



**DIVISION VIII MISCELLANEOUS CONSTRUCTION**  
**72 SLOPE PROTECTION**

**72-2 ROCK SLOPE PROTECTION**

Replace Section 72-2 Rock Slope Protection with:

**72-2.01 General** - All rock materials shall meet the gradation requirements of Section 72-2.02 of the Caltrans Specifications and the quality requirements of Sections 200-1.6.1 and 200-1.6.3 of the Greenbook Specifications.

**72-2.01(A) Materials**

Rock materials shall be blocky and predominantly angular in shape. Not more than 25% of the rock shall have a length more than 2.5 times the breadth or thickness. No rock shall have a length exceeding 3.0 times its breadth or thickness. All oversize rocks, as determined by the Engineer, shall be removed.

**72-2.01(B) Construction**

Rock materials shall be placed on a firm dry foundation in conformance with Method B of Section 72-2.03 of the Caltrans Specifications, however, additional placement effort shall be required to meet the lines and grades as shown on the drawings and to fill and chink oversize voids with selected rock to establish a stable interlock.

Permeable materials such as filter blankets shall be consolidated and the surface trimmed to final grade as directed by the Engineer.

**72-2.01(C) Rip Rap Slope Protection (1/4-Ton Class)**

The contract item Rip Rap Slope Protection 1/4-Ton Class covers the rock furnished and placed as shown on the drawings as specified. Rock shall conform to 1/4-Ton Class, for Method B placement per Section 72-2.02 of the Caltrans Specifications.

**72-2.01(D) Rock Slope Protection Fabric**

Rock Protection Fabric placed beneath rock shall conform to Class 10 per Section 88-1.021 of the Caltrans Standard Specifications. A six-inch minimum layer of backing material shall be placed over the fabric prior to placing rock unless otherwise shown on the plans.

**72-2.01(E) Measurement**

Measurement for payment for the contract item Rip Rap Slope Protection 1/4-Ton Class shall be the number of cubic yards placed as specified.

No measurement for payment for Rock Slope Protection, Fabric shall be allowed. Payment for Rock Slope Protection Fabric shall be included as part of the unit cost of Rip Rap Slope Protection.

**72-2.01(F) Payment**

The contract prices paid for Rock Slope Protection 1/4-Ton Class shall include full compensation for all costs incurred under this section.

AA

## 80 FENCES

Replace Reserved Section 80-1.08 with:

### 80-1.08 FENCES & GATES

#### 80-1.08(A) General Description

This section covers the contract items Remove, Salvage and Reinstall Interfering Portions of Existing Fence; Fence (Type BW, Metal Post); Pipe Swing Gate (RCFC&WCD Std M820); Temporary Fencing (Type ESA)

#### 80-1.08(B) Remove, Salvage and Reinstall Interfering Portions of Existing Fence

The contract item Remove, Salvage and Reinstall Interfering Portions of Existing Fence includes the removal, storage and reinstallation of existing fencing as shown on the improvement plans and as directed by the engineer. Materials salvaged shall be subject to the Engineer's approval prior to reinstallation.

#### 80-1.08(C) Fence (Type BW, Metal Post)

The contract item Fence (Type BW, Metal Post) includes furnishing and installing the material required for this portion of the work as shown on the drawings and as directed by the Engineer. Included in this item is all hardware parts, posts and fittings.

All materials shall be new except that specified for removal and relocation and shall conform to Section 206-6 of the Greenbook Specifications and the drawings, with installation in conformance with Section 304-3.2. All posts shall be set in commercial plant quality, 4 sack per cubic yard concrete.

#### 80-1.08(D) Pipe Swing Gate (RCFC&WCD Std M820)

The contract item Pipe Swing Gate (RCFC&WCD Std M820) includes furnishing and installing the various gate as shown on the drawings, complete with all gate posts set in concrete and in conformance with Section 304-3.3 of the Greenbook Specifications. Padlocks are not included in this item. On completion, gate shall operate freely without wedging or binding.

#### 80-1.08(E) Temporary Fencing (Type ESA)

The contract item Temporary Fencing (Type ESA) shall include all labor, materials and equipment necessary for installing and removing the temporary fencing.

#### 80-1.08(F) Measurement

Measurement for payment for the contract items Fence (Type BW, Metal Post) and Temporary Fencing (Type ESA) will be the number of lineal feet of fence installed measured along the top of the fence parallel to the ground.

No Measurement for payment for the contract item Remove, Salvage and Reinstall Interfering Portions of Existing Fence will be made. Rather this item will be compensated for on a Lump Sum Basis.

Measurement for payment for the contract item Pipe Swing Gate (RCFC&WCD Std M820) will be the number of gates installed. Excavation and concrete required for fence or gate posts will not be measured for payment and shall be considered as included in bid price paid for type of fence and gate.

#### 80-1.08(F) Payment

The contract price paid per lump sum for fence (Remove, Salvage and Reinstall Interfering Portions of Existing Fence); Fence (Type BW, Metal Post); Pipe Swing Gate (RCFC&WCD Std M820) shall include full compensation for all costs incurred under this section.

AA

**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. 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.**

(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:	<b>SCAQMD 1-800-CUT-SMOG</b>	3 ½" Bold Numbers ←

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

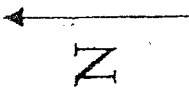


AQMD Recommendations

(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 #	4" Bold Numbers
2" Title Case Letters	Phone Number:	4 1/2" Bold Numbers
2" Title Case Letters	<p style="text-align: center;"><b>SCAQMD 1-800-CUT-SMOG</b></p> <p style="text-align: center;"><b>COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT</b></p>	

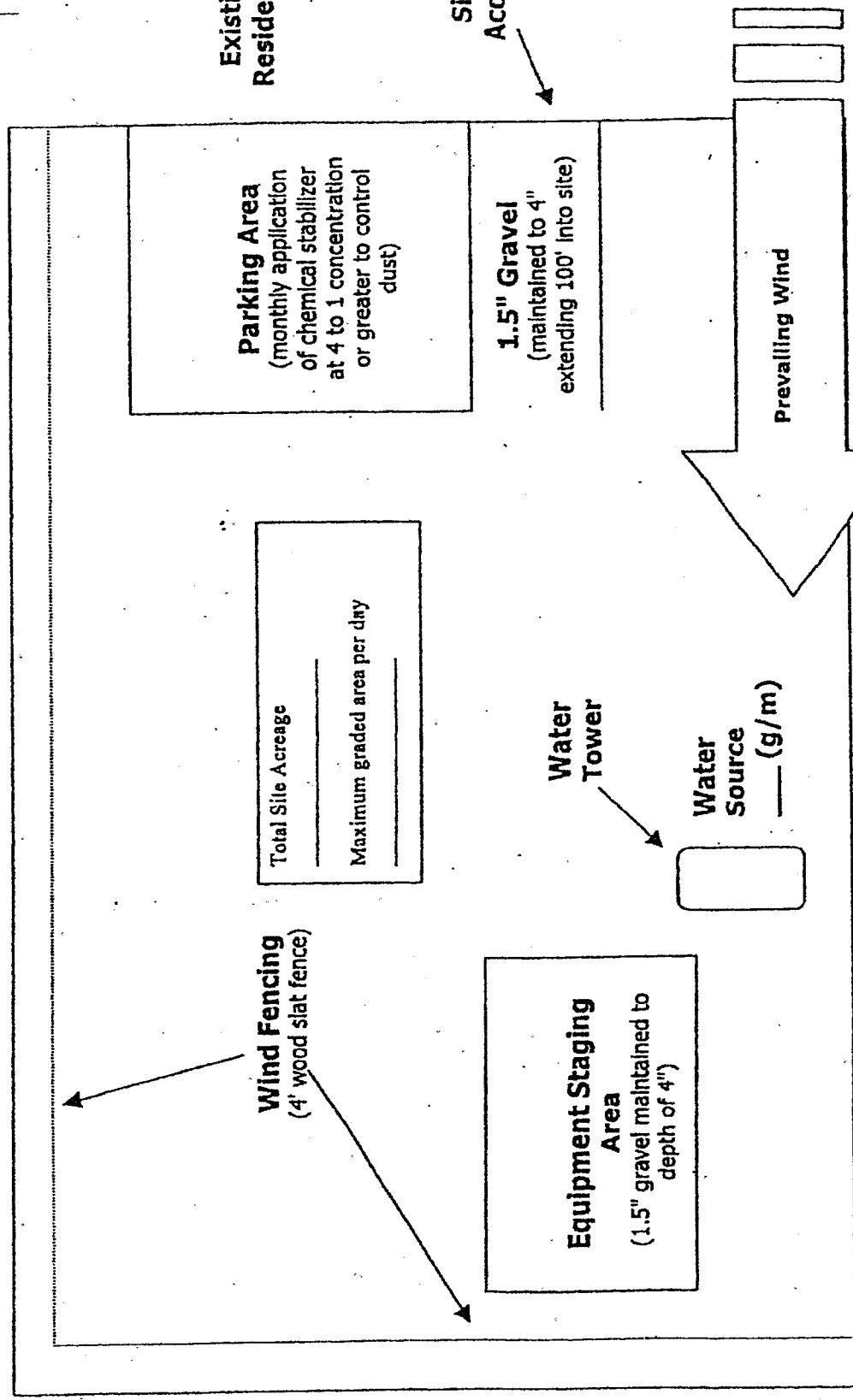
APMD Recommendations  
Existing Residential  
Site Access



Distance and location of nearest:  
Residence \_\_\_\_\_  
Business \_\_\_\_\_

Section 1  
Simplified Sample Site Plan

Existing Residential



Vacant Land

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

Existing Residential

### 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**

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**

**RULE 403 IMPLEMENTATION HANDBOOK**

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**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                   | <ul style="list-style-type: none"> <li>(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.</li> <li>(2) Pre-application of water to depths of proposed cuts.</li> <li>(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).</li> </ul> |
| (B) Chemical stabilizers       | <ul style="list-style-type: none"> <li>(1) Only effective in areas which are not subject to daily disturbances.</li> <li>(2) Vendors can supply information on product application and required concentrations to meet the specifications established by the Rule.</li> </ul>   |
| (C) Wind fencing               | <ul style="list-style-type: none"> <li>(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.</li> <li>(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.</li> </ul>   |
| (D) Cover haul vehicles        | <ul style="list-style-type: none"> <li>(1) Entire surface area of hauled earth should be covered once vehicle is full.</li> </ul>   |
| (E) Bedliners in haul vehicles | <ul style="list-style-type: none"> <li>(1) When feasible, use in bottom-dumping haul vehicles.</li> </ul>   |

**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<br>(2) Not recommended for high volume or heavy equipment traffic use. |
| (H) Watering               | (1) In sufficient quantities to keep surface moist.<br>(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.<br>(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.

RULE 403 IMPLEMENTATION HANDBOOK

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) Pavement 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
- (i) 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.

**RULE 403 IMPLEMENTATION HANDBOOK**

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**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.

# RULE 403 IMPLEMENTATION HANDBOOK

## 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.   |
| (A-1) Watering (post-grading)  | (2) Pre-application of water to depths of proposed cuts.  |
| (A-2) Pre-grading planning     | (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.  |
| (B) Chemical stabilizers       | (1) Grade each phase separately, timed to coincide with construction phase; or<br>(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.    |
| (C) Wind fencing               | (1) Only effective in areas which are not subject to daily disturbances.<br>(2) Vendors can supply information on product application and required concentrations to meet the specifications established by the Rule.                                     |
| (D) Cover haul vehicles        | (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). |
| (E) Bedliners in haul vehicles | (1) Entire surface area of hauled earth should be covered once vehicle is full.<br>(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.

**RULE 403 IMPLEMENTATION HANDBOOK**

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<br>(2) Not recommended for high volume or heavy equipment traffic use. |
| (H) Watering               | (1) In sufficient quantities to keep surface moist.<br>(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.<br>(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.

RULE 403 IMPLEMENTATION HANDBOOK

Source: (3) Storage Piles

CONTROL MEASURES

DESCRIPTION

- |  |  |
|--|--|
| (L) Wind sheltering                      | (1) Enclose in silos.<br>(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.<br>(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.<br>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.<br>(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.



**RULE 403 IMPLEMENTATION HANDBOOK**

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Source: (4) Paved Road Track-Out

**CONTROL MEASURES**

**DESCRIPTION**

Compliance with District Rule 403.

Paragraph (d)(5).

January 1999

# RULE 403 IMPLEMENTATION HANDBOOK

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

## CONTROL MEASURES

## DESCRIPTION

- |                            |   |
|----------------------------|---|
| (Q) Chemical stabilization | (1) Most effective when used on areas where active operations have ceased.  |
| (R) Watering               | (2) Vendors can supply information on methods for application and required concentrations.  |
| (S) Wind fencing           | (1) Requires frequent applications unless a surface crust can be developed.   |
| (T) Vegetation             | (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). |
|                            | (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**

<b>FUGITIVE DUST SOURCE CATEGORY</b>	<b><u>CONTROL MEASURES</u></b>
<b>Earth-moving</b>	(1A) Cease all active operations; OR (2A) Apply water to soil not more than 15 minutes prior to moving such soil.
<b>Disturbed surface areas</b>	(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.
<b>Unpaved roads</b>	(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.
<b>Open storage piles</b>	(1D) Apply water twice [once] per hour; OR (2D) Install temporary coverings.
<b>Paved road track-out</b>	(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.
<b>All Categories</b>	(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)\***

<u>FUGITIVE DUST SOURCE CATEGORY</u>	<u>CONTROL ACTIONS</u>
<b>Earth-moving (except construction cutting and filling areas, and mining operations)</b>	<p>(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</p> <p>(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.</p>
<b>Earth-moving: Construction fill areas:</b>	<p>(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.</p>

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

TABLE 2 (Continued)\*

<u>FUGITIVE DUST SOURCE CATEGORY</u>	<u>CONTROL ACTIONS</u>
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)\*

<u>FUGITIVE DUST SOURCE CATEGORY</u>	<u>CONTROL ACTIONS</u>
<b>Unpaved Roads</b>	(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.
<b>Open storage piles</b>	(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.
<b><u>All Categories</u></b>	(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**

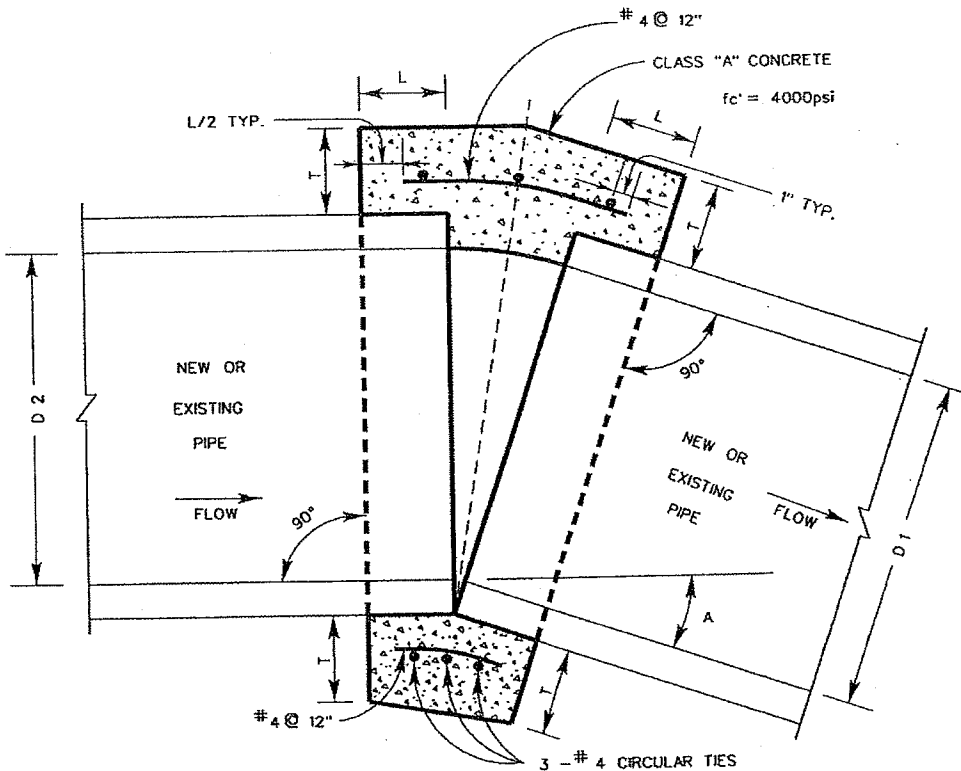
(1)	Pave or apply chemical stabilization at sufficient concentration and frequency to maintain a stabilized surface starting from the point of intersection with the public paved surface, and extending for a centerline distance of at least 100 feet and a width of at least 20 feet.
(2)	Pave from the point 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**





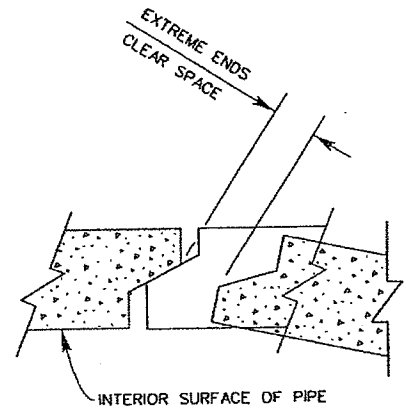




D	L	T
12"	1.0'	4"
18"	1.0'	5"
24"	1.0'	6"
36"	1.5'	8"
48"	1.5'	10"
57"	1.5'	10"
60"	1.75'	11"
66"	1.75'	11"

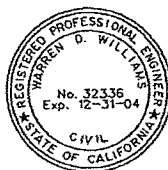
**NOTES**

1. A CONCRETE COLLAR IS REQUIRED WHERE THE CHANGE IN GRADE EXCEEDS 0.10 FT. PER FOOT, OR IF CHANGE IN ALIGNMENT EXCEEDS 0.10 FT. PER FOOT.
2. IF THE EXTREME ENDS OF THE PIPE LEAVE A CLEAR SPACE THAT IS GREATER THAN 1", BUT LESS THAN 6", A CONCRETE COLLAR IS REQUIRED (SEE DETAIL A THIS SHEET). IF THE CLEAR SPACE IS 6" OR GREATER, A TRANSITION STRUCTURE IS REQUIRED.
3. CONCRETE COLLAR SHALL NOT BE USED FOR A SIZE CHANGE ON THE MAIN LINE.
4. WHERE PIPES OF DIFFERENT DIAMETERS ARE JOINED WITH A CONCRETE COLLAR, L AND T SHALL BE THOSE OF THE LARGER PIPE.  $D = D_1$  OR  $D_2$ , WHICHEVER IS GREATER.
5. FOR PIPE LARGER THAN 66" A SPECIAL COLLAR DETAIL IS REQUIRED.
6. FOR PIPE SIZE NOT LISTED USE THE NEXT SIZE LARGER.
7. OMIT REINFORCING ON PIPES 24" AND LESS IN DIAMETER AND ON ALL PIPES WHERE ANGLE A IS LESS THAN 10°.
8. WHERE REINFORCING IS REQUIRED THE DIAMETER OF THE CIRCULAR TIES SHALL BE  $D + (2 \times \text{WALL THICKNESS}) + 8"$ .
9. WHEN  $D_1$  IS EQUAL TO OR LESS THAN  $D_2$  JOIN INVERTS AND WHEN  $D_1$  IS GREATER THAN  $D_2$  JOIN SOFFITS.
10. PIPE MAY BE CORRUGATED METAL PIPE, CONCRETE PIPE, OR REINFORCED CONCRETE PIPE.



**DETAIL "A"**  
TYPICAL JOINT FOR  
REINFORCED CONCRETE PIPE

APWA STD. PLAN 380-1  
L.A.C.F.C. 2-D393

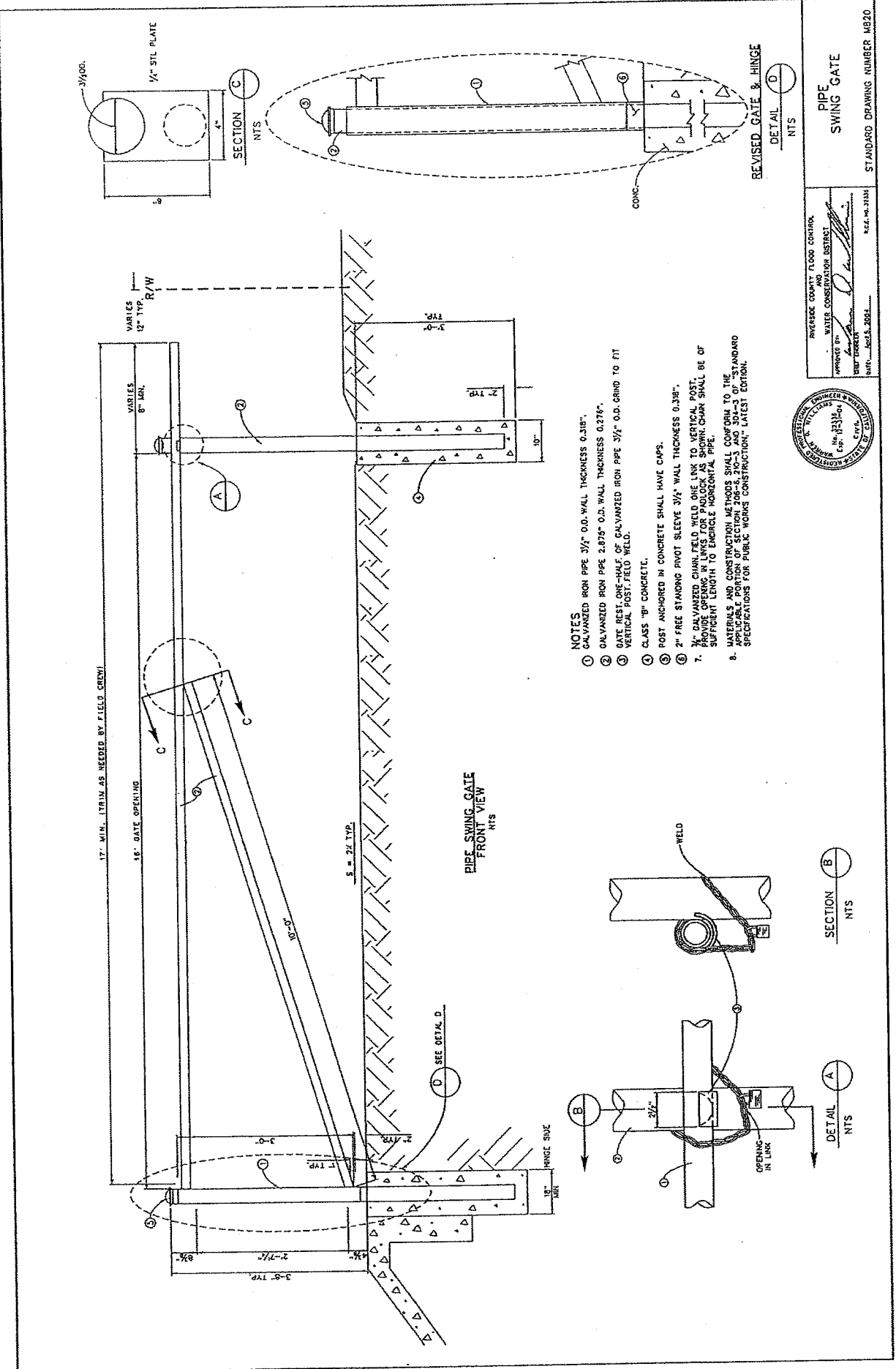


RIVERSIDE COUNTY FLOOD CONTROL  
AND  
WATER CONSERVATION DISTRICT

APPROVED BY: *Warren D. Williams*  
CHIEF ENGINEER

DATE: April 5, 2004 R.C.E. NO. 32336

**CONCRETE COLLAR  
FOR  
PIPE 12 INCHES THROUGH  
66 INCHES**  
STANDARD DRAWING NUMBER M803



APPROVED BY: [Signature]  
 WATER CONSERVATOR DISTRICT  
 DISTRICT ENGINEER  
 REG. NO. 31383  
 REF. REG. 5, 2004



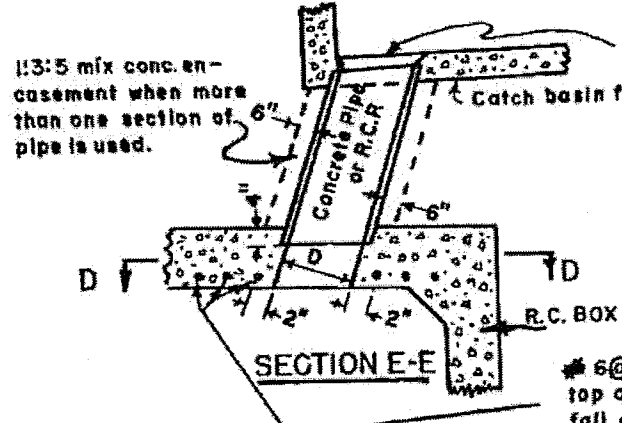
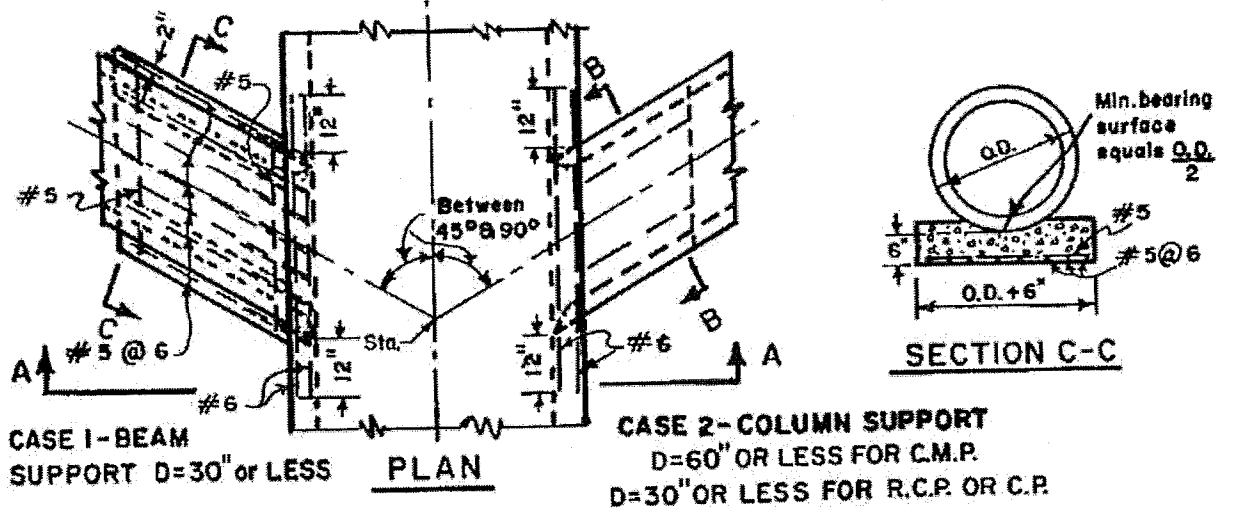
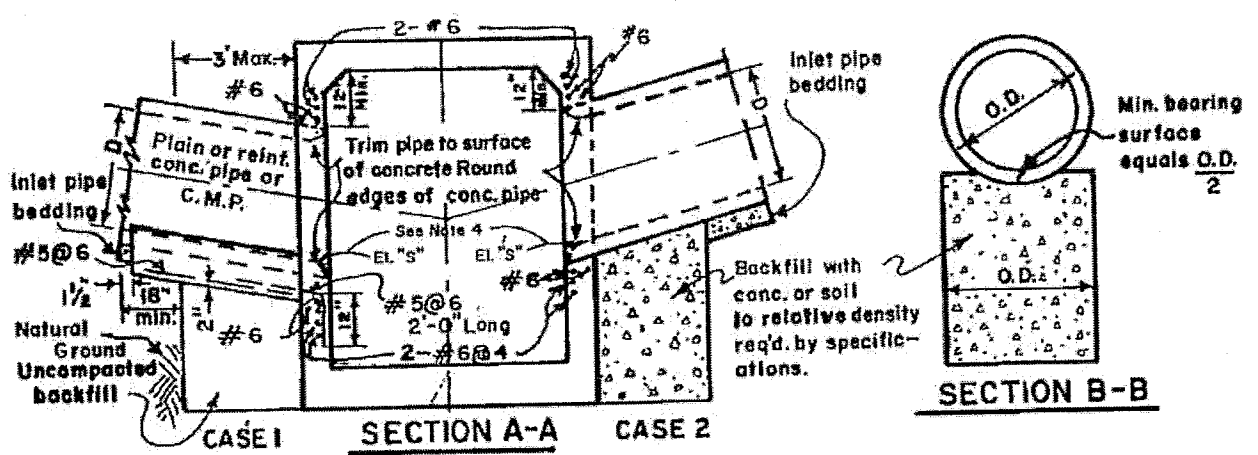
STANDARD DRAWING NUMBER MB20

PIPE SWING GATE

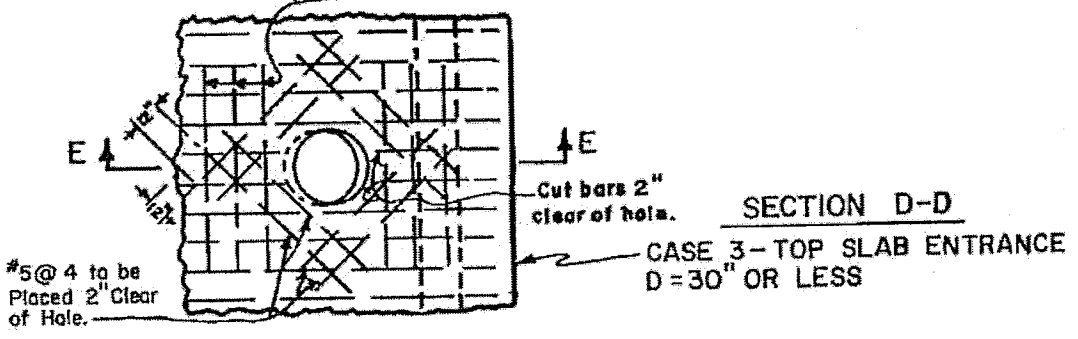
DETAIL D NTS

SECTION B NTS

DETAIL A NTS



- NOTES**
1. All corrugated metal pipe and fittings shall be galvanized.
  2. Use Junction Structure No. 1 where size of the inlet pipe exceeds dimensions given above.
  3. Unless otherwise specified Case 2 Support shall be used.
  4. Elevation "S" shall be specified on project drawings.



L.A.C.F.C.D. STD. NO. 2-D191



RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

APPROVED BY: *Warren D. Williams*

CHIEF ENGINEER

DATE: April 5, 2004

R.C.E. NO. 32338

**JUNCTION STRUCTURE NO. 3**

Page 5 of 5

STANDARD DRAWING NUMBER JS228

## **Appendix C**

### **Attachment “C” for Risk Level 1 Requirements**

## ATTACHMENT C RISK LEVEL 1 REQUIREMENTS

### A. Effluent Standards

*[These requirements are the same as those in the General Permit order.]*

1. Narrative – Risk Level 1 dischargers shall comply with the narrative effluent standards listed below:
  - a. Storm water discharges and authorized non-storm water discharges regulated by this General Permit shall not contain a hazardous substance equal to or in excess of reportable quantities established in 40 C.F.R. §§ 117.3 and 302.4, unless a separate NPDES Permit has been issued to regulate those discharges.
  - b. Dischargers shall minimize or prevent pollutants in storm water discharges and authorized non-storm water discharges through the use of controls, structures, and management practices that achieve BAT for toxic and non-conventional pollutants and BCT for conventional pollutants.
2. Numeric – Risk Level 1 dischargers are not subject to a numeric effluent standard.

### B. Good Site Management "Housekeeping"

1. Risk Level 1 dischargers shall implement good site management (i.e., "housekeeping") measures for construction materials that could potentially be a threat to water quality if discharged. At a minimum, Risk Level 1 dischargers shall implement the following good housekeeping measures:
  - a. Conduct an inventory of the products used and/or expected to be used and the end products that are produced and/or expected to be produced. This does not include materials and equipment that are designed to be outdoors and exposed to environmental conditions (i.e. poles, equipment pads, cabinets, conductors, insulators, bricks, etc.).
  - b. Cover and berm loose stockpiled construction materials that are not actively being used (i.e. soil, spoils, aggregate, fly-ash, stucco, hydrated lime, etc.).

- c. Store chemicals in watertight containers (with appropriate secondary containment to prevent any spillage or leakage) or in a storage shed (completely enclosed).
  - d. Minimize exposure of construction materials to precipitation. This does not include materials and equipment that are designed to be outdoors and exposed to environmental conditions (i.e. poles, equipment pads, cabinets, conductors, insulators, bricks, etc.).
  - e. Implement BMPs to prevent the off-site tracking of loose construction and landscape materials.
2. Risk Level 1 dischargers shall implement good housekeeping measures for waste management, which, at a minimum, shall consist of the following:
- a. Prevent disposal of any rinse or wash waters or materials on impervious or pervious site surfaces or into the storm drain system.
  - b. Ensure the containment of sanitation facilities (e.g., portable toilets) to prevent discharges of pollutants to the storm water drainage system or receiving water.
  - c. Clean or replace sanitation facilities and inspecting them regularly for leaks and spills.
  - d. Cover waste disposal containers at the end of every business day and during a rain event.
  - e. Prevent discharges from waste disposal containers to the storm water drainage system or receiving water.
  - f. Contain and securely protect stockpiled waste material from wind and rain at all times unless actively being used.
  - g. Implement procedures that effectively address hazardous and non-hazardous spills.
  - h. Develop a spill response and implementation element of the SWPPP prior to commencement of construction activities. The SWPPP shall require that:
    - i. Equipment and materials for cleanup of spills shall be available on site and that spills and leaks shall be cleaned up immediately and disposed of properly; and



- ii. Appropriate spill response personnel are assigned and trained.
  - i. Ensure the containment of concrete washout areas and other washout areas that may contain additional pollutants so there is no discharge into the underlying soil and onto the surrounding areas.
3. Risk Level 1 dischargers shall implement good housekeeping for vehicle storage and maintenance, which, at a minimum, shall consist of the following:
  - a. Prevent oil, grease, or fuel to leak in to the ground, storm drains or surface waters.
  - b. Place all equipment or vehicles, which are to be fueled, maintained and stored in a designated area fitted with appropriate BMPs.
  - c. Clean leaks immediately and disposing of leaked materials properly.
4. Risk Level 1 dischargers shall implement good housekeeping for landscape materials, which, at a minimum, shall consist of the following:
  - a. Contain stockpiled materials such as mulches and topsoil when they are not actively being used.
  - b. Contain fertilizers and other landscape materials when they are not actively being used.
  - c. Discontinue the application of any erodible landscape material within 2 days before a forecasted rain event or during periods of precipitation.
  - d. Apply erodible landscape material at quantities and application rates according to manufacture recommendations or based on written specifications by knowledgeable and experienced field personnel.
  - e. Stack erodible landscape material on pallets and covering or storing such materials when not being used or applied.
5. Risk Level 1 dischargers shall conduct an assessment and create a list of potential pollutant sources and identify any areas of the site where additional BMPs are necessary to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. This potential pollutant list shall be kept with the SWPPP and shall identify

all non-visible pollutants which are known, or should be known, to occur on the construction site. At a minimum, when developing BMPs, Risk Level 1 dischargers shall do the following:

- a. Consider the quantity, physical characteristics (e.g., liquid, powder, solid), and locations of each potential pollutant source handled, produced, stored, recycled, or disposed of at the site.
  - b. Consider the degree to which pollutants associated with those materials may be exposed to and mobilized by contact with storm water.
  - c. Consider the direct and indirect pathways that pollutants may be exposed to storm water or authorized non-storm water discharges. This shall include an assessment of past spills or leaks, non-storm water discharges, and discharges from adjoining areas.
  - d. Ensure retention of sampling, visual observation, and inspection records.
  - e. Ensure effectiveness of existing BMPs to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges.
6. Risk Level 1 dischargers shall implement good housekeeping measures on the construction site to control the air deposition of site materials and from site operations. Such particulates can include, but are not limited to, sediment, nutrients, trash, metals, bacteria, oil and grease and organics.

### **C. Non-Storm Water Management**

1. Risk Level 1 dischargers shall implement measures to control all non-storm water discharges during construction.
2. Risk Level 1 dischargers shall wash vehicles in such a manner as to prevent non-storm water discharges to surface waters or MS4 drainage systems.
3. Risk Level 1 dischargers shall clean streets in such a manner as to prevent unauthorized non-storm water discharges from reaching surface water or MS4 drainage systems.

#### **D. Erosion Control**

1. Risk Level 1 dischargers shall implement effective wind erosion control.
2. Risk Level 1 dischargers shall provide effective soil cover for inactive<sup>1</sup> areas and all finished slopes, open space, utility backfill, and completed lots.
3. Risk Level 1 dischargers shall limit the use of plastic materials when more sustainable, environmentally friendly alternatives exist. Where plastic materials are deemed necessary, the discharger shall consider the use of plastic materials resistant to solar degradation.

#### **E. Sediment Controls**

1. Risk Level 1 dischargers shall establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from the site.
2. On sites where sediment basins are to be used, Risk Level 1 dischargers shall, at minimum, design sediment basins according to the method provided in CASQA's Construction BMP Guidance Handbook.

#### **F. Run-on and Runoff Controls**

Risk Level 1 dischargers shall effectively manage all run-on, all runoff within the site and all runoff that discharges off the site. Run-on from off site shall be directed away from all disturbed areas or shall collectively be in compliance with the effluent limitations in this General Permit.

#### **G. Inspection, Maintenance and Repair**

1. Risk Level 1 dischargers shall ensure that all inspection, maintenance repair and sampling activities at the project location shall be performed or supervised by a Qualified SWPPP Practitioner (QSP) representing the discharger. The QSP may delegate any or all of these activities to an employee trained to do the task(s) appropriately, but shall ensure adequate deployment.
2. Risk Level 1 dischargers shall perform weekly inspections and observations, and at least once each 24-hour period during extended

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<sup>1</sup> Inactive areas of construction are areas of construction activity that have been disturbed and are not scheduled to be re-disturbed for at least 14 days.

storm events, to identify and record BMPs that need maintenance to operate effectively, that have failed, or that could fail to operate as intended. Inspectors shall be the QSP or be trained by the QSP.

3. Upon identifying failures or other shortcomings, as directed by the QSP, Risk Level 1 dischargers shall begin implementing repairs or design changes to BMPs within 72 hours of identification and complete the changes as soon as possible.
4. For each inspection required, Risk Level 1 dischargers shall complete an inspection checklist, using a form provided by the State Water Board or Regional Water Board or in an alternative format.
5. Risk Level 1 dischargers shall ensure that checklists shall remain onsite with the SWPPP and at a minimum, shall include:
  - a. Inspection date and date the inspection report was written.
  - b. Weather information, including presence or absence of precipitation, estimate of beginning of qualifying storm event, duration of event, time elapsed since last storm, and approximate amount of rainfall in inches.
  - c. Site information, including stage of construction, activities completed, and approximate area of the site exposed.
  - d. A description of any BMPs evaluated and any deficiencies noted.
  - e. If the construction site is safely accessible during inclement weather, list the observations of all BMPs: erosion controls, sediment controls, chemical and waste controls, and non-storm water controls. Otherwise, list the results of visual inspections at all relevant outfalls, discharge points, downstream locations and any projected maintenance activities.
  - f. Report the presence of noticeable odors or of any visible sheen on the surface of any discharges.
  - g. Any corrective actions required, including any necessary changes to the SWPPP and the associated implementation dates.
  - h. Photographs taken during the inspection, if any.
  - i. Inspector's name, title, and signature.

**H. Rain Event Action Plan**

Not required for Risk Level 1 dischargers.

**I. Risk Level 1 Monitoring and Reporting Requirements**

**Table 1 - Summary of Monitoring Requirements**

Risk Level	Visual Inspection					Sample Collection	
	Quarterly non-Storm Water Discharge	Pre-Storm Event		Daily Storm BMP	Post Storm	Storm Water Discharge	Receiving Water
		Baseline	REAP				
1	X	X		X	X		

**1. Construction Site Monitoring Program Requirements**

- a. Pursuant to Water Code Sections 13383 and 13267, all dischargers subject to this General Permit shall develop and implement a written site-specific Construction Site Monitoring Program (CSMP) in accordance with the requirements of this Section. The CSMP shall include all monitoring procedures and instructions, location maps, forms, and checklists as required in this section. The CSMP shall be developed prior to the commencement of construction activities, and revised as necessary to reflect project revisions. The CSMP shall be a part of the Storm Water Pollution Prevention Plan (SWPPP), included as an appendix or separate SWPPP chapter.
- b. Existing dischargers registered under the State Water Board Order No. 99-08-DWQ shall make and implement necessary revisions to their Monitoring Programs to reflect the changes in this General Permit in a timely manner, but no later than July 1, 2010. Existing dischargers shall continue to implement their existing Monitoring Programs in compliance with State Water Board Order No. 99-08-DWQ until the necessary revisions are completed according to the schedule above.
- c. When a change of ownership occurs for all or any portion of the construction site prior to completion or final stabilization, the new discharger shall comply with these requirements as of the date the ownership change occurs.

**2. Objectives**

The CSMP shall be developed and implemented to address the following objectives:

- a. To demonstrate that the site is in compliance with the Discharge Prohibitions;

- b. To determine whether non-visible pollutants are present at the construction site and are causing or contributing to exceedances of water quality objectives;
  - c. To determine whether immediate corrective actions, additional Best Management Practice (BMP) implementation, or SWPPP revisions are necessary to reduce pollutants in storm water discharges and authorized non-storm water discharges; and
  - d. To determine whether BMPs included in the SWPPP are effective in preventing or reducing pollutants in storm water discharges and authorized non-storm water discharges.
3. **Risk Level 1 - Visual Monitoring (Inspection) Requirements for Qualifying Rain Events**
- a. Risk Level 1 dischargers shall visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event.
  - b. Risk Level 1 dischargers shall visually observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Stored or contained storm water that will likely discharge after operating hours due to anticipated precipitation shall be observed prior to the discharge during operating hours.
  - c. Risk Level 1 dischargers shall conduct visual observations (inspections) during business hours only.
  - d. Risk Level 1 dischargers shall record the time, date and rain gauge reading of all qualifying rain events.
  - e. Within 2 business days (48 hours) prior to each qualifying rain event, Risk Level 1 dischargers shall visually observe (inspect):
    - i. All storm water drainage areas to identify any spills, leaks, or uncontrolled pollutant sources. If needed, the discharger shall implement appropriate corrective actions.
    - ii. All BMPs to identify whether they have been properly implemented in accordance with the SWPPP. If needed, the discharger shall implement appropriate corrective actions.

- iii. Any storm water storage and containment areas to detect leaks and ensure maintenance of adequate freeboard.
- f. For the visual observations (inspections) described in e.i and e.iii above, Risk Level 1 dischargers shall observe the presence or absence of floating and suspended materials, a sheen on the surface, discolorations, turbidity, odors, and source(s) of any observed pollutants.
- g. Within two business days (48 hours) after each qualifying rain event, Risk Level 1 dischargers shall conduct post rain event visual observations (inspections) to (1) identify whether BMPs were adequately designed, implemented, and effective, and (2) identify additional BMPs and revise the SWPPP accordingly.
- h. Risk Level 1 dischargers shall maintain on-site records of all visual observations (inspections), personnel performing the observations, observation dates, weather conditions, locations observed, and corrective actions taken in response to the observations.

#### **4. Risk Level 1 – Visual Observation Exemptions**

- a. Risk Level 1 dischargers shall be prepared to conduct visual observation (inspections) until the minimum requirements of Section I.3 above are completed. Risk Level 1 dischargers are not required to conduct visual observation (inspections) under the following conditions:
  - i. During dangerous weather conditions such as flooding and electrical storms.
  - ii. Outside of scheduled site business hours.
- b. If no required visual observations (inspections) are collected due to these exceptions, Risk Level 1 dischargers shall include an explanation in their SWPPP and in the Annual Report documenting why the visual observations (inspections) were not conducted.

#### **5. Risk Level 1 – Monitoring Methods**

Risk Level 1 dischargers shall include a description of the visual observation locations, visual observation procedures, and visual observation follow-up and tracking procedures in the CSMP.

#### **6. Risk Level 1 – Non-Storm Water Discharge Monitoring Requirements**



- a. Visual Monitoring Requirements:
- i. Risk Level 1 dischargers shall visually observe (inspect) each drainage area for the presence of (or indications of prior) unauthorized and authorized non-storm water discharges and their sources.
  - ii. Risk Level 1 dischargers shall conduct one visual observation (inspection) quarterly in each of the following periods: January-March, April-June, July-September, and October-December. Visual observation (inspections) are only required during daylight hours (sunrise to sunset).
  - iii. Risk Level 1 dischargers shall ensure that visual observations (inspections) document the presence or evidence of any non-storm water discharge (authorized or unauthorized), pollutant characteristics (floating and suspended material, sheen, discoloration, turbidity, odor, etc.), and source. Risk Level 1 dischargers shall maintain on-site records indicating the personnel performing the visual observation (inspections), the dates and approximate time each drainage area and non-storm water discharge was observed, and the response taken to eliminate unauthorized non-storm water discharges and to reduce or prevent pollutants from contacting non-storm water discharges.

**7. Risk Level 1 – Non-Visible Pollutant Monitoring Requirements**

- a. Risk Level 1 dischargers shall collect one or more samples during any breach, malfunction, leakage, or spill observed during a visual inspection which could result in the discharge of pollutants to surface waters that would not be visually detectable in storm water.
- b. Risk Level 1 dischargers shall ensure that water samples are large enough to characterize the site conditions.
- c. Risk Level 1 dischargers shall collect samples at all discharge locations that can be safely accessed.
- d. Risk Level 1 dischargers shall collect samples during the first two hours of discharge from rain events that occur during business hours and which generate runoff.
- e. Risk Level 1 dischargers shall analyze samples for all non-visible pollutant parameters (if applicable) - parameters indicating the

presence of pollutants identified in the pollutant source assessment required (Risk Level 1 dischargers shall modify their CSMPs to address these additional parameters in accordance with any updated SWPPP pollutant source assessment).

- f. Risk Level 1 dischargers shall collect a sample of storm water that has not come in contact with the disturbed soil or the materials stored or used on-site (uncontaminated sample) for comparison with the discharge sample.
- g. Risk Level 1 dischargers shall compare the uncontaminated sample to the samples of discharge using field analysis or through laboratory analysis.<sup>2</sup>
- h. Risk Level 1 dischargers shall keep all field /or analytical data in the SWPPP document.

#### **8. Risk Level 1 – Particle Size Analysis for Project Risk Justification**

Risk Level 1 dischargers justifying an alternative project risk shall report a soil particle size analysis used to determine the RUSLE K-Factor. ASTM D-422 (Standard Test Method for Particle-Size Analysis of Soils), as revised, shall be used to determine the percentages of sand, very fine sand, silt, and clay on the site.

#### **9. Risk Level 1 – Records**

Risk Level 1 dischargers shall retain records of all storm water monitoring information and copies of all reports (including Annual Reports) for a period of at least three years. Risk Level 1 dischargers shall retain all records on-site while construction is ongoing. These records include:

- a. The date, place, time of facility inspections, sampling, visual observation (inspections), and/or measurements, including precipitation.
- b. The individual(s) who performed the facility inspections, sampling, visual observation (inspections), and or measurements.
- c. The date and approximate time of analyses.
- d. The individual(s) who performed the analyses.

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<sup>2</sup> For laboratory analysis, all sampling, sample preservation, and analyses must be conducted according to test procedures under 40 CFR Part 136. Field discharge samples shall be collected and analyzed according to the specifications of the manufacturer of the sampling devices employed.

- e. A summary of all analytical results from the last three years, the method detection limits and reporting units, and the analytical techniques or methods used.
- f. Rain gauge readings from site inspections.
- g. Quality assurance/quality control records and results.
- h. Non-storm water discharge inspections and visual observation (inspections) and storm water discharge visual observation records (see Sections I.3 and I.6 above).
- i. Visual observation and sample collection exception records (see Section I.4 above).
- j. The records of any corrective actions and follow-up activities that resulted from analytical results, visual observation (inspections), or inspections.

FOR BILLING INQUIRIES:  
CALL (951) 368-9710  
EMAIL [billinginquiry@pe.com](mailto:billinginquiry@pe.com)

DATE	ORDER NUMBER	PONumber	PRODUCT	RATE	SIZE	AMOUNT
7/28/15	0010073920		PE Riverside	1.45	2 x 53 Li	153.70
7/29/15	0010073920		PE Riverside	1.30	2 x 53 Li	137.80
7/30/15	0010073920		PE Riverside	1.30	2 x 53 Li	137.80
7/31/15	0010073920		PE Riverside	1.30	2 x 53 Li	137.80
8/1/15	0010073920		PE Riverside	1.30	2 x 53 Li	137.80
8/2/15	0010073920		PE Riverside	1.30	2 x 53 Li	137.80
8/3/15	0010073920		PE Riverside	1.30	2 x 53 Li	137.80
8/4/15	0010073920		PE Riverside	1.30	2 x 53 Li	137.80
8/5/15	0010073920		PE Riverside	1.30	2 x 53 Li	137.80
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## PROOF OF PUBLICATION (2010, 2015.5 C.C.P)

Publication(s): The Press-Enterprise

### PROOF OF PUBLICATION OF

Ad Desc.: NIB: STATE ROUTE 79 (WINCHESTER ROAD) B

I am a citizen of the United States. I am over the age of eighteen years and not a party to or interested in the above entitled matter. I am an authorized representative of THE PRESS-ENTERPRISE, a newspaper in general circulation, printed and published daily in the County of Riverside, and which newspaper has been adjudicated a newspaper of general circulation by the Superior Court of the County of Riverside, State of California, under date of April 25, 1952, Case Number 54446, under date of March 29, 1957, Case Number 65673, under date of August 25, 1995, Case Number 267864, under date of February 4, 2013, Case Number RIC 1215735, under date of July 25, 2013, Case Number RIC 1305730, and under date of September 16, 2013, Case Number RIC 1309013; that the notice, of which the annexed is a printed copy, has been published in said newspaper in accordance with the instructions of the person(s) requesting publication, and not in any supplement thereof on the following dates, to wit:

**07/28, 07/29, 07/30, 07/31, 08/01, 08/02, 08/03, 08/04, 08/05,  
08/06/2015**

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Date: Aug 06, 2015

At: Riverside, California



BOARD OF SUPERVISORS  
COUNTY OF RIVERSIDE  
P.O. BOX 1147  
RIVERSIDE, CA 92502

Ad Number: 0010073920-01

P.O. Number:

### Ad Copy:

#### NOTICE TO BIDDERS

County of Riverside, herein called Owner, invites sealed proposals for:

**State Route 79 (SR-79) (Winchester Road)  
Basin  
Community of Winchester  
Project No. C6-0055**

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, August 12, 2015 to be promptly opened in public at said address. Each bid shall be in accordance with plans, specifications and other contract documents, dated June 2015, and prepared by County of Riverside, whose address is same as the above, from whom they may be obtained upon deposit of \$20.00 per set with 24" x 36" 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.

Pursuant to Labor Code section 1771.1, any Contractor bidding, or subcontractor to be listed on a bid proposal subject to Public Contract Code section 4104, shall not be qualified to bid after March 1, 2015, unless currently registered and qualified to perform public works pursuant to Labor Code section 1725.5. No Contractor or subcontractor may be awarded a contract or perform work on any contract for public work, after April 1, 2015, without proof of current registration with the Department of Industrial Relations pursuant to Labor Code section 1725.5 to perform public works.

The Contractor is required to have a Class "A" or C12 license at the time of bid submission.

Engineering Estimate	\$260,500 - \$303,500
Bid Bond	10%
Performance Bond	100%
Payment Bond	100%
Working Days	40 Working Days

Website: <http://rctima.org/trans/Contractors-Corner/Notices-Inviting-Bids>

Dated: July 23, 2015

Kecla Harper-Ihem, Clerk of the Board  
By: Cecilia Gil, Board Assistant

7/28 - 8/6