AGREEMENT FOR
TIRE RECAPPING SERVICES
City of Glendale Solicitation No. RFP 23-30

This Agreement for TIRE RECAPPING SERVICES ("Agreement") is effective and entered into between CITY OF GLENDALE, an Arizona municipal corporation ("City"), and SOUTHERN TIRE MART, a MISSISSIPPI COMPANY, authorized to do business in Arizona, (the "Contractor"), as of the _____ day of _____, 20 .

RECITALS

A. City intends to undertake a project for the benefit of the public and with public funds that is more fully set forth in **Exhibit A**, pursuant to Solicitation No. RFP 23-30 (the "Project");

B. City desires to retain the services of Contractor to perform those specific duties and produce the specific work as set forth in the Project attached hereto;

C. City and Contractor desire to memorialize their agreement with this document.

AGREEMENT

In consideration of the Recitals, which are confirmed as true and correct and incorporated by this reference, the mutual promises and covenants contained in this Agreement, and other good and valuable consideration, City and Contractor agree as follows:

1. **Key Personnel; Sub-contractors.**

1.1 Services. Contractor will provide all services necessary to assure the Project is completed timely and efficiently consistent with Project requirements, including, but not limited to, working in close interaction and interfacing with City and its designated employees, and working closely with others, including other contractors or consultants, retained by City.

1.2 Project Team.

a. Project Manager.

(1) Contractor will designate an employee as Project Manager with sufficient training, knowledge, and experience to, in the City's option, complete the Project and handle all aspects of the Project such that the work produced by Contractor is consistent with applicable standards as detailed in this Agreement;

(2) The City must approve the designated Project Manager; and

(3) To assure the Project schedule is met, Project Manager may be required to devote no less than a specific amount of time as set out in Exhibit A.

b. Project Team.

(1) The Project Manager and all other employees assigned to the project by Contractor will comprise the "Project Team."

(2) Project Manager will have responsibility for and will supervise all other employees assigned to the Project by Contractor.

c. Discharge, Reassign, Replacement.

(1) Contractor acknowledges the Project Team is comprised of the same persons and roles for each as may have been identified in the response to the Project's solicitation.

(2) Contractor will not discharge, reassign or replace or diminish the responsibilities of any of the employees assigned to the Project who have been approved by City without City's prior written consent unless that person leaves the employment of Contractor, in which event the substitute must first be approved in writing by City.

(3) Contractor will change any of the members of the Project Team at the City's request if an employee's performance does not equal or exceed the level of competence that the City may reasonably expect of a person performing those duties or if the acts or omissions of that person are detrimental to the development of the Project.

d. Sub-contractors.

(1) Contractor may engage specific technical contractor (each a "Sub-contractor") to furnish certain service functions.

(2) Contractor will remain fully responsible for Sub-contractor's services.

(3) Sub-contractors must be approved by the City, unless the Sub-contractor was previously mentioned in the response to the solicitation.

(4) Contractor shall certify by letter that contracts with Sub-contractors have been executed incorporating requirements and standards as set forth in this Agreement.

2. **Schedule.** The services will be undertaken in a manner that ensures the Project is completed timely and efficiently in accordance with the Project.

3. **Contractor's Work.**

3.1 Standard. Contractor must perform services in accordance with the standards of due diligence, care, and quality prevailing among contractors having substantial experience with the successful furnishing of services for projects that are equivalent in size, scope, quality, and other criteria under the Project and identified in this Agreement.

3.2 Licensing. Contractor warrants that:

a. Contractor and Sub-contractors will hold all appropriate and required licenses, registrations and other approvals necessary for the lawful furnishing of services ("Approvals"); and

b. Neither Contractor nor any Sub-contractor has been debarred or otherwise legally excluded from contracting with any federal, state, or local governmental entity ("Debarment").

(1) City is under no obligation to ascertain or confirm the existence or issuance of any Approvals or Debarments or to examine Contractor's contracting ability.

(2) Contractor must notify City immediately if any Approvals or Debarment changes during the Agreement's duration and the failure of the Contractor to notify City as required will constitute a material default under the Agreement.

3.3 Compliance. Services will be furnished in compliance with applicable federal, state, county and local statutes, rules, regulations, ordinances, building codes, life safety codes, and other standards and criteria designated by City.

Contractor must not discriminate against any employee or applicant for employment on the basis of race, color, religion, sex, national origin, age, marital status, sexual orientation, gender identity or expression, genetic characteristics, familial status, U.S. military veteran status or any disability. Contractor will require any Sub-contractor to be bound to the same requirements as stated within this section. Contractor, and on behalf of any subcontractors, warrants compliance with this section.

3.4 Coordination; Interaction.

a. For projects that the City believes requires the coordination of various professional services, Contractor will work in close consultation with City to proactively interact with any other professionals retained by City on the Project ("Coordinating Project Professionals").

b. Subject to any limitations expressly stated in the Project Budget, Contractor will meet to review the Project, Schedule, Project Budget, and in-progress work with Coordinating Project Professionals and City as often and for durations as City reasonably considers necessary in order to ensure the timely work delivery and Project completion.

c. For projects not involving Coordinating Project Professionals, Contractor will proactively interact with any other contractors when directed by City to obtain or disseminate timely information for the proper execution of the Project.

3.5 Work Product.

a. Ownership. Upon receipt of payment for services furnished, Contractor grants to City, and will cause its Sub-contractors to grant to the City, the exclusive ownership of and all copyrights, if any, to evaluations, reports, drawings, specifications, project manuals, surveys, estimates, reviews, minutes, all "architectural work" as defined in the United States Copyright Act, 17 U.S.C § 101, *et seq.*, and other intellectual work product as may be applicable ("Work Product").

(1) This grant is effective whether the Work Product is on paper (e.g., a "hard copy"), in electronic format, or in some other form.

(2) Contractor warrants, and agrees to indemnify, hold harmless and defend City for, from and against any claim that any Work Product infringes on third-party proprietary interests.

b. Delivery. Contractor will deliver to City copies of the preliminary and completed Work Product promptly as they are prepared.

c. City Use.

(1) City may reuse the Work Product at its sole discretion.

(2) In the event the Work Product is used for another project without further consultations with Contractor, the City agrees to indemnify and hold Contractor harmless from any claim arising out of the Work Product.

(3) In such case, City shall also remove any seal and title block from the Work Product.

4. Compensation for the Project.

4.1 Compensation. Contractor's compensation for the Project, including those furnished by its Sub-contractors will not exceed $931,500, as specifically detailed in **Exhibit B** (the "Compensation").

4.2 Change in Scope of Project. The Compensation may be equitably adjusted if the originally contemplated scope of services as outlined in the Project is significantly modified.

a. Adjustments to the Compensation require a written amendment to this Agreement and may require City Council approval.

b. Additional services which are outside the scope of the Project contained in this Agreement may not be performed by the Contractor without prior written authorization from the City.

c. Notwithstanding the incorporation of the Exhibits to this Agreement by reference, should any conflict arise between the provisions of this Agreement and the provisions found in

the Exhibits and accompanying attachments, the provisions of this Agreement shall take priority and govern the conduct of the parties.

5. **Billings and Payment.**

5.1 Applications.

a. Contractor will submit monthly invoices (each, a "Payment Application") to City's Project Manager and City will remit payments based upon the Payment Application as stated below.

b. The period covered by each Payment Application will be one calendar month ending on the last day of the month or as specified in the solicitation.

5.2 Payment.

a. After a full and complete Payment Application is received, City will process and remit payment within 30 days.

b. Payment may be subject to or conditioned upon City's receipt of:

(1) Completed work generated by Contractor and its Sub-contractors; and

(2) Unconditional waivers and releases on final payment from Sub-contractors as City may reasonably request to assure the Project will be free of claims arising from required performances under this Agreement.

5.3 Review and Withholding. City's Project Manager will timely review and certify Payment Applications.

a. If the Payment Application is rejected, the Project Manager will issue a written listing of the items not approved for payment.

b. City may withhold an amount sufficient to pay expenses that City reasonably expects to incur in correcting the deficiency or deficiencies rejected for payment.

6. **Termination.**

6.1 For Convenience. City may terminate this Agreement for convenience, without cause, by delivering a written termination notice stating the Effective Termination date, which may not be less than 30 days following the date of delivery.

a. Contractor will be equitably compensated for Goods or Services furnished prior to receipt of the termination notice and for reasonable costs incurred.

b. Contractor will also be similarly compensated for any approved effort expended and approved costs incurred that are directly associated with project closeout and delivery of the required items to the City.

6.2 For Cause. City may terminate this Agreement for cause if Contractor fails to cure any breach of this Agreement within seven days after receipt of written notice specifying the breach.

a. Contractor will not be entitled to further payment until after City has determined its damages. If City's damages resulting from the breach, as determined by City, are less than the equitable amount due but not paid Contractor for Service and Repair furnished, City will pay the amount due to Contractor, less City's damages, in accordance with the provision of § 5.

b. If City's direct damages exceed amounts otherwise due to Contractor, Contractor must pay the difference to City immediately upon demand; however, Contractor will not be subject to consequential damages of more than $1,000,000 or the amount of this Agreement, whichever is greater.

7. **Conflict.** Contractor acknowledges this Agreement is subject to A.R.S. § 38-511, which allows for cancellation of this Agreement in the event any person who is significantly involved in initiating, negotiating, securing, drafting, or creating the Agreement on City's behalf is also an employee, agent, or consultant of any other party to this Agreement.

8. **Insurance.**

8.1 Requirements. Contractor must obtain and maintain the following insurance ("Required Insurance"):

a. Contractor and Sub-contractors. Contractor, and each Sub-contractor performing work or providing materials related to this Agreement must procure and maintain the insurance coverages described below (collectively referred to herein as the "Contractor's Policies"), until each Party's obligations under this Agreement are completed.

b. General Liability.

(1) Contractor must at all times relevant hereto carry a commercial general liability policy with a combined single limit of at least $2,000,000 per occurrence and $1,000,000 annual aggregate for each property damage and contractual property damage.

(2) Sub-contactors must at all times relevant hereto carry a general commercial liability policy with a combined single limit of at least $1,000,000 per occurrence.

(3) This commercial general liability insurance must include independent contractors' liability, contractual liability, broad form property coverage, XCU hazards if requested by the City, and a separation of insurance provision.

(4) These limits may be met through a combination of primary and excess liability coverage.

c. Workers' Compensation and Employer's Liability. A workers' compensation and employer's liability policy providing at least the minimum benefits required by Arizona law.

d. Notice of Changes. Contractor's Policies must provide for not less than 30 days' advance written notice to City Representative of:

(1) Cancellation or termination of Contractor or Sub-contractor's Policies;

(2) Reduction of the coverage limits of any of Contractor or and Sub-contractor's Policies; and

(3) Any other material modification of Contractor or Sub-contractor's Policies related to this Agreement.

e. Certificates of Insurance.

(1) Within 10 business days after the execution of the Agreement, Contractor must deliver to City Representative certificates of insurance for each of Contractor and Sub-contractor's Policies, which will confirm the existence or issuance of Contractor and Sub-contractor's Policies in accordance with the provisions of this section, and copies of the endorsements of Contractor and Sub-contractor's Policies in accordance with the provisions of this section.

(2) City is and will be under no obligation either to ascertain or confirm the existence or issuance of Contractor and Sub-contractor's Policies, or to examine Contractor and Sub-contractor's Policies, or to inform Contractor or Sub-contractor in the event that any coverage does not comply with the requirements of this section.

(3) Contractor's failure to secure and maintain Contractor Policies and to assure Sub-contractor policies as required will constitute a material default under the Agreement.

f. Other Contractors or Vendors.

(1) Other contractors or vendors that may be contracted with in connection with the Project must procure and maintain insurance coverage as is appropriate to their particular contract.

(2) This insurance coverage must comply with the requirements set forth above for Contractor's Policies (e.g., the requirements pertaining to endorsements to name the parties as additional insured parties and certificates of insurance).

g. Policies. Except with respect to workers' compensation and employer's liability coverages, City must be named and properly endorsed as additional insureds on all liability policies required by this section.

(1) The coverage extended to additional insureds must be primary and must not contribute with any insurance or self insurance policies or programs maintained by the additional insureds.

(2) All insurance policies obtained pursuant to this section must be with companies legally authorized to do business in the State of Arizona and reasonably acceptable to all parties.

8.2 Sub-contractors.

a. Contractor must also cause its Sub-contractors to obtain and maintain the Required Insurance.

b. City may consider waiving these insurance requirements for a specific Sub-contractor if City is satisfied the amounts required are not commercially available to the Sub-contractor and the insurance the Sub-contractor does have is appropriate for the Sub-contractor's work under this Agreement.

c. Contractor and Sub-contractors must provide to the City proof of the Required Insurance whenever requested.

8.3 Indemnification.

a. To the fullest extent permitted by law, Contractor must defend, indemnify, and hold harmless City and its elected officials, officers, employees and agents (each, an "Indemnified Party," collectively, the "Indemnified Parties"), for, from, and against any and all claims, demands, actions, damages, judgments, settlements, personal injury (including sickness, disease, death, and bodily harm), property damage (including loss of use), infringement, governmental action and all other losses and expenses, including attorneys' fees and litigation expenses (each, a "Demand or Expense"; collectively, "Demands or Expenses") asserted by a third-party (i.e. a person or entity other than City or Contractor) and that arises out of or results from the breach of this Agreement by the Contractor or the Contractor's negligent actions, errors or omissions (including any Sub-contractor or other person or firm employed by Contractor), whether sustained before or after completion of the Project.

b. This indemnity and hold harmless provision applies even if a Demand or Expense is in part due to the Indemnified Party's negligence or breach of a responsibility under this Agreement, but in that event, Contractor shall be liable only to the extent the Demand or Expense results from the negligence or breach of a responsibility of Contractor or of any person or entity for whom Contractor is responsible.

c. Contractor is not required to indemnify any Indemnified Parties for, from, or against any Demand or Expense resulting from the Indemnified Party's sole negligence or other fault solely attributable to the Indemnified Party.

9. **E-verify, Records and Audits.** To the extent applicable under A.R.S. § 41-4401, the Contractor warrant their compliance and that of its subcontractors with all federal immigration laws and regulations that relate to their employees and compliance with the E-verify requirements under A.R.S. § 23-214(A). The Contractor or subcontractor's breach of this warranty shall be deemed a material breach of the Agreement and may result in the termination of the Agreement by the City under the terms of this Agreement. The City retains the legal right to randomly inspect the papers and records of the other party to ensure that the other party is complying with the above-mentioned warranty. The Contractor and subcontractor warrant to keep their respective papers and records open for random inspection during normal business hours by the other party. The parties shall cooperate with the City's random inspections, including granting the inspecting party entry rights onto their respective properties to perform the random inspections and waiving their respective rights to keep such papers and records confidential.

10. **No Boycott of Israel.** To the extent A.R.S § 35-393 through § 35-393.03 are applicable, the parties hereby certify that they are not currently engaged in, and agree for the duration of the Agreement to not engage in, a boycott of goods or services from Israel, as that term is defined in A.R.S § 35-393.

11. **Attestation of PCI Compliance.** When applicable, the Contractor will provide the City annually with a Payment Card Industry Data Security Standard (PCI DSS) attestation of compliance certificate signed by an officer of Contractor with oversight responsibility.

12. **Notices.**

12.1 A notice, request or other communication that is required or permitted under this Agreement (each a "Notice") will be effective only if:

a. The Notice is in writing; and

b. Delivered in person or by overnight courier service (delivery charges prepaid), certified or registered mail (return receipt requested); and

c. Notice will be deemed to have been delivered to the person to whom it is addressed as of the date of receipt, if:

(1) Received on a business day, or before 5:00 p.m., at the address for Notices identified for the Party in this Agreement by U.S. Mail, hand delivery, or overnight courier service on or before 5:00 p.m.; or

(2) As of the next business day after receipt, if received after 5:00 p.m.

d. The burden of proof of the place and time of delivery is upon the Party giving the Notice; and

e. Digitalized signatures and copies of signatures will have the same effect as original signatures.

12.2 Representatives.

a. Contractor. Contractor's representative (the "Contractor's Representative") authorized to act on Contractor's behalf with respect to the Project, and his or her address for Notice delivery is:

Southern Tire Mart
c/o Richard Conwill
800 Hwy 98
Columbia, MS 39429

b. City. City's representative ("City's Representative") authorized to act on City's behalf, and his or her address for Notice delivery is:

City of Glendale
c/o Cyndi Hawk
5820 W. Glendale Ave, Suite 317

Glendale, Arizona 85301
623-930-2866

With required copy to:

City Manager
City of Glendale
5850 West Glendale Avenue
Glendale, Arizona 85301

City Attorney
City of Glendale
5850 West Glendale Avenue
Glendale, Arizona 85301

c. Concurrent Notices.

(1) All notices to City's representative must be given concurrently to City Manager and City Attorney.

(2) A notice will not be deemed to have been received by City's representative until the time that it has also been received by City Manager and City Attorney.

(3) City may appoint one or more designees for the purpose of receiving notice by delivery of a written notice to Contractor identifying the designee(s) and their respective addresses for notices.

d. Changes. Contractor or City may change its representative or information on Notice, by giving Notice of the change in accordance with this section at least ten days prior to the change.

13. Financing Assignment. City may assign this Agreement to any City-affiliated entity, including a non-profit corporation or other entity whose primary purpose is to own or manage the Project.

14. Entire Agreement; Survival; Counterparts; Signatures.

14.1 Integration. This Agreement contains, except as stated below, the entire agreement between City and Contractor and supersedes all prior conversations and negotiations between the parties regarding the Project or this Agreement.

a. Neither Party has made any representations, warranties or agreements as to any matters concerning the Agreement's subject matter.

b. Representations, statements, conditions, or warranties not contained in this Agreement will not be binding on the parties.

c. The solicitation, any addendums and the response submitted by the Contractor are incorporated into this Agreement as if attached hereto. Any Contractor response modifies the original solicitation as stated. Inconsistencies between the solicitation, any addendums and the response or any excerpts attached as Exhibit A and this Agreement will be resolved by the terms and conditions stated in this Agreement.

14.2 Interpretation.

a. The parties fairly negotiated the Agreement's provisions to the extent they believed necessary and with the legal representation they deemed appropriate.

b. The parties are of equal bargaining position and this Agreement must be construed equally between the parties without consideration of which of the parties may have drafted this Agreement.

c. The Agreement will be interpreted in accordance with the laws of the State of Arizona.

14.3 Survival. Except as specifically provided otherwise in this Agreement, each warranty, representation, indemnification and hold harmless provision, insurance requirement, and every other right, remedy and responsibility of a Party, will survive completion of the Project, or the earlier termination of this Agreement.

14.4 Amendment. No amendment to this Agreement will be binding unless in writing and executed by the parties. Any amendment may be subject to City Council approval. Electronic signature blocks do not constitute execution.

14.5 Remedies. All rights and remedies provided in this Agreement are cumulative and the exercise of any one or more right or remedy will not affect any other rights or remedies under this Agreement or applicable law.

14.6 Severability. If any provision of this Agreement is voided or found unenforceable, that determination will not affect the validity of the other provisions, and the voided or unenforceable provision will be deemed reformed to conform to applicable law.

14.7 Counterparts. This Agreement may be executed in counterparts, and all counterparts will together comprise one instrument.

15. Term.

15.1 Renewals. The term of this Agreement commences upon the effective date and continues for a one (1)-year initial period. The City may, at its option and with the approval of the Contractor, extend the term of this Agreement an additional four (4) years, renewable on an annual basis. Contractor will be notified in writing by the City of its intent to extend the Agreement period at least thirty (30) calendar days prior to the expiration of the original or any renewal Agreement period. Price adjustments will only be reviewed during the Agreement renewal period and any such price adjustment will be a determining factor for any renewal. There are no automatic renewals of this Agreement.

15.2 Extension for Procurement Process. Upon the expiration of the Term of this Agreement, including the initial term and any renewals, at the City's sole discretion, this Agreement may be extended on a month-to-month basis for a maximum of six (6) months to allow for the City to complete its procurement process to select a vendor to provide the services/materials similar to those provided under this Agreement. The City will notify the Contractor in writing of its intent to extend the Agreement at least thirty (30) calendar days prior to the expiration of the Term. Any extension provided under this subsection will continue under the same terms and conditions as in effect immediately prior to the expiration of the then-current term.

16. Dispute Resolution. Any controversy or claim arising out of or relating to this contract, or the breach thereof, shall be settled by arbitration administered according to the American Arbitration Association's Commercial Arbitration Rules, and judgment on the award rendered by the arbitrator may be entered in any court having jurisdiction thereof.

17. Cooperative Use of Contract. This agreement may be extended for use by other governmental agencies and political subdivisions of the State. Any such usage by other entities must be in accord with the ordinances, charter, rules and regulations of the respective entity and the approval of the Contractor and City. For a list of SAVE members, click on the following link:
http://www.mesaaz.gov/business/purchasing/save

18. Exhibits. The following exhibits, with reference to the term in which they are first referenced, are incorporated by this reference.

Exhibit A Project

Exhibit B Compensation

The parties enter into this Agreement as of the Effective Date shown above.

City of Glendale,
an Arizona municipal corporation

_____
By:
Its: City Manager

ATTEST:

_____
Julie K. Bower
City Clerk (SEAL)

APPROVED AS TO FORM:

_____
Michael D. Bailey
City Attorney

Southern Tire Mart,
a Mississippi Corporation

_____
By: Richard Conwill
Its: Director of Government Sales

EXHIBIT A

SCOPE OF WORK

PROJECT

Contractor will provide the services of Tire Recapping for the tire of the City of Glendale Fleet Division as define in EXHIBIT A attached herein:

EXHIBIT B

COMPENSATION

METHOD AND AMOUNT OF COMPENSATION

As described on the attached EXHIBIT B.

NOT-TO-EXCEED AMOUNT

The total amount of compensation paid to Contractor for full completion of all work required by the Project during the entire term of the Project must not exceed $931,500.

DETAILED PROJECT COMPENSATION

See attached vendor pricing list:

Table of Contents

RFP Package

Additional RFP Attachments

Required Submittal Documents

1. **Response Workbook** – To be completed by Offeror and submitted as their response.
2. **Pricing Workbook** – To be completed by Offeror and submitted as their response.

1. INTRODUCTION

The City of Glendale, Arizona, Field Operations Department is requesting bids from qualified vendors to provide tire recapping services for the City's heavy duty truck tires. Service is performed off-site with pickup and delivery included in the service costs.

Bidders shall thoroughly complete the Price Sheet found in the Pricing Workbook. The City may order some, all, more or none of the individual items during the contract period. Quantities ordered by the City may vary depending on the actual needs and availability of appropriated funds.

Throughout the term of this contract, the City reserves the right to add, revise or make changes to the specifications to best serve the needs of the City.

2. REQUIRED SPECIFICATIONS

2.1 CLASSIFICATION

i. The tires shall be tubeless and tube type radial tires for medium and heavy trucks and industrial equipment.
ii. The retreading process shall be a pre-cured method that provides a top cap.
iii. Acceptable case repairs shall include nail hole, spot, section, bead area and liner.

2.2 PROCESSING STANDARDS

i. Written standards conforming to industry-recognized procedures shall be followed in the performance of each operation.
ii. Copies of the written procedures shall be furnished to the City upon request.
iii. At a minimum, such written procedures shall cover the following operations:

• Conditioning of casings age
• Inspection and casing grading
• Tire repairing
• Buffing
• Cementing
• Tread rubber application
• Curing
• Trimming and finishing
• Final inspection

2.3 MATERIALS

All materials used in the process of retreading and repairing tires shall conform to the following:

i. Tread rubber shall contain no less than 50% rubber hydrocarbons by weight.
ii. Tread rubber shall have a minimum of 25% and maximum of 40% polybutadiene, and have the following minimum physical properties:

Tensile strength (psi)	2,600
Elongation	500
Modulus at 300%	1,400
Hardness*	64-67
Specific gravity	1.125

*Hardness will be measured using a Shore Durometer, at scale.
iii. Manufacturer's product literature confirming the minimum physical properties of the tread rubber shall be supplied with the offer.
iv. Depth of treat rubber must be indicated for all proposed tires recapping designs with the response.

2.4 RUBBER SAMPLES AND TESTS

i. The City reserves the right to secure random rubber samples and submit them to testing laboratories for evaluation.
ii. The Contractor shall provide rubber capping samples to the City when requested within two days of the request.
iii. The costs of the tests for failed samples shall be paid by the Contractor.
iv. Acceptable tests shall be paid by the City.
v. Rubber samples that are submitted to the City that fail to meet material specifications may result in cancellation of this contract.

2.5 ENVIRONMENTAL REQUIREMENTS

Unless otherwise specified, all tires shall be processed using materials containing antioxidants of a quality to provide standard commercial resistance to weathering.

2.6 TREAD DEPTH REQUIREMENTS

i. The City will specify minimum tread depth requirements depending on intended use of the tire
ii. When requested, the Contractor shall submit samples of cap tread design and information on the weight per food of tread designs to be used.

2.7 TREAD DESIGN

i. The City will set the criteria for the selection of tread design.
ii. Some of the considerations for the selection of tread design are as follows:

Vehicle type	Speed
Load	Operation
Tire type	Ply rating
Casing condition	

2.8 TREAD WIDTH

i. The tread width shall be determined by the requirements of the casing.
ii. The maximum acceptable width shall be used unless otherwise requested.
iii. New tire manufacturer's specifications shall be the determining factor.

2.9 PROCEDURES

i. All casings to be retreaded shall be approved by the City.
ii. Rejected casings shall remain the property of the City until the City has approved the casing for disposal, at which time the vendor shall be responsible for disposal of any rejected casings.

2.10 INITIAL INSPECTION

i. Casing inspection shall be made by a trained certified operator; tracking number will be assigned by said certified operator.
ii. The casing inspection must include the use of a mechanical spreader and electronic, ultrasonic, or holographic casing equipment during the inspection.
iii. The tire shall be placed on a mechanical spreader under adequate lighting, i.e., 300-foot candles, and distortion of the natural contour sufficient for visual inspection.
iv. The Contractor shall ensure all casings are original city-owned tires, that will be tracked and reported by the vendor.
v. In addition, electronic, ultrasonic or holographic casing inspection equipment, which can aid in determining casing damage such as separation, nail holes, rusted belts and belt edge lift, must be used during inspections. This will aid in determining casing integrity and best use.
vi. Casings accepted for retreading shall not contain any of the following defects:

• Ply separation
• Broken, damaged, kinked or exposed bead wire
• Injuries to plies in the bead area
• Flex breaks
• Loose cords on the inside ply or evidence of overload, underinflation or run flat
• Tread separations which cannot be removed during buffing
• Sidewall separation
• Weather cracking extending into body plies
• Non-repairable damage to the inner liner or bead seating area on a tubeless tire
• Nail hole or injuries of sufficient sizes and numbers that cannot be repaired using acceptable commercial practices
• Radial belt separations

vii. NOTE: REJECTED TIRES-Written ***Returned as Received*** (RAR) reports are required quarterly.
viii. Written RAR reports shall outline all pertinent information as to why tires have not been accepted for retreading.
ix. All RAR tires will be returned to the City.

2.11 CASING

i. The buffed casing shall be to dimensions compatible to the retread system used.
ii. The worn retread surface shall be removed to a symmetrical profile in accordance with the procedure specifications.
iii. The buffed area of the casing shall be free from contamination and oxidation.
iv. All buffing shall be done with the casing inflated.
v. Casing shall be buffed to the width that is appropriate to the fixed dimensions of the pre-cured tread rubber specified.
vi. The radius of the buffed area shall have all equal width shoulder heights over the bead bundle.
vii. The finished tire shall be as close as possible to the specified radius.

2.12 CEMENTING

i. Buffed casings to be cemented shall be free of foreign materials. The complete process shall be completed within a maximum of one hour after buffing, but before the tire has cooled to ambient temperatures.
ii. Buffed tires stored longer than one hour shall be reworked.

2.13 BUILDING

i. Tires must be built inflated at running rim dimensions.
ii. The tread rubber shall be centered around the buffed circumference of the tire.
iii. Tread pattern interruption shall be minimized at the tread splices.
iii. The cut ends of the tread shall have a roughened texture over the entire surface and shall be free of contamination.
iv. The splice shall be cured together using suitable bonding material.
v. Tread stretch requirements and building tolerances shall meet the requirements of the materials and equipment used.

2.14 CURING PROCEDURE

i. Tires shall be stored in a manner to prevent distortion of the uncured materials and shall be kept free of contamination.
ii. Envelopes, diaphragms, or sealing ring devices shall be free of leaks and defects.
iii. Curing procedures shall be provided to the City and shall include specifications on curing time, temperature, and pressure.

iv. Proper curing tubes, rims, sealing bands and other assemblies shall be used and available in the work area of the shop.
v. Bead-to-bead tolerances shall be maintained during the curing cycle.

2.15 REPAIRING

i. Operators must be trained to industry recognized standards and work must be carried out using prescribed methods and tools.
ii. Final determination of reparability, type of repair, and repair material must be made after skiving and inspection, and in accordance with the recommended tables and criteria of the manufacturer.
iii. NOTE: All materials used must be compatible with existing casings.

2.16 NAIL HOLE REPAIRS

i. Any number of nail holes may be repaired in the repairable area of a radial truck tire.
ii. If the puncture is larger than three-eighths inches (3/8") after the damage and rust have been removed, the tire will require a section repair.
iii. If the puncture is larger than one-sixteenth inches (1/16") [one- and one-half millimeters (1.5mm)] in the sidewall area of the tire after damage and rust have been removed, the tire shall require a section repair.

2.17 SPOT REPAIR

i. Spot repairs shall be limited to cracks and cuts in the rubber with no exposed body plies.
ii. Any damage found on the fret wires shall require a full section repair by the Contractor.

2.18 SECTION REPAIR

i. Any number of section repairs may be made in the repairable area, but the repairs must not touch and no more than one repair shall be allowed which affects the same radial casing plies.
ii. No more than one repair shall be allowed which affects the same radial casing plies.
iii. Any section repair must receive prior approval from the City of Glendale's Equipment Management Division. The request is to be faxed to (623) 915-3123 with the following information:

Tire description size
Reason for repair
Existing number of sectional repairs and any other repairs

iv. The City of Glendale's Equipment Management Division will reply via email.

2.19 BEAD REPAIR

The following conditions will be considered repairable in the rubber covering the bead:

i. Cuts or tears in the rubber covering the bead area that do not damage the body ply or expose bead wires; no visible signs of rust
ii. Limited in size to that which will assure duplication of original bead contours
iii. Repairs which can be performed at a low enough cost to be practical

2.20 FINAL INSPECTION

i. The retread inspector shall make a final inspection of the retreaded tire.
ii. The inside of the tire shall be checked on a tire spreader with adequate lighting to assure quality workmanship.
iii. A liner seal shall be applied to the inside liner of the tire.
iv. The outside shall have received the same quality workmanship and the cosmetic appearance shall be that which is considered good commercial practice.
v. If the tire shows any defects which will result in less than optimum performance, the retread shall be rejected and reworked.
vi. All tires shall remain the property of the City until the City has approved the defective tire for disposal, at which time the vendor shall be responsible for their disposal, at no additional cost to the City.
vii. A light coat of tire paint shall be applied to all finished tires.
viii. The vendor shall provide documentation upon request to ensure all tires capped are city owned.
ix. The vendor shall demonstrate accounting practices that prevent chain of custody issues with city owned casings.

2.21 ADJUSTMENTS

Recapped tire failures (not damaged tires) shall be adjusted at a minimum of the following rate:

Tread Remaining	Adjustment
75% or more of original tread remaining	100% adjustment
Less than 75% of original tread remaining	The adjustment shall be pro-rated based on the remaining tread depth.

3. FOB POINT

Prices quoted shall be FOB destination and unloaded.

4. DELIVERY TURNAROUND TIME

The maximum delivery turnaround time for pickup and delivery of all tires is seven (7) calendar days (excluding holidays).

5. QUANTITIES

The quantities referenced in this solicitation are estimates ONLY and are to be used for information purposes only. No commitment of any quantity is made during this contract.

6. DELIVERY

6.1 Delivery Time: 6:30 am – 2:30 pm

6.2 All delivery shall be made to City of Glendale, Fleet Management, 6387 W. Orangewood Avenue, Building G, Glendale, AZ 85301-1700

7. HOW WE CHOOSE

7.1 SCORING RESPONSES:

The evaluation criteria are weighted in accordance with the Submission Requirements. Your response will be rated as follows:

- 40% Required Specifications
- 25% Experience/Design
- 20% Cost
- 10% References
- 5% Statement of the Project

7.2 TYPE OF AWARD: The City reserves the right to make multiple awards or to award by group of line items, or to make an aggregate award, whichever is deemed most advantageous to the City. If the City determines that an aggregate award to one bidder is not in the City's best interest, "all or none" Bids shall be rejected.

7.3 LENGTH OF CONTRACT: The City will award for an initial one (1) year with four (4) additional one-year renewal options.

7.4 EVALUATION PANEL: Submittals will be evaluated by a panel based on the stated criteria and are responsible for selecting the proposal that is most advantageous to the City.

7.5 PANEL CONTACT: Offerors shall have no exclusive meetings, conversations or communications with an individual evaluation panel member on any aspect of the RFP, after submittal.

7.6 INTERVIEWS: City may ask some or all Offerors to participate in an interview at any point during the evaluation process but is not required to do so. Information gathered in an interview will be used by the panel to make a selection. Offeror is responsible for any costs incurred to participate in an interview.

7.7 ADDITIONAL INVESTIGATIONS: City may conduct additional investigations needed to determine the competence or financial stability of any Offeror.

7.8 BEST AND FINAL OFFERS: City may request best and final offers and will determine the scope and subject of any best and final request.

7.9 PROPOSAL EVALUATION: City reserves the right to secure additional information from the Offeror in various forms and to award based on submitted information.

7.10 NOTICE OF INTENT TO AWARD AND PROTEST PERIOD: Information about the recommended award for this solicitation will be posted **here** and will be available immediately after the City has completed its evaluation process. Questions regarding the notice of intent to award must be directed to the listed Procurement Officer immediately. Any protest must be submitted to the Procurement Administrator no later than seven (7) calendar days from the date of posting on the Internet. Information and instructions on how to file a protest can be found **here**.

7.11 WITHDRAWAL OF PROPOSAL: Offeror may withdraw a submitted proposal at any time prior to the specified solicitation due date and time through the City's online bidding system. Withdrawals must be made by the Offeror or designated representative listed on the proposal. Telephonic or oral withdrawals cannot be accepted.

7.12 OFFER ERRORS OMISSIONS AND CORRECTIONS: City will not be responsible for any offeror errors or omissions. Any corrections shall be submitted through the City's online bidding system prior to due date and time of the RFP. No corrections will be permitted after the offers have been opened.

7.13 COMPETITIVE NEGOTIATIONS: City may negotiate with multiple Offerors at the same time. Negotiations may result in changing the conditions, terms, or price of the proposed contract for the benefit of the City unless prohibited herein. All Offerors shall be treated fairly and equally while conducting negotiations and the City is prohibited from disclosing any information submitted by competing Offerors. Entering into negotiations does not constitute a contract award or confer any rights to Offerors. The City may formally terminate negotiations and enter into concurrent or exclusive negotiations with the next most qualified Offeror/s if it is in the City's best interest to do so.

7.14 NO CONTACT, NO INFLUENCE DURING THE RFP PROCESS: City is conducting a competitive RFP process for the contract, free from improper influence or lobbying. There shall be no contact concerning this RFP from Offerors submitting a Proposal with any member of the City Council, RFP Evaluation Committee Members, or anyone connected with the process for or on behalf of the City. Contact includes direct or indirect contact by the Offeror, its employees, attorneys, lobbyists, surrogates, etc. to influence the RFP process.

From the time the RFP is issued until the expiration of the protest period or the resolution of any protest, whichever is later (the "Silent"), Offerors, directly or indirectly through others, are restricted from attempting to influence in any manner the decision making process through, including but not limited to, the use of paid media; contacting or lobbying the City Council or City Manager or any other City employee (other than Material Management employees); the use of any media for the purpose of influencing the outcome; or in any other way that could be construed to influence any part of the decision-making process about this RFP. This provision shall not prohibit an Offeror from petitioning an elected official or engaging in any other protected first amendment activity after the protest period has run or any protest has been resolved, whichever is later.

Violation of this provision will cause the proposal or offer of the Offeror to be found in violation and to be rejected.

7.15 PROPRIETARY INFORMATION Offeror shall clearly mark any proprietary information contained in its bid with the words "Proprietary Information." Offeror shall not mark any Solicitation Form as proprietary. Pricing data shall not be considered proprietary. Marking all, or nearly all, of a bid as proprietary may result in rejection of the bid.

Offerors acknowledge that the City is required by law to make certain records available for public inspection. In the event that the City receives a request for disclosure of Proprietary Information by any person, court, agency or administrative body, or otherwise has a reasonable belief that it is obligated to disclose the Proprietary Information to any such person or authority, the City will provide Offeror with prompt written notice so that Offeror may seek a protective order or other appropriate remedy. The Offeror, by submission of materials marked Proprietary Information, acknowledges and agrees that the City will have no obligation to advocate for non-disclosure in any forum or any liability to the Offeror in the event that the City must legally disclose the Proprietary Information.

8. SUBMISSION CHECKLIST

This section provides an overview of the submission instructions including a checklist to aid in the submission of complete proposals. Offerors shall complete the fillable "RESPONSE WORKBOOK" attachment and submit as their proposal.

Vendors are strongly advised to read this section in its entirety and complete the checklist to avoid disqualification. **Please note that the City will NOT be able to consider proposals that are submitted late or that do not follow these guidelines.**

The Offeror shall bear all costs associated with submitting the proposal, including proposal preparation, site visitation or any travel connected with submission of the proposal. The City shall have no liability whatsoever for such costs.

Checklist for Submitting Proposal	Complete (✓)
Submission Requirements	
OFFER SHEET (Response Workbook) Offeror Name Offeror Address	
1. REQUIRED SPECIFICATIONS (7 questions)	
2. EXPERIENCE/DESIGN (2 questions)	
3. REFERENCES	
4. STATEMENT OF THE PROJECT (1 question)	
5. COST (Must be submitted in a separate electronic file) (1 question)	
COMPLETED PRICING WORKBOOK	
ADDENDUM RESPONSES (if applicable)	
Return of Offer	
• Electronic copies of all "SUBMISSION REQUIREMENTS" listed above. Pricing Workbook must be submitted separately from the rest of the proposal.	

9. SUBMISSION REQUIREMENTS

The proposal is every element of your response to this RFP. For this proposal, you must provide a completed OFFER SHEET in addition to answering the questions identified in the REQUIRED RESPONSES. (see Response Workbook)

Responses must be numbered to correspond to the question numbers to aid in the evaluation process; failure to do so may result in disqualification.

Should your offer contain any PROPRIETARY INFORMATION you must clearly mark that information with the words "Proprietary Information." Only information contained in your response questions may be marked as such, information on the OFFER SHEET or PRICING SHEET (if applicable) are not considered proprietary.

Offerors acknowledge that the City is required by law to make certain records available for public inspection. By submitting any materials marked as Proprietary Information, Offeror acknowledges and agrees that the City will have no obligation to advocate for non-disclosure in any forum or any liability to the Offeror if the City must legally disclose the Proprietary Information.

Helpful Hints:

- Answer each question completely, your answers will be the only basis on which your proposal is scored.
- Do not unnecessarily elaborate, keep your response complete and effective.
- Do not provide general answers or reference to sales literature.
- Only when applicable attach and reference supporting documents.

10. EXHIBIT 1: SPECIAL NOTICES

By signing on the Offer/Bid page, solicitation Addendum(a), or cover letter accompanying the submittal documents, Offerors are certifying that they understand the following notices and agree to comply with all required terms and conditions.

10.1 RETURN OF OFFER

The Offeror shall submit required proposal responses electronically in Vendor Self Service (VSS).

Offeror is required to register in VSS prior to submitting a proposal if they have not already registered.
https://glendaleazvendors.munisselfservice.com/Vendors/default.aspx

Guide to Register as a new vendor:
https://www.glendaleaz.com/your_government/city_finances/procurement/vendor_self_service_v_s_s (This is a PDF document "Vendor Registration Instructions" at the bottom of page.)

a. The Offeror shall complete all sections of the solicitation in the format given and the spaces provided. Proposals that do not conform to the above format may be rejected.

b. The Offeror shall bear all costs associated with submitting the proposal, including proposal preparation, site visitation or any travel connected with submission of the proposal. The City shall have no liability whatsoever for such costs.

10.2 PRE-OFFER CONFERENCE

A Pre-Offer meeting will be held on **the time and at the location shown on page 1 of this document**. Attendance is not required but is encouraged.

Copies of the Request for Proposal (RFP) will NOT be available.

The purpose of the conference will be to clarify the contents of the solicitation to prevent any misunderstanding of the City of Glendale's position. Any doubt as to the requirements of the solicitation or any apparent omission or discrepancy should be presented to the City at the conference. The City will determine the appropriate action necessary, if any, and issue a written amendment to the solicitation if required. Oral statements or instructions will not constitute an amendment to the solicitation.

10.3 NO CONTACT, NO INFLUENCE DURING THE RFP PROCESS

The City is conducting a competitive RFP process for the contract, free from improper influence or lobbying. There shall be no contact concerning this RFP from Offerors submitting a Proposal with any member of the City Council, RFP Evaluation Committee Members, or anyone connected with the process for or on behalf of the City. Contact includes direct or indirect

contact by the Offeror, its employees, attorneys, lobbyists, surrogates, etc. in an attempt to influence the RFP process.

From the time the RFP is issued until the expiration of the protest period or the resolution of any protest, whichever is later (the "Silent Period"), Offerors, directly or indirectly through others, are restricted from attempting to influence in any manner the decision making process through, including but not limited to, the use of paid media; contacting or lobbying the City Council or City Manager or any other City employee (other than Procurement employees); the use of any media for the purpose of influencing the outcome; or in any other way that could be construed to influence any part of the decision-making process about this RFP. This provision shall not prohibit an Offeror from petitioning an elected official or engaging in any other protected first amendment activity after the protest period has run or any protest has been resolved, whichever is later.

Violation of this provision will cause the proposal or offer of the Offeror to be found in violation and to be rejected.

10.4 CONFLICT OF INTEREST

Contractor shall disclose the following: 1) the name(s) and position(s) of each Contractor's employee or subcontractor that participated in the preparation of the submittal or who will be involved, directly or indirectly, with performing the contract, if awarded; 2) the name(s) of any City of Glendale employee who is a relative of persons identified pursuant to No. 1; 3) the name(s) and position(s) of Contractor's personnel that have a financial or proprietary interest in the contract; 4) the name(s) of any City of Glendale employee who is a relative of persons identified pursuant to No. 3.

Providing such disclosure will not necessarily disqualify a Contractor. Failure to disclose the requested information or any potential conflict of interest pursuant to A.R.S. § 38-511 et seq. may result in rejection of the proposal or bid or any contract being void or terminated.

For purposes of this provision, the following definitions apply:

i. "Employee" means all persons who are employed on a full-time, part-time or contract basis by the City of Glendale.
ii. "Relative" means the spouse, child, child's child, parent, grandparent, brother or sister of the whole or half blood and their spouses and the parent, brother, sister or child of a spouse.

10.5 INQUIRIES

Any question related to the Request for Proposal shall be directed to the Procurement Officer whose name appears above. An Offeror shall not contact or ask questions of the department for whom the requirement is being procured. The Procurement Officer may require any and all questions be submitted in writing. Offerors are encouraged to submit written questions

via electronic mail or facsimile, no later than **FIVE days** prior to the proposal due date. Any correspondence related to a solicitation should refer to the appropriate Request for Proposal number, page and paragraph number. An envelope containing questions should be identified as such; otherwise, it may not be opened until after the official proposal due date and time. Oral interpretations or clarifications will be without legal effect. Only questions answered by a formal written amendment to the Request for Proposal will be binding.

10.6 SPECIAL TERMS AND CONDITIONS

Additional terms and conditions specific to the provision of the services referenced will be negotiated with the successful bidder for inclusion in the contract.

10.7 PUBLIC RECORD REQUIREMENTS

Offeror acknowledges that the City is a public agency and must comply with all Public Records laws and proposals submitted become the property of the City and are subject to public disclosure requirements in accordance with Arizona Public Records Law. Any portion of the proposal that the offeror deems confidential or proprietary must be clearly labeled as such. Labeling material does not automatically preclude the material from public disclosure, as the City is required to make an appropriate determination as to the confidentiality of the material in accordance with Arizona Public Records Law. It is the offeror's sole responsibility and cost to take action, including legal actions, to protect such material. Price is not confidential and will not be withheld.

10.8 PERMITS AND LICENSES

It is the offeror's sole responsibility to determine and secure any and all licenses and permits the contractor needs to operate the facility, from any regulatory body having jurisdiction related to the services being provided. Such costs are the exclusive responsibility of the operator, operator must also ensure appropriate licensing of any sub-contractors, operator shall notify the City in writing within two (2) working days of any suspension, revocation or renewal.

10.9 NO COLLUSION OR ANTI-COMPETITIVE PRACTICES

The submission of the offer did not involve collusion, and without any agreement, understanding or planned common course of action with, any other vendor of materials, supplies, equipment or services described in the invitation to bid, designed to limit independent bidding or competition or other anti-competitive practices.

10.10 NON-DISCRIMINATION

Contractor agrees not to discriminate against any employee or applicant for employment on the basis of race, color, religion, sex, national origin, age,

marital status, sexual orientation, gender identity or expression, genetic characteristics, familial status, U.S. military veteran status or any disability. Contractor will require any Sub-contractor to by bound to the same requirements as stated within this section. Contractor, and on behalf of any subcontractors, warrants compliance with this section.

10.11 NO CONSIDERATIONS

The Contractor has not given, offered to give, nor intends to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, meal or service to a public servant in connection with the submitted offer.

10.12 AUTHORIZED AGENT

The individual signing the submittal is an authorized agent and has the authority to bind the Offeror to the proposal and subsequent contract if awarded.

10.13 KEY PERSONNEL

If awarded, Offeror shall assign a specific individual as the key point of contact for the management of the contract, subject to specific notification requirements to be included in the final contract.

11 EXHIBIT 2: SPECIAL TERMS AND CONDITIONS

By signing on the Offer/Bid page, solicitation Addendum(a), or cover letter accompanying the submittal documents, Offerors are certifying that they understand the following notices and agree to comply with all required terms and conditions. The following terms are found on the City's Website and are applicable to Request for Proposal: Standard Terms and Conditions

11.1 TYPE OF AWARDS

The City reserves the right to make multiple awards or to award by individual line items, by group of line items, or to make an aggregate award, whichever is deemed most advantageous to the City. If the City determines that an aggregate award to one offeror is not in the City's best interest, "all or none" offers shall be rejected.

11.2 ALTERNATE OFFERS

Offers submitted as alternates, or on the basis of exceptions to specific conditions of purchase and/or required specifications, must be submitted as an attachment referencing the specific paragraph number(s) and adequately defining the alternate or exception submitted. Detailed product brochures and/or technical literature, suitable for evaluation, must be submitted with the offer. If no exceptions are taken, City will expect and require complete compliance with the specifications and all Conditions of Purchase.

11.3 EFFECTIVE PERIOD OF OFFER Offers shall be valid for a minimum of 120 days following the deadline for submitting offers. If an award is not made during that period, all offers shall be automatically extended for another 120 days. Offers will be automatically renewed until such time as either an award is made, or proper Notice is given to the Procurement Officer of Offeror's intent to withdraw its offer. Offers may only be withdrawn by submitting Notice at least 15 days before the expiration of the then current 120-day period.

11.4 PAYMENT TERMS If payment terms are not indicated, terms of NET 30 days shall be applied by the City. Payment terms to apply after receipt of invoice or final acceptance of the products/services, whichever is later. Payment terms offering less than 20 days for payment will not be considered.

11.5 UNIT PRICE TO PREVAIL In the event of a price disparity between the unit and extended price, the unit price shall prevail unless judged obviously in error by the City.

11.6 OFFER ERRORS OMISSIONS AND CORRECTIONS The City will not be responsible for any offeror errors or omissions. All prices and notations shall be written in ink or typed. Changes or corrections made on the offer form

must be initialed in ink by the individual signing the offer. No corrections will be permitted after the offers have been opened.

11.7 BRAND NAME REFERENCES AND TECHNICAL SPECIFICATIONS Brand names or manufacturer's references shall be construed as a quality or performance level and does not indicate the item cited is mandatory. Technical specifications define the acceptable standard.

11.8 RESTRICTIVE OFFER PROVISIONS If specifications preclude an otherwise qualified offeror from submitting an offer, a written request for modification must be received by the Buyer at least seven (7) calendar days prior to the proposal due date. All offerors will be notified by a written addendum to the solicitation of any approved changes.

11.9 DEFAULT In case of default by the contractor, the City may, by written notice, cancel this contract and repurchase from another source and may recover the excess costs by (1) deduction from an unpaid balance due; (2) collection against the bid and/or performance bond; or (3) a combination of the aforementioned remedies or other remedies as provided by law.

11.10 TERMINATION FOR CONVENIENCE The City reserves the right to terminate any order or contract upon thirty days written notice. The City will be responsible only for those standard items which have been delivered and accepted. If the items are unique and not saleable or useable for any other application, the City will reimburse the Seller for actual labor, material, and burden costs, plus a profit not to exceed 8%. Title to all materials, work-in-process, and completed but undelivered goods will pass to the City after costs are claimed and allowed.

11.11 SUB-CONTRACTING The contract or any portion thereof, shall not be sub-contracted without the prior written approval of the Materials Manager. No such approval will be construed as making the City a party of or to such sub-contract or subjecting the City to liability of any kind to any sub-contractor. No sub-contract shall, under any circumstances, relieve the contractor of liability and obligation under this contract; and despite any such subletting the City shall deal through the contractor. Sub-contractors will be dealt with as workmen and representatives of the contractor.

11.12 SAFETY DATA SHEETS (SDS). Contractor is to supply SDS) in accordance with Federal requirements for The Globally Harmonized System of Classification and Labeling of Chemicals (GHS). Contractor entering the City workplace with hazardous materials will supply the City with a Safety Data Sheets (SDS) covering those particular products the contractor may expose City employees or the general public to while working at the site.

11.13 GENERAL INDEMNIFICATION: Contractor shall indemnify, defend, save and hold harmless the City of Glendale and its officers, officials, agents, and

employees (hereinafter referred to as "Indemnitee") from and against any and all claims, actions, liabilities, damages, losses, or expenses (including court costs, attorneys' fees, and costs of claim processing, investigation and litigation) (hereinafter referred to as "Claims") for bodily injury or personal injury (including death), or loss or damage to tangible or intangible property caused, or alleged to be caused, in whole or in part, by the negligent or willful acts or omissions of Contractor or any of its owners, officers, directors, agents, employees or subcontractors. This indemnity includes any claim or amount arising out of or recovered under the Workers' Compensation Law or arising out of the failure of such Contractor to conform to any Federal, State or local law, statute, ordinance, rule, regulation or court decree. It is the specific intention of the parties that the Indemnitee shall, in all instances, except for Claims arising solely from the negligent or willful acts or omissions of the Indemnitee, be indemnified by Contractor from and against any and all claims. It is agreed that Contractor will be responsible for primary loss investigation, defense and judgment costs where this indemnification is applicable. In consideration of the award of this contract, the Contractor agrees to waive all rights of subrogation against the City, its officers, officials, agents, and employees for losses arising from the work performed by the Contractor for the City.

11.14 RESPONSIBILITY FOR COMPLIANCE WITH LEGAL REQUIREMENTS The offeror's products, services, and facilities shall be in full compliance with all applicable Federal, State, and local health, environmental, and safety laws, regulations, standards, and ordinances, regardless of whether or not they are referred to by the City.

11.15 RESPONSIBILITY FOR CORRECTION It is agreed that the offeror shall be fully responsible for making any correction, replacement, or modification necessary for specification or legal compliance. In the event of a call back, Offeror agrees to give the City first priority. Offeror agrees that if the product or service offered does not comply with the written specification, the Materials Manager has the right to cancel the sale at any time with full refund within thirty (30) calendar days after notice of noncompliance and offeror further agrees to be fully responsible for any consequential damages suffered by the City.

11.16 WARRANTY Unless otherwise specified, all items shall be guaranteed for a minimum period of one year against defects in material and workmanship. During the period, if a defect should occur, that item shall be repaired or replaced by the Seller at no obligation to the City, except where it be shown that the defect was caused by misuse and not by faulty manufacture. The offeror expressly warrants all items to be new, free from defects in design, materials, and workmanship, and to be fit and sufficient for their intended purpose. Any sample submitted shall create an expressed warranty that the whole of the goods shall conform to the sample or model.

11.17 REJECTION OF OFFERS The City reserves the right to reject any or all offers, or any part thereof; to accept any offer or any part thereof; or to waive any informalities when it is deemed to be in the City's best interest.

11.18 DELAY IN EXERCISING CONTRACT REMEDY Failure or delay by the City to exercise any right, power, or privilege shall not be deemed a waiver thereof.

11.19 TAX EXEMPTION The City is exempt from paying Federal Excise Taxes and will furnish an exemption certificate upon request.

11.20 ORDER OF PRECEDENCE In the event of conflict, the following precedence shall prevail: (1) Special Terms and Conditions incorporated by attachment; (2) Special Terms and Conditions; (3) Drawings and Specifications; (4) referenced documents; and (5) the Standard Terms and Conditions.

11.21 CHANGES The City reserves the right to make changes in any of the following: (a) specifications; (b) methods of shipment; (c) place of delivery; (d) time of delivery; (e) quantities. If any change causes an increase or decrease in the cost of or the time required for performance, an equitable adjustment may be made in the price or delivery schedule, or both. Any claim for adjustment shall be deemed waived unless asserted in writing within thirty days from receipt of the change. Price increases or extensions of delivery time shall not be binding on the City unless in writing and approved by the Materials Manager prior to the institution of the change.

11.22 PRICE ADJUSTMENTS Price adjustments shall be addressed a minimum of sixty (60) days prior to the contract renewal date, shall be in writing and include supportive justification for the proposed increase. Supportive justification means that the request shall include detailed information and calculations that make it clear how the claimed increase has an impact on the contract unit prices. The requested price increase must be based upon a cost increase that was clearly unpredictable at the time of the offer and can be shown to directly affect price of the item concerned. The rate increase shall only be considered at time of contract extension. The City will review the request and shall determine if the increase shall be granted or if an alternate option is in the best interest of the City. The price increase adjustment, if approved, will be effective and executed via a contract amendment.

11.23 LATE SUBMISSION OF CLAIM The City will not honor any invoices or claims which are tendered one year after the last item of the account accrued.

11.24 PROTEST OF AWARD Any person who has an objection to the awarding of a solicitation by the City, pursuant to competitive solicitation procedures, shall lodge that protest, in writing, with the Materials Manager. The protest should specifically identify the objection to the award, pursuant to the formal

purchase procedure. The protest must be submitted no later than seven (7) calendar days after the notice of intent to award is posted on the City's Procurement Internet home page at https://www.glendaleaz.com/your_government/city_finances/procurement/notice_of_intent_to_award. Untimely protests will not be considered.

11.25 REMEDIES City shall have, in addition to the remedies provided herein, all remedies afforded by the Uniform Commercial Code as adopted by the State of Arizona. Contractor shall have, subject to the limitation imposed by the terms of this agreement, all remedies afforded by the Uniform Commercial Code as adopted by the State of Arizona.

11.26 ASSIGNMENT Neither an order nor monies due thereunder shall be assigned in whole or in part without the City's prior written consent.

11.27 ADDENDA Any change to the proposal will be in the form of a numbered addendum issued by the Procurement Division. The addendum will be furnished to all who received the proposal. The City will not be responsible for any oral or written instructions made by any employees, officers, contracted consultant or agent of the City in regard to the proposal. The City will not be responsible for offerors adjusting their offer based on oral or written instructions.

11.28 SPECIAL ACCOMMODATIONS Please contact Procurement at 930-2862 at least 3 days prior to the meeting for special accommodation. Hearing impaired persons, please use the Arizona Relay Service (1-800-367-8939).

11.29 OFFER IDENTIFICATION The City is not responsible for the pre-opening of, post-opening of, or the failure to open, an offer not properly addressed or identified.

11.30 OFFER TABULATION An electronic copy of the scoring may be requested by e-mailing the Procurement office at procurement@glendaleaz.com and referencing the proposal title and number. The information will be available for distribution when the City has completed its evaluation process of the offers received.

11.31 LIABILITY Except for the sole negligence of the City, its officers, managers, employees, or agents, Contractor shall be liable to the City for any physical damage to City property or for the death of, or personal injury to, City personnel arising out of Contractor's occupancy, maintenance, repair, replacement, installation and/or any other work performed pursuant to the contract. Contractor agrees to indemnify, defend and hold the City harmless from any claim or loss arising from such damage or injury.

11.32 OSHA GUIDELINES The contractor shall be familiar with and operate within the guidelines set forth by the Occupational Safety and Health Act.

11.33 PATENTS Seller agrees to defend City at seller's own expense, in all suit, actions, or proceedings in which City is made a defendant for actual or alleged infringement of any United States of America or foreign letters patent resulting from City's use of the goods purchased as a result of this RFP. Seller further agrees to pay and discharge any and all judgments or decrees, which may be rendered in any such suit, action or proceedings against City. Seller agrees to indemnify and hold harmless the City from any and all license, royalty and proprietary fees or costs, including legal costs, which may arise out of City's purchase and use of goods supplied by the seller. It is expressly agreed by seller, that these covenants are irrevocable and perpetual.

11.34 VENDOR PERFORMANCE Prior offeror performance in regard to product, service, or representation of/from the offeror may be used in evaluation of this offer. Unsatisfactory performance to the City may be considered sufficient grounds for rejection of this offer. No offer will be awarded to any offeror who is in default on any contract with the City.

11.35 PERFORMANCE SURETY REQUIREMENTS The performance sureties shall be in the form of a bond, cashier's check, certified check or money order. Personal or company checks are not acceptable unless certified. Letters of credit are not acceptable. Individual sureties are not acceptable.

PERFORMANCE SURETY The successful proposer shall, at the time of entering into the contract, furnish a performance surety in the form of a bond, money order or certified or cashier's check, in the amount of *10* percent of the contract amount guaranteeing the faithful performance of the contract by the proposer.

If a bond is submitted, it shall be written on the form provided by the City as an attachment to the proposal documents. The attorney-in-fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of the power of attorney. The bond must be written by a surety with a Best Rating no less than an A and must be authorized and licensed to do business in this State by the Arizona Department of Insurance. Individual sureties and letters of credit are not acceptable.

11.36 FUND APPROPRIATION CONTINGENCY The contractor and the City recognize that the continuation of any contract after the close of any given fiscal year of the City; which ends on June 30, shall be subject to the approval of the budget of the City providing the contract item is an expenditure

therein. The City does not guarantee that the budget item will be actually adopted, as it is the determination of the City Council at the time of the adoption of the budget.

11.37 NOTIFICATION OF AWARD The successful offeror(s) will be notified that their offer has been accepted by the City Council as recommended for award.

11.38 NON-EXCLUSIVITY The City, in its sole discretion, reserves the right to request the materials or services set forth herein from other sources when deemed necessary and appropriate. No exclusive rights are included in this Agreement.

11.39 PROHIBITIONS - Contractor, and on behalf any subcontractor, certifies, to the extent applicable under A.R.S. §§ 35-391 *et seq* and 35-393 *et seq*, that neither has "scrutinized" business operations, as defined in the proceeding statutes, in the countries of Sudan or Iran.

11.40 IMMIGRATION LAW COMPLIANCE Contractor, and on behalf any subcontractor, warrants, to the extent applicable under A.R.S. § 41-4401, compliance with all federal immigration laws and regulations that relate to their employees as well as compliance with A.R.S. § 23-214(A) which requires registration and participation with the E-Verify Program. Any breach of warranty described above is considered a material breach of this Agreement and is subject to penalties up to and including termination of this Agreement. City of Glendale ("City") retains the legal right to inspect the papers of Contractor or subcontractor employee who performs work under this Agreement to ensure that Contractor or any subcontractor is compliant with the warranty described above. City may conduct random inspections, and upon request of the City, Contractor shall provide copies of papers and records demonstrating continued compliance with the warranty described above. Contractor agrees to keep papers and records available for inspection by the City during normal business hours and will cooperate with City in exercise of its statutory duties and not deny access to its business premises or applicable papers or records for the purposes of enforcement of this Section. Contractor agrees to incorporate into any subcontracts under this Agreement the same obligations imposed upon itself and expressly accrue those obligations directly to the benefit of the City. Contractor also agrees to require any subcontractor to incorporate into each of its own subcontracts under this Agreement the same obligations above and expressly accrue those obligations to the benefit of the City. Contractor's warranty and obligations under this Section I to the City is continuing throughout the term of this Agreement or until such time as the City determines, in its sole discretion, that Arizona law has been modified in that compliance with this section is no longer a requirement. The "E-Verify Program" above means the employment verification program administered

by the United States Department of Homeland Security, the Social Security Administration, or any successor program.

11.41 CONTRACT ADMINISTRATOR The staff member identified as the Contract Administrator for a solicitation serves as the liaison between Procurement, the city and the successful contractor. The Contract Administrator manages the contract, overseeing the daily operations, scheduling, performance and compliance of the agreement by all parties. The Contract Administrator is responsible for:

a. Establishing and maintaining records and documentation
b. Monitoring the contractor's performance
c. Handling issues and disputes
d. Exercising extension options
e. Initiating contract modifications
f. Initiating rebids or new solicitations

11.42 FORCE MAJEURE

a. Except for payment of sums due, neither party shall be liable to the other nor deemed in default under this contract if and to the extent that such party's performance of this Contract is prevented by reason of force majeure. The term "force majeure" means an occurrence that is beyond the control of the part affected and occurs without its fault or negligence. Without limiting the foregoing, force majeure includes acts of God; acts of the public enemy; war; riots; strikes; mobilization; labor disputes; civil disorders, fire; flood; lockouts; injunctions-interventions-acts; or failures or refusals to act by government authority; and other similar occurrences beyond the control of the party declaring force majeure which such party is unable to prevent by exercising reasonable diligence.

b. Force majeure shall not include the following circumstances:

i. Late delivery of equipment or materials caused by congestion at a manufacturer's plant or elsewhere, or an oversold condition of the market.

ii. Late performance by a subcontractor unless the delay arises out of a force majeure occurrence in accordance with this force majeure term and condition; or

iii. Inability of either the Contractor or any subcontractor to acquire or maintain any required insurance, bonds, licenses or permits.

11.43 SUSPENSION AND DEBARMENT. (APPLIES TO ALL PURCHASES.)

a. This contract is a covered transaction for purposes of 2 CFR pt. 180 and 2 CFR pt. 3000. As such, the Contractor is required to verify that none of Contractor's principals (defined at 2 CFR § 180.995) or its affiliates (defined at 2 CFR § 180.905) are excluded (defined at 2 CFR § 180.940) or disqualified (defined at 2 CFR § 180.935).

b. The Contractor must comply with 2 CFR pt. 180, subpart C and 2 CFR pt. 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.

c. This certification is a material representation of fact relied upon by the City of Glendale. If it is later determined that the contractor did not comply with 2 CFR pt. 180, subpart C and 2 CFR pt. 3000, subpart C, in addition to remedies available to the City, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.

d. The Contractor agrees to comply with the requirements of 2 CFR pt. 180, subpart C and 2 CFR pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The Contractor further agrees to include a provision requiring such compliance in its lower tier covered transactions.

12 EXHIBIT 3: INSURANCE REQUIREMENTS

By signing on the Offer/Bid page, solicitation Amendment(s), or cover letter accompanying the submittal documents, Offerors are certifying that they understand the following notices and agree to comply with all required terms and conditions.

1) **INSURANCE REQUIREMENTS.** OFFEROR shall procure and maintain until all their obligations have been discharged, insurance against claims for injury to persons or damage to property that may arise from or in connection with this Solicitation. The *insurance requirements* herein are minimum requirements for this Solicitation and in no way limit the indemnity covenants contained herein. The City of Glendale in no way warrants that the minimum limits contained herein is sufficient to protect the OFFEROR from liabilities that might arise. OFFEROR is free to purchase such additional insurance as OFFEROR determines necessary.

a) **Minimum Scope and Limits of Insurance**: OFFEROR shall provide coverage with limits of liability not less than those stated below.

i) **Commercial General Liability – Occurrence Form**
Policy shall include bodily injury, property damage, personal and advertising injury and broad form contractual liability coverage.

General Aggregate	$2,000,000
Products – Completed Operations Aggregate	$1,000,000
Personal and Advertising Injury	$1,000,000
Each Occurrence	$1,000,000

(1) The policy shall be endorsed to include the following additional insured language: **"The City of Glendale, and its departments, *officers, officials, agents, employees and volunteers shall be named as additional insureds with respect to liability arising out of the solicitation.*** Such additional insured shall be covered to the full limits of liability purchased by the OFFEROR, even if those limits of liability are in excess of those required herein.

(2) Policy shall contain a waiver of subrogation endorsement in favor of the **"City of Glendale, and its departments, officers, officials, agents, employees and volunteers".** This provision applies regardless of whether or not the City of Glendale has received a waiver of subrogation endorsement from the insurer.

ii) **Business Automobile Liability – (If driving is not a part of the scope of work, excluding driving from the place of business and to the City departments, this coverage can be eliminated.)**

Bodily Injury and Property Damage for any owned, hired, and/or non-owned vehicles used in the performance of this Agreement. Combined Single Limit (CSL) $1,000,000.

(1) The policy shall be endorsed to include the following additional insured language: "The City of Glendale, and its departments, officers, officials, agents, employees and volunteers shall be named as additional insureds with respect to liability arising out of the activities performed by or on behalf of the OFFEROR, involving automobiles owned, Licensed, hired or borrowed by the OFFEROR." Such additional insured shall be covered to the full limits of liability purchased by the OFFEROR, even if those limits of liability are in excess of those required by this License.

(2) Policy shall contain a waiver of subrogation endorsement in favor of the "City of Glendale, and its departments, officers, officials, agents, employees and volunteers" for losses arising from work performed by or on behalf of the OFFEROR. This provision applies regardless of whether or not the City of Glendale has received a waiver of subrogation endorsement from the insurer.

iii) **Worker's Compensation and Employers' Liability**

Workers' Compensation Statutory
Employers' Liability

Each Accident	$1,000,000
Disease – Each Employee	$1,000,000
Disease – Policy Limit	$1,000,000

(1) Policy shall contain a waiver of subrogation endorsement in favor of the **"City of Glendale, and its departments, officers, officials, agents, employees and volunteers"** for losses arising from OFFEROR activities. This provision applies regardless of whether or not the City of Glendale has received a waiver of subrogation endorsement from the insurer.

iv) **Professional Liability (Errors & Omissions)** – no less than $2,000,000 per occurrence or claim, $4,000,000 aggregate. Should include coverage for Plan administration and fiduciary administrative duties. Full description of the E&O Coverage provided.

Errors & Omissions are written as Claims Made Policies. If any of the policies provide coverage on a claims-made basis the following shall apply:

(1) The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.

(2) Insurance must be maintained, and evidence of insurance must be provided ***for at least five (5) years after completion of the contract of work.***

(3) If coverage is canceled or non-renewed, and not ***replaced with another claims-made policy form with a Retroactive Date*** prior to the contract effective date, the Consultant must purchase "extended reporting" coverage for a minimum of ***five (5)*** years after completion of contract work

v) **Additional Insurance Requirements: The policies shall include, or be endorsed to include the following provisions:**

(1) Policies shall stipulate that the insurance afforded by the organization shall be primary insurance and that any insurance carried by the City of Glendale shall be excess and not contributory insurance.

(2) Coverage provided by the organization shall not be limited to the liability assumed under the indemnification provisions of the license or contract.

(3) If the Vendor maintains broader coverage and/or higher limits than the minimum shown, the City requires and shall be entitled to the broader coverage and/or the higher limits maintained by the Vendor. Any available insurance proceeds in excess of the specified minimum of insurance and coverage shall be available to the City.

(4) Vendor shall require and verify that all subcontractors (subconsultants) maintain insurance meeting all the requirements stated herein, and Vendor shall ensure that City is an additional insured on insurance required from subcontractors (subconsultants).

(5) If the Vendor is awarded the solicitation, the Vendor shall furnish the City with original Certificates of Insurance including all required amendatory endorsements before the work begins. However, failure to obtain the required documents prior to the work beginning shall not waive the Vendor's obligation to provide them. The City reserves the right to require complete, certified copies of all required insurance policies including endorsements required by these specifications, at any time

Glendale	City of Glendale Solicitation Number: RFP 23-30 / 42300047 TIRE RECAPPING SERVICES REVISED - RESPONSE WORKBOOK	CITY OF GLENDALE Procurement Department 5850 West Glendale Avenue, Suite 317 Glendale, Arizona 85301

Offerors to complete this Response Workbook and submit with their response to this IFB.

COVER SHEET

OFFEROR NAME: Southern Tire Mart, LLC

OFFEROR ADDRESS: 600 HWY 98, Columbia, MS 39429

Glendale	City of Glendale Solicitation Number: RFP 23-30 / 42300047 TIRE RECAPPING SERVICES REVISED - RESPONSE WORKBOOK	CITY OF GLENDALE Procurement Department 5850 West Glendale Avenue, Suite 317 Glendale, Arizona 85301

OFFER SHEET (Must be printed, signed and returned upon completion)
Offeror certifies that they have read, understand, and will fully and faithfully comply with this solicitation, its attachments and any referenced documents. Offeror also certifies that the prices offered were independently developed without consultation with any of the other Offerors or potential Offerors.

3/15/2023
Date

Southern Tire Mart, LLC
Legal Company Name

Richard Conwill
Printed Name (Authorized Signatory)

Director of Government Sales
Job Title

Offeror Certifies it is a (check only one): ☐ Proprietorship ☐ Partnership ☒ Corporation

Richard.conwill@stmtires.com
Email Address

800 HWY 98
Mailing Street Address

(601) 424-3215
Phone Number

Columbia, MS 39429
City, State & Zip Code

Questions regarding this offer should be directed to (if different from above):

Contact Name | Phone Number | Email Address

FEDERAL TAXPAYER ID NUMBER (Required): 06-1689011

OFFEROR IS A MINORITY OR WOMEN OWNED BUSINESS: ☐ Yes ☒ No

DO YOU HAVE AN ARIZONA TRANSACTION PRIVILEGE TAX (TPT) LICENSE?

☐ Yes, Number ____ Tax Rate: 8.6% OR ☐ No, not required to have an Arizona TPT License

CONFLICT OF INTEREST (SPECIAL NOTICES):

☒ No, I do not have a conflict of interest ☐ Yes, I have a conflict of interest and response includes the disclosure required (see Exhibit 1, Item #3)

ACKNOWLEDGEMENTS: ***By signing this Offer Sheet and submitting the accompanying solicitation response, Offeror is certifying that they have read, understand, and agree to comply with all required terms and conditions provided in the EXHIBITS PACKAGE and checked off below. Failure to provide this acknowledgement will result in disqualification.***

☒ Exhibit 1 – Special Notices ☒ Exhibit 2 – RFP Standard Terms and Conditions

☒ Exhibit 3 – Insurance Requirements

Authorized Signature - Print this form and sign above

REQUIRED RESPONSES:
It should be noted that all attachments or exhibits prepared by the City and referenced herein are incorporated by reference into the Offeror's response and shall be included in a final contract with the successful Offeror. Information prepared by the Offeror and submitted with their proposal *shall* be incorporated into a final contract (for example program offerings, curriculum, key personnel, or performance metrics).

The Offeror shall provide a narrative response to each section that demonstrates their understanding of the Scope of Work requirements and describes the company's overall method for providing the Service(s) stated in this Solicitation. If there is a section that is not applicable to the Services required by the Scope of Work, you may mark it "N/A".

1. REQUIRED SPECIFICATIONS (40%)

1.1 MATERIALS

All materials used in the process of retreading and repairing tires shall conform to the following:

i. Tread rubber shall contain no less than 50% rubber hydrocarbons by weight.

ii. Tread rubber shall have a minimum of 25% and maximum of 40% polybutadiene, and have the following minimum physical properties:

Tensile strength (psi)	2,600
Elongation	500
Modulus at 300%	1,400
Hardness*	64-67
Specific gravity	1.125

*Hardness will be measured using a Shore Durometer, at scale.

iii. Manufacturer's product literature confirming the minimum physical properties of the tread rubber shall be supplied with the offer.

iv. Depth of treat rubber must be indicated for all proposed tires recapping designs with the response.

1.2 RUBBER SAMPLES AND TESTS

i. The City reserves the right to secure random rubber samples and submit them to testing laboratories for evaluation.

ii. The Contractor shall provide rubber capping samples to the City when requested within two days of the request.

iii. The costs of the tests for failed samples shall be paid by the Contractor.

iv. Acceptable tests shall be paid by the City.

v. Rubber samples that are submitted to the City that fail to meet material specifications may result in cancellation of this contract.

1.3 ENVIRONMENTAL REQUIREMENTS

Unless otherwise specified, all tires shall be processed using materials containing antioxidants of a quality to provide standard commercial resistance to weathering

1.4 TREAD DEPTH REQUIREMENTS

i. The City will specify minimum tread depth requirements depending on intended use of the tire
ii. When requested, the Contractor shall submit samples of cap tread design and information on the weight per foot of tread designs to be used.

1.5 TREAD DESIGN

i. The City will set the criteria for the selection of tread design.
ii. Some of the considerations for the selection of tread design are as follows:

Vehicle type	Speed
Load	Operation
Tire type	Ply rating
Casing condition	

1.6 TREAD WIDTH

i. The tread width shall be determined by the requirements of the casing.
ii. The maximum acceptable width shall be used unless otherwise requested.
iii. New tire manufacturer's specifications shall be the determining factor.

Offeror Response to Comply with 1.1 – 1.6:

(Yes, Southern Tire Mart Complies)

1.7 PROCEDURES

i. All casings to be retreaded shall be approved by the City.
ii. Rejected casings shall remain the property of the City until the City has approved the casing for disposal, at which time the vendor shall be responsible for disposal of any rejected casings.

Offeror Response to Comply with 1.7:

(Yes, Southern Tire Mart Complies)

1.8 INITIAL INSPECTION

i. Casing inspection shall be made by a trained certified operator; tracking number will be assigned by said certified operator.

ii. The casing inspection must include the use of a mechanical spreader and electronic, ultrasonic, or holographic casing equipment during the inspection.

iii. The tire shall be placed on a mechanical spreader under adequate lighting, i.e., 300-foot candles, and distortion of the natural contour sufficient for visual inspection.

iv. The Contractor shall ensure all casings are original city-owned tires, that will be tracked and reported by the vendor.

v. In addition, electronic, ultrasonic or holographic casing inspection equipment, which can aid in determining casing damage such as separation, nail holes, rusted belts and belt edge lift, must be used during inspections. This will aid in determining casing integrity and best use.

vi. Casings accepted for retreading shall not contain any of the following defects:

• Ply separation
• Broken, damaged, kinked or exposed bead wire
• Injuries to plies in the bead area
• Flex breaks
• Loose cords on the inside ply or evidence of overload, underinflation or run flat
• Tread separations which cannot be removed during buffing
• Sidewall separation
• Weather cracking extending into body plies
• Non-repairable damage to the inner liner or bead seating area on a tubeless tire
• Nail hole or injuries of sufficient sizes and numbers that cannot be repaired using acceptable commercial practices
• Radial belt separations

vii. NOTE: REJECTED TIRES-Written ***Returned As Received*** (RAR) reports are required quarterly.

viii. Written RAR reports shall outline all pertinent information as to why tires have not been accepted for retreading.

ix. All RAR tires will be returned to the City.

Offeror Response to Comply with 1.8:

(Yes, Southern Tire Mart Complies)

1.9 CASING

i. The buffed casing shall be to dimensions compatible to the retread system used.
ii. The worn retread surface shall be removed to a symmetrical profile in accordance with the procedure specifications.
iii. The buffed area of the casing shall be free from contamination and oxidation.
iv. All buffing shall be done with the casing inflated.
v. Casing shall be buffed to the width that is appropriate to the fixed dimensions of the pre-cured tread rubber specified.
vi. The radius of the buffed area shall have all equal width shoulder heights over the bead bundle.
vii. The finished tire shall be as close as possible to the specified radius.

1.10 CEMENTING

i. Buffed casings to be cemented shall be free of foreign materials. The complete process shall be completed within a maximum of one hour after buffing, but before the tire has cooled to ambient temperatures.
ii. Buffed tires stored longer than one hour shall be reworked.

1.11 BUILDING

i. Tires must be built inflated at running rim dimensions.
ii. The tread rubber shall be centered around the buffed circumference of the tire.
iii. Tread pattern interruption shall be minimized at the tread splices.
iii. The cut ends of the tread shall have a roughened texture over the entire surface and shall be free of contamination.
iv. The splice shall be cured together using suitable bonding material.
v. Tread Stretch requirements and building tolerances shall meet the requirements of the materials and equipment used.

Offeror Response to Comply with 1.9 – 1.11:

(Yes, Southern Tire Mart Complies)

1.12 CURING PROCEDURE

i. Tires shall be stored in a manner to prevent distortion of the uncured materials and shall be kept free of contamination.
ii. Envelopes, diaphragms, or sealing ring devices shall be free of leaks and defects.
iii. Curing procedures shall be provided to the City and shall include specifications on curing time, temperature, and pressure.
iv. Proper curing tubes, rims, sealing bands and other assemblies shall be used and available in the work area of the shop.
v. Bead-to-bead tolerances shall be maintained during the curing cycle.

1.13 REPAIRING

i. Operators must be trained to industry recognized standards and work must be carried out using prescribed methods and tools.
ii. Final determination of reparability, type of repair, and repair material must be made after skiving and inspection, and in accordance with the recommended tables and criteria of the manufacturer.
iii. NOTE: All materials used must be compatible with existing casings.

Offeror Response to Comply with 1.12 and 1.13:

(Yes, Southern Tire Mart Complies)

1.14 FINAL INSPECTION

i. The retread inpsector shall make a final inspection of the retreaded tire.
ii. The inside of the tire shall be checked on a tire spreader with adequate lighting to assure quality workmanship.
iii. A liner seal shall be applied to the inside liner of the tire.
iv. The outside shall have received the same quality workmanship and the cosmetic appearance shall be that which is considered good commercial practice.
v. If the tire shows any defects which will result in less than optimum performance, the retread shall be rejected and reworked.
vi. All tires shall remain the property of the City until the City has approved the defective tire for disposal, at which time the vendor shall be responsible for their disposal, at no additional cost to the City.
vii. A light coat of tire paint shall be applied to all finished tires.
viii. The vendor shall provide documentation upon request to ensure all tires capped are city owned.
ix. The vendor shall demonstrate accounting practices that prevent chain of custody issues with city owned casings.

Offeror Response to Comply with 1.14:

(Yes, Southern Tire Mart Complies)

2. COST (30%)

Offeror shall submit Pricing Workbook separately.

3. EXPERIENCE/DESIGN (25%)

How many current solid waste customers do you have? Describe your specific solid waste cap design, if any.

("We have a large list of retread customers varying in recap designs. Some of our major retread customers are: Swift, Knight, Waste Management, Republic, UPS, JB Hunt, XPO, and many others. Most of the waste companies we supply utilize the BRM or BRM 3 tread designs" - see attached data)

4. REFERENCES (5%)

Reference 1:

Waste Management	1580 E Elwood Phoenix, AZ 85040
John Mullins	602-268-2222
jmullin7@wm.com)	June 2019 to the present
Provide a brief summary of Services provided: Mounted Wheel Program,Retreads,New Tires and road side service.	

Reference 2:

Republic Services	4811 W Lower Buckeye Rd. Phoenix, AZ 85043
Hector Lopez	602-442-7290
hlopez@republicservices.com	June 2019 to the Present
Provide a brief summary of Services provided: Mounted Wheel Program,Retreads,New Tires and road side service	

Reference 3:

City of Phoenix	2441 S. 22nd Ave Phoenix, AZ 85009
Antonio Apolinar	602-262-6019
anthony.apolinar@phoenix.gov	June 2018 to the Present
Provide a brief summary of Services provided: Retread New Tires, Roadside service, Fleet check/service	

5. STATEMENT OF THE PROJECT

Offerors should state, in concise terms, their understanding of the project and the RFP requirements, including the scope of work, terms and conditions, etc.
(Please see attached Bio Letter)

6. VENDOR EXCEPTIONS:

Offeror shall note any exceptions to the solicitation documents in this section using the example below:

Document Name: Exhibit 3 – Insurance Requirements
Paragraph: 1.a.i. Commercial General Liability – General Aggregate $5,000,000

Provide Alternate Language and Rational:
Vendor's General Aggregate is only $3,000,000

(If there are any exceptions, Offeror shall list here)

7. **ADDENDUM RESPONSES AND ACKNOWLEDGEMENT:**

Attach addendum response(s) and acknowledgement(s) here.

(Addendum #1 attached and acknowledged)

8. **CONFLICT OF INTEREST STATEMENT:**

As per paragraph 10.4 CONFLICT OF INERESTː
If Offeror indicated they have a conflict of interest on the Offer Sheet, Offeror must provide details here.

(No Conflicts of Interest)

Glendale	SOLICITATION ADDENDUM	CITY OF GLENDALE Procurement Division 5850 W. Glendale Avenue Suite 317 Glendale, AZ 85301 Phone: (623) 930-2865
	Solicitation Number: RFP 23-30 Addendum #1 Page 1 of 1 Solicitation New Due Date: March 15, 2023, 2:00 p.m. (Local Time)	

RFP 23-30
Tire Recapping Services

As a result of the pre-offer held on February 22, 2023, the following responses and are addressed in this Addendum #1.

1. **NEW RFP due date:**

   From – March 9, 2023, before 2:00pm local time

   To – March 15, 2023, before 2:00pm local time

2. **Pre-Offer Conference Attendance Log (UPLOADED)**

3. **REPLACE (UPLOADED)**

   a. Replace the File named: *RFP 23-30 Response Workbook 10.26.21*

      With the revised uploaded FILE named: *RFP 23-30 Response Workbook - REVISED*

   b. Replace the File named: *RFP23-30 Pricing Workbook 11.8.2019*

      With the uploaded FILE named: *RFP 23-30 Pricing Workbook - REVISED*

The balance of the specifications and instructions remain the same. The Offeror must acknowledge receipt and acceptance of this addendum by returning the entire addendum with the proposal submittal.

Name of Company:	Southern Tire Mart, LLC
Address:	600 HWY 98 Columbia, MS 39429
Authorized Signature:	
Print Name and Title:	Richard Conwill/Director of Government Sales

CONFLICT OF INTEREST QUESTIONNAIRE

FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 **Name of vendor who has a business relationship with local governmental entity.**

Richard Conwill/Southern Tire Mart, LLC

2 ☐ **Check this box if you are filing an update to a previously filed questionnaire. (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)**

3 **Name of local government officer about whom the information is being disclosed.**

NONE

Name of Officer

4 **Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.**

A. **Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?**

☐ Yes ☒ No

B. **Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?**

☐ Yes ☒ No

5 **Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.**

6 ☐ **Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).**

7

Signature of vendor doing business with the governmental entity

3/1/2023

Date

CONFLICT OF INTEREST QUESTIONNAIRE
For vendor doing business with local governmental entity

A complete copy of Chapter 176 of the Local Government Code may be found at http://www.statutes.legis.state.tx.us/Docs/LG/htm/LG.176.htm. For easy reference, below are some of the sections cited on this form.

Local Government Code § 176.001(1-a): "Business relationship" means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on:

(A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity;

(B) a transaction conducted at a price and subject to terms available to the public; or

(C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency.

Local Government Code § 176.003(a)(2)(A) and (B):

(a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if:

***

(2) the vendor:

(A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds $2,500 during the 12-month period preceding the date that the officer becomes aware that

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor;

(B) has given to the local government officer or a family member of the officer one or more gifts that have an aggregate value of more than $100 in the 12-month period preceding the date the officer becomes aware that:

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor.

Local Government Code § 176.006(a) and (a-1)

(a) A vendor shall file a completed conflict of interest questionnaire if the vendor has a business relationship with a local governmental entity and:

(1) has an employment or other business relationship with a local government officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);

(2) has given a local government officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or

(3) has a family relationship with a local government officer of that local governmental entity.

(a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:

(1) the date that the vendor:

(A) begins discussions or negotiations to enter into a contract with the local governmental entity; or

(B) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity; or

(2) the date the vendor becomes aware:

(A) of an employment or other business relationship with a local government officer, or a family member of the officer, described by Subsection (a);

(B) that the vendor has given one or more gifts described by Subsection (a); or

(C) of a family relationship with a local government officer.

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 2/28/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Southern Insurance Group, LLC 418 Sumrall Road, Suite 5 Columbia MS 39429	CONTACT NAME: Heather Williamson PHONE (A/C, No, Ext): 601-736-9899 FAX (A/C, No): 601-736-9405 E-MAIL ADDRESS: HWilliamson@sigins.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Travelers Property Casualty Company of America	25674
INSURER B :	
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
Southern Tire Mart, LLC
800 Hwy 98
Columbia MS 39429

SOUTTIR-02

COVERAGES **CERTIFICATE NUMBER: 917207823** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY [ ] PRO-JECT [ ] LOC OTHER:	Y	Y	TC2J-GLSA-SD695730-TIL-22	10/1/2022	10/1/2023	EACH OCCURRENCE	$ 5,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 500,000
							MED EXP (Any one person)	$ 50,000
							PERSONAL & ADV INJURY	$ 5,000,000
							GENERAL AGGREGATE	$ 5,000,000
							PRODUCTS - COMP/OP AGG	$ 5,000,000
								$
A	AUTOMOBILE LIABILITY X ANY AUTO OWNED AUTOS ONLY [ ] SCHEDULED AUTOS X HIRED AUTOS ONLY [X] NON-OWNED AUTOS ONLY	Y	Y	TC2J-CAP-SD695344-TIL-22	10/1/2022	10/1/2023	COMBINED SINGLE LIMIT (Ea accident)	$ 5,000,000
							BODILY INJURY (Per person)	$
							BODILY INJURY (Per accident)	$
							PROPERTY DAMAGE (Per accident)	$
								$
	[ ] UMBRELLA LIAB [ ] OCCUR [ ] EXCESS LIAB [ ] CLAIMS-MADE [ ] DED [ ] RETENTION $						EACH OCCURRENCE	$
							AGGREGATE	$
								$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N [ ] N/A If yes, describe under DESCRIPTION OF OPERATIONS below		Y	UB-1R66017A-22-51-K	10/1/2022	10/1/2023	PER STATUTE [ ] OTH-ER	
							E.L. EACH ACCIDENT	$ 5,000,000
							E.L. DISEASE - EA EMPLOYEE	$ 5,000,000
							E.L. DISEASE - POLICY LIMIT	$ 5,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Certificate Holder is Additional Insured on all policies and provided a Waiver of Subrogation on all policies when required by written contract executed prior to a loss. A 30 Day Notice of Cancellation applies except for Non-Payment of premium. Coverages on all liability policies are Primary and Non-Contributory. Contractual Liability coverage is afforded on General Liability policy. Excess Policies are Follow Form in regards to Auto Liability, General Liability, and Employers Liability. Workers Compensation provides Blanket Alternate Employer as allowed by state.

CERTIFICATE HOLDER

City of Glendale
5850 West Glendale Avenue Suite 317
Glendale AZ 85301
United States

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE
Nicole Bass

POLICY NUMBER: TC2J-GLSA-9D895730-TIL-22

COMMERCIAL GENERAL LIABILITY
ISSUE DATE: 10-26-22

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US (WAIVER OF SUBROGATION)

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
ELECTRONIC DATA LIABILITY COVERAGE PART
LIQUOR LIABILITY COVERAGE PART
POLLUTION LIABILITY COVERAGE PART DESIGNATED SITES
POLLUTION LIABILITY LIMITED COVERAGE PART DESIGNATED SITES
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART
RAILROAD PROTECTIVE LIABILITY COVERAGE PART
UNDERGROUND STORAGE TANK POLICY DESIGNATED TANKS

SCHEDULE

Name Of Person(s) Or Organization(s):
Any person or organization that you have agreed in a written contract or agreement to waive your right of recovery against, but only for payments we make because of: 1. "Bodily injury" or "property damage" that occurs; or 2. "Personal and advertising injury" caused by an offense committed; subsequent to the signing of that contract or agreement.
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

The following is added to Paragraph 8. Transfer Of Rights Of Recovery Against Others To Us of Section IV – Conditions:

We waive any right of recovery against the person(s) or organization(s) shown in the Schedule above because of payments we make under this Coverage Part. Such waiver by us applies only to the extent that the insured has waived its right of recovery against such person(s) or organization(s) prior to loss. This endorsement applies only to the person(s) or organization(s) shown in the Schedule above.

Southern Tire Mart

www.stmtires.com

Southern Tire Mart, LLC (STM) is the largest independently owned and operated by James and Thomas Duff. Southern Tire Mart is a commercial tire dealer and retread manufacturer in the United States. Southern Tire Mart has been in business since 2003. In the past 19 years, we have expanded our business to operate fifteen Bandag manufacturing facilities, 100+ commercial service locations and have over 3,500 employees located in 15 states with annual sales exceeding $2,000,000,000.00. With our strategically located facilities, we can effectively service most, if not all, of your needs throughout the state.

Our employees provide customers with the most innovative and highest quality service in the industry. We make fleet maintenance simple through advanced technology, detailed reporting, and innovative communication. The staff is well trained and knowledgeable and will be able to aid customers with any service need 24 hours a day, seven days a week. We will always strive to meet our customer's budget needs, while consistently exceeding expectations.

The accolades mentioned below indicate STM's commitment to customer service in the transportation industry (commercial and government customers alike).

- 2021 Tire Dealer of the Year Award
- 2021, 2020, 2019, 2018, 2017, 2016, 2015, 2014 North American Commercial Tire Dealer (Top 10 dealers ranked by Modern Tire Dealer/Tire Business)
- 2021, 2020 2019, 2018, 2017, 2015 North American Retreader (Top 10 dealers ranked by Modern Tire dealer/Tire Business)

Several of our stores house a retreading facility, which incorporates the Bandag Retreading procedure. The Bandag Retreading process is highlighted below:

- Initial Inspection – the tire will be visually inspected and marked for visible defects followed by and electronic inspection to find all "through-the tire" penetrations in the crown and sidewall areas.
- Shearography- this step determines the condition of casing.
- Buffing plus zipper damage inspection- the casing will be inflated to operational pressure to remove the worn tread surface, truing for roundness, preparing the surface for a new tread.
- Repair – damages identified during the inspection of the tires will be repaired with structurally sound materials that will return the casing to a useful life.
- Tread Building and Cushion Extrusion – Bandag uses a one step process to extrude an uncured bonding layer for the new tread to adhere to. When the tread is applied, it is automatically centered on the casing, matching the end splices.

Southern Tire Mart

www.stmtires.com

- Curing – the uncured tire will be encased in an elastic envelope in preparation for curing. The enveloped tire will be cured in an autoclave-type device, applying heat and pressure over time, causing the bonding layer cure, permanently adhering the new tread to the prepared casing.
- Final Inspection – A visual, hands-on inspection from bead to bead, inside and out, is done by our skilled technicians to assure that the tire has been properly retreaded.

Bridgestone Bandag is the only Retread supplier that engineers, manufactures, and continuously supports its own line of equipment, available only to franchised dealers. Bandag equipment is designed to provide consistency of product, maximum efficiency, and safety. Bandag franchised dealers are required to utilize Bandag brand major equipment (Buffers, Builders, Chambers).

Equipment is supported throughout its life cycle by R&D and the Technical Services Group (Help desk call center & Field Technical Support Representative). Franchised dealers are provided Smart Resource funds generated from rubber purchases that are used to support equipment upgrades and other manufacturing enhancements to their retread facilities.

In contrast, Other Retread processes utilize equipment manufactured by third parties that provide limited support if any. No other Retread process has been able to duplicate this level of commitment to their franchised locations.

Thank you for allowing us the opportunity to submit our offer for the bid, and we welcome any questions you may have regarding the same.

Best Regards,

Richard Conwill
Director of Government Sales
Phone: 601-424-3215
Fax: 601-651-0655
Richard.conwill@stmtires.com

From:	RICHARD CONWILL
To:	KATIE REGAN
Cc:	EMERALD CHARLTON
Subject:	FW: [EXTERNAL SENDER]FW: [EXT] Fwd: 22-123 RFP.pdf
Date:	Wednesday, April 13, 2022 9:34:00 AM

From: DAN VONDERHAAR <Dan.Vonderhaar@stmtires.com>
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Thank you

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Get Outlook for iOS

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Government Sales
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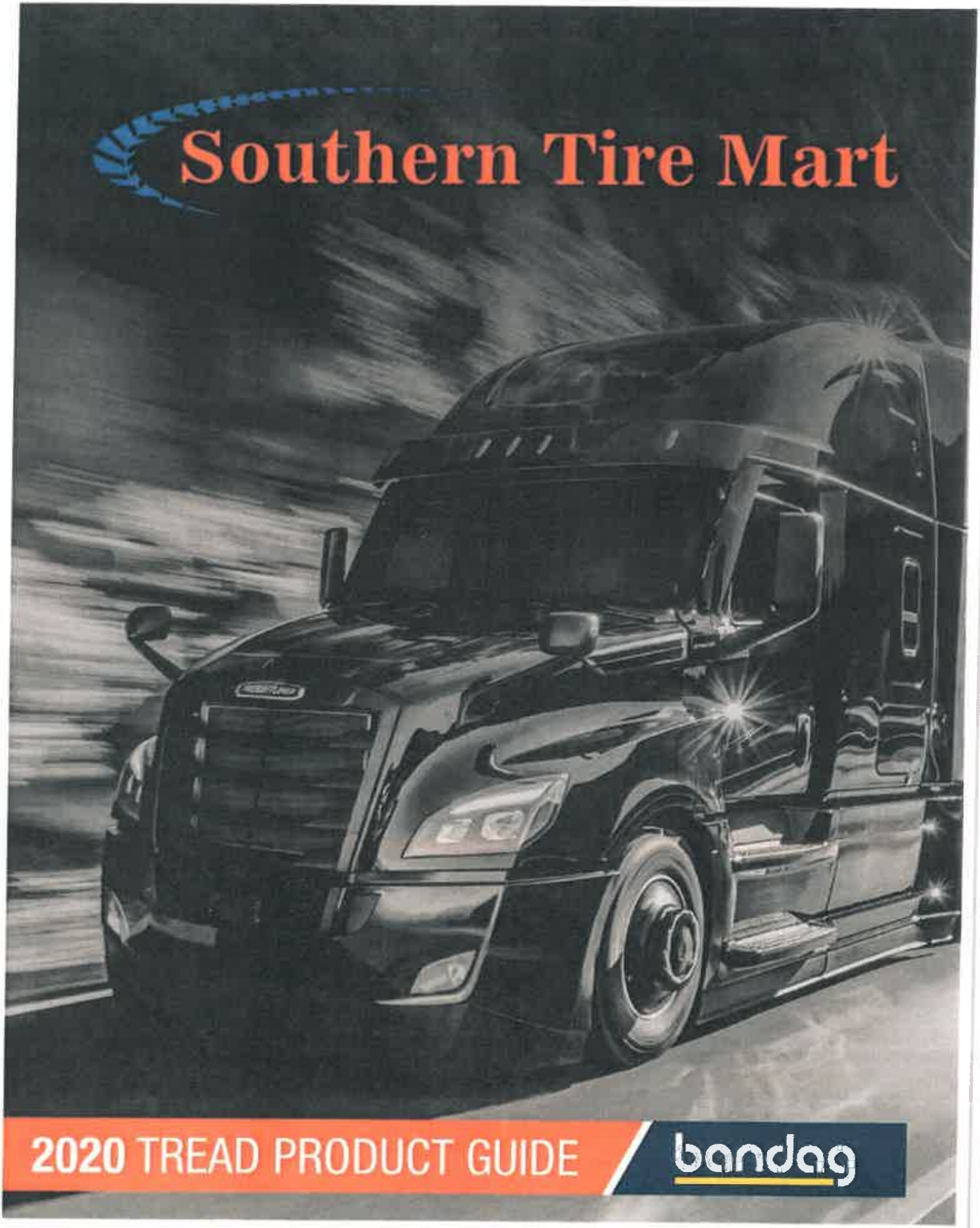
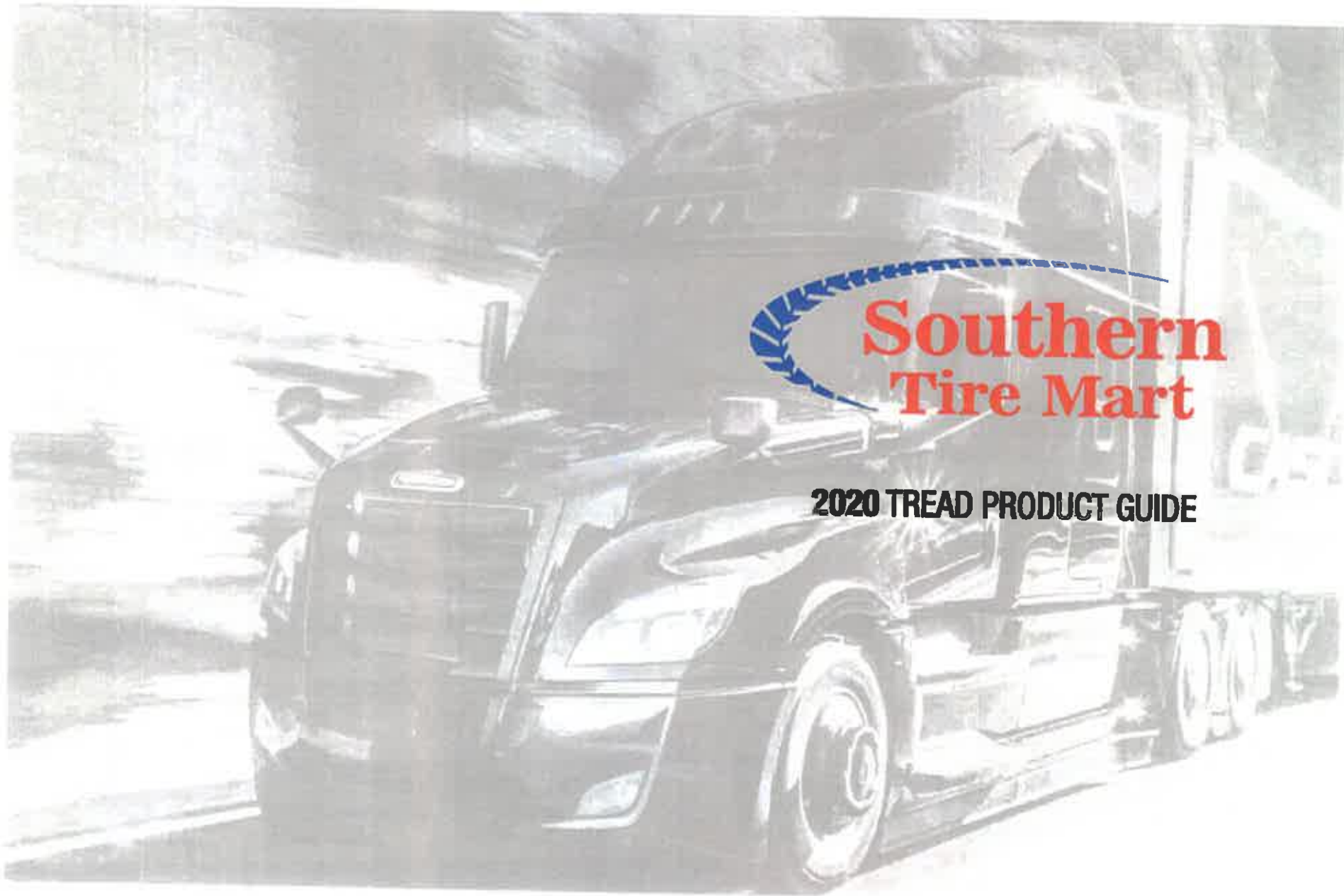
Southern Tire Mart



2020 TREAD PRODUCT GUIDE

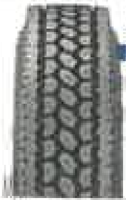
bandag



Southern Tire Mart

2020 TREAD PRODUCT GUIDE

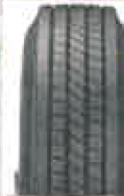
OVER-THE-ROAD // Drive

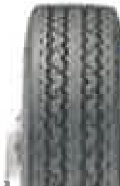


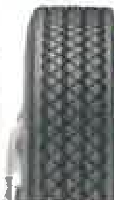
MAX TREAD

MAX TREAD

OVER-THE-ROAD // Trailer







MAX TREAD

WIDE BASE

LIGHT TRUCK

LIGHT TRUCK

This application is primarily delivery vans and trucks whose loads vary from a few products to even stick freight. Most applications operate on reasonably paved highway conditions.

ON/OFF ROAD // Severe Service

For pickup and delivery industries. Molded from a revolutionary rubber compound that provides significant improvement in wear.

A progressive compound and advanced design improve wear life and durability. Combined with improved tread toughness, BRM3™ delivers more performance for refuse applications.

Open shoulder design promotes soft surface traction. Block sipes help promote wet traction. Stone injector pockets prevent trapped stones from pushing deeper into tread grooves and puncturing belt layer.

Designed to exceed wear life in highway tractors while also travel off-road. Flexible shoulder transition through multi-rib tread grooves to assist with cornering and stability. Engineered to resist cutting and chipping in rock and off-road environments.

PICKUP & DELIVERY // Drive

Designed for a wide range of applications. Tire have stabilizer shoulders for quick, uniform wear. Open lug design deliver all-road traction

A proven tractor tread designed to provide adequate tread depth for drive lines on Class 8 tractors ready to be loaded.

Designed specifically for severe duty that require long tread wear, strong outstanding traction and solid shoulders to withstand punishing corners and curbs.

Offers traction and longevity for a variety of applications, including light on/off highway, a good choice for dependable performance and long-term value.

ON/OFF ROAD // Drive

For both the mining and construction industries. Molded from a revolutionary rubber compound that provides significant improvement in wear.

ON/OFF ROAD // Trailer

Ideal for on/off road and heavy load applications or multi-axle trucks. Handles the tortuous routes of tough applications.

Southern Tire Mart

bandag

TO CONTACT SOUTHERN TIRE MART 24-HOUR CUSTOMER SUPPORT, CALL 877.STM.TIRE OR VISIT STMTIRES.COM

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Government Sales
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BRM3™ Mixed Service All-Position Design

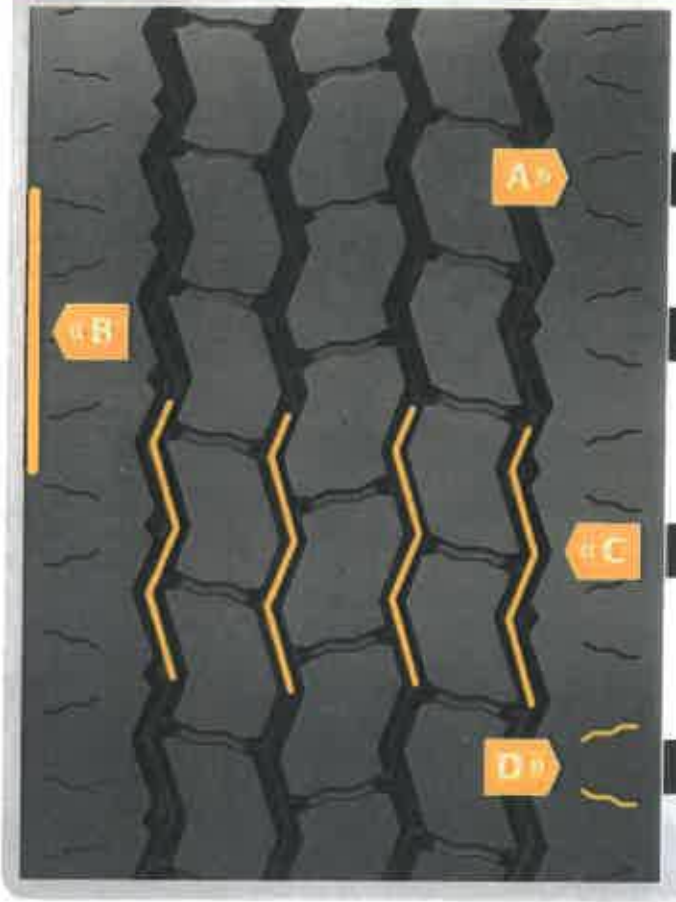
Ideal for refuse fleets striving to lower their tire cost per mile through long wear and durability.

Improved Traction • 26/32" Tread Depth • Long Wear Life

TOUGH JUST GOT TOUGHER

A proprietary compound and advanced design in next generation BRM3 improves wear life and durability over predecessor Bandag BRM2™ tread product. Combined with improved wet traction, BRM3 delivers more performance for refuse applications.

BRM3™ DESIGN BENEFITS



A **Proprietary, High Scrub Resistant Compound**
Contributes to long service life.

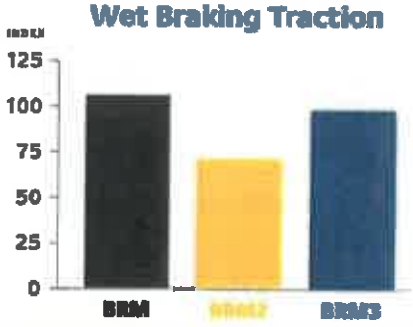
B **Robust Shoulders**
Help resist damage caused by frequent twisting and turning often found in refuse applications.

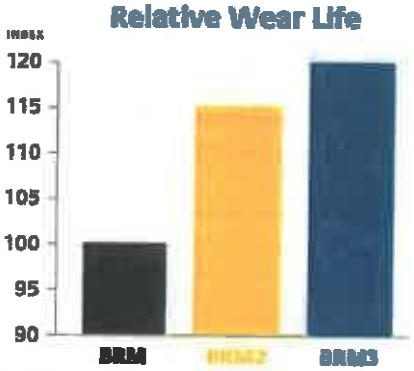
C **High Center Void**
Enhances stopping traction on wet roads

D **Shoulder Sipes**
Contribute to a strong grip on wet roads

TREAD WEAR AND WET TRACTION IMPROVEMENT

A high center void in the BRM3 pattern design improves wet traction performance while advanced compounding extends wear life, as compared to BRM2.





Maximize your casing returns with Bandag. Bandag retreads deliver strong performance, real cost savings and an eco-friendlier way forward by recycling your valuable casing assets.

For more information about Bandag retreads, please visit bandag.com.

Procedures =
Receiving tires, After the tire is dismounted from the rim, the interior is vacuumed to remove all water and contaminants

- With this, starts the retread process

Initial Inspection =

- A thorough visual inspection is made inside and out
- All previously installed non -Bandag and service repairs are removed
- The operator determines whether or not the tire is retreadable.
- Nail Hole Detector = utilizing an electrical spark, the NDT finds hidden nail holes.

Shearographic Inspection =

The model 7450 insight casing analyzer utilizes shearographic technology to locate separation in the casing.

- Using lasers, the casing is optically dissected while a camera captures the images.

Buffing =

- The worn tread design is removed, along with an appropriate amount of under tread, leaving a proper texture surface.
- At the same time, the tire is trued and shaped to accept the optimum tread.
- The buffing process ensures a smooth running tire with maximum bond for a high durable tire.

Fill Skives =

- All skives are filled with rubber to restore the shape and integrity of the tire.

Install Nail Hole Repairs =

- After the inspection is completed, all nail hole repair are made.
- Highly trained specialist, using the correct tools and following approved techniques, install Bandag Nail hole material.

Major Repairs =

- Highly trained specialist, using the correct tools and following the approved techniques, install quality Bandag Repair materials
- All these elements combined can return the tire to useful service without loss of reliability/durability.

Cushion Extruder =

- Uncured rubber is fed into the extruder where it is warmed up.
- After being warmed, a thin layer of this rubber is extruded onto the buffed casing.
- This thin layer fills skives and is the bonding agent between tread and casing.

Apply Tread =

- With the aid of automation, tread is applied straight and true on the tire.
- The tire has now been completely restored: all that was removed has been replaced.

Envelope Tire =

- The envelope will provide an airtight seal between the casing exterior and chambers pressure. It also helps enhance the appearance of the tire.
- The correct cure system hardware is installed, which seals the tire in the envelope.

Load Chamber =

- Tires are loaded, largest in back, progressing to smallest in front. The door is closed and sealed.
- The three elements of cure (time, pressure and temperature) are set and continuously monitored.
- A pressure differential inside each envelope during the cure helps to provide uniform pressure across the entire tread. This minimizes tread distortion and enhances tire durability and appearance.

Final Inspection =

- After curing, a thorough visual inspection is made, inside and out, of each tire
- All repairs are checked to make sure they are tightly bound.
- Finally, the operator determines whether or not the tire is serviceable.
- With this, the tire finishes the retread process.

Prepare tire for Delivery =

All Labeling and identification is applied to meet Bandag and customer requirements.

Truck Tire Retreading

A guide for fleet owners, managers, and specifiers.

Foreword by Bandag Incorporated

Index

Price $10.50

Introduction

Everyone knows that a company must control costs to be profitable. Yet, every day, companies fail because they simply "can't afford to keep the doors open any longer."

Obviously, in today's competitive marketplace, effective cost management isn't just a sound business practice. It's critical to financial survival.

Which is why, as a fleet owner or manager, you should know more about truck tire retreading. Because through retreading, you can minimize your fleet's overall tire costs and get the most from your tire investment.

In fact, if you're not using retreads, you're losing money. Because only through retreading can you achieve the *lowest cost per mile* for your tire program.

Bandag has developed this booklet for your convenience as a single source of information on retreading to help you find new ways to reduce your fleet's tire costs and improve your company's bottom line.

Inside, you'll find a brief history of tires and retreading, and you'll learn why almost all commercial fleets are now recycling their casings.

You'll also find handy reference sections dealing with tire construction details, tire/tread design selection criteria and proper tire maintenance practices.

There is also a close-up look at the retreading process to demonstrate that retread performance is not only related to the kind of new tire you start with, but also to the materials, designs and techniques that go into the retread itself.

And, in a final section, we'll show you how the support of the Total Tire System™ can help you extend the life of your casings to provide the best tires for the money — at the lowest cost per mile.

That, in a nutshell, is what this booklet contains. We hope you find it interesting for the story it tells, valuable for its reference material and practical as an everyday guide to effective tire cost management.

Tire and Retread History

The first truck tires were solid rubber. Solid rubber had its drawbacks, not the least of which was a rough ride that took its toll on equipment and riders. And anything faster than 10 or 15 mph would cause the thick rubber mass to overheat and fail.

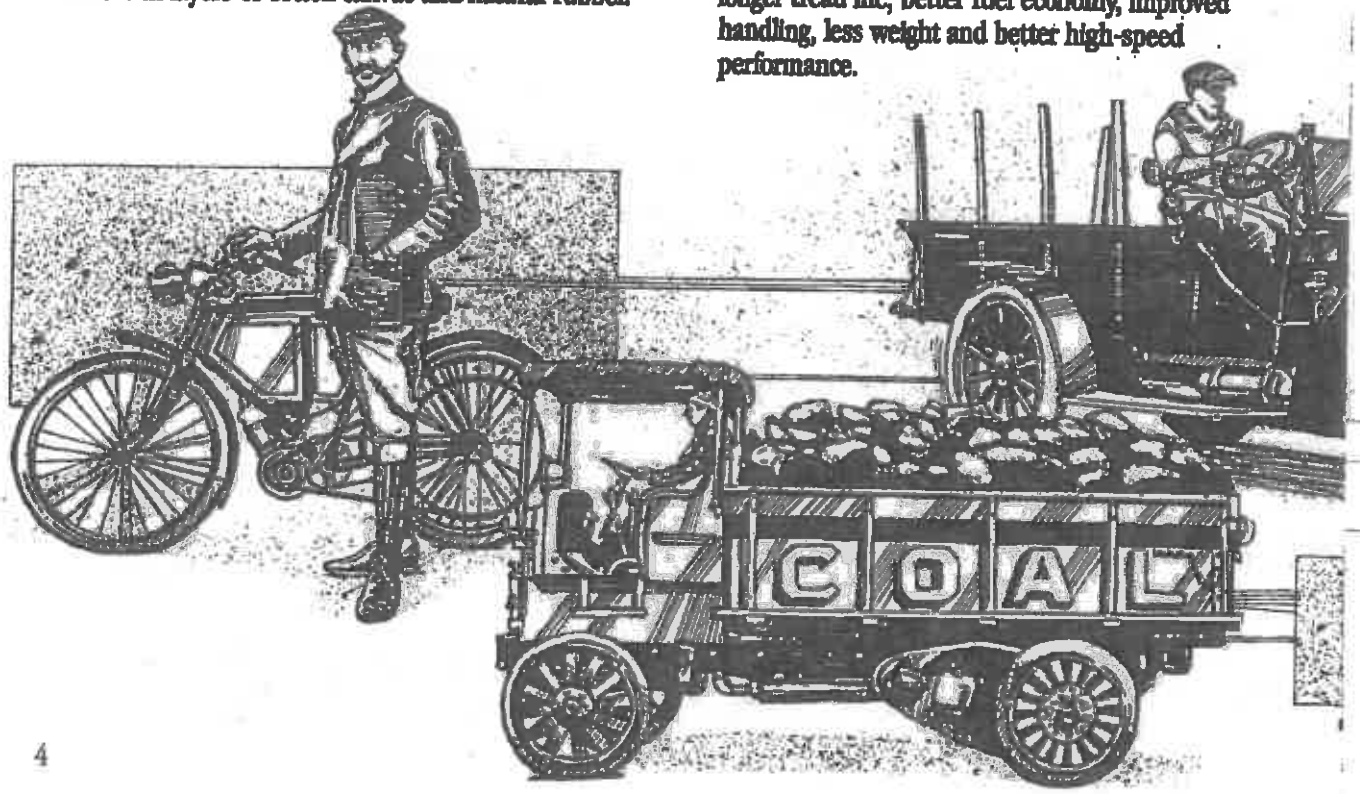
Help came when the pneumatic tire was invented in 1845. However, this new tire didn't see commercial use until John Dunlop put them on bicycles in 1888. And although the first automobiles used them, early pneumatic tires couldn't handle the load requirements of a heavy truck. Finally, in the early 20's, the invention of "high pressure pneumatics" allowed heavy trucks to convert to the "high speed," easy-riding pneumatic tires.

Pneumatic tires were actually a driving force in the evolution of the truck. Higher speed capability required more powerful trucks. Dual tires and tandem axles were developed to handle higher load capacities. In turn, better tires and trucks triggered the rapid development of the trucking industry.

The first pneumatic tires were canvas ply tires, built with layers of cotton canvas and natural rubber. Cotton cord then became popular and was the material of choice until World War II. Today's ply ratings reflect this cotton cord tradition — a 12 ply rated tire is a tire with strength equivalent to a 12 cotton ply tire. Rayon took the place of cotton, and nylon cord tires soon followed. Today steel is one of the more common tire cords.

In 1956, the first of three modern-day tire revolutions began when the tubeless tire came on the scene. This was followed in the 70's by the second tire revolution: radial tires. Radials were not a new concept — the first patent on radial tire design was awarded in 1913! Radials first gained acceptance in Europe, but it took an energy crisis to bring them overseas to the U.S. and Canada. Escalating fuel prices — and the need for better performance — made energy-saving radials necessary.

Tire evolution is continuing, and we are now in the midst of the third tire revolution. Tires are becoming lower and wider (low profile). This development takes radial advantages even further with longer tread life, better fuel economy, improved handling, less weight and better high-speed performance.



As you can see, a lot of engineering expertise has gone into the development of today's tires. Now let's look at retread evolution.

In 1915, the Gates Rubber Company strapped leather onto some worn out tires. These new "treads" gave tire owners a way to get longer tire life and more miles for their money. Retreading was born. The same principal — getting the most for your money — is behind retreading today.

A few years later, molds were invented to cure raw rubber onto an old casing. Tires were scraped down by hand, cement added, and new rubber was fixed in place. The casing was placed in a metal mold and cured over a charcoal fire. The process was slow — only one-third of a casing could be retreaded at once. Full-circle molding was developed about 1925.

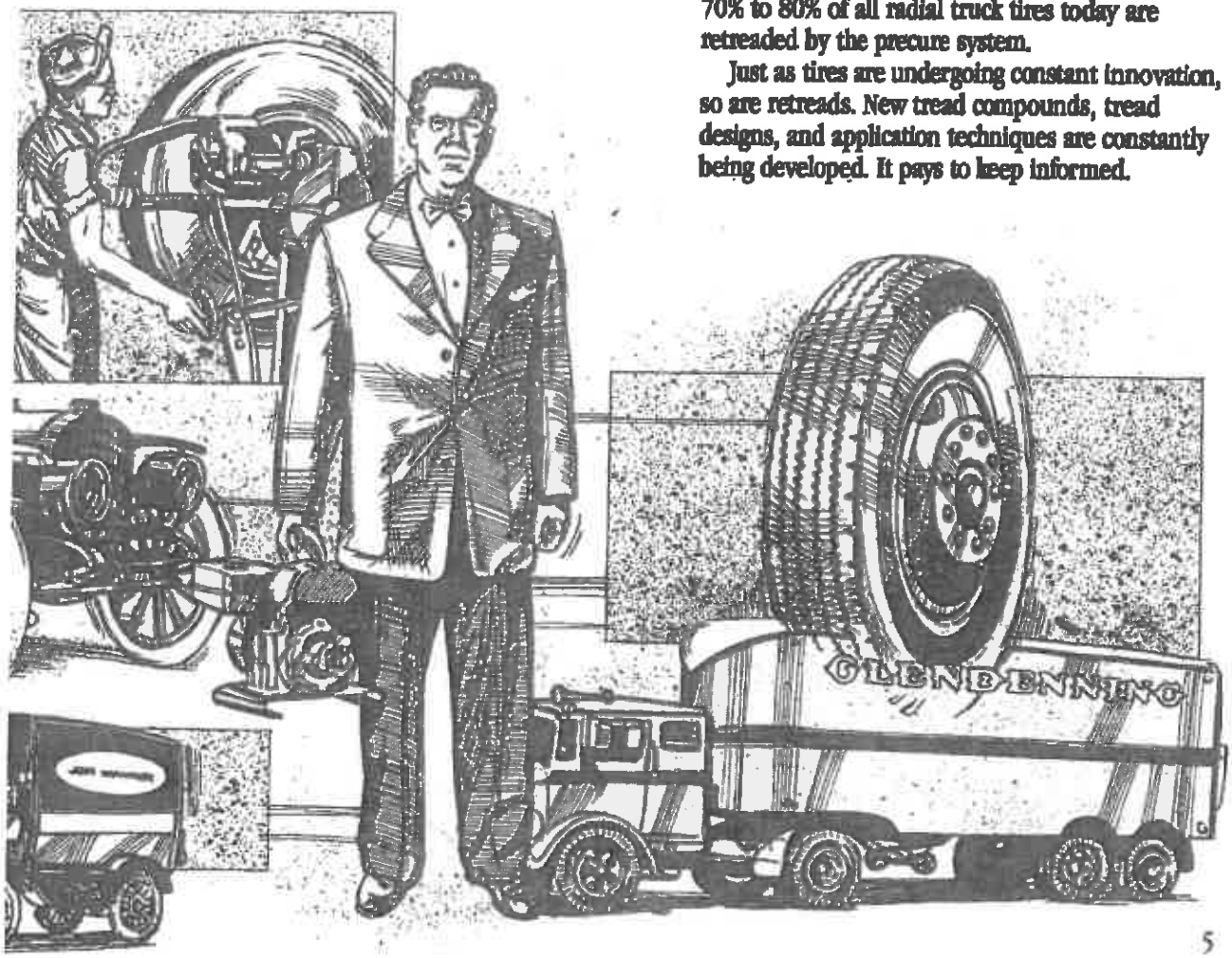
In 1957, an Iowa businessman, Roy Carver, discovered a new type of retread being built by a small shop in Germany. The new retread was "precured." The tread was molded separately from the casing during a manufacturing process. This precured tread could then be applied and bonded to casings later at a different location and at lower temperatures.

Carver brought this new retreading system to the U.S., improved it, named his company "Bandag," and a new era began.

Factory molding of tread has advantages because powerful presses and uniform heat can be used. This assures a very dense tread and consistency throughout the curing process, which means consistent performance. And it greatly reduces the heat the casing is exposed to — heat is a factor in premature tire failure.

One of the refinements Bandag made in the precure process was the development of the flexible curing envelope. This allowed the casing to be fitted with precured tread while it was in a relaxed position — eliminating the distortion necessary to conform to a rigid mold. This invention proved to be fortuitous. When radials came on the scene with steel belts that would not deform, the flexible precure system was perfect for retreading them. For that reason, 70% to 80% of all radial truck tires today are retreaded by the precure system.

Just as tires are undergoing constant innovation, so are retreads. New tread compounds, tread designs, and application techniques are constantly being developed. It pays to keep informed.



Why Retreads?

The reason for retreads is simple: money. Retreads save a lot of money, because retreading a worn tire costs far less than buying a new one.

On a fleet basis, the use of retreads can substantially reduce overall tire costs. And that can make a big difference on the bottom line. That's why almost all major commercial fleets today use retreads. And why there is at least one retread on the road for every new truck tire.

How much money can you save by specifying retreads? That amount depends on the unique characteristics of your fleet. But one thing is certain: if you aren't specifying retreads for your fleet, you're throwing away most of your new tire investment. Because when you discard a casing before its full life cycle is realized, it's like throwing away two, three, or even more tires.

When you think about it, it doesn't make much sense to spend $200 or more for a truck tire, wear off about 15% to 18% of it and throw the rest away. Not when more than 80% of your investment is still intact and is as good as new (maybe even better than new, as we shall see).

As good as new.

You may have heard that retreads aren't as safe as new tires. This old wive's tale got its start before the second World War. Then, when retreads were first being developed, some poor quality products gave inferior performance.

Today's quality retread is a different story. Retread dependability has been on a par with new tires for many years. In fact, today's retreads often have a better safety record than new tires.

Retreads are so reliable, they are used extensively by airlines.

Retreads are so dependable, all major airlines use them, and you can imagine the stress airplane tires receive during landing and takeoff. Many of those tires have been retreaded 8 to 10 times! Even high-tech, sophisticated jet fighters like the F-16 use retreads.

If that sounds incredible, consider a test performed for the Department of Transportation by the University of Michigan. This test compared the burst strengths of new truck tires against worn truck tire casings. The new tire casings averaged 511 psi before bursting. The worn tires averaged 526 psi. The worn tires were actually stronger! The reason? Loads placed on tire plies over their original life tend to equalize while running, actually improving strength as the tire wears.

A worn tire is a proven tire. If there is a weakness in a new tire, it invariably shows up early in the tire's first life. By the time it has run its original tread life, you know you have a good casing — one that could be retreaded once, twice, or even more times.

Many of today's retreads are outperforming the original new tire in wear, efficiency, and traction. So specify them with confidence.

And far more flexible..

Today, there are literally hundreds of tread designs and sizes available for retreads. There are treads specifically designed for almost any application — and new designs are being developed all the time.

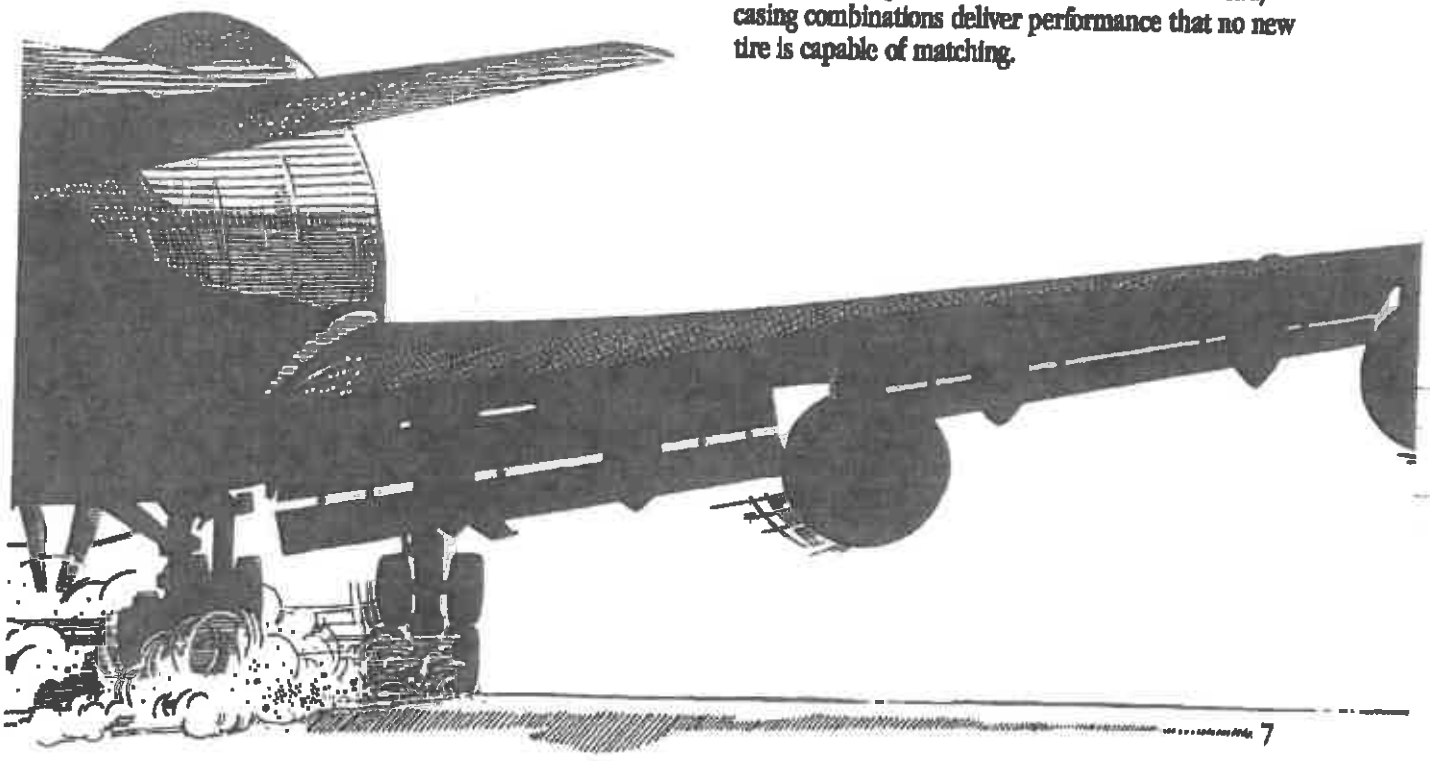
This tread variety enables fleet managers to have a far more flexible tire program than is possible using new tires alone.

For instance, you may find that a radial tire would have delivered better performance if a lighter weight tread had been used. Instead of buying a new tire, it's quite simple to specify a new tread design for the original casing.

In this way, it's possible to adapt your existing casings to meet your fleet's present and future requirements. Thus, you can enjoy the benefits of different tread designs without having to buy a warehouse full of new tires.

You can also avoid situations where, for example, you might be forced to use a linehaul new tire in a waste hauling application.

And you might even discover that certain tread/casing combinations deliver performance that no new tire is capable of matching.



Cutting life cycle cost.

A few figures tell the story. In the following example, the benefits of retreading are shown with a typical over-the-road fleet (11R22.5 tires). The chart below compares the life cycle costs of 100 tires, with and without retreading.

Allowances are made for the loss of tires that cannot be retreaded or sold for casing credit. You'll note that in the linehaul application, the retreaded tires give more miles than the original tires — not uncommon with quality retreads.

As the chart shows, retreading delivers more miles for the money. The linehaul fleet without retreading only gets 20,000,000 miles from its 100 new tires. Its net cost was $23,500 after it received an 80 casing credit. However, retreading those 80 casings and then retreading 40 of them again gave 44,000,000 miles from those original tires at a cost of $40,900.

To get the same mileage without retreading would cost $51,920, or 27% more! For easy comparison, these figures have been divided to achieve cost per tire mile, from which ultimate savings with retreading can be found.

Buying cheaper tires will not necessarily narrow the gap between a retreading and non-retreading program. Cheaper tires deliver less mileage, which drives cost per tire mile up again. What's more — and this is not shown on the chart — cheap tires have other costs such as extra mounting and demounting, labor, downtime and other factors. With new tires, you get what you pay for, as we will see in the next chapter.

As you can see, because the life cycle cost is lower, retreading can deliver some dramatic savings. And this is savings with no strings attached. With a quality retread, there is no loss in performance from the original tire.

In the final analysis, you owe it to your business to start a retreading program.

TYPICAL OVER-THE-ROAD FLEET

11R22.5 RADIAL TIRES	TIRES	PRICE	TOTAL COST	AVERAGE MILEAGE	TOTAL MILEAGE	COST PER MILE
Without retreading						
NEW	100	$295	$29,500	200,000	20,000,000	.148¢
CASING CREDIT	80	($75)	($6,000)	—	—	—
TOTAL			**$23,500**		**20,000,000**	**.118¢**
With retreading						
NEW	100	$295	$29,500	200,000	20,000,000	.148¢
RETREAD #1	80	$ 95	$ 7,600	200,000	16,000,000	.048¢
RETREAD #2	40	$ 95	$ 3,800	200,000	8,000,000	.048¢
TOTAL			**$40,900**		**44,000,000**	**.093¢**

100 VEHICLE FLEET

16 TIRE/COMBINATION (TRACTOR AND TRAILER)
100,000 MILES/YEAR/VEHICLE

COST PER MILE DIFFERENCE:	.025¢	(.00118 — .00093)
SAVINGS PER VEHICLE PER YEAR:	$400	(.00025 × 16 × 100,000)
SAVINGS PER FLEET PER YEAR:	$40,000	(.00025 × 16 × 100,000 × 100)

Tire Types/Constructions

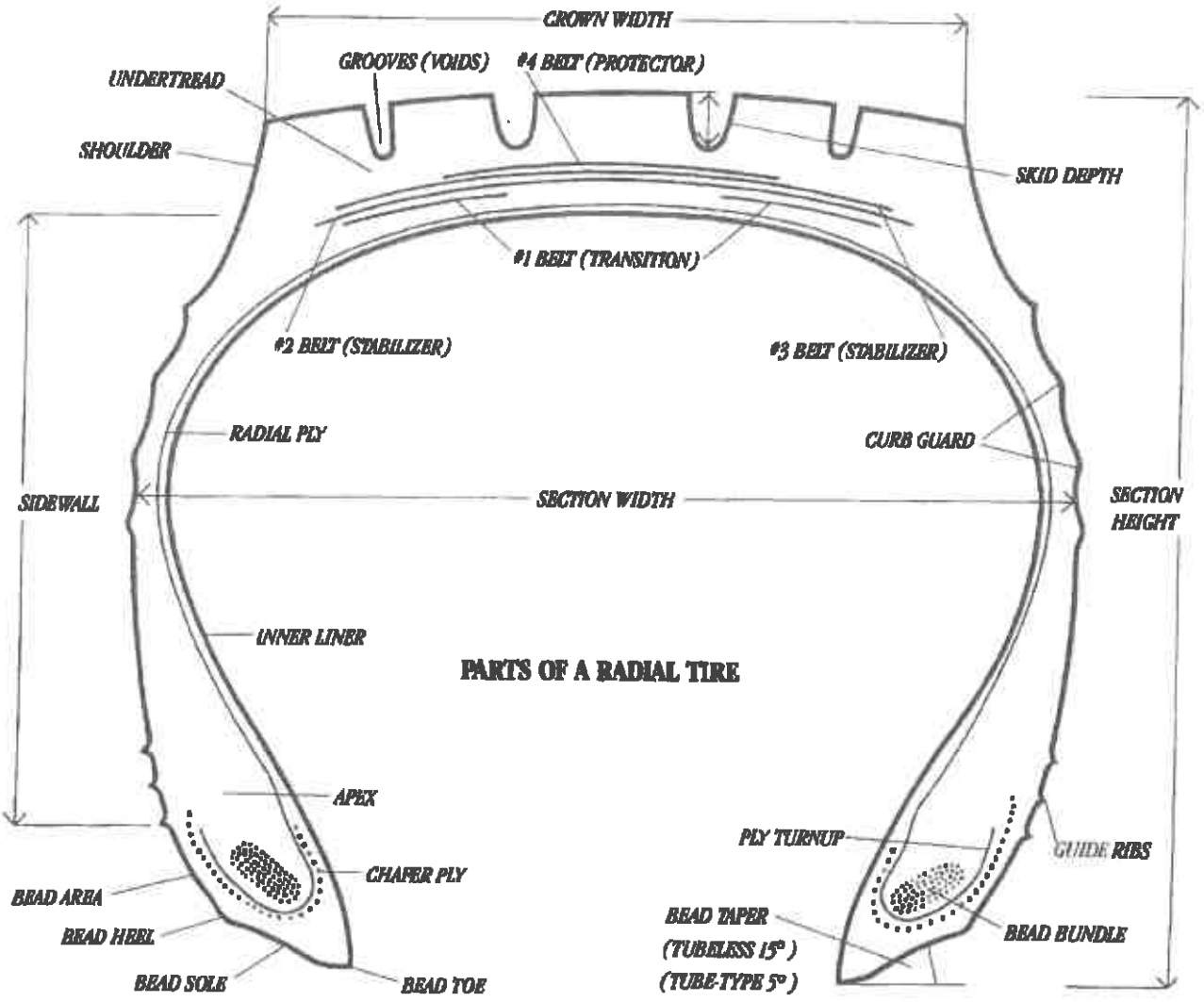
We take tires for granted, little appreciating the engineering marvel at work beneath our vehicle.

Here are some of the things we ask tires to do:

- Carry the load (actually, contain air which carries the load) and cushion bumps
- Provide necessary traction and braking force
- Supply cornering and road handling ability
- Give dimensional stability
- Consume minimum energy
- Run quietly, smoothly and safely
- Deliver tens of thousands of miles

If you're asking that much of a product you're buying, you should know a lot about it. What's more, the wise buying of new tires is at the heart of a good retreading program. Retreading cuts the need to buy new tires, but the ones that are bought should be quality products. A poorly made new tire will not only perform poorly during its original life, but also as a retread — if it makes it that far.

This chapter will help you become more knowledgeable about tire types and constructions.



PARTS OF A RADIAL TIRE

Tire types.

There are two basic types of truck tires today: tube-type and tubeless. Tube-type tires rely on a tube — a separate inner chamber — to contain compressed air. Tubeless tires have an integral inner liner that holds the air. There is no separate chamber.

Which is better? The tubeless tire has numerous advantages over the tube-type tire. Most of these advantages stem from a tubeless tire needing only two components, while a tube-type tire needs as many as six. And the tubeless tire can run with a bigger rim and lower profile than a tube-type tire.

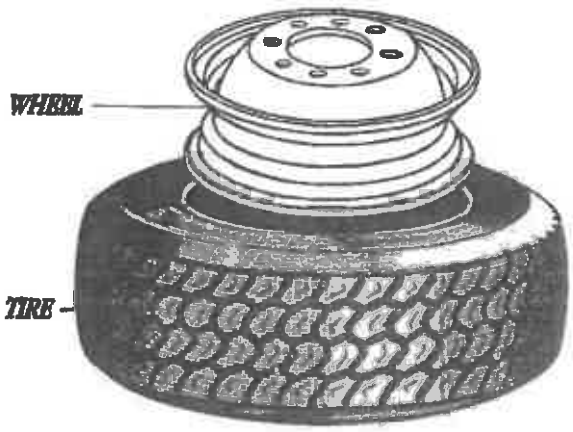
This adds up to easier mounting, less chance of failure due to mismatched components and reduced inventory and labor costs. It means a better balanced assembly that can give smoother riding and increased mileage. It means weight savings of several pounds per tire which reduces strain on the suspension, allows several hundred pounds more payload and creates less rolling resistance to save fuel. And, because tube-against-tire friction is eliminated and a bigger wheel with increased air flow is used, the tubeless tire runs cooler — improving mileage, economy and casing life.

What's more, there are less flats and downtime with a tubeless tire. The tubeless liner clings to penetrating objects to slow loss of air, and there is less chance of losing air around the valve on a tubeless tire.

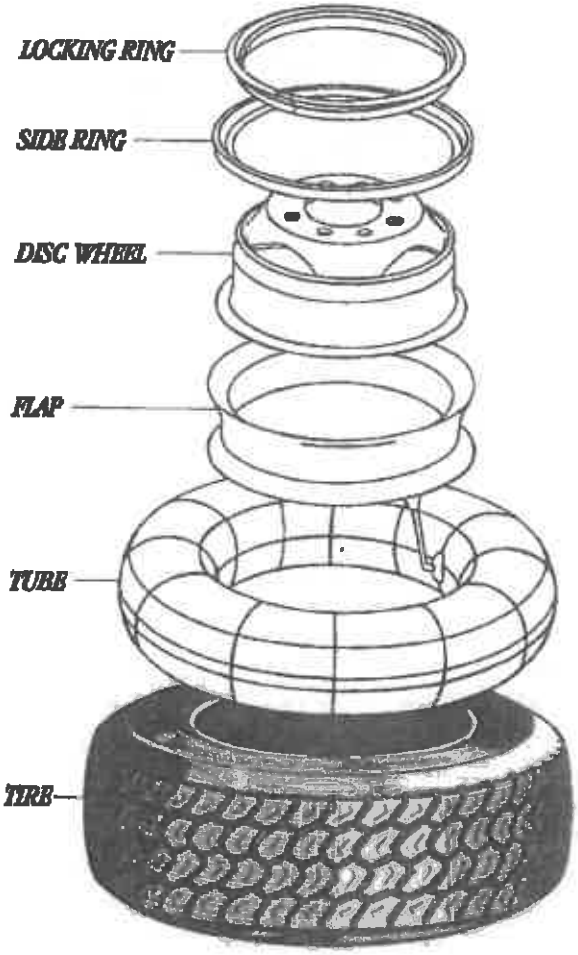
The lower profile also improves stability and road handling. No wonder the majority of truck tires sold today are tubeless.

TUBE-TYPE AND TUBELESS COMPONENTS

TUBELESS



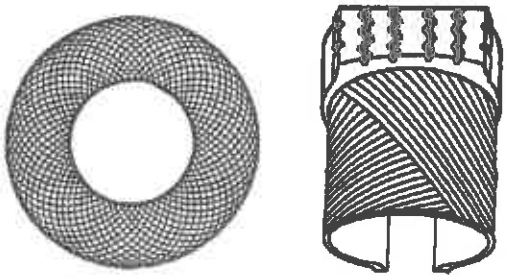
TUBE-TYPE



Tire constructions.

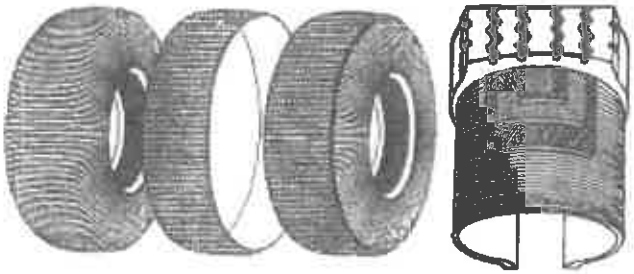
Today's truck tires are available in two basic constructions: bias and radial.

BIAS CONSTRUCTION



Bias body ply cords run diagonally from bead to bead—each layer criss-crossing the other. These tires may also have narrow belt-like plies, called breakers, which lie under the tread. These breakers have cords that lie diagonally to the bead.

RADIAL CONSTRUCTION

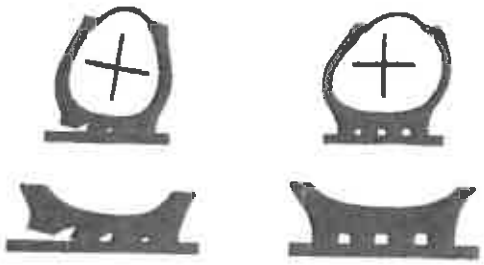


Radial body ply cords run straight across the tire from bead to bead. This construction permits easier flexing in the sidewall area. In addition, belt plies encircle the tire under the tread. These belts (there may be three or four) constrict the radial plies and add strength and rigidity.

Almost every major fleet today is on radial tires and for good reason. Radial construction gives a tire the best of two worlds: flexibility and strength. That combination generates a very impressive set of benefits:

- **Longer tread life.** Sidewall flexing allows the tread to hug the road while the belts keep it flat, reducing wear.
- **Improved fuel efficiency.** Easy-flexing radial plies put up less rolling resistance than stiffer bias plies.
- **Increased load.** Radial construction is stronger and can handle more load.
- **Less downtime.** Radial belts provide better protection against punctures for fewer flats.
- **Better performance, comfort.** Easy-flexing sidewalls and strong belts give road-hugging traction. Flexible sidewalls give a better ride.

BIAS VS. RADIAL FLEXING



The stiffer sidewalls on a bias tire don't allow the tread to conform to the road surface which leads to increased wear. Flexible radial sidewalls free the tread to stay flat on the road and give better mileage.

As important as these benefits are, perhaps the most important one economically is that radial casings give longer casing life. Radial plies generate less heat than bias plies, and heat can shorten tire life. Therefore a radial casing gives more retread potential and ultimately more miles for the money than a bias tire.

Tire materials.

Both bias and radial tires will have body plies and breakers or belts made of polyester, rayon, nylon, fiberglass, steel, or aramid. Often a tire will have a combination of these materials.

Rubber ingredients are similar for both new tires and retreads. Some of these ingredients are:

- Rubber (natural and synthetic)
- Carbon black (for abrasion resistance)
- Zinc oxide, stearic acid, sulfur, accelerators (to promote rubber elasticity)
- Antiozonants and antioxidants (to slow aging)
- Process oil (for easier mixing)

While the basic rubber ingredients may be similar, the quality of these ingredients, and how they are compounded vary widely among tire and retread manufacturers. That is why there is such a wide variance in performance.

The best way to assure a quality product is to deal exclusively with reputable suppliers, whether you're purchasing new tires or specifying retreads.

Selecting the Right Tire

A tire must be matched to its application. Running a tire in an application for which it wasn't designed can shorten its life and reduce its retreading potential.

Finding the proper tire can be a tough job. There are over 4,000 different sizes, types, constructions and designs to choose from! The original equipment tires can be used as a guide, but often a vehicle is doing work that requires a different tire than the one it was equipped with.

Some of the things you must consider in selecting a tire which will deliver the best performance have already been discussed: **tire type** and **tire construction.** Other considerations are **tire size, casing strength, life cycle cost** and **tread design** which will be explored in this and the following chapter.

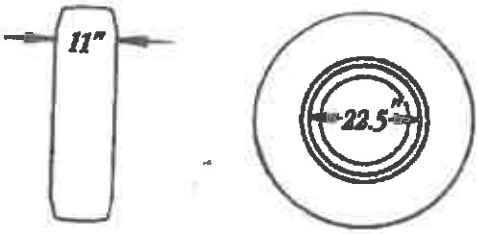
Tire size.

Truck tire sizes are indicated by a number molded into the sidewall. It is usually a two-part number giving the section width of the tire in inches followed by the rim or wheel diameter in inches.

TYPICAL SIZE DESIGNATION

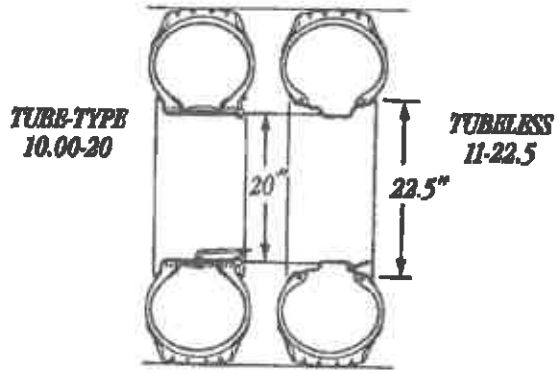
11 - 22.5

11 = section width in inches
22.5 = rim or wheel diameter in inches



Equivalent tube-type and tubeless tires will have different size designations. A 9.00-20 tube-type tire is equal to a 10-22.5 tubeless. A 10.00-22 tube-type is equal to an 11-24.5 tubeless. That's because a tubeless tire has a lower profile and a larger rim than a tube-type tire. The chart above right compares tube-type and tubeless tires.

DIFFERENCES IN WHEEL DIAMETERS



A rule of thumb for converting a tube-type size designation to a tubeless is to take the section width and remove all figures after the decimal point. Then add one (1) to the section width and two-point-five (2.5) to the rim diameter.

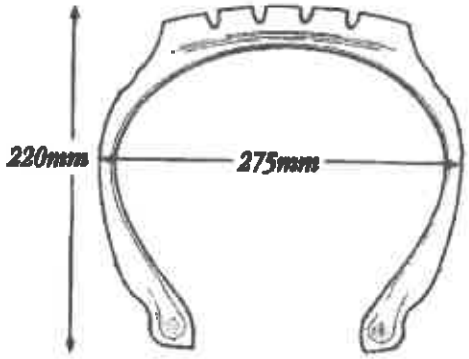
Low-profile markings are a different breed. Here a three-part designation is used. The first number is the cross section in millimeters, the second is the aspect ratio (see below). The third number is the rim size in inches.

LOW PROFILE SIZE DESIGNATION

275/80R24.5

275 = section width in mm
80 = aspect ratio
R = radial
24.5 = rim or wheel diameter in inches

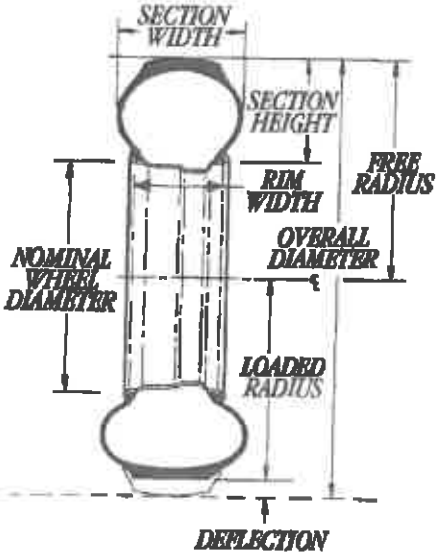
ASPECT RATIO



Aspect ratio is the ratio of tire height to width. In the example above, the tire height is 80% of its width for a low profile.

Size designations give basic information about tire dimensions. More comprehensive specifications can be obtained from the tire manufacturer. The illustration below shows some of the dimensions that may be of concern to you. You may also want to know the revolutions per mile and rolling circumference of the tire.

OTHER TIRE DIMENSIONS



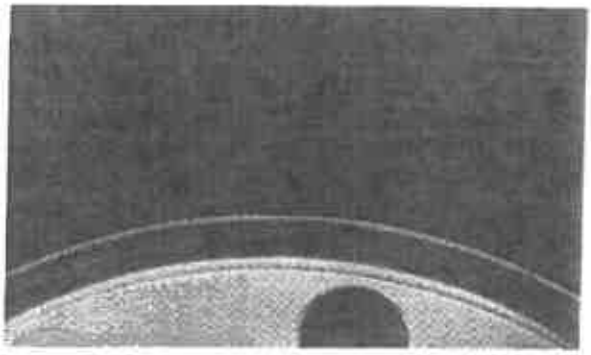
Casing strength.

The strength of a tire casing is expressed as ply rating or load range. A ply rating is given as a number (10, 12, 14, etc.) while load range is a letter (E, F, G, etc.). These designations give an indication of load carrying capacity — the higher the ply rating the more load the tire can carry. Actually, ply rating or load range relates to the tire's ability to hold air pressure and volume. It is the air that carries the load.

The load carrying ability of the tire varies with inflation pressure. The Rubber Manufacturers Association provides detailed load and inflation tables to aid in determining the load limits of a tire at various inflation pressures.

The load per tire must not exceed the capacity of the tire, rim, wheel or other vehicle components. The vehicle's capacity for load is given in its Gross Axle Weight Rating or Gross Vehicle Weight Rating. The tire load capacity is stamped on the sidewall of all truck tires manufactured after March, 1975.

TYPICAL LOAD DESIGNATION



An example of load information on a sidewall. This tire is rated for both dual and single use. The designation is the minimum inflation pressure required to carry the maximum load this tire can handle. It is also an indication of the maximum air pressure for the tire. It is not the pressure to run at all the time. With lighter loads, this tire would be overinflated at 100 psi.

One way to prevent tire overload is to weigh each axle or tire when the vehicle is fully loaded. If an axle is weighed, the number of tires on the axle are divided into the weight to determine load per tire. If the maximum load-carrying capacity of the tire is below the scale weight, tires with greater capacity should be used.

When selecting a different size tire than original equipment, be sure the rims are suited for it and the vehicle geometry will accept it. Other factors in selecting the right tire for the job include **speed, distance, traction, mileage** or **road conditions.** Consult your tire dealer for assistance.

Casing life cycle.

The life cycle of the tire casing is important to any tire selection. Tires are usually the second largest expense (fuel is first) in any fleet of trucks, so it is crucial to get the maximum life out of them before they are scrapped. It is the only way to get the best return on your investment.

And that means buying a tire with good retread potential. You're not just buying a tire, you're also buying a casing — which is 80% of the tire cost to begin with. A well-chosen quality tire will not only give excellent performance and safety in its original life, but also in its second and subsequent lives as a retread.

Another way to maximize casing life cycle is to deal with a supplier that has the most up-to-date technology for repairing, inspecting and retreading.

Selecting the Right Tread Design

Just as matching a new tire to an application is important, so is matching a retread design to an application. Most major retreaders carry a wide variety of tread designs. These designs can be categorized as over-the-road, off-the-road, light truck, or specialty. Over-the-road treads may be all-wheel-position, trailer, or drive treads.

Over-the-road treads.

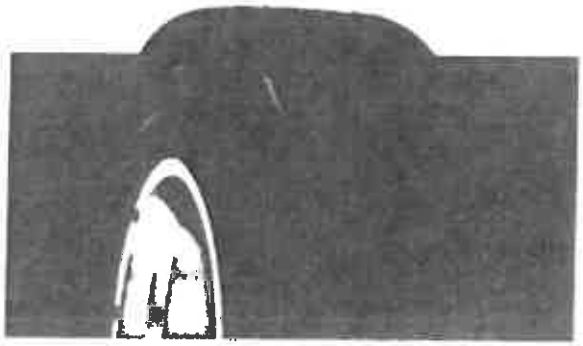
Built for highway use, these treads are designed to minimize the heat generated in a tire at high speeds over long distances.

All-wheel-position treads. These treads operate at any wheel position, including steering and drive axle positions. They are basically rib-type treads with tread grooves that provide maximum steering control (lateral traction), water channeling for wet road traction, and good skid resistance. All-wheel-position treads have patterns that are aggressive enough for drive axle use when maximum traction is not required.

Trailer treads. Built only for trailer use, these treads are usually lightweight and shallow to run cool and minimize irregular wear. They are rib-type treads which provide good stability, long mileage, and positive braking traction.

Drive treads. These treads are usually built with a rib-lug or lug-type design to provide greater traction and high mileage in high-torque service. Aggressiveness of the treads can vary greatly, and include all-weather treads and deep winter traction treads.

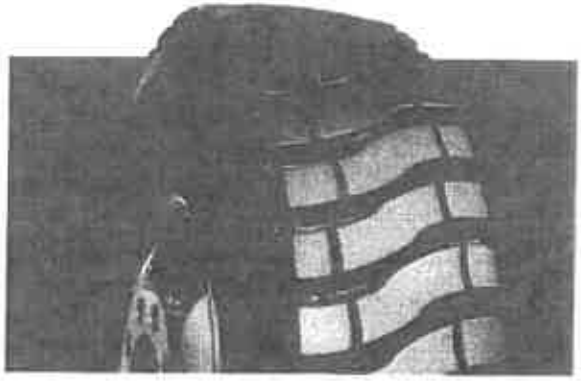
Specialty treads.



The designs of these treads run the gamut — from lightweight treads built to meet the needs of intermodal operations to massive lug treads designed to handle rocks. Wing treads are a recent addition to this category. They feature special shoulder extensions that provide extra strength along the bond line and give the finished retread a new tire appearance.

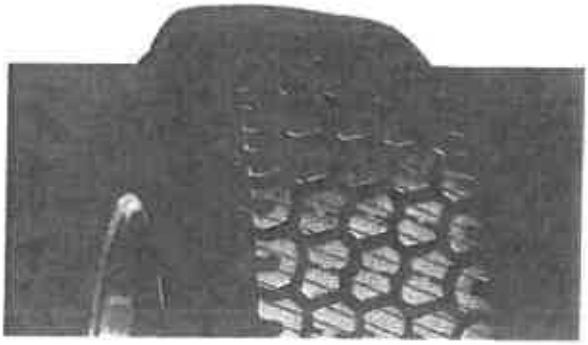
Available for either radial or bias tires, wing treads offer important performance advantages. They are often used, for example, on spread- and multi-axle trailers to prevent turning damage and extend the life of the retread.

Off-the-road treads.



Built to handle severe traction problems, these treads usually have very aggressive lug designs. They are heavy-duty treads built with very deep tread depths to ward off nails, glass, and other road hazards that might be encountered off the highway. Many of these treads are on-and-off-the-road treads — designed to handle severe off-the-road use, but also to handle short-haul, slow-speed highway use.

Light truck treads.



These treads are designed for light truck use — vehicles with tire rim diameters 17 inches or smaller. As with heavy trucks, a wide variety of tread designs give many combinations of traction and mileage options.

Fuel-efficient treads.

A new type of tread that has recently been introduced is a low-rolling resistance tread that saves fuel. Studies have shown the cost of tires and retreading is only one-quarter the cost of fuel. So even a small percentage improvement in fuel economy can have a major impact on costs.

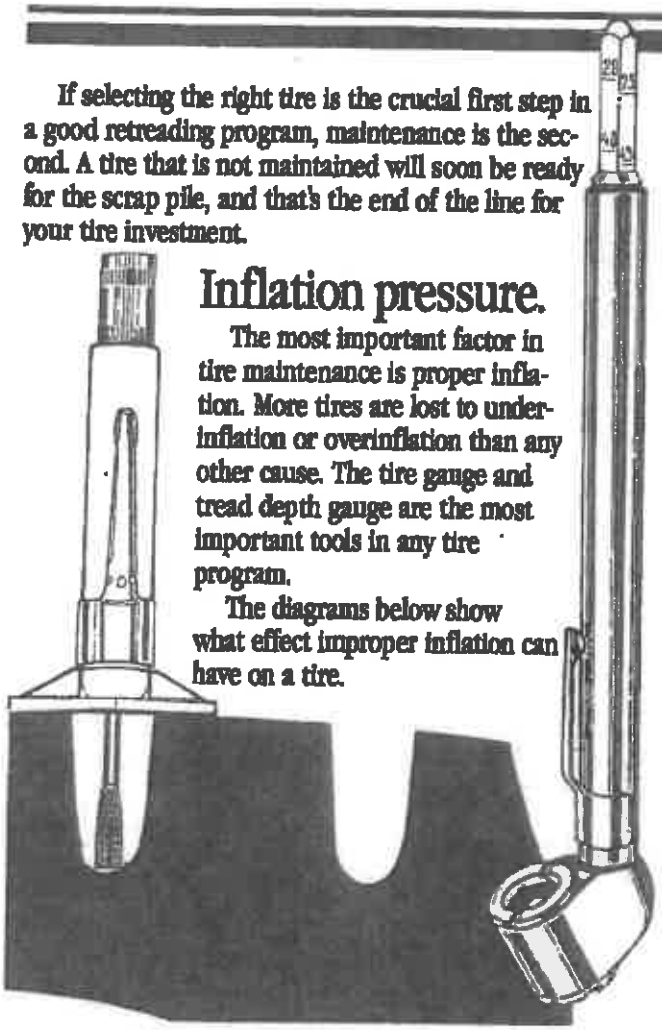
For that reason, you should definitely consider these treads. They are available in all-wheel-position, trailer and drive designs. Their efficiency is the highest when they are used with fuel-efficient tires.

Tread depth.

Besides tread design and characteristics, you should also be aware of tread depth (skid depth). The optimum tread depth varies by tire position and application — less-stressed trailer tires need less tread depth than a drive axle tire. An off-the-road tire, because of the hazards it may encounter, needs a deeper tread than a highway tire.

Preventive Maintenance.

If selecting the right tire is the crucial first step in a good retreading program, maintenance is the second. A tire that is not maintained will soon be ready for the scrap pile, and that's the end of the line for your tire investment.



Inflation pressure.

The most important factor in tire maintenance is proper inflation. More tires are lost to underinflation or overinflation than any other cause. The tire gauge and tread depth gauge are the most important tools in any tire program.

The diagrams below show what effect improper inflation can have on a tire.

The effect of overinflation.

Driving on tires that aren't properly inflated is unsafe, and can result in extensive tire damage. Let's first look at what overinflation can do to a tire.

When a tire is overinflated, it's more rigid. The more rigid the tire, the less able it is to absorb road shock, and the more vulnerable it is to road hazards that can lead to cuts, snags, punctures and body breaks.

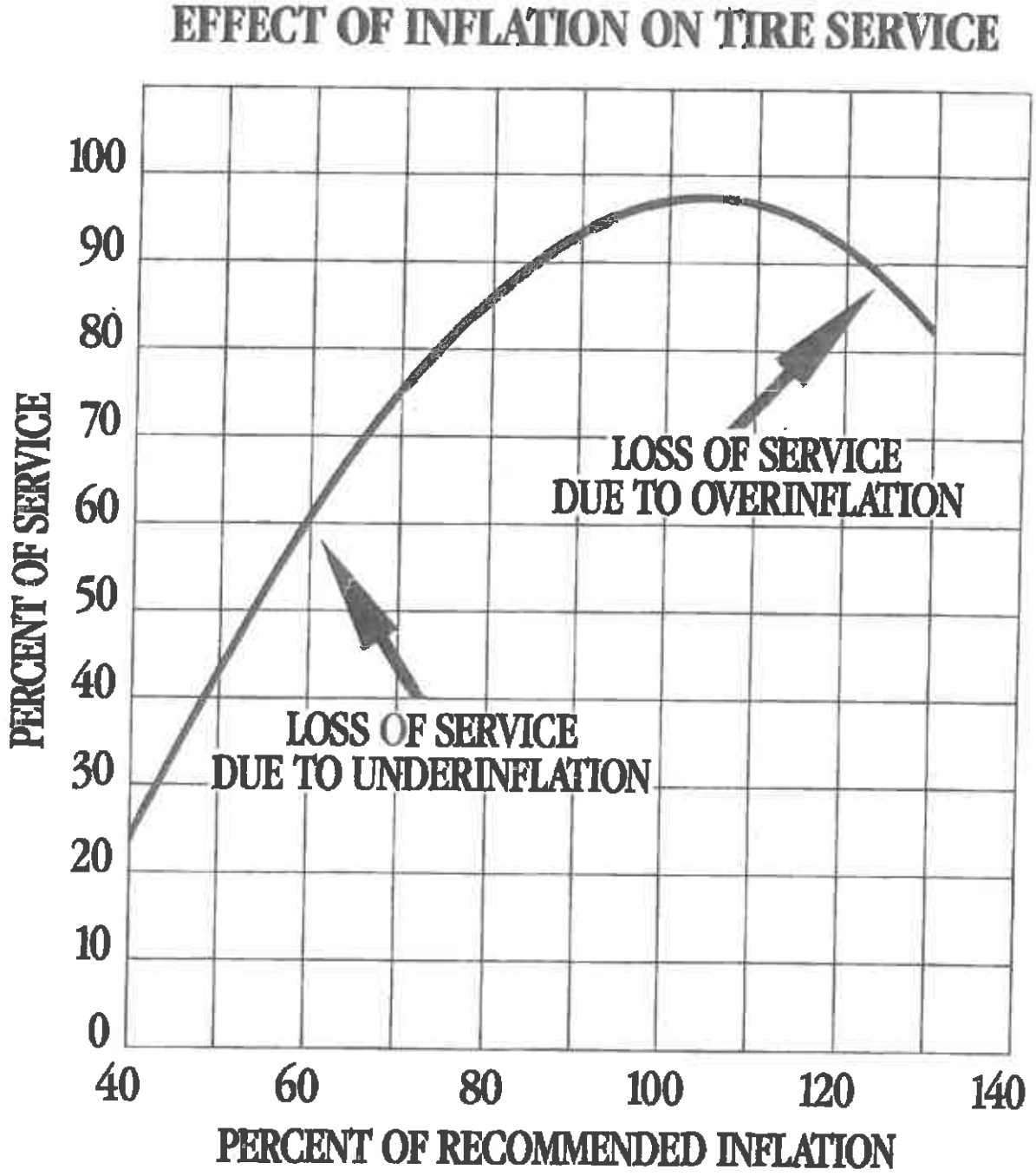
Overinflated tires also wear faster. Some truckers have experienced a 5% loss of tread mileage when running overinflated tires.

Many times, drivers overinflate tires on purpose, trying to compensate for overloading the vehicle. But the truth is no matter how much air you add to a tire, you'll never increase the tire's carrying capacity above the maximum rated load. The only way to effectively address the overloading issue is to use more tire, not more air.

The chart on the opposite page demonstrates the effect improper inflation has on tire service.

HOW INFLATION AFFECTS TREAD-TO-ROAD CONTACT

Both overinflation and underinflation reduce tread contact with the road. Proper inflation assures maximum contact.



The effect of underinflation.

While overinflation is serious, underinflation is especially hazardous. It is the most common condition because no tire or tube is completely impervious to air loss. Sooner or later, air will have to be added.

The reason underinflation is devastating to a tire is heat. Abnormal deflection of an underinflated tire causes friction within tire components which elevates temperature. Heat is the primary cause of premature tire failure, and it doesn't take much of an increase to make a difference in the life cycle of the tire. The chart on the next page demonstrates this.

HEAT VS. TIRE LIFE

TIRE OPERATING TEMPERATURE	ESTIMATED LIFE CYCLE	ESTIMATED MILES AT 55 MPH
175 F	3600 HOURS	198,000 MILES
200 F	1090 HOURS	60,000 MILES
250 F	130 HOURS	7,150 MILES
275 F	50 HOURS	2,750 MILES
300 F	10 HOURS	550 MILES

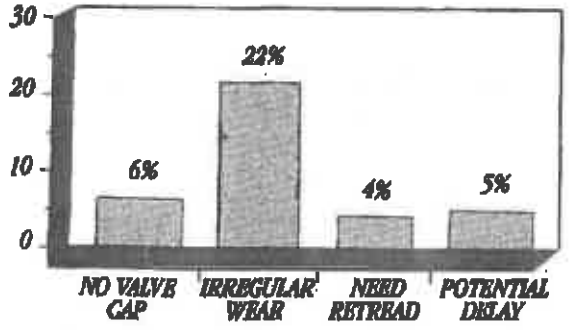
Once the correct pressure for the vehicle, load and speed is determined (use load and inflation tables in the RMA booklet) regular pressure checks should be carried out. Pressure should be checked at least once a week when tires are "cold," using an accurate pressure gauge.

Maintenance programs.

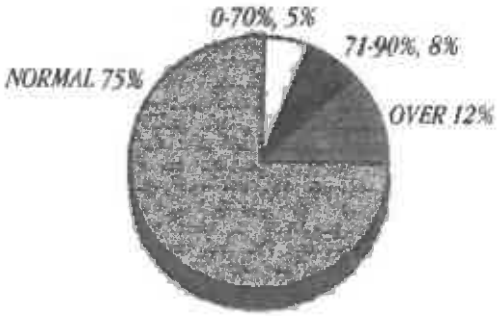
One of the best ways to begin a tire pressure maintenance program is to have a fleet survey done by your tire supplier. A thorough fleet survey will give you a wealth of information about your tires. It will give you a picture of conditions which need to be corrected to improve performance.

FLEET SURVEY ANALYSIS

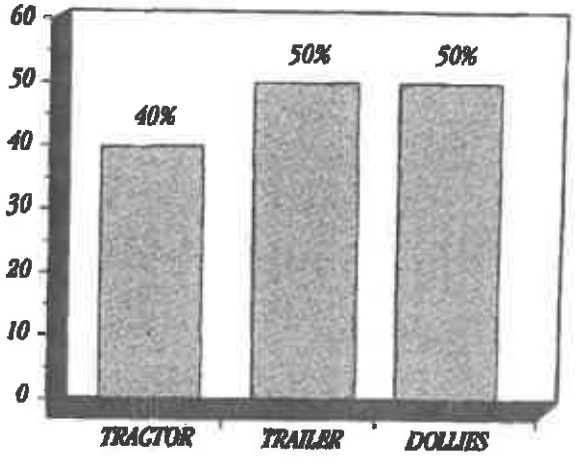
TIRE MAINTENANCE SUMMARY



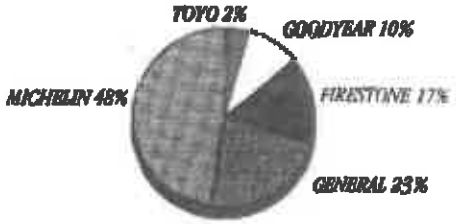
INFLATION SUMMARY



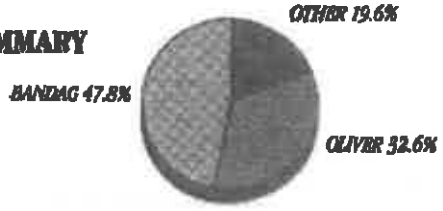
RETREAD USAGE SUMMARY



NEW TIRE USAGE SUMMARY



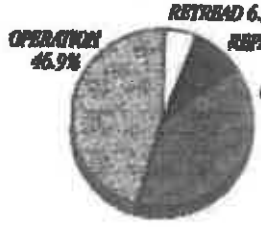
RETREAD USAGE SUMMARY



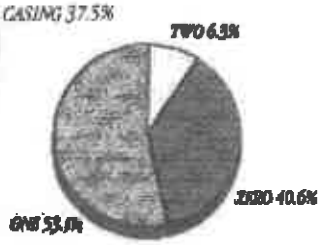
Additional valuable information can be obtained from a failed tire analysis, and a tire comparison test. The following graphs are examples of the kind of information that can be gleaned from this kind of research.

FAILED TIRE ANALYSIS

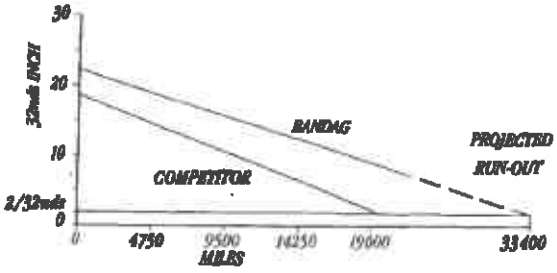
FAILURE AREA



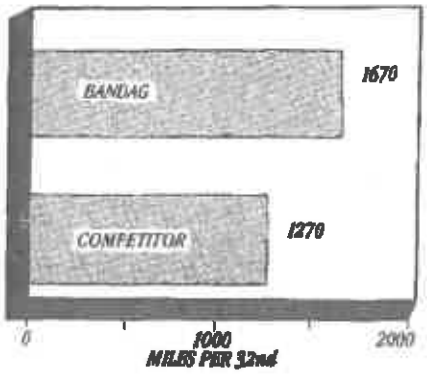
TIMES RETREADED



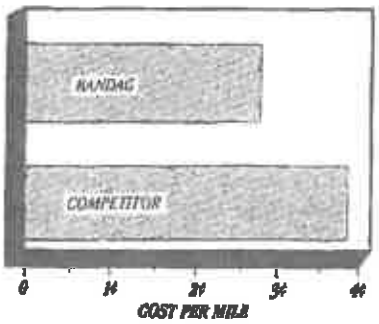
CHALLENGE TIRE TEST
MILEAGE GRAPH



MILEAGE COMPARISON



COST COMPARISON



Maintaining duals.

Tires mounted in duals must be matched so that the maximum difference between the diameters of the tires does not exceed ¼" or the circumferential difference exceed ¾." Mismatching will cause the tire with the larger diameter to carry a larger share of the load, resulting in overload and possible damage. The smaller tire, lacking proper road contact, wears faster and irregularly.

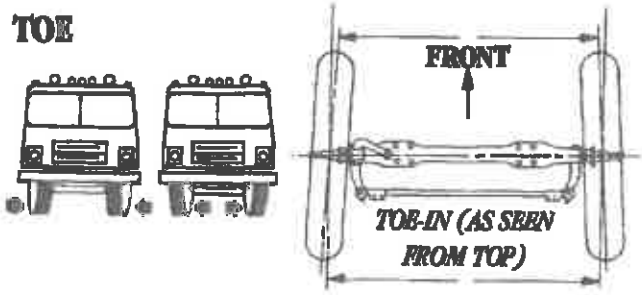
It is also important to make sure that sufficient space is provided between the duals to prevent the tires from rubbing against each other.

Maintaining the vehicle.

There are many vehicle factors which have a major effect on tire life, including the condition of the braking system, condition of the suspension system, and maintenance and placement of the 5th wheel. However, the vehicle factor that has the most direct effect on tread wear is axle alignment.

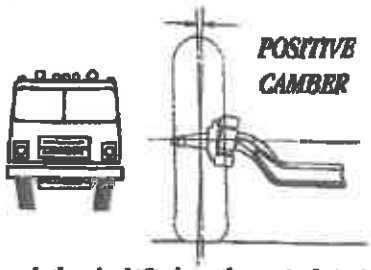
The importance of proper axle alignment can hardly be overstated. A national survey indicates as many as 80% of Class 8 trucks may have front wheel alignment problems, and 70% have problems with rear alignment. Proper axle alignment delivers three important benefits: reduced tread wear, better vehicle handling and control, and less fuel consumption. Alignment not only refers to the various angles of the steering axle geometry, but also to the tracking of all axles on the vehicle. A description of the main alignment settings follows.

TOE

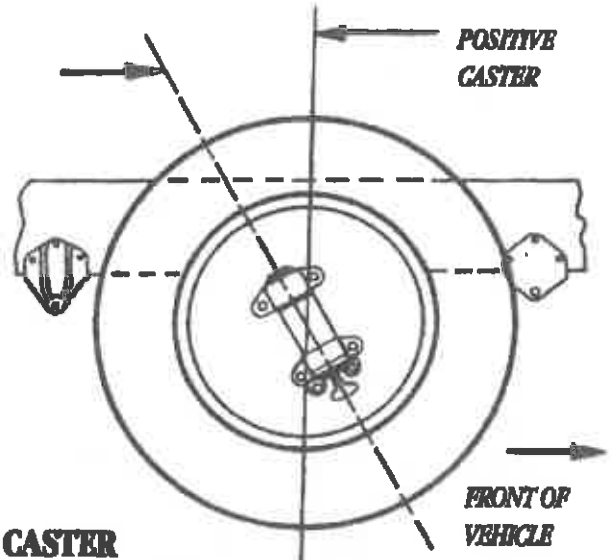


Toe determines how parallel steer axle tires are. It is the difference in distance between a measurement taken between the front of the tires and one taken between the rear of the tires. With toe-in, the fronts of the wheels are closer together than the backs. Toe-out is the opposite. New vehicle wheels are set with a slight toe-in to eliminate the tendency of wheels to weave from side to side. Excessive toe-in causes rapid wear on the outside shoulders of the tires. Toe-out causes rapid wear on the inside shoulders.

CAMBER

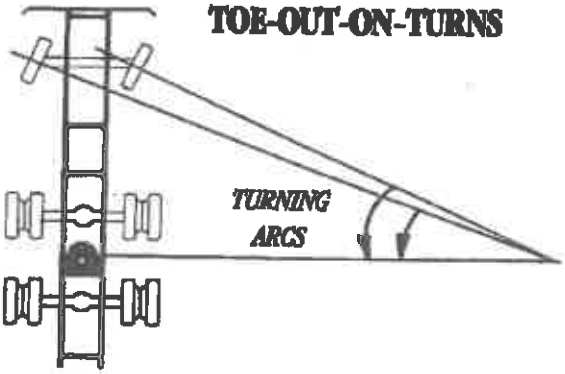


Camber is the angle the wheel tilts from the vertical. Positive camber is an outward tilt of the wheel, negative is inward tilt. Excessive camber results in rapid shoulder wear.



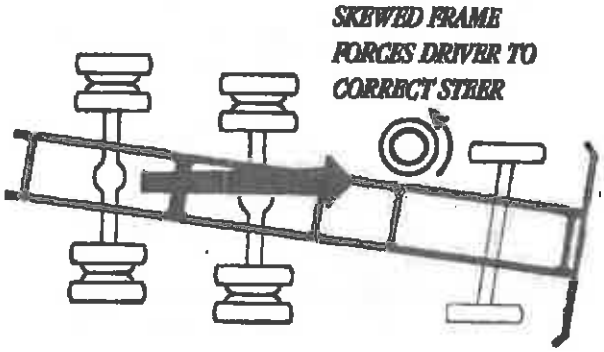
CASTER

Caster is the backward (positive) or forward (negative) tilt of the kingpin when viewed from the side. Insufficient caster reduces stability and can cause wander. Excessive caster increases steering effort and can cause shimmy.



TOE-OUT-ON-TURNS

Toe-out-on-turns is the difference in the arcs steering wheels make in a turn. This difference is necessary to prevent the inside tire from scrubbing around a turn. It is accomplished by setting the steering arm and tie rod so that an imaginary line drawn from each steering arm converges on the centerline of the rear axle. This setting is not adjustable.



TRACKING

Rear wheels should follow the front wheels on a parallel line when driven straight ahead. Out-of-track rear wheels will drive the vehicle off course, causing penalties in tire wear, fuel consumption, suspension wear, driver fatigue, and ultimately, safety.

Alignment is extremely important to the life cycle of your tires. It is another key to a good tire maintenance program. Complete alignment information and settings can be obtained from the vehicle manufacturer.

Preventive maintenance is an investment in the future. By taking care of your tires today, they may live to see tomorrow as a retread. And your life cycle cost will be lower.

The Retreading Process

In purchasing, knowledge is power. The better you know the product, the better decision you'll make in buying it. To help you understand the retreading process, this section will take you through the building of a retread.

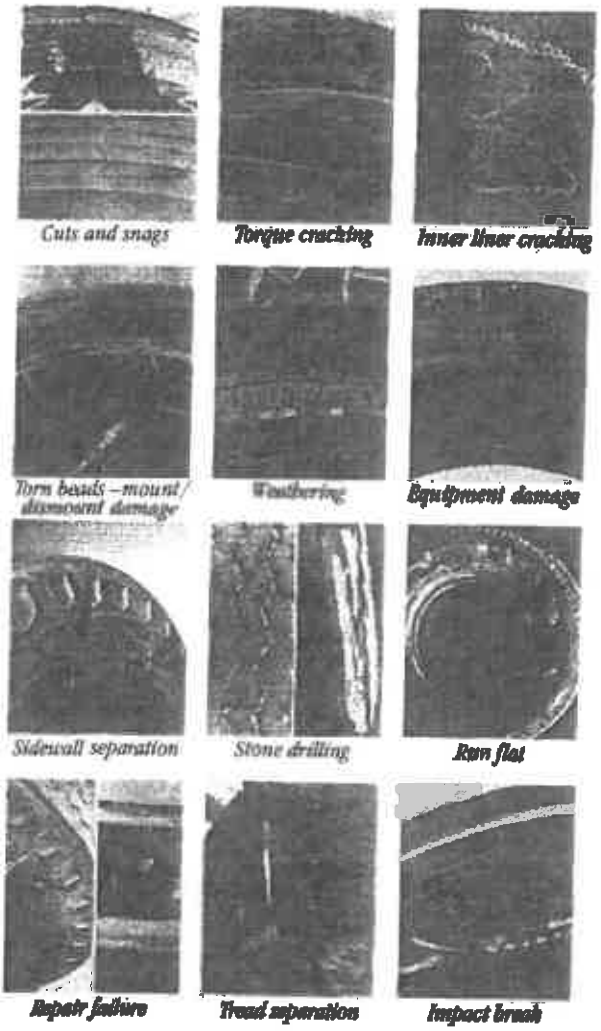
Initial inspection.

Initial inspection may be the most important part of the retread process. More than half of the failures of retreaded tires can be traced to poor initial inspection. Here the decision is made whether to retread or not. Expert inspection assures every casing that can be retreaded is, and every casing that can't be returned to service isn't. The first saves you money; the second, downtime.

Often a knowledgeable inspector, backed by advanced repair techniques, can save a severely damaged casing by repairing it and downgrading it to less stressful service such as a trailer position.

Inspection begins when the tire is placed on a mechanical spreader and a drop-light is used to make the inside visible to the inspector. As the casing is rotated, the inspector checks inside and outside with his hands and eyes.

Some of the things an inspector looks for that could cause rejection of a casing are:



Any of these problems could be reason for casing rejection, and these are just some of the ones that can be seen or felt.

Buffing.

Buffing is simply the removal of previous tread material and the shaping, sizing and texturing of the casing surface to receive the new tread. It is best performed on a lathe-type machine.

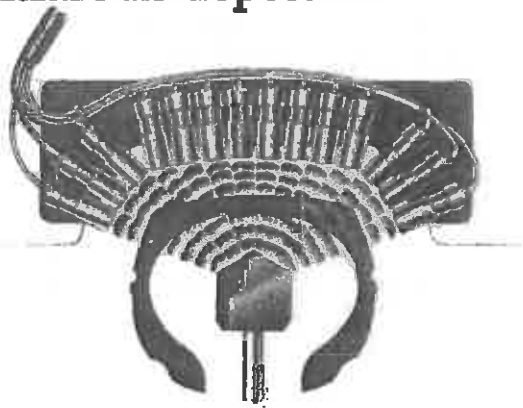
The casing is mounted on the machine, inflated, and rotated as it is worked on. A powered buffing rasp removes material.

The casing is buffed as flat as possible so there will be good tread-to-road contact. It is buffed to a predetermined crown width, radius and symmetrical profile. Often a buffed casing will end up more true and round than the original tire.

Tires that need repairs are marked for the kind of repair needed, or marked "RAR" (return as received — the casing is beyond repair) or "RAB" (repair after buffing). Nail holes can be repaired at this stage, other repairs are made after buffing.

Bias tires are "vented". Small holes are placed in the bead and shoulder areas to reduce buildup of air pressure within the tire cords while curing.

Ultrasonic inspection.



Bandag's NDI® tire casing analyzer uses ultrasonic waves to penetrate a casing and look for flaws.

For damage that cannot be seen, quality retreading shops today use sophisticated ultrasonic equipment to check for hidden flaws.

For example, Bandag's NDI® tire casing analyzer uses ultrasonic waves and electronic detectors to scan buffed casings for flaws. This state-of-the-art tool can find pinhole leaks, separations, and other damage hidden from visual inspection.

Measuring.

The casing is carefully measured either with an automatic device on the buffer, or with a steel tape. In the case of a mold cure operation, this is to determine the proper mold fit. In the case of a precure operation, it is used to determine the length and width of tread to be used.

Casing preparation.

Injuries remaining or uncovered after buffing are then repaired. This involves skiving or "buzz out" of the injury with a powered rasp. This is a crucial operation.

All exposed cords are trimmed, finished and coated with cement as soon as possible after buffing and skiving operations. This is to prevent oxidation of the material. Steel belt cord needs to be protected within 15 minutes.

Repair

Repairing a casing is both an art and a science. It takes highly skilled people, proper equipment, and quality materials to do the job well. Basically, repairing involves the removal, filling, and reinforcing of the injury and surrounding area. Repairing is well worth the effort. There is such a wide difference between the cost of a new tire and a retread, even major repairs such as rebelting are cost efficient.

There are four basic types of repair: nail hole, spot repair, reinforcement repair, and section repair.

NAIL HOLE REPAIR

A nail hole repair is an injury ¼" or less in diameter in the crown area (or 1/16" or less in the sidewall) that penetrates 50% or more of the plies. Any number of nail holes in the crown or sidewall of a tire can be repaired as long as the repair patches do not overlap. Nail holes in the bead area of a tire cannot be repaired.

SPOT REPAIR

A spot repair is the removal and replacement of rubber in an injury that is larger than a nail hole, but involves less than 25% of the actual body plies. Any number of spot repairs can be made as long as the repairs do not involve body ply damage in the bead area.

REINFORCEMENT REPAIR

A reinforcement repair is repair of an injury through 25% but less than 75% of the body plies (in California, less than 50%). Over-the-road bias drive tires may not have more than one reinforcement repair in each quarter-section of the tire. Trailer or local service bias drive tires may have no more than two. No portion of a repair patch can overlap another. Reinforcement repairs are limited to bias tires.

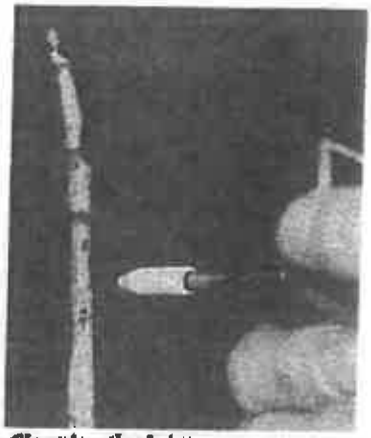
SECTION REPAIR

A section repair is a repair made when an injury extends through 75% (in California, 50%) or more of the body plies or completely through the casing in the tread and sidewall areas. Bias ply section repairs are limited to one per quadrant for over-the-road drive tires; two for trailer and local service drive tires. Radial section repairs are not limited by number, but no portion of a repair patch can overlap another.

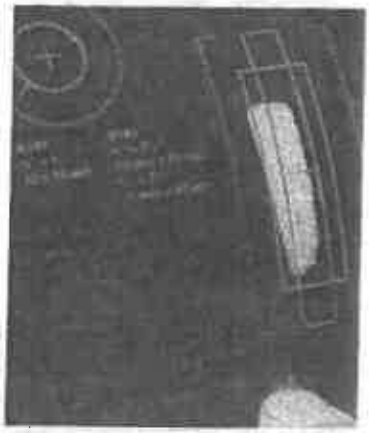
REPAIRING A SIDEWALL INJURY

Skiving the injury.

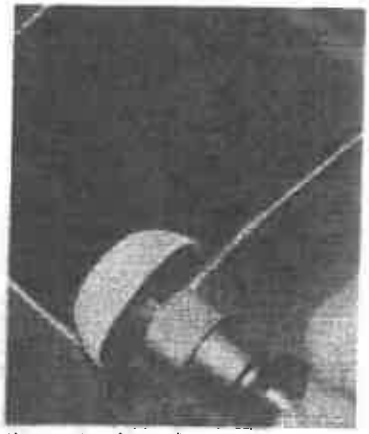
Removing damaged cords.



Cleaning the injury.



Measuring for repair.



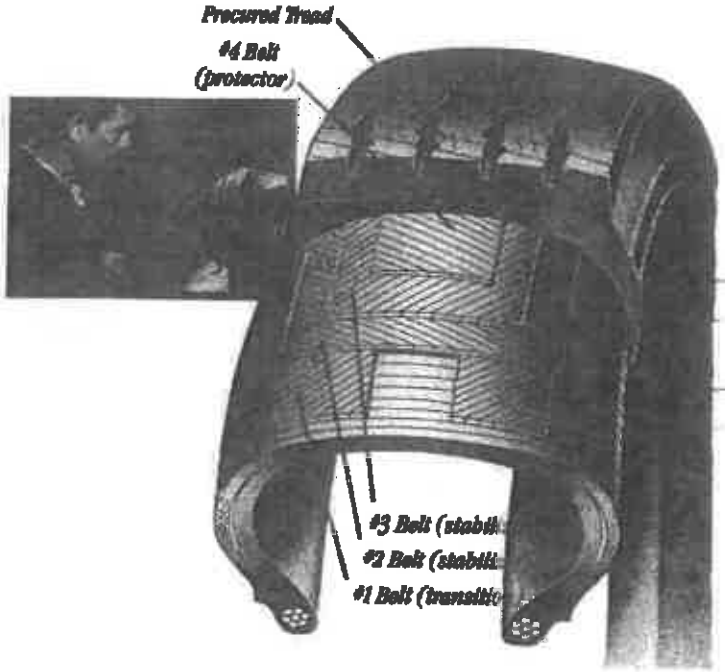
Preparing liner for patch.

Installing the repair.

Rebelting

Recent technology has made the replacement of the top two belts of a radial tire possible. This advanced procedure can make a big difference in the number of casings that can be saved. As many as 9 out of 25 rejected casings can be put back in service with rebelting.

A machine with a knife cuts under the belts and peels them off the casing. When the belts are removed, the casing is buffed, prepared, and cemented. Then two new belt assembly packages are added, followed by standard retreading procedures. In the precure process, a restraining ring is used to retain the shape while curing.



Tread application.

After repairs are made, the casing is then sprayed with cement to enhance adhesion between the new tread material and the casing. When the cement dries to a tacky consistency, it is ready for the tread.

At this stage, the new tread material is fitted to the casing. It must be the precise size and it must be centered on the casing.

In precure operations, the proper length of the precured tread is cut, and a layer of cushion gum is added to the back of the tread. The cushion gum is the bonding agent between tread and tire casing. That bond becomes the strongest part of the tire. It reduces the chances of tread separation and increases the reliability of the retread.

The tread is then applied to the casing in such a way as to distribute the tread evenly over the tire circumference. The tread may be applied manually or with the help of a machine. The ends of the cut tread are spliced together, temporarily stapled to hold them in place during curing, and then the tread is "stitched" to the casing to eliminate trapped air.

In mold cure operations, uncured rubber is added to the prepared casing.

Curing.

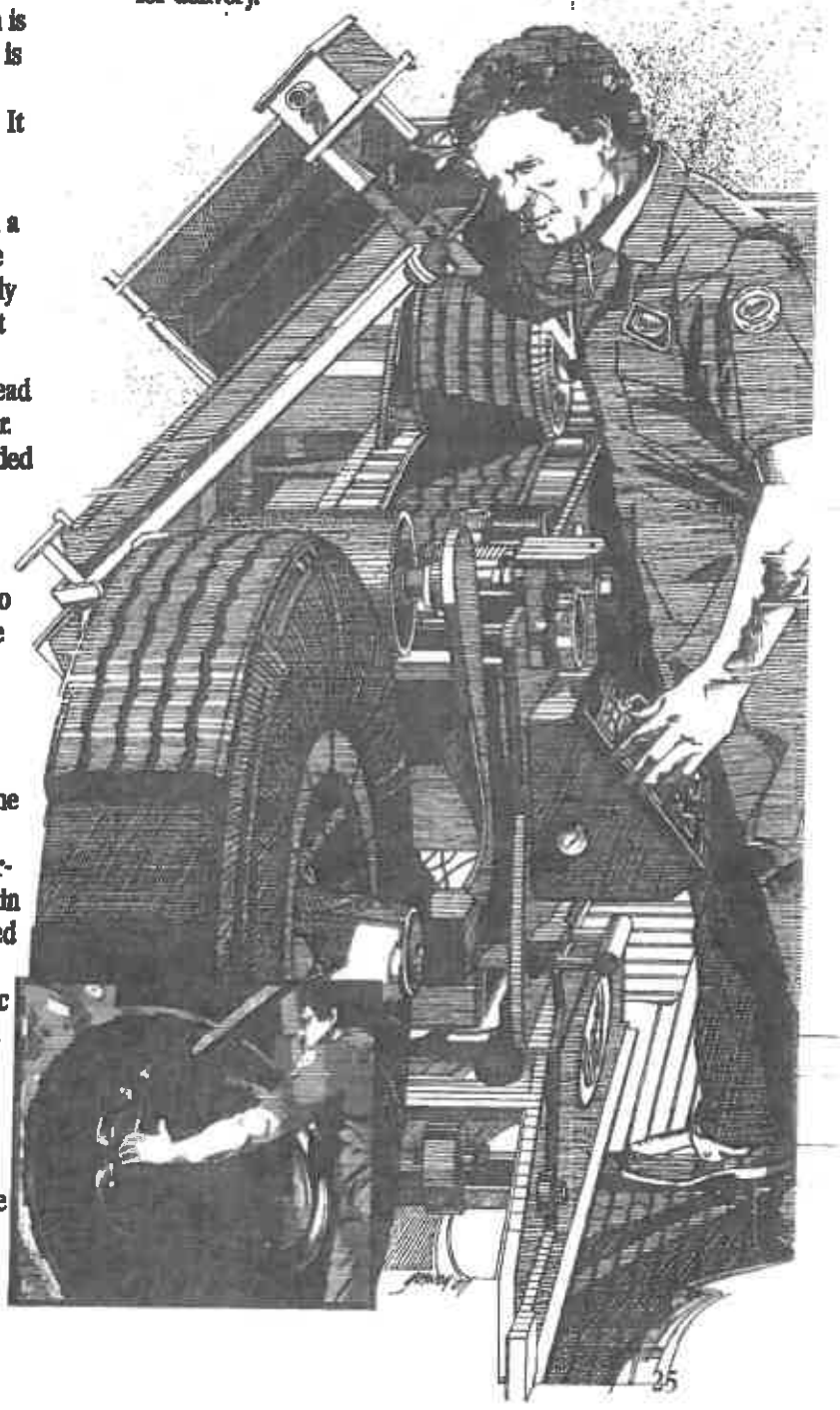
Time, temperature, and pressure are the keys to proper retread curing. Even small variations in the correct level of one of these could lead to poor retread performance or failure.

In the precure process, the prepared casing is covered with a flexible envelope fitted with an air exhaust valve, a curing tube is placed inside and the casing is then mounted on a curing rim. Some systems use a special curing ring that replaces the curing tube and curing rim. The casing is then placed in the curing chamber which is pressurized and heated while air is evacuated from between the tread and envelope, locking the tread in place. After a specific time and temperature (usually three to four hours at about 210° F) the tread becomes bonded to the casing—so well, in fact, this bond becomes the strongest part of the tire.

In the mold cure process, the casing and curing tube are placed in a mold. The curing tube pressure forces the raw tread rubber into the hot mold for a specific period of time and temperature. The tread rubber cures with the mold pattern imprint.

Final inspection.

A final inspection of the finished retread is then made. Inspection is made while the tire is hot—separations and other flaws are easier to see then. The inside is checked to make sure all patches are properly bonded. The DOT number is checked. The tire is then trimmed of rubber flashing or overflow, staples are removed, the tire is painted, and tagged for delivery.



The Advantages of a Total Tire System™

In the previous sections of this guide, we've tried to illustrate how retreading can reduce your tire costs. And we've talked about the many processes and techniques that go into a quality retread.

Now, we would like to show you what the support of a total retreading system can mean to your fleet's profitability.

In all honesty, we have to be a little self-serving at this point. Because Bandag is the only retreader to offer you a total system for tire cost management.

Total system capability requires a network of certified dealers. A full range of services to address the fleet manager's every need. Innovative new processes, materials and equipment that frequently enable our retreads to outperform new tires. And the widest possible range of tread designs and sizes.

It takes time to develop this capability. More than 30 years, in fact. That's how long Bandag has been working to reduce your overall tire costs. And that's why we can do a better job of it than anyone else.

The Bandag Dealer Network.

Perhaps the most important component of the Bandag system is our North American network of more than 500 professional dealers. Because it is our dealers who bring you all the benefits and capabilities our Total Tire System™ offers. That's why Bandag places such emphasis on reliability and consistent quality at the dealer level.

Every Bandag dealer is an independent businessman and a tire expert who has received advanced training and certification in all phases of tire management. Because he is generally a new tire dealer as well, he understands and can handle all your tire needs.

He has the technical knowledge to help you maximize your tire investment. And he is supported by processes, equipment and materials only Bandag offers, to ensure that you get the most from each of your casings.

While every fleet should have a tire expert on staff, no fleet should pay extra for one. Your Bandag dealer will provide you with total system expertise whenever you need it, and at no charge whatsoever.

For example, through computerized, on-site fleet analysis, he'll help you pinpoint tire maintenance problems, identify causes of tire failure, conduct mileage and cost comparisons... all to help you fine-tune your total tire management program.

Bandag Services.

Bandag also offers you a full range of services specifically designed to minimize downtime and help you manage your fleet more efficiently.

For instance, we've recently introduced ETA,™ a 24-hour emergency tire assistance program. Whenever or wherever a driver experiences tire problems, he can simply call 1-800-8-BANDAG (in Canada: 1-800-544-4142) and our ETA service fleet will respond quickly and expertly.

This dedication to meeting your fleet's needs is also evident in the Bandag Dealer National Warranty program. If a Bandag retread fails under warranty, it will be adjusted by a Bandag dealer. And with nearly 500 dealers at your service, that means you have coast-to-coast protection.

Fleet surveys and computerized analysis. Complete yard and road service. Emergency tire assistance and national warranty programs. These are just a few of the ways the Total Tire System™ from Bandag will help you get the most from your tire investment.

Extended Casing Life System™

The lowest end cost. That's how you measure the return on your tire investment. And that's why our exclusive casing-saving technology is so important.

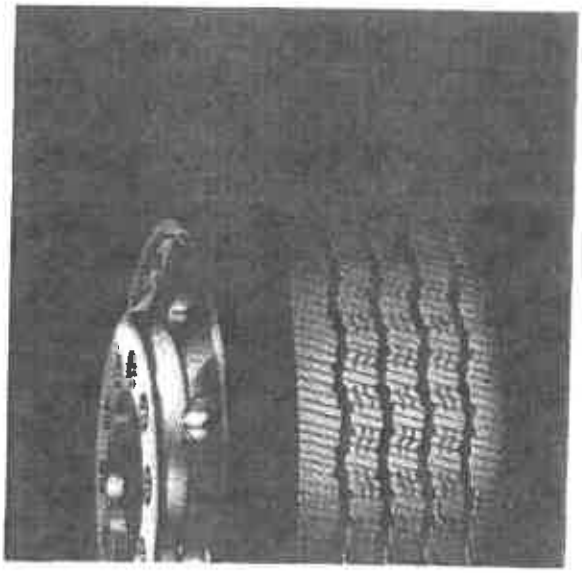
Our total system approach enables you to get extra lives out of a casing other retreaders would simply send to the scrap pile. That can have a big impact on your tire replacement costs... and your bottom line.

The secret is your Bandag dealer's thorough knowledge of every aspect of every make of casing, his repair expertise and the patented Bandag® rebelting and retreading equipment he uses.

To ensure only sound casings are retreaded, your Bandag dealer also uses state-of-the-art ultrasonic inspection equipment — such as our exclusive NDI® tire casing analyzer — to spot problems that can't be detected through routine visual inspection. This extra step means you'll have fewer downtime headaches due to casing failure.

The Bandag Process.

At Bandag, we have developed a totally integrated "cold" retreading system. The raw materials we begin with, the bonding process we employ and the manufacturing equipment we use have all been specially designed to work together as a whole. It's how we make sure each Bandag retread provides superior performance.



This approach pays dividends for our customers. In longer casing life. Better tread wear. Smoother running tires. Higher driver satisfaction. And greater reliability down the road.

We think it's safe to say no one takes as much care with each retread as Bandag. That's because no one is as concerned as Bandag with helping you reduce your overall tire costs.

Bandag® treads.

Bandag offers you more than 275 separate tread designs and sizes — far more than any other supplier.

This variety allows your Bandag dealer to retread any type of casing you use, from bias casings to steel-belted radials. He has the right tread for your needs, whether you're on a logging run to Seattle, hauling steel pipe over the Rockies or on a high speed linehaul to Chicago.

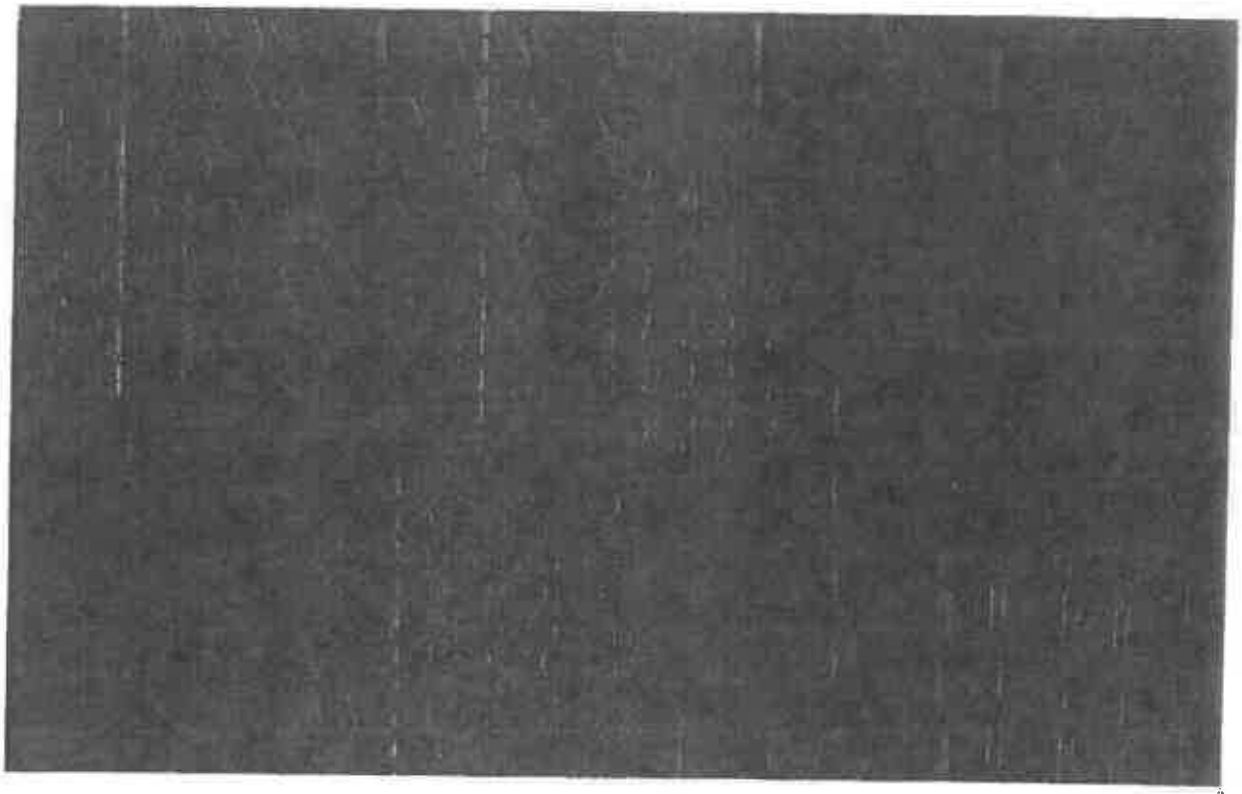
And we are continuing to develop new and improved tread designs. Our MilEdges™ tread provides extended wear *and* maximum traction. Our Fuel Mizers™ tread offers optimum fuel economy. And our revolutionary HTR 4000™ tread series — specially designed for radial casings — not only wears longer and runs cooler, but is also fuel-efficient.

But there is more to Bandag treads than variety. Quality is always uppermost in our minds. That's why all Bandag tread rubber must pass *20 separate tests and inspections* before it can be shipped to Bandag dealers.

A North American network of tire specialists. A full range of tire management services. Innovative approaches to extending the lives of your casings. The most sophisticated repairing, rebelting and retreading process in the industry. And a variety of quality treads to meet any application.

If you're not getting all this from your retreader, we encourage you to talk to a Bandag dealer today.

Because when it comes to effective tire cost management, Bandag has the one and only system.



Glossary

ACCELERATOR
A chemical which speeds up the rate of vulcanization of tread rubber compounds.

AIR INJECTION
An inspection method using a high pressure air probe to detect separations.

ALL-PURPOSE TREAD
Tread design suitable for on- or off-highway use at any wheel position.

ASPECT RATIO
The ratio of tire height to tire width.

AWL
A pointed or flat tool used to probe nail holes and injuries.

BACKING
A removable protective material used on the application side of tread rubber and repair materials to preserve cleanliness and tackiness.

BALLAST, LIQUID
Liquid pumped into a tire to provide weight for added traction. Used with farm and some off-the-road tires.

BANDAG
A company using a proprietary method of applying and vulcanizing a precured tread to a tire casing.

BAND PLY
The first inner cord ply of a tire.

BEAD
That anchoring part of the tire which is shaped to fit the rim. Made of high tensile steel wires wrapped and reinforced by plies.

BEAD-TO-BEAD MEASUREMENT
The distance from the heel of one bead over the crown to the other bead.

BEAD SEAT
The flat part of the rim where the tire bead rests.

BEAD TOE
The part of the bead which faces inside the tire.

BELTED CONSTRUCTION
A tire construction with several belts of steel or fabric that encircle the tire.

BREAK
A crack extending into or through the fabric. An impact break is usually in the shape of an X or star and can be seen from the inside of the tire. A flex circumferential break runs parallel to the beads.

BREAKER STRIP/PLY
A band or strip of rubber-coated, bias-cut tire cord that encircles the tire between the top steel or fabric ply and the tread. Sometimes called the impact or shock ply.

BUFF CONTOUR
The shape of a buffed tire.

BUFF LINE
The dividing line in the tire cross section between the buffed surface of the original tire and the new retread rubber.

BUFFED SURFACE
The specially prepared surface of a tire casing which provides proper adhesion between it and the new rubber.

BUFFER
A machine used to rasp the old tread from the tire.

BUFFING RADIUS
The distance from the center or pivot point of the buffing rasp assembly and the arc it describes.

BUFFING TEMPLATE
A shaped guide used to determine the contour of a buffed tire.

BUILDER
A machine used to apply tread rubber to a casing.

BUILD-UP
Portion of tread covering the shoulder and blending into sidewall.

BUNCHING
A "wave" of tread rubber that forms in front of the tread contact point with the road. Occurs when tire is under load and moving.

BURRED WHEEL (INDUSTRIAL TIRES)
Steel or iron wheel with rough slivers or projections of metal around rim edges.

BUTTRESS (See BUILD-UP)

BUTYL RUBBER
A synthetic rubber made from 98-99% isobutylene and 2-1% isoprene. Noted for excellent weather and chemical resistance, and vibration absorption.

BUZZ-OUT
The removal of damaged material prior to repair.

CALCIUM CHLORIDE
Chemical added to water ballast in farm tires to prevent freezing.

CAP AND BASE CONSTRUCTION
A type of tread construction in which the cap or anti-skid compound differs from the base or subtread compound.

CASING
The tire structure, less tread and sidewall rubber.

CASING FACTOR
Load carried by the casing only, not including the load carried by the air pressure.

CASTER
Placement of an axle to locate the center of weight either ahead or behind the ground contact point of the tire to provide easier steering.

CEMENT
An adhesive rubber compound dissolved in solvent used to provide tack for building and adhesion for curing.

CENTERLINE
An inked line or indentation in the center of the tread rubber which aids in positioning.

CHAFER FABRIC
The layer of fabric covering the bead to eliminate friction and wear between bead and rim.

CHANNELING
Voids in the shoulder area between the tread and the buffed surface.

CHECKING
Minute cracking in the rubber caused by aging and oxidation.

CHECK VALVE
A one-way valve used to prevent pressure loss.

CHEMICAL CURE
Vulcanization activated by chemical agents without the application of heat.

CHUNKING
Separation of tread from the casing in particles that may range from a very small size to several square inches in area.

CIRCUMFERENTIAL CRACKS
Cracks in a tire running parallel to beads. Usually occur in the tread grooves.

COMPOUNDING
Chemical process that combines rubber components to achieve tire qualities such as wear, traction and density.

COMMERCIAL TIRES
Truck and industrial tires.

CORDS
The strands forming the tire plies.

COST PER MILE (also called Cost/Tire/1000 Miles)
Total cost, including any repairs and recaps, divided by total tire mileage. In some cases downtime may also be taken into consideration.

CROWN
Portion of the tire between one edge of the tread and the other.

CROWN RADIUS
The measurement of tire tread curvature between the shoulders. Expressed as a percentage, it indicates the "flatness" of the tire tread area.

CROSS SECTION
The maximum width of the tire.

CROWN WIDTH
The distance from shoulder to shoulder on the buffed contour.

CURB GUARD
A protrusion of rubber circling the tire to protect the cord body from scraping against curbs.

CURING
The process of heating or treating a rubber or plastic compound to convert it from a thermoplastic or fluid material into a solid, relatively heat-insensitive state. When heat is employed, the process is called vulcanization.

CURE TIME
The time required at a certain temperature for a compound to reach optimum physical properties.

CURING RIM
The rim used to support the tire and keep the curing tube in place while curing.

CURING TUBE
Special, heavy-duty tube placed within the tire during curing.

CUSHION GUM
A tacky rubber compound used for adhesion, under-tread repair, and build-up.

DEFLECTION
Difference in radius between a loaded and unloaded tire.

DELUGGER
A machine used to cut the lugs from tires prior to buffing.

DIAGONAL BREAK
A fabric break which follows the path of the ply cords.

DIAPHRAGM
A flexible sheet used to enclose the tire during precure retreading.

DIE SIZE
A coded description of tread rubber dimensions.

DIRECTIONAL TREAD
Tread design which is effective in only one direction of rotation (rear farm tractor tires for example).

DOWNTIME
The vehicle operating time lost due to maintenance difficulties and tire or tube failures.

DUAL-BEAD TIRES
Heavy service tires using two or more sets of bead wires in each bead.

DYNAMIC BALANCE
Balancing a tire while it is spinning.

ENVELOPE (See DIAPHRAGM)

EXTRUDER
A machine that shapes a rubber compound into a desired form by extruding.

FABRIC FATIGUE
Fabric degradation and resultant tire cord breakdown due to repeated flexing.

FILLER STRIP
A free flowing rubber used under the tread when added thickness is needed.

FLOTATION
Ability of a tire to support a load on soft, yielding terrain.

FOOTPRINT
Tread area that actually touches the road.

F.O.B.
Denotes the point at which the transfer of title takes place. F.O.B. point of origin means freight collect from the shipping point. F.O.B. point of destination means freight prepaid from the original shipping point to the destination.

FREE CAPPING
One-half the overall diameter of an unloaded new tire.

FULL CAPPING
Application of new rubber to the tread area and some distance down the sidewall of a casing.

GROOVE
Space between two adjacent tread ribs.

GROOVE CRACKING
Cracking which occurs at the bottom of a tread groove.

GUIDE RIB
Protruding rubber rib located over the bead. Serves as a guideline for mounting the tire on the rim.

IMPACT BREAK (See BREAK)

LINER/INNER LINER
The layer of rubber which is laminated to the inside of a tubeless tire to insure the air retention quality.

LOAD RANGE
A letter designation which indicates maximum permissible load on a tire. Also referred to as ply rating (i.e. load rating G = 14 ply rating).

LOADED RADIUS
Distance from wheel axle centerline to the ground on a properly inflated, loaded tire.

LOW PRESSURE TIRES
Larger cross-section tires for operation at lower pressure. Increased air capacity permits lower pressure.

LOW PROFILE TIRE
A tire in which the cross-section has a squat appearance. While most tires have cross-section widths that are about the same as their heights, low profile tires have heights only about 85% of the widths.

LUG
An aggressive tread pattern feature used to improve traction.

LUG TEARING
Rupture of the lug resulting from violent operation or mechanical interference.

MANDREL
A curved support inserted in a tire to prevent the casing from collapsing while repairing.

MATRIX
Aluminum or steel rings or segments which form the cavity in which the tire is cured by hot capping and which forms the tread design.

NU-LINER
A liquid of very thin viscosity used in both tubeless and tube-type tires to seal porosity and rim leaks, reduce liner oxidation, and decrease tire operating temperature.

NON-DIRECTIONAL TREAD
Tread design which is equally effective in either direction of rotation.

OFF-THE-ROAD TIRES
Tires designed primarily for use over unpaved roads or where no roads exist. Built for ruggedness and traction rather than speed.

OPEN SPLICE
A retread tire defect caused by failure of the rubber to knit together properly at the tread splice.

OPTIMUM CURE
The state of cure when the rubber compound exhibits the best physical properties. Usually expressed in minutes curing time at a specified temperature.

OVERALL DIAMETER (O.D.)
The diameter of a buffed tire or the diameter of an unloaded new tire. Usually made on an inflated tire using calipers or a diameter type rule.

OVERALL WIDTH
Maximum width in cross section of an unloaded tire.

OVERCURE
Vulcanizing longer than necessary. Can result in deterioration of physical properties.

OVERFLOW
Spew-out of tread compound at the mold parting line or at the edge of the matrix skirt. Should be trimmed or buffed off the finished product.

PEAKING
A condition, usually in the cushion, resulting from local material starvation and excessive flow from adjacent areas.

PLY
A layer of rubber-coated parallel cords.

PLY RATING
Strength of tire in terms of cotton ply strength. Does not necessarily indicate actual number of plies.

PLY SEPARATION
A parting of rubber compound between adjacent plies.

PRESSURE SEAL
A liner spray used in both tubeless and tube-type tires to seal porosity and rim leaks and reduce liner oxidation.

PRODUCTION RETREAD SHOP
A shop which schedules its production not on the basis of day-to-day orders but rather on long runs of purchased casings in order to secure the lowest cost per unit.

PROFILE
Shoulder-to-shoulder area of tread cross section.

RADIAL PLY
Refers to the ply or plies in which the cords run at right angles to the bead.

RADIAL CRACKING
Cracking, usually in or near a rib, resulting from underinflation or ozone exposure.

RASP
A tool with raised points used for removing rubber and roughening surfaces.

REDUCING VALVE
Pressure regulating device used for controlling steam or air pressure.

REGROOVING (RECUTTING)
The cutting of a tread design into worn down tread or cutting a deeper design in existing tread.

REINFORCEMENT REPAIR
Casing repairs that require both hole filling material and reinforcing patches when an injury has extended through more than 25% but less than 75% of the tire body. California standards define a reinforcement repair as a damage to more than 25% but less than 50% of the plies.

REPAIR GUM
Tire repair material used for filling voids, or covering reinforcing material.

REPAIRED TIRE
Any tire with punctures, cuts or other types of injuries that has been reconditioned to provide additional safe service life.

REPAIR PATCH
Reinforcing material used to strengthen the area around a tire injury.

REPAIR PLUG
Rubber material that fills the cavity of a tire injury.

RETREAD TIRE
A tire built of a used casing and new tread which extends its usable life.

REVERSION
Excessive heating of a cured rubber compound leading to deterioration of physical properties.

REVOLUTIONS PER MILE
The number of tire revolutions in a mile. Varies with speed, load and inflation.

RIM DIAMETER
The diameter of the rim corresponding to the tire bead heel.

RIM FLANGE
That part of the rim that supports the bead heel and resists lateral internal pressure.

RIM TAPER
The slanting of the rim bead seat area.

ROLLING CIRCUMFERENCE
Calculated from the revolutions per mile. 63,360 Revs per mile = Rolling Circumference in inches.

SECTION HEIGHT
Distance from rim seat to outer tread surface of an unloaded tire.

SECTION REPAIR
Casing repairs made when an injury has extended through 75% or more of the plies or completely through the casing in the tread or sidewall areas. California standards define a section repair as damage to 50% or more of the plies.

SECTION WIDTH
Distance between outside surfaces of sidewalls of a inflated tire.

SELF-CLEANING TREAD
A tread pattern that stays open when running in dirt and slush.

SELF-VULCANIZATION
Vulcanization activated by chemical agents without the application of heat.

SET-UP
Premature vulcanization of a rubber compound during processing or storage.

SEPARATION
Pulling apart, such as ply separation (from each other) or tread separation (from plies).

SHELF LIFE
Refers to the length of time that a perishable product may remain in stock before serious deterioration takes place.

SHOULDER
The outer edges of tread.

SIDEWALL
That portion of a tire between the tread and bead.

SIPE
Any of the small, often hook or bracket-shaped grooves in the tread of tire that provides extra traction and skid prevention.

SIZE FACTOR
The sum of a tire's section width at the rim and its overall diameter.

SKID DEPTH (See TREAD DEPTH)

SKIVING (See BUZZ-OUT)

SPECIAL MILEAGE TIRE
A tire with an extra layer of rubber between the cords and the tread for the purpose of recutting and regrooving.

SPLICE
The line where two ends of a precure tread are joined.

SPOT REPAIR
The replacement of rubber in an injury that penetrates less than 25% of the body plies.

SPREADER
A multi-arm device that spreads a tire at the bead area.

SRT-STEEL REINFORCED TREAD
A tread with an undertread and sidewall protective layer of thick tread rubber containing many short lengths of brass-coated, hardened steel filaments. Used in certain types of truck and industrial pneumatic tires.

SSS-SAFETY STEEL SHIELD
Strands of flexible steel sealed in rubber and positioned in a double layer in the tread area of a tire. Used in certain types of truck and industrial pneumatic tires.

STATIC BALANCE
Wheel balance on a non-rotating tire.

STANDARD RIM
A rim that has been calibrated and found to meet the precise measurements specified by Tire and Rim Association, Inc. or the European Tire & Rim Association.

STITCHING
A rolling method used to both remove trapped air and improve rubber contact for better adhesion.

STOCK ROTATION
The use of stock on a "first in, first out" basis so that the oldest stock is used first and inventories are kept fresh.

STRIPPING STOCK
A rubber stock used to extend the wing of tread rubber.

TACK
Tackiness.

TEMPLATE (See BUFFING TEMPLATE)

TIRE SIZE MARKINGS
Designations that appear on the side of a tire to indicate basic dimensions.

TIRE PAINT
A black paint, compatible to tire bodies, used to enhance appearance.

TOE-IN
Adjustment of front wheels so that they are closer together at the front than at the back.

TOE-OUT
Alignment of wheels so that they are closer together at back than at front.

TOP CAP (TOP TREADING)
A retread which covers the crown, or top, of a tire.

TREAD
That portion of a tire that comes in contact with the road.

TREAD DEPTH
The distance, measured near the center of the tread, from the base to the top of the tread.

TREAD DESIGN
The pattern of the tread.

TREAD RIB
A tread pattern section that encircles the tire.

TREAD GUM
A rubber compound used primarily to build up the tread when making a repair.

TREAD RADIUS
A measure of tread surface curvature from shoulder to shoulder.

TREAD ROLLER
A manual or power roller used to apply the tread rubber, remove trapped air and obtain adhesion.

TREAD RUBBER
Uncured rubber material which replaces the worn off tread portion of a tire.

TREAD SEPARATION
Pulling away of the tread from the tire casing.

TREAD TEARING
A tearing away of a portion of the tread design.

UNDERCURE
Incomplete vulcanization or curing.

UNDERTREAD
The rubber between the bottom of tread grooves and the casing.

VENTING
Perforating a tire above the beads to allow internal pressure in the cords to escape safely during curing.

VULCANIZATION
A chemical reaction which takes place under an appropriate temperature and pressure to develop tire characteristics and properties.

WEATHER CHECKING
A condition that appears as fine cracks in the sidewall rubber.

WICKING
Either the capillary action of air escaping from a casing or the porous material used during curing that allows air to escape rather than build up within the casing body.

WING STOCK
Tread rubber that is tapered to a feathered edge on each side in order that it may be applied to the shoulder of the tire. Used only on a full retread.

WING TREADS
Treads with special shoulder extensions that wrap down onto the shoulder of the casing. These extensions provide extra strength along the bond line and give the finished retread a new tire appearance.

---RETREAD WORKORDER INQUIRY---

CUSTOMER NO.: 407861 CITY OF GLENDALE
SALESMAN NO.: 13402 TIMOTHY AMAVISCA
WORKORDER NO.: 61035945

LINE	CODE	BARCODE	ITEM NO.	TIRE SIZE	BRAND	SERIAL NO.	TREAD DESC	TREAD SIZE	VEHICLE ID	STATUS
1	RPO	637209726	RPO	315/80R22.5	HANKOOK	1T752520	REPAIR ONLY		627D108	INV:30064662
			REPAIRS: NAIL HOLES : 0		SECTION REPAIRS: 1		SPOT REPAIRS : 3		BEAD REPAIRS: 0	

SPECIAL INSTRUCTIONS:
REPAIR ONLY

---RETREAD WORKORDER INQUIRY---

CUSTOMER NO.: 487861 CITY OF GLENDALE
SALESMAN NO.: 13402 TIMOTHY ANAVISCA
WORKORDER NO.: 61035944

LINE	CODE	BARCODE	ITEM NO.	TIRE SIZE	BRAND	SERIAL NO.	TREAD DESC	TREAD SIZE	VEHICLE ID	STATUS
1	SCP	637209723		11R22.5	HANKOOK	BJ3T1915				INV:99999999
				REASON: BEAD SEPARATION/SPLITTING						
2	SCP	637209724		315/80R22.5	HANKOOK	1BJ54318			6272D102	INV:99999999
				REASON: INJURIES TOO LARGE						
3	SCP	637209725		315/80R22.5	HANKOOK	1BJ55019			6272D43	INV:99999999
				REASON: PETROCHEMICAL EXPOSURE						

SPECIAL INSTRUCTIONS:
SCRAP

---MRT ANALYSIS BY CUSTOMER---
FROM: 01/01/21 TO: 12/31/21

CUSTOMER NO.: 487861
CITY OF GLENDALE
6210 W MYRTLE AVE #111

GLENDALE AZ 85301
(623)930-2787

RETREAD PLANT: 885 STM RETREAD PHOENIX
DEALER NUMBER: 903204 DOT NUMBER: FYD
2815 N. 32ND AVENUE

PHOENIX AZ 85009
000-0000

MRT DATE OPTION: PENDING UPDATE DATE

LINE CODE	BARCODE	W.O. NUMBER	LINE	BRAND	CASING MODEL	LINE STAT	TIRE SIZE	TIRE DOT	TIMES RET	LAST RET/RPO DOT	DATE	REM DEPTH	TIRE TAG NO/ VEH ID NO.	MRT REASON
RPO	632385579	61328355	1	CONTINEN	HDC1	RAR	11R22.5	4718	0			16		2010
	RAR	ROCK DRILLING									11/10/21			
RET	642708761	61328990	2	BRIDGE	250FZ	RAR	315/80R22.5	3919	1			0		2101
	RAR	BEAD DAMAGE - MOUNT/DISMOUNT R									11/15/21			
RET	642708765	61328990	6	HANKOOK	10.00	RAR	315/80R22.5	4419	3			0		2101
	RAR	BEAD DAMAGE - MOUNT/DISMOUNT R									11/16/21			
RET	642708766	61328990	7	HANKOOK	10.00	RAR	315/80R22.5	3719	3			0		2303
	RAR	REPAIRS EXCEED FLEET SPECS									11/16/21			
RET	642708656	61344042	5	HANKOOK	AM09	RAR	315/80R22.5	4518	3	AWT	1820	5		2001
	RAR	CROWN CUT(S)/PUNCTURE(S)					NO OVERLAP				11/16/21			
RET	642708657	61344042	6	HANKOOK	AM09	RAR	315/80R22.5	3719	3	AWT	1721	5		2001
	RAR	CROWN CUT(S)/PUNCTURE(S)					TO CLOSE				11/16/21			
RET	642708695	61344042	18	GOODYEAR	G751 MSA	RAR	11R22.5	MJ4519	2	AWT	1321	3		2204
	RAR	LINER DEFECT(S)									11/22/21			
SCP	637209615	61035895	1	HANKOOK	AH11	SCP	11R22.5	T73T2813	2	HUK	2117	5		2302
	SCRAP	CASING AGE EXCEEDS FLEET SPECS									12/09/21		6446D27	
SCP	637209616	61035895	2	HANKOOK	AH11	SCP	11R22.5	T73T1613	1	HUK	2617	6		2302
	SCRAP	CASING AGE EXCEEDS FLEET SPECS									12/09/21		6446D27	
RET	637208625	61329030	7	BRIDGE	M870Z	RAR	315/80R22.5	3919	2	YWE	0921	0	NA	2101
	RAR	BEAD DAMAGE - MOUNT/DISMOUNT R									12/10/21		NA	
RET	637209617	61035896	1	GOODYEAR	G182 RSD	RAR	11R22.5	MC3T2318	1	YWE	4921	5		2101
	RAR	BEAD DAMAGE - MOUNT/DISMOUNT R									12/14/21			
RET	637209700	61035919	7	HANKOOK	AL22	RAR	315/80R22.5	1BJ52518	2	YWE	2421	5		2001
	RAR	CROWN CUT(S)/PUNCTURE(S)					REP, TO CLOSE				12/27/21		6272D94	
RET	637209702	61035919	9	HANKOOK	AM09+	RAR	315/80R22.5	1T752220	2	FYD	3521	5		2001
	RAR	CROWN CUT(S)/PUNCTURE(S)					PATCH TO CLOSE				12/27/21			
RET	637209713	61035919	20	HANKOOK	AM09+	RAR	315/80R22.5	1T750920	2	YWE	2621	4		2023
	RAR	BEAD DAMAGE FROM BRAKE HEAT									12/27/21		6272D89	
RET	637209717	61035919	24	BRIDGE	M870Z	RAR	315/80R22.5	2C4D4019	1	YWE	1321	6		2101
	RAR	BEAD DAMAGE - MOUNT/DISMOUNT R									12/28/21			
RET	637209697	61035919	4	HANKOOK	AM09+	RAR	315/80R22.5	1T752719	3	YWE	1821	4		2011
	RAR	BEAD DISTORTION					RADHEAD				12/29/21			
SCP	637209723	61035944	1	HANKOOK	AH12	SCP	11R22.5	BJ3T1915	0			15		2203
	SCRAP	BEAD SEPARATION/SPLITTING									12/30/21			
SCP	637209724	61035944	2	HANKOOK	AL22	SCP	315/80R22.5	1BJ54318	3	YWE	2621	22		2406
	SCRAP	INJURIES TOO LARGE									12/30/21		6272D102	
SCP	637209725	61035944	3	HANKOOK	AM09+	SCP	315/80R22.5	1BJ55019	3	YWE	3121	6		2019
	SCRAP	PETROCHEMICAL EXPOSURE									12/30/21		6272D43	
SCP	637209746	61035946	20	HANKOOK	AL11	SCP	11R22.5	T73T1617	2	FYD	2320	7		2006
	SCRAP	IMPACT SPLIT(S)									12/30/21			

*** CUSTOMER 487861 TOTALS RARS: 14 SCRAPS: 6 REJECTS: 0 MRTS: 20

*** GRAND TOTALS RARS: 14 SCRAPS: 6 REJECTS: 0 MRTS: 20

---CUSTOMER RETREAD SNAPSHOT REPORT---

CUSTOMER NO.: 467861
CITY OF GLENDALE
6210 W MYRTLE AVE #111
GLENDALE AZ 85301

DECEMBER 2021 SALESMAN NO.: 3402 TIMOTHY ARAVISCA

	M-T-D	% OF TOTAL	Y-T-D	% OF TOTAL	LAST Y-T-D	% OF TOTAL
TOTAL SUBMITTED FOR RETREAD	77		100		695	
TOTAL TIRES RETREADED	64	83.1	81	81.0	491	70.6
NON-RETREADABLE TIRES (NRT)	13	16.9	19	19.0	204	29.4
TOTAL SUBMITTED FOR REPAIR	4		6		46	
TOTAL TIRES REPAIRED	4	100.0	5	83.3	39	84.8
TOTAL USE-AS-IS RPO TIRES	0	.0	0	.0	1	2.2
NON-REPAIRABLE TIRES (NRT)	0	.0	1	16.7	6	13.0
TOTAL TIRES SUBMITTED	81		106		741	
TOTAL NRT	13	16.0	20	18.9	210	28.3

TOP EIGHT NRT REASONS	CURRENT MONTH	% OF TOTAL	TOP EIGHT NRT REASONS	YEAR TO-DATE	% OF TOTAL
2101 BEAD DAMAGE - MOUNT/DISMOUNT R	3	23.1	2101 BEAD DAMAGE - MOUNT/DISMOUNT R	5	25.0
2001 CROWN CUT(S)/PUNCTURE(S)	2	15.4	2001 CROWN CUT(S)/PUNCTURE(S)	4	20.0
2302 CASING AGE EXCEEDS FLEET SPECS	2	15.4	2302 CASING AGE EXCEEDS FLEET SPECS	2	10.0
2006 IMPACT SPLIT(S)	1	7.7	2006 IMPACT SPLIT(S)	1	5.0
2011 BEAD DISTORTION	1	7.7	2010 ROCK DRILLING	1	5.0
2019 PETROCHEMICAL EXPOSURE	1	7.7	2011 BEAD DISTORTION	1	5.0
2023 BEAD DAMAGE FROM BRAKE HEAT	1	7.7	2019 PETROCHEMICAL EXPOSURE	1	5.0
2203 BEAD SEPARATION/SPLITTING	1	7.7	2023 BEAD DAMAGE FROM BRAKE HEAT	1	5.0

DISPOSITION SUMMARY	TOTAL TIRES SUBMITTED	TOTAL TIRES RETREADED	AVERAGE TREAD DEPTH -/32NDS	TOTAL REPAIR ONLY	TOTAL USE-AS-IS	TOTAL TIRES NRT
DECEMBER	81	64	3	4	0	13
NOVEMBER	24	17	3	0	0	7
FEBRUARY	1	0	0	1	0	0
YTD	106	81	3	5	0	20

AGING SUMMARY

	LOCATION CASINGS SUBMITTED	AVG AGE	AVG CAPS
RETREADS	81	1.66	2.01
NRTS	19	3.40	2.05
RPOS	5	1.71	1.40
NRPS	1	2.96	.00