



# COUNTY OF EL DORADO DEPARTMENT OF TRANSPORTATION

## AGREEMENT FOR MAINTENANCE SERVICES #4082

**THIS AGREEMENT** made and entered into by and between the **COUNTY OF EL DORADO**, a political subdivision of the State of California, acting through the governing body or board thereof (hereinafter referred to as "County"), and **AMERICAN PAVEMENT SYSTEMS, INC.**, a corporation duly qualified to conduct business in the State of California, whose principal place of business is 1012 11th Street, Suite 1000, Modesto, California 95354, and whose local office is 25455 Highway 99, Acampo, California 95220 (hereinafter referred to as "Contractor");

### RECITALS

That for and in consideration of the mutual promises, covenants, agreements, and conditions herein contained, the parties hereto agree with each other as follows:

#### 1. Contract Documents

The complete Agreement (hereinafter "Agreement") between the parties consists of and is set forth in the Contract Documents. The Contract Documents consist of: (a) this Agreement including any amendments thereto in accordance with the provisions herein; (b) Exhibits to this Agreement; (c) Work Orders issued under this Agreement; (d) an executed Subcontractors Listing Form, if applicable; (e) executed Certificate of Insurance forms; (f) an executed California Form 590; (g) an executed Department of the Treasury Internal Revenue Service Form W-9 or County Payee Data Record Form, whichever is applicable; and (h) any executed Change Orders. All obligations of the parties are contained in the Contract Documents, and by acceptance of this Agreement the parties hereto agree to be bound by the provisions of all of said documents. All of said documents are intended to cooperate so that any work called for in one and not mentioned in the other or vice versa, is to be executed the same as if mentioned in all of them.

In the event of any conflict between or among the terms and conditions of this Agreement and documents referred to and incorporated herein, such conflict shall be resolved by giving precedence in the order of priority identified above, beginning with (a) and ending with (h).

#### 2. The Work

Contractor agrees to furnish all tools, equipment, vehicles, apparatus, facilities, labor, materials, supplies, and services to provide various types of road surface treatments, on an as-needed basis, as shown in Exhibit A, marked "Surface Treatment Specifications," incorporated herein and made reference a part hereof, and all other work as called for, and in the manner designated in, and in strict conformance with the Contract Documents adopted by County as prepared by the Contract Administrator or Project Manager, which includes the terms Engineer and Architect. The work shall be performed in accordance with all of the terms and conditions of the Contract Documents.

The work is for maintenance work only and any resurfacing of streets under this Agreement shall be less than one inch (1") or routine, recurring, and usual work for the preservation or protection of County roads. A Request for Proposal will be issued for a specific Contractor and all other contractors with whom County has on-call agreements for the scope of work covered by the specific project. Through that competitive proposal procedure

limited to existing on-call agreements, County will select the most qualified contractor and negotiate, develop, and execute a Work Order.

Once the contractor is selected, a pre-construction conference between County's Contract Administrator and Contractor will be scheduled by County's Contract Administrator prior to the issuance of the separate written Work Orders for each work assignment. The conferences will be coordinated by County's Contract Administrator and will be held at the individual work sites where the work will be performed. The purpose of the pre-construction conferences is to discuss important aspects of the work and all essential matters pertaining to the prosecution and the satisfactory completion of the work, including, but not limited to, traffic control measures and the method and timing of notice to the residents of the work to be performed in the work site areas.

Following each pre-construction conference, County's Contract Administrator will issue a separate written Work Order to Contractor identifying the site where the work is to be performed, the method and timing of notification of the work to residents on County roads and any side streets and in accordance with Exhibit B, "Notification," incorporated herein and made reference a part hereof, a specific date by which the work shall be completed, liquidated damages to be charged to Contractor if the work is not completed within the prescribed timeframe, a not-to-exceed cost based on the number of square yards at that specific work site, and any required deliverables including test reports or other documents to be supplied by Contractor in connection with the work assignment. Contractor shall not commence work until County has reviewed and approved the payment and performance bonds, as outlined in ARTICLE 8, Performance Bond, and ARTICLE 9, Payment Bond, and has issued Contractor the written Work Order.

**3. Location of Work**

The projects will be located in various areas throughout El Dorado County. Said work is to be performed on the various roads within County as designated by issued Work Orders.

**4. Project Coordination and Schedule**

Notification of the Work to residents shall be provided by Contractor not less than seventy-two (72) hours in advance and shall consist of door hangers at each of the individual residences and notices posted on barricades.

**5. Contract Price**

For services provided herein, including the test reports required in ARTICLE 2, The Work, herein and including any other deliverables or reports that may be required by the individual Work Orders issued pursuant to this Agreement, County agrees to pay Contractor upon the satisfactory completion and acceptance of each work assignment monthly in arrears. Payment shall be made within forty-five (45) days following County receipt and approval of itemized invoices detailing the services rendered.

The total amount of this Agreement shall not exceed \$7,500,000.00, inclusive of all Work Orders, costs, and expenses. It is understood and agreed that there is no guarantee, either expressed or implied that this dollar amount will be authorized under this Agreement through Work Orders.

Itemized invoices shall follow the format specified by County and shall reference this Agreement number and the County-supplied Work Order number on their faces. Copies of documentation attached to invoices shall reflect Contractor's charges for the specific services billed on those invoices. Contractor shall bill County for only one (1) Work Order per invoice. Invoices shall be mailed to County at the following address:

County of El Dorado  
Department of Transportation  
2441 Headington Road  
Placerville, California 95667  
Attn: Ashley Johnson

or to such other location as County directs.

**6. Time of Completion**

This Agreement shall be effective upon execution and shall cover the period of September 20, 2019 through September 19, 2022.

Time is of the essence. The work under this Agreement shall be completed **within the timeframe designated within each issued Work Order**, unless an extension of time or suspension of work is authorized by County in writing in accordance with an amended Work Order.

It is agreed by the parties to this Agreement that in case all the work called for under this Agreement in all parts and requirements is not finished or completed within the number of working days as set forth in each Work Order, damage will be sustained by County, and that it is and will be impracticable and extremely difficult to ascertain and determine the actual damage which County will sustain in the event of and by reason of the delay; and it is therefore agreed that Contractor will pay to County a sum, as liquidated damages and not as a penalty, for each and every calendar days delay in finishing the work in excess of the number of working days prescribed in the Work Order; the sum shall be calculated as fifteen percent (15%) of the total of each issued Work Order amount divided by the number of calendar days identified for completion of the Work Order; and Contractor agrees to pay the liquidated damages herein provided for, and further agrees that County may deduct the amount thereof from any moneys due or that may become due Contractor under this Agreement. The calculated liquidated damages amount will be included in each Work Order, however, omission of the calculated liquidated damages amount from a Work Order does not constitute waiver by County of liquidated damages and such liquidated damages shall be applied as provided herein.

**7. Payment**

No payment will be made for any work performed prior to approval and full execution of the Work Order and no payment will be made for amounts in excess of the not-to-exceed amount of the Work Order.

The period of performance for Work Orders shall be in accordance with dates specified in each Work Order. No Work Order will be written which exceeds the cumulative total of the not-to-exceed dollar amount of this Agreement.

Payment by County as herein provided shall not be construed as an absolute acceptance of defects in the work or improper materials.

Retention of five percent (5%) of the total Work Order amount will be held at the option of County. The retained funds will be released within thirty-five (35) days after the Notice of Acceptance is recorded.

County shall promptly pay Contractor in accordance with Public Contract Code section 20104.50.

**8. Performance Bond**

As a part of the execution of this Agreement, for any Work Order issued in the amount of \$25,000 or greater, Contractor shall furnish a bond of a surety company authorized to do business in the State of California, and

acceptable to County, conditioned upon the faithful performance of all covenants and stipulations under this Agreement. The amount of this bond shall be one hundred percent (100%) of the total Work Order cost, and shall be executed upon the form provided by County.

**9. Payment Bond**

As a part of the execution of this Agreement, for any Work Order issued in the amount of \$25,000 or greater, Contractor shall furnish a bond of a surety company authorized to do business in the State of California, and acceptable to County, conditioned upon the payment in full of all claims for labor and materials in accordance with the provisions of the law of the State of California. The amount of this bond shall be one hundred percent (100%) of the total Work Order cost, and shall be executed upon the form provided by County.

**10. Notification of Surety Company**

The surety company shall familiarize itself with all of the conditions and provisions of this Agreement, and shall waive the right of special notification of any change or modifications of this Agreement or extension of time, or of decreased or increased work, or of the cancellation of this Agreement, or of any other act or acts by County or its authorized agents, under the terms of this Agreement; and failure to so notify the aforesaid surety company of changes shall in no way relieve the surety company of its obligation under this Agreement.

**11. Payment of Prevailing Wages**

Contractor shall pay and require payment of wages according to a scale of prevailing wage rates determined by California law, which scale is on file at County's Department of Transportation's principal office and shall comply with all applicable wage requirements, as set forth in Labor Code Sections 1770 et seq., 1773.2, 1775, 1776, 1810 and 1813. In accordance with the provisions of Labor Code Section 1810, eight (8) hours of labor shall constitute a legal day's work upon all work done hereunder, and Contractor and any subcontractor employed under this Agreement shall also conform to and be bound by the provisions of Labor Code Sections 1810 through 1815.

**12. Apprentices**

Attention is directed to Sections 1777.5, 1777.6, and 1777.7 of the California Labor Code and Title 8, California Code of Regulations Section 200 et seq. To ensure compliance and complete understanding of the law regarding apprentices, and specifically the required ratio thereunder, each Contractor or subcontractor should, where some question exists, contact the Division of Apprenticeship Standards, 455 Golden Gate Avenue, San Francisco, CA 94102, or one of its branch offices prior to commencement of work on the public works contract. Responsibility for compliance with this section lies with Contractor.

It is County policy to encourage the employment and training of apprentices on public works contracts as may be permitted under local apprenticeship standards.

**13. Certified Payroll**

As required under the provisions of Labor Code Section 1776, Contractor and any subcontractors shall keep accurate payroll records as follows:

1. The payroll records shall show the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by Contractor or subcontractors in connection with this Project.

- 2 A certified copy of all payroll records enumerated above shall be available for inspection at all reasonable hours at the principal office of Contractor as follows:
- a. Make available or furnish to the employee or his or her authorized representative on request.
  - b. Make available for inspection or furnished upon request to a representative of County, the State Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the State Department of Industrial Relations.
  - c. Make available upon request by the public for inspection or copies thereof made; provided, however, that a request by the public shall be made through either County, the State Division of Labor Standards Enforcement, or the State Division of Apprenticeship Standards. The requesting party shall, prior to being provided the records, reimburse the costs of preparation by Contractor, subcontractor, and the entity through which the request was made. The public shall not be given access to the records at the principal office of Contractor.
  - d. All contractors and subcontractors must furnish electronic certified payroll records directly to the Department of Industrial Relations.

**14. Registration of Contractors**

No contractor or subcontractor may bid on any public works project, be listed in a bid proposal for any public works project, or engage in the performance of any contract for public work unless registered with the Department of Industrial Relations pursuant to Labor Code sections 1725.5 and 1771.1.

Contractor shall post job site notices as prescribed by Title 8 of California Code of Regulations Section 16451.

**15. Records Examination and Audit Requirements**

Contractor and its subcontractors, if any are authorized hereunder, shall maintain all books, documents, papers, accounting records, and other evidence pertaining to the performance of this Agreement, including but not limited to, the costs of administering the various aspects of this Agreement. In accordance with Government Code Section 8546.7, all of the above-referenced parties shall make such materials available at their respective offices at all reasonable times during this Agreement period and for four (4) years from the date that final payment by County and all other pending matters are closed. Representatives of County, the State Auditor, and any duly authorized representative of other government agencies shall have access to any books, documents, papers, and records that are pertinent to this Agreement for audit, examination, excerpts, and transactions and copies thereof shall be furnished upon request.

**16. Payment of all Federal, State, or Local Taxes**

Any federal, state, or local tax payable on the articles furnished by Contractor under this Agreement shall be included in the Contract Price and paid by Contractor.

**17. Compliance with all Applicable Laws**

Contractor shall conform to and abide by all Federal, State, and local building, labor and safety laws, ordinances, rules, and regulations. All work and materials shall be in full accordance with the latest rules and regulations of the State Fire Marshal, safety orders of the Division of Industrial Safety, California Electrical Code, California Building Code, California Plumbing Code, and any and all other applicable laws and regulations. Nothing in the

Contract Documents, including but not limited to the plans and specifications, is to be construed to permit work not conforming to these codes, laws, and regulations.

**18. Nondiscrimination**

- A. County may require Contractor's services on projects involving funding from various state and/or federal agencies, and as a consequence, Contractor shall comply with all applicable nondiscrimination statutes and regulations during the performance of this Agreement including but not limited to the following: Contractor and its employees and representatives shall not unlawfully discriminate against any employee or applicant for employment because of race, religion, color, national origin, ancestry, physical handicap, mental disability, medical condition, genetic information, military or veteran status, marital status, age, gender, gender identity, gender expression, sexual orientation, or sex; Contractor shall, unless exempt, comply with the applicable provisions of the Fair Employment and Housing Act (Government Code, Sections 12900 et seq.) and applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Sections 7285.0 et seq.); the applicable regulations of the Fair Employment and Housing Commission implementing Government Code, Section 12990, set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations incorporated into this Agreement by reference and made a part hereof as if set forth in full; and Title VI of the Civil Rights Act of 1964, as amended. Contractor and its employees and representatives shall give written notice of their obligations under this clause as required by law.
- B. Where applicable, Contractor shall include these nondiscrimination and compliance provisions in any of its agreements that affect or are related to the services performed herein.
- C. Contractor's signature shall provide any certifications necessary under the federal laws, the laws of the State of California, including but not limited to Government Code Section 12990 and Title 2, California Code of Regulations, Section 8103.

**19. Reporting Accidents**

Contractor shall prepare and submit (within twenty-four (24) hours of such incidents) reports of accidents at the site and anywhere else the work is in progress in which bodily injury is sustained or property loss in excess of Five Hundred Dollars (\$500.00) occurs.

**20. Workers' Compensation**

Contractor shall comply with Labor Code Sections 3700 et seq., requiring it to obtain Workers' Compensation Insurance, and sign a certificate of knowledge thereof.

**CERTIFICATE OF KNOWLEDGE - LABOR CODE SECTION 3700**

I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work of this Agreement.

Signed: \_\_\_\_\_ Dated: \_\_\_\_\_

**21. Deviation from Plans and Specifications**

No deviation shall be made from the plans and/or the specifications, if any, without the prior written approval of County.

**22. Unity of Plans and Specifications**

The plans and specifications, if any, are one document, and any work shown or mentioned, in one and not in the other, or vice versa, shall be furnished or performed as though mentioned or shown in both.

**23. Notice of Discovery of Hazardous Waste or Unusual Conditions**

A. Contractor shall promptly, and before the following conditions are disturbed, notify County in writing, in the event Contractor encounters, after excavating to a depth of greater than four (4) feet, any of the following:

1. Material that Contractor believes may be hazardous waste, as defined in Section 25117 of the Health and Safety Code, which is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law; or
2. Subsurface or latent physical conditions at the site differing materially from those indicated in the Contract Documents; or
3. Unknown physical conditions at the site of any unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in this Agreement.

B. County shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, or cause a decrease or increase in Contractor's cost of, or time required for performance of any part of the work, an adjustment, excluding loss of anticipated profits, will be made and this Agreement will be modified by an amendment to the Work Order. County will notify Contractor of County's determination as to whether or not an adjustment of this Agreement is warranted.

C. In the event a dispute arises between County and Contractor as to whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in Contractor's cost of, or time required for, performance of any part of the work, Contractor shall not be excused from any scheduled completion date provided for by this Agreement, but shall proceed with all work to be performed under this Agreement. Contractor shall retain any and all rights provided either by contract or by law which pertain to the resolution of disputes and protests between Contractor and County.

**24. Subcontracting**

The provisions of Sections 4100-4114, inclusive, of the Public Contract Code regarding subcontracting shall apply to this Agreement, and Contractor represents that it will comply with all provisions therein.

**25. Additional Work**

County reserves the right to make such alterations, deviations, additions to, or deletions from the plans and specifications, including the right to increase or decrease the quantity of any item or portion of work or to delete any items or portion of work, as may be deemed by the Contract Administrator or Project Manager to be necessary or advisable, and to require such additional work to be required for the proper completion of the whole Work contemplated.

Any such changes will be set forth in the amended written Work Order which will specify the additional work, adjustment of performance time, if any, and basis for additional compensation, if any. Any amended Work Order shall not become effective until approved by County's Contract Administrator.

**26. Termination by County for Convenience**

County reserves the right to terminate this Agreement at any time upon determination by County's representative that termination of this Agreement is in the best interest of County. County shall issue Contractor a written notice specifying that this Agreement is to be terminated.

Upon receipt of said written notice, Contractor shall stop all work under this Agreement except: (1) work specifically directed to be completed prior to termination, (2) work the Inspector deems necessary to secure the Project for termination, (3) removal of equipment and plant from the site of the work, (4) action that is necessary to protect materials from damage, (5) disposal of materials not yet used in the work as directed by County, and (6) clean-up of the site.

If this Agreement is terminated for County's convenience as provided herein, all finished or unfinished work and materials previously paid for shall, at the option of County, become its property. Contractor shall be paid an amount which reflects costs incurred for satisfactory work provided to the date of notification of termination. In addition, Contractor shall be paid the reasonable cost, as solely judged by County, and without profit, for all work performed to secure the Project for termination.

**27. Termination by County for Cause**

If Contractor is adjudged as bankrupt or insolvent, or makes a general assignment for the benefit of its creditors or if a trustee or receiver is appointed for Contractor or for any of its property, or if Contractor files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws, or on more than one occasion fails to supply sufficient skilled workmen or suitable material or equipment, or on more than one occasion fails to make prompt payments to subcontractors for labor, materials, or equipment, or disregards the authority of County's representative, or the Engineer, if one is appointed, or otherwise violates any provision of the Contract Documents, then County may, without prejudice to any other right or remedy and after giving Contractor and its Surety, if applicable, a minimum of ten (10) days from delivery of a written termination notice, terminate the services of Contractor and take equipment and machinery thereon owned by Contractor and finish the work by whatever method County may deem expedient. In such case, Contractor shall not be entitled to receive any further payment until the work is finished.

Without prejudice to other rights or remedies County may have, if Contractor fails to begin delivery of materials and equipment, to commence work within the time specified, to maintain the rate of delivery of material, to execute the work in the manner and at such locations as specified, or fails to maintain a work program which will ensure County's interest, or, if Contractor is not carrying out the intent of this Agreement, an Inspector's written notice may be served upon Contractor and the Surety, if applicable, on its faithful performance bond demanding satisfactory compliance with this Agreement. If Contractor or its Surety, if applicable, does not comply with such notice within five (5) days after receiving it, or after starting to comply, fails to continue, County may exclude it from the premises and take possession of all material and equipment, and complete the work by County's own forces, by letting the unfinished work to another Contractor, or by a combination of such methods.

Where Contractor's services have been so terminated by County, said termination shall not affect any right of County against Contractor then existing or which may thereafter accrue. Any retention or payment of monies by County due Contractor will not release Contractor from compliance with the Contract Documents.



If the unpaid balance of the Contract Price exceeds the direct and indirect costs of completing the work, including compensation for additional professional services, such excess shall be paid to Contractor. If the sums under this Agreement are insufficient for completion, Contractor and its Surety, if applicable, shall pay to County within five (5) days after the completion, all costs in excess of the Contract Price. In any event, the cost of completing the work shall be charged against Contractor and its Surety, if applicable, and may be deducted from any money due or becoming due from County.

The provisions of this Article shall be in addition to all other rights and remedies available to County under law.

If after notice of termination, it is determined for any reason that Contractor was not in default, the rights and obligations of the parties shall be the same as if the notice of termination had not been issued. This Agreement shall be equitably adjusted to compensate for such termination.

**28. Successors and Assigns**

This Agreement shall bind and inure to the heirs, devisees, assignees, and successors in interest of Contractor and to the successors in interest of County in the same manner as if such parties had been expressly named herein.

**29. Assignment of Contract**

Neither this Agreement, nor any part thereof, or any monies due or to become due hereunder, may be assigned by Contractor without the written approval of County, nor without the consent of the Surety, if applicable, unless the Surety has waived its right to notice of assignment in writing. County may assign this Agreement to a lender, or any third party that assumes the obligations of County hereunder.

**30. Amendments**

This Agreement may be amended by mutual consent of the parties hereto. Said amendment shall become effective only when in writing and fully executed by duly authorized officers of the parties hereto.

**31. Separate Contracts**

County reserves the right to let other contracts in connection with the work. Contractor shall afford all other such contractors reasonable opportunity for storage of their materials, shall provide that the execution of its work properly connects and coordinates with theirs, and shall cooperate with them to the end of facilitating the work.

**32. Indemnity**

To the fullest extent allowed by law, Contractor shall defend, indemnify, and hold County and its officers, directors, and employees harmless against and from any and all claims, suits, losses, damages, and liability for damages, including attorney's fees and other costs of defense brought for or on account of injuries to or death of any person, including but not limited to, workers and the public, or on account of injuries to or death of County employees, or damage to property, or any economic, consequential or special damages which are claimed or which shall in any way arise out of or be connected with Contractor's services, operations, or performance hereunder, regardless of the existence or degree of fault or negligence on the part of County, Contractor, subcontractors or employees of any of these, except for the active or sole negligence of County, its officers, directors, and employees, or where expressly prescribed by statute.

The duty to indemnify and hold harmless County specifically includes the duties to defend set forth in Section 2778 of the Civil Code. The insurance obligations of Contractor are separate, independent obligations under the Contract Documents, and the provisions of this defense and indemnity are not intended to modify nor should they be construed as modifying or in any way limiting the insurance obligations set forth in the Contract Documents.

### 33. Insurance

GENERAL INSURANCE REQUIREMENTS: Contractor shall provide proof of a policy of insurance satisfactory to County's Risk Management Division and documentation evidencing that Contractor maintains insurance that meets the following requirements:

1. Full Workers' Compensation and Employers' Liability Insurance covering all employees of Contractor as required by law in the State of California.
2. Commercial General Liability Insurance of not less than One Million Dollars (\$1,000,000) combined single limit per occurrence for bodily injury and property damage, including but not limited to endorsements for the following coverage: premises, personal injury, operations, products and completed operations, blanket contractual, and independent contractors' liability and a \$2,000,000 aggregate limit.
3. Automobile Liability Insurance of not less than One Million Dollars (\$1,000,000) is required in the event motor vehicles are used by Contractor in performance of this Agreement.
4. In the event Contractor is a licensed professional and is performing professional services under this Agreement, Professional Liability Insurance is required with a limit of liability of not less than One Million Dollars (\$1,000,000).
5. Explosion, Collapse and Underground coverage is required when the scope of work includes XCU exposures.

PROOF OF INSURANCE REQUIREMENTS:

1. Contractor shall furnish proof of coverage satisfactory to County's Risk Management Division as evidence that the insurance required herein is being maintained. The insurance will be issued by an insurance company acceptable to County's Risk Management Division, or be provided through partial or total self-insurance likewise acceptable to the Risk Management Division.
2. The County of El Dorado, its officers, officials, employees, and volunteers shall be included as additional insured, but only insofar as the operations under this Agreement are concerned. This provision shall apply to all general and excess liability insurance policies. Proof that County is named additional insured shall be made by providing the Risk Management Division with a certified copy, or other acceptable evidence, of an endorsement to Contractor's insurance policy naming County as additional insured.
3. In the event Contractor cannot provide an occurrence policy, Contractor shall provide insurance covering claims made as a result of performance of this Agreement for not less than three (3) years following completion of performance of this Agreement.
4. Any deductibles or self-insured retentions must be declared to and approved by County. At the option of County, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects County, its officers, officials, employees and volunteers; or Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.
5. Contractor shall require each of its subcontractors to procure and maintain Commercial General Liability Insurance, Automobile Liability Insurance, and Workers' Compensation Insurance of the types and in the amounts specified above, or shall insure the activities of its subcontractors in its own policy in like amounts. Contractor shall also require each of its subcontractors to name Contractor and the County of El Dorado as additional insureds on each subcontractor's general and excess liability insurance policies.

Upon request by County Contractor shall furnish proof of coverage satisfactory to County as evidence that the subcontractor insurance required herein is being maintained.

**INSURANCE NOTIFICATION REQUIREMENTS:**

1. Contractor agrees that no cancellation or material change in any policy shall become effective except upon prior written notice to Department of Transportation, 2441 Headington Road, Placerville, California 95667.
2. Contractor agrees that the insurance required herein shall be in effect at all times during the term of this Agreement, inclusive of the guarantee/warranty period specified herein below. In the event said insurance coverage expires at any time or times during the term of this Agreement, Contractor shall immediately provide a new certificate of insurance as evidence of the required insurance coverage. In the event Contractor fails to keep in effect at all times insurance coverage as herein provided, County may, in addition to any other remedies it may have, terminate this Agreement upon the occurrence of such event. New certificates of insurance are subject to the approval of County's Risk Management Division.

**ADDITIONAL STANDARDS:** Certificates shall meet such additional standards as may be determined by County's Department of Transportation either independently or in consultation with County's Risk Management Division, as essential for protection of County.

**COMMENCEMENT OF PERFORMANCE:** Contractor shall not commence performance of this Agreement unless and until compliance with each and every requirement of the insurance provisions is achieved.

**MATERIAL BREACH:** Failure of Contractor to maintain the insurance required herein, or to comply with any of the requirements of the insurance provisions, shall constitute a material breach of the entire Agreement.

**REPORTING PROVISIONS:** Any failure to comply with the reporting provisions of the policies shall not affect the coverage provided to County, its officers, officials, employees or volunteers.

**PRIMARY COVERAGE:** Contractor's insurance coverage shall be primary insurance as respects County, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by County, its officers, officials, employees or volunteers shall be in excess of Contractor's insurance and shall not contribute with it.

**PREMIUM PAYMENTS:** The insurance companies shall have no recourse against County, its officers, agents, employees or any of them for payment of any premiums or assessments under any policy issued by any insurance company.

**CONTRACTOR'S OBLIGATIONS:** Contractor's indemnity and other obligations shall not be limited by the insurance required herein and shall survive the expiration of this Agreement.

**34. Independent Contractor/Liability**

Contractor is, and shall be at all times, deemed independent and shall be wholly responsible for the manner in which it performs services required by terms of this Agreement. Contractor exclusively assumes responsibility for acts of its employees, associates, and subcontractors, if any are authorized herein, as they relate to services to be provided under this Agreement during the course and scope of their employment.

Contractor shall be responsible for performing the work under this Agreement in a safe, professional, skillful, and workmanlike manner and shall be liable for its own negligence and negligent acts of its employees. County shall have no right of control over the manner in which work is done and shall, therefore, not be charged with responsibility of preventing risk to Contractor or its employees.

**35. Interest of Public Official**

No official or employee of County who exercises any functions or responsibilities in review or approval of services to be provided by Contractor under this Agreement shall participate in or attempt to influence any decision relating to this Agreement which affects personal interest or interest of any corporation, partnership, or association in which he/she is directly or indirectly interested; nor shall any such official or employee of County have any interest, direct or indirect, in this Agreement or the proceeds thereof.

**36. Interest of Contractor**

Contractor covenants that Contractor presently has no personal interest or financial interest, and shall not acquire same in any manner or degree in either: 1) any other contract connected with or directly affected by the services to be performed by this Agreement; or, 2) any other entities connected with or directly affected by the services to be performed by this Agreement. Contractor further covenants that in the performance of this Agreement no person having any such interest shall be employed by Contractor.

**37. Conflict of Interest**

The parties to this Agreement have read and are aware of the provisions of Government Code Section 1090 et seq. and Section 87100 relating to conflict of interest of public officers and employees. Contractor attests that it has no current business or financial relationship with any County employee(s) that would constitute a conflict of interest with provision or services under this Agreement and will not enter into any such business or financial relationship with any such employee(s) during the term of this Agreement. County represents that it is unaware of any financial or economic interest of any public officer or employee of Contractor relating to this Agreement. It is further understood and agreed that if such a financial interest does exist at the inception of this Agreement either party may immediately terminate this Agreement by giving written notices as detailed in ARTICLE 27, Termination by County for Cause, hereto.

**38. Licenses**

Contractor warrants and represents that it holds a valid California license pursuant to the Contractors' State License Law (Business and Professions Code Sections 7000, et seq.), that its license is in good standing and that it possesses a Class A, General Engineering Contractor License as required by the categories and type of the work. Copies of Contractor's State Contractors' license must be provided with this Agreement.

**39. Business License**

County's Business License Ordinance provides that it is unlawful for any person to furnish supplies or services, or transact any kind of business in the unincorporated territory of County of El Dorado without possessing a County business license unless exempt under County Ordinance Code Section 5.08.070. Contractor warrants and represents that it shall comply with all of the requirements of County's Business License Ordinance, where applicable, prior to beginning work under this Agreement and at all times during the term of this Agreement.

**40. Cleaning Up**

Contractor shall not allow the site of the work to become littered with trash, rubbish, or waste material, but shall maintain the site of work in a neat and orderly condition throughout the performance of the work. At the end of each work day, Contractor shall clean up all debris and waste materials generated by the work and shall properly dispose of all trash, rubbish and waste materials off site at no additional cost to County.

**41. Access to the Work**

County, and any state or local authorities having jurisdiction over the Project, shall at all times have access to the work.

**42. Acceptance of Work**

A recorded Notice of Acceptance signed by the Director of Transportation will be issued by County for each Work Order to accept the work, when the work under the Work Order has been completed satisfactorily, as determined by County or its duly authorized representative. Acceptance of the work shall not constitute an acceptance of latent defects nor relieve Contractor of responsibility for any act or omission which is a violation of this Agreement. County will release retention withheld, if any, thirty-five (35) days after the Notice of Acceptance is recorded.

**43. Resolution of Claims**

Contractor's attention is invited to Public Contract Code Sections 20104, et seq., for resolution of construction claims, and specifically Section 20104.2. Claims pertaining to this Agreement shall be governed by the provisions of those sections.

Contractor's attention is directed to California Public Contract Code Section 9204, which describes procedures for the resolution of claims on public works projects. Among other things, Section 9204 requires the claimant to furnish reasonable documentation to support a claim, requires the public entity to respond to the claim within forty-five (45) days of receipt of the claim, and allows for the claimant to demand an informal meet and confer conference for settlement of the issues in dispute. For any portion of a claim that remains in dispute, Section 9204 requires submission of the claim to nonbinding mediation. Additionally, Section 9204 requires the public entity to make any payment due on an undisputed portion of the claim within sixty (60) days of the public entity's written response and to pay interest at the rate of seven percent (7%) per annum on any amounts not paid in a timely manner. The claims procedures described herein and in any other Contract Documents are in addition to the procedures required by Section 9204 and, in the event of a conflict between those various procedures, the more stringent procedures will control.

**44. Environmental and Toxic Warranty**

Contractor warrants that its operations concerning the Project are not and will not be in violation of any applicable federal, state, or local environmental statute, law, or regulation dealing with hazardous materials substances or toxic substances.

**45. Guarantee**

**Final Guarantee:** Contractor shall guarantee all materials and equipment furnished and work performed for a period of one (1) year. Contractor warrants and guarantees for a period of one (1) year from the date of Acceptance of the Work that the work is free from all defects due to faulty materials or workmanship and Contractor shall promptly make such corrections as may be necessary, including repairs of any damage to other parts of the work resulting from such defects at no cost to County. County will give notice of observed defects with reasonable promptness. In the event that Contractor should fail to make such repairs, adjustments, or other work that may be made necessary by such defects, County may do so and charge Contractor the cost thereby incurred.

**Extended Guarantees:** If a guaranty exceeding one (1) year is provided by the supplier or manufacturer of any equipment or materials used in this Project, then the guarantee for such equipment or materials shall be extended for such term. Contractor expressly agrees to act as co-guarantor of such equipment and materials, and Contractor

shall supply County with all warranty and guaranty documents relative to equipment and materials incorporated in the job and guaranteed by its suppliers or manufacturers.

**Warranty:** Contractor warrants to County that materials and equipment furnished under this Agreement will be of good quality and new, unless otherwise required or permitted by this Agreement, that the work will be free from defects or flaws and is of the highest quality of workmanship and that the work will conform with the requirements of this Agreement. Work not conforming to these requirements, including substitutions not properly approved and authorized, shall be considered defective.

If within one (1) year from the date of the Acceptance of the Work or such longer period of time as may be prescribed by law or regulations or by the terms of any applicable special guarantee required by the contract documents, any work is found to be defective, Contractor shall promptly, without cost to County and in accordance with County's written instruction, correct such defective work. If work is rejected by County, defective material or work will be removed from site and replaced with non-defective materials or work. If Contractor is unable to promptly and properly correct any defective work, County may at its option have the work corrected by such other means as County deems appropriate and hold Contractor liable for all direct, indirect and consequential costs caused by such defective work. Said warranty shall apply to all work found to be "defective" which is attributable to the quality or quantity of the materials used, the quality of the workmanship or for performance of this Agreement.

**46. Notice**

Any notice or other correspondence required to be given under this Agreement by either party to the other may be affected by personal delivery in writing or by mail, postage prepaid. Notices personally delivered during normal business hours shall be deemed received on the actual date of delivery; mailed notices shall be deemed received one (1) day after affixed postmark. Notices and correspondence to County shall be in duplicate and shall be delivered to it as follows:

To County:

County of El Dorado  
Department of Transportation  
2441 Headington Road  
Placerville, California 95667

Attn.: Brian Mullens  
Deputy Director

With a copy To:

County of El Dorado  
Chief Administrative Office  
2850 Fairlane Court  
Placerville, California 95667

Attn.: Michele Weimer  
Procurement and Contracts Manager

Notices and correspondence to Contractor shall be delivered when personally delivered to, or if mailed, addressed to Contractor at:

American Pavement Systems, Inc. 1012 11<sup>th</sup> Street, Suite 1000  
Modesto, California 95354  
Attn.: Gregory Reed  
President

Either party may change its address for notices or for its principal place of business by giving written notice pursuant to this Article.

**47. Drug-Free Workplace**

Contractor shall comply with Government Code Section 8355.

**48. California Residency (Form 590)**

All independent Contractors providing services to County must file a State of California Form 590, certifying their California residency or, in the case of a corporation, certifying that they have a permanent place of business in California. Contractor will be required to submit a Form 590 prior to execution of an Agreement or County shall withhold seven percent (7%) of each payment made to Contractor during the term of this Agreement. This requirement applies to any Agreement/Contract exceeding \$1,500.00.

**49. County Payee Data Record Form**

All independent contractors or corporations providing services to County who do not have a Department of the Treasury Internal Revenue Service Form W-9 (Form W-9) on file with County must file a County Payee Data Record Form with County.

**50. Taxes**

Contractor certifies that as of today's date, it is not in default on any unsecured property taxes or other taxes or fees owed by Consultant to County. Contractor agrees that it shall not default on any obligations to County during the term of this Agreement.

**51. Venue**

The Contract Documents and all provisions thereto shall be governed by the laws of the State of California. Any litigation arising herein shall be brought in the County of El Dorado.

**52. Contract Administrator**

The County Officer or employee with responsibility for administering this Agreement is Brian Mullens, Deputy Director Maintenance and Operations Division, Department of Transportation, or successor.

**53. Authorized Signatures**

The parties to this Agreement warrant and represent that the undersigned individuals executing this Agreement on their respective behalves are fully authorized to do so by law or other appropriate instrument and to bind upon said parties the obligations set forth herein.

**54. Partial Invalidity**

If any provision, sentence, or word of this Agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions, sentences, and words will continue in full force and effect without being impaired or invalidated in any way.

**55. No Third Party Beneficiaries**

Nothing in this Agreement is intended, nor will be deemed, to confer rights or remedies upon any person or legal entity not a party to this Agreement.

**56. Counterparts**

This Agreement may be executed in one or more counterparts, each of which shall be an original and all of which together shall constitute one and the same instrument.

**57. Entire Agreement**

This document and the documents referred to herein or exhibits hereto are the entire Agreement between the parties and they incorporate or supersede all prior written or oral agreements or understandings.

**Contract Administrator Concurrence:**

By: \_\_\_\_\_

Brian Mullens  
Deputy Director  
Maintenance and Operations Division  
Department of Transportation

Dated: \_\_\_\_\_

**Requesting Department Concurrence**

By: \_\_\_\_\_

Rafael Martinez  
Director  
Department of Transportation

Dated: \_\_\_\_\_



IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the dates indicated below, the latest of which shall be deemed to be the effective date of this Agreement.

**-- COUNTY OF EL DORADO --**

By: \_\_\_\_\_

Dated: \_\_\_\_\_

Board of Supervisors  
"County"

Attest:  
James S. Mitrison  
Clerk of the Board of Supervisors

By: \_\_\_\_\_

Dated: \_\_\_\_\_

Deputy Clerk

**-- AMERICAN PAVEMENT SYSTEMS, INC. --**

By: \_\_\_\_\_

Dated: \_\_\_\_\_

Gregory Reed  
President  
"Consultant"

By: \_\_\_\_\_

Dated: \_\_\_\_\_

Pamela Call  
Chief Financial Officer

# American Pavement Systems, Inc.

## Exhibit A

### Surface Treatment Specifications

#### RUBBER MODIFIED ASPHALT CHIP SEAL SPECIFICATIONS

##### 1. General

###### 1.1. Scope

This work consists of constructing a chip seal with rubber modified asphalt binder.

###### 1.2. Definitions

Scrap tire crumb rubber:

Any combination of:

1. Automobile tires
2. Truck tires
3. Tire buffing

###### 1.3. Submittals

Contractor shall comply with all federal, state, and local environmental laws, rules, regulations, and ordinances including, but not limited to, air quality requirements.

At least five (5) days before use, Contractor shall submit to County, the permit issued by the local air district for rubber modified binder application equipment. If an air quality permit is not required by the local air district for applying rubber modified binder, Contractor shall submit verification, from the local air district, that an air quality permit is not required.

At least ten (10) days before starting any rubber modified asphalt chip seal activities, Contractor shall submit to County, the name of an authorized laboratory to perform Quality Control (QC) testing. The authorized laboratory shall comply with the Caltrans Independent Assurance Program or possess current American Association of State Highway and Transportation Officials (AASHTO) Material Reference Laboratory (AMRL) accreditation for all American Society for Testing and Materials (ASTM) and AASHTO tests required in Section 2.

Contractor shall submit a certified volume or weight slip for each delivery of rubber modified asphalt binder.

At least fourteen (14) days before use, Contractor shall submit:

1. Four (4) each one-quart cans of rubber modified rubber modified asphalt binder
2. Safety Data Sheets (SDS) for each hazardous material
3. Rubber modified asphalt binder formulation, including:
  - 3.1. Each source and type of crumb rubber modifier
  - 3.2. Percentage of crumb rubber modifier by total weight of rubber modified asphalt binder
4. Test results
  - 4.1. Certificate of Compliance showing the rubber modified asphalt binder is the required Performance Grade (PG)
  - 4.2. Certificate of Compliance showing each source of crumb rubber modifier is derived from automobile and/or truck tires

4.3. Test results showing the screenings meets the requirements in Tables 1 and 2

#### **1.4. Quality Control Program**

Contractor shall develop, implement, and maintain a QC program.

Contractor shall prepare and maintain QC records, including:

1. Names and qualifications of:
  - 1.1. Samplers
  - 1.2. Testers
  - 1.3. Inspectors
2. Testing laboratories
3. Testing equipment calibrations and certifications
4. Construction inspection reports
5. Sampling and testing records organized by date and type of material
6. Test results with comparison of quality characteristic requirements
7. Test results in relation to action and any suspension limits
8. Records of corrective actions and suspensions

Within twenty-four (24) hours, Contractor shall notify County's Contract Administrator of any noncompliance issues identified by the QC program.

Within ten (10) days of beginning the modified binder seal coat operation, Contractor's independent testing laboratory shall conduct the Vialit Test Method for aggregate in Chip Seals French Chip for the retention requirement and submit a signed copy of a test results report to County's Contract Administrator. The report shall not be considered for acceptability testing. The Vialit Test Method can be reviewed at: <http://www.dot.ca.gov/hq/esc/ctms/index.html>

#### **1.5. Quality Control Manager**

Contractor shall assign a QC manager before the start of the affected work. The QC manager shall receive, review, and approve all correspondence, submittals, and reports relating to the QC of materials before they are submitted to County's Contract Administrator. The QC manager shall be the sole individual responsible for:

1. Signing the QC plan
2. Implementing the QC plan
3. Maintaining the QC records

The QC manager shall be Contractor's employee or shall be hired by a subcontractor providing only QC services. The QC manager shall not be employed or compensated by a subcontractor or by any other persons or entities hired by subcontractors who will provide services or material for the project.

## **2. Materials**

### **2.1. Rubber Modified Asphalt Binder**

Unless County and Contractor determine a different rubber modified asphalt binder would work better for the road condition, or would better advance the objectives of Streets and Highway Code Section 2030, the Rubber modified asphalt binder shall be PG 64-16 M with a minimum of eighteen percent (18%) scrap tire rubber that meets the requirements in Section 92 of the current Caltrans Standard Specifications. The solubility requirement is waived if the Dynamic Shear Rheometer test on original binder result ( $G^*/\sin(\delta)$ ) at 64° C is less than or equal to 2.00 kPa.

### **2.2. Screenings**

Screenings for rubber modified asphalt chip seal shall comply with the screenings gradation requirements shown in Table 1.

**Table 1: Rubber Modified Asphalt Chip Seal Screenings Gradation**

Percentage passing by weight	
Sieve Size	Medium
3/4 inch	100
1/2 inch	95-100
3/8 inch	70-85
No. 4	0-15
No. 8	0-5
No. 16	---
No. 200	0-1

The screenings shall also comply with the requirements shown in Table 2.

**Table 2: Rubber Modified Asphalt Chip Seal Screenings Requirements**

Quality Characteristic	Test Method	Requirement
Cleanness Value (min)	California Test 227	80
Durability (min)	California Test 229	52
Los Angeles Rattler Loss (100 Revolutions, %, max)	ASTM C 131	10
Los Angeles Rattler Loss (500 Revolutions, %, max)		40
Film Stripping (% max)	California Test 302	25

**3. Quality Control**

**3.1. Rubber Modified Asphalt Binder**

Contractor shall submit to County, a Certificate of Compliance for each truckload of rubber modified asphalt binder delivered to the jobsite.

**3.2. Screenings**

Contractor shall sample and test each stockpile of uncoated screenings. Contractor shall make all stockpiles available to County for quality assurance testing and notify County’s Contract Administrator a minimum of one (1) full working day prior to pre-coating. Contractor shall maintain discrete stockpiles at the asphalt plant.

Contractor shall test the quality characteristics of screenings under the test methods and frequencies shown in Table 3.

**Table 3: Screenings QC Testing**

Quality Characteristics	Test Method	Frequency
Gradation	ASTM C 136	One (1) per day per stockpile <sup>a</sup>
Cleanness value	California Test 227	
Durability	California Test 229	

<sup>a</sup> Contractor is required to test the stockpiles from which the screenings for that day’s work are being taken from.

#### **4. Construction**

##### **4.1. Equipment**

###### **4.1.1.Placing/Finishing Rubber Modified Asphalt Chip Seal**

Self-propelled distributor truck for applying rubber modified asphalt binder shall have the following features:

1. Heating unit
2. Internal mixing unit
3. Pumps that spray rubber modified asphalt binder within 0.05 gal/sq yd of the specified rate
4. Fully circulating spray bar that applies rubber modified asphalt binder uniformly
5. Tachometer
6. Pressure gauges
7. Volume measuring devices
8. Thermometer
9. Observation platform on the rear of the truck for an observer on the platform to see the nozzles and unplug them if needed.

Contractor shall use self-propelled power brooms that clean the existing pavement and remove loose screenings without dislodging screenings set in the rubber modified asphalt binder.

Pneumatic tire rollers shall be self-propelled and reversible. Pneumatic tires shall be of equal size, diameter, type, and ply. The roller shall carry at least 1,500 lbs. of load on each wheel, and each tire shall have an air pressure of  $100 \pm 5$  psi. Steel wheel rollers shall be self-propelled and reversible. The roller shall be operated in stated mode at all times and shall not exceed ten (10) tons in weight.

The screenings haul trucks shall have tailgates that discharge screenings and devices to allow locking onto the rear screenings spreader hitch. The dump beds shall not push down on the spreader when fully raised. Dump beds shall not spill screenings on the roadway when transferred to the spreader hopper. All haul trucks shall have tarpaulins to cover precoated screenings.

The self-propelled screenings spreader shall have a screenings hopper in the rear, belt conveyors that carry the screenings to the front, and a spreading hopper capable of providing a uniform screening spread rate over the entire width of the traffic lane in one (1) application.

##### **4.2. Surface Preparation**

Contractor shall furnish, place, maintain, and remove temporary pavement delineation in accordance with provisions in Section 12 of the current Caltrans Standard Specifications and Special Provisions. Nothing in the Special Provisions shall be construed as to reduce the minimum standards specified in the "Manual of Uniform Traffic Control Devices," and the California Supplement or as relieving Contractor from its responsibility, as provided in Section 7-1.04, "Public Safety," of the Caltrans Standard Specifications.

Contractor shall remove any existing traffic stripes, markings, crosswalks, stop bars, legends, and raised pavement markers in areas to receive rubber modified asphalt chip seal as required by the plans or project specifications. Removal shall be done by grinding and disposing of by Contractor. Grinding operations shall be conducted to keep all removed pavement material from entering the storm drain system.

Existing pavement striping, markings, or markers which are outside the work area and not to be removed, shall be protected by Contractor. Any striping, markings, or markers damaged or rendered useless by Contractor's operations shall be restored by Contractor to County's satisfaction and at Contractor's expense.

Before applying rubber modified asphalt binder, Contractor shall cover manholes, valve and monument covers, grates, or other exposed facilities located within the area of application with plastic or oil-resistant construction paper secured by tape or adhesive to the facility being covered. Contractor shall reference the covered facilities with enough control points to locate the facilities after the application of the rubber modified asphalt chip seal. Contractor shall remove coverings promptly to return the facilities to service prior to the end of the same shift the seal coat is placed.

Immediately before applying the rubber modified asphalt binder, Contractor shall clean and completely dry the pavement surface. Contractor shall perform sweeping, flushing, or other means necessary to remove all loose particles of paving, all dirt, and all extraneous material. Contractor shall clean all streets from face of curb to face of curb in the project area as necessary to ensure the pavement surface is sufficiently cleaned to provide for a bond between the existing pavement surface and seal coat. Any cleaning of the pavement surface immediately before placing rubber modified asphalt chip seal shall be performed without water. The application of rubber modified asphalt binder on any street shall not proceed until County has approved the street cleaning.

In the event that a scheduled street should become wet due to fog, rain, or any other reason, the placement of rubber modified asphalt chip seal shall be suspended until the surface has completely dried, as determined by County.

Contractor shall remove all vegetation material growing in the street or on the interface of the asphalt surface with the lip of concrete gutter prior to placing rubber modified asphalt binder.

The removal of all existing pavement markings and traffic stripes shall occur no sooner than two (2) calendar days prior to the day that the rubber modified chip seal is to be placed.

If Contractor uses sweeping equipment to clean the streets, Contractor shall perform a minimum of two (2) complete passes over all pavement surfaces. In the event County determines that two (2) passes are not adequate, Contractor shall re-sweep designated areas as necessary to achieve the appropriate level of pavement cleaning. Completion of sweeping shall be evidence by the absence of all loose particles of paving, all dirt, sand, gravel, leaves, and all other extraneous material. Street sweeping equipment shall be a vacuum sweeper, or approved equal, in a sufficiently maintained condition to accomplish the sweeping goals of the project. Pavement surfaces missed by or inaccessible to broom sweepers shall be swept clean by other methods that are approved by County. Contractor shall provide flushing, compressed air, or other cleaning methods necessary to remove all dirt, vegetation, and loose material from the pavement.

Prior to the application of the rubber modified asphalt chip seal, Contractor shall completely remove all grease and oil spots deposited by parked cars in the area of work. Grease build up greater than 1/32 of an inch shall be removed by scrapping or other mechanical methods. The application of rubber modified asphalt binder on any street shall not proceed until County has approved the removal of all grease and oil spots.

#### **4.3. Precoating Screenings**

Precoating of screenings is required. Precoating of screenings shall be performed at a central mixing plant.

Contractor shall not recombine fine materials collected in dust control systems except from primary dust collection devices such as cyclone collectors or knock-out boxes with any other aggregate used in the production of screenings.

For rubber modified asphalt chip seal, screenings shall be preheated from 260 to 325 degrees Fahrenheit (F). Contractor shall coat with any of the asphalts specified in the table titled, "Performance Graded Asphalt Binder," in Section 92 of the current Caltrans Standard Specifications. The asphalt shall be one (1.0) percent by weight of dry screenings.

Do not stockpile preheated and/or precoated screenings.

#### **4.4. Rubber Modified Asphalt Binder Application**

The rubber modified asphalt binder may only be applied if:

1. The pavement temperature is above 55 degrees F.
2. The ambient temperature is from 60 to 105 degrees F.
3. The pavement is clean and dry.
4. Wind conditions are such that uniform rubber modified asphalt binder coverage can be achieved.
5. Rain is not imminent.

Contractor shall apply the rubber modified asphalt binder when the temperature of the preheated rubber modified asphalt binder is between 330 and 375 degrees F, or in accordance with the spray temperature curve provided by binder supplier. Contractor shall prevent vehicles from driving on rubber modified asphalt binder before spreading screenings.

Contractor shall not apply rubber modified asphalt binder during high wind conditions. If authorized, Contractor may adjust the distributor bar height and distribution speed and use shielding equipment during high wind conditions. However, if the weather conditions do not allow for uniform placement of the rubber modified asphalt binder, County may decide to suspend construction activities by Contractor at no cost to County. Contractor may not resume construction activities until receiving approval from County.

In the course of construction where the rubber modified asphalt binder distributor truck creates a joint by stopping at some point along the length of the roadway, the screenings spreader shall stop short of this joint, leaving a small strip of uncovered rubber modified asphalt binder. This is to prevent an overlapping double thickness joint from being created once work resumes. Transverse joints of this type shall be constructed by spraying the rubber modified asphalt binder on the uncovered rubber modified asphalt binder from the area before the work stopped and proceed along the roadway. All reasonable precautions shall be taken to avoid skips and overlaps at joints. Any defects shall be corrected at Contractor's expense by use of a shovel and/or broom prior to continuing operations. Contractor shall plan its operations to minimize transverse joints.

The longitudinal joint between adjacent applications of screenings shall coincide with the line between designated traffic lanes. Contractor shall overlap longitudinal joints. The overlap shall be from two (2) to four (4) inches. At longitudinal joints with screenings, Contractor shall broom back and blend the edge to eliminate the differences in elevation. The joints shall be free

from ridges and depressions and shall have a uniform appearance consistent with the adjacent sealed surface. Defects shall be corrected at Contractor's expense.

Joints between areas of rubber modified binder without screenings shall be made by Contractor overlapping the rubber modified binder distributions. Contractor shall disperse the excess material by spreading it with a squeegee or rake over a larger area of freshly applied rubber modified binder.

If the rubber modified asphalt chip seal will be applied in a cul-de-sac, Contractor shall submit plans for the construction methods in these areas. Contractor shall submit plans that include, but are not limited to, diagrams showing how the distributor truck and screenings spreader shall move through the work area. Contractor shall submit plans at least five (5) days before any rubber modified asphalt chip seal may be placed in cul-de-sac areas in order to minimize overlapping of the binder. When placing rubber modified asphalt chip seals in the cul-de-sac, Contractor shall cover rubber modified asphalt in screenings within five (5) minutes of application and initial rolling of the screenings shall begin within three (3) minutes after spreading.

The application of rubber modified binder to areas not accessible with the distributor bar on the distributor truck shall be accomplished by Contractor using handheld squeegees or other means approved by County. If Contractor uses County-approved methods, Contractor shall apply the rubber modified asphalt binder at a comparable rate and uniformly as the distributor truck allows in these areas. Contractor shall take care to apply screenings while the binder is still hot enough to allow proper embedment.

Contractor shall apply the rubber modified asphalt binder at the following rates:

For Medium Screenings, from 0.55-0.65 gallons per square yard.

The exact rate shall be determined by the inspector. Contractor shall apply binder to within ten (10) percent of the determined application rate.

All areas of the existing pavement surface that have patching shall be tack coated with conventional emulsion or paving-grade asphalt binder prior to the full application of the rubber modified asphalt chip seal. These areas will be identified by County and Contractor shall tack coat the areas with rubber modified asphalt binder one (1) hour before full application of the rubber modified asphalt chip seal begins.

#### **4.5. Screenings Application**

During transit, Contractor shall cover precoated screenings for rubber modified binder chip seal with tarpaulins, which are fully secured, at all times.

Contractor shall prevent vehicles from driving on rubber modified asphalt binder before spreading screenings.

At the time of application, precoated screenings for rubber modified binder chip seal shall be preheated from 225 to 325 degrees F.

Contractor shall spread screenings at a uniform rate over the full lane width in one (1) application. Contractor shall operate the spreader at speeds slow enough to prevent screenings from rolling over after dropping. If the spreader is not moving, screenings shall not drop. If the spreader stops and screenings drop, Contractor shall remove the excess screenings before resuming activities.



The screenings spreader shall be at an appropriate distance behind the rubber modified asphalt binder distribution truck such that screenings are applied to the rubber modified asphalt binder within one (1) minute. The screenings spreader shall be within a maximum of two hundred (200) feet from the distribution truck at all times.

Spread screenings at the following rates:

For Medium Screenings, from twenty-eight (28) to thirty-two (32) pounds per square yard.

The exact rate shall be determined by the inspector. Contractor shall spread screenings to within ten (10) percent of the determined application rate. The application of the finished rubber modified binder chip seal shall be uniform in appearance and free of defects.

#### **4.6. Rolling and Sweeping**

Contractor shall perform initial rolling within ninety (90) seconds of spreading screenings. Contractor shall not spread screenings more than a maximum of two hundred (200) feet ahead of the initial rolling.

Coverage shall consist of the number of passes a roller needs to cover the width. A pass shall be one (1) roller movement parallel to the rubber modified binder chip seal application in either direction. Overlapping passes are part of the coverage being made and are not part of a subsequent coverage. Contractor shall not start a coverage until completing the previous coverage.

Initial rolling of the rubber modified binder chip seal shall consist of a minimum of one (1) coverage with pneumatic tire rollers. After the initial rolling, a minimum of three (3) coverages with pneumatic tire rollers, shall be made by Contractor on the rubber modified binder chip seal.

After completion of rolling with pneumatic tire rollers, only one (1) coverage shall be performed by Contractor with a steel-wheeled roller, not to exceed ten (10) tons in weight. Contractor's use of steel-wheeled roller shall be immediately discontinued if it fractures the aggregate screenings.

Sweeping shall be a multi-step operation following final rolling of the screenings. Contractor shall perform initial sweepings and remove loose screenings without dislodging the screenings set in the rubber modified binder, prior to acceptance.

Three (3) additional sweepings shall be performed. One (1) calendar day after placement of the rubber modified binder chip seal, Contractor shall perform the first sweeping. The second sweeping shall be performed two (2) calendar days after placement of the rubber modified binder chip seal, and the final sweeping shall occur from five (5) to seven (7) calendar days after placement of the rubber modified binder chip seal. The second and third sweeping will be performed by County.

Contractor shall remove all loose chips from the street surface by sweeping the chips off of the roadway. Contractor shall remove excess screenings before uncontrolled traffic is permitted on the completed rubber modified seal coat. If a broom sweeper is not able to remove excess chips in areas where chips cannot be swept off the roadway, such as a cul-de-sac and areas with curb and gutter, Contractor shall be responsible for removing these chips through the use of a vacuum sweeper or other acceptable means as approved by County.

Contractor shall discontinue immediately, the use of any sweeper that causes damage to the rubber modified binder chip seal coat. Any voids caused by automobile tires, poor adhesion of

chips to rubber modified asphalt binder, or any other cause shall be Contractor's responsibility to patch prior to removing traffic control devices, and at no additional cost to County.

Contractor's failure to provide adequate sweeping shall result in County performing said work at Contractor's sole expense, which shall be deducted from any monies due to Contractor. Sweeping by County forces shall not relieve Contractor of any liability arising from its failure to comply with these specifications.

## **5. County Acceptance**

County reserves the right to refuse to permit the use of material solely on the basis of a Certificate of Compliance. Contractor shall allow County or its designee access to observe any QC testing being performed. Contractor shall inform County or its designee of the time and location that the QC testing shall be performed.

County will use Contractor's QC test results to determine if the materials used for the rubber modified chip seal meet the quality characteristic requirements that are specified herein. Contractor shall deliver samples of materials used to County or permit County or its designee access to obtain samples from any stockpiles or facilities used to store or produce materials used in the rubber modified chip seal, upon request at any time during construction. County reserves the right to have such materials tested by an independent laboratory for compliance with the requirements in Section 2, for verification and acceptance purposes. Contractor may examine the records and test reports that County performs.

County will accept the completed in-place rubber modified chip seal, if the final product is uniform in appearance, free from all visible defects, bumps, areas of poor chip retention, and has been swept to remove all loose chips.

## **6. Payment**

The payment quantity for rubber modified asphalt chip seal is square yard, and such price shall include full compensation for specified surface preparation, removals, sweeping, and sanding if necessary, and for performing all of the work and providing the materials involved in constructing the rubber modified asphalt chip seal completely in place.

Contractor shall submit CalRecycle Form 739-TRP certifying the use of California tires (<http://www.calrecycle.ca.gov/Funding/Forms/Tires/CalRecycle739TRP.pdf>).

## **SLURRY SEAL SPECIFICATIONS**

### **1. Application**

Application of a Type II / Latex Modified Slurry Seal independent of the other surface applications described herein. All materials and application methods shall be in conformance with current Caltrans Standard Specifications, including any amendments thereto. Traffic Control measures shall be adequate for the application of surfacing materials until surfacing materials have sufficiently cured to allow traffic access to resurfaced areas.

### **2. Surface Preparation**

Contractor shall furnish, place, maintain, and remove temporary pavement delineation in accordance with provisions in Section 12 of the current Caltrans Standard Specifications and Special Provisions. Nothing in the Special Provisions shall be construed as to reduce the minimum standards specified in the "Manual of Uniform Traffic Control Devices" and the California Supplement or as relieving Contractor from its responsibility, as provided in Section 7-1.04, "Public Safety," of the Caltrans Standard Specifications.

Contractor shall remove any existing traffic stripes, markings, crosswalks, stop bars, legends, and raised pavement markers in areas to receive rubber modified asphalt chip seal as required by the plans or project specifications. Removal shall be done by grinding and disposing of by Contractor. Grinding operations shall be conducted to keep all removed pavement material from entering the storm drain system.

Existing pavement striping, markings, or markers which are outside the work area and not to be removed, shall be protected by Contractor. Any striping, markings, or markers damaged or rendered useless by Contractor's operations shall be restored by Contractor to County's satisfaction and at Contractor's expense.

Before applying Type II / Latex Modified Slurry Seal, Contractor shall cover manholes, valve and monument covers, grates, or other exposed facilities located within the area of application with plastic or oil-resistant construction paper secured by tape or adhesive to the facility being covered. Contractor shall reference the covered facilities with enough control points to locate the facilities after the application of the Type II / Latex Modified Slurry Seal and shall remove coverings promptly to return the facilities to service prior to the end of the same shift the seal coat is placed.

Immediately before applying the Type II / Latex Modified Slurry Seal, Contractor shall clean and completely dry the surface. Cleaning shall be performed by a vacuum sweeper, flushing, or other means necessary to remove all loose particles of paving, all dirt, and all extraneous material. Contractor shall clean all streets from face of curb to face of curb in the project area as necessary to ensure the pavement surface is sufficiently cleaned to provide for a bond between the existing pavement surface and seal coat. Any cleaning of the pavement surface immediately before placing Type II / Latex Modified Slurry Seal shall be performed without water. The application Type II / Latex Modified Slurry Seal on any street shall not proceed until County has approved the street cleaning.

In the event that a scheduled street should become wet due to fog, rain, or any other reason, the placement of Type II / Latex Modified Slurry Seal shall be suspended until the surface has completely dried, as determined by County.

**3. Testing**

Contractor shall furnish test reports for aggregate and emulsion used in conjunction with the work to County's Contract Administrator at the time the work is completed.

**4. Spoils**

Spoils shall be disposed of off-site at no additional cost to County.

**5. Sweeping**

One (1) additional sweeping shall be performed one (1) calendar day after the application of the Type II/Latex Modified Slurry Seal.

Contractor's failure to provide adequate sweeping shall result in County performing said work at Contractor's sole expense, which shall be deducted from any monies due to Contractor. Sweeping by County forces shall not relieve Contractor of any liability arising from its failure to comply with these specifications.

## MICRO SEAL SPECIFICATIONS

### 1. Application

Application of a Type II or Type III emulsified asphalt slurry seal is independent of the above surface applications. All materials and application methods shall be in conformance with current Caltrans Standard Specifications, including any amendments thereto. Traffic Control measures shall be adequate for the application of surfacing materials until surfacing materials have sufficiently cured to allow traffic access to resurfaced areas.

### 2. Surface Preparation

Contractor shall furnish, place, maintain, and remove temporary pavement delineation in accordance with provisions in Section 12 of the current Caltrans Standard Specifications and Special Provisions. Nothing in the Special Provisions shall be construed as to reduce the minimum standards specified in the "Manual of Uniform Traffic Control Devices," and the California Supplement or as relieving Contractor from its responsibility, as provided in Section 7-1.04, "Public Safety," of the Caltrans Standard Specifications.

Contractor shall remove any existing traffic stripes, markings, crosswalks, stop bars, legends, and raised pavement markers in areas to receive rubber modified asphalt chip seal as required by the plans or project specifications. Removal shall be done by grinding and disposing of by Contractor. Grinding operations shall be conducted to keep all removed pavement material from entering the storm drain system.

Existing pavement striping, markings, or markers which are outside the work area and not to be removed, shall be protected by Contractor. Any striping, markings, or markers damaged or rendered useless by Contractor's operations shall be restored by Contractor to County's satisfaction and at Contractor's expense.

Before applying Type II or Type III emulsified asphalt slurry seal, Contractor shall cover manholes, valve and monument covers, grates, or other exposed facilities located within the area of application with plastic or oil-resistant construction paper secured by tape or adhesive to the facility being covered. Contractor shall reference the covered facilities with enough control points to locate the facilities after the application of the Type II or Type III emulsified asphalt slurry seal and shall remove coverings promptly to return the facilities to service prior to the end of the same shift the seal coat is placed.

Immediately before applying the Type II or Type III emulsified asphalt slurry seal, Contractor shall clean and completely dry the surface. Cleaning shall be performed by a vacuum sweeper, flushing, or other means necessary to remove all loose particles of paving, all dirt, and all out extraneous material. Contractor shall clean all streets from face of curb to face of curb in the project area as necessary to ensure the pavement surface is sufficiently cleaned to provide for a bond between the existing pavement surface and seal coat. Any cleaning of the pavement surface immediately before placing Type II or Type III emulsified asphalt slurry seal shall be performed without water. The application of Type II or Type III emulsified asphalt slurry seal on any street shall not proceed until County has approved the street cleaning.

In the event that a scheduled street should become wet due to fog, rain, or any other reason, the placement of Type II or Type III emulsified asphalt slurry seal shall be suspended until the surface has completely dried as determined by County.

### **3. Testing**

Contractor shall furnish test reports for aggregate and emulsion used in conjunction with the work to County's Contract Administrator at the time the work is completed.

### **4. Spoils**

Spoils shall be disposed of off-site at no additional cost to County.

### **5. Sweeping**

One (1) additional sweeping shall be performed one (1) calendar day after the application of the Type II or Type III emulsified asphalt slurry seal.

Contractor's failure to provide adequate sweeping shall result in County performing said work at Contractor's sole expense, which shall be deducted from any monies due to Contractor. Sweeping by County forces shall not relieve Contractor of any liability arising from its failure to comply with these specifications.

## **TRAFFIC STRIPES AND PAVEMENT MARKINGS**

### **1. General**

#### **1.1 Scope**

This work consists of applying traffic stripes and pavement markings.

#### **1.2 Definitions**

Pavement marking: Transverse marking such as (1) a limit line, (2) a stop line, or (3) a word, symbol, shoulder, parking stall, or railroad-grade-crossing marking.

Traffic stripe: Longitudinal centerline or lane line used for separating traffic lanes in the same direction of travel or in the opposing direction of travel or a longitudinal edge line marking the edge of the traveled way or the edge of a lane at a gore area separating traffic at an exit or entrance ramp. A traffic stripe is shown as a traffic line.

#### **1.3 Submittals**

For each lot or batch of thermoplastic, paint, and glass beads, submit:

1. Certificate of compliance, including the product name, lot or batch number, and manufacture date
2. Materials Engineering and Testing Services (METS) notification letter stating that the material is authorized for use
3. Safety Data Sheet

For glass beads used in drop-on applications and in thermoplastic formulations, submit a certificate of compliance and test results for each lot of beads specifying the Environmental Protection Agency (EPA) test methods used and tracing the lot to the specific test sample. The testing for lead and arsenic content must be performed by an independent testing laboratory.

Submit retro reflectivity readings for traffic stripes and pavement markings at locations with deficient retro reflectivity determined by the Engineer.

#### **1.4 Quality Assurance**

Before starting permanent application of two-component painted traffic stripes or markings, apply a test stripe of the paint on roofing felt or other suitable material in the presence of County's Engineer. The test section must be at least fifty (50) feet in length.

Test each lot of glass beads for arsenic and lead under EPA Test Method 3052 and 6010B or 6010C.

County’s Engineer will perform a nighttime, drive-through, visual inspection of the retro reflectivity of the traffic stripes and pavement markings and notify you of any locations with deficient retro reflectivity. Measure the retro reflectivity of the deficient areas using a retro reflectometer under ASTM E1710 and the sampling protocol specified in ASTM D7585.

**2. Materials**

**2.1 General**

Traffic stripes and pavement markings must be retroreflective. Within thirty (30) days of applying traffic stripes and pavement markings, the retro reflectivity of the stripes and markings must be a minimum of 250 mcd·m<sup>-2</sup>·lx<sup>-1</sup> for white and 125 mcd·m<sup>-2</sup>·lx<sup>-1</sup> for yellow when measured under ASTM E1710.

**2.2 Thermoplastic**

Thermoplastic must comply with State Specification PTH-02SPRAY, PTH-02HYDRO, or PTH-02ALKYD.

For recessed thermoplastic stripes and pavement markings, mark packages of thermoplastic with the words “For Recessed Application.”

**2.3 Paint**

The paint for traffic stripes and pavement markings must comply with the specifications for the paint type and color shown in following table:

<b>Paint Specifications</b>		
Paint type	Color	Specification
Waterborne traffic line	White, yellow, and black	State Specification PTWB-01R2
Acetone-base	White, yellow, and black	State Specification PT-150VOC(A)
Waterborne traffic line for the international symbol of accessibility and other curb markings	Blue, red, and green	Federal Specification TT-P-1952E

The color of painted traffic stripes and pavement markings must comply with ASTM D6628.

**2.4 Glass Beads**

Glass beads applied to paint must comply with State Specification 8010-004.

Glass beads applied to molten thermoplastic material must be Type 2 beads complying with AASHTO M247. The glass beads must have a coating that promotes adhesion of the beads to thermoplastic.

At least seventy-five (75) percent of the beads by count must be true spheres that are colorless and do not exhibit dark spots, air inclusions, or surface scratches when viewed under 20X magnification.

Each lot of glass beads used in pavement markings must contain less than two hundred (200) parts per million each of arsenic and lead when tested under EPA Test Methods 3052 and 6010B or 6010C.

## **2.5 Thermoplastic Traffic Stripes and Pavement Markings with Enhanced Wet-Night Visibility**

A thermoplastic traffic stripe or pavement marking with enhanced wet-night visibility consists of a single uniform layer of thermoplastic and two (2) layers of glass beads.

The 1st layer of glass beads must be on the Authorized Material List for high-performance glass beads. The color of the glass beads must match the color of the stripe or marking to which they are being applied.

The 2nd layer of glass beads must comply with AASHTO M 247, Type 2.

The glass beads used in both layers must be surface treated for use with thermoplastic under the bead manufacturer's instructions.

Within fourteen (14) days of applying a thermoplastic traffic stripe or pavement marking with enhanced wet-night visibility, the retro reflectivity must be a minimum of 700 mcd·m<sup>-2</sup>·lx<sup>-1</sup> for white stripes and markings and 500 mcd·m<sup>-2</sup>·lx<sup>-1</sup> for yellow stripes and markings when measured under ASTM E1710.

## **2.6 Two-Component Painted Traffic Stripes and Pavement Markings**

A two-component painted traffic stripe or pavement marking consists of one (1) coat of paint and two (2) applications of retroreflective glass beads of two (2) gradations.

The large-gradation glass beads must be on the Authorized Material List for two-component traffic striping paints and large-gradation retroreflective glass beads.

The small-gradation glass beads must comply with AASHTO M 247, Type 1.

The glass beads must have an adhesion-promoting and water-repellant coating complying with the paint manufacturer's instructions.

You may use alternative types of glass beads recommended by the paint manufacturer if authorized.

The daytime and nighttime color of the painted traffic stripes and pavement markings must comply with ASTM D6628.

## **3. CONSTRUCTION**

### **3.1 General**

Establish the alignment for traffic stripes and the layouts for pavement markings with a device or method that will not conflict with other traffic control devices.

Protect existing retroreflective pavement markers during work activities.

Remove existing pavement markers that are coated or damaged by work activities and replace each with an equivalent marker on the Authorized Material List for signing and delineation materials.

1. Have clean, well-defined edges without running or deformation
2. Be uniform
3. Be straight on a tangent alignment and on a true arc on a curved alignment

The width of a completed traffic stripe must not deviate from the width shown by more than 1/4 inch on a tangent alignment and 1/2 inch on a curved alignment.

The length of the gaps and individual stripes that form a broken traffic stripe must not deviate by more than two (2) inches from the lengths shown. The gaps and stripes must be uniform throughout the entire length of each section of broken traffic stripe so that a normal striping machine can repeat the pattern and superimpose successive coats on the applied traffic stripe.

A completed pavement marking must have well-defined edges without running or deformation.

A completed thermoplastic traffic stripe or thermoplastic pavement marking must be free from runs, bubbles, craters, drag marks, stretch marks, and debris.

Protect newly placed traffic stripes and pavement markings from traffic and other deleterious activities until the paint is thoroughly dry or the thermoplastic is hard enough to bear traffic.

### **3.2 Surface Preparation**

Use mechanical wire brushing to remove dirt, contaminants, and loose material from the pavement surface that is to receive the traffic stripe or pavement marking.

Use abrasive blast cleaning to remove laitance and curing compound from the surface of new concrete pavement that is to receive the traffic stripe or pavement marking.

### **3.3 Application of Stripes and Markings**

#### **3.3.1 General**

Apply thermoplastic for a pavement marking with a stencil or a preformed marking.

Apply paint for a pavement marking by hand with a stencil and spray equipment.

You may use permanent tape for a traffic stripe or a pavement marking instead of paint or thermoplastic. The permanent tape must be on the Authorized Material List for signing and delineation materials. Apply the tape under the manufacturer's instructions.

Immediately remove drips, overspray, improper markings, paint, and thermoplastic tracked by traffic with an authorized method.

Apply a traffic stripe or a pavement marking only to a dry surface during a period of favorable weather when the pavement surface is above 50 degrees F.

The glass beads must be embedded in the coat of paint or thermoplastic to a depth of 1/2 their diameters.

Verify the rate of application of the glass beads by stabbing the glass bead tank with a calibrated rod.

Where a new broken traffic stripe joins an existing broken traffic stripe, allow enough overlap distance between the new and existing striping patterns to ensure continuity at the beginning and end of the transition.



### **3.3.2 Thermoplastic Traffic Stripes and Pavement Markings**

#### **3.3.2.1 General**

Do not thin the primer. Apply the primer under the manufacturer's instructions:

1. To asphaltic surfaces over six (6) months old and to all concrete surfaces
2. Immediately before and concurrently with the application of the thermoplastic
3. At the manufacturer's instructed rate:

Use preheaters with mixers having a 360-degree rotation to preheat the thermoplastic material.

Apply the thermoplastic in a single uniform layer by spray or extrusion methods.

Completely coat and fill voids in the pavement surface with the thermoplastic.

#### **3.3.2.2 Extruded Thermoplastic Traffic Stripes and Pavement Markings**

Apply extruded thermoplastic at a temperature from 400 to 425 degrees F unless a different temperature is recommended by the manufacturer.

Apply extruded thermoplastic for a traffic stripe at a rate of at least 0.20 lb of thermoplastic per foot of four (4) inch wide solid stripe. The applied thermoplastic traffic stripe must be at least 0.060 inch thick.

An applied thermoplastic pavement marking must be from 0.100 to 0.150 inch thick.

Apply glass beads to the surface of the molten thermoplastic at a rate of at least 8 lb of beads per 100 sq ft.

#### **3.3.2.3 Sprayable Thermoplastic Traffic Stripes and Pavement Markings**

Apply sprayable thermoplastic under State Specification PTH-02SPRAY at a temperature from 350 to 400 degrees F.

Apply sprayable thermoplastic at a rate of at least 0.13 lb of thermoplastic per foot of four (4) inch wide solid stripe.

The applied sprayable thermoplastic material must be at least 0.040 inch thick.

#### **3.3.2.4 Recessed Thermoplastic Traffic Stripes and Pavement Markings**

Construct recesses for double traffic stripes in a single pass.

Keep the recesses dry and free from debris. Apply primer to the recesses.

After constructing the recesses, apply the thermoplastic traffic stripes and pavement markings before the end of the same work shift.

#### **3.3.2.5 Thermoplastic Traffic Stripes and Pavement Markings with Enhanced Wet-Night Visibility**

Use a ribbon-extrusion or screed-type applicator to apply thermoplastic traffic stripes with enhanced wetnight visibility. Operate the striping machine at a speed of eight (8) mph or slower during the application of the stripe and glass beads.

Apply the stripe at a rate of at least 0.38 lb of thermoplastic per foot of four (4) inch wide solid stripe. The applied thermoplastic traffic stripe must be at least 0.090 inch thick.

Apply thermoplastic pavement marking at a rate of at least 1.06 lb of thermoplastic per square foot of marking. The applied thermoplastic pavement marking must be at least 0.100 inch thick.

Apply thermoplastic traffic stripe and both types of glass beads in a single pass. First apply the thermoplastic, followed immediately by consecutive applications of high-performance glass beads and then AASHTO M 247, Type 2, glass beads. Use a separate applicator gun for each type of glass bead.

You may apply glass beads by hand on pavement markings.

Uniformly distribute glass beads on traffic stripes and pavement markings. Apply high-performance glass beads at a rate of at least 6 lb of glass beads per 100 sq ft of stripe or marking. Apply AASHTO M 247, Type 2, glass beads at a rate of at least 8 lb of glass beads per 100 sq ft of stripe or marking. The combined weight of the two (2) types of glass beads must be greater than 14 lb of glass beads per 100 sq ft of stripe or marking.

### **3.3.3 Painted Traffic Stripes and Pavement Markings**

#### **3.3.3.1 General**

Do not thin paint for traffic stripes and pavement markings. Mix the paint by mechanical means until it is homogeneous. Thoroughly agitate the paint during its application.

Use mechanical means to paint traffic stripes and pavement markings and to apply glass beads for traffic stripes.

The striping machine must be capable of superimposing successive coats of paint on the 1st coat and on existing stripes at a speed of at least five (5) mph.

The striping machine must:

1. Have rubber tires
2. Be maneuverable enough to produce straight lines and normal curves in true arcs
3. Be capable of applying traffic paint and glass beads at the specified rates
4. Be equipped with:
  - 4.1. Pointer or sighting device at least five (5) feet long extending from the front of the machine
  - 4.2. Pointer or sighting device extending from the side of the machine to determine the distance from the centerline for painting shoulder stripes
  - 4.3. Positive acting cutoff device to prevent depositing paint in gaps of broken stripes
  - 4.4. Shields or an adjustable air curtain for line control
  - 4.5. Pressure regulators and gauges that are in full view of the operator for a pneumatically operated machine
  - 4.6. Paint strainer in the paint supply line
  - 4.7. Paint storage tank with a mechanical agitator that operates continuously during painting activities
  - 4.8. Glass bead dispenser located behind the paint applicator nozzle that is controlled simultaneously with the paint applicator nozzle
  - 4.9. Calibrated rods for measuring the volumes of paint and glass beads in the paint and glass bead tanks

Air-atomized spray equipment must:

1. Be equipped with oil and water extractors and pressure regulators
2. Have adequate air volume and compressor recovery capacity
3. Have properly sized orifices and needle assemblies for the spray gun tip

Where the configuration or location of a traffic stripe is such that the use of a striping machine is not practicable, you may apply the traffic paint and glass beads by other methods and equipment if authorized. County Engineer determines if the striping machine is not practicable for a particular use.

For an existing surface, apply traffic stripes and pavement markings in one (1) coat.

For a new surface, except for the black stripe between the two (2) yellow stripes of a double traffic stripe, apply traffic stripes and pavement markings in two (2) coats. The 1st coat of paint must be dry before applying the 2nd coat.

Paint one (1) coat, three (3) inch wide black stripe between the two (2) four (4) inch wide yellow stripes of a double traffic stripe.

If the two (2) for (4) inch wide yellow stripes are applied in two (2) coats, apply the black stripe concurrently with the 2nd coat of the yellow stripes.

Apply each coat of paint for any traffic stripe in one (1) pass of the striping machine, including the glass beads, regardless of the number, width, and pattern of the individual stripes. Do not paint traffic stripes and pavement markings if:

1. Freshly painted surfaces could become damaged by rain, fog, or condensation
2. Atmospheric temperature could drop below 40 degrees F for acetone-based paint and 50 degrees F for waterborne paint during the drying period

On 2-lane highways:

1. If the 1st coat of the centerline stripe is applied in the same direction as increasing post miles, use the right-hand spray gun of the three (3) spray guns used to apply the double yellow stripe to apply a single yellow stripe.
2. If the 1st coat of the centerline stripe is applied in the same direction as decreasing post miles, use the left-hand spray gun of the three (3) spray guns used to apply the double yellow stripe to apply a single yellow stripe.

3. Apply the 2nd coat of centerline striping in the opposite direction of the 1st coat.

Apply 1-coat paint at an approximate rate of 107 sq ft/gal.

Apply 2-coat paint at the approximate rate shown in the following table:

Paint Type	Coverage (sq ft/gal)	
	1 <sup>st</sup> coat	2 <sup>nd</sup> coat
Waterborne paint	215	215
Acetone-based paint	360	150

Apply glass beads at an approximate rate of 5 lb of beads per gallon of paint.

County's Engineer determines the exact application rate of the paint and glass beads.

Verify the application rate of paint by stabbing the paint tank with a calibrated rod. If the striping machine has paint gauges, County's Engineer may measure the volume of paint using the gauges instead of stabbing the paint tank with a calibrated rod.

### **3.3.3.2 Two-Component Painted Traffic Stripes and Pavement Markings**

Do not apply paint for two-component painted traffic stripes and pavement markings until authorized.

Apply the paint only to clean, completely dry surfaces when the pavement surface temperature is above 39 degrees F and the ambient temperature is above 36 degrees F.

Comply with the paint manufacturer's instructions for the temperature of the paint during its application.

The striping machine must not travel faster than ten (10) mph when applying the paint and glass beads.

Apply the paint and glass beads in one (1) pass in the following order:

1. Paint
2. Large-gradation glass beads
3. Small-gradation glass beads

Apply the glass beads with two (2) separate applicator guns.

Uniformly distribute the glass beads on traffic stripes and pavement markings.

You may apply the glass beads by hand methods on pavement markings.

Apply the large-gradation glass beads at a minimum rate of 11.7 lb of beads per gallon of paint.

Apply the small-gradation glass beads at a minimum rate of 8.3 lb of beads per gallon of paint.

Exhibit B

Notification

FRONT



**No Parking 7 AM to 5 PM**

MON TUE WED THUR FRI SAT SUN

The \_\_\_\_\_ of this month, Street Sealing will be done on your street.

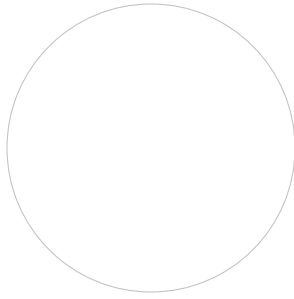
We're sorry for any inconvenience this may cause you. Please park and drive on adjacent streets not posted **NO PARKING**. Any vehicles parked within the posted areas during the **NO PARKING** times may be towed at owners' expense.

Your street will be **CLOSED** unless flaggers are present to control traffic. Please avoid driving, bicycle riding or walking on sealed streets until new surface dries. Under normal weather conditions, your street will be re-opened within 3 to 4 hours after sealing is complete. Only **EMERGENCY VEHICLES** will be allowed through at any time.

Please do not permit water to run in gutters during this period.

Weather considerations or equipment breakdowns may cause schedule changes. If your street is not completed due to any reason, you will be notified again as to the new date.

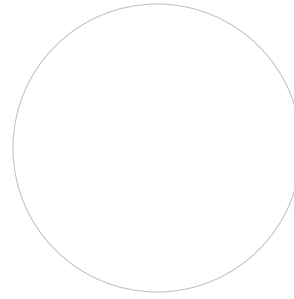
*Thank you for cooperation and patience*



**Exhibit B**

**Notification**

**BACK**



**Street Sealing**

is an asphalt seal coat that is a very economical surface treatment that prolongs the life of the asphalt by stopping erosion from water and oxidation from the sun. Timely preventative maintenance like this helps avoid extremely costly street rebuilding in the future.

Due to the number of streets scheduled, we cannot tell you the exact time your street will be done. We realize the inconvenience caused by limiting access to your street. Please consider that the inconvenience caused at this time is very small compared to what would later be required if this protection were not applied.

Driving or walking on this new material before it has cured will damage the street and will stick to your shoes, be splattered up onto your car, and will track onto concrete driveway, carpets and floors. The material is highly adhesive but can be removed from vehicles with tar removers available at local auto part stores. Read and follow directions from any products purchased.

Emulsion aggregate slurry seal coat will be damaged by sharp turning during the curing phase, specifically power steering turns. This can be avoided by making wide turns. Always be sure the vehicle is moving before turning the steering wheel.

**FOR ADDITIONAL INFORMATION**

**PLEASE CALL:**

*Company Contact Number*

*Company Title*

*CA Contractors Lic. Number*