Convenient and safe pedestrian access to occupied residential and business property shall be maintained at all times. Access to mailboxes shall be maintained at all times such that the postal delivery service is not interrupted.

Access to vacant and unused property may be restricted at the Engineer's discretion. Both vehicular and pedestrian access shall be maintained at all times to all other property except as otherwise specifically authorized in writing by the County's Engineer.

k. Traffic control and safety devices and equipment being used that becomes damaged, destroyed, faded, graffitied, encrusted, soiled, misplaced, worn out, inoperative, lost, or stolen shall be promptly repaired, refurbished, or replaced. Traffic control and safety devices and equipment being used, that is displaced or not in an upright position from any cause, shall be promptly returned or restored to their proper position.

l. An unobstructed view of all signs and warning devices including, but not limited to, stop signs, stop ahead signs, street name signs, and other regulatory, warning and construction signs, markers, and warning devices shall be maintained at all times. All speed limit signs shall be black on white with signs at either end of the project notifying the motoring public that fines are doubled in construction zones. No trucks or other equipment or materials shall be stopped, parked, or otherwise placed so as to obscure said signs, markers and devices from the view of the vehicular and pedestrian traffic to which it applies.

m. When entering or leaving roadways carrying public traffic, the Contractor's equipment, whether empty or loaded, shall yield to said public traffic at all times, except where the traffic is being controlled by police officers, fire officers, properly trained and experienced flaggers, or at traffic signalized intersections.

n. Stockpiling or storage of materials on any public right-of-way or parking area will not be allowed without the specific written permission of the Engineer. Materials spilled along or on said right-of-way or parking area shall be removed completely and promptly. All stockpile and storage areas shall be maintained in a safe, neat, clean, and orderly condition, and shall be restored to equal or better than original condition upon completion of the work.

o. On projects involving work on, closure of, or partial closure of existing streets, and where vehicular access to the abutting property must be restricted, the work shall be so selected, arranged and scheduled that the person(s) requiring access to said abutting property and residents along said streets affected will be able to park within a reasonable distance typically the closest cross street or the cross street at the beginning of cul-de-sacs. In addition, no two adjoining streets shall be closed at the same time, except as otherwise approved by the Engineer. Residents must be given written notice of such restrictions a minimum of 48 hours in advance.

p. When work has been completed on a particular street or has been suspended or rescheduled, and said street is to be opened to vehicular traffic, all equipment, "NO PARKING", "NO DRIVING" signs, other obstructions, and unnecessary traffic control devices and equipment shall be promptly removed from that street, except as otherwise approved by the Engineer.

q. Should the Contractor be neglectful, negligent, or refuse, fail, or otherwise be unavailable to promptly, satisfactorily, and fully comply with the provisions specified and referred to herein above, the County reserves the right to correct or mitigate any situation, that in the sole opinion of the Engineer, constitutes a serious deficiency or serious case of noncompliance, by any means at its disposal at the Contractor's or permittee's expense, and shall deduct the cost therefore from the Contractor's progress or final payments. Such corrective action taken by the County shall not reduce or abrogate the Contractor's legal obligations and liability for proper traffic control and safety measures and shall not serve to transfer said obligations and liabilities from the Contractor to the County or the County's agents.

r. Violations of any of the above Provisions or provisions of the referenced publications, unless promptly and completely corrected to the satisfaction of the Engineer, shall, at the sole discretion of the County, be grounds for termination of the Contract, or shut down or partial shut down of the work, without compensation to the Contractor or permittee, or liability to the County, all as prescribed by contractual obligation or State law, whichever is applicable.

Traffic control systems shall include but not be limited to, furnishing all labor (including flagging costs), materials (including construction area signs), tools, equipment, traffic control Plans and revisions, and incidentals, and for doing all the work involved in placing, removing, storing, maintaining, moving to new locations, replacing and disposing of the components of the traffic control including lights, channelizers (surface mounted), temporary railing (Type K) markers, delineators, temporary striping and pavement marking, barricades, portable flashing beacons, flashing arrow signs, portable changeable message signs, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

Full compensation for compliance with the provisions specified and referenced herein above shall be considered as included in prices paid for the various contract items of work involved and no additional compensation will be allowed therefore.

NOTIFICATION OF RESIDENTS AND POSTING NO PARKING SIGNS:

At least five working days prior to commencing work, the Contractor shall submit his schedule to the County for approval. The Contractor shall give verbal notification, printed notifications (in English and Spanish languages) and copies of the weekly schedules to all firms, institutions, agencies, residents, utility companies which will be affected by the sealing applications at least fourteen (14) calendar days in advance of and on each occasion of said sealing application. Said firms, institutions, agencies and utility companies include, but are not limited to the following: schools, day care centers, postal service, hospitals, governmental services, Police Department, Fire Department, ambulance services, Transit Authority (Bus service), trash collection firms and County/Private street sweeping operations. Additional printed notifications (in English and Spanish languages) shall be given not less than forty-eight (48) hours prior to performing any work which will restrict property access, close or partially close the street, or which will restrict or disallow street parking or driving.

Coordination with the trash collection firms shall be done such that no street shall be slurried within two (2) days prior to trash collection. Damage occurring to slurry seal from trash trucks shall be repaired at the expense of the Contractor and per the direction of the Engineer. The Contractor is solely responsible for coordination with trash collection firms in scheduling all work and the bid submitted is acknowledgement that any and all scheduling issues have been considered herein, with no disruption of trash collection schedules.

The Contractor shall coordinate his work with all schools located within the slurry area and meet with said schools prior to the start of any work. All work adjacent to schools shall be completed on weekends or on the off schedule of the school that is impacted by the slurry program. Any additional costs associated with weekend work shall be included in the contract price and no additional compensation will be allowed.

Barricades shall have printed notices in large print indicating when the street will be slurried.

The printed handout notices shall contain a general description of the work to be done, the name of the street to be sealed with limits, the day and date of the sealing application, a statement that no on-street parking or driving on the new slurry surface will be allowed between the hours of 7:00 am and 5:00 pm on the day of work, reference to placement of barricades along the street two (2) days in advance of work, a statement that it will be necessary to tow away parked vehicles at the owner's expense per California Vehicle Code CVC 22651L and CVC 22654D; a statement that in the event the street is missed, it will be rescheduled in approximately 1-2 weeks and that the residents will be renotified; the statement that **there will be no disruption of mail service or trash collection schedules,** and the handout shall also include the name and telephone number of the Contractor.

In addition to the foregoing, the notices to residents shall contain a statement that the street to be sealed will be closed to vehicular traffic, and the suggestion that if they require the use of their vehicle on the day of the sealing work, they should consider parking their vehicles on a nearby street which is not scheduled for sealing application.

If, in the event a street scheduled for sealing was missed, the Contractor shall immediately remove all "NO PARKING", "NO DRIVING" signs and notify all residents and others

previously notified, in person and with printed notices, that due to unforeseen circumstances, the Contractor was not able to seal the street as previously notified, that the street will be rescheduled in approximately 1 to 2 weeks, and that they will be renotified. The Contractor shall, on the job site prior to the start of each day's work, have an adequate supply of approved letters of notification to residents for missed streets.

The Contractor shall also post pre-approved printed "NO PARKING-TOW WAY" signs on 1" X 2" wood stakes and barricades at one hundred foot (100') maximum spacing along both sides of the street to be sealed and 'NO PARKING" signs at the street corners and at two hundred foot (200') maximum spacing along both sides of the street to be sealed, 48 hours prior to the start of the sealing work. The Contractor shall maintain said signs through the day of work, and shall start the removal of said signs by 4:00 p.m. and complete the removal by 5:00 p.m. on said day of work or as otherwise directed by the Engineer or called for in the preceding paragraph.

The Contractor shall document the day, date and time that the signs are installed because the no parking restriction cannot be enforced until the signs have been in place 24 hours.

Posting of signs on trees, utility poles, light standards and other existing parkway improvement is strictly forbidden.

The "NO PARKING" signs shall contain the day, date and hours that parking will be prohibited on that particular street and a statement that parked vehicles will be towed away at owner's expense per California Vehicle Code CVC 22651L and CVC 22654D.

All printed notices and no parking signs shall be submitted to the Engineer at least 12 calendar days before the first day of work.

Full compensation for compliance with the preceding requirements shall be considered as being included in the various Contract items in the bid schedule and no additional compensation will be allowed therefore.

COOPERATION AND COLLATERAL WORK:

Cooperation shall be in accordance with Subsection 5-6, "Cooperation," and Subsection 7-7 "Cooperation and Collateral Work," of the Standard Specifications and these Special Provisions.

The Contractor shall be responsible for ascertaining the nature and extent of any simultaneous collateral, and essential work by others and coordinating with the work by others. The County, other contractors and utilities shall have the right to operate within or adjacent to the work site during the performance of such work.

Should construction be under way by other forces or by other contractors within or adjacent to the limits of the work specified or should work of any other nature be under way by other forces within or adjacent to those limits, the Contractor shall cooperate with all the other contractors or other forces so that any delay or hindrance to their work will be avoided. The

right is reserved to perform other or additional work at or near the site (including material sources) at any time, by the use of other forces.

Each contractor shall be responsible to the other for all damages to work, to persons or property caused to the other by their operations, and for loss caused the other due to unnecessary delays or failure to finish the work within the time specified for completion.

The Contractor shall include in the bid all costs involved as a result of coordinating the work with others. The Contractor will not be entitled to additional compensation from the County for damages resulting from such simultaneous, collateral, and essential work. If necessary to avoid or minimize such damage or delay, the Contractor shall re-deploy its work force to other parts of the work.

Should the Contractor be delayed by the County, and such delay could not have been reasonable foreseen or prevented by the Contractor, the Engineer will determine the extent of the delay, the effect on the project, and any extension of time. Should any agency or utility company's work result in delays to the Contractor's work schedule, the Contractor shall be entitled only to an equivalent extension of time for the completion of the contract, and shall not be entitled to damages due to downtime and idled equipment or additional payments over and above the agreed upon unit price.

Compensation for compliance with all collateral work shall be considered as being included in the various Contract items in the bid schedule and no additional compensation will be allowed therefore.

PREPARING EXISTING ROADBED FOR SCRUB SEAL AND SLURRY SEAL:

Preparation of Pavement Surface:

The surfaces shall be thoroughly cleaned, have herbicide applied and all weeds removed, and have the cracks sealed as defined in the Special Provisions.

Herbicide shall be applied prior to the crack sealing operation.

Before placing the sealing material, the pavement surface shall be cleaned by sweeping, or other means necessary to remove all loose particles of paving, all dirt, loose chips, and all other extraneous material.

Before commencing the sealing operations, all surface metal utility covers, survey monuments and survey markers which were uncovered shall be covered by thoroughly covering the surface with an appropriate adhesive and oiled or plastic paper. No adhesive material shall be permitted to cover, seal or fill the joint between the frame and cover of the structure. Covers are to be uncovered and cleaned by the end of the same work day. Ridges or bumps in the finished surface will not be permitted.

Sealing material shall be placed on all existing surfacing, including curve widening, public road connections, left turn pockets, and other adjacent asphalt surfaces, unless otherwise directed by the Engineer.

Full compensation for conforming to the provisions in this section, not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved and no additional compensation will be allowed therefore.

ROUT AND SEAL RANDOM CRACKS/FILL POTHOLES:

All cracks will be filled with a rubberized asphalt material that has a minimum softening point temperature of 200^0 Fahrenheit and a safe heating temperature of 380^0 Fahrenheit, or as otherwise directed by the Engineer.

1. For cracks in size of 1/8 inch to 3/8 inch in width, the crack shall be widened using a router to form a sealant reservoir which is a minimum of 1/2 inch wide and 3/4 inch to 1 inch deep. The routed crack shall then be cleaned with hot compressed air to remove all dust and free moisture, and then sealed to service level. Pavement surfaces receiving the scrub seal will not require crack sealing for the crack size specified of 1/8 inch to 3/8 inch wide.

2. Cracks that are more than 3/8 inch but less than 3/4 shall be cleaned for the entire crack depth using sandblasting, brushing and hot air blowing techniques, as required to provide a crack free from all debris, dust, loose material and moisture. Gauging or plowing may be required to remove incompressible deep in the crack. The clean crack shall be filled with sealant, from the bottom up to surface level, in a manner which does not result in sealant bridging or entrapped air pockets. With deep cracks, settlement of sealant may occur, thus requiring application of a second layer of sealant material. For cracks with depressed surfaces on each side of the crack shall be over filled beyond level with pavement surface and then squeezed to fill in depressed area. No more than a 2" wide and 1/16" thick strip of material may be applied to the pavement surface. The crack seal for the specified width of 3/8 inch to 3/4 inch shall apply to all pavement surfaces receiving the scrub seal and slurry seal (Type I or Type II).

3. Cracks wider than 3/4 inch and potholes shall be cleaned using sandblasting or other cleaning technique approved by the Engineer. The cracks and/or potholes shall then be filled with pea-gravel size hot mix asphalt concrete as directed by the Engineer. Filling cracks and potholes shall apply to all pavement surfaces receiving the scrub seal and slurry seal and Type I and Type II slurry seal.

4. No scrub seal and slurry seal material shall be placed until after the crack seal and/or fill material has been in place for a minimum of five (5) calendar days.

Method of Payment:
The contract unit bid price paid per lump sum for Rout and Seal Random Cracks/Fill Potholes shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals required for cracks routing, cracks cleaning, crack sealing, crack and pothole

filling, sweeping and application of herbicide and sealant, as directed by the Engineer and no additional compensation will be allowed therefor.

REMOVE CROSSWALK LINES AND PAVEMENT MARKINGS:

Grinding shall be used for the removal of thermoplastic crosswalk lines and pavement markings or for removal of objectionable material, and such removal operation is being performed within 10 feet of a lane occupied by public traffic, the residue including dust shall be removed immediately after contact between the sand and the surface being treated. Such removal shall be by wet abrasive blasting, hydro-blasting or vacuum blasting, and shall comply with AQMD regulations.

Pavement markings shall be removed by grinding a rectangular area, rather than just lettering or markings, so the old message cannot be identified.

Nothing in these Special Provisions shall relieve the Contractor from his responsibilities as provided in Section 7-1.09, "Public Safety" of the Standard Specifications.

Crosswalk lines and pavement markings shall be restored by the Contractor no earlier than five-calendar days and no later than ten-calendar days after the slurry application.

The lump sum contract price paid for Remove Thermoplastic Crosswalk and Pavement Marking shall include full compensation, for furnishing all labor, materials, tools, equipment, and for doing all work involved, and no additional compensation will be allowed therefore.

TEST STRIPS:

The Contractor shall construct test strips for evaluation by the Engineer.

Type I and Type II Slurry

Two test strips shall be placed for Type I and Type II slurry. Each test strip shall be 400 to 600 feet long and shall replicate the full production placement of the slurry. The Engineer will evaluate each completed test strip for 72 hours after traffic has been allowed on it to determine if the mix design and placement procedure are acceptable. If the mix design or the placement procedure is determined by the Engineer to be unacceptable, the test strips will be rejected. The Contractor shall make modifications to the mix design or procedure and new test strips shall be constructed. The new test strips will be evaluated by the Engineer as previously specified. Rejected test strips shall be at the Contractor's expense and shall be removed if so directed by the Engineer.

Scrub Seal

One test strip shall be placed for the scrub seal. The test strip shall be a minimum of 100 feet long and shall determine the application rate of the emulsion sealer and the spreading rate of the aggregate screenings. The speed of the emulsion distributor truck and the chip spreader truck shall also be determined during placement of the test strip. If the placement procedure or application rate is determined by the Engineer to be unacceptable, the test strip will be rejected

and a new test strip will be constructed. Rejected test strip due to modifications or adjustments to the procedure or application rates shall be at the Contractor's expense and shall be removed when directed by the Engineer.

Method of Payment:
Full compensation for furnishing all labor, materials, tools, equipment and incidentals required by the placing of Type I and Type II slurry test strips shall be considered as included in the price paid per ton for Slurry Seal Type I and Slurry Seal Type II and no additional compensation will be allowed therefor.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals required by the placing of Scrub Seal slurry test strip shall be considered as included in the price paid per square yard for Scrub Seal and no additional compensation will be allowed therefor.

SLURRY SEAL (Type I and Type II):

Slurry seal shall be performed in accordance with Subsections 203-5 and 302-4, "Emulsion-Aggregate Slurry," of the Standard Specifications for Public Works Construction (Green Book) 2009 ed. and noted herein as the Standard Specifications, and the following Provisions. The type of slurry aggregate used shall be the type designated in the Bid.

Modify the following - Subsection 203-5.2, "Materials" of the Standard Specifications;

(2) Admixtures, such as Portland Cement or aluminum sulfate may be mixed into the slurry material to adjust the curing time such that the applied slurry can support vehicular traffic within 60 minutes.

(5) Use of slag shall not be permitted.

(6) Deliveries of aggregate and emulsion shall not be made without the engineer present. Emulsion is not to be transferred to an on-site storage tanker without the sieve test performed by the County.

Modify the first paragraph of Subsection 203-5.4, "Mix Design," of the Standard Specifications to include the following:

The Contractor shall submit a Mix Design for approval within fourteen (14) working days after the Board of Supervisors Approval/Award. The Contractor will receive a "Notice to Proceed with Construction" only after the Mix Design is approved. The Contractor shall provide materials for verification of the Mix Design. Periodically throughout the project, at the direction of the Engineer, the County will perform further testing as necessary to provide assurance of the Mix Design.

If the Contractor changes sources of material, i.e. aggregate and/or oil, a new Mix Design shall be resubmitted. The cost of all Mix Design retest and testing as a result of changes to the Mix Design shall be borne by the Contractor, and the amount due to the County for said retesting will be deducted from the Contractor's Progress Payments.

Modify the second paragraph of Subsection 203-5.4, "Mix Design," of Standard Specifications to read as follows:

The Contractor shall allow ten (10) working days prior to start of work for calibration and testing at a location designated by the Engineer. The County's testing laboratory will obtain field samples at the time of calibration for Extraction Test (ASTM D 2172), Consistency Test, Wet Track Abrasion Test (ASTM D 3910), a verification of the 60 minute set time previously specified. When the County's testing laboratory has determined that the field samples meet the requirements stipulated in these Specifications, the Engineer will notify the Contractor to start work. In the event that the product does not meet Specification, another testing and calibration date shall be set ten (10) day prior to the start of work for a complete retest of the product at the expense of the Contractor.

Modify the following Subsection 302-4.2.2, "Continuous-Flow Mixers," of the Standard Specifications to read as follows:

All slurry mixing machines shall be equipped with a Fines Feeder for the adding of cement or granular Aluminum Sulfate.

Modify the following Subsection 302-4.3.1, "General," Table 302-4.3.1 (A) of the Standard Specifications:

Slurry Seal	**Min.**	**Max.**
Type I	ELT/1700 ft^2	ELT/2000 ft^2
Type II	ELT/1150 ft^2	ELT/1350 ft^2
Type I (in Scrub Seal)	ELT/950 ft^2	ELT/1150 ft^2

The estimated quantity for slurry seal in the Bid Schedule were based on an application rate of 1850 SF/ELT for Type I and 1250 SF/ELT for Type II. The total areas in Slurry Seal Quantity Tables in the appendix, shall be considered as approximate only and no guarantee is made as to the accuracy.

Add the following to Subsection 302-4.3.1, "General" of the Standard Specifications:

The Contractor shall have two slurry trucks or machines and at least one additional mixer as a backup.

Prior to the beginning of slurry operations, the Contractor shall furnish, at no cost to the County, current licensed weigh master's certificates indicating the net weight capacity of the aggregate bin. The Contractor shall provide a drive upon scale at the project site or an alternate site approved by the County. The drive on scale shall show the net weight of the aggregate bin on each slurry machine before the machine and product will be approved for applying slurry on the project.

All slurry machines are to carry, at all times, a calibrated emulsion measuring stick. The emulsion measuring stick is to be calibrated in 10-gallon increments to the slurry machine it is

used on. Emulsion measuring sticks from other slurry machines will not be allowed to measure the gallons of emulsions on the slurry machines they were not calibrate to. The emulsion measuring stick is to have the slurry machine number or identification permanently marked on the stick. The gallons of emulsion are to be measured with a calibrated emulsion measuring stick and recorded before leaving and after returning to materials site. Use of a slurry machine will not be allowed if it does not have a calibrated emulsion measuring stick.

The Contractor shall furnish prior to commencing work, a calibrated stick in 10-gallon increments to measure the oil in the trailer storage tanks in gallons. The measuring stick shall be calibrated to the trailer storage tank it is used on. The inspector shall check the oil in each load "in and out" and in the storage tanks at the beginning and end of each day to determine the amount of emulsion used for that day. Emulsion is not to be transferred from delivery tank to on-site storage tank before the County performs the sieve analysis on the emulsion. Aggregate used in the slurry shall not exceed a moisture content of four percent (4%) by weight of dry aggregate.

Contractor may not schedule more than **150 tons of slurry to be placed per day**. Slurry may not be applied at more than 150 feet per minute. Contractor shall not run more than two slurry machines per day.

The Contractor shall provide a self propelled 10 ton pneumatic roller with a tire pressure of 50 PSI and equipped with a water spray system. The Contractor shall roll all the required streets the same day they are slurried. The Contractor will be responsible for proper scheduling of the work such that the rolling can be properly done within the given time constraint. The cost of furnishing the roller and operator shall be included in the price paid for slurry seal.

Prior to storing aggregate on private property, the Contractor shall submit to the Engineer written permission from the property owner for such stockpiling. The County may provide a stockpile location at a County Facility if space is available. The stock pile of material at a County Yard requires prior approval from the County Maintenance Division and the Engineer. The County does not guarantee that space will be available at a County Yard for the stockpile of material for this Project. If the County Yard location is provided for the Project, the notice of termination and final pay estimate will not be processed until the County Facility has been restored to the prior condition before the contractor utilized the site.

Precautions shall be taken to ensure that stockpiles do not become contaminated with oversized rock, clay, silt, or excessive amounts of moisture. The stockpiles shall be kept in areas that drain readily. Segregation of the aggregate will not be permitted.

The stockpile areas shall be thoroughly cleaned of all excess material and left in a neat, orderly appearance upon completion of slurry operations in any area.

The Contactor shall protect the wet slurry from traffic at all times and if damaged or defaced, the Contractor shall repair said damage at no additional cost to the County.

The placement of slurry seal may be suspended with the concurrence of the Engineer due to unsuitable weather, temperature conditions, or other conditions that are considered unfavorable

for the prosecution of the work. The Contractor shall immediately comply with the order of suspension by the Engineer, and work shall not be resumed until authorized by the Engineer.

If work cannot resume on the same day to completion as scheduled, then this work shall be rescheduled in one to two weeks and the residents notified that the work will not be done as scheduled and renotified of new work day promptly. All "NO PARKING", "NO DRIVING" signs must be promptly removed. No more than two (2) rescheduled streets shall be scheduled for the same day and they shall be the first order of work for that day.

The days during which the suspension of work is in effect due to unsuitable weather shall not be considered working days and the date of completion shall be extended to allow for work and notification.

In the event of a suspension of work, the Contractor shall remove all barricades, equipment and "No Parking" signs (if appropriate) upon the curing of the completed portion of slurry.

No adjustment of unit prices of any items shall be allowed due to a suspension of work as described above.

Replace the first and second paragraphs of Subsection 302-4.3.2, "Spreading," of the Standard Specifications with the following:

Prior to applying slurry seal, the Contractor shall clean, to the satisfaction of the Engineer, the street surface with a power sweeper, **remove all R.P.M.'s including "Blue Dots", abrasive grind completely all lane lines, street legends, crosswalks or other painted or thermoplastic surfaces. All abrasive grinding shall be flush with the existing surface and not cause indentations into the pavement. This is necessary to provide a good bonding surface for the slurry seal, as well as eliminate "ghosting" of the old striping and markings as the new slurry wears off over time.**

It is anticipated that nuisance water, such as storm water runoff and irrigation water, will run in and across the right-of-way at various time throughout the period of construction. It shall be the responsibility of the Contractor, at their own expense, to provide for and protect the work from such water. In addition, the Contactor's responsibility shall include handling nuisance waters such that their operations do not cause them to damage existing improvements or properties adjacent to or near the site of work.

Slurry shall be applied when the atmospheric temperature is greater than 50°F but not more than 100°F.

The application of slurry shall not commence until after 8:00 a.m., and shall conclude at 2:00 p.m. unless other authorized by the Engineer. The slurry shall be sufficiently cured to be open to traffic by 5:00 p.m. The portions of streets to be slurried shall be closed from the time the application begins until the mixture as achieved sufficient set to be opened to traffic.

The slurry shall be applied in such a manner that no ripples or waves exist. If ripples or waves occur in the slurry during the application, the work shall cease and the Contractor shall correct

the situation. The Contractor may use a drag to knock down ridges. If ripples or waves are not corrected to the Engineer's satisfaction, the street shall be reslurried at the Contractor's expense.

The Contractor shall, at the direction of the Engineer, repair the reseal to **the entire street, or complete section thereof, as determined by the Engineer,** which have not been sealed properly (includes areas that have failed to meet yield and mix design specifications) and completely. No compensation will be provided for slurry seal used in repair and reseal work.

Add the following to the third paragraph of the Subsection 302-4.3.2, "Spreading" of the Standard Specifications:

Each slurry crew shall be composed, at a minimum, of a coordinator at the project site at all times, a competent quick-set mixing man, a competent driver, two squeegee men, and sufficient laborers for any handiwork and cleanup.

Surface oil and grease shall be removed or sealed with shellac or an equivalent material approved by the County before the application of the slurry seal. Full compensation for surface oil and grease removal shall be considered as included in the unit cost for slurry seal.

For all cul-de-sacs (the last 250' minimum), the Contractor shall roll the last 250' of dead-end streets and knuckle curves or as otherwise directed by the Engineer. Full compensation for rolling the slurry shall be considered as include in the unit cost for slurry seal.

The start and finish of slurry application shall be a straight line which, unless otherwise approved by the Engineer, shall be obtained by laying a strip of building paper or other material approved by the Engineer on the pavement surface. After application of slurry, the paper is to be removed leaving a straight edge. The entire street surface area shall be sealed the same day.

The grading of the combined aggregate and the percentage of emulsified asphalt shall conform to the requirements of Type I or TYPE II as specified in Subsection 203-5.3, of the Standard Specifications.

Asphalt emulsion shall be a <u>QUICK-SET ANIONIC OR CATIONIC EMULSIFIED ASPHALT</u> conforming to the requirements of Subsection 203-1.3, "Test Reports and Certification," and Subsection 203-3.2, "Testing Requirements" of the Standard Specifications.

The latex additive shall be Ultra Pave 70 (for anionic) or Ultra Pave 65 K (for cationic) or an approved equal. The latex shall be added at the emulsion plant after weighing the asphalt and before the addition of mixing water. The latex shall be added at a rate of **two to two-and-one-half (2 to 2½)** parts to one-hundred (100) parts of emulsion by volume.

The Contractor is hereby advised that County streets, parking lots, or other County-approved property will not be allowed as a site for stockpiling and batching. Arrangements for an acceptable site shall be the sole responsibility of the Contractor. Exception: Stockpiling will be allowed at the County Yard, located at 15670 Perris Boulevard, after arrangements are made with the County's Maintenance and Operations Division, at (909) 413-3160.

The Contractor shall sweep any raveled material on the street one (1) week after the initial placement. One additional sweeping shall occur (1) month after the first initial sweeping or as directed by the Engineer. If the Engineer determines the raveling is excessive, the frequency of sweeping shall be adjusted to the field conditions of the raveling. If excessive raveling, as determined by the Engineer, continues after two (2) weeks of the initial placement, the street shall be swept and reslurried with a Type I mixtures (Local Streets) or a Type II (Arterial/Collector Streets) at no cost to the County.

The Contractor shall remove any and all weeds that are growing through cracks from the project street located within the pavement or growing between the concrete gutter and the pavement and spray a herbicide mixture of either Hyvar mixed with Roundup or Pramatol mixed with Roundup, or approved equal, at least ten (10) working days prior to slurring. The herbicide mixture shall contain Blazon, or approved equal, a purple dye to easily confirm the herbicide has been applied. The work shall be approved by the Engineer or his representative prior to slurrying. Full compensation for plant removal and herbicide treatment shall be considered as included in the unit cost for slurry seal.

Full compensation for developing a water supply, for furnishing and placing all water required for work done in the Contract, including extra work shall be included in the prices paid for the various items of work requiring water; and no separate payment will be made therefore.

The Contractor shall supply the County with licensed weighmaster's certificates of weight for all delivered aggregates to the job during the course of each day. Aggregate shall be delivered to the project only in the presence of a County representative. The Contractor shall also present weighmaster certificates for the amount of such aggregate remaining at the completion of the project at no cost to the County. Payment shall be determined by the amount that is physically placed, which cannot exceed the amount that is delivered to the job site with the certified weighmaster tickets. There shall be no outside work done utilizing materials from the tanks or stockpiles stored for the County's Contract.

Method of Payment:
Payment for slurry seal conform to the provisions of Subsection 302-4.5, entitled "Measurement and Payment," of the Standard Specifications for Public Works Construction and shall include payment in full for all work called for in this Article. The unit of measure, as shown in the Proposal, is to be "extra long ton" and shall be paid for by the extra long ton (ELT) .

SCRUB SEAL:

Scrub seal shall consist of an application or applications of asphalt rejuvenating emulsion and screenings on existing roadway pavement.

Scrub seal coat shall be performed in accordance with the Standard Specifications for Public Works Construction (Greenbook) 2009 Edition and these Provisions.

The Contractor performing the scrub seal shall have had a minimum of three (3) years experience in the application of polymer modified asphalt sealer as applied to scrub seal and have successfully completed at least three (3) scrub seal projects utilizing the scrub broom operation. Documentation of the Contractor's work history as related to scrub seal and completed projects shall be made available as part of the Contractor's submittal for Scrub Seal.

ASPHALT REJUVENATING EMULSION (ARE)

ARE shall be a polymer modified rejuvenating emulsion with a latex polymer produced from asphalt, and a rejuvenating agent. ARE shall conform to the requirements shown in the table below.

Test on Emulsion	Test Method	Specification
Viscosity @ 122°F (SFS)	ASTM D244	50 – 400
Residue, w%, min.	ASTM D244	65
pH	ASTM E70	2.0-5.0
Sieve, w%, max.	ASTM D244	0.1
Oil distillate, w%, max.	ASTM D244	0.5
Test on Residue(1)		
Viscosity @ 140°F, Poises, max.	ASTM D2171	5000
Penetration @ 39.2°F, min.	ASTM D5	40
Elastic Recovery on residue by distillation, %, min.	AASHTO T59(1,2), T301	45
Test on Latex(3)		
Specific Gravity, min.	ASTM D1475	1.08
Tensile Strength, die C dumbbell, psi, min.	ASTM D412(3)	500
Swelling in rejuvenating agent, % max.; 48 hours exposure @ 104°F	ASTM D471(4) Modified	40% intact film
Test on Rejuvenating Agent		
Flash point, COC , °F	ASTM D92	> 380
Hot Mix Recycling Agent Classification	ASTM D4552	See Table 601-2.1 (B)

(1) Exception to AASHTO T59: Bring the temperature on the lower thermometer slowly to 350°F ± 10°F. Maintain at this temperature for 20 minutes. Complete total distillation in 60 ± 5 minutes from first application of heat.

(2) Elastic Recovery @ 50°F: Hour glass sides, pull 20 cm, hold 5 minutes then cut, let sit 1 hour.

(3) Tensile strength determination: Latex films shall be cured at 75°F and 50% relative humidity for 14 days prior to cutting or molding specimens. Suitable substrate for film formation shall be polyethylene boards, silicone rubber sheeting, glass, or any substrate which produces a cured film of uniform cross-section.

(4) Latex Testing: Suitable substrate for film formation shall be polyethylene boards, silicone rubber sheeting, glass, or any substrate which produces a cured film of uniform cross-section. Polymer film shall be prepared from latex as follows: Resistance to Swelling: Polymer films shall be formed by using a 50 mil drawdown bar and drawing down 50 mils of the latex on polyethylene boards. Films shall be cured for 14 days at 75°F and 50% humidity. Samples for resistance to swelling in rejuvenating agent shall be 1" by 2" rectangles cut from the cured film. Cut at least 3 specimens for each sample to be tested for swelling. Fill 3-8 oz ointment tins with at least a ½" deep of rejuvenating agent. Swelling samples shall be weighed and then placed in the ointment tins on top of the rejuvenating agent. Then, add at least another ½" deep of rejuvenating agent over each of the latex samples. The ointment tins shall be covered and placed in an oven at 104°F for the specified 48 hours ±15 minutes. The ointment tins are allowed to cool to 75°F and then the latex films are removed from the tins. Unabsorbed rejuvenating agent is removed from the intact latex film by scraping with a rubber policeman and blotting with paper towers. If the latex film does not remain intact during removal from the tins or while removing the unabsorbed rejuvenating agent the sample shall be rejected. After the rejuvenating agent is removed from the samples they are then weighed. Percent swelling is reported as weight increase of the polymer film; report mass increase as a percent by weight of the original latex film mass upon exposure of films to the recycling agent.

The rejuvenating agent shall conform to the following requirements.

Test	Requirements
Viscosity, 140°F, CST	50-175
Flash Point, °F, COC	380 Min.
Saturate, % by wt.	30 Max.
Asphaltenes	1.0 Max.
Test on Residue	
Weight Change, %	6.5 Max.
Viscosity Ratio	3 Max.

The polymer shall be PA-AS-1 as produced by Polymer Science of America or an approved equally compatible polymer meeting the aforementioned specifications with a demonstrated compatibility used in a rejuvenating scrub seal containing ARE with a minimum of three (3) years of demonstrated usage and successfully applied in at least three (3) successfully completed public works scrub seal projects utilizing the scrub broom operation. Documentation of the proposed alternate material's usage as related to the scrub seal process and successfully completed public works projects, with agency contact references, shall be provided as part of any proposed alternate material request. Submittal of an equally compatible polymer without proper documentation shall result in rejecting the ARE.

The Contractor shall submit in accordance with subsection 2-5.3 and 6-1.2 a Certificate of Compliance conforming to 4-1.5 for the polymer. A Certificate of Compliance conforming to 4-1.5 shall accompany each shipment of ARE and ARE's individual component, including the latex and rejuvenating agent, to the Work site and be submitted to the Engineer prior to application. In addition to the requirements of 4-1.5, the certificate shall show the shipment number, type of material, refinery, consignee, destination, quantity, Project title, purchase order number, and date of shipment.

ARE shipped without a Certificate of Compliance will not be allowed to be used on the Work unless otherwise approved by the Engineer. The Contractor shall be responsible for any delays associated with obtaining the approval of the Engineer.

The Contractor shall provide samples of the ARE and each individual component 10 days before placement of the scrub seal and shall be submitted to the Engineer in sealed container showing the project title, type and source of material, and date of shipment. The Contractor shall submit the following:

Material	Quantity
ARE	1 gallon
Latex	2 quarts
Rejuvenating Agent	2 quarts

Additional samples shall be required during the course of placement of the scrub seal as directed by the Engineer.

At any time, the Engineer shall perform quality testing on the samples submitted by the Contractor as deemed necessary to determine the materials compliance with the specifications.

SCREENINGS

Screenings shall consist of broken stone, crushed gravel or both. At least 90 percent by weight of the screenings shall consist of crushed particles as determined by California Test 205. Screenings shall be clean and free from dirt and other deleterious substances.

Screenings shall be **Medium Fine grade with 5/16" x No. 8** size screenings and shall conform to the grading and quality requirements below.

Sieve Sizes	Percentage Passing			
	Coarse 1/2" x No. 4	Medium 3/8" x No. 6	Medium Fine 5/16" x No. 8	Fine 1/4" x No. 10
3/4"	100	—	—	—
1/2"	95-100	100	—	—
3/8"	50-80	90-100	100	100
No. 4	0-15	5-30	30-60	60-85
No. 8	0-5	0-10	0-15	0-25
No. 16	—	0-5	0-5	0-5
No. 30	—	—	0-3	0-3
No. 200	0-2	0-2	0-2	0-2

Tests	California Test	Requirements
Los Angeles Rattler Loss at 100 Rev. (max.)	211	10%
Los Angeles Rattler Loss at 500 Rev. (max.)	211	40%
Film Stripping (max.)	302	25%
Cleanness Value (min.)	227	80

If the results of the aggregate grading for screenings does not meet the gradation specified, the scrub seal coat represented by the test shall be removed. However, if requested in writing by the Contractor and approved by the Engineer, the seal coat may remain in place, and the Contractor shall pay to the County $1.75 per ton for the screenings represented by the test and left in place.

If the results of the cleanness value test for screenings is below 80, the scrub seal coat represented by the test shall be removed. However, if requested in writing by the Contractor and approved by the Engineer, scrub seal coat containing screenings with a Cleanness Value below 80, but not less than 75, may remain in place. The Contractor shall pay to the County the amount specified below for the screenings represented by the test and left in place.

Cleanness Value	Payment to County
80 or over	None
79	$2.00 per ton
77	$4.00 per ton
75	$6.00 per ton

When both the aggregate grading and the cleanness value for screenings do not conform to the requirements specified, both payments to the County shall apply. The County may deduct these amounts from any moneys due, or that may become due, the Contractor under the Contract. No single aggregate grading or cleanness value test shall represent more than 300 tons or one day's production, whichever is smaller.

EQUIPMENT

Equipment shall be approved by the Engineer prior to use.

Distributor Trucks

Distributor trucks shall be self-propelled and of the pressure-type with insulated tanks. The use of gravity distributors will not be permitted. Spray bars shall have a minimum length of 9 feet and shall be of the full circulating type. The spray bar shall be adjustable to permit positioning at various heights above the surface to be treated. The valves shall be operated by levers so that one or all valves may be quickly opened or closed in one operation.

Distributor trucks shall be equipped with the following:

a. Computerized control system which provides for accurate and rapid determination and control of the amount of emulsion being applied,
b. Heating unit and pump or pumps capable of spraying the asphalt rejuvenating emulsion within 0.03 gal/yd^2 of the specified application rate,
c. Fully-circulating spray bar capable of applying the asphalt rejuvenating agent uniformly across the roadway without streaks or other distortions,
d. Tachometer,
e. Pressure gauges,
f. Volume measuring devices,
g. Temperature gauges,
h. A hose and nozzle to be used for spraying areas which are inaccessible to the distributor, and
i. Bitumeter of the auxiliary wheel type registering speed in feet per minute, and trip and total distance in feet.
j. Scrub broom conforming to subsection "Scrub Brooms".

Cab-controlled valves may be used. The valves which control the flow from nozzles shall act positively so as to provide a uniform unbroken spread of bituminous material on the surface.

Distributor trucks shall be capable of uniformly applying emulsion, in controlled amounts, ranging from 0.02 gallon to 1 gallon per square yard of surface and with a range of pressure from

25 psi to 75 psi. If a spray bar extension is used to cover a greater width, it shall be of the full-circulating type.

Distributor and booster tanks shall be so maintained at all times as to prevent dripping of bituminous material from any part of the equipment.

Scrub Brooms

Scrub brooms shall be composed of a rigid steel frame with hydraulically operated street brooms attached. The main body of the frame shall be a minimum of 8 feet wide by 8 feet long. The minimum frame width shall be 16 feet. The maximum transverse width of the frame at any point shall not exceed 4 feet. The nearest and furthest members, paralleling the back of the distributor truck, and the diagonal members shall be equipped with street brooms. The leading member and the trailing member shall have broom heads angled at 15 degrees off the centerline of the supporting member. The diagonal members shall have broom heads attached in line with the centerline of the supporting member. Each individual street broom attached to the scrub broom assembly shall be 3-1/2 inches wide x 8 inches high x 16 inches long and shall have stiff nylon bristles. Bristle height shall be maintained at a minimum of 5 inches. The scrub broom may be equipped with hinged wing assemblies which shall not to exceed 4 feet per side including diagonals, and shall be equipped with street brooms.

The weight of the broom assembly shall be such that it does not remove the asphalt rejuvenating emulsion from the roadway surface.

The scrub broom frame shall be attached to and pulled by the distributor truck. The distributor truck shall be equipped with the means to mechanically lift the scrub broom off of the roadway surface at intermediate points of completion and remain in the elevated position during transit.

Haul Trucks

Haul trucks for hauling screenings shall be equipped with the following:

a) Tailgate discharge,
b) Locking device for connecting to the chip spreader, and
c) Dump beds designed such that, when fully raised, no downward pressure is exerted on the chip spreader; and that, when dumping into the chip spreader, screenings are not dumped onto the roadway.

Chip Spreaders

Chip spreaders shall be specifically designed and constructed to spread screenings. Chip spreaders shall be:

a) self-propelled;

b) equipped with a locking device for attaching to haul trucks, separate rear receiving and front spreading hoppers, a conveyor system capable of transporting material deposited in the rear hopper to the front hopper, an adjustable width spreading hopper, and a computerized spread rate control system capable of adjusting the spread rate up or down in 1 pound increments; and

c) capable of towing haul trucks during discharge and spreading screenings over an entire traffic lane width in one pass.

Rollers

Rollers shall be 5-ton, pneumatic tired, oscillating type having a width of not less than 4 feet with pneumatic tires of equal size and diameter having treads satisfactory to the Engineer. Wobble-wheel rollers will not be permitted. The tires shall be spaced so that the gaps between adjacent tires will be covered by the following tires. Rollers shall be self-propelled and reversible. Each roller shall have a separate operator.

Rollers shall be equipped with pads and water systems which prevent sticking of asphalt mixtures to the pneumatic tires. A parting agent, which will not damage the asphalt mixture, as determined by the Engineer, may be used to aid in preventing the sticking of the mixture to the wheels.

The tires shall be inflated to 90 psi, or a lower pressure as designated by the Engineer, and maintained so that the air pressure will not vary more than 5 psi from the designated pressure. Rollers shall be constructed so that the total weight of the roller can be varied to produce an operating weight per tire of not less than 2,000 pounds. The total operating weight of the roller shall be varied as directed by the Engineer.

Sweepers

Sweepers shall be self-propelled, equipped with a vacuum type broom and having only negative air pressure at the road surface capable of cleaning the existing pavement and removing loose and excess screenings without dislodging screenings set in the asphalt rejuvenating emulsion. Sweepers shall have a built-in water spray system for controlling dust. Gutter brooms or steel-tined brooms shall not be used.

PREPARATION OF EXISTING PAVEMENT

The Contractor shall prepare the surfaces to be sealed prior to application of the seal coat.

Manhole covers, utility vaults and the surfaces of other utility facilities, survey monuments and benchmarks, shall be covered using a material approved by the Engineer. The material and procedure shall result in no adherence of the seal coat to the facility and no stripping of the seal coat from the adjacent pavement. Protection material shall be removed after completion of the work.

Thermoplastic striping and pavement markings, raised pavement markers, and raised pavement marker adhesive shall be removed.

Immediately before applying the asphalt rejuvenating agent, the surface to be sealed shall be clean and dry. Cleaning shall be performed by sweeping or other means necessary to remove all loose particles of paving, all dirt and all other extraneous material.

ASPHALT REJUVENATING EMULSION (ARE) APPLICATION

ARE shall be applied by distributor trucks conforming to the subsection "Distributor Trucks" of these Provisions. ARE may be applied with a wand to small or inaccessible areas if so approved by the Engineer. ARE shall not be applied when weather conditions are unsuitable. ARE shall not be applied until sufficient screenings are on hand to immediately cover the ARE.

The Contractor shall schedule ARE application such that the ARE breaks (turns from brown to black) before the atmospheric temperature falls below 50°F, the pavement temperature drops below 60°F, the atmospheric temperature is above 50°F, and before the time the lane is to be opened to traffic.

Application of emulsion shall be discontinued sufficiently early in the day to permit the termination of traffic control prior to darkness. Emulsion shall be applied to only one designated traffic lane at a time, and the entire width of the lane shall be covered in one operation.

Emulsion shall not be applied a greater distance (no more than 50 feet) than can be immediately covered by screenings, unless otherwise permitted by the Engineer.

Application Temperature

ARE shall be a minimum of 110°F but not to exceed 170 °F at the time of application.

Application Rate

ARE shall be applied at a rate of 0.22 to 0.40 gallons per square yard. ***The initial rate of application shall be 0.30 gallons per square yard.*** The Contractor may propose a different initial rate of application. The Contractor shall apply ARE to 100-foot test strips as requested by the Engineer to determine and verify the final rate of application. The intial and final rate of application, and any adjustments thereto during placement, shall be subject to approval by the Engineer. The distribution of ARE shall not vary more than 15 percent transversely nor more than 10 percent longitudinally from the rate of application approved by the Engineer as determined by California Test 339. ARE, after application, shall be free of streaks and voids, and shall provide uniform coverage.

Scrubbing

Immediately following application, ARE shall be scrubbed into the existing pavement surface with a scrub broom conforming to subsection "Scrub Brooms" of these Provisions. Scubbing shall fill cracks and voids, force the ARE into the existing pavement surface, and distribute the ARE uniformly over the roadway cross section.

ARE Termination

ARE shall be terminated on building paper or other similar material approved by the Engineer spread over the entire ARE application width. Building paper shall also be placed over the treated surface for a sufficient length at the beginning of a spread to avoid spraying existing pavement or previously placed screenings and so that the nozzles are spreading properly when

the uncovered surface is reached. The building paper shall then be removed and disposed of in a manner satisfactory to the Engineer.

Spreading of Screenings

Screenings shall be uniformly spread by a chip spreader conforming to subsection "Chip Spreaders" of this Provisions. Spreading shall begin immediately following scrubbing. The spreading rate shall be from 18 to 30 pounds per square yard. ***The initial rate of spreading shall be 24 pounds per square yard.*** The Contractor may propose a different initial rate of spreading. The Contractor shall spread screenings on 100-foot test strips as requested by the Engineer to determine and verify the final rate of spreading. The spreading rate shall be adjusted up or down so that no bleed through occurs during rolling. The intial and final rate of spreading, and any adjustments thereto during spreading, shall be subject to approval by the Engineer.

The joint between adjacent applications of screenings shall coincide with the line between designated traffic lanes.

Operating the chip spreader at speeds which cause the chips to roll over after striking the bituminous covered surface will not be permitted.

The transverse termination of screenings shall be complete and any excess screenings shall be removed from the surface prior to resuming operations.

Stockpiling of screenings prior to placing will be permitted; however, any contamination resulting during storage or from reloading operations will be cause for rejection.

Screenings shall be surface damp at the time of application, but excess water on the aggregate surface will not be permitted. Screenings shall be re-dampened in the haul trucks prior to delivery to the chip spreader when so directed by the Engineer.

ARE shall be covered with screenings before setting or "breaking" of the ARE occurs.

After the screenings have been spread, piles, ridges or uneven distribution shall be carefully removed to ensure against permanent ridges, bumps or depressions in the completed surface. Additional screenings shall be spread in whatever quantities may be required to prevent picking up by the rollers or traffic, after which the surface shall be rolled.

SCRUB SEAL APPLICATION

Roads that are to be scrub sealed shall be applied with ARE and screenings at the application rate approved by the Engineer. The scrub seal shall be applied at full width of the pavement and the following pavement surfaces:

a) where no curb or gutter exists, the emulsion shall be applied from edge of pavement to edge of pavement.
b) where a curb exists without gutter, the emulsion shall be applied 4 inches from face of curb.
c) where a curb and gutter exist, the emulsion shall be applied 4 inches from the lip of gutter.

d) for cul-de-sacs and curve returns, the emulsion shall be applied following the application (a), (b), or (c) above.

The Contractor shall use any approved means necessary to cover all pavement surfaces with ARE and screenings at the limits specified above. Brooming of the emulsion and spreading of the screenings manually shall be allowed as directed by the Engineer.

FINISHING

Finishing shall consist of rolling and sweeping.

Rolling

A minimum of 2 pneumatic rollers conforming to subsection "Rollers" of these Provisions shall be furnished and operated.

Initial rolling shall consist of one complete coverage and shall begin immediately behind the chip spreader. ARE and screenings shall not be spread more than 2,500 feet ahead of completion of initial rolling operations. Secondary rolling shall begin immediately after completion of the initial rolling. The amount of secondary rolling shall be sufficient to adequately seat the screenings and in no case shall be less than 2 complete coverages.

Sweeping

Sweepers for finishing and maintaining scrub seal coat screenings shall conform to subsection "Sweepers" of these Provisions. Sweeping is required adjacent to curbs, gutters, dikes, berms, railings or other barriers to remove loose screenings. In addition to the sweepers required for maintaining previously placed screenings, at each location where screenings are to be spread, a minimum of 2 self-propelled brooms shall be available prior to the start of spreading the screenings.

Sweeping shall be performed in such a manner that the screenings set in the asphalt rejuvenating emulsion will not be displaced.

The exact time of sweeping will be determined by the Engineer. As a minimum, sweeping will be required as follows:

a) On 2-lane two-way roadways, from 2 hours to 4 hours after traffic, controlled with pilot cars, has been routed on the seal coat.
b) On multilane roadways, from 2 hours to 4 hours after screenings have been placed.
c) In addition to previous sweeping, immediately prior to opening any lane to public traffic, not controlled with pilot cars.
d) As a first order of work on the morning following application of screenings, on any lane that has been open to public traffic, not controlled with pilot cars.
e) At the end of the 7 calendar day maintenance period.

The following shall apply to scrub seal coat operations on 2-lane two-way roadways under one-way traffic control:

f) Upon completion of secondary rolling, public traffic shall be controlled with pilot cars and routed over the new seal coat for a period of from 2 hours to 4 hours. The exact time shall be as determined by the Engineer.

g) The Contractor shall schedule the operations such that seal coat is placed on both lanes of the traveled way each work shift, and such that one-way traffic control is discontinued before darkness. At the end of the work shift, the end of the seal coat on both lanes shall generally match.

The following shall apply to seal coat operations on multilane roadways:

h) Initial sweeping may begin after the screenings have been in place for a period of from 2 hours to 4 hours. When the initial sweeping is not completed during the work shift in which the screenings were placed, the initial sweeping shall be completed as the first order of work at the beginning of the next work shift.

i) Public traffic shall be controlled with pilot cars and shall be routed on the new seal coat surface of a lane, for a minimum of 2 hours after completion of initial sweeping and prior to opening the lane to traffic not controlled with pilot cars. When traffic is controlled with pilot cars, a maximum of one lane in the direction of travel shall be open to public traffic. Once traffic, controlled with pilot cars, is routed over the seal coat at a location, continuous control shall be maintained at that location until the seal coat placement and sweeping on adjacent lanes to receive seal coat is completed.

Excess screenings are not salvageable and which interfere with drainage shall be removed and disposed of by the Contractor at the Contractor's expense.

Finished Surface

The completed, finished surface shall be uniform in appearance and free from ruts, humps, depressions or irregularities.

MAINTENANCE

Scrub seal coat surfaces shall be maintained, including the traffic control required for maintenance operations, for a period of 7 consecutive calendar days beginning on the day screenings are applied to the asphalt rejuvenating emulsion. Maintenance of the surface shall include sweeping and the distribution of screenings over the surface to absorb any free ARE, to cover any area deficient in cover coat material and to prevent formation of corrugations. At the discretion of the Engineer, clean sand may be used in lieu of screenings to cover any excess of ARE which comes to the surface. The use of roadside material for this purpose will not be permitted.

The surface of the seal coat shall be swept as often as necessary during the 7 calendar day maintenance period to maintain the surface free of loose screenings. At the end of the 7 consecutive calendar day maintenance period, any excess screenings shall be removed from paved areas.

SLURRY SEAL COAT

Slurry seal coat shall consist of an application of a slurry seal Type I to the surface of scrub seal coat.

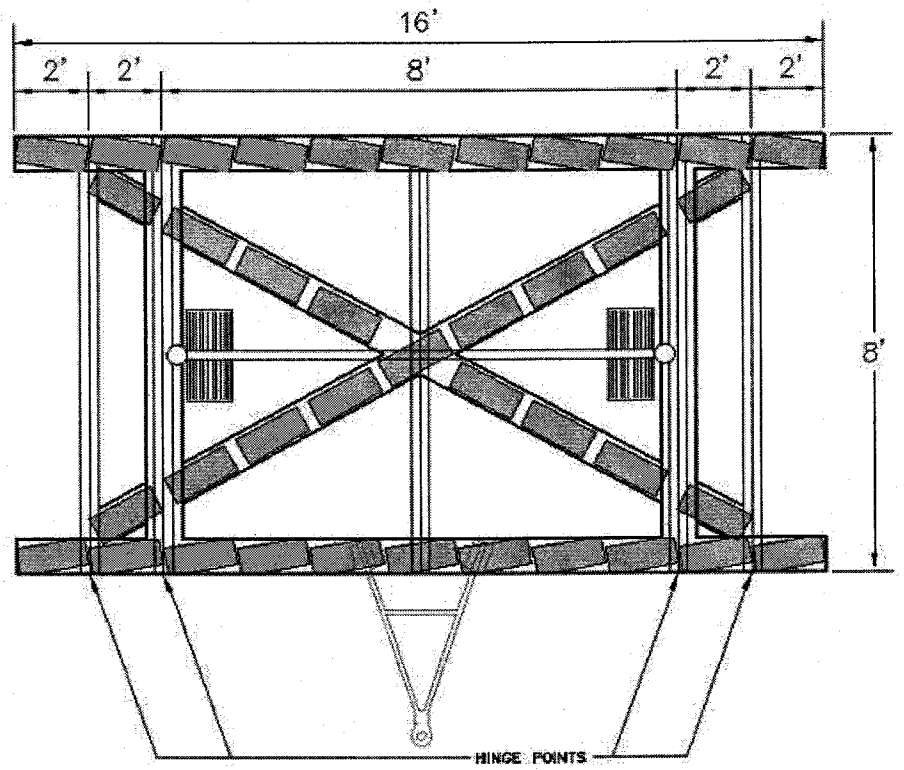
Slurry seal coat shall be applied to the scrub seal surface after 3 consecutive calendar days but before the 7-day (consecutive calendar days) maintenance period. Application of slurry seal over the scrub seal surface beyond the maximum allowable maintenance period shall result in assessing liquidated damages as described in section "LIQUIDATED DAMAGES" of these Provisions.

Materials, application, and other requirements for slurry seal coat shall be in accordance with section "SLURRY SEAL" of these Provisions.

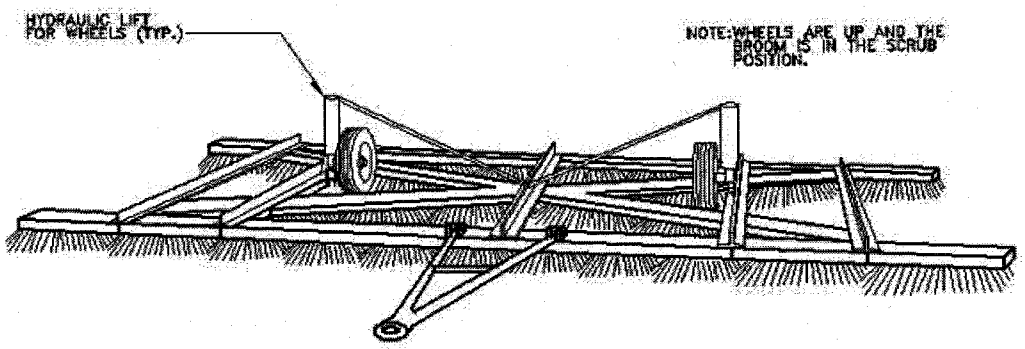
Measurement and Payment:
Payment for scrub seal coat shall be considered as included in the contract unit price paid per square yard for "SCRUB SEAL" and shall be considered as full compensation for furnishing all labor, materials, tools, equipment and incidentals for placing asphalt rejuvenating emulsion (ARE) , screenings, rolling, sweeping, finishing, maintenance, and performing necessary cleanups as specified in these Special Provisions and as directed by the Engineer.

No adjustment in compensation will be made for any increase or decrease in the quantity of ARE or screenings necessary to obtain the application rates required by the Engineer.

Slurry Seal Type I coat installed over Scrub Seal as part of the Slurry Seal over Scrub Seal process shall conform to the "SLURRY SEAL" section of these Special Provisions and its payment shall be considered as included in the contract unit price paid per Ton for SLURRY SEAL (TYPE 1) [OVER SCRUB SEAL].



STREET BROOMS W/ NYLON BRISTLES



PASS Scrub Broom
Exhibit "A"
(Not for fabrication – Use as schematic only)

TRAFFIC STRIPING AND PAVEMENT MARKINGS:

Painting traffic stripes (lane lines) and applying thermoplastic pavement markings (word and symbol markings, limit lines, crosswalk, etc.) shall conform to the provisions in Section 84, "Traffic Stripes and Pavement Markings," of the State of California Standard Specifications and these Special Provisions.

The Contractor shall be responsible for documenting the existing traffic stripings and pavement markings on all the project roads. Forms of documentation may include photos, videos, paper media, or aerial photos (provided that the images shown are accurate, clear and current).

At locations where the existing traffic striping and pavement markers exceed a stop bar or centerline stripe, the Contractor shall measure and document lane widths and lengths of striping and markings.

Notification is provided to the Contractor that the existing paint and thermoplastic traffic striping and pavement markings are of white and yellow color. The paint including thermoplastic traffic striping or pavement markings, and raised reflective pavement markers, shall be completely removed by appropriate methods that minimize dust and noise to local residents within the project limits. Blackouts and creation of rough surfaces over the existing paint and thermoplastic traffic striping or pavement markings shall not be allowed. Removal of the existing paint, thermoplastic traffic striping or pavement markings shall be done such that all visible marks are completely removed to the satisfaction of the Engineer.

The subparagraphs of the first paragraph in Section 84-3.02, "Materials," of the State of California Standard Specifications are amended to read:

	State Specification No.
Rapid Dry Water Base, Traffic Line. – White, Yellow and Black	8010-91D-30

The second and third paragraphs in Section 84-3.02, "Materials," of the State of California Standard Specifications are amended to read:

State Specifications for traffic paint and glass beads may be obtained from the Transportation Laboratory, 5900 Folsom Boulevard, Sacramento, CA 95819-4612, telephone number (916) 227-7289.

Glass beads shall conform to 1-ACOT type beads or equal.

The Contractor shall layout and "cat-track" the alignment of the proposed striping at 4.5 m (15 ft) intervals and "spot" the proposed pavement markings removed prior to the slurry application. Striping shall vary no more than 12 mm (2 in) in 15.2 m (50 ft) from the specified alignment. The Engineer may waive minor variations.

The Contractor shall not proceed with the painting of any striping or applying thermoplastic pavement markings until the Engineer has checked and approved the cat-tracking and spotting, and has authorized the Contractor to proceed.

Traffic striping shall be applied with airless equipment. All traffic striping shall be performed with a road liner type striping machine. Where the configuration or location of a traffic stripe is such that the use of a road liner type striping machine is unsuitable, traffic paint and glass beads may be applied by other methods and equipment approved by the Engineer. The Engineer shall determine if the road liner type striping machine is unsuitable for a particular use.

The first coat of paint on arterial and collector street shall be applied within six (6) working days of starting surfacing on arterial and collector streets. Striping of arterial and collector streets shall take precedence over local street in order to maintain the requested schedule. Failure to apply the first coat of paint within the specified time shall result in liquidated damages: in the amount of $500.00/day per occurrence. Should the arterial and collector streets remain unpainted after ten (10) days of liquidated damages, the entire slurry operation shall be shut down to allow the striping contactor sufficient time to meet the schedule. No extension of time will be allowed for this delay. The second coat of paint shall not be applied until at least seven (7) calendar days after the first coat. Each coat of paint shall be applied at the wet film thickness of 10-12 mils for white and yellow paint and 7 mils for black paint. All paint shall be applied at a relative humidity below seventy-five percent (75%) and an ambient temperature above 13°C (55°F), unless otherwise approved by the Engineer.

Except for black paint, No. 1 reflective glass beads shall be uniformly incorporated in all coats of paint concurrently with the application of the paint. The glass beads shall be embedded in the coat of traffic paint being applied to a depth of at least one-half (1/2) their diameters. The reflective glass beads shall be applied to the first coat of paint at the rate of 0.7 kg (1.5 lb) of beads per liter (0.26 gal) of paint, and to the second coat of paint at the rate of 0.95 kg (2 lb) of beads per liter (0.26 gal) of paint.

Except as otherwise directed by the Engineer, all angle points shall be painted as a smooth, tangent curve with a radius and length as approved in the field.

Temporary tape or reflective markers, utilized for the purposes of interim delineation for centerline, lane lines, and crosswalk lines shall be placed to the side of the final striping pattern in such a way so that it will not interfere with the first coat of paint. All temporary tape and reflective markers applied for the purpose of interim delineation shall be removed by the Contractor at no additional cost to the County upon completion of the first coat of striping and prior to the final striping.

Stencils used to paint pavement markings must conform to the latest Caltrans approved Stenciling Standards.

Add to Subsection 84-1.04, "Protection from Damage," of the State of California Standard Specifications the following:

> Newly painted or existing striping or thermoplastic pavement markings which are damaged as a result of the construction, including wheel markings by public traffic and the construction equipment, shall be repainted or thermoplastic replaced, and any associated removals shall be performed as outlined in these

Special Provisions at the sole expense of the Contractor and no separate compensation will be allowed therefore.

Painting traffic stripes and applying thermoplastic pavement markings shall be separately measured.

Method of Payment:
The Contract unit price paid per square foot for Thermoplastic Crosswalk and Pavement Marking, and per linear foot for Paint Traffic Stripe, shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in painting traffic stripes and speed legends (2 coats), applying thermoplastic pavement markings, establishing alignment for stripes, layout work, sandblasting markers, complete in place, and to restore the Traffic Striping, Pavement Markings in kind condition prior to the application of the Type I and Type II slurry, providing temporary striping and pavement marking, as specified in the Standard Specifications and these Special Provisions and as approved by the Engineer, and no additional compensation will be allowed therefore.

PAVEMENT MARKERS:

Pavement markers, shall conform to the provisions of Section 85, "Pavement Markers," of the State of California Standard Specifications and these Special Provisions.

Certificates of compliance shall be furnished for pavement markers as specified in "Prequalified and Tested Signing and Delineation Materials," elsewhere in these Special Provisions.

Reflective pavement markers shall comply with the specific intensity requirements for reflectance after abrading the lens surface in accordance with the "Steel Wool Abrasion Procedure," specified for pavement markers placed in pavement recesses in Section 85-1.05, "Reflective Pavement Markers", of the State of California Standard Specifications.

Non-reflective pavement markers,shall conform to the requirements of Section 85-1.04 "Non-Reflective Pavement Markers," of the State of California Standard Specifications. The bituminous adhesive used to install the markers shall be a hot melt bituminous adhesive asphaltic material with homogeneously mixed mineral filler and shall conform to the requirements specified in Section 85-1.055, "Adhesives," of the State of California Standard Specifications.

Reflective pavement markers shall be installed at locations as established by the applicable Caltrans striping detail noted on the approved striping Plan, which includes, but is not limited to temporary painted line(s) , new striping or existing striping. There shall be one marker for each location. All work necessary to establish satisfactory locations for markers shall be performed by the Contractor.

Existing reflective pavement markers that do not conform to the approved Plan shall be removed by the Contractor.

Reflective pavement markers shall be of the prismatic reflector type (3M model white RP290w and yellow RPM 2912y or equal) as outlined in Subsection 85-1.05, "Reflective Pavement Markers," of the State of California Standard Specifications.

Blue reflective pavement markers designating the location of fire hydrants within project limits shall be replaced after the paving is completed at all fire hydrants locations, whether the blue reflective makers exist or not prior to paving. Installation of blue markers shall comply with the requirements of Riverside County Fire Department, Standard No. 06-11, attached to these Special Provisions.

Method of Payment:
Full compensation for reflective pavement markers, non-reflective pavement markers, and blue pavement markers (at fire hydrants) shall be considered as included in the price paid per each for Pavement Markers (Reflective), and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in installing pavement markers (reflective, non-reflective, or blue) complete, in place, as shown on the Plans, as specified in the Standard Specifications and these Special Provisions and as approved by the Engineer.

Section 4-1.03 B(1), Increases of More Than 25 Percent, of the State Standard Specifications will not apply to Pavement Markers (Reflective). , No adjustment to the contract unit bid price will be allowed for any excess of over 25 percent of the estimated quantity for Pavement Markers (Reflective).

FINAL CLEAN UP:

Before final inspection of the work, the Contractor shall clean the roadway, material sites, and all ground occupied by the Contractor in connection with the work of all rubbish, excess materials, and equipment. All parts of the work shall be left in a neat and presentable condition.

The Contractor shall provide street sweeping within one month after completion as directed by the Engineer.

The Contractor shall be responsible for removal of slurry tracked by vehicles on to driveways if requested by residents or business; unless, documented by the Contractor as a deliberate act (i.e. driving past the flagman or barricades).

Full compensation for final clean up will be considered as included in the contract price for the placement of the slurry seal and no separate payment will be made therefor.

OBSTRUCTIONS:

Attention is directed to Sections 8-1.10, "Utility and Non-Highway Facilities", and 15, "Existing Highway Facilities" of the Standard Specifications and these Special Provisions.

Existing utility and privately owned facilities shall be protected in accordance with Section 7-1.11, "Preservation of Property" and these Special Provisions. The Contractor is also responsible to protect those facilities that are to be relocated by others prior to or during construction, and shall protect those facilities in both their existing and their ultimate locations. The Contractor shall cooperate with owners and their Contractors of utility and privately owned facilities, for the relocation of said facilities, in accordance with Section 7-1.14, "Cooperation" of the Standard Specifications.

All water valves and covers, gas valves and covers, sewer manholes, survey monuments, survey markers and any other utility appurtenances shall be protected in place.

The Contractor's attention is directed to the existence of certain underground facilities that may require special precautions be taken by the Contractor to protect the health, safety and welfare of workmen and the public. Facilities requiring special precautions include, but are not limited to: conductors of petroleum products, oxygen, chlorine, and toxic or flammable gases; natural gas in pipe lines greater than 6 inches in diameter or pipe lines operating at pressures greater than 60 psi (gage); underground electric supply system conductors or cables either directly buried or in duct or conduit which do not have concentric neutral conductors or other effectively grounded metal shields or sheaths; and underground electrical conductors with potential to ground of more than 300 volts. The Contractor shall notify the Engineer at least twenty-four hours prior to performing any work in the vicinity of such facilities.

Attention is directed to the requirements of Government Code Sections 4216-4216.9 pertaining to existing utility facilities.

Method of Payment:

Full compensation for all costs, including labor, equipment, materials and incidentals, required to comply with the requirements of this section above, including protection of water valves and covers, gas valves and covers, sewer manholes, survey monuments, survey markers and any other utility appurtenances, shall be considered as included in the various items of work, and no additional compensation will be allowed therefor.

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Appendix A

AQMD Recommendations

Dust Abatement Attachments

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AQMD SIGNAGE RECOMMENDATIONS

November, 2001

Plan holder shall post signage at specified locations on the subject property in accordance with the standards specified below. The exception to the standards is that all letters shall be 4 inches high, with the names and telephone numbers of appropriate contacts and services in bold print, as indicated in the standards. These signs shall also include the SCAQMD toll free complaint line 1-800-CUT-SMOG (1-800-288-7664) and the telephone number for the Environmental Observer. These signs shall be posted within 50 feet of the curb on all four (4) corners of the subject property.

For each Dust Control Plan aggregating less than, or equal to, ten (10) acres:

1. The applicant shall install a sign on such property which is visible to the public that meets the following requirements:

   (a) Such sign shall measure at least four (4) feet wide by four (4) feet high and conform to the specifications in 1 (a) below.

For each Dust Control Plan aggregating over ten (10) acres:

2. The applicant shall install a sign on such property which is visible to the public that meets the following requirements:

   (a) Such sign shall measure at least eight (8) feet wide by four (4) feet high and conform to the specifications in 1 (b) below.

THE SIGN SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

1. **The sign boards shall be constructed with materials capable of withstanding the environment in which they are placed.**

   (a) For 4' x 4' signs, the District recommends the following:

   I. ¾ " A/C laminated plywood board
   II. Two 4" x 4" posts
   III. The posts should be attached to the edges of the plywood board with at least 2 carriage bolts on each post.
   IV. The front surface of the sign board should be painted in the contrasting color of a white background with black lettering.

   (b) For 4' x 8' signs, the District recommends the following:

   I. 1" A/C laminated plywood board
   II. Two 5" x 6" posts
   III. The posts should be attached to the 4' edges of the plywood board with at least 2 carriage bolts on each post.
   IV. The front surface of the sign board should be painted in the contrasting color of a white background with black lettering.

2. **<u>The sign board shall be installed and maintained in a condition such that members of the public can easily view, access, and read the sign at all times until the expiration date of the Dust Control plan.</u>**

   (a) For 4' x 4' signs, the District recommends the following:
   - I. The lower edge of the sign board should be mounted at least 2' above the existing ground surface to facilitate ease of viewing.
   - II. The posts should be set in a hole at least 3' deep with concrete footings to preclude downing by high winds.
   - III. On the construction site, the sign should be positioned such that nothing obstructs the public's view from the primary street access point.
   - IV. For construction projects that are developed in phases, the sign should be moved to the area that is under active construction.
   - V. In situations where all phases of the construction project are completed on a property prior to expiration of the Dust Control Plan, a written request for cancellation of the Dust Control Plan must be submitted to the Engineer.

   (b) For 4' x 8' signs, the District recommends the following:
   - I. The lower edge of the sign board should be mounted at least 2' above the existing ground surface to facilitate ease of viewing.
   - II. The posts should be set in a hole at least 4' deep with concrete footings to preclude downing by high winds.
   - III. On the construction site, the sign should be positioned such that nothing obstructs the public's view from the primary street access point.
   - IV. For construction projects that are developed in phases, the sign should be moved to the area that is under active construction.
   - V. In situations where all phases of the construction project are completed on a property prior to expiration of the Dust Control Plan, a written request for cancellation of the Dust Control Plan must be submitted to the Engineer.

3. **The sign board shall contain the following information:**

   (a) Project Name
   (b) Name of Prime Contractor
   (c) Phone Number of Contractor's Employee Responsible for Dust Control Matters
   (d) County designated phone number (to be provided by the Engineer)
   (e) South Coast Air Quality Management District Phone Number

4. **The sign board shall be designed to the following alpha and numeric text dimensions (sign boards written in longhand are unacceptable).**

   (a) For a permittee subject to the 4' x 4' sign requirement, the District provides the following example: (as modified by the County of Riverside for use on County Public Works projects)

1" UPPERCASE Letters →	PROJECT NAME:		3 ½ " Title Case Bold Letters ←
1" UPPERCASE Letters →	CONTRACTOR		3 ½ " Title Case Bold Letters ←
1" Title Case Letters →	Contractor's Dust Control Phone #		3" Bold Numbers ←
1" Title Case Letters →	County of Riverside Phone #		3" Bold Numbers ←
1" Title Case Letters →	Phone Number:	**SCAQMD 1-800-CUT-SMOG**	3 ½ " Bold Numbers ←

"Title Case" means the first letter of a word is capitalized and subsequent letters are lower case.

(b) For a permittee subject to the 4' x 8' sign requirement, the District provides the following example: (as modified by the County of Riverside)

2" UPPERCASE Letters →	PROJECT NAME:		← 4" Title Case Bold Letters
2" UPPERCASE Letters →	CONTRACTOR		← 4" Title Case Bold Letters
2" Title Case Letters →	Contractor's Dust Control Phone #		← 4" Bold Numbers
2" Title Case Letters →	County of Riverside Phone #	**909-**	← 4" Bold Numbers
2" Title Case Letters →	Phone Number:	**SCAQMD 1-800-CUT-SMOG**	← 4 ½ " Bold Numbers
2" Title Case Letters →	**COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT**		

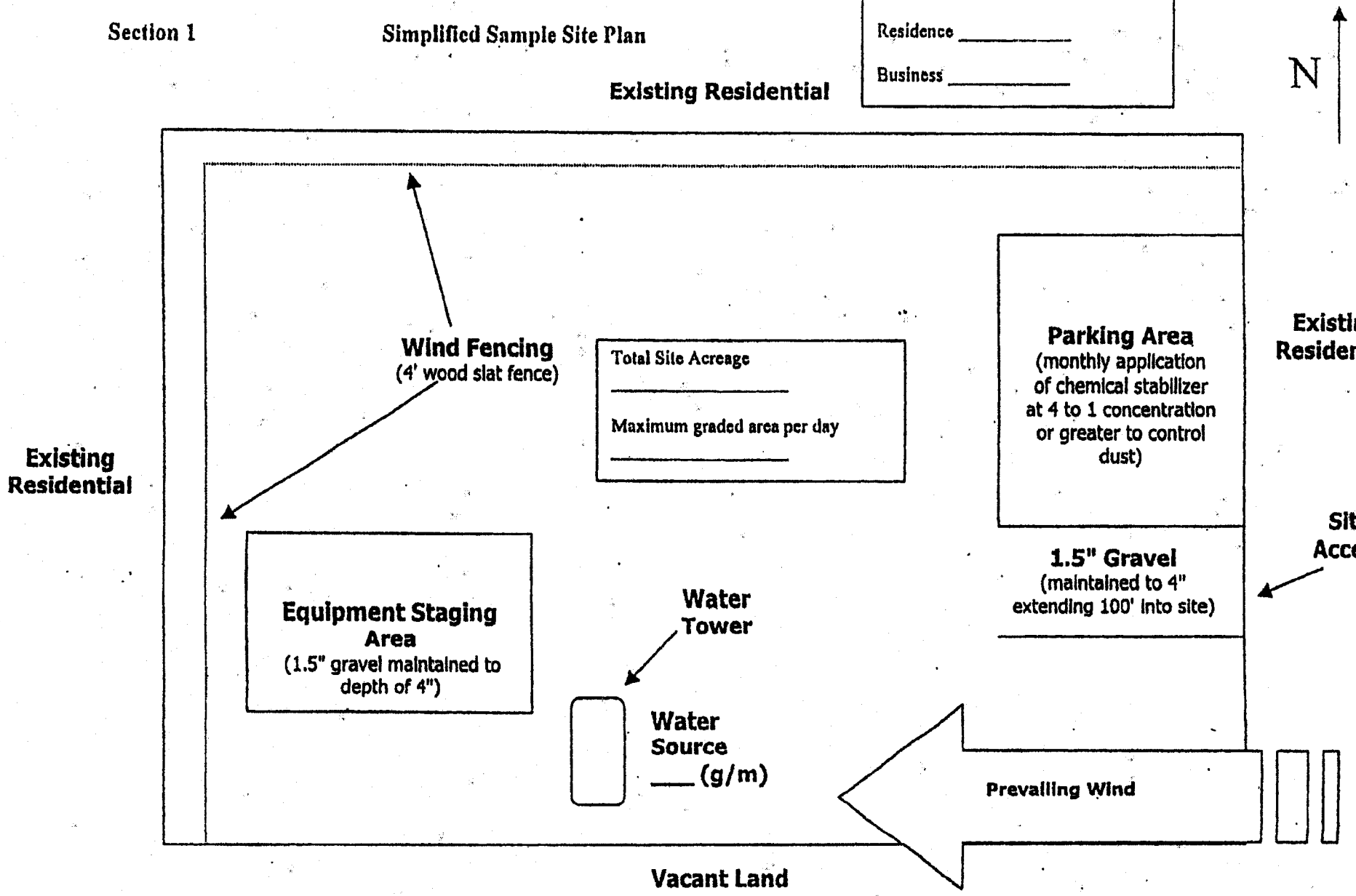
Section 1

Simplified Sample Site Plan

Distance and location of nearest:

Residence _____

Business _____



Remember...
DUST CONTROL IS REQUIRED 24 HOURS A DAY, 7 DAYS A WEEK, REGARDLESS OF CONSTRUCTION STATUS

Plan Review Checklist
Clearing/Grubbing/Mass Grading Phase

☐ If feasible, use grading permit conditions to break the project into phases so that only a portion of the site is disturbed at any given time to ensure control of fugitive dust. This technique is critical for project sites with greater than 100 acres.

☐ Prior to initiating activity, pre-water site through use of portable irrigation lines. At least 72 hours of pre-watering is recommended for each area prior to initiating earth-movement. Require the Applicant to specify water source and available flow rate (g/m).

☐ Water applied continuously to all disturbed portions of the site by means of water truck/water pull as necessary to maintain sufficient visible moisture on the soil surface. For reference, one 2,000 gallon water truck can treat approximately 4 acres of active construction per hour. Also, for cut and fill activities, one 10,000 gallon water pull is estimated to be necessary for each 7,000 cubic yards of daily earth-movement. Multiple 4,000-gallon water trucks may be used in place of one 10,000-gallon water pull. Touch and visual contrast are reasonably good indicators of soil moisture. Surface areas that are dry to the touch and appear lighter-colored require the application of additional water to prevent visible or fugitive dust. Require the Applicant to specify the number of watering vehicles available for dust control during mass grading and during off-hours as well as availability of back-up water trucks if the site experiences dust control problems.

☐ Water towers are necessary for projects with more than 10 acres of active construction. Without a water tower, it can take up to 30 minutes to fill a 2,000 gallon water truck. Also, multiple water towers are necessary for projects that use water pulls as filling one 10,000 gallon water pull can drain a water tower which takes up to 40 minutes to refill.

☐ Wind fencing is necessary between the site and nearby residences or businesses. Off-site upwind fencing and on-site wind fencing for larger projects can also keep blowsand from being deposited onto the site or traveling through the site.

☐ A perimeter watering system consisting of portable irrigation equipment may be an effective mitigation system to protect surrounding residences and businesses. The portable watering system may be used in place of or in conjunction with watering trucks. The local jurisdiction may also be provided access to this equipment.

Remember...
DUST CONTROL IS REQUIRED 24 HOURS A DAY, 7 DAYS A WEEK, REGARDLESS OF CONSTRUCTION STATUS

AQMD Recommendations

- [ ] Construction site accesses are to be improved with 1.5" gravel maintained to a depth of 4", at least 20' wide, and extending 100 feet into the site. If the project site is not balanced, a wheel washing system and/or ribbed steel plates should be placed in the roadway before the vehicle enters the graveled area to clean the tires and prevent trackout.

- [ ] Equipment staging areas are to be treated with 1.5" gravel maintained to a depth of 4".

- [ ] Employee parking areas are to be covered with 1.5" gravel maintained to a depth of 4" or treated with chemical dust suppressants at a 4 to 1 ratio on at least a monthly basis to prevent fugitive dust.

- [ ] Chemical dust suppressants are to be mixed at a ratio of 20 to 1 and applied to all disturbed surfaces that are proposed to remain inactive for a period of at least 10 consecutive days. These products are effective in preventing and controlling dust. Recordkeeping is necessary to demonstrate compliance.

- [ ] All project sites greater than 100 acres shall monitor daily wind speeds and AQMD forecasted wind events (call 1.800.CUT.SMOG, press one for air quality information, and then press five for Coachella Valley wind forecasts). Operators shall maintain these records for review by any local code enforcement officer or AQMD inspector.

- [ ] An environmental observer whose primary duty is to oversee dust control at the site is to be used for construction projects greater than 100 acres and/or sites with more than 50 acres of active construction. The environmental observer is tasked with monitoring dust abatement measures and authorized to deploy additional water trucks and other dust control actions (i.e., wind fencing, street sweepers, chemical dust suppressants, etc.) as necessary to prevent or control fugitive dust.

- [ ] Other (specify):_____

Remember...
DUST CONTROL IS REQUIRED 24 HOURS A DAY, 7 DAYS A WEEK, REGARDLESS OF CONSTRUCTION STATUS

Plan Review Checklist
Finish Grading Phase

☐ Water applied continuously to all disturbed portions of the site by means of water truck/water pull as necessary to maintain sufficient visible moisture on the soil surface. For reference, one 2,000 gallon water truck can treat approximately 4 acres of active construction per hour. Also, for cut and fill activities, one 10,000 gallon water pull is estimated to be necessary for each 7,000 cubic yards of daily earth-movement. Multiple 4,000-gallon water trucks may be used in place of a 10,000-gallon water pull. Touch and visual contrast are reasonably good indicators of soil moisture. Surface areas that are dry to the touch and appear lighter-colored require the application of additional water to prevent visible or fugitive dust. Require the Applicant to specify the number of watering vehicles available for dust control during finish grading and during off-hours as well as availability of back-up water trucks if the site experiences dust control problems.

☐ Water towers are necessary for projects with more than 10 acres of active construction. Without a water tower, it can take up to 30 minutes to fill a 2,000 gallon water truck. Also, multiple water towers are necessary for projects that use water pulls as filling one 10,000 gallon water pull can drain a water tower which takes up to 40 minutes to refill.

☐ Wind fencing is necessary between the site and nearby residences or businesses to reduce fugitive dust. Off-site upwind fencing and on-site wind fencing for larger projects can also keep blowsand from being deposited onto the site or traveling through a site.

☐ Chemical dust suppressants are to be applied at a concentration of at least 10 to 1 to finish graded areas once final elevations have been reached. For areas that will remain inactive for longer periods, vegetation can be a cost-effective alternative to chemical stabilization. Wind fencing or other obstructions can keep the stabilized area free from future disturbances.

☐ Construction site access(es) are to be improved with 1.5" gravel maintained to a depth of at least 4" ,with a minimum width of at least 20', extending 100 feet into the project site.

☐ Equipment staging areas are to be treated with 1.5" gravel maintained to a depth of 4".

☐ Internal roadway networks are to be treated with chemical dust suppressants at a minimum rate of at least 4 to 1 and retreated on a monthly basis once final roadway elevations have been reached.

☐ Employee parking areas are to be treated with chemical dust suppressants at a mix ratio of at least 4 to 1 and retreated on at least a monthly basis or covered with 1.5" gravel maintained to a depth of 4" to prevent fugitive dust.

☐ Other (specify):_____

_____

_____

_____

Remember...
DUST CONTROL IS REQUIRED 24 HOURS A DAY, 7 DAYS A WEEK, REGARDLESS OF CONSTRUCTION STATUS

Plan Review Checklist
Construction Phase

☐ Water applied continuously to all disturbed portions of the site by means of water truck/water pull is necessary to maintain sufficient visible moisture on the soil surface. For reference, one 2,000 gallon water truck can treat approximately 4 acres of active construction per hour. Touch and visual contrast are reasonably good indicators of soil moisture. Surface areas that are dry to the touch and appear lighter-colored require the application of additional water to prevent visible or fugitive dust. Require the Applicant to specify the number of watering vehicles available for dust control during the construction phase and during off-hours as well as availability of back-up water trucks if the site experiences dust control problems.

☐ Wind fencing is necessary between the site and nearby residences or businesses. Off-site upwind fencing and on-site wind fencing for larger projects can also keep blowsand from being deposited onto the site or traveling through the site. Block walls, if part of the final project, can replace wind fencing during the construction phase.

☐ Chemical dust suppressants are to be applied at a concentration of at least 20 to 1 to finish graded areas once final elevations have been reached. For areas that will remain inactive for longer periods, vegetation can be a cost-effective alternative to chemical stabilization. Wind fencing or other obstructions can keep the stabilized area free from future disturbances.

☐ Construction site accesses are to be improved with 1.5" gravel, maintained to a depth of 4", with a width of at least 20', extending 100' into the project site. Paving internal roadways can substitute for gravel.

☐ Internal roadway networks are to be paved as early as feasible in the construction phase. Street sweeping of internal and/or external access roads will likely be required to control entrained road dust.

☐ Employee parking areas are to be treated with chemical dust suppressants at a mix ratio of no less than 4 to 1 and retreated on a monthly basis, or more frequently if fugitive dust is observed. If internal roadway is complete, employees are to be instructed to park on paved roads.

☐ Other (specify):_____

_____

_____

_____

_____

_____

_____

Remember...
DUST CONTROL IS REQUIRED 24 HOURS A DAY, 7 DAYS A WEEK, REGARDLESS OF CONSTRUCTION STATUS

REASONABLY AVAILABLE CONTROL MEASURES

Paragraph (d)(3) of Rule 403 allows activities outside the South Coast Air Basin (see Figure 2-1) to implement reasonably available control measures in lieu of best available control measures. Additionally, as specified by subparagraph (f)(3)(D) of Rule 403, any person seeking approval of a fugitive dust emissions control plan for projects outside the South Coast Air Basin must demonstrate to the satisfaction of the District that the given activity is employing all reasonably available fugitive dust control measures.

The District has prepared the attached listing of reasonably available fugitive dust control measures for a variety of source categories. This list is based on the U.S. Environmental Protection Agency's reference document entitled, "Control of Open Fugitive Dust Sources," Midwest Research Institute, September 1988.

The District encourages the use of those dust control measures that minimize the use of potable water. When water is needed, reclaimed water should be utilized to the greatest extent feasible.

REASONABLY AVAILABLE CONTROL MEASURES

The left column contains a listing of the sources of fugitive dust which are intended for emission control under District Rule 403 and a listing of control measures and high-wind measures. The right column contains a description of the reasonably available fugitive dust control measures for each of the sources.

Source: (1) Land Clearing/Earth-Moving

CONTROL MEASURES	DESCRIPTION
(A) Watering	(1) Application of water by means of trucks, hoses and/or sprinklers prior to conducting any land clearing. This will increase the moisture content of the soils; thereby increasing its stability. (2) Pre-application of water to depths of proposed cuts. (3) Once the land clearing/earth moving activities are complete, a second application of water can generate a thin crust that stabilizes the disturbed surface area provided that it is not disturbed. (Security fencing can be used to prevent unwanted future disturbances of sites where a surface crust has been created).
(B) Chemical stabilizers	(1) Only effective in areas which are not subject to daily disturbances. (2) Vendors can supply information on product application and required concentrations to meet the specifications established by the Rule.
(C) Wind fencing	(1) Three- to five-foot barriers with 50% or less porosity located adjacent to roadways or urban areas can be effective in reducing the amount of windblown material leaving a site. (2) Would likely be used in conjunction with other measures (e.g., watering, chemical stabilization, etc.) to ensure that visible emissions do not cross a property line.
(D) Cover haul vehicles	(1) Entire surface area of hauled earth should be covered once vehicle is full.
(E) Bedliners in haul vehicles	(1) When feasible, use in bottom-dumping haul vehicles.

HIGH WIND MEASURE

(a) Cease all active operations; or
(b) Apply water within 15 minutes to any soil surface which is being moved or otherwise disturbed.

Source: (2) Unpaved Roads

CONTROL MEASURES	DESCRIPTION
(F) Paving	(1) Requires street sweeping/cleaning if subject to material accumulation.
(G) Chemical stabilization	(1) Vendors can supply information as to application methods and concentrations to meet the specifications established by the Rule (2) Not recommended for high volume or heavy equipment traffic use.
(H) Watering	(1) In sufficient quantities to keep surface moist. (2) Required application frequency will vary according to soil type, weather conditions, and vehicular use.
(I) Reduce speed limits	(1) 15 mile per hour maximum. May need to be used in conjunction with watering or chemical stabilization to prevent visible emissions from crossing the property line.
(J) Reduce vehicular trips	(1) Access restriction or redirecting traffic to reduce vehicle trips by a minimum of 60 percent.
(K) Gravel	(1) Gravel maintained to a depth of four inches can be an effective measure. (2) Should only be used in areas where paving, chemical stabilization or frequent watering is not feasible.

HIGH WIND MEASURE

(c) Apply a chemical stabilizer (to meet the specifications established by the Rule) prior to wind events; or
(d) Apply water once each hour; or
(e) Stop all vehicular traffic.

Source: (3) Storage Piles

CONTROL MEASURES	DESCRIPTION
(L) Wind sheltering	(1) Enclose in silos. (2) Install three-sided barriers equal to height of material, with no more than 50 percent porosity.
(M) Watering	(1) Application methods include: spray bars, hoses and water trucks. (2) Frequency of application will vary on site-specific conditions.
(N) Chemical stabilizers	(1) Best for use on storage piles subject to infrequent disturbances.
(O) Altering load-in/load-out procedures	(1) Confine load-in/load-out procedures to leeward (downwind) side of the material. (2) May need to be used in conjunction with wind sheltering to prevent visible emissions from crossing the property line.
(P) Coverings	(1) Tarps, plastic, or other material can be used as a temporary covering. (2) When used, these should be anchored to prevent wind from removing coverings.

HIGH WIND MEASURE

(f) Apply chemical stabilizers (to meet the specifications established by the Rule) prior to wind events; or
(g) Apply water once per hour; or
(h) Install temporary covers.

Source: (4) Paved Road Track-Out

CONTROL MEASURES	DESCRIPTION
(Q) Chemical stabilization	(1) Most effective when used on areas where active operations have ceased. (2) Vendors can supply information on methods for application and required concentrations.
(R) Sweep/clean roadways	(1) Either sweeping or water flushing may be used.
(S) Cover haul vehicles	(1) Entire surface area should be covered once vehicle is full.
(T) Bedliners in haul vehicles	(1) When feasible, use in bottom dumping vehicles.
(U) Site access improvement	(1) Pave internal roadway system. (2) Most important segment, last 100 yards from the connection with paved public roads

HIGH WIND MEASURE

(i) Cover all haul vehicles; and
(j) Clean streets with water flushing, unless prohibited by the Regional Water Quality Control Board.

Source: (5) Disturbed Surface Areas/ Inactive Construction Sites

CONTROL MEASURES	DESCRIPTION
(Q) Chemical stabilization	(1) Most effective when used on areas where active operations have ceased. (2) Vendors can supply information on methods for application and required concentrations.
(R) Watering	(1) Requires frequent applications unless a surface crust can be developed.
(S) Wind fencing	(1) Three- to five-foot barriers with 50% or less porosity adjacent to roadways or urban areas can be effective in reducing the amount of wind blown material leaving a site.
(T) Vegetation	(1) Establish as quickly as possible when active operations have ceased. (2) Use of drought tolerant, native vegetation is encouraged.

HIGH WIND MEASURES

(k) Apply chemical stabilizers (to meet the specifications established by the Rule); or
(l) Apply water to all disturbed surface areas 3 times per day.

BEST AVAILABLE CONTROL MEASURES

Rule 403, paragraph (d)(2) requires active operations [defined in Rule 403, paragraph (c)(1)] within the South Coast Air Basin (see Figure 2-1) to implement at least one best available control measure for each fugitive dust source type on site. Additionally, as specified by subparagraph (f)(3)(D) of Rule 403, any person seeking approval of a fugitive dust emissions control plan for projects within the South Coast Air Basin must demonstrate to the satisfaction of the AQMD that the given activity is employing all best available fugitive dust control measures.

The AQMD has prepared the attached listing of best available fugitive dust control measures for a variety of source categories. This list is based on the U.S. Environmental Protection Agency's reference document entitled, "Fugitive Dust Background Document and Technical Information Document for Best Available Control Measures," Office of Air and Radiation, September 1992.

The AQMD encourages the use of those dust control measures that minimize the use of potable water. When water is needed, reclaimed water should be utilized to the greatest extent feasible.

BEST AVAILABLE CONTROL MEASURES

The left column contains a listing of the sources of fugitive dust which are intended for emission control under District Rule 403 and a listing of control measures and high-wind measures. The right column contains a description of the best available fugitive dust control measures for each of the sources.

Source: (1) Land Clearing/Earth-Moving

CONTROL MEASURES	DESCRIPTION
(A) Watering (pre-grading)	(1) Application of water by means of trucks, hoses and/or sprinklers prior to conducting any land clearing. This will increase the moisture content of the soils; thereby increasing its stability. (2) Pre-application of water to depths of proposed cuts.
(A-1) Watering (post-grading)	(1) In active earth-moving areas water should be applied at sufficient frequency and quantity to prevent visible emissions from extending more than 100 feet from the point of origin.
(A-2) Pre-grading planning	(1) Grade each phase separately, timed to coincide with construction phase; or (2) Grade entire project, but apply chemical stabilizers or ground cover to graded areas where construction phase begins more than 60 days after grading phase ends.
(B) Chemical stabilizers	(1) Only effective in areas which are not subject to daily disturbances. (2) Vendors can supply information on product application and required concentrations to meet the specifications established by the Rule.
(C) Wind fencing	(1) Three- to five-foot barriers with 50% or less porosity located adjacent to roadways or urban areas can be effective in reducing the amount of windblown material leaving a site. Must be implemented in conjunction with either measure (A-1) or (B).
(D) Cover haul vehicles	(1) Entire surface area of hauled earth should be covered once vehicle is full.
(E) Bedliners in haul vehicles	(1) When feasible, use in bottom-dumping haul vehicles.

HIGH WIND MEASURE

(a) Cease all active operations; or
(b) Apply water within 15 minutes to any soil surface which is being moved or otherwise disturbed.

Source: (2). Unpaved Roads

CONTROL MEASURES	DESCRIPTION
(F) Paving	(1) Requires street sweeping/cleaning if subject to material accumulation.
(G) Chemical stabilization	(1) Vendors can supply information as to application methods and concentrations to meet the specifications established by the Rule (2) Not recommended for high volume or heavy equipment traffic use.
(H) Watering	(1) In sufficient quantities to keep surface moist. (2) Required application frequency will vary according to soil type, weather conditions, and vehicular use.
(I) Reduce speed limits	(1) 15 mile per hour maximum. May need to be used in conjunction with watering or chemical stabilization to prevent visible emissions from crossing the property line.
(J) Reduce vehicular trips	(1) Access restriction or redirecting traffic to reduce vehicle trips by a minimum of 60 percent.
(K) Gravel	(1) Gravel maintained to a depth of four inches can be an effective measure. (2) Should only be used in areas where paving, chemical stabilization or frequent watering is not feasible.

HIGH WIND MEASURE

(a) Apply a chemical stabilizer (to meet the specifications established by the Rule) prior to wind events; or
(b) Apply water once each hour; or
(c) Stop all vehicular traffic.

Source: **(3)** **Storage Piles**

CONTROL MEASURES	DESCRIPTION
(L) Wind sheltering	(1) Enclose in silos. (2) Install three-sided barriers equal to height of material, with no more than 50 percent porosity.
(M) Watering	(1) Application methods include: spray bars, hoses and water trucks. (2) Frequency of application will vary on site-specific conditions.
(N) Chemical stabilizers	(1) Best for use on storage piles subject to infrequent disturbances.
(O) Altering load-in/load-out procedures	(1) Confine load-in/load-out procedures to leeward (downwind) side of the material. Must be used in conjunction with either measure (L), (M), (N), or (P).
(P) Coverings	(1) Tarps, plastic, or other material can be used as a temporary covering. (2) When used, these should be anchored to prevent wind from removing coverings.

HIGH WIND MEASURE

(a) Apply chemical stabilizers (to meet the specifications established by the Rule) prior to wind events; or
(b) Apply water once per hour; or
(c) Install temporary covers.

Source: (4) Paved Road Track-Out

CONTROL MEASURES	DESCRIPTION
Compliance with District Rule 403.	Paragraph (d)(5).

Source: (5) Disturbed Surface Areas/ Inactive Construction Sites

CONTROL MEASURES	DESCRIPTION
(Q) Chemical stabilization	(1) Most effective when used on areas where active operations have ceased. (2) Vendors can supply information on methods for application and required concentrations.
(R) Watering	(1) Requires frequent applications unless a surface crust can be developed.
(S) Wind fencing	(1) Three- to five-foot barriers with 50% or less porosity adjacent to roadways or urban areas can be effective in reducing the amount of wind blown material leaving a site. Must be used in conjunction with either measure (Q), (R), or (T).
(T) Vegetation	(1) Establish as quickly as possible when active operations have ceased.*

HIGH WIND MEASURES

(a) Apply chemical stabilizers (to meet the specifications established by the Rule); or
(b) Apply water to all disturbed surface areas 3 times per day.

* Use of drought tolerant, native vegetation is encouraged.

TABLE 1

BEST [REASONABLY]* AVAILABLE CONTROL MEASURES FOR HIGH WIND CONDITIONS

FUGITIVE DUST SOURCE CATEGORY	CONTROL MEASURES
Earth-moving	(1A) Cease all active operations; OR (2A) Apply water to soil not more than 15 minutes prior to moving such soil.
Disturbed surface areas	(0B) On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR (1B) Apply chemical stabilizers prior to wind event; OR (2B) Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; OR (3B) Take the actions specified in Table 2, Item (3c); OR (4B) Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.
Unpaved roads	(1C) Apply chemical stabilizers prior to wind event; OR (2C) Apply water twice [once] per hour during active operation; OR (3C) Stop all vehicular traffic.
Open storage piles	(1D) Apply water twice [once] per hour; OR (2D) Install temporary coverings.
Paved road track-out	(1E) Cover all haul vehicles; OR (2E) Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.
All Categories	(1F) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 1 may be used.

* Measures in [brackets] are reasonably available control measures and only apply to sources not within the South Coast Air Basin.

TABLE 2
DUST CONTROL ACTIONS FOR EXEMPTION FROM PARAGRAPH (d)(4)*

FUGITIVE DUST SOURCE CATEGORY		CONTROL ACTIONS
Earth-moving (except construction cutting and filling areas, and mining operations)	(1a)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; OR
	(1a-1)	For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.
Earth-moving: Construction fill areas:	(1b)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer and the California Air Resources Board and the U.S. EPA, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.

* Measures in [brackets] are reasonably available control measures and only apply to sources not within the South Coast Air Basin.

TABLE 2 (Continued)*

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS	
Earth-moving: Construction cut areas and mining operations:	(1c)	Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.
Disturbed surface areas (except completed grading areas)	(2a/b)	Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 [70] percent of the unstabilized area.
Disturbed surface areas: Completed grading areas	(2c)	Apply chemical stabilizers within five working days of grading completion; OR
	(2d)	Take actions (3a) or (3c) specified for inactive disturbed surface areas.
Inactive disturbed surface areas	(3a)	Apply water to at least 80 [70] percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR
	(3b)	Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR
	(3c)	Establish a vegetative ground cover within 21 [30] days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR
	(3d)	Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas.

* Measures in [brackets] are reasonably available control measures and only apply to sources not within the South Coast Air Basin.

TABLE 2 (Continued)*

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS	
Unpaved Roads	(4a)	Water all roads used for any vehicular traffic at least once per every two hours of active operations [3 times per normal 8 hour work day]; OR
	(4b)	Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR
	(4c)	Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.
Open storage piles	(5a)	Apply chemical stabilizers; OR
	(5b)	Apply water to at least 80 [70] percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR
	(5c)	Install temporary coverings; OR
	(5d)	Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile.
All Categories	(6a)	Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 2 may be used.

* Measures in [brackets] are reasonably available control measures and only apply to sources not within the South Coast Air Basin.

AQMD Recommendations

TABLE 3

TRACK-OUT CONTROL OPTIONS

PARAGRAPH (d)(5)(B)

CONTROL OPTIONS

(1)	Pave or apply chemical stabilization at sufficient concentration and frequency to maintain a stabilized surface starting from the point of intersection with the public paved surface, and extending for a centerline distance of at least 100 feet and a width of at least 20 feet.
(2)	Pave from the point of intersection with the public paved road surface, and extending for a centerline distance of at least 25 feet and a width of at least 20 feet, and install a track-out control device immediately adjacent to the paved surface such that exiting vehicles do not travel on any unpaved road surface after passing through the track-out control device.
(3)	Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 3 may be used.

Appendix B

Reference Drawings

Riverside County Fire Department

Fire Protection Planning Section

Riverside Office: 2300 Market St., Ste. 150, Riverside, CA 92501 Ph. (951) 955-4777 Fax (951) 955-4886
Palm Desert Office: 77-933 Las Montañas Rd., # 201Palm Desert, CA 92211-4131Ph. (760) 863-8886 (760) 863-7072

Fire Prevention Standard

Title: Blue Reflective Pavement Markers			
Standard:# 06-11	Effective Date: 02/09/2007	Revised Date: 06/30/2011	
Code References: 2010 CFC, Sec. 501			
Note: *This standard is a summary of Fire Department clarifications of County and State Codes. Information contained herein applies to typical circumstances and may not address all situations.*			
Author: Committee	Date:	Approved: T. Hobday, FM	Date:
Sign:		Sign: On File	02-09-07

Scope

This standard has been developed to assist development applicants, architects, and contractors in determining the minimum requirements for the proper placement of blue reflective pavement markers for indicating the location and identification of fire hydrants and water supply locations for fire fighting purposes only. Blue markers used for any other purpose should be removed.

The applicant must obtain approval from Caltrans where blue markers are to be placed on roadways/highways regulated and maintained by Caltrans prior to installation. Encroachment permits may be required.

Codes and Standards

This standard has been based upon the 2010 California Fire Code (CFC), Chapter 5.

Plans Required

The location of blue reflective markers shall be indicated on the appropriate water plans that are required to be submitted to the Riverside County Fire Department for the installation of all fire hydrants and water supply locations used for the fire fighting purposes.

Specific Requirements

1) Two-Way Streets and Roads: Markers are to be placed six inches from the edge of the painted centerline on the side nearest the fire hydrant. If the street has no centerline, the marker should be place six inches from the approximate center of the roadway on the side nearest the hydrant. (Ref. Fig. 1 through 3)

2) Streets With Left Turn Lane at Intersection: Markers are to be place six inches from the edge of the painted white channelizing line on the side nearest the hydrant. (Ref. Fig. 4)

3) Streets With Continuous Two-Way Left Turn Lane: Markers are to be placed six inches from the edge of the painted yellow barrier line on the side nearest the fire hydrant. (Ref. Fig. 5)

4) Freeways and Expressways: Because of higher maintenance at these locations, if placed on the roadway, markers are to be placed on the shoulder on-foot to the right of the painted edgeline opposite the off-right of way from the fire hydrant location. (Ref. Fig. 6)

TYPICAL HYDRANT MARKER LOCATION

= Fire Hydrant

= Blue Pavement Marker

Figure 1
Two Lane Streets

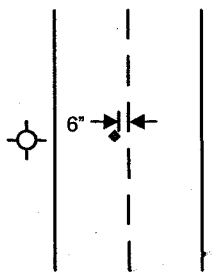


Figure 2
Multi-Lane Streets

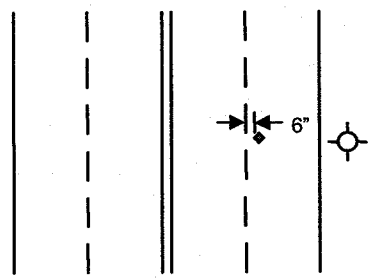


Figure 3
An Intersection

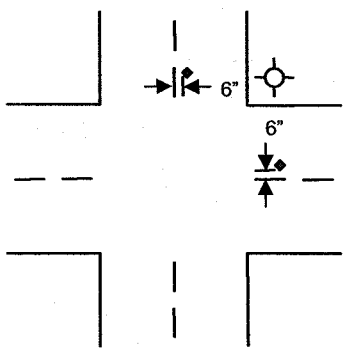


Figure 4
Four Lane Streets with
Turn Lane at Intersection

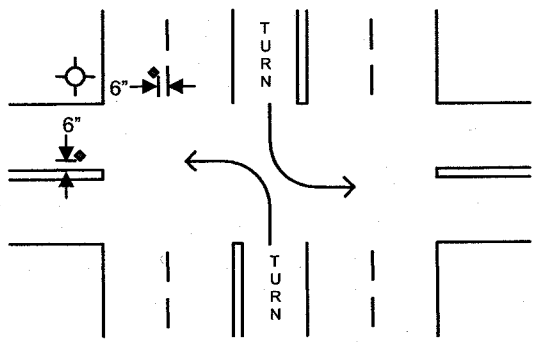


Figure 5
Multi-Lane Streets
With Turn Lane

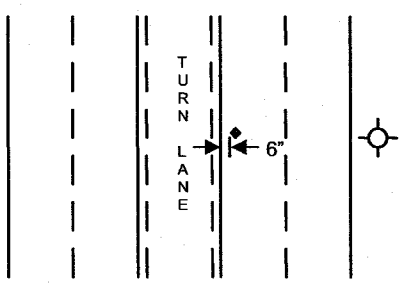
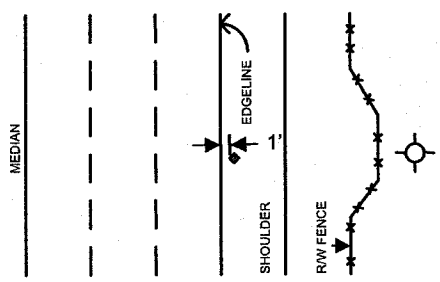


Figure 6
Freeways and Expressways



Riverside County Fire Department
Standard No. 06-11
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FOR FISCAL YEAR 2012/2013

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PROJECT NO. C3-0006

DISTRICT 3
PROJECT NO. C3-0008

Bid shall be delivered to the County of Riverside Transportation Department, 14th Street Annex, 3525 14th Street, Riverside, California 92501, telephone (951) 955-6780 not later than 2:00 p.m., on Wednesday, **February 19, 2014** to be promptly opened in public at said address. Each bid shall be in accordance with plans, specifications and other contract documents, dated **December 2013**, and prepared by County of Riverside, whose address is same as the above, from whom they may be obtained upon deposit of **$25.00** per set with 11"x17" plans, plus mailing costs. No refund. Prospective bidders may preview the plans, specifications and other contract documents at no charge prior to purchase at the above noted location.

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By: Cecilia Gil, Board Assistant 2/1-2/10