

STANDARD BID CONDITIONS

M-12-075P

1. **ACCEPTANCE AND REJECTION:** The Arkansas State Highway and Transportation Department (AHTD) reserves the right to reject any or all bids, to accept bids in whole or in part (unless otherwise indicated by bidder), to waive any informalities in bids received, to accept bids on materials or equipment with variations from specifications where efficiency of operation will not be impaired, and to award bids to best serve the interest of the State.
2. **PRICES:** Unless otherwise stated in the Bid Invitation, the following will apply: (1) unit prices shall be bid, (2) prices should be stated in units of quantity specified (feet, each, lbs., etc.), (3) prices must be F.O.B. destination specified in bid, (4) prices must be firm and not subject to escalation, (5) bid must be firm for acceptance for 30 days from bid opening date. In case of errors in extension, unit prices shall govern. Discounts from bid price will not be considered in making awards.
3. **BID BONDS AND PERFORMANCE BONDS:** If required, a **Bid Bond** in the form of a cashier's check, certified check, or surety bond issued by a surety company, in an amount stated in the Bid Invitation, must accompany bid. **Personal and company checks are not acceptable as Bid Bonds.** Failure to submit a Bid Bond as required will cause a bid to be rejected. The Bid Bond will be forfeited as liquidated damages if the successful bidder fails to provide a required Performance Bond within the period stipulated by AHTD or fails to honor their bid. Cashier's checks and certified checks submitted as Bid Bonds will be returned to unsuccessful bidders; surety bonds will be retained. The successful bidder will be required to furnish a **Performance Bond** in an amount stated in the Bid Invitation and in the form of a cashier's check, certified check, or surety bond issued by a surety company, unless otherwise stated in the Bid Invitation, as a guarantee of delivery of goods/services in accordance with the specifications and within the time established in the bid. **Personal and company checks are not acceptable as Performance Bonds.** In some cases, a cashier's check or certified check submitted as a Bid Bond will be held as the Performance Bond of the successful bidder. Cashier's checks or certified checks submitted as Performance Bonds will be refunded shortly after payment has been made to the successful bidder for completion of all terms of the bid; surety bonds will be retained. Surety bonds must be issued by a surety company authorized to do business in Arkansas, and must be signed by a Resident Local Agent licensed by the Arkansas State Insurance Commissioner to represent that surety company. Resident Agent's Power-of-Attorney must accompany the surety bond. Certain bids involving labor will require Performance Bonds in the form of surety bonds only (no checks of any kind allowed). In such cases, the company issuing the surety bond must comply with all stipulations herein and must be named in the U. S. Treasury listing of companies holding Certificates of Authority as acceptable sureties on Federal Bonds and as acceptable reinsuring companies. Any excess between the face amount of the bond and the underwriting limitation of the bonding company shall be protected by reinsurance provided by an acceptable reinsuring company. Annual Bid and Performance Bonds on file with E & P Division must have sufficient unencumbered funds to meet current bonding requirements, or the bid will be rejected, unless the balance is submitted as set forth above, prior to bid opening.
4. **TAXES:** The AHTD is not exempt from Arkansas State Sales and Use Taxes, or local option city/county sales taxes, when applicable, and bidders are responsible to the State Revenue Department for such taxes. These taxes should not be included in bid prices, but where required by law, will be paid by the AHTD as an addition thereto, and should be added to the billing to the AHTD. The AHTD is exempt from Federal Excise Taxes on all commodities except motor fuels; and excise taxes should not be included in bid prices except for motor fuels. Where applicable, tax exemption certificates will be furnished by the AHTD.
5. **"ALL OR NONE" BIDS:** Bidders who wish to bid "All or None" on two or more items shall so stipulate on the face of bid sheet; otherwise, bid may be awarded on an individual item basis.
6. **SPECIFICATIONS:** Complete specifications should be attached for any substitution or alternate offered, or where amplification is necessary. Bidder's name must be placed on all attachments to the bid.
7. **EXCEPTIONS TO SPECIFICATIONS:** Any exceptions to the bid specifications must be stated in the bid. Any exceptions to manufacturer's published literature must be stated in the bid, or it will be assumed that bidder is bidding exactly as stated in the literature.
8. **BRAND NAME REFERENCES:** All brand name references in bid specifications refer to that commodity or its equivalent, unless otherwise stated in Bid Invitation. Bidder should state brand or trade name of item being bid, if such name exists.
9. **FREIGHT:** All freight charges should be included in bid price. Any change in common carrier rates authorized by the Interstate Commerce Commission will be adjusted if such change occurs after the bid opening date. Receipted common carrier bills that reflect ICC authorized rate changes must be furnished.
10. **SAMPLES, LITERATURE, DEMONSTRATIONS:** Samples and technical literature must be provided free of any charge within 14 days of AHTD request, and free demonstrations within 30 days, unless AHTD extends time. Failure to provide as requested within this period may cause bid to be rejected. Samples, literature and demonstrations must be substantially the same as the item(s) being bid, unless otherwise agreed to by AHTD. Samples that are not destroyed will be returned upon request at bidders expense. Samples from successful bidders may be retained for comparison with items actually furnished.
11. **GUARANTY:** Unless otherwise indicated in Bid Invitation, it is understood and agreed that any item offered or shipped on this bid shall be newly manufactured, latest model and design, and in first class condition; and that all containers shall be new, suitable for storage or shipment and in compliance with all applicable laws relating to construction, packaging, labeling and registration.
12. **BACKORDERS OR DELAY IN DELIVERY:** Backorders or failure to deliver within the time required may constitute default. Vendor must give written notice to the AHTD, as soon as possible, of the reason for any delay and the expected delivery date. The AHTD has the right to extend delivery if reasons appear valid. If reason or delivery date is not acceptable, vendor is in default.
13. **DEFAULT:** All commodities furnished will be subject to inspection and acceptance by AHTD after delivery. Default in promised delivery or failure to meet specifications authorizes the AHTD to cancel award or any portion of same, to reasonably purchase commodities or services elsewhere and to charge full increase, if any, in cost and handling to defaulting vendor. Applicable bonds may be forfeited.
14. **ETHICS:** *"It shall be a breach of ethical standards for a person to be retained, or to retain a person, to solicit or secure a State contract upon an agreement of understanding for a commission, percentage, brokerage, or contingent fee, except for retention of bona fide employees or bona fide established commercial selling agencies maintained by the contractor for the purpose of securing business."* (Arkansas Code, Annotated, Section 19-11-708).

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

NOTICE OF NONDISCRIMINATION

The Arkansas State Highway and Transportation (Department) complies with the Americans with Disabilities Act of 1990, Section 504 of the Rehabilitation Act of 1973, Title VI of the Civil Rights Act of 1964 and other federal equal opportunity laws and therefore does not discriminate on the basis of race, sex, color, age, national origin, religion or disability, in admission or access to and treatment in Department programs and activities, as well as the Department's hiring or employment practices. Complaints of alleged discrimination and inquiries regarding the Department's nondiscrimination policies may be directed to EEO/DBE Section Head (ADA/504/Title VI Coordinator), P. O. Box 2261, Little Rock, AR 72203, (501) 569-2298, (Voice/TTY 711), or the following email address: EEO/DBE_Section_Head@ahtd.ar.gov.

This notice is available from the ADA/504/Title VI Coordinator in large print, on audiotape and in Braille.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

SPECIAL PROVISION

LIQUIDATED DAMAGES

As specified in the Contract, liquidated damages for this project will be as shown in the following table:

WORKING DAY PROJECTS

<u>ORIGINAL CONTRACT AMOUNT</u>		
FROM MORE THAN	TO AND INCLUDING	RATE
\$ 0	\$ 50,000	\$ 400
50,000	100,000	700
100,000	500,000	800
500,000	1,000,000	1100
1,000,000	2,000,000	1300
2,000,000	5,000,000	1500
5,000,000	10,000,000	1900
10,000,000	15,000,000	2000
15,000,000	20,000,000	2100
20,000,000	-----	2500

FIXED DATE PROJECTS

<u>ORIGINAL CONTRACT AMOUNT</u>		
FROM MORE THAN	TO AND INCLUDING	RATE
\$ 0	\$ 50,000	\$ 90
50,000	100,000	100
100,000	500,000	200
500,000	1,000,000	250
1,000,000	2,000,000	320
2,000,000	5,000,000	400
5,000,000	10,000,000	600
10,000,000	-----	750

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT**SPECIFICATIONS
CENTRAL OFFICE ANNEX BUILDING, PLANNING BUILDING AND
PHYSICAL PLANT ROOFS RENOVATION
LITTLE ROCK, ARKANSAS****JOB # 42-67****SCOPE**

Work under this item shall consist of new Roofs for the Central Office Annex, Planning and Physical Plant Buildings, located at 10324 Interstate 30 Little Rock, Arkansas. All work for the complete Roof Installations shall be as indicated on the Plans, as called for in these Specifications, or as directed by the Engineer. These Specifications and the Plans cover the furnishing of all materials, labor, tools, equipment, machinery, caulking, drayage, rigging, fees, permits, and any and all incidental items required to complete the work.

LOCAL CONDITIONS

Bidders are required to visit the site prior to submission of proposal to familiarize themselves with local conditions, including general characteristics of the existing structures and contents and accessibility of the work.

PERMITS

The Contractor, if awarded the Contract for the new Central Office Annex, Planning and Physical Plant Buildings Roofs Renovation, shall obtain and also pay for all permits required, shall give all legal notices, and shall pay for all fees and taxes required for the work.

EXAMINATION OF PLANS AND SPECIFICATIONS

The Contractor shall examine the Plans and Specifications and shall become fully informed as to the extent and character of the work to be performed. No consideration will be given to alleged misunderstanding of materials to be furnished or work to be required under this Contract. Submission of a proposal is an implied consent to the conditions of these Specifications and of the Plans.

PROTECTION OF EXISTING FACILITY

The Contractor is advised that the work is to be performed in and on existing buildings, which are occupied. The Contractor shall exercise care and caution to prevent interference with those working in these facilities. The Contractor is also advised that he is responsible for protecting the existing facilities and occupants against damage or injury from his workmen, work in progress, or the elements.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

**SPECIFICATIONS
CENTRAL OFFICE ANNEX BUILDING, PLANNING BUILDING AND
PHYSICAL PLANT ROOFS RENOVATION
LITTLE ROCK, ARKANSAS**

JOB # 42-67

SCHEDULING AND COMPLETION OF WORK

The Contractor shall schedule his work so as to create a minimum amount of inconvenience to the normal work routine of the Central Office Complex Personnel.

ACCESS TO THE WORK

The Engineer or his representatives shall have access to the work at all times and shall be permitted to approach, enter or examine all stages or phases of the work as it progresses, and shall have authority to reject work which is defective in workmanship or material.

REQUIRED SUPERVISION

The Contractor shall keep on the job at all times, when work is in progress, a competent superintendent satisfactory to the Engineer. The superintendent shall represent the Contractor in his absence and all instructions given to him shall be binding on the Contractor. Workmanship shall be by craftsmen skilled in their trade and shall be in accordance with the best standard practice.

ACCIDENT PREVENTION

Precaution shall be exercised at all times for the protection of persons and property. The safety provisions of applicable laws, building and construction codes shall be observed. Machinery, equipment and other hazards shall be guarded in accordance with safety provisions of the Manual of Accident Prevention in Construction, published by the Associated General Contractors of America, to the extent that such provisions are not in contravention of applicable laws. The Contractor shall be responsible for any damage which may be caused by workmen during the performance of the work.

CONTRACT TIME LIMIT

The Contractor shall begin within ten (10) days after "Notice to Begin Work" and shall complete the work within SIXTY (60) working days after "Notice to Begin Work".

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT**SPECIFICATIONS
CENTRAL OFFICE ANNEX BUILDING, PLANNING BUILDING AND
PHYSICAL PLANT ROOFS RENOVATION
LITTLE ROCK, ARKANSAS****JOB # 42-67****QUALITY OF MATERIAL**

All material, appliances or appurtenances furnished under these Specifications shall be new, unused, and shall be free from defects and imperfections. Any material, appliance or appurtenance found to be defective shall be replaced by the Contractor at no additional cost to the Arkansas State Highway and Transportation Department, for material or labor. All material shall comply with the Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, Edition of 2003 and these Specifications. Any material not covered in the above Specifications or on the Plans shall be approved by the Engineer.

SUBSTITUTION OF MATERIAL

It is intended that the Contractor have the option of substituting a material or appliance that will perform the function equally as well as the one named. The Engineer shall be given written notice two (2) weeks prior to the proposed use of a substitution so that a decision can be made as to the equal merits of the two (2) products. No substituted items shall be installed until written approval from the Engineer is received by the Contractor.

CLEAN-UP

The Contractor shall not allow any waste material or rubbish caused by his employees to accumulate in or about the premises but shall promptly remove same. At completion of the work, all rubbish, tools, scaffolding and surplus materials shall be removed and the Contractor shall leave the site clean and ready to use.

WARRANTY

The later detailed "Single-Ply 50 Mil Membrane Roof System" shall be applied by Roofing Contractor who is approved by the Roofing Manufacturer. The Roofing Manufacturer's Representative shall make any inspections he deems necessary to warranty the roof system against defective materials and/or workmanship for a period of not less than fifteen (15) years with a "No Dollar Limit" on the guarantee. The Manufacturer's Guarantee Form/Document properly executed by the Manufacturer, and is a requirement for final payment.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT**SPECIFICATIONS
CENTRAL OFFICE ANNEX BUILDING, PLANNING BUILDING AND
PHYSICAL PLANT ROOFS RENOVATION
LITTLE ROCK, ARKANSAS****JOB # 42-67****GENERAL**

This work shall consist of removing and disposing of all gravel on the roofs of the Central Office Annex, Planning and Physical Plant Buildings and building overhangs, as shown on the plans. Roof is to be cored prior to installation to determine if any water is present. Removal of water is subsidiary to this contract. This work shall include all clean-up, labor, materials, tools, machinery, hardware, fasteners, caulk, paint, and any and all items required for the complete re-roofing of the Central Office Complex complete, in place, and functional. Existing used roof penetrations and pitch pans to be waterproofed as required by roofing manufacturer. All surplus and unused curbs and penetrations on the Annex building to be removed, decked, insulated, repaired, and roofed over (approximately 24).

EXISTING CONDITION

The existing roof is a built-up gravel roof on 1" rigid insulation, tapered to scuppers and drains on 2" insulated concrete, on top of a metal corrugated deck. Contractor shall scrape roofs and dispose of material and gravel from roof. Loose gravel from the roof and any other material dislodged from the roof during the removal becomes the property of the Contractor and shall be disposed of in accordance with all laws, permits, and/or regulations which may apply. The intent is to produce as flat a surface as possible and grade roof slope to the roof drains and scuppers.

NEW ROOF INSULATION

½" rigid insulation panels shall be supplied and installed over existing prepared roof. Insulation panels to be installed and anchored in accordance with roof manufacturer's requirements. Low spots in general to demand extra attention, and be built up as required to relieve ponding and promote drainage to the roof drains and scuppers.

ROOF

New Roof System shall be IB CPA Single-Ply Membrane, mechanically attached or equal, tan in color, with solar reflectant of approximately .366, 50-mil thickness, prefab flashing, and heat welded, or approved equivalent.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT**SPECIFICATIONS
CENTRAL OFFICE ANNEX BUILDING, PLANNING BUILDING AND
PHYSICAL PLANT ROOFS RENOVATION
LITTLE ROCK, ARKANSAS****JOB # 42-67****PROTECTION OF EXISTING FACILITIES**

- A. The Contractor is advised that the work is to be performed on existing occupied buildings, and Contractor is responsible for protecting existing facilities and occupants against damage or injury from his workmen, work in progress, or the elements.
- B. All flashings shall be installed concurrently with the roof membrane in order to maintain a watertight condition as the work progresses. When a break in the day's work occurs in the central area of a roof, a temporary waterstop shall be constructed to provide a 100% watertight seal. When work on the new system is suspended, the stagger of the insulation joints shall be maintained by installing partial fillers. The new membrane shall be carried into the waterstop. The waterstop shall be sealed to the deck and/or substrate so that water will not be allowed to travel under the new or existing roofing. The edge of the membrane shall be sealed in a continuous heavy application of roof cement of 6" in width. When work resumes, the contaminated membrane shall be cut out. All sealant, contaminated membrane, insulation fillers, etc. shall be removed from the work area and disposed of off site. None of these materials shall be used in the new work.
- C. If inclement weather occurs while temporary waterstop is in place, the Contractor shall provide the labor necessary to monitor the situation to maintain a watertight condition.
- D. If any water is allowed to enter under the newly completed roofing, the affected area shall be removed and replaced at the Contractor's expense.

MATERIAL AND CONSTRUCTION METHODS**A. GENERAL:**

- 1. The roofing membrane manufacturer shall have extensive experience in producing CPA Single-Ply Membrane.
- 2. IB Roof Systems may submit components to be used that are other than those supplied or manufactured by IB Roof Systems for review and acceptance.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

**SPECIFICATIONS
CENTRAL OFFICE ANNEX BUILDING, PLANNING BUILDING AND
PHYSICAL PLANT ROOFS RENOVATION
LITTLE ROCK, ARKANSAS**

JOB # 42-67

B. APPROVED MEMBRANE:

1. IB CPA Single-Ply 50 mil nominal thickness, polyester-reinforced membrane, tan in color, with solar reflectant of .366.
2. IB CPA Single-Ply Membrane shall conform to ASTM D4434 – 09 Standard for Polyvinyl Chloride Sheet Roofing, Classification Type 3.
3. As manufactured, the membrane shall conform to the physical properties notes as follows:

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

**SPECIFICATIONS
CENTRAL OFFICE ANNEX BUILDING, PLANNING BUILDING AND
PHYSICAL PLANT ROOFS RENOVATION
LITTLE ROCK, ARKANSAS**

JOB # 42-67

PROPERTY		METHOD	REQUIREMENT	50 MIL
Thickness (in)		ASTM D751	0.045	0.05(+/- 10%)
Breaking Strength (ibf)	MD XMD	ASTM D751 A-Grab Method	200 200	370 310
Elongation @ Break (%)	MD XMD	ASTM D751 A-Grab Method	15 ^A 15 ^A	40 38
Retention of Properties after Heat Ageing:	Breaking Strength [%] Elongation @ Break [%] Tearing Strength [%]	ASTM D3045 80 degrees C for 56 days	90% Original	Pass Pass Pass
Tearing Strength (lbf)	MD XMD	ASTM D751 B-Tongue Tear Method	45 45	72 49
Low Temperature Bend (Celsius)		ASTM D2136 -40	Pass	Pass
Accelerated Weathering	Cracking (7x Magnification) Crazing (7x Magnification) Discoloration (Visual)	ASTM G53 5,000 h min	None None Negligible	None None Negligible
Linear Dimensional Change (%)	MD XMD	ASTM D1204 80 degrees C for 56 days for 6 hours	0.5 0.5	-0.4 0.0
Change in Weight After Immersion in Water [%]		ASTM D570 70 degrees C for 168 hours	3	1.5
Static Puncture Resistance		ASTM D5602 33lbf @ 23 degrees Celsius	Pass	Pass
Dynamic Puncture Resistance		ASTM 5635 20J @ 23 degrees Celsius	Pass	Pass
Seam Strength		D751	75%	100%
Warranty (years non-prorated)				15 Material

^A For reinforcing fabric only; elongation of PVC material shall be 250% MD and 220% XMD
The table presents typical properties of IB Roof Systems PVC roofing membranes. Requirements are taken from ASTM D4434-96.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT**SPECIFICATIONS
CENTRAL OFFICE ANNEX BUILDING, PLANNING BUILDING AND
PHYSICAL PLANT ROOFS RENOVATION
LITTLE ROCK, ARKANSAS****JOB # 42-67**

Test methods that are not required by the ASTM standard are listed without requirement values.

- Consult the Underwriters Laboratories and Factory Mutual Directory for details.

RELATED MATERIALS BY IB ROOF SYSTEMS

The following products are supplied and warranted by IB Roof Systems and may be incorporated in specifications or drawing details:

- A. MEMBRANE WALKWAY – Weldable polyester-reinforced CPA membrane: 80 mil for traffic areas, 100 mil is available for special use areas.
- B. POLYESTER FELT – Non-asphaltic polyethylene felt used as an asphalt barrier and leveling layer.
- C. FIRE SHEET – Fiberglass mat used to upgrade fire ratings on low slope roofs as well as a slip-sheet.
- D. AUTOMATIC HOT-AIR WELDER – Automatic hot-air welding equipment for seaming of sheets.
- E. PREFABRICATED DETAILS – Inside/outside corners, sign supports, cones for any size pipe or wire, angle brace and HVAC ducting.
- F. DOUBLE-SIDED CPA CLAD METAL – Standard prefabricated and custom edge metal, for use for edge details (some customized edge metal may need special fastening & warranty considerations; check with IB Roof Systems Technical Department).
- G. DECK FASTENERS – Self-tapping, corrosion-resistant fasteners, for use in steel and wood decks, and corrosion-resistant nail-in type fasteners for structural concrete decks (pre-drilling is required, and auger type fasteners for gypsum and tectum decks). Corrosion-resistant plates for membrane and insulation securement.
- H. MEMBRANE PLATES – Twenty (20) gauge, corrosion-resistant two (2") inch round metal distribution plates for securement of IB CPA Single-Ply Membrane. Plastic plates are not acceptable.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

**SPECIFICATIONS
CENTRAL OFFICE ANNEX BUILDING, PLANNING BUILDING AND
PHYSICAL PLANT ROOFS RENOVATION
LITTLE ROCK, ARKANSAS**

JOB # 42-67

- I. FLASHING MEMBRANE ADHESIVE – The adhesive for bonding IB flashing membrane to vertical flashings shall be IB 1744. Substrate must be compatible, clean, dry, and solvent resistant.

RELATED MATERIALS

A. WOOD NAILERS:

1. Wood nailers shall be treated for fire and rot resistance (wolmanized or osmose treated), #2 or better lumber. Creosote or asphaltic-treated lumber is not acceptable.
2. Wood nailers shall conform to Factory Mutual's Loss Prevention Data Sheet 1-49.
3. All wood shall have a maximum moisture content of 19% by weight on a dry weight basis.

B. INSULATION:

1. Expanded Polystyrene – 1 lb/cubic foot minimum.
2. Polyisocyanurate – 1.5 lbs/cubic foot minimum.

- C. INSULATION ATTACHMENT – Fasteners and plates shall be Factory Mutual approved and meet FM Standard 4470 for corrosion resistance.

NOTE: IB Roof Systems does not accept plastic plates.

- D. FASTENERS FOR SECUREMENT OF IB CPA SINGLE-PLY MEMBRANE
(The following fasteners are accepted for use in steel and wood decks):

- Corrosion-resistant screw and membrane plates, as supplied by IB Roof Systems.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

**SPECIFICATIONS
CENTRAL OFFICE ANNEX BUILDING, PLANNING BUILDING AND
PHYSICAL PLANT ROOFS RENOVATION
LITTLE ROCK, ARKANSAS**

JOB # 42-67

E. SLIP SHEET (WHERE REQUIRED)

(The following slip sheet is acceptable over incompatible insulation and substrates in a mechanically attached system):

1. Polyethylene-felt, four (4) ounce, for use over smooth-surfaced built-up roofing or metal.
2. Polyethylene-felt, sixteen (16) ounce, for use over rough built-up roofing or roofs with embedded gravel.
3. Fire Sheet 10-50 mil, for use over new or existing roofs where a fire rating upgrade is requested.

F. SEALANTS AND PITCH POCKET FILLERS

(The following caulking/sealants are acceptable to use with the IB CPA Single-Ply Membrane):

1. IB Roof Systems polyurethane caulking.
2. One part Polyurethane by Vulkum, Quaker or Sonnerborne.

G. MISCELLANEOUS FASTENERS AND ANCHORS

All fasteners shall be the same type as the metal being secured. In general, all fasteners, anchors, nails, and straps shall be of zinc or cadmium plated steel, galvanized, or stainless steel. All fasteners and anchors shall have a minimum embedment of one inch (1") and shall be approved for such use by the fastener manufacturer. Fasteners for attachment of metal to wood blocking shall be galvanized nails with one inch (1") minimum penetration. Fasteners for attachment of metal to masonry shall be expansion type fasteners. All fasteners shall meet Factory Mutual Standard 4470 for corrosion resistance.

INSTALLATION

Existing roofs to be broomed and scraped or scratched to remove loose gravel and irregularities. Gravel to become the property of the Contractor and disposed of. Any blisters to be cut and sealed with compatible sealer. Any wet areas to be repaired and replaced as required.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT**SPECIFICATIONS
CENTRAL OFFICE ANNEX BUILDING, PLANNING BUILDING AND
PHYSICAL PLANT ROOFS RENOVATION
LITTLE ROCK, ARKANSAS****JOB # 42-67**

New ½" rigid insulation to be placed with staggered joints and mechanically secured per manufacturer's recommendations. The intent is to produce a flat surface for the membrane roof, with slight tapering to roof drains.

New Membrane roof to be laid, anchored, welded, etc. in accordance with manufacturer's recommendations, and per details on Plans. Metal flashings at perimeters and parapet to be anchored to existing roof and Membrane placed over flashing. Main perimeter as detailed on plans.

WALKWAYS

GENERAL CRITERIA – Walkways shall be provided for regular maintenance of rooftop equipment and for roof areas subject to foot traffic (Walk Tread Installation):

1. Roofing membrane to receive Walk Tread shall be clean and dry.
2. Apply chalk lines on deck sheet to indicate location of Walk Tread.
3. Apply a continuous coat of IB 1744 to the deck sheet at a rate of ¾ gallon per ten (10) square feet. Keep adhesive back three inches (3") from location lines (see step 2) for hot-air welding. Allow adhesive to dry completely.
4. Walk Tread shall be unrolled and positioned within chalk lines, then folded back on itself exposing the underside for one-half of its length.
5. A continuous coat of IB 1744 adhesive shall be applied to the sheet. Keep adhesive back three inches (3") from the edge of the sheet for hot-air welding. This adhesive shall be allowed to dry sufficiently to produce strings when touched with a dry finger. Do not allow adhesive to dry completely. The amount of membrane that can be coated with adhesive before rolling into substrate will be determined by ambient temperature, humidity, and manpower.
6. The coated Walk Tread shall be unrolled into the previously coated deck sheet, using care to avoid wrinkles.
7. The bonded Walk Tread shall be pressed firmly into place with a weighted foam covered lawn roller.
8. The remaining bonded half of the sheet shall be folded back and the bonding procedure repeated.
9. Hot-air weld the perimeter of the Walk Tread to the IB CPA Single-Ply. Check all welds with a rounded screwdriver. Re-weld any inconsistencies.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

**SPECIFICATIONS
CENTRAL OFFICE ANNEX BUILDING, PLANNING BUILDING AND
PHYSICAL PLANT ROOFS RENOVATION
LITTLE ROCK, ARKANSAS**

JOB # 42-67

INSTALLER'S GUARANTEE

- A. An Installer's Guarantee for a period of two (2) years shall be furnished to the Arkansas State Highway and Transportation Department (Owner) upon completion of all work and as a condition to its acceptance and final payment.
- B. Installer's Guarantee shall be issued on Prime Contractor's printed letterhead, agreeing to correct all leaks and defects in the roofing system to the satisfaction of the Owner and the manufacturer of the installed roof system.
- C. During the two (2) year guarantee period, the Roofing Installer shall, upon notice from the Owner, respond promptly to determine the source of leaks or defects and to repair leaks or defects at no cost to Owner.
- D. Regardless of the cause of the leak or defect, the Owner and the Roofing Installer shall document and correspond as to the problem, location and corrective action needed or taken to prevent future similar occurrences.

INSTALLER'S WARRANTY SIGNS

- A. Furnish and install roof Warranty Sign, 10" x 14" (minimum) size, .040" thickness aluminum. Sign shall read:

DO NOT MAKE REPAIRS OR ALTERATIONS TO THIS ROOF WITHOUT THE WRITTEN APPROVAL FROM THE OWNER OR AUTHORIZED REPRESENTATIVE. THE ROOF IS MAINTAINED UNTIL (insert the month and two (2) years after the date of final acceptance) BY (insert Contractor's name, address, and telephone number).

- B. Permanently post Sign where directed by the Owner's representative, prior to submission of and as a condition for final payment.

MANUFACTURER'S GUARANTEE

- A. GENERAL – Specified work shall be guaranteed by the roofing materials manufacturer for a period of not less than Fifteen (15) years or the maximum term available, whichever is greater, with full cost of replacement per square liability sum available starting from date of final acceptance by the Owner of the completed roofing systems.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT**SPECIFICATIONS
CENTRAL OFFICE ANNEX BUILDING, PLANNING BUILDING AND
PHYSICAL PLANT ROOFS RENOVATION
LITTLE ROCK, ARKANSAS****JOB # 42-67**

- B. The Guarantee shall be issued and approved by the materials manufacturer. Surety Company Bonds are not acceptable. Submit two (2) copies of the signed and approved Roof Guarantee, on manufacturer's standard printed form, to the Owner. This is a requirement for final payment of the project.
- C. Specified work shall be inspected by a qualified representative of the manufacturer during its installation and at final completion, for conformance to Manufacturer's Guarantee program. A follow-up inspection shall be made by the manufacturer, sixty (60) days prior to expiration of Installer's two (2) year guarantee.
- D. **INSTALLER'S RESPONSIBILITIES** - Installer shall notify the roofing materials manufacturer's representatives before commencing any work, review the project requirements with the manufacturer's representatives prior to bidding, pay all required fees, secure all required inspections and do all things necessary to secure and deliver to the Owner the specified Guarantee from the manufacturer of the approved materials.
- E. During the Guarantee period, the manufacturer shall, upon written notice from the Owner, investigate, report, and if covered by Guarantee, permanently restore roof to watertight condition under terms of the Guarantee, within thirty (30) days. Regardless of the cause of the leak or defect, the Owner and the Roofing Manufacturer shall document the problem location and corrective action needed or taken to prevent future similar occurrences.
- F. **GENERAL DESCRIPTION OF THE ROOF SYSTEM TO BE COVERED BY THE TERMS OF THE MANUFACTURER'S ROOF GUARANTEE** - The manufacturer and/or installer will make repairs necessary to correct roof leaks resulting from the following causes:
1. Premature deterioration of part of the roofing system as a result of ordinary wear and tear by the elements.
 2. Improper workmanship on the part of the roofing installer.
 3. Blisters, bare spots, fish mouths, wrinkles, ridges, splits, or open seams not occasioned by structural failure of the roof deck or its supporting members.
 4. Slippage of any part of the roofing system.
 5. Breaks in flashing not occasioned by failure of any work.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

**SPECIFICATIONS
CENTRAL OFFICE ANNEX BUILDING, PLANNING BUILDING AND
PHYSICAL PLANT ROOFS RENOVATION
LITTLE ROCK, ARKANSAS**

JOB # 42-67

G. GENERAL DESCRIPTION OF ROOF DAMAGE NOT COVERED BY THE TERMS OF THE MANUFACTURER'S ROOF GUARANTEE - The Manufacturer's Guarantee shall not cover any failure of the roof system or any part thereof as a result of the following causes:

1. Traffic or storage of materials thereon.
2. Settlement, expansion, contraction, distortion, cracking or failure of the roof deck, coping walls, structural members or foundation.
3. Distortion, expansion, or contraction of any unguaranteed flashing or wrinkles, ridges, or splits not occasioned by structural failure of the roof deck or its supporting members.
4. Infiltration or condensation of moisture in, through or around the walls, copings, rooftop equipment, building structure or underlaying of surrounding materials unless corrective work as specified for these areas.
5. Lightning, wind storms, hail storms, floods, hurricanes, tornadoes, vandalism, or other natural disasters.

ACCEPTABLE MANUFACTURERS

- A. Reputable Manufacturers of roofing products doing business in this region who produce a complete line of compatible products for the installation of "Membrane Roofing System", able to provide all components of the roof system as specified and provide the Owner with a manufacturer's guarantee as specified.
- B. All materials on the job shall be used from original manufacturer's containers, clearly labeled with manufacturer's information as required for determination of compliance with these Specifications. All roofing materials shall be the products of, or approved by the manufacturer of the roofing system specified and used.
- C. All roofing and flashing systems shall comply with the manufacturer's latest published manual for the designated slope and type of substrate and shall meet or exceed the manufacturer's requirement for guaranteeing the application.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT**SPECIFICATIONS
CENTRAL OFFICE ANNEX BUILDING, PLANNING BUILDING AND
PHYSICAL PLANT ROOFS RENOVATION
LITTLE ROCK, ARKANSAS****JOB # 42-67****METHOD OF MEASUREMENT****ROOF RENOVATION**

Roof complete, in place and operating, as called for in these Specifications, as indicated on the Plans, or as directed by the Engineer and accepted, will be measured for payment by the "Lump Sum".

ROOF INSULATION WITH LIGHTWEIGHT CONCRETE

Roof Insulation, if removed and replaced, as directed by the Engineer will be measured for payment by the "Square Foot".

ROOF DECK REPAIRS

Roof Deck Repairs, if required, as directed by the Engineer will be measured for payment by the "Square Foot".

BASIS OF PAYMENT**ROOF RENOVATION**

Work completed and accepted under this item and measured as provided above, will be paid for at the lump sum price bid for "Central Office Annex, Planning and Physical Plant Buildings Roofs Renovation", which price shall be full compensation for all materials, labor, tools, equipment, machinery, caulking, drayage, rigging, fees, permits, clean-up, guarantees and any and all incidental items required to complete the work.

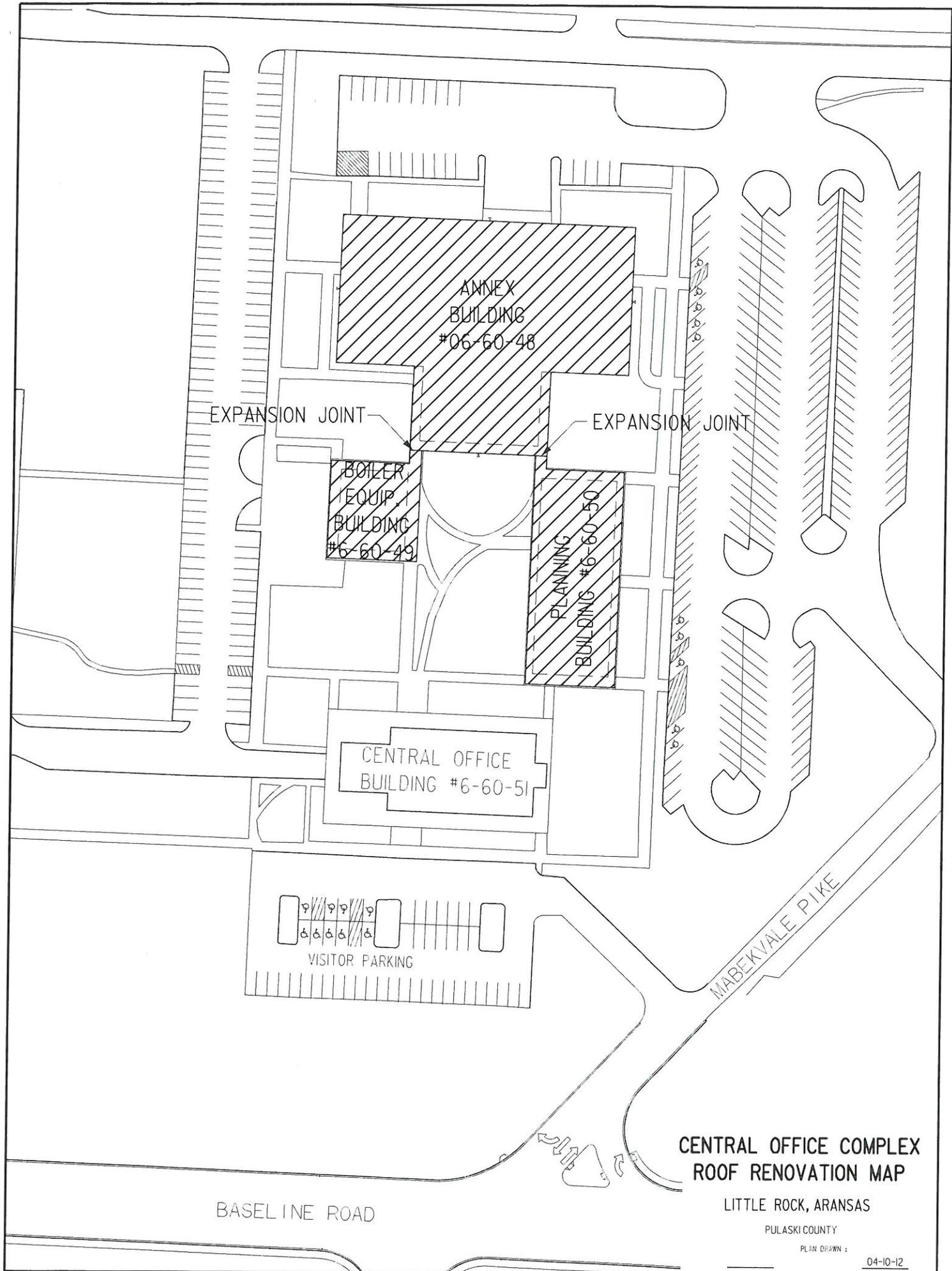
ROOF INSULATION WITH LIGHTWEIGHT CONCRETE

Work completed and accepted under this item and measured as provided above, will be paid for at the square foot price bid for "Roof Insulation with lightweight concrete", which price shall be full compensation for all materials, labor, equipment, machinery, drayage, clean-up, guarantees, and any and all incidental items required to complete the work as specified to the satisfaction of the Engineer.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT**SPECIFICATIONS
CENTRAL OFFICE ANNEX BUILDING, PLANNING BUILDING AND
PHYSICAL PLANT ROOFS RENOVATION
LITTLE ROCK, ARKANSAS****JOB # 42-67****ROOF DECK REPAIRS**

Work completed and accepted under this item and measured as provided above, will be paid for at the square foot price bid for "Roof Deck Repairs", which price shall be full compensation for all materials, labor, equipment, machinery, drayage, clean-up, guarantees, and any and all incidental items required to complete the work as specified to the satisfaction of the Engineer.

PAY ITEM	PAY UNIT
Central Office Annex, Planning and Physical Plant Buildings Roofs Renovation	Lump Sum
Roof Insulation with lightweight concrete Roof Deck Repairs	Square Foot Square Foot



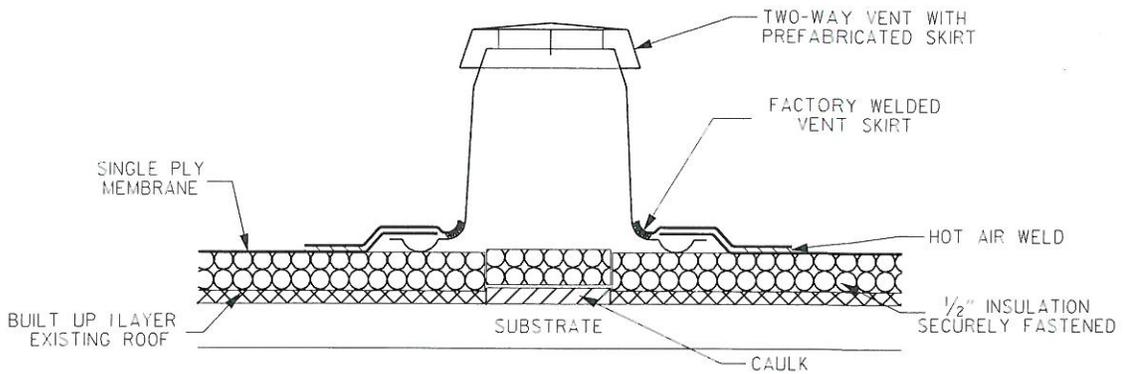
**CENTRAL OFFICE COMPLEX
ROOF RENOVATION MAP**

LITTLE ROCK, ARANSAS

PULASKI COUNTY

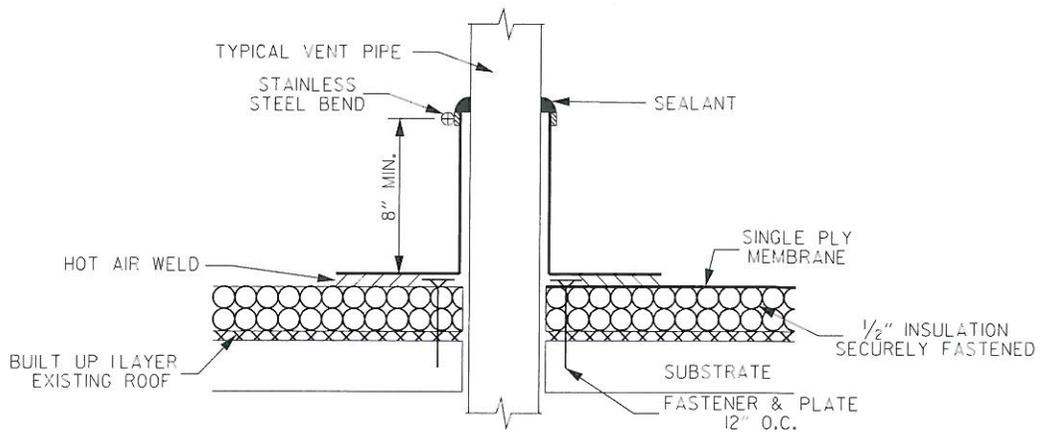
PLAN DRAWN :

04-10-12



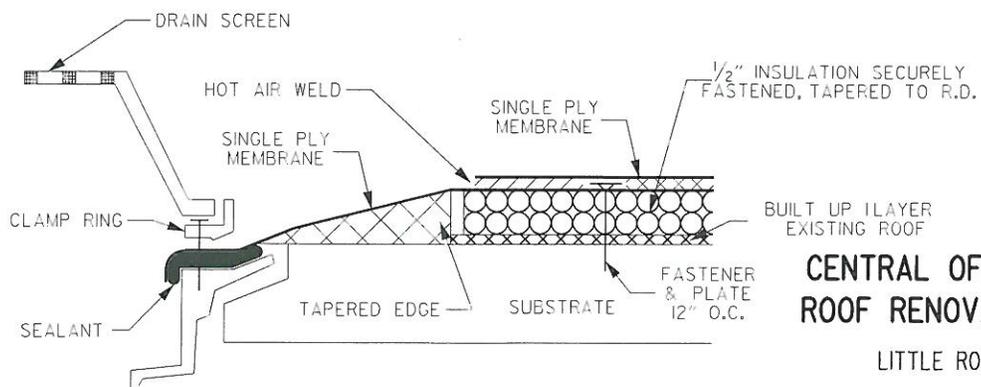
TWO-WAY BREATHER VENT DETAIL
(IF REQUIRED BY MANUFACTURER)

N.T.S.



PIPE PENETRATION DETAIL

N.T.S.



CLAMP RING DRAIN DETAIL

N.T.S.

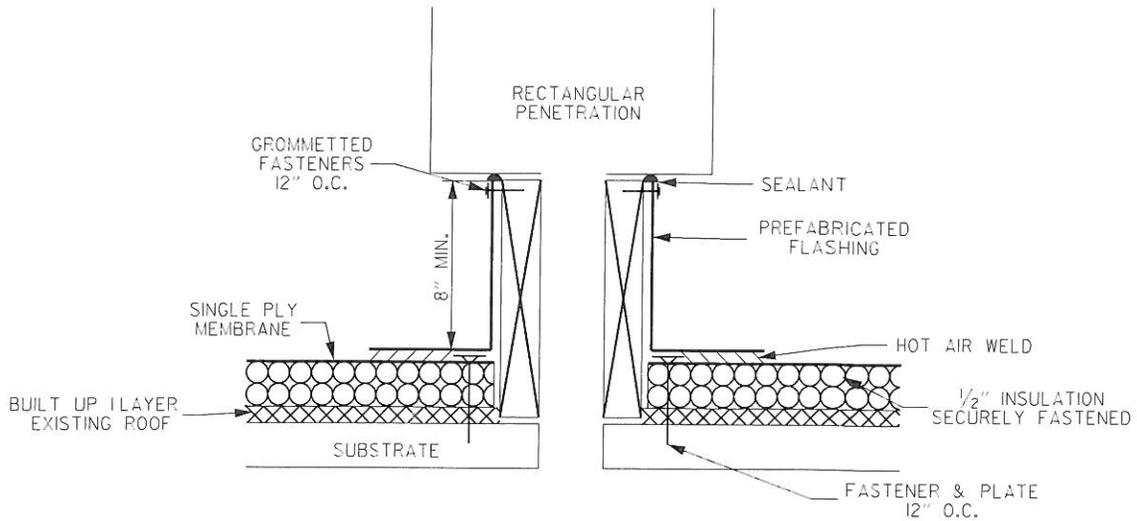
**CENTRAL OFFICE COMPLEX
ROOF RENOVATION DETAILS**

LITTLE ROCK, ARANSAS

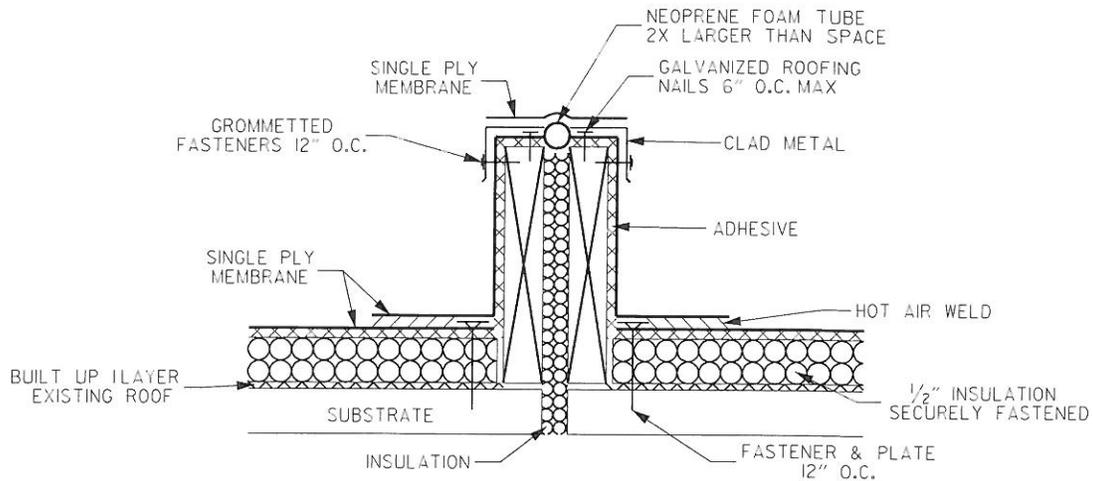
PULASKI COUNTY

PLAN DRAWN :

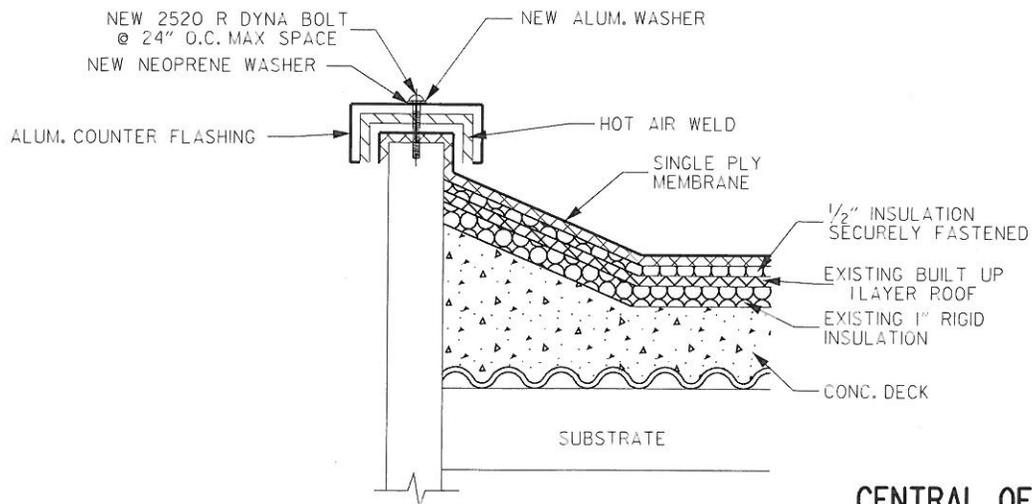
04-10-12



RECTANGULAR PENETRATION DETAIL
N.T.S.



EXPANSION JOINT DETAIL
N.T.S.



PERIMETER DETAIL
N.T.S.

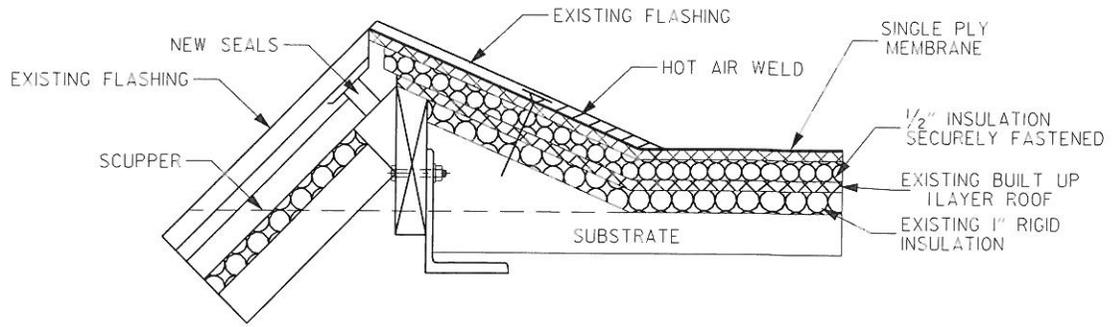
**CENTRAL OFFICE COMPLEX
ROOF RENOVATION DETAILS**

LITTLE ROCK, ARANSAS

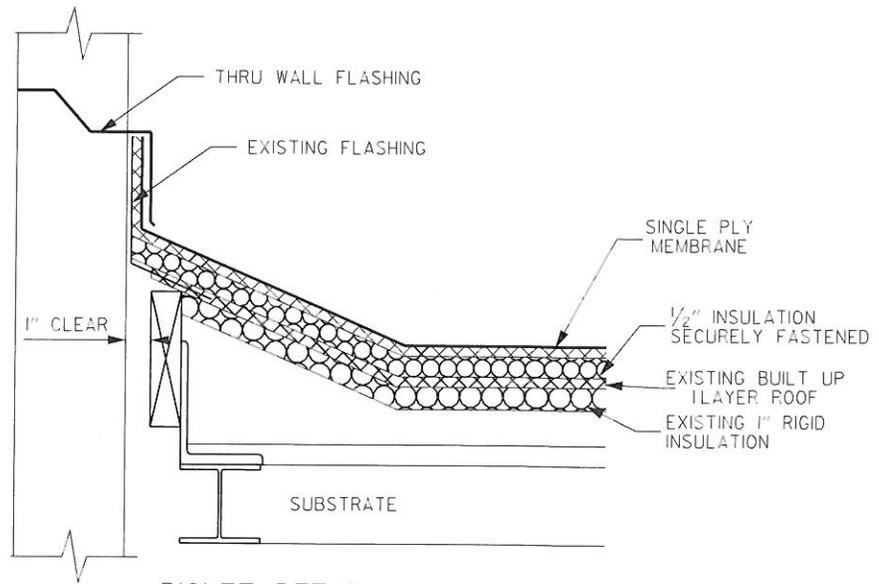
PULASKI COUNTY

PLAN DRAWN :

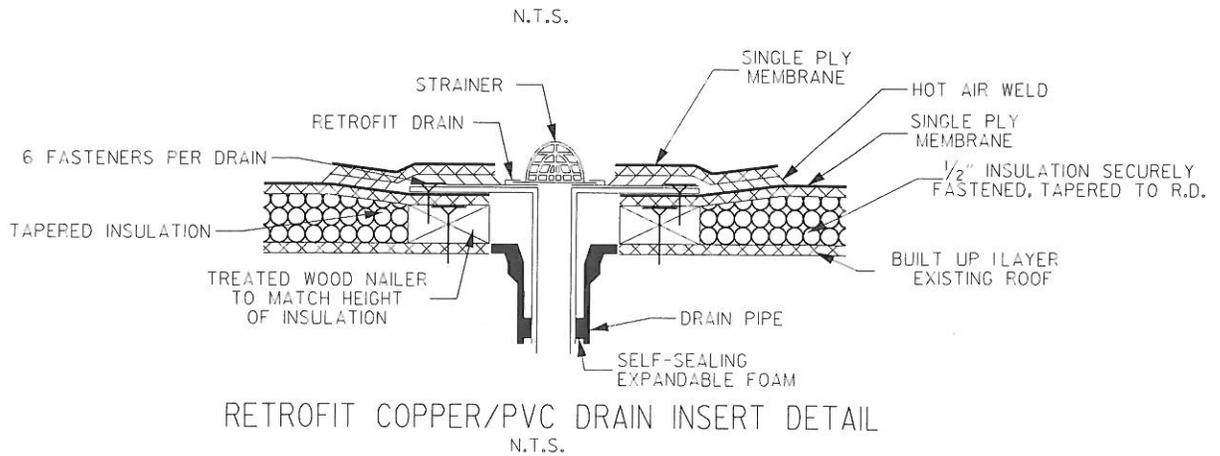
04-10-12



CANT FASCIA DETAIL
N.T.S.



RIGLET DETAIL



RETROFIT COPPER/PVC DRAIN INSERT DETAIL
N.T.S.

**CENTRAL OFFICE COMPLEX
ROOF RENOVATION DETAILS**

LITTLE ROCK, ARANSAS

PULASKI COUNTY

PLAN DRAWN :

04-10-12