



STANDARD BID CONDITIONS

H-13-160R

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 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. Received 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 all civil rights provisions of federal statutes and related authorities that prohibit discrimination in programs and activities receiving federal financial assistance. Therefore the Department does not discriminate on the basis of race, sex, color, age, national origin, religion or disability, in the admission, access to and treatment in the Department's 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 Joanna P. Nelson Section Head - EEO/DBE (ADA/504/Title VI Coordinator), P. O. Box 2261, Little Rock, AR 72203, (501) 569-2298, (Voice/TTY 711), or the following email address:

[joanna.nelson@arkansashighways.com](mailto:joanna.nelson@arkansashighways.com).

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**

**SPECIFICATION 13-247-mm069-350**

**FOR**

**TRAILER MOUNTED CRASH ATTENUATOR**  
**NCHRP-350, TEST LEVEL 3**

1. **General:** This specification is intended to describe a Trailer Mounted Crash Attenuator used for protecting AHTD personnel and equipment, and the general public, from injury and damage caused when errant vehicles crash into AHTD equipment used in highway operations.
2. **Design and Performance Requirements:** The Trailer Mounted Attenuator (TrMA) provided shall meet NCHRP Report 350, Test Level 3 criteria and be functionally designed to meet the following requirements.
  - A. To decelerate impacting vehicles traveling at a speed of 62 mph, at weights of both 1,808 and 4,410 pounds, and impacting straight into the rear of the TrMA without exceeding the following values:
    - (1) Occupant Impact Velocity: 39 feet per second.
    - (2) Occupant Ridedown Acceleration: 20 G's.
  - B. To prevent impact vehicle roll-over and limit intrusion into adjacent traffic lanes.
  - C. To safeguard impact vehicle passenger compartment integrity.
  - D. To minimize the impact acceleration and roll ahead distance of a Stationary TrMA Support Vehicle weighing 9,920 pounds or more.
  - E. To tolerate routine usage under practical operating conditions of road travel vibration and normal rainfall without water absorption or physical deformation.
3. **Certification:** Each TrMA purchased by AHTD shall be identifiable as conforming to test criteria and standards of effectiveness as set forth in NCHRP 350, Test Level 3. Each attenuator shall have approval for use from the FHWA.
  - A. The TrMA shall decelerate and stop vehicles weighing 1,808 pounds during impacts at 62 mph. The attenuator shall meet the occupant risk criteria during the impact of a small car into a TrMA as required by NCHRP 350, Test 3-50.
  - B. The TrMA shall decelerate and stop vehicles weighing 4,410 pounds during impacts at 62 mph. The attenuator shall meet the structural adequacy requirements, the occupant risk criteria and the criteria for an acceptable roll-ahead distance of the supporting vehicle during the impact of a heavy passenger vehicle into a TrMA as required by NCHRP 350, Test 3-51.

All certified test results, associated test reports and films showing ground targets, car targets and a method of timing for obtaining vehicle speed shall be submitted showing that the TrMA assembly the vendor is providing has met all test and performance criteria as called out in these specifications. The report shall be in the format of and evaluated by NCHRP 350 guidelines.

4. **Construction:** The complete TrMA system shall consist of (but not be limited to) the following basic components:
  - A. A support structure.
  - B. One or more replaceable crush units utilizing expendable (crushable) compression material cartridge(s) combined with a collapsing or crushable frame to absorb energy. The shell housing the compression material of the expendable cartridge(s) shall be constructed of aluminum.
  - C. A hitch assembly incorporating an anti-rotational system to prevent angular rotation of the TrMA during an accident. Shall attach to support vehicle by means of a pintle eye with an inside diameter of 3" and be complete with safety chains with hooks.
  - D. Axle, wheels and tires, complete with fenders, located in the approximate center or toward the rear of the trailer. Shall have steel disc wheels. Tires to be pneumatic as regularly furnished by manufacturer and shall have load carrying capacity to handle unit at highway speeds

5. Moisture and Vibration Tests: The TrMA shall pass the following accelerated endurance tests to ensure long life in field use:
- A. Vibration Test: The TrMA shall be subjected to forty (40) hours of continuous vibration. Testing shall occur at a frequency of 5 to 8 hertz, with an amplitude of  $0.6'' \pm .05''$  at the location where the attenuator is attached to the back support. A variance of 0.5'' of any component dimension, damage to the energy absorbing cells that would affect their performance, or damage to the back support or exterior skin will constitute failure of the device.
  - B. Moisture Test: The dry weight of the TrMA shall be determined before exposure to moisture testing. The TrMA will then be positioned within a moisture chamber and subjected to 24 hours of 6'' per hour simulated rainfall on its top and sides. The TrMA will then be allowed to drain and dry in the chamber for one hour. The weight gain of the TrMA in percent of original dry weight will then be determined.

The following minimum criteria shall be met:

- The TrMA weight gain as a result of the moisture test shall not exceed 5% of the original TrMA dry weight.
- No reduction in energy absorbing capability or structural integrity as a result of moisture testing.

Variations of the vibration and moisture tests specified above may be used, however the basic minimum criteria for the tests shall remain.

6. Hardware: The TrMA shall be assembled with commercial quality bolts, nuts and washers conforming to ANSI specifications unless otherwise specified.
7. Brakes: Shall be equipped with electric brakes including electric breakaway feature which automatically locks the brakes in the event of trailer separation or hitch failure.
8. Jack: At least one (1) caster wheeled hand crank jack with a minimum rating of 600 pounds shall be provided with the TrMA to facilitate removing it from the support vehicle for storage.
9. Lighting: The TrMA shall have a standard trailer lighting system including brake lights, tail lights, turn signals and ICC bar lights. Wires shall be routed in a protective, jacketed cable. For repair or replacement, individual circuits shall be easily identified and accessible. Molded connectors shall be used where individual wires would otherwise be exposed to the elements. Shall be equipped with six or seven pole round type trailer connector. The lighting arrangement on the TrMA shall meet all current Federal regulations.
10. Conspicuity Marking: Conspicuity striping and reflectors shall be installed following current DOT standards.
11. Striping: The rear facing of the TrMA shall be striped with alternating 4'' black and 4'' safety yellow striping. The striping will form an inverted "V" at the center of the unit and will slope down and toward the outside of the unit, in both directions from the center.
12. Dimensions: Overall length of TrMA shall not exceed 20'. Width shall not exceed 96''. Overall height from ground shall be no less than 36''. Shall have a minimum ground clearance of 9-1/2''.
13. Weight: 1,900 pounds, minimum.
14. Color: All surfaces requiring paint shall be properly primed and painted safety yellow or black enamel.
15. Warranty: Units purchased under this specification shall be warranted against defects in material and workmanship for a minimum period of twelve (12) months (365 days) from date unit is placed in operation by AHTD. If the manufacturer's standard warranty exceeds twelve (12) months, then the standard warranty period shall be in effect
  - A. Warranty shall include all parts, labor and transportation costs to the location of equipment.
  - B. If equipment cannot be repaired on location, warranty shall include cost of transport to the facility where the repair work will be done.
  - C. It will be the responsibility of the successful bidder to insure that repairs are completed in a timely manner.
  - D. If any warranty literature submitted with the bid conflicts with AHTD warranty requirements, the conflict(s) shall be specifically noted, corrected and included with the bid or the conflict(s) will be considered an exception to warranty specifications and the bid rejected.

- E. Recent prior failure to provide warranty-work, parts, replacement parts or service, in a timely manner, for equipment from the same manufacturer or dealer shall be grounds for the rejection of any submitted bid, or for the denial of any otherwise qualified low bidder, whether such failure is attributable to the manufacturer or the dealer of the equipment. For the purposes of this paragraph “timely manner” means a period of time not exceeding thirty (30) calendar days to provide requested warranty-work, parts, replacement parts, or service. For the purposes of this paragraph “manufacturer” means the original manufacturer of the equipment and its successor or successors, regardless of number, and whether acquired by sale, merger, or otherwise. For the purposes of this paragraph “replacement part” means a part redesigned by a manufacturer to correct a design or engineering defect and which replacement part is capable of providing dependable performance in normal operation conditions for its normal service life without failure. Such bid or bids may be rejected by the Department until such failure or failures have been remedied to the satisfaction of the Department and until such manufacturer or dealer is providing such warranty-work, parts, replacement parts, and service in a timely manner.
16. Current Model: Units furnished under this specification shall be the latest improved model in current production, as offered to commercial trade, built for the U.S. market, and shall be of quality workmanship and material. Machines manufactured for foreign markets will not be accepted. All equipment offered under this specification shall be new. Used, reconditioned, shopworn, demonstrator, prototype or discontinued models are not acceptable. Manufacturers of the units supplied must have been in the business of producing operational units for at least two years and must have recently sold similar units to domestic governmental agencies. The model furnished must have been in production for a minimum of one year, or be the latest version of a previous model. Bidder/s may be required to submit documentation substantiating the aforementioned requirements. A list of user references may also be required.
17. Unit shall be assembled, adjusted and made ready for continuous operation at time of delivery.
- All parts, accessories and tools necessary for satisfactory operation of this unit shall be furnished whether or not they are specifically mentioned in this specification (including standard equipment as regularly furnished by manufacturer as shown on printed literature and specifications - unless specifically excluded by this specification).
18. Successful bidder shall furnish one (1) copy each of operator’s manual, service manual and illustrated parts book with each unit delivered. The successful bidder may provide Shop Repair Manuals and Parts Manuals on computer media (CD ROM, DVD, etc.) in lieu of printed manuals.
19. Parts Inventory & Service Facilities: The successful bidder shall maintain a representative inventory of replacement parts and service facilities for servicing equipment bid on.
20. Demonstration: The Arkansas State Highway & Transportation Department reserves the right to require a demonstration, under actual working conditions, of equipment bid under this specification before award is made. The demonstration would be performed (free of any charge) by the bidder or an authorized representative at a mutually acceptable location. If requested, the bidder should be prepared to demonstrate the equipment within thirty (30) days after notification. Failure of the bidder to perform a satisfactory demonstration within the specified time may be grounds for rejection of the bid.
21. Any deviations from specifications and requirements herein must be clearly pointed out by bidder. Otherwise it will be considered that equipment offered is in strict compliance with these specifications and requirements, and successful bidder will be held responsible therefor. Deviations must be explained in detail on an attached sheet. However, no implication is made by the Arkansas State Highway and Transportation Department that deviations will be acceptable.
22. Cooperative Purchasing: Other tax-supported entities\* in Arkansas (cities, counties, state agencies, school districts, etc.) may purchase from this Contract on an individual basis under the same specifications and conditions, and at the pricing set forth by each vendor, all at the discretion of each vendor in each case. Prices could be reduced by a vendor for minor alterations in conditions (changing order quantities, deleting options, etc.) as agreed by both parties, but could not be raised above the contract bid price except for any additional freight charges. Vendors would not be required to sell to any such entity under this contract, and those entities would not be obligated to purchase from the contract.

Each entity wishing to purchase from the contract must make contact directly with the appropriate vendor(s). The Highway Department shall remain “out of the loop” for such transactions: all contact, orders, invoices, payments, etc. regarding such transactions must take place exclusively between the tax-supported entity and the vendor. The Department shall be held harmless of any and all liability arising from such transactions.

\* Tax-supported entities are defined as those receiving more than half of total funding from appropriated tax funds.