks that extend down to the existing insulation or the deck.
 5. Where shown and directed cut out the existing roofing membrane and remove wet insulation. Fill the void left by the removals, with insulation to match the existing thickness.
- 2.4.3. **HEATING BITUMEN**
- 2.4.3.a. Strictly regulate the heating process for positive temperature control by means of an automatic thermostatic control of an approved type. Kettles or tankers shall be the immersion tube type, fired by liquid LP gas, and shall have 100 percent safety shutoff.
- 2.4.3.b. Equip each kettle or tanker with a recording thermometer that will graphically indicate and record on a chart the maximum and minimum temperatures to which materials have been heated. Recording thermometers shall be capable of accurately recording temperatures as high as 600 degrees F and as low as 0 degrees F. The thermometers shall be properly maintained at all times. Kettles or tankers without recording thermometers in good working conditions shall not be used. At the end of each workday, turn the chart from the thermometer on each kettle or tanker over to the Director's Representative. If any bitumen is overheated, remove it from the site in the presence of the Director's Representative. If any underheated or overheated bitumen has been applied on the roof, remove that portion of the roof.
- 2.4.3.c. Do not locate heating kettles on the roof. Move hot asphalt onto roofs with hot tanks 55 gallon maximum.
- 2.4.3.d. D. Heating Asphalt:
1. Heat the bitumen in accordance with the Equiviscous Temperature information furnished by the bitumen manufacturer for that specific run of bitumen.
 2. In no case shall the asphalt be heated to or above the actual COC Flash Point (ANSI/ASTM D 92); or the finished blowing temperature for more than 4 hours.
 3. Maintain the temperature of the bitumen at the point of application within the Equiviscous Temperature Range. Use insulated pipes, buckets, luggers, and other insulated roofers equipment as required by the field conditions.
 4. If the Equiviscous Temperature information is not furnished by the bitumen manufacturer, heat the bitumen as follows:
 - a. Steep Asphalt, Type III: Do not heat the asphalt above 500 degrees F. The temperature at the point

of application shall be between 375 degrees F and 475 degrees F.

- 2.4.4. **INSTALLING UNDERLAYMENT BOARD**
- 2.4.4.a. Install underlayment board over all combustible decks.
 - 1. Steel Decks: Install underlayment board so that the long dimensions, if rectangular, bear directly on bearing surfaces or top flanges. Do not allow edges of boards to cantilever over open steel deck flutes.
- 2.4.4.b. Installing Hot Mopped Underlayment Board:
 - 1. Install the underlayment board over the deck with the long joints running in a continuous straight line with end joints staggered. Butt edges snugly so there are no gaps between the boards.
 - 2. Set each board in a full hot mopping of Type III asphalt applied at the rate of 30 pounds per square. Press each board into the hot bitumen to a firm and uniform bearing.
- 2.4.4.c. Installing Underlayment Board With Adhesive:
 - 1. Install the underlayment board over the deck with the long joints running in a continuous straight line with end joints staggered. Butt edges and ends snugly so there are no gaps between the boards.
 - 2. Set each board in serpentine ribbons of the adhesive applied at the manufacturer's recommended rate. Press the board into the adhesive immediately and as necessary thereafter to assure proper bonding. Maintain pressure on the adhesive until the adhesive has completely set (20 to 45 minutes).
- 2.4.4.d. Installing Mechanically Fastened Underlayment Board:
 - 1. Install the underlayment board over the deck with the long joints running in a continuous straight line with end joints staggered. Butt edges and ends snugly so there are no gaps between the boards.
 - 2. Mechanically attach underlayment board in accordance with FM Loss prevention Data 1-28 including enhanced perimeter and corner fastener spacing.. Set the fasteners with sufficient force to hold the insulation firmly against the deck surface. Check each fastener to insure that it is securely anchored to the deck, penetrating the top flute only. Do not allow the fastener to crush the insulation. Remove loose or defective fasteners.
- 2.4.5. **INSTALLING VAPOR BARRIER**
- 2.4.5.a. Installing Hot Asphalt Vapor Barrier and Underlayment Board On Steel Decks:
 - 1. Install one layer of underlayment board over the steel deck. Install the underlayment board with the long edges running in the same direction as the flutes of the deck with edge joints bearing on the solid portions of the deck. Do not allow edges of boards cantilever over open steel deck flutes. Stagger end joints. Butt edges and ends snugly.
 - 2. Secure the underlayment board to the deck in accordance with FM Loss prevention Data 1-28 including enhanced perimeter and corner fastener spacing. Set the fasteners with sufficient force to hold the board firmly against the deck surface, penetrating the top flute only. Check each fastener to insure that it is securely anchored to the deck.
 - 3. Over the underlayment board install 2 plies of fiberglass felt. Install the felts shingle fashion. Lap the felts 19 inches over each preceding ply.
 - 4. Embed each in a solid mopping of hot steep asphalt applied at the rate of 25 pounds per square. Broom the surface for complete embedment.
 - 5. Embed each ply in interply adhesive applied to the substrate in accordance with the manufacturer's printed instructions.
 - 6. If insulation will not be installed the same day the vapor barrier is installed, apply a glaze coat of asphalt or adhesive over the vapor barrier.
- 2.4.5.b. Installing Vapor Barrier on Concrete Decks:
 - 1. Apply asphalt primer to the concrete deck surface at the rate of one gallon per square before application of vapor barrier.
 - 2. Install 2 plies of asphalt fiberglass felt shingle fashion. Lap plies 19 inches over each preceding ply.
 - 3. Embed each ply in a solid mopping of hot steep asphalt applied at the rate of 20 pounds per square. Broom in each ply for complete embedment.
- 2.4.5.c. Installing Hot Asphalt Vapor Barrier On Gypsum and Light Weight Concrete Decks:
 - 1. Install one ply of asphalt fiberglass base sheet over the entire deck surface. Lap edges and ends a minimum of 2 inches.
 - 2. Nail the base sheet to the deck with nails spaced 9 inches on center along edges and end laps. Place 2

additional rows of nails spaced 11 inches apart down the longitudinal center of each sheet. Stagger nails on 18-inch centers.

3. Adhere the base sheet to the deck with one-foot diameter spots of hot steep asphalt spaced 24 inches apart, or with nails spaced 24 inches apart.

4. Over the base sheet install one ply of fiberglass felt. Lap edges and ends 2 inches.

5. Embed the felt in a solid mopping of hot steep asphalt applied at the rate of 20 pounds per square. Broom the felts for complete embedment.

2.4.5.d. Installing Hot Vapor Barrier On Wood and Structural Wood Fiber Decks:

1. Install one ply of rosin paper over the deck. Lap edges and ends 2 inches and fasten with occasional nailing.

2. Install one ply of asphalt fiberglass base sheet. Lap plies 2 inches over each preceding ply.

3. Nail the base sheet to the deck with nails spaced 9 inches on center along edges and end laps. Place 2 additional rows of nails spaced 11 inches apart down the longitudinal center of each sheet. Stagger nails on 18-inch centers.

4. Secure the base sheet to the deck with occasional nailing.

5. Over the base sheet install one ply of fiberglass felt. Lap edges and ends 2 inches.

6. Embed the felt in a solid mopping of hot steep asphalt applied at the rate of 20 pounds per square. Broom the felts for complete embedment.

2.4.5.e. Extend the vapor barrier at curbs, walls, and wood blocking up to a height equal to the thickness of the insulation.

1. Unless approved otherwise by the Director's Representative, follow immediately with the installation of the insulation and roofing membrane.

2.4.6. **INSTALLING INSULATION**

2.4.6.a. Keep insulation absolutely dry at all times. Discard insulation that contains moisture.

1. Install only as much insulation as can be covered with roofing membrane the same day.

2. Discard all units with broken corners or similar defects.

3. At roof drains, terminate the insulation with tapered edge strips so that all flashing and coverstrip joint laps can be made within the tapered portion.

2.4.6.b. Installing Mechanically Attached Insulation: Mechanically attach insulation in accordance with FM Loss prevention Data 1-28 including enhanced perimeter and corner fastener spacing. Set the fasteners with sufficient force to hold the insulation firmly against the deck surface. Check each fastener to insure that it is securely anchored to the deck, penetrating the top flute only. Do not allow the fastener to crush the insulation. Remove loose or defective fasteners.

1. Before installing the fasteners, predrill the correct size hole as recommended by the fastener manufacturer through the insulation and into the deck. Drill the hole 1/2 inch deeper than the fastener penetration.

2.4.6.c. Installing Insulation with Asphalt: Set insulation boards, in a full hot mopping of Type III steep asphalt applied at the rate of 30 pounds per square. Press insulation into the bitumen to a firm and uniform bearing.

2.4.6.d. Installing Adhesively Secured Insulation: Set each board in insulation adhesive applied in accordance with manufacturer's printed instructions. Press insulation into the adhesive immediately and as necessary thereafter to assure proper bonding. Maintain pressure on the adhesive until the adhesive has completely set (20 to 45 minutes).

2.4.6.e. Installing Insulation Board: Install the insulation in a minimum of two layers, top layer joints staggered and offset from the joints of the insulation below. Cut base layer of insulation to a 2 foot width as a starter. Butt edges and ends snugly so there are no gaps between the insulation boards. Discard boards with broken corners and boards that are warped.

2.4.6.f. Installing Tapered Insulation System: Install the tapered insulation following the manufacturer's shop drawings and instructions for laying out the tapered insulation system. Install each layer of insulation with joints staggered. Butt edges and ends snugly so that there are no gaps between the insulation boards.

2.4.6.g. Install coverboard insulation over the polyisocyanurate insulation, staggering and offsetting joints from

- the insulation below.
- 2.4.6.h. Install the cricket insulation over the coverboard insulation. Cut and fit the cricket insulation in accordance with the manufacturer's instructions.
- 2.4.7. **INSTALLING COVERBOARD**
- 2.4.7.a. Install coverboard over the insulation to provide protection from insulation facer delamination and to provide protection from foot traffic, etc.
- 2.4.7.b. Installing Hot Mopped Coverboard:
1. Install the coverboard over the insulation with the long joints running in a continuous straight line with end joints staggered. Butt edges and edges snugly so there are no gaps between the boards.
 2. Set each board in a full hot mopping of Type III asphalt applied at the rate of 30 pounds per square. Press each board into the hot bitumen to a firm and uniform bearing.
- 2.4.7.c. Installing Coverboard With Adhesive:
1. Install the coverboard over the insulation with the long joints running in a continuous straight line with end joints staggered. Butt edges and ends snugly so there are no gaps between the boards.
 2. Set each board in serpentine ribbons of the adhesive applied at the manufacturer's recommended rate. Press the cover board into the adhesive immediately and as necessary thereafter to assure proper bonding. Maintain pressure on the adhesive until the adhesive has completely set (20 to 45 minutes).
- 2.4.7.d. Installing Mechanically Fastened Coverboard:
1. Loose lay the cover board over the insulation with the long joints running in a continuous straight line with end joints staggered. Butt edges and ends snugly so there are no gaps between the boards. Stagger joints from the insulation joints.
 2. Secure the coverboard and the insulation at the same time with the same fastener.
 3. Mechanically attach coverboard in accordance with FM Loss prevention Data 1-28 including enhanced perimeter and corner fastener spacing. Set the fasteners with sufficient force to hold the insulation firmly against the deck surface. Do not allow the fastener to crush the insulation. Check each fastener to insure that it is securely anchored to the deck. Remove loose or defective fasteners.
- 2.4.8. **INSTALLING EPDM ROOF MEMBRANE**
- 2.4.8.a. Install the membrane with the minimum number of field formed joints. Use the largest size factory formed sheets as is practicable.
1. If possible start at high points of the roof and work towards the low points. Lap sheets so the flow of water is not against the edges of the sheet.
 2. Position the membrane so it is free of buckles or wrinkles. Do not stretch the membrane. Lay the sheets with a minimum 6-inch lap.
 - a. When the edges of the EPDM sheet are not straight so that the inseam tape and cover tape can be applied without distortion, snap a chalk line on the edge of the top sheet and cut the sheet so that the edge is straight.
 3. Allow the membrane to relax for a minimum of 1/2 hour before securing or splicing. When installing membrane in cold weather, allow the membrane to relax for a longer period of time as recommended by the manufacturer.
- 2.4.8.b. Adhering Roofing Membrane To The Substrate:
1. Adhere the roofing membrane to the substrate with the manufacturer's bonding adhesive. Mating surfaces must be clean and dry before adhering the membrane.
 2. Apply a uniform coating of bonding adhesive to both mating surfaces at the rate recommended by the manufacturer. Do not leave "skips" or "holidays". Do not allow the bonding adhesive to puddle.
 3. Do not allow bonding adhesive to come in contact with areas to be spliced.
 4. Allow the adhesive to dry until it does not stick to the dry finger touch. Do not attempt to adhere the membrane if the bonding adhesive is wet to the touch.
 5. Adhere the membrane to the substrate so it is free of wrinkles, fishmouths, or voids.
 6. Broom the membrane to achieve maximum adhesion. Do not try to reposition the sheet once it has been adhered to the substrate.
- 2.4.8.c. Splicing EPDM Roof Membrane Lap Joints:
1. Splice side and end lap joints of the sheet membrane with the manufacturer's inseam splicing tape

and seam cover tape. Do not use splicing cement.

2. Mark the bottom sheet along the edge of the top sheet with a marking crayon.

3. Cleaning and Preparing The Lap Joint:

a. Remove dirt and dust. Detergent-wash the splice area where dirt has adhered to the membrane. Rinse with clean water and allow to dry thoroughly.

b. Solvent wash surfaces that will be in contact with in-seam tape and cover tape with natural fiber rags soaked in the manufacturer's recommended cleaning agent. Clean the splice area until the sheet is clean and black, with no streaks, and there is no trace of talc or foreign matter left in the splice area. Change rags frequently to avoid spreading the talc or dirt.

c. The solvent wash is mandatory and cannot be eliminated regardless of the manufacturer's requirements.

4. Installing Inseam Splicing Tape:

a. Apply the manufacturer's primer to surfaces that will be in contact with the in-seam tape. Allow the primer to dry completely before completing the splice.

b. Position the tape on the bottom sheet with the edge aligned with the previously made markings. Roll the surface of the tape to insure good adhesion.

c. Fold the top sheet over the tape. Trim the sheet as necessary so that 1/4-inch of the tape is exposed.

d. Remove the release paper from the top surface of the tape and allow the membrane to come in contact with the tape as the paper is being removed.

e. Roll the surface of the splice to insure good adhesion.

5. Installing Cover Tape:

a. Apply the manufacturer's primer to surfaces that will be in contact with the cover tape. Allow the primer to dry completely before completing the splice.

b. Apply the cover tape centered over the seam. Roll the tape into position while the release paper is being removed.

c. Adhere the tape to the underlying sheet so it is free of wrinkles, fishmouths and voids.

d. Roll the surface of the splice to insure good adhesion.

2.4.8.d. Securing EPDM Roof Membrane at Base of Walls and Sloped Intersections:

1. At base of walls, and at sloped intersections with inclines greater than 2 inches to the foot, turn the EPDM roofing membrane up onto the vertical surface so that it is self flashing.

2. Before turning the membrane up onto the vertical or inclined surface, install a minimum 6 inch wide reinforced EPDM membrane strip over the roof insulation. Fully adhere the strip to the insulation with bonding adhesive. Mechanically fasten the strip thru the insulation to the structural deck or to the base of the wall as shown on the Contract Drawings with screws and stress plates one foot on center.

a. Adhere the roof membrane to the EPDM strip with splicing cement.

3. Work the membrane into the intersection of the deck and the vertical or inclined surface so that there is no bridging. Adhere the membrane to the vertical or inclined surface with bonding adhesive.

4. If wrinkles or loose membrane develop on the vertical surface, cut the membrane so that it will lay flat and tight to the surface. Adhere a one-foot wide patch of EPDM over the cut membrane.

a. Apply lap sealant around the perimeter of the patch.

2.4.8.e. Sealing "T" Joints In The EPDM Roof Membrane:

1. Where two spliced seams ("T" joints) running perpendicular or on a bias to each other intersect, apply lap sealant at the edges of the cover tape. Extend the lap sealant a minimum of 6 inches beyond each intersecting corner.

2.4.9. **INSTALLING EPDM FLASHINGS**

2.4.9.a. Splicing EPDM Flashing:

1. Remove dirt and dust. Detergent wash mating surfaces where dirt has adhered to the membrane. Rinse with clean water and allow to dry thoroughly.

2. Solvent wash mating surfaces with natural fiber rags soaked in the manufacturer's cleaning agent. Clean the splice area until the sheet is clean and black, with no streaks, and there is no trace of talc or foreign matter left in the splice area. Change rags frequently to avoid spreading the talc or dirt.

a. Brush-apply a uniform coating of splicing cement to both mating surfaces at the rate recommended

- by the manufacturer. Do not leave any "skips" or "holidays". Do not allow the splicing cement to puddle.
- b. Allow the splicing cement to dry until it does not stick to the dry finger touch. Do not complete the splice if the splicing cement is wet.
 - c. Adhere the top sheet to the underlying sheet so it is free of wrinkles, fishmouths, and voids.
 - d. Roll the splice with a steel roller to insure good adhesion.
 - e. Apply a bead of lap sealant along exposed edges and tool to a slightly convex surface. Lap sealant must be applied the same day the splice is completed.
- 2.4.9.b. Adhering EPDM Flashings To The Substrate:
1. Adhere the flashings to the substrate with the manufacturer's bonding adhesive. Mating surfaces must be clean and dry and smooth before adhering the membrane. Do not adhere membrane directly to masonry surfaces.
 2. Apply a uniform coating of bonding adhesive to both mating surfaces at the rate recommended by the manufacturer. Do not leave any "skips" or "holidays". Do not allow the bonding adhesive to puddle.
 3. Do not allow bonding adhesive to come in contact with areas to be spliced.
 4. Allow the adhesive to dry until it does not stick to the dry finger touch. Do not attempt to adhere the flashing if the bonding adhesive is wet to the touch.
 5. Adhere the flashing to the substrate so it is free of wrinkles, fishmouths, or voids.
 6. Roll the surface of the flashings to achieve maximum adhesion. Do not try to reposition the flashing once it has been adhered to the substrate.
- 2.4.9.c. Installing EPDM Base Flashing At Equipment Curbs, Skylight Curbs, and At Walls Where The Roof Membrane Cannot Be Turned Up In One Piece:
1. Complete the splice between the sheet flashing and the roof membrane before bonding the flashing to vertical surfaces. Extend the splice a minimum of 3 inches beyond fastener plates that secure the membrane.
 2. Apply bonding adhesive to the substrate. Roll the flashing into the bonding adhesive so there are no wrinkles and no bridging at the base of the flashing. Work the surface of the flashing to insure good adhesion.
 3. At inside and outside corners cut and fold the membrane around the corner as recommended by the manufacturer. Apply uncured EPDM corner patches.
 4. Apply lap sealant at edges and ends of the flashing.
 5. If the base flashing terminates beneath a cap flashing, secure the top edge of the flashing with fasteners 12 inches on center.
- 2.4.9.d. Installing EPDM Expansion Joint At Building Wall Base:
1. At the base of the wall, secure the roofing membrane to a reinforced EPDM membrane strip.
 2. Install a minimum 6 inch wide reinforced EPDM membrane strip over the insulation. Fully adhere the strip to the insulation with bonding adhesive. Mechanically fasten the strip to the structural deck with screws and stress plates one foot on center.
 3. Adhere the roof membrane to the EPDM strip with splicing cement.
 4. Install premolded joint filler or batt fiberglass insulation in the expansion joint. Install 2 inch round premolded expansion joint filler tube. Set the tube so that it extends above the roof surface at least 1-1/2 inches.
 5. Apply bonding adhesive to the wall surface. Extend the membrane over the tube and up the wall surface. Work the membrane into the bonding adhesive to insure good adhesion.
 6. If wrinkles or loose membrane develop on the vertical surface, cut the membrane so that it will lay flat and tight to the surface. Adhere a one-foot wide patch of EPDM over the cut membrane.
 - a. Apply lap sealant around the perimeter of the patch.
 7. Secure the top edge of the membrane with fasteners one foot on center.
- 2.4.9.e. Installing EPDM Expansion Joint In Field Of Roof:
1. Install a minimum 6 inch wide reinforced EPDM membrane strip over the insulation on each side of the expansion joint. Fully adhere the strip to the insulation with bonding adhesive. Mechanically fasten the strip to the structural deck with screws and stress plates one foot on center.

2. Install premolded joint filler or batt fiberglass insulation in the expansion joint. Install 2 inch round premolded expansion joint filler tube. Set the tube so that it extends above the roof surface at least 1-1/2 inches.
 3. Apply splicing cement to the membrane and the reinforced EPDM strips. Fold the membrane over the joint and splice the membrane to the strip. Roll the surface to insure good adhesion.
- 2.4.9.f. Installing Termination Bar:
1. Where base flashing does not terminate beneath a cap flashing, seal the top edge as follows:
 - a. Set the top one-inch of the flashing in water cut off mastic.
 - b. Install a continuous metal termination bar over the flashing and secure one foot on center.
 - c. Apply a bead of lap sealant along the top edge.
- 2.4.9.g. G. Installing Gravel Stop Flashing:
1. Install the gravel stop over the roofing membrane.
 2. Strip in the horizontal portion of the gravel stop with cover tape.
 - a. Apply the manufacturer's primer over the metal flange of the gravel stop and the roofing membrane before applying the cover tape.
 - b. Apply uncured EPDM cover tape or 6 inch x 6 inch uncured EPDM over "T" joints, at end laps, and at metal joints.
 - c. Apply lap sealant at metal joints and along cover tape edges and uncured EPDM patches.
- 2.4.9.h. Installing Flashing at Snap On Cant Type Gravel Stops:
1. Install the canted water dam portion of the gravel stop over the roofing membrane.
 2. Strip in the water dam with one strip of sheet flashing set in splicing cement. Extend the flashing over the front edge of the water dam a minimum of 3 inches and out past the base of the cant a minimum of 3 inches. Apply lap sealant along the splice edge and at splice joints, a. Install the fascia portion of the gravel stop.
- 2.4.9.i. Installing Scupper Flashing:
1. Strip in flanges of the metal scupper with uncured EPDM cover tape. Completely cover the metal flanges. Extend the flashing a minimum of 3 inches beyond the flanges onto the roofing membrane. Apply lap sealant at exposed edges.
- 2.4.9.j. Installing Pipe Flashing:
1. Wherever possible flash pipes through the roof with the manufacturer's premolded pipe flashing.
 - a. Cut the flashing to the proper diameter. Apply splicing cement to the bottom of the flashing and to the contact surface of the membrane. Apply water cut-off mastic between the contact surface of the pipe and the flashing. Install the premolded flashing.
 - b. Install clamping ring around top of flashing. Apply lap sealant around the splice edge of the flashing flange.
 2. Where premolded pipe flashings cannot be used, use field fabricated uncured EPDM cover tape flashing.
 - a. Apply the manufacturer's primer to surfaces that will be in contact with the cover tape. Allow the primer to dry completely before completing the flashing.
 - b. Install a square shaped piece of flashing over the membrane. Turn the flashing up onto the pipe 1/2 inch.
 - c. Wrap a second piece of flashing around the pipe. Extend the flashing 1/2 inch onto the horizontal portion of previously installed flashing.
 - d. Roll the surface of the splice to insure good adhesion.
 - e. Adhere the tape to the underlying sheet so it is free of wrinkles, fishmouths and voids.
 - f. Apply lap sealant at splice edges and at the top of the flashing.
- 2.4.9.k. Installing Pitch Pockets:
1. Install the metal pitch pocket over the roofing membrane. Completely cover the pitch pocket with sheet flashing set in splicing cement. Turn down the flashing 1/2 inch into the pitch pocket and a minimum of 3 inches beyond the horizontal flanges of the pitch pocket. Seal edges and splice joints with lap sealant.
 2. Cover the bottom half of the pitch pocket with mortar. Remove misplaced mortar from the portion of

- the pitch pocket to be filled with pourable sealer. Fill the remaining half of the pitch pocket with pourable sealer.
- 2.4.9.l. **Flashing Retro Fit Roof Drains:**
1. Before installing the retro fit drain, apply water cut off mastic on the bottom side of the drain flange.
 2. Prime the top surface of the drain flange and the roof membrane with the roof membrane manufacturer's primer.
 3. Strip in the drain flange with EPDM sheet membrane cover strips. Extend the cover strips from the edge of the conductor pipe cut out to a minimum of one foot beyond the drain flange onto the roof surface.
 4. Apply lap sealant at edges and lap joints of the coverstrips.
- 2.4.9.m. **Flashing New Cast Drains:**
1. Apply the manufacturer's water cut-off mastic around the perimeter of the drain body in the location of the clamping ring. Embed the membrane into the mastic. Install the clamping ring and strainer.
- 2.4.9.n. **Flashing Existing Cast Drains:**
1. Remove the existing clamping ring, coverstrips, and lead flashing. Clean the contact area of the drain body down to bare metal removing all traces of asphalt. Liberally apply the manufacturer's water cut-off mastic around the perimeter of the drain body in the location of the clamping ring. Embed the membrane into the mastic. Install the clamping ring and strainer.
 - a. Secure the clamping ring with new bolts to match the existing.
- 2.4.9.o. **Installing Walkway/Protection Pads:**
1. Apply bonding adhesive to the pad and to the roofing membrane. Install the pads over the membrane. Apply sufficient pressure to insure a good bond. Apply lap sealant to the full perimeter of the pad.
- 2.4.9.p. **P. Applying Color Coating:**
1. If required by the membrane manufacturer, allow the membrane to weather for 2 weeks.
 2. The surface to be coated shall be dry and clean.
 3. Apply the membrane manufacturer's hypalon or acrylic coating in 2 separate applications. Allow the first application to dry completely before applying the second coat.
 4. Apply the coating at the rate of one gallon per square or as recommended by the manufacturer.
- 2.4.10. **PHASING OF MEMBRANE INSTALLATION**
- 2.4.10.a. At the end of each working day temporarily seal the loose edge of the membrane so that water does not flow beneath the covered portion. Spud off existing aggregate (if any) in the area to be sealed, remove dirt, dust, and foreign matter. Unless instructed otherwise, provide temporary seals in the presence of the Director's Representative. Install the temporary seal using one of the following methods:
1. Method 1: Apply a 12 inch wide application of hot bitumen over the area to be sealed. While hot, embed the EPDM membrane into the bitumen. Before the Work resumes cut off and discard portions of the membrane that have been embedded in the hot bitumen.
 2. Method 2: Apply the membrane manufacturer's nite seal over the area to be sealed. Embed the EPDM membrane into the nite seal. Apply a continuous weight over the membrane and nite seal. Before the Work resumes cut off and discard portions of the membrane that have been embedded in the nite seal.
 3. Install flashings as the membrane is being installed (same working day). If the flashing cannot be completely installed in one day, progress the installation until the flashing is in a watertight condition.
- 2.4.11. **FIELD QUALITY CONTROL**
- 2.4.11.a. As the joints are completed or at the end of each workday, in the presence of the Director's Representative closely examine joints in the membrane and flashing. Cut out and repair areas of the joints that are not fully bonded or that contain "fishmouths" or "wrinkles". Repair the membrane so it is restored to its full waterproof integrity. Lap patches a minimum of 6 inches beyond cuts.
- END OF SECTION**
- 2.4.12. **1.** Unless a manufacturer states otherwise, the suggested maximum slope for a single-ply low slope membrane is 3:12 (14 degrees). The minimum slope is 1/4:12. (1.2 degrees) to ensure positive drainage.
- 2.** Cured Cover tape is used to cover cuts and seams in field of membrane, or over the exposed

fasteners attaching metal drip edge. Uncured cover tape is used for inside and outside corners, pipe flashings, etc. The uncured cover tape will cure over time.

3. NRCA (National Roofing Contractors Association) recommends coverboard be installed on top of insulation to protect from facer delamination and to protect the insulation from being crushed from foot traffic, etc. Details should show cover board over the insulation.

4. Barrier board underlayment is used over combustible decks to provide UL fire ratings, and to bridge flutes on steel decks. It can be mechanically attached or set in asphalt or adhesive. Details should show the barrier board over the deck. If mechanically attaching the barrier board, the preferred insulation and/or coverboard attachment would be adhesively or hot mopping to avoid thermal bridging.

5. To determine appropriate R-Value for your project: Start with the NYS Energy Code, Chapter 3, Figure 302.1 to determine County and Zone. Once you have the Zone, go to Chapter 8, Tables 802.2(1) through 802.2(7) - Building Envelope Requirements. For these tables, you need to know approximate window and door glazing. Once you have the appropriate Table based on the percentage of glazing and the Zone, go down to Roof Assemblies (R-value) in the Table and read across to Continuous Insulation for the required R-Value. Add 10 percent more to meet Executive Order 111.

2.5. **CONTRACTOR USE OF PREMISES**

2.5.1. **Limit use of site and premises to allow following:**

2.5.1.a. Work by County's separate contractors.

2.5.1.b. Storage of contractor's material, equipment, and tools is limited to primary area of construction activity, as determined by County.

2.5.1.c. Access to site is limited to locations determined by County.

2.5.1.d. Limit construction operations to areas noted in bid documents.

2.5.1.e. Restrict construction activity to hours determined by County.

2.5.1.f. Minimize disruption and inconvenience to public's use of adjacent areas.

2.5.1.g. Do not obstruct existing access and egress from adjacent site facilities.

2.5.1.h. Tobacco Policy: County prohibits use of tobacco products in its facilities and on its property. Contractor to enforce policy with contractor's employees and subcontractors.

2.5.2. **Contractor's Duties**

2.5.2.a. Bidders shall visit the site and familiarize themselves with all conditions surrounding the work so that any discrepancies between the bid specifications and the site are included in the bid.

2.5.2.b. Except as specifically noted, provide and pay for labor, materials, equipment, tools, construction equipment, machinery, and services necessary for proper execution and completion of work.

2.5.2.c. Secure and pay for, as necessary for proper execution and completion of work and as applicable at the time of receipt of bids, permits, government fees, taxes, and licenses. Contractor is not required to obtain City of Columbia permit, but is required to obtain a Boone County Building permit (which will be issued at no-cost). Contractor shall schedule project inspections as required.

2.5.2.d. Promptly submit written notice to Facilities Maintenance Manager of observed variance of contract documents from legal requirements. Assume responsibility for work known to be contrary to such requirements, without notice.

2.5.2.e. Contractor must provide all Material Safety Data Sheets prior to use of any hazardous material on the site.

2.5.2.f. Comply with national, state, and local codes, ordinances, rules, regulations, orders and other legal requirements of public authorities, which bear on performance of work.

2.5.2.g. Contractor is responsible for removal from site of all items removed from roof and other repair work.

2.5.2.h. Contractor to have sole responsibility for accuracy of all measurements and for estimate of material quantities required to satisfy requirements of Contract Documents.

2.5.2.i. Contractor shall be responsible for removing and replacing any concrete injured.

2.5.2.j. Contractor shall be required to remove all waste and debris and leave site neat and clean at the end of each work day.

2.5.2.k. Contractor shall provide appropriate warning signs during the project to insure public safety.

2.5.2.l. Submit shop drawings for such equipment and material as the Facilities Maintenance Manager may

require for his review. Facilities Maintenance Manager's review must take place before construction begins.

- 2.5.2.m. Contractor shall submit requests for substitutions in writing to the Facilities Maintenance Manager.
- 2.5.2.n. "Record" drawings shall be provided by the Contractor if installation deviates from the original layout.
- 2.5.2.o. The Contractor shall maintain a careful and complete record of all items installed including exact sizes and locations and upon completion of his work turn over to the County, a complete set of "as-built" reproducible drawings on Mylar of his work.
- 2.5.2.p. The entire installation shall be performed by licensed Contractors.
- 2.5.2.q. **Sub-Contractors:** Contractor may subcontract services to be performed hereunder with the prior approval of the County, which shall not unreasonably withhold approval. No such approval will be construed as making the County party of, or to, such subcontract, nor shall approval be construed as subjecting the County to liability of any kind to any Subcontractor. No subcontract shall, under any circumstances, relieve the Contractor of its liability and obligation under this Contract; and despite such subcontracting the County shall deal through the Contractor, and Subcontractors will be dealt with as workmen and representatives of the Contractor. It is the Contractor's responsibility to ensure that proved Subcontractors have achieved the same insurance liability coverage as the Contractor.

2.6. **INSPECTION**

- 2.6.a. Upon completion of the installation, an inspection shall be made by a Boone County representative to ascertain repair work has been completed according to specifications.

2.7. **CLEAN UP AND DAMAGE REPAIR**

- 2.7.a. Existing items, structures or areas damaged during the course of construction work to be repaired/restored to a condition equal or better than it was before commencement of work.

SPECIAL CONDITIONS

- 2.8. **PREVAILING WAGE RATES** - The contract shall be based upon payment by the Contractor of wage rates not less than the prevailing hourly wage rate for each craft or classification of workers engaged on the work as determined by the Industrial Commission of Missouri on behalf of the Department of Labor and Industrial Relations. The Contractor shall comply with all requirements of the prevailing wage law of Missouri, Revised Statutes of Missouri, Sections 290.210 to 290.340 including the latest amendments thereto. The current prevailing wage order #14 is to be used. Please note "excessive unemployment" is in effect. The prevailing wage law does not prohibit payment of more than the prevailing rate of wages nor does it limit the hours of work which may be performed by any worker in any particular period of time. The current prevailing wage is available on our website at www.showmeboone.com/purchasing under "Current Prevailing Wage" and is attached to this request.
- 2.8.1. The Contractor and all Subcontractors shall maintain books, accounts, ledgers, invoices, drafts, documents, pages and other business records pertaining to the performance of the Contract with such materials available at the Contractor's field or permanent business offices at all reasonable times during the performance of the Contract and for four years from the date of final payment under the contract, for inspection by authorized representatives of the County and the Industrial Commission of Missouri.
- 2.8.2. The Contractor and all Subcontractors shall be required to submit to the Facilities Manager one certified copy of labor payrolls and a weekly statement of compliance (Form WH-347) for each week that work is in progress, within seven days of the payment date of the payroll. If work is temporarily suspended, the last payroll shall be marked appropriately to note that it will be the last payroll until work is resumed.
- 2.8.3. The Contractor shall be responsible for the submittal of payrolls and certifications for all subcontractors.
- 2.8.4. The County will check payrolls, with the following checks being made to insure proper labor compliance:
 - 1. The employee's full name as shown on his/her social security card, his/her address and social security number shall be entered on each payroll.
 - 2. Check the payroll for correct employee classification.

3. Check the payroll for correct hourly wage and, if applicable, the correct overtime hourly rate.
 4. Check the daily and weekly hours worked in each classification including actual overtime hours worked (Not adjusted hours).
 5. All deductions are shown in the net wage shown. The Form WH-437 is to be used if fringe benefits are paid into established programs. However, if fringe benefits are paid in cash to the employee, the amount shall be indicated on the payroll.
 6. All checking by the County will be made in red pencil and initialed by the checker.
 7. Final payroll will be marked "Final" or "last Payroll".
 8. A record of all payrolls will be maintained by the County.
- 2.8.5. The contracts for construction projects require that certain information be displayed in a conspicuous place within the project limits for the duration of the contract. The following is a list of required information to be posted both on the project and in the County's office:
1. In the County's office:
 - a. Missouri Equal Employment Opportunity Notice.
 - b. PR-1022, Title 18, Section 1020, Notice on False Statements.
 2. On the Project:
 - a. State Wage Rates Notice.
 - b. PR-1022, Title 18, Section 1020, Notice on False Statements.
 - c. Contractor's and Subcontractor's EEO Policy Statements and name, address and telephone number of designated EEO Offices.
 - d. Notice to labor Unions of Contractors commitment to EEO (if applicable).
 - e. Notice requesting referral of minorities by present employees.
- 2.8.6. The County's personnel will generally conduct one wage rate interview on each project every two weeks. Labor interviews are not required on railroad and other utility adjustments. The interviewer will determine the employee's name, the employer's name, the classification of the employee, the actual wage paid, and the posted wage.
- 2.9. **Overhead Line Protection:** The Contractor is aware of the provisions of the Overhead Power Line Safety Act, 319.075 to 319.090 RSMo, and agrees to comply with the provisions thereof. Contractor understands that is its their duty to notify any utility operating high voltage overhead lines and make appropriate arrangements with said utility if the performance of contract would cause any activity within ten feet of any high voltage overhead line. To the fullest extent permitted by law, Contractor shall indemnify, hold harmless and defend the County, its directors, officers, agents, and employees from and against all claims, damages, losses and expenses (including but not limited to attorney's fees) arising by reason of any act or failure to act, negligent or otherwise, of Contractor, of any subcontractor (meaning anyone, including but not limited to consultants having a contract with contractor or a subcontract for part of the services), of anyone directly or indirectly employed by contractor or by any subcontractor, or of anyone for whose acts the contractor or its subcontractor may be liable, in connection with any claims arising under the Overhead Power Line Safety Act. Contractor expressly waives any action for Contribution against the County on behalf of the Contractor, any subcontractor (meaning anyone, including but not limited to consultants having a contract with contractor or a subcontract for part of the services), anyone directly or indirectly employed by contractor or by any subcontractor, or of anyone for whose acts the contractor or its subcontractor may be liable, and agrees to provide a copy of this waiver to any party affected by this provision.
- 2.10. **Insurance Requirements:** The Contractor shall not commence work under this contract until they have obtained all insurance required under this paragraph and such insurance has been approved by the County, nor shall the Contractor allow any subcontractor to commence work on their subcontract until all similar insurance required of subcontractor has been so obtained and approved. All policies shall be in amounts, form and companies satisfactory to the County which must carry an A-6 or better

rating as listed in the A.M. Best or equivalent rating guide. Insurance limits indicated below may be lowered at the discretion of the County.

- 2.10.1. **Compensation Insurance** - The Contractor shall take out and maintain during the life of this contract, **Employee's Liability and Worker's Compensation Insurance** for all of their employees employed at the site of work, and in case any work is sublet, the Contractor shall require the subcontractor similarly to provide Worker's Compensation Insurance for all of the latter's employees unless such employees are covered by the protection afforded by the Contractor. Worker's Compensation coverage shall meet Missouri statutory limits. Employers' Liability limits shall be \$1,000,000.00 each employee, \$1,000,000.00 each accident, and \$1,000,000.00 policy limit. In case any class of employees engaged in hazardous work under this Contract at the site of the work is not protected under the Worker's Compensation Statute, the Contractor shall provide and shall cause each subcontractor to provide Employers' Liability Insurance for the protection of their employees not otherwise protected.
- 2.10.2. **Comprehensive General Liability Insurance** - The Contractor shall take out and maintain during the life of this contract, such comprehensive general liability insurance as shall protect them and any subcontractor performing work covered by this contract, from claims for damages for personal injury including accidental death, as well as from claims for property damages, which may arise from operations under this contract, whether such operations be by themselves or for any subcontractor or by anyone directly or indirectly employed by them. The amounts of insurance shall be not less than \$2,000,000.00 combined single limit for any one occurrence covering both bodily injury and property damage, including accidental death. If the Contract involves any underground/digging operations, the general liability certificate shall include X, C, and U (Explosion, Collapse, and Underground) coverage. If providing Comprehensive General Liability Insurance, then the Proof of Coverage of Insurance shall also be included.

The Contractor has the option to provide **Owner's Contingent or Protective Liability and Property Damage** instead of the **Comprehensive General Liability Insurance**- The Contractor shall provide the County with proof of Owner's Protective Liability and Property Damage Insurance with the County as named insured, which shall protect the County against any and all claims which might arise as a result of the operations of the Contractor in fulfilling the terms of this contract during the life of the Contract. The minimum amounts of such insurance will be \$2,000,000.00 per occurrence, combined single limits. Limits can be satisfied by using a combination of primary and excess coverages. Should any work be subcontracted, these limits will also apply.

- 2.10.3. **COMMERCIAL Automobile Liability** – The Contractor shall maintain during the life of this contract, automobile liability insurance in the amount of not less than \$2,000,000.00 combined single limit for any one occurrence, covering both bodily injury, including accidental death, and property damage, to protect themselves from any and all claims arising from the use of the Contractor's own automobiles, teams and trucks; hired automobiles, teams and trucks; and both on and off the site of work.
- 2.10.4. **Proof of Carriage of Insurance** - The Contractor shall furnish the County with Certificate(s) of Insurance which name the County as additional insured in an amount as required in this contract, contain a description of the project or work to be performed, and requiring a thirty (30) day mandatory cancellation notice. In addition, such insurance shall be on occurrence basis and shall remain in effect until such time as the County has made final acceptance of the facility contracted.
- 2.10.5. **INDEMNITY AGREEMENT:** To the fullest extent permitted by law, Contractor shall indemnify, hold harmless and defend the County, its directors, officers, agents, and employees from and against all claims, damages, losses and expenses (including but not limited to attorney's fees) arising by reason of any act or failure to act, negligent or otherwise, of Contractor, of any subcontractor (meaning anyone, including but not limited to consultants having a contract with contractor or a subcontract for part of the services), of anyone directly or indirectly employed by contractor or by any subcontractor, or of anyone for whose acts the contractor or its subcontractor may be liable, in connection with providing these services. This provision does not, however, require contractor to

- indemnify, hold harmless, or defend the County of Boone from its own negligence.
- 2.11. **SALES/USE TAX EXEMPTION:** County will provide the Contractor with a completed Missouri Project Exemption and Missouri Tax Exemption letter for Boone County, Missouri and the Contractor shall be responsible for furnishing the exemption certificate and tax exemption letter to all authorized sub-contractors and suppliers providing materials incorporated in the work. All invoices issued for purchases for such materials, supplies and taxable rentals shall be in the name of Boone County and contain the project number assigned by Boone County for the contract awarded. It shall be the responsibility of the Contractor to insure that no sales or use taxes are included in the invoices and that the County pays no sales/use taxes from which it is exempt. The Contractor shall be responsible for obtaining revised exemption certificates and revised expiration dates if the work extends beyond the estimated project completion date or a certificate expiration date. The Contractor shall also be responsible for retaining a copy of the project exemption certificate for a period of five years and for compliance with all other terms and conditions of section 144.062 RSMo. Not otherwise herein specified. The Contractor agrees not to use or permit others to use the project exemption certificate for taxable purchases of materials or rentals and supplies not directly incorporated into or used in the work to which it applies and agrees to indemnify and hold the County harmless from all losses, expenses and costs including litigation expenses and attorney fees resulting from the unauthorized use of such project exemption certificates.
- 2.12. **LIEN WAIVERS:** Prior to the release of contract amount, contractor shall file with the County the following:
- a) An affidavit, to the effect that all payments have been made and all claims have been released for all materials, labor and other items covered by the contract;
 - b) Lien waivers signed by each supplier furnishing materials to the project releasing all claims to said materials;
 - c) Lien waivers signed by each sub-contractor furnishing labor to the project releasing all claims against Boone County for said labor.
- 2.13 **PAYMENT:** This will be a lump sum payment contract upon acceptance by Boone County. Vendor must submit an invoice and charges must only include prices listed in the vendor's bid response. No additional fees or taxes shall be included as additional charges. **The County's purchase order must appear on the invoice.** The County agrees to pay the invoice within thirty (30) days from receipt of a correct invoice and all other required documents.
- 2.14. **INVOICES:** Invoices should be submitted to Boone County Facilities Maintenance for payment 30 days after receipt of a correct and valid invoice. The billing address is Boone County Facilities Maintenance, 601 East Walnut, Room 205, Columbia, MO 65201.
- 2.15. **Bonds:** If Bidder's total bid is less than \$25,000, no bonds are required. In the event the bid amount exceeds \$25,000, the bidders shall be required to furnish the following bonds:
- 2.15.1. **BID BOND:** Bidder shall include with bid a certified check, Treasurer's check or cashier's check, or a bidder's bond payable to the County of Boone for five (5) percent of AMOUNT OF BID. If this bid is accepted and the undersigned fails to execute the Contract and furnish a contract bond as required, then the bid guaranty shall be forfeited to the County. Bid guaranties will be returned as per Section 103.3, "Missouri Standard Specifications for Highway Construction dated 1999".
- 2.15.2. **PERFORMANCE BOND AND LABOR AND MATERIALS PAYMENT BOND:** The successful Contractor shall pay for and furnish, when applicable, within 10 days after written notice of acceptance of estimate, Performance, and Labor and Materials Bonds. Contractor shall provide and pay the cost of Performance and Payment Bonds, on forms generally used by County, each in full amount of the "Not To Exceed" amount for the estimated work, issued by a Surety Company licensed in Missouri, with an "A" minimum rating of performance as stated in the most current publication of "Best's Key Rating Guide, Property Liability," which shall show a financial strength rating of at least five (5) times the Contract Price. Each Bond shall be accompanied by a "Power of Attorney" authorizing the attorney-in-fact to bind the surety and certified to include the date of the bond.
- 2.15.3.. **LABOR AND MATERIAL PAYMENT BOND:** Contractor shall return Payment and Labor and Material Bond with signed contract.

- 2.15.4. **DESIGNEE:** Boone County Facility Maintenance, Bob Davidson, Manager, 601 E. Walnut Street, Room 206, Columbia, MO 65201. (573) 886-4400.
- 2.15.5. **Bid Clarification:** Any questions or clarifications concerning bid documents should be addressed in writing, **PRIOR TO BID OPENING**, to Melinda Bobbitt, CPPB, Director of Purchasing, 601 E. Walnut, Room 208, Columbia, Missouri 65201. Phone: (573) 886-4391 Fax: (573) 886-4390 or Email: mbobbitt@boonecountymo.org

- 3. Response Presentation and Review**
- 3.1 **RESPONSE CONTENT** - In order to enable direct comparison of competing Responses, you must submit your Response in strict conformity to the requirements stated herein. Failure to adhere to all requirements may result in Bidder's Response being disqualified as non-responsive. All Responses must be submitted using the provided Response Sheet. Every question must be answered and if not applicable, the section must contain "N/A."
- 3.1.2 **Submittal Of Responses** – Responses MUST be received by the date and time noted on the title page under "Bid Submission Information and Deadline". NO EXCEPTIONS. The County is not responsible for late or incorrect deliveries from the United States Postal Service or any other mail carrier.
- 3.1.3 **Submittal Package** - Submit, to the location specified on the title page, **three (3) complete copies** of your Response in a single sealed envelope, clearly marked on the outside with your company name and return address, **the bid number and the due date and time.**
- 3.1.4 **Web Page:** Vendors may view Bids, Bid Tabulations, and Bid Awards on the Boone County Web Page at <http://www.showmeboone.com>.
- 3.1.5 **Bid Opening** - On the date and time and at the location specified on the title page under "Bid Opening", all Responses will be opened in public. Brief summary information from each will be read aloud.
- 3.2 **REMOVAL FROM VENDOR DATABASE** - If any prospective Bidder currently in our Vendor Database to whom the Bid was sent elects not to submit a Response and fails to reply in writing stating reasons for not bidding, that Bidder's name may be removed from our database. Other reasons for removal include unwillingness or inability to show financial responsibility, reported poor performance, unsatisfactory service, or repeated inability to meet delivery requirements.
- 3.2.1 **Response Clarification** - We reserve the right to request additional written or oral information from Bidders in order to obtain clarification of their Responses.
- 3.3 **REJECTION OR CORRECTION OF RESPONSES** – The County reserves the right to reject any or all Responses. Minor irregularities or informalities in any Response which are immaterial or inconsequential in nature, and are neither affected by law nor at substantial variance with Bid conditions, may be waived at our discretion whenever it is determined to be in the County's best interest.
- 3.3.1 **Evaluation Process** - The County's sole purpose in the evaluation process is to determine from among the Responses received which one is best suited to meet the County's needs at the lowest possible cost. Any final analysis or weighted point score does not imply that one Bidder is superior to another, but simply that in our judgment the Contractor selected appears to offer the best overall solution for our current and anticipated needs at the lowest possible cost.
- 3.3.2 **Method of Evaluation** – The County will evaluate submitted Responses in relation to all aspects of this Bid.
- 3.3.3 **Acceptability** – The County reserves the sole right to determine whether goods and/or services offered are acceptable for our use.
- 3.4 **ENDURANCE OF PRICING** – Bidder's pricing must be held until award or 60 days, whichever comes first.

4. Response Form - Submit three (3) complete copies of your Response in a single sealed envelope, clearly marked on the outside, left corner with your company name and return address, the proposal number and the due date and time.

- 4.1 Company Name: _____
- 4.2 Address: _____
- 4.3 City/Zip: _____
- 4.4 Phone Number: _____
- 4.5 Fax Number: _____
- 4.6 Federal Tax ID: _____

- 4.6.1. () Corporation
 - () Partnership – Name _____
 - () Individual/Proprietorship – Individual Name _____
- If individual, Bidder must complete Certification of lawful presence in U.S. on attached form.**

4.7. BID RESPONSE – Weekday Work Schedule – Monday – Friday – 7:00 a.m. – 5:00 p.m.

- 4.7.1. Part A - Roof Replacement Project – Lump Sum Bid \$
for half of County Building located at 605 East Walnut,
Columbia, Missouri
- 4.7.2. Part B - Roof Replacement Project – Lump Sum Bid \$
the porch and vestibule roof on south side of 607 East Ash Street
(Alternative Sentencing Center).
- 4.7.3. **TOTAL FOR PART A & PART B (4.7.1. + 4.7.2.)** \$

4.8. List any proposed sub-contractors:

4.9. Work will begin on project _____ days after receipt of Notice to Proceed.

4.10. Work will be completed _____ days after receipt of Notice to Proceed.

4.11. Bid Bond Included if Bid Response over \$25,000: ___ Yes ___ No

4.12. Statement of Bidder's Qualifications Included? ___ Yes ___ No

4.13. **WORK AUTHORIZATION CERTIFICATION** – If Bid is in excess of \$5,000.00, Bidder must complete and return the Work Authorization Certification Form attached hereto.

4.14. **The undersigned offers to furnish and deliver the articles or services as specified at the prices and terms stated and in strict accordance with all requirements contained in the Request for Bid which have been read and understood, and all of which are made part of this order.** By submission of this bid, the vendor certifies that they are in compliance with Section 34.353 and, if applicable, Section 34.359 (“Missouri Domestic Products Procurement Act”) of the Revised Statutes of Missouri.

4.14.1. Authorized Representative (Sign By Hand):

4.14.2. Type or Print Signed Name:

Date: _____

4.15. Submit with bid response the manufacturer's ten year product warranty for rubber roof coating.

4.15. **References** – Bidder must provide three (3) references for services rendered to commercial clients which are similar in size and scope.

4.15.1. **Reference #1**

Individual Name: _____

Company Name: _____

Address: _____

Telephone: _____

4.15.2. **Reference #2**

Individual Name: _____

Company Name: _____

Address: _____

Telephone: _____

4.15.3. **Reference #3**

Individual Name: _____

Company Name: _____

Address: _____

Telephone: _____



Standard Terms and Conditions

Boone County Purchasing

601 E. Walnut, Room 208

Columbia, MO 65201

Melinda Bobbitt, Director

Phone: (573) 886-4391 – Fax: (573) 886-4390

1. Responses shall include all charges for packing, delivery, installation, etc., (unless otherwise specified) to the Boone County Department identified in the Request for Bid and/or Proposal.
2. The Boone County Commission has the right to accept or reject any part or parts of all bids, to waive technicalities, and to accept the offer the County Commission considers the most advantageous to the County. Boone County reserves the right to award this bid on an item by item basis, or an "all or none" basis, whichever is in the best interest of the County.
3. Bidders must use the bid forms provided for the purpose of submitting bids, must return the bid and bid sheets comprised in this bid, give the unit price, extended totals, and sign the bid.
4. When products or materials of any particular producer or manufacturer are mentioned in our specifications, such products or materials are intended to be descriptive of type or quality and not restricted to those mentioned.
5. Do not include Federal Excise Tax or Sales and Use Taxes in bid process, as law exempts the County from them.
6. The delivery date shall be stated in definite terms, as it will be taken into consideration in awarding the bid.
7. The County Commission reserves the right to cancel all or any part of orders if delivery is not made or work is not started as guaranteed. In case of delay, the Contractor must notify the Purchasing Department.
8. In case of default by the Contractor, the County of Boone will procure the articles or services from other sources and hold the Bidder responsible for any excess cost occasioned thereby.
9. Failure to deliver as guaranteed shall disqualify Bidder from future bidding.
10. Prices must be as stated in units of quantity specified, and must be firm. Bids qualified by escalator clauses may not be considered unless specified in the bid specifications.
11. No bid transmitted by fax machine will be accepted.
12. The County of Boone, Missouri expressly denies responsibility for, or ownership of any item purchased until same is delivered to the County and is accepted by the County.

STATEMENT OF BIDDER'S QUALIFICATIONS

(File with Bid Form in separate envelope appropriately designated.)

- 1. Number of years in business: _____ If not under present firm name, list previous firm names and types of organizations.

- 2. Contracts on hand: (Complete the following schedule)

| Item | Purchaser | Amount of Contract | Percent Completed |
|-------|-----------|--------------------|-------------------|
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |

- 3. General type of product sold and manufactured:

- 4. There has been no default in any contract completed or un-completed except as noted below:

- (a) Number of contracts on which default was made: _____
- (b) Description of defaulted contracts and reason therefor:

- 5. List banking references:

Dated at _____

this _____ day of _____, 200 ____.

Name of Organization(s)

By _____
(Signature)

(Title of person signing)

INSTRUCTIONS FOR COMPLIANCE WITH HOUSE BILL 1549

House Bill 1549 addresses the Department of Homeland Security's and the Social Security Administration's E-Verify Program (Employment Eligibility Verification Program) that requires the County to verify "lawful presence" of individuals when we contract for work/service; verify that contractor has programs to verify lawful presence of their employees when contracts exceed \$5,000; and a requirement for OSHA safety training for public works projects.

The County is required to obtain certification that the bidder awarded the attached contract participates in a federal work authorization program. To obtain additional information on the Department of Homeland Security's E-Verify program, go to:

http://www.dhs.gov/xprevprot/programs/gc_1185221678150.shtm

Please complete and return form *Work Authorization Certification Pursuant to 285.530 RSMo* if your contract amount is in excess of \$5,000. Attach to this form the *E-Verify Memorandum of Understanding* that you completed when enrolling. The link for that form is:

<http://www.uscis.gov/files/nativedocuments/save-mou.pdf>

Additional information may be obtained from:

<http://www.uscis.gov/files/nativedocuments/MOU.pdf>

If you are an Individual/Proprietorship, then you must return the attached *Certification of Individual Bidder*. On that form, you may do one of the three options listed. Be sure to attach any required information for those options as detailed on the *Certification of Individual Bidder*. If you choose option number two, then you will also need to complete and return the attached form *Affidavit*.

CERTIFICATION OF INDIVIDUAL BIDDER

Pursuant to Section 208.009 RSMo, any person applying for or receiving any grant, contract, loan, retirement, welfare, health benefit, post secondary education, scholarship, disability benefit, housing benefit or food assistance who is over 18 must verify their lawful presence in the United States. Please indicate compliance below. Note: A parent or guardian applying for a public benefit on behalf of a child who is citizen or permanent resident need not comply.

- ____ 1. I have provided a copy of documents showing citizenship or lawful presence in the United States. (Such proof may be a Missouri driver's license, U.S. passport, birth certificate, or immigration documents). Note: If the applicant is an alien, verification of lawful presence must occur prior to receiving a public benefit.

- ____ 2. I do not have the above documents, but provide an affidavit (copy attached) which may allow for temporary 90 day qualification.

- ____ 3. I have provided a completed application for a birth certificate pending in the State of _____. Qualification shall terminate upon receipt of the birth certificate or determination that a birth certificate does not exist because I am not a United States citizen.

Applicant

Date

Printed Name



"No Bid" Response Form

Boone County Purchasing
601 E. Walnut, Room 208
Columbia, MO 65201

Melinda Bobbitt, CPPB, Director
(573) 886-4391 – Fax: (573) 886-4390

"NO BID RESPONSE FORM"

**NOTE: COMPLETE AND RETURN THIS FORM ONLY IF YOU DO NOT WANT TO
SUBMIT A BID**

If you do not wish to respond to this bid request, but would like to remain on the Boone County vendor list for this service/commodity, please remove form and return to the Purchasing Department by mail or fax.

If you would like to FAX this "No Bid" Response Form to our office, the FAX number is (573) 886-4390.

Bid: 28-21APR09 – Roof Replacement Project

Business Name: _____

Address: _____

Telephone: _____

Contact: _____

Date: _____

Reason(s) for Not Bidding:

PREVAILING WAGE NOTICE OF EXCESSIVE UNEMPLOYMENT

***** NOW IN EFFECT *****

Only Missouri laborers and laborers from nonrestrictive states are allowed by law to be employed on Missouri's public works projects when the unemployment rate exceeds 5% for two consecutive months. (See Sections 290.550 through 290.580 RSMo.) The unemployment rate has exceeded 5% for the past two months. Therefore, this statute is in effect and will remain in effect as long as this notice is posted. For questions call (573) 751-3403. View the Frequently Asked Questions at

http://www.dolr.mo.gov/is/faq/faq_PublicWorksEmployment.asp or view the statute 290.550 – 290.580 RSMo, at

<http://www.moga.mo.gov/statutes/C290.HTM>.

Nonrestrictive states, which includes the District of Columbia and the territories, and the words "United States" includes such district and territories, as of January 2008 are: Alabama, American Samoa, Arkansas, Georgia, Guam, Hawaii, Indiana, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Nebraska, New Hampshire, New Mexico, New York, North Carolina, Northern Mariana Islands, Ohio, Oregon, Pennsylvania, Puerto Rico, Rhode Island, South Carolina, Tennessee, Texas, Utah, Vermont, Virginia, Washington and Wisconsin.

Missouri
Division of Labor Standards

WAGE AND HOUR SECTION



MATT BLUNT, Governor

Annual Wage Order No. 15

Section 010
BOONE COUNTY

In accordance with Section 290.262 RSMo 2000, within thirty (30) days after a certified copy of this Annual Wage Order has been filed with the Secretary of State as indicated below, any person who may be affected by this Annual Wage Order may object by filing an objection in triplicate with the Labor and Industrial Relations Commission, P.O. Box 599, Jefferson City, MO 65102-0599. Such objections must set forth in writing the specific grounds of objection. Each objection shall certify that a copy has been furnished to the Division of Labor Standards, P.O. Box 449, Jefferson City, MO 65102-0449 pursuant to 8 CSR 20-5.010(1). A certified copy of the Annual Wage Order has been filed with the Secretary of State of Missouri.

Original Signed by _____
Paul Buckley, Director
Division of Labor Standards

This Is A True And Accurate Copy Which Was Filed With The Secretary of State: March 10, 2008

Last Date Objections May Be Filed: April 9, 2008

Prepared by Missouri Department of Labor and Industrial Relations

**REPLACEMENT PAGE
BOONE COUNTY
OVERTIME SCHEDULE - BUILDING CONSTRUCTION**

FED: Minimum requirement per Fair Labor Standards Act means time and one-half (1 1/2) shall be paid for all work in excess of forty (40) hours per work week.

NO. 9: Means the regular workday starting time of 8:00 a.m. (and resulting quitting time of 4:30 p.m.) may be moved forward to 6:00 a.m. or delayed one hour to 9:00 a.m. All work performed in excess of the regular work day and on Saturday shall be compensated at one and one-half (1 1/2) times the regular pay. In the event time is lost during the work week due to weather conditions, the Employer may schedule work on the following Saturday at straight time. All work accomplished on Sunday and holidays shall be compensated for at double the regular rate of wages. The work week shall be Monday through Friday, except for midweek holidays.

NO. 11: Means eight (8) hours shall constitute a day's work, with the starting time to be established between 6:00 a.m. and 9:00 a.m. from Monday to Friday. Time and one-half (1 1/2) shall be paid for first two (2) hours of overtime Monday through Friday and the first eight (8) hours on Saturday. All other overtime hours Monday through Saturday shall be paid at double (2) time rate. Double (2) time shall be paid for all time on Sunday and recognized holidays or the days observed in lieu of these holidays.

NO. 12: Means the work week shall commence on Monday at 12:01 a.m. and shall continue through the following Friday, inclusive of each week. All work performed by employees anywhere in excess of forty (40) hours in one (1) work week, shall be paid for at the rate of one and one-half (1 1/2) times the regular hourly wage scale. All work performed within the regular working hours which shall consist of a ten (10) hour work day except in emergency situations. Overtime work and Saturday work shall be paid at one and one-half (1 1/2) times the regular hourly rate. Work on recognized holidays and Sundays shall be paid at two (2) times the regular hourly rate.

NO. 18: Means the regular work day shall be eight (8) hours. Working hours are from six (6) hours before Noon (12:00) to six (6) hours after Noon (12:00). The regular work week shall be forty (40) hours, beginning between 6:00 a.m. and 12:00 Noon on Monday and ending between 1:00 p.m. and 6:00 p.m. on Friday. Saturday will be paid at time and one-half (1 1/2). Sunday and Holidays shall be paid at double (2) time. Saturday can be a make-up day if the weather has forced a day off, but only in the week of the day being lost. Any time before six (6) hours before Noon or six (6) hours after Noon will be paid at time and one-half (1 1/2).

NO. 25: Means regular working hours of eight (8) hours shall constitute a working day between the hours of 8:00 a.m. to 4:30 p.m. in a forty (40) hour working week of Monday through Friday. Employment on Saturday, Sunday and legal holidays, and employment before or after the regular working hours shall be considered overtime. Employment on Saturday, Sunday and legal holidays shall be paid for at twice (2) the regular hourly rate. Employment from 4:30 p.m. to 12:00 midnight, Monday through Friday, shall be paid for at one and one-half (1 1/2) times the regular hourly rate. From 12:00 midnight until 8:00 a.m. on any day shall be paid for at twice (2) the regular hourly rate.

NO. 26: Means that the regular working day shall consist of eight (8) hours worked between 6:00 a.m., and 5:00 p.m., five (5) days per week, Monday to Friday, inclusive. Hours of work at each jobsite shall be those established by the general contractor and worked by the majority of trades. (The above working hours may be changed by mutual agreement). Work performed on Construction Work on Saturdays, Sundays and before and after the regular working day on Monday to Friday, inclusive, shall be classified as overtime, and paid for at double (2) the rate of single time. The employer may establish hours worked on a jobsite for a four (4) ten (10) hour day work week at straight time pay for construction work; the regular working day shall consist of ten (10) hours worked consecutively, between 6:00 a.m. and 6:00 p.m., four (4) days per week, Monday to Thursday, inclusive. Any work performed on Friday, Saturday, Sunday and holidays, and before and after the regular working day on Monday to Thursday where a four (4) ten (10) hour day workweek has been established, will be paid at two times (2) the single time rate of pay. The rate of pay for all work performed on holidays shall be at two times (2) the single time rate of pay.

REPLACEMENT PAGE
BOONE COUNTY
OVERTIME SCHEDULE - BUILDING CONSTRUCTION

NO. 28: Means a regular workday shall consist of eight (8) hours between 7:00 a.m. and 5:30 p.m., with at least a thirty (30) minute period to be taken for lunch. Five (5) days a week, Monday through Friday inclusive, shall constitute a work week. The Employer has the option for a workday/workweek of four (4) ten (10) hour days (4-10s) provided:

- The project must be for a minimum of four (4) consecutive days.
- Starting time may be within one (1) hour either side of 8:00 a.m.
- Work week must begin on either a Monday or Tuesday. If a holiday falls within that week it shall be a consecutive work day. (Alternate: If a holiday falls in the middle of a week, then the regular eight (8) hour schedule may be implemented).
- Any time worked in excess of any ten (10) hour work day (in a 4-10 hour work week) shall be at the appropriate overtime rate.

All work outside of the regular working hours as provided, Monday through Saturday, shall be paid at one & one-half (1½) times the employer's regular rate of pay. All work performed from 12:00 a.m. Sunday through 8:00 a.m. Monday and recognized holidays shall be paid at double (2) the straight time hourly rate of pay. Should employees work in excess of twelve (12) consecutive hours they shall be paid double time (2X) for all time after twelve (12) hours. Shift work performed between the hours of 4:30 p.m. and 12:30 a.m. (second shift) shall receive eight (8) hours pay at the regular hourly rate of pay plus ten (10%) percent for seven and one-half (7½) hours work. Shift work performed between the hours of 12:30 a.m. and 8:00 a.m. (third shift) shall receive eight (8) hours pay at the regular hourly rate of pay plus fifteen (15%) percent for seven (7) hours work. A lunch period of thirty (30) minutes shall be allowed on each shift. All overtime work required after the completion of a regular shift shall be paid at one and one-half (1½) times the shift hourly rate.

NO. 33: Means the standard work day and week shall be eight (8) consecutive hours of work between the hours of 6:00 a.m. and 6:00 p.m., excluding the lunch period Monday through Friday, or shall conform to the practice on the job site. Four (4) days at ten (10) hours a day may be worked at straight time, Monday through Friday and need not be consecutive. All overtime, except for Sundays and holidays shall be at the rate of time and one-half (1½). Overtime worked on Sundays and holidays shall be at double (2) time.

NO. 40: Means the regular working week shall consist of five (5) consecutive (8) hour days' labor on the job beginning with Monday and ending with Friday of each week. Four (4) 10-hour days may constitute the regular work week. The regular working day shall consist of eight (8) hours labor on the job beginning as early as 7:00 a.m. and ending as late as 3:30 p.m. All full or part time labor performed during such hours shall be recognized as regular working hours and paid for at the regular hourly rate. All hours worked on Saturday and all hours worked in excess of eight (8) hours but not more than twelve (12) hours during the regular working week shall be paid for at time and one-half (1½) the regular hourly rate. All hours worked on Sundays and holidays and all hours worked in excess of twelve (12) hours during the regular working day shall be paid at two (2) times the regular hourly rate. In the event of rain, snow, cold or excessively windy weather on a regular working day, Saturday may be designated as a "make-up" day. Saturday may also be designated as a "make-up" day, for an employee who has missed a day of work for personal or other reasons. Pay for "make-up" days shall be at regular rates.

NO. 55: Means the regular work day shall be eight (8) hours between 6:00 a.m. and 4:30 p.m. The first two (2) hours of work performed in excess of the eight (8) hour work day, Monday through Friday, and the first ten (10) hours of work on Saturday, shall be paid at one & one-half (1½) times the straight time rate. All work performed on Sunday, observed holidays and in excess of ten (10) hours a day, Monday through Saturday, shall be paid at double (2) the straight time rate.

NO. 57: Means eight (8) hours per day shall constitute a day's work and forty (40) hours per week, Monday through Friday, shall constitute a week's work. The regular starting time shall be 8:00 a.m. The above may be changed by mutual consent of authorized personnel. When circumstances warrant, the Employer may change the regular workweek to four (4) ten-hour days at the regular time rate of pay. It being understood that all other pertinent information must be adjusted accordingly. All time worked before and after the established workday of eight (8) hours, Monday through Friday, all time worked on Saturday, shall be paid at the rate of time and one-half (1½) except in cases where work is part of an employee's regular Friday shift. All time worked on Sunday and recognized holidays shall be paid at the double (2) time rate of pay.

**REPLACEMENT PAGE
BOONE COUNTY
OVERTIME SCHEDULE - BUILDING CONSTRUCTION**

NO. 59: Means that except as herein provided, eight (8) hours a day shall constitute a standard work day, and forty (40) hours per week shall constitute a week's work. All time worked outside of the standard eight (8) hour work day and on Saturday shall be classified as overtime and paid the rate of time and one-half (1½). All time worked on Sunday and holidays shall be classified as overtime and paid at the rate of double (2) time. The Employer has the option of working either five (5) eight hour days or four (4) ten hour days to constitute a normal forty (40) hour work week. When the four (4) ten-hour work week is in effect, the standard work day shall be consecutive ten (10) hour periods between the hours of 6:30 a.m. and 6:30 p.m. Forty (40) hours per week shall constitute a weeks work, Monday through Thursday, inclusive. In the event the job is down for any reason beyond the Employer's control, then Friday and/or Saturday may, at the option of the Employer, be worked as a make-up day; straight time not to exceed ten (10) hours or forty (40) hours per week. When the five day (8) hour work week is in effect, forty (40) hours per week shall constitute a week's work, Monday through Friday, inclusive. In the event the job is down for any reason beyond the Employer's control, then Saturday may, at the option of the Employer, be worked as a make-up day; straight time not to exceed eight (8) hours or forty (40) hours per week. The regular starting time (and resulting quitting time) may be moved to 6:00 a.m. or delayed to 9:00 a.m. Make-up days shall not be utilized for days lost due to holidays.

NO. 60: Means the Employer shall have the option of working five 8-hour days or four 10-hour days Monday through Friday. If an Employer elects to work five 8-hour days during any work week, hours worked more than eight (8) per day or forty (40) per week shall be paid at time and one-half (1½) the hourly wage rate plus fringe benefits Monday through Friday. SATURDAY MAKE-UP DAYS: If an Employer is prevented from working forty (40) hours, Monday through Friday, or any part thereof by reason of inclement weather (rain or mud), Saturday or any part thereof may be worked as a make-up day at the straight time rate. It is agreed by the parties that the make-up day is not to be used to make up time lost due to recognized holidays. If an Employer elects to work four 10-hour days, between the hours of 6:30 a.m. and 6:30 p.m. in any week, work performed more than ten (10) hours per day or forty (40) hours per week shall be paid at time and one-half (1½) the hourly wage rate plus fringe benefits Monday through Friday. If an Employer is working 10-hour days and loses a day due to inclement weather, the Employer may work ten (10) hours on Friday at straight time. Friday must be scheduled for no more than ten (10) hours at the straight time rate, but all hours worked over the forty (40) hours Monday through Friday will be paid at time and one-half (1½) the hourly wage rate plus fringe benefits. All Millwright work performed in excess of the regular work day and on Saturday shall be compensated for at time and one-half (1½) the regular Millwright hourly wage rate plus fringe benefits. The regular work day starting at 8:00 a.m. (and resulting quitting time of 4:30 p.m.) may be moved forward to 6:00 a.m. or delayed one (1) hour to 9:00 a.m. All work accomplished on Sundays and recognized holidays, or days observed as recognized holidays, shall be compensated for at double (2) the regular hourly rate of wages plus fringe benefits. NOTE: All overtime is computed on the hourly wage rate plus an amount equal to the fringe benefits.

NO. 86: Means the regular work week shall consist of five (5) days, Monday through Friday, beginning at 8:00 a.m. and ending at 4:30 p.m. The regular work day beginning time may be advanced one or two hours or delayed by one hour. However, the Employer may have the option to schedule his work week from Monday through Thursday at ten (10) hours per day at the straight time rate of pay with all hours in excess of ten (10) hours in any one day to be at the applicable overtime rate. If the Employer elects to work from Monday through Thursday and is stopped due to circumstances beyond his control, inclement weather or holiday, he shall have the option to work Friday at the straight time rate of pay to complete his forty (40) hours. If an employee declines to work Friday as a make-up day, he shall not be penalized. All overtime work performed on Monday through Saturday shall be paid at time and one-half (1½) of the hourly rate plus an amount equal to one-half (½) of the hourly Total Indicated Fringe Benefits. All work performed on Sundays and recognized holidays shall be paid at double (2) the hourly rate plus an amount equal to the hourly Total Indicated Fringe Benefits.

NO. 87: Means eight (8) hours starting between 6:00 a.m. and 8:00 a.m. and ending between 2:30 p.m. and 4:30 p.m. at the Employers discretion shall constitute a day's work. Any work prior to 6:00 a.m. or after eight (8) hours shall be paid at the overtime rate. Five (5) days from Monday through Friday inclusive shall constitute a regular work week. All hours before and after these regular hours shall be considered overtime and shall be paid for at the rate of double (2) time. All work on Saturday and Sunday shall be paid at double (2) the prevailing scale of wages.

ANNUAL WAGE ORDER NO. 15

AW15 010 OT S&P.doc

Page 3 of 4 Pages

REPLACEMENT PAGE
BOONE COUNTY
OVERTIME SCHEDULE - BUILDING CONSTRUCTION

NO. 91: Means eight (8) hours shall constitute a day's work commencing at 8:00 a.m. and ending at 4:30 p.m., allowing one-half (½) hour for lunch. The option exists for the Employer to use a flexible starting time between the hours of 6:00 a.m. and 9:00 a.m. The regular workweek shall consist of forty (40) hours of five (5) workdays, Monday through Friday. The workweek may consist of four (4) ten (10) hour days from Monday through Thursday, with Friday as a make-up day. If the make-up day is a holiday, the employee shall be paid at the double (2) time rate. The employees shall be paid time and one-half (1½) for work performed before the regular starting time or after the regular quitting time or over eight (8) hours per work day (unless working a 10-hour work day, then time and one-half (1½) is paid for work performed over ten (10) hours a day) or over forty (40) hours per work week. Work performed on Saturdays, Sundays and recognized holidays shall be paid at the double (2) time rate of pay.

NO. 94: Means eight (8) hours shall constitute a days work between the hours of 8:00 a.m. and 5:00 p.m. The regular workday starting time of 8:00 a.m. (and resulting quitting time of 4:30 p.m.) may be moved forward to 6:00 a.m. or delayed one (1) hour to 9:00 a.m. All work performed in excess of the regular work day and on Saturday shall be compensated at one and one-half (1½) times the regular pay. In the event time is lost during the work week due to weather conditions, the Employer may schedule work on the following Saturday at straight time. All work accomplished on Sunday and holidays shall be compensated at double the regular rate of wages.

NO. 101: Means that except as provided below, eight (8) hours a day shall constitute a standard work day, and forty (40) hours per week shall constitute a week's work, which shall begin on Monday and end on Friday. All time worked outside of the standard work day and on Saturday shall be classified as overtime and paid the rate of time and one-half (1½) (except as herein provided). All time worked on Sunday and recognized holidays shall be classified as overtime and paid at the rate of double (2) time. The regular starting time of 8:00 a.m. (and resulting quitting time of 4:30 p.m.) may be moved forward to 6:00 a.m. or delayed one (1) hour to 9:00 a.m. The Employer has the option of working either five (5) eight-hour days or four (4) ten-hour days to constitute a normal forty (40) hour work week. When a four (4) ten-hour day work week is in effect, the standard work day shall be consecutive ten (10) hour periods between the hours of 6:30 a.m. and 6:30 p.m. Forty (40) hours per week shall constitute a week's work Monday through Thursday, inclusive. In the event the job is down for any reason beyond the Employer's control, then Friday and/or Saturday may, at the option of the Employer, be worked as a make-up day; straight time not to exceed ten (10) hours per day or forty (40) hours per week. Starting time will be designated by the employer. When the five (5) day eight (8) hour work week is in effect, forty (40) hours per week shall constitute a week's work, Monday through Friday, inclusive. In the event the job is down for any reason beyond the Employer's control, then Saturday may, at the option of the Employer, be worked as a make-up day; straight time not to exceed eight (8) hours per day or forty (40) hours per week. Make-up days shall not be utilized for days lost due to holidays.

NO. 110: Means eight (8) hours between the hours of 8:00 a.m. and 4:30 p.m. shall constitute a work day. The starting time may be advanced one (1) or two (2) hours. Employees shall have a lunch period of thirty (30) minutes. The Employer may provide a lunch period of one (1) hour, and in that event, the workday shall commence at 8:00 a.m. and end at 5:00 p.m. The workweek shall commence at 8:00 a.m. on Monday and shall end at 4:30 p.m. on Friday (or 5:00 p.m. on Friday if the Employer grants a lunch period of one (1) hour), or as adjusted by starting time change as stated above. All work performed before 8:00 a.m. and after 4:30 p.m. (or 5:00 p.m. where one (1) hour lunch is granted for lunch) or as adjusted by starting time change as stated above or on Saturday, except as herein provided, shall be compensated at one and one-half (1½) times the regular hourly rate of pay for the work performed. All work performed on Sunday and on recognized holidays shall be compensated at double (2) the regular hourly rate of pay for the work performed. If an Employer is prevented from working forty (40) hours, Monday through Friday, or any part thereof by reason of inclement weather (rain and mud), Saturday or any part thereof may be worked as a make-up day at the straight time rate. The Employer shall have the option of working five eight (8) hour days or four ten (10) hour days Monday through Friday. If an Employer elects to work five (5) eight (8) hour days during any work week, hours worked more than eight (8) per day or forty (40) hours per week shall be paid at time and one-half (1½) the hourly rate Monday through Friday. If an Employer elects to work four (4) ten (10) hour days in any week, work performed more than ten (10) hours per day or forty (40) hours per week shall be paid at time and one-half (1½) the hourly rate Monday through Friday. If an Employer is working ten (10) hour days and loses a day due to inclement weather, they may work ten (10) hours Friday at straight time. Friday must be scheduled for at least eight (8) hours and no more than ten (10) hours at the straight time rate, but all hours worked over the forty (40) hours Monday through Friday will be paid at time and one-half (1½) overtime rate.

**REPLACEMENT PAGE
BOONE COUNTY
HOLIDAY SCHEDULE - BUILDING CONSTRUCTION**

NO. 3: All work done on New Year's Day, Decoration Day, July 4th, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day shall be paid at the double time rate of pay. Whenever any such holidays fall on a Sunday, the following Monday shall be observed as a holiday.

NO. 4: All work done on New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving and Christmas Day shall be paid at the double time rate of pay. If any of the above holidays fall on Sunday, Monday will be observed as the recognized holiday. If any of the above holidays fall on Saturday, Friday will be observed as the recognized holiday.

NO. 5: All work that shall be done on New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day shall be paid at the double (2) time rate of pay.

NO. 7: All work done on New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day shall be paid at the double time rate of pay. If a holiday falls on a Sunday, it shall be observed on the following Monday. If a holiday falls on a Saturday, it shall be observed on the preceding Friday.

NO. 8: All work performed on New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day, or the days observed in lieu of these holidays, shall be paid at the double time rate of pay.

NO. 15: All work accomplished on the recognized holidays of New Year's Day, Decoration Day (Memorial Day), Independence Day (Fourth of July), Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day, or days observed as these named holidays, shall be compensated for at double (2) the regular hourly rate of wages plus fringe benefits. If a holiday falls on Saturday, it shall be observed on the preceding Friday. If a holiday falls on a Sunday, it shall be observed on the following Monday. No work shall be performed on Labor Day, Christmas Day, Decoration Day or Independence Day except to preserve life or property.

NO. 19: All work done on New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day, and Christmas Day shall be paid at the double time rate of pay. The employee may take off Friday following Thanksgiving Day. However, the employee shall notify his or her Foreman, General Foreman or Superintendent on the Wednesday preceding Thanksgiving Day. When one of the above holidays falls on Sunday, the following Monday shall be considered a holiday and all work performed on either day shall be at the double (2) time rate. When one of the holidays falls on Saturday, the preceding Friday shall be considered a holiday and all work performed on either day shall be at the double (2) time rate.

NO. 23: All work done on New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, Christmas Day and Sundays shall be recognized holidays and shall be paid at the double time rate of pay. When a holiday falls on Sunday, the following Monday shall be considered a holiday.

NO. 31: All work done on New Year's Day, Presidents Day, Good Friday, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day, Friday after Thanksgiving Day, Christmas Day, and Employee's Birthday shall be paid at the double time rate of pay. If a holiday falls on Sunday, the following Monday will be observed as the recognized holiday. If a holiday falls on Saturday, the preceding Friday will be observed as the recognized holiday.

NO. 54: All work performed on New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day shall be paid at the double (2) time rate of pay. When a holiday falls on Saturday, it shall be observed on Friday. When a holiday falls on Sunday, it shall be observed on Monday.

NO. 60: All work performed on New Year's Day, Armistice Day (Veteran's Day), Decoration Day (Memorial Day), Independence Day (Fourth of July), Thanksgiving Day and Christmas Day shall be paid at the double time rate of pay. No work shall be performed on Labor Day except when triple (3) time is paid. When a holiday falls on Saturday, Friday will be observed as the holiday. When a holiday falls on Sunday, the following Monday shall be observed as the holiday.

**REPLACEMENT PAGE
BOONE COUNTY
HOLIDAY SCHEDULE -- BUILDING CONSTRUCTION**

NO. 66: All work performed on Sundays and the following recognized holidays, or the days observed as such, of New Year's Day, Decoration Day, Fourth of July, Labor Day, Veterans' Day, Thanksgiving Day and Christmas Day, shall be paid at double (2) the hourly rate plus an amount equal to the hourly Total Indicated Fringe Benefits. Whenever any such holidays fall on a Sunday, the following Monday shall be observed as a holiday.

NO. 69: All work performed on New Year's Day, Decoration Day, July Fourth, Labor Day, Veterans' Day, Thanksgiving Day or Christmas Day shall be compensated at double (2) their straight-time hourly rate of pay. Friday after Thanksgiving and the day before Christmas will also be holidays, but if the employer chooses to work these days, the employee will be paid at straight-time rate of pay. If a holiday falls on a Sunday in a particular year, the holiday will be observed on the following Monday.

| OCCUPATIONAL TITLE | *Effective Date of Increase | Basic Hourly Rates | Over-Time Schedule | Holiday Schedule | Total Fringe Benefits |
|--------------------------------|-----------------------------|--------------------|--------------------|------------------|-----------------------|
| CARPENTER | | | | | |
| Journeyman | 5/08 | \$28.31 | 7 | 16 | \$9.96 |
| Millwright | 5/08 | \$28.31 | 7 | 16 | \$9.96 |
| Pile Driver Worker | 5/08 | \$28.31 | 7 | 16 | \$9.96 |
| OPERATING ENGINEER | | | | | |
| Group I | 5/08 | \$24.60 | 21 | 5 | \$17.25 |
| Group II | 5/08 | \$24.25 | 21 | 5 | \$17.25 |
| Group III | 5/08 | \$24.05 | 21 | 5 | \$17.25 |
| Group IV | 5/08 | \$20.40 | 21 | 5 | \$17.25 |
| Oliver-Driver | 5/08 | \$20.40 | 21 | 5 | \$17.25 |
| LABORER | | | | | |
| General Laborer | 5/08 | \$23.97 | 2 | 4 | \$8.88 |
| Skilled Laborer | 5/08 | \$24.57 | 2 | 4 | \$8.88 |
| TRUCK DRIVER - TEAMSTER | | | | | |
| Group I | 5/08 | \$25.82 | 22 | 19 | \$8.65 |
| Group II | 5/08 | \$25.98 | 22 | 19 | \$8.65 |
| Group III | 5/08 | \$25.97 | 22 | 19 | \$8.65 |
| Group IV | 5/08 | \$26.09 | 22 | 19 | \$8.65 |

For the occupational titles not listed on the Heavy Construction Rate Sheet, use Rates shown on the Building Construction Rate Sheet.

*Annual Incremental Increase

ANNUAL WAGE ORDER NO. 15

6/08

**BOONE COUNTY
OVERTIME SCHEDULE - HEAVY CONSTRUCTION**

NO. 2: Means a regular workweek shall be forty (40) hours and will start on Monday and end on Friday. The regular work day shall be either eight (8) or ten (10) hours. If a crew is prevented from working forty (40) hours Monday through Friday, or any part thereof, by reason of inclement weather, Saturday or any part thereof may be worked as a make-up day at the straight time rate. Employees who are part of a regular crew on a make-up day, notwithstanding the fact that they may not have been employed the entire week, shall work Saturday at the straight time rate. A workday shift is to begin at the option of the Employer, between 6:00 a.m. and not later than 9:00 a.m. However, the project starting time may be advanced or delayed if required. If workmen are required to work the enumerated holidays or days observed as such or Sundays, they shall receive double (2) the regular rate of pay for such work.

NO. 7: Means the regular work week shall start on Monday and end on Friday, except where the Employer elects to work Monday through Thursday, ten (10) hours per day. All work over ten (10) hours in a day or forty (40) hours in a week shall be at the overtime rate of one and one-half (1½) times the regular hourly rate. The regular work day shall be either eight (8) or ten (10) hours. If a job can't work forty (40) hours Monday through Friday because of inclement weather or other conditions beyond the control of the Employer, Friday or Saturday may be worked as a make-up day at straight time (if working 4-10's). Saturday may be worked as a make-up day at straight time (if working 5-8's). Make-up days shall not be utilized for days lost due to holidays. A workday is to begin at the option of the Employer but not later than 11:00 a.m. except when inclement weather, requirements of the owner or other conditions beyond the reasonable control of the Employer prevent work. Except as worked as a make-up day, time on Saturday shall be worked at one and one-half (1½) times the regular rate. Work performed on Sunday shall be paid at two (2) times the regular rate. Work performed on recognized holidays or days observed as such, shall also be paid at the double (2) time rate of pay.

NO. 21: Means the regular workday for which employees shall be compensated at straight time hourly rate of pay shall, unless otherwise provided for, begin at 8:00 a.m. and end at 4:30 p.m. However, the project starting time may be advanced or delayed at the discretion of the Employer. At the discretion of the Employer, when working a five (5) day eight (8) hour schedule, Saturday may be used for a make-up day. If an Employer is prohibited from working on a holiday, that employer may work the following Saturday at the straight time rate. However, the Employer may have the option to schedule his work from Monday through Thursday at ten (10) hours per day at the straight time rate of pay with all hours in excess of ten (10) hours in any one day to be paid at the applicable overtime rate. If the Employer elects to work from Monday through Thursday and is stopped due to circumstances beyond his control, he shall have the option to work Friday or Saturday at the straight time rate of pay to complete his forty (40) hours. If an Employer is prohibited from working on a holiday, that Employer may work the following Friday or Saturday at the straight time rate. Overtime will be at one and one-half (1½) times the regular rate. If workmen are required to work the enumerated holidays or days observed as such, or Sundays, they shall receive double (2) the regular rate of pay for such work.

NO. 22: Means a regular work week of forty (40) hours will start on Monday and end on Friday. The regular work day shall be either eight (8) or ten (10) hours. If a crew is prevented from working forty (40) hours Monday through Friday, or any part thereof by reason of inclement weather, Saturday or any part thereof may be worked as a make-up day at the straight time rate. Employees who are part of a regular crew on a make-up day, notwithstanding the fact that they may not have been employed the entire week, shall work Saturday at the straight time rate. A workday is to begin between 6:00 a.m. and 9:00 a.m. However, the project starting time may be advanced or delayed if mutually agreed to by the interested parties. For all time worked on recognized holidays, or days observed as such, double (2) time shall be paid.

**BOONE COUNTY
HOLIDAY SCHEDULE – HEAVY CONSTRUCTION**

NO. 4: All work performed on New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day, or days observed as such, shall be paid at the double time rate of pay. When a holiday falls on a Sunday, Monday shall be observed.

NO. 5: The following days are recognized as holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day. If a holiday falls on a Sunday, it shall be observed on the following Monday. If a holiday falls on a Saturday, it shall be observed on the preceding Friday. No work shall be performed on Labor Day except in case of jeopardy to work under construction. This rule is applied to protect Labor Day. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward a forty (40) hour week; however, no reimbursement for this eight (8) hours is to be paid the workman unless worked. If workmen are required to work the above recognized holidays or days observed as such, or Sundays, they shall receive double (2) the regular rate of pay for such work. The above shall apply to the four 10's Monday through Friday work week. The ten (10) hours shall be applied to the forty (40) hour work week.

NO. 16: The following days are recognized as holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day. If a holiday falls on Sunday, it shall be observed on the following Monday. If a holiday falls on Saturday, it shall be observed on the preceding Friday. No work shall be performed on Labor Day except in case of jeopardy to work under construction. This rule is applied to protect Labor Day. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward the forty (40) hour week; however, no reimbursement for this eight (8) hours is to be paid to the worker unless worked. If workers are required to work the above recognized holidays or days observed as such, they shall receive double (2) the regular rate of pay for such work.

NO. 19: The following days are recognized as holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. If a holiday falls on a Sunday, it shall be observed on the following Monday. No work shall be performed on Labor Day except in case of jeopardy to work under construction. This rule is applied to protect Labor Day. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward the forty (40) hour week; however, no reimbursement for this eight (8) hours is to be paid the workmen unless worked. An Employer working a four (4) day, ten (10) hour schedule may use Friday as a make up day when an observed holiday occurs during the work week. Employees have the option to work that make up day. If workmen are required to work the above enumerated holidays, or days observed as such, they shall receive double (2) the regular rate of pay for such work.

**REPLACEMENT PAGE
OUTSIDE ELECTRICIAN**

These rates are to be used for the following counties:

Adair, Andrew, Boone, Callaway, Camden, Carter, Chariton, Clark, Cole, Cooper, Crawford, Dent, Franklin, Gasconade, Howard, Howell, Iron, Jefferson, Keosauqua, Lewis, Lincoln, Linn, Macon, Marion, Marshall, Miller, Moniteau, Monroe, Montgomery, Morgan, Oregon, Osage, Perry, Phelps, Pike, Polk, Putnam, Ralls, Randolph, Reynolds, Ripley, St. Charles, St. Francois, St. Louis City, St. Louis County, Ste. Genevieve, Schuyler, Scotland, Shannon, Shelby, Sullivan, Texas, Warren, and Washington

COMMERCIAL WORK

| Occupational Title | Basic | Total |
|---------------------|-------------|-----------------|
| | Hourly Rate | Fringe Benefits |
| *Journeyman Lineman | \$33.68 | \$4.75 + 42% |
| *Lineman Operator | \$29.08 | \$4.75 + 42% |
| *Groundman | \$22.48 | \$4.75 + 42% |

OVERTIME RATE: Eight (8) hours shall constitute a work day between the hours of 7:00 a.m. and 4:30 p.m. Forty (40) hours within five (5) days, Monday through Friday inclusive, shall constitute the work week. Work performed in the 9th and 10th hour, Monday through Friday, shall be paid at time and one-half (1 1/2) the regular straight time rate of pay. Contractor has the option to pay two (2) hours per day at the time and one-half (1 1/2) the regular straight time rate of pay between the hours of 6:00 a.m. and 5:30 p.m., Monday through Friday. Work performed outside the regularly scheduled working hours and on Saturdays, Sundays and recognized legal holidays, or days celebrated as such, shall be paid for at the rate of double (2) time.

HOLIDAY RATE: All work performed on New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day, Christmas Day, or days celebrated as such, shall be paid at the double time rate of pay. When one of the foregoing holidays falls on Sunday, it shall be celebrated on the following Monday.

UTILITY WORK

| Occupational Title | Basic | Total |
|---------------------|-------------|-----------------|
| | Hourly Rate | Fringe Benefits |
| *Journeyman Lineman | \$33.68 | \$4.75 + 39.05% |
| *Lineman Operator | \$29.08 | \$4.75 + 39.05% |
| *Groundman | \$22.48 | \$4.75 + 39.05% |

OVERTIME RATE: Eight (8) hours shall constitute a work day between the hours of 7:00 a.m. and 4:30 p.m. Forty (40) hours within five (5) days, Monday through Friday inclusive, shall constitute the work week. Work performed in the 9th and 10th hour, Monday through Friday, shall be paid at time and one-half (1 1/2) the regular straight time rate of pay. Contractor has the option to pay two (2) hours per day at this time and one-half (1 1/2) the regular straight time rate of pay between the hours of 6:00 a.m. and 5:30 p.m., Monday through Friday. Work performed in the first eight (8) hours on Saturday shall be paid at the rate of one and eight tenths (1.8) the regular straight time rate. Work performed outside these hours and on Sundays and recognized legal holidays, or days celebrated as such, shall be paid for at the rate of double (2) time.

HOLIDAY RATE: All work performed on New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day, Christmas Day, or days celebrated as such, shall be paid at the double time rate of pay. When one of the foregoing holidays falls on Sunday, it shall be celebrated on the following Monday.

*Annual Incremental Increase

ANNUAL WAGE ORDER NO. 15

508

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