Extender oil shall be a resinous, high flash point aromatic hydrocarbon conforming to the following:

Viscosity, SUS @ 100° F (ASTM D 88)	2500 minute
Flash Point, COC, Degree F (ASTM D 92)	405 minute
Molecular Analysis (ASTM D 2007)	
Asphaltenes, % by weight	0.1 maximum
Aromatics, % by weight	55 minimum

The asphalt and extender oil, when combined shall form a material that is chemically compatible with the rubber.

The rubber used in Type 2 asphalt-rubber binder shall be reclaimed vulcanized rubber and shall contain between 22 percent and 39 percent by weight, natural rubber when tested in accordance with ASTM D 297. The rubber shall conform to the following grading when tested in accordance with ASTM C 136:

Sieve Size	Percentage Passing
No. 8	100
No. 10	98-100
No. 16	45-75
No. 30	2-20
No. 50	0-6
No. 100	0-2

The rubber shall contain no particles longer than 3/16 inch in length.

The extender oil shall be added to the asphalt at a rate between 2 percent and 6 percent by weight of the asphalt, the exact amount shall be determined by the asphalt-rubber supplier. The asphalt shall be at a temperature of not less than 350^0 F nor more than 425^0 F when the extender oil is added.

The asphalt-extender oil blend and rubber shall be combined and mixed together in the blender unit to produce a homogeneous mixture.

The amount of rubber to be added to the asphalt-extender oil blend shall be 18 percent and 22 percent by weight of the total combined mixture of asphalt, extender oil, and rubber. The exact amount shall be determined by the asphalt-rubber supplier. The asphalt-extender oil blend shall be at a temperature of not less than 350^0 F or more than 425^0 F when the rubber is added. After the material has reacted for at least 45 minutes, the asphalt-rubber shall be metered into the mixing chamber of the asphalt concrete production plant at the percentage specified or ordered.

The asphalt-rubber mixture shall be reacted for a minimum of 45 minutes from the time the rubber is added to the asphalt-extender oil blend. The temperature of the asphalt-rubber mixture shall be maintained between 375^0 F and 425^0 F during the reaction period.

The asphalt-rubber mixture shall possess the following physical property after the reaction period:

Viscosity at 400^0 F (ASTM D 2196) (Brookfield)	600-2000 cp

Asphalt-rubber shall consist of the following:

After reacting the PG 64-16, asphalt modifier and rubber, the asphalt-rubber binder shall conform to the following requirements:

Test Parameter	Specification Limits
Field Viscosity, Haake at 375^0 F in centipoise ASTM D 2669	1500-4000
Penetration, Cone at 77^0 F in 1/10 MM ASTM D 217	45 ± 25
Resilience 77^0 F in percent rebound ASTM D 3407	18 Minimum
Field Softening Point in degree F ASTM D 36	145 ± 20

Contractor shall have available a Haake Viscometer conforming to ASTM D 2669.

The asphalt-rubber mixture after reaching the desired consistency shall not be held at temperatures over 375^0 F for more than 4 hours.

General Requirements:

The aggregate for ARHM-GG shall conform to the following grading and shall meet the quality requirements for "Type A" as specified in Section 39-2.02, "Aggregate" of the Standard Specifications.

For ½" maximum size aggregate, use the following grading:

Sieve Size	Limits of Proposed Gradation	Operating Range	Contract Compliance
3/4"		100	100
1/2"		90-100	90-100
3/8"	78-92	X±5	X±7
#4	28-42	X±5	X±7
#8	15-25	X±4	X±5
#30	5-15	X±4	X±5
#200		2-7	0-8

The Los Angeles Rattler requirement in Section 39-2.02, "Aggregate" of the Standard Specifications shall be amended to read "40 percent maximum loss at 500 revolutions".

ARHM-GG shall be spread at a temperature of not less than 285^0 F and not more than 350^0 F, measured in the hopper of the paving machine, with ambient temperature of not less than 55^0 F.

Measurement:

The mixture of ARHM-GG will be measured by the ton in the same manner specified for asphalt concrete in Section 39-8.01, "Measurement" of the Standard Specifications.

Payment:

The contract price paid per ton for ARHM-GG shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in placing ARHM-GG complete in place, including header cutting as directed by the Engineer, furnishing and applying asphalt binder, furnishing and spreading sand cover if directed by the Engineer, as shown on the plan, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

AGGREGATE BASE:

Aggregate base shall be Class 2 and shall conform to the provisions in Section 26, "Aggregate Bases" of the Standard Specifications and these Special Provisions and shall meet the gradation requirements for 3/4 inch maximum.

The first paragraph of Section 26-1.02A, "Class 2 Aggregate Base" shall be modified to read:

Aggregate for Class 2 aggregate base shall be free from organic matter and other deleterious matter, and shall be of such nature that it can be compacted readily under watering and rolling to form a firm and stable base. Aggregate may consist of broken and crushed asphalt concrete or Portland cement concrete and may contain crushed aggregate base or other rock materials. The material may contain no more than 3 percent brick by weight as determined by California Test Method 202 as modified: Brick material retained on a No.4 sieve shall be identified visually and

separated manually. Brick quantification shall be based on total weight of dry sample. Also, material retained on the No.4 sieve shall contain no more than 15 percent of particles (gravel) that have no more than one fractured face.

The Quality Requirements contained in Section 26-1.02A shall be modified to read:

Quality Requirements

Test	Contract Compliance
Resistance (R-Value) Virgin Rock Crushed Miscellaneous	78 Minimum 80 Minimum
Sand Equivalent	35 Minimum
Durability Index	35 Minimum
Percentage Wear 100 Revolutions 500 Revolutions	15 Maximum 52 Maximum

Method of Payment

Quantities of Aggregate Base will be paid for at the contract unit price per cubic yard and in accordance with the provisions of Sections 26-1.06 and 26-1.07 of the Standard Specifications

HOT MIX ASPHALT:

Asphalt concrete shall be Type "A", or otherwise specified on the plans, and shall conform to the requirements of Section 39 of the Standard Specifications and the following:

> If the type of the asphalt concrete is not specified on the plans, then Type "A" shall be furnished and placed.

Aggregate grading shall be three-quarter inch (3/4") maximum, medium. When a one and a half inch (1 ½") or one inch (1") maximum aggregate grading is specified on the plans, the following gradation shall be used:

Sieve Sizes	1 ½ inch Maximum Percent Passing	1 inch Maximum Percent Passing
1 ½"		100
1"	100	100
3/4"	88-100	88-93
1/2"	71-83	72-85
3/8"	58-70	55-70

No. 4	40-54	35-52
No. 8	29-39	22-40
No. 16		
No. 30	12-20	8-24
No. 50	8-16	5-18
No. 200	3-7	3-7

The asphalt lift thickness table, as shown in Section 39-6.01, "General Requirements" of the Standard Specifications, is revised as follows:

Total Thickness Shown on Plans	Minimum No. of Layers	Top Layer Thickness (foot)		Next Lower Layer Thickness (foot)		All Other Lower Layer Thickness (foot)	
		Min.	Max.	Min.	Max.	Min.	Max.
0.24-foot or less[a]	1	-	-	-	-	-	-
0.25-foot	2[b]	0.12	0.13	0.12	0.13	-	-
0.26 - 0.46 foot	2	0.12	0.21	0.14	0.25	-	-
0.47-foot or more	3 or more	0.15	0.21	0.15	0.25	0.17	0.25

Footnotes to asphalt thickness table are revised as follows:

a. No Change.
b. One layer of 0.25 foot thick may be placed as approved by the Engineer. When the Traffic Index specified is 5.5 or below, two layers shall be placed.

Asphalts

Asphalt shall conform to the provisions in this Section, "Asphalts". Section 92, "Asphalts" of the Standard Specifications shall not apply.

Asphalt shall consist of refined petroleum or a mixture of refined liquid asphalt and refined solid asphalt, prepared from crude petroleum. Asphalt shall be:

1. Free from residues caused by the artificial distillation of coal, coal tar, or paraffin;
2. Free from water;
3. Homogeneous.

General

The Contractor shall furnish asphalt in conformance with the State of California Department of Transportation's "Certification Program for Suppliers of Asphalt". The Department maintains the program requirements, procedures, and a list of approved suppliers at http://www.dot.ca.gov/hq/esc/Translab/fpmcoc.htm.

The Contractor shall ensure the safe transportation, storage, use, and disposal of asphalt.

The Contractor shall prevent the formation of carbonized particles caused by overheating asphalt during manufacturing or construction.

Grade:

Performance graded (PG) asphalt binder shall conform to the following:

Property	AASHTO Test Method	Specification Grade		
		PG 64-10	PG 64-16	PG 70-10
Original Binder				
Flash Point, Minimum °C	T48	230	230	230
Solubility, Minimum %[b]	T44	99	99	99
Viscosity at 135 °C, Maximum, Pa·s	T316	3.0	3.0	3.0
Dynamic Shear, Test Temp. at 10 rad/s, °C Minimum G*/sin(delta), kPa	T315	64 1.00	64 1.00	70 1.00
RTFO Test[e], Mass Loss, Maximum, %	T240	1.00	1.00	1.00
RTFO Test Aged Binder				
Dynamic Shear, Test Temp. at 10 rad/s, °C Minimum G*/sin(delta), kPa	T315	64 2.20	64 2.20	70 2.20
Ductility at 25 °C Minimum, cm	T51	75	75	75
PAV[f] Aging, Temperature, °C	R28	100	100	110
RTFO Test and PAV Aged Binder				
Dynamic Shear, Test Temp. at 10 rad/s, °C Maximum G*/sin(delta), kPa	T315	31[d] 5000	28[d] 5000	34[d] 5000
Creep Stiffness, Test Temperature, °C Maximum S-value, Mpa Minimum M-value	T313	0 300 0.300	-6 300 0.300	0 300 0.300

Notes:

a. Note used.
b. The Engineer will waive this specification if the supplier is a Quality Supplier as defined by Department's "Certification Program for Suppliers of Asphalt".
c. The Engineer will waive this specification if the supplier certifies the asphalt binder can be adequately pumped and mixed at temperatures meeting applicable safety standards.
d. Test the sample at 3 °C higher if it fails at the specified test temperature. G*sin(delta) shall remain 5000 kPa maximum.
e. "RTFO Test" means the asphaltic residue obtained using the Rolling Thin Film Oven Test, AASHTO Test Method T240 or ASTM Designation: D2827.
f. "PAV" means Pressurized Aging Vessel.

Performance graded polymer modified asphalt binder (PG Polymer Modified) is:
Performance Graded Polymer Modified Asphalt Binder [a]

Property	AASHTO Test Method	Specification Grade		
		PG 58-34 PM	PG 64-28 PM	PG 76-22 PM
Original Binder				
Flash Point, Minimum °C	T 48	230	230	230
Solubility, Minimum % [b]	T 44[c]	98.5	98.5	98.5
Viscosity at 135°C, [d] Maximum, Pa·s	T 316	3.0	3.0	3.0
Dynamic Shear, Test Temp. at 10 rad/s, °C Minimum G*/sin(delta), kPa	T 315	58 1.00	64 1.00	76 1.00
RTFO Test , Mass Loss, Maximum, %	T 240	1.00	1.00	1.00
RTFO Test Aged Binder				
Dynamic Shear, Test Temp. at 10 rad/s, °C Minimum G*/sin(delta), kPa	T 315	58 2.20	64 2.20	76 2.20
Dynamic Shear, Test Temp. at 10 rad/s, °C Maximum (delta), %	T 315	Note e 80	Note e 80	Note e 80
Elastic Recovery[f], Test Temp., °C Minimum recovery, %	T 301	25 75	25 75	25 65
PAV[g] Aging, Temperature, °C	R 28	100	100	110
RTFO Test and PAV Aged Binder				
Dynamic Shear, Test Temp. at 10 rad/s, °C Maximum G*sin(delta), kPa	T 315	16 5000	22 5000	31 5000
Creep Stiffness, Test Temperature, °C Maximum S-value, MPa Minimum M-value	T 313	-24 300 0.300	-18 300 0.300	-12 300 0.300

Notes:

a. Do not modify PG Polymer Modifier using acid modification.
b. The Engineer waives this specification if the supplier is a Quality Supplier as defined by the Department's "Certification Program for Suppliers of Asphalt".
c. The Department allows ASTM D5546 instead of AASHTO T44.
d. The Engineer waives this specification if the supplier certifies the asphalt binder can be adequately pumped and mixed at temperatures meeting applicable safety standards.

e. Test temperature is the temperature at which G*/sin (delta) is 2.2 kPa. A graph of log G*/sin(delta) plotted against temperature may be used to determine the test temperature when G*/sin(delta) is 2.2 Kpa. A graph of (delta) versus temperature may be used to determine delta at the temperature when G*/sin (delta) is 2.2 kPa. The Engineer also accepts direct measurement of (delta) at the temperature when G*/sin(delta) is 2.2 kPa.
f. Test without a force ductility clamp may be performed.
g. "PAV" means Pressurized Aging Vessel.

Hot Mix Asphalt Type C

When a Hot Mix Asphalt Type C mix is specified on the plans, the following requirements shall be met:

The asphalt binder shall be PG 70-10.

The nomimal maximum size aggregate (NMSA) shall be of the size specified on the plans and shall meet the grading requirements for the 1-½ inch or 1 inch as specified in this provision.

The Sand Equivalent of the aggregate shall be a minimum of xx.

When a 1-½ inch NMSA is specified, one layer of 0.30 foot thick may be placed as approved by the Engineer, otherwise the table for asphlat lift thickness shall be used as specified in this provision.

The aggregate shall conform to the requirements of CT 371

Quality Control and Assurance

Quality Control / Quality Assurance Projects

For the mix design, the contractor shall determine the plasticity index of the aggregate blend under California Test 204. Choose an antistrip treatment and use the corresponding laboratory procedure for the mix design in compliance with:

Antistrip Treatment Lab Procedures for Mix Design

Antistrip Treatment	Lab Procedure
Plasticity index from 4 to 10 [a]	
Dry hydrated lime with marination	LP-6
Lime slurry with marination	LP-7
Plasticity index less than 4	
Liquid	LP-5
Dry hydrated lime without marination	LP-6
Dry hydrated lime with marination	LP-6
Lime slurry with marination	LP-7

Notes:
[a] If the plasticity index is greater than 10, do not use that aggregate blend.

For the mix design, determine tensile strength ratio under California Test 371 on untreated HMA. If the tensile strength ratio is less than 70:

1. Choose from the antistrip treatments specified based on plasticity index.
2. Test treated HMA under California Test 371.
3. Treat to a minimum tensile strength ratio of 70.

Sampling

Provide a sampling device in the asphalt feed line connecting the plant storage tanks to the asphalt weighing system or spray bar. Make the sampling device accessible between 24 and 30 inches above the platform. Provide a receptacle for flushing the sampling device.

Include with the sampling device a valve:

1. Between 1/2 and 3/4 inch in diameter;

2. Manufactured in a manner that a one-quart sample may be taken slowly at any time during plant operations;

3. Maintained in good condition.

Replace Failed Valves

In the Engineer's presence, take 2 one-quart samples per operating day. Provide round, friction top, one-quart containers for storing samples.

Applying Asphalt

Unless otherwise specified, the Contractor shall heat and apply asphalt in conformance with the provisions in Section 93, "Liquid Asphalts" of the Standard Specifications.

Section 39-2.01, "Asphalts" is replaced in its entirety with the following:

Asphalt binder to be mixed with aggregate shall conform to the provisions in "Asphalts" of these Special Provisions.

The grade of asphalt binder shall be 70-10 (Desert).

Liquid asphalt for prime coat shall conform to the provisions in Section 93, "Liquid Asphalts" of the Standard Specifications and shall be Grade 64-10 unless otherwise designated by the contract item or otherwise specified in the Special Provisions.

Asphaltic emulsion for paint binder (tack coat) shall conform to the provisions in Section 94, "Asphaltic Emulsion" of the Standard Specifications for the rapid-setting or slow-setting type and grade approved by the Engineer. Grade 64-10 shall be used if not otherwise specified.

Section 39-3.01B (1) shall be amended to include:

Aggregate of the 3/4 inch or 1/2 inch maximum size and aggregate for asphalt concrete base shall be separated into 3 or more sizes and each size shall be stored in separate bins. If 3 sizes are used, one bin shall contain that portion of the material which will pass the maximum size specified and be retained on a 3/8 inch sieve; one bin shall contain that

portion of the material which will pass a 3/8 inch sieve and be retained on a No. 8 sieve; and one bin shall contain that portion of the material which will pass a No. 8 sieve.

Aggregate of 3/8 inch maximum size shall be separated into 2 sizes and each size shall be stored in separate bins. One bin shall contain that portion of the material which will pass the maximum size specified and be retained on a No. 8 sieve and one bin shall contain that portion of the material which will pass a No. 8 sieve.

The bin containing the fine material shall not contain more than 15 percent of material retained on the No. 8 sieve. The material in any of the other bins shall not contain more than 15 percent of material passing a No. 8 sieve. Failure to comply with this requirement shall be corrected immediately, and the material in the bins not meeting these requirements shall be re-screened or wasted.

All asphalt concrete for this project shall be supplied from one source unless approved by the Engineer. Said source shall be listed on the Contractors Source of Materials List as required in Section 6 of the Standard Specifications.

Asphaltic emulsion shall be furnished and applied as provided in Section 39-4.02.

In addition to the provisions in Section 39-5.01, "Spreading Equipment" of the Standard Specifications, asphalt paving equipment shall be equipped with automatic screed controls and a sensing device or devices.

When placing asphalt concrete to the lines and grades established by the Engineer, the automatic controls shall control the longitudinal grade and transverse slope of the screed. Grade and slope references shall be furnished, installed, and maintained by the Contractor. The Contractor has to use a ski device, the minimum length of the ski device shall be 30 feet. The ski device shall be a rigid one piece unit and the entire length shall be utilized in activating the sensor.

When placing the initial mat of asphalt concrete on existing pavement, the end of the screed nearest the centerline shall be controlled by a sensor activated by a ski device not less than 30 feet. The end of the screed farthest from centerline shall be controlled by an automatic transverse slope device set to reproduce the cross slope designated by the Engineer, by a sensor activated by a similar ski device or as directed by the Engineer.

When paving contiguously with previously placed mats, the end of the screed adjacent to the previously placed mat shall be controlled by a sensor that responds to the grade of the previously placed mat and will reproduce the grade in the new mat within a 0.12 inch tolerance. The end of the screed farthest from the previously placed mat shall be controlled in the same way it was controlled when placing the initial mat.

Should the methods and equipment furnished by the Contractor fail to produce a layer of asphalt concrete conforming to the provisions, including straightedge tolerance, of Section 39-6.03, "Compacting" of the Standard Specifications or elsewhere in these Special Provisions, the paving operations shall be discontinued and the Contractor shall modify the equipment or methods, or furnish substitute equipment.

Should the automatic screed controls fail to operate properly during a day's work, the Contractor may manually control the spreading equipment for the remainder of that day. However, the equipment shall be corrected or replaced with alternative automatically controlled equipment conforming to the provisions in this section before starting another day's work.

General Criteria for Profiling

In addition to the straightedge provisions in Section 39-6.03, "Compacting" of the Standard Specifications, asphalt concrete pavement shall conform to the surface tolerances specified herein.

The uppermost layer of asphalt concrete surfacing shall be profiled in the presence of the Engineer using a California Profilograph or equivalent in conformance with California Test 526 and as specified in these Special Provisions.

The California Profilograph or equivalent will not be required for the following areas of the pavement surface but shall conform to the straightedge requirements in Section 39-6.03, "Compacting" of the Standard Specifications:

1. Pavement with a total thickness less than 0.24 foot;

2. Pavement on horizontal curves with a centerline curve radius of less than 1,000 feet and the pavement within the superelevation transition on those curves;

3. Pavement placed in a single lift when required by the Special Provisions;

4. Pavement with extensive grade or cross slope correction which does not receive advance leveling operations in conformance with the provisions in Section 39-6.02, "Spreading" of the Standard Specifications;

5. Pavement for ramps and connectors with steep grades and high rates of superelevation, as determined by the Engineer;

6. Shoulders and miscellaneous areas.

The Contractor shall conform to California Test 526, except a zero (null) blanking band shall be used for determining the Profile Index. Prior to beginning profiles, the profilograph shall be calibrated in the presence of the Engineer. Two profiles shall be obtained within each traffic lane, 3 feet from and parallel with the edges of the lane.

Pavements profiled shall conform to the following Profile Index requirements:

1. Pavement on tangent alignment and pavement on horizontal curves having a centerline curve radius of 2,000 feet or more shall have a Profile Index of 0.16 foot or less for each 330 feet section profiled;

2. Pavement on horizontal curves having a centerline curve radius of 1,000 feet or more but less than 2,000 feet, including the pavement within the superelevation transition

of these curves, shall have a Profile Index of 0.32 foot or less for each 330 feet section profile;

3. Pavement within any 330 feet section, containing high point areas with deviations in excess of 0.025 foot in a length of 25 feet or less, when tested in conformance with the requirements in California Test 526, shall be corrected by the Contractor regardless of the Profile Index.

The Contractor shall complete initial runs of the profilograph prior to opening the pavement to public traffic. If initial profiles can not be made prior to opening the pavement to public traffic, the initial runs of the profilograph shall be made the next day that traffic control is permitted for the area to be profiled.

Areas of the top surface of the uppermost layer of asphalt concrete pavement that do not meet the specified surface tolerances shall be brought within tolerance by abrasive grinding.

Abrasive grinding shall be performed to reduce individual deviations in excess of 0.025 foot, and to reduce the Profile Index of the pavement to be within the specified tolerance. Areas which have been subjected to abrasive grinding shall receive a seal coat. Deviations in excess of 0.025 foot which cannot be brought into specified tolerance by abrasive grinding shall be corrected by either (1) removal and replacement or (2) placing an overlay of asphalt concrete. The corrective method for each area shall be selected by the Contractor and shall be approved by the Engineer prior to beginning the corrective work. Replacement or overlay pavement not meeting the specified tolerances shall be corrected by the methods specified above. Corrective work shall be at the Contractor's expense. The Contractor shall run profilograms on the areas that have received abrasive grinding or corrective work until the final profilograms indicate the Profile Index of the area is within the specified tolerance.

When abrasive grinding is used to bring the top surface of the uppermost layer of asphalt concrete surfacing within the specified surface tolerances, additional abrasive grinding shall be performed as necessary to extend the area ground in each lateral direction so that the lateral limits of grinding are at a constant offset from, and parallel with, the nearest lane line or pavement edge, and in each longitudinal direction so that the grinding begins and ends at lines normal to the pavement centerline, within a ground area. Ground areas shall be neat rectangular areas of uniform surface appearance.

The original of the final profilograms that indicate the pavement surface is within the Profile Index specified shall become the property of the County and shall be delivered to the Engineer prior to acceptance of the contract.

Method of Payment

Asphalt concrete will be paid for at a unit price per ton as a combined item, including mineral aggregate and asphalt binder in place on the roadbed.

Full compensation for furnishing and applying asphaltic emulsion (paint binder) shall be considered as included in the contract price paid for Asphalt Concrete.

COMPENSATION ADJUSTMENTS FOR PRICE INDEX FLUCTUATIONS:

The provisions of this section shall apply only to the following contract items:

ITEM CODE	ITEM
390130	Hot Mix Asphalt
013901	Asphalt Rubber Hot Mix

The compensation payable for asphalt binder used in hot mix asphalt and tack coat will be increased or decreased in conformance with the provisions of this section for paving asphalt price fluctuations exceeding 10 percent (Iu/Ib is greater than 1.10 or less than 0.90) which occur during performance of the work.

The quantity of asphalt binder used in tack coat will be determined by multiplying the item quantity for tack coat included in a monthly estimate by the minimum percent residue specified in Section 94, "Asphaltic Emulsions" of the Standard Specifications. The asphaltic emulsion minimum percent residue will be based on the type of emulsion used by the Contractor.

At the Contractor's option, the Contractor may provide actual daily test results for asphalt binder residue for the tack coat used. Test results provided by the Contractor shall be from an independent testing laboratory that participates in the AASHTO Proficiency Sample Program. The Contractor shall take samples of asphaltic emulsion from the distributor truck at mid-load from a sampling tap or thief. Two separate one-half (½) gallon samples shall be taken in the presence of the Engineer. The Contractor shall provide one sample to the Contractor's independent testing laboratory within 24 hours of sampling. The second sample shall be given to the Engineer. The test results from the Contractor independent testing laboratory shall be delivered to the Engineer within 10 days from sample date.

The adjustment in compensation will be determined in conformance with the following formulae when the item of hot mix asphalt or tack coat or both are included in a monthly estimate:

A. Total monthly adjustment = AQ

B. For an increase in paving asphalt price index exceeding 10 percent:

$A = 0.90 (Iu/Ib - 1.10) Ib$

C. For a decrease in paving asphalt price index exceeding 10 percent:

$A = 0.90 (Iu/Ib - 0.90) Ib$

D. Where:

A = Adjustment in dollars per ton of paving asphalt used to produce hot mix asphalt and asphaltic emulsion residue used as tack coat rounded to the nearest $0.01.

Iu = The California Statewide Paving Asphalt Price Index which is in effect on the first business day of the month within the pay period in which the quantity subject to adjustment was included in the estimate.

Ib = The California Statewide Paving Asphalt Price Index for the month in which the bid opening for the project occurred.

Q = Quantity in tons of asphalt binder that was used in producing the quantity of hot mix asphalt shown under "This Estimate" on the monthly estimate using the amount of asphalt binder determined by the Engineer plus the quantity in tons of asphalt binder that would have been used as residue in the tack coat shown under "This Estimate" on the monthly estimate.

The adjustment in compensation will also be subject to the following:

A. The compensation adjustments provided herein will be shown separately on payment estimates. The Contractor shall be liable to the State for decreased compensation adjustments and the Department may deduct the amount thereof from moneys due or that may become due the Contractor.

B. Compensation adjustments made under this section will be taken into account in making adjustments in conformance with the provisions in Section 4-1.03B, "Increased or Decreased Quantities" of the Standard Specifications.

C. In the event of an overrun of contract time, adjustment in compensation for paving asphalt included in estimates during the overrun period will be determined using the California Statewide Paving Asphalt Price Index in effect on the first business day of the month within the pay period in which the overrun began.

The California Statewide Paving Asphalt Price Index is determined each month on the first business day of the month by the Department using the median of posted prices in effect as posted by Chevron, Mobil, and Unocal for the Buena Vista, Huntington Beach, Kern River, Long Beach, Midway Sunset, and Wilmington fields.

In the event that the companies discontinue posting their prices for a field, the Department will determine an index from the remaining posted prices. The Department reserves the right to include in the index determination the posted prices of additional fields.

The California Statewide Paving Asphalt Price Index is available on the Division of Engineering Services website at: http://www.dot.ca.gov/hq/esc/oe/asphalt_index/astable.html.

RUMBLE STRIP:

Construction of rumble strips by ground-in indentations shall be per Caltrans Plan No. A40B, modified. Length, width, depth and spacing shall be per standard, modified with placement centered on centerline of road. Indentation shall be completed prior to striping. Centerline striping and RPM placement shall be per Riverside County standards.

Refer to plans for station numbering limits.

Select the method and equipment for constructing ground-in indentations.

Ground-in equipment must be equipped with a sighting device enabling the operator to maintain the rumble strip alignment.

Indentations must not vary from the specified dimensions by more than 1/16 inch in depth or more than 10 percent in length and width.

The Engineer orders grinding or removal and replacement of noncompliant rumble strips to bring them within specified tolerances. Ground surface areas must be neat and uniform in appearance.

The grinding equipment must be equipped with a vacuum attachment to remove residue.

Dispose of removed material under Section 7-1.13 of the Standard Specifications, "Disposal of Material Outside the Highway Right of Way", and "Disposal of Excess Excavation or Materials" of these special provisions.

The contract unit bid price paid per linear foot for Rumble Strips. Bid Item shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, for doing all the work involved and no additional compensation will be allowed therefor

PLACE ASPHALT CONCRETE – MISCELLANEOUS AREAS:

Asphalt concrete miscellaneous areas shall conform to the County Road Improvement Standards and Specifications, Caltrans Standard Plans as specified, as shown on the plans, and as directed by the Engineer.

The pay quantity of asphalt concrete in the miscellaneous areas shall be for placement, and shall be paid for as a separate item of work. The asphalt concrete material shall be paid for and meet these special provisions of Hot Asphalt Mix (Type C) and Asphalt Rubber Hot Mix - Gap Graded (ARHM-GG).

The asphalt binder shall be PG 70-10.

Method of Payment

The contract unit prices paid per square yard for Place Hot Mix Asphalt (Miscellaneous Area) shall include full compensation for furnishing all labor, materials other than asphalt concrete, tools, and equipment and for doing all the work involved in placing and compacting the dikes and overside drains and no additional compensation will be allowed therefore.

FINISHING ROADWAY:

Finishing roadway shall conform to Section 22 of the Standard Specifications, except that full compensation therefor shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed therefor.

SHOULDER BACKING:

Shoulder backing shall provide for the grading of the shoulder as per plans, or as directed by the Engineer. Unless otherwise specified, the width of the shoulder backing shall be six feet minimum, at 2% +/- as directed, measured from the edge of pavement.

Onsite material may be used to fill in low areas, subject to approval by the Engineer. Ground asphalt concrete may be used subject to the Engineer's approval.

Ground asphalt concrete shall not be placed in or in close proximity to streambeds or drainage courses, the limits of which shall be determined by the Engineer.

Imported material, if required to fill in low areas, shall conform to the provisions of Section 25, "Aggregate Subbases" of the Standard Specifications and these Special Provisions, and the aggregate shall conform to the grading and quality requirements for Class 1 aggregate subbases.

Subbase material shall be clean and free from roots, vegetable matter and other deleterious substances, and be of such character that when wet it will compact to form a firm stable base. The material shall be of such sizes that the percentage composition by weight of material shall conform to the aggregate grading requirements at the time the material is deposited on the roadbed when determined by Test Method No. Calif. 202.

Payment for Shoulder Backing will be paid at the linear foot price bid and shall include full compensation for furnishing all labor, materials, tools, and equipment, including the importing of material and/or the handling of onsite material, and no separate payment will be allowed therefor.

ROADSIDE SIGN (RELOCATE/ SALVAGE):

Existing roadside signs, shall be removed, relocated and/or salvaged as shown on the plans.

Roadside Signs to be removed and relocated shall be installed per the Roadside signs (install) special provisions.

Existing roadside signs at locations shown on the plans to be removed shall not be removed until replacement signs have been installed or until the existing signs are no longer required for direction of public traffic, unless otherwise directed by the Engineer.

County owed removed and salvaged signs shall be delivered to the nearest County Maintenance Yard or as directed by the Engineer. The County Maintenance Yard is located at the following address:
2950 Washington Street
Riverside, CA 92504

The contract price paid **per each** for **relocate** Roadside Sign shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals and for doing all the work including sign removal, sign storage, sign protection, excavation and backfill, and installation as specified in the Standard Specification and these Special Provisions and no additional compensation will be allowed therefor.

The contract price paid **per each** for **salvage** Roadside Sign shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals and for doing all the work including protecting, storing, transporting and delivering Road Sign as specified in the these Special Provisions and no additional compensation will be allowed therefor.

ROADSIDE SIGN- ONE POST:

The Contractor shall furnish and install roadside signs at the locations shown on the plans or as directed by the Engineer, in conformance to the provisions in Section 56-2 "Roadside Signs," of the State Standard Specifications, Palm Desert Standard Drawings, and these Special Provisions.

All roadway signs shall have retroreflective sheeting. Except as stated below, the retro-reflectivity for all roadway signs, both temporary and permanent installations, shall meet or exceed ASTM Standard D 4956 Type III (3M Co. High Intensity Grade or approved equal). The retroreflectivity for R1-1 ("STOP") signs and W3-1 (Stop Ahead) signs shall meet ASTM Standard D 4956 Type IX (3M Co. Diamond Grade or approved equal).

The contract unit price paid per each for Roadside Signe-One Post shall included full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work including all necessary concrete excavation and backfill as specified in the Standard Specifications and these Special Provisions and no additional compensation will be allowed therefor.

PAINT TRAFFIC STRIPE (2 COATS):

Painting traffic stripes (traffic lanes) shall conform to the provisions in Section 84-1, "General," and 84-3, "Painted Traffic Stripes and Pavement Markings," of the State Standard Specifications and these special provisions.

The Contractor shall furnish the necessary control points for all striping and markings and shall be responsible for the completeness and accuracy thereof to the satisfaction of the Engineer.

The Contractor shall perform all layout, alignment, and spotting for traffic stripes and markings. Traffic striping shall not vary by more than ½ inch in 50 feet from the alignment shown on the plans. The dimensional details of the stripes and markings shall conform to the provisions set forth in the California MUTCD and Maintenance Manual available from Caltrans.

Spotting with cat tracks or dribble lines shall be performed prior to the removal of existing stripes. Cat tracks shall consist of spots of paint not more than 3 inches in width and not more than 5 feet apart along the alignment of the stripe. Paint for the cat tracks shall be the same as that for the intended stripe. Paint for the dribble lines shall be neutral color obtained by mixing approximately two parts white paint with one part black paint.

SPOTTING - Spotting shall be completed prior to the removal of any existing stripes or markings. Existing stripes and markings shall be removed prior to painting new ones, but in no case shall any section of street be left without the proper striping for more than 24 hours, or over weekends or holidays.

No striping or painting work shall start until the Engineer has specifically approved the spotted markings. Existing striping and markings, if any, shall be removed prior to painting new, but in no case shall any section of street be left without the proper striping for more than 24 hours, or over the weekends or holidays.

MATERIALS - Materials shall conform to the provisions in Section 84-3.02, "Materials," of the State Standard Specifications and these Special Provisions. All traffic striping and pavement markings shall be two coats of paint with glass beads unless otherwise approved by the County and City Engineer. A minimum of 7 days and a maximum of 14 days shall elapse between application of the first and second coats of paint.

The paint for traffic striping and markings shall be as follows, or an approved equal:

White - PERVO Paint Co. #9000 ULTRA
Yellow - PERVO Paint Co #9003 ULTRA

Glass beads shall conform to State Specification 8010-21C-22 (Type II).

Newly painted traffic striping shall be protected from damage by public traffic or other causes until the paint is thoroughly dry. Any newly painted traffic striping which are damaged as a result of the construction, including wheel markings by public traffic and the construction equipment, shall be repainted by the Contractor and any associated removals shall be performed as called for in these Special Provisions.

The contract unit price paid per linear foot for Paint Traffic Stripe (2 Coats) shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in painting traffic stripe (Regardless of the number, widths, and types of individual stripes involved in each traffic stripe) including any necessary cat tracks, dribble lines any layout work, complete in place as shown on the plans, as specified in the Standard

Specifications and these Special Provisions, and as directed by the Engineer.

THERMOPLASTIC CROSSWALK AND PAVEMENT MARKING:

Thermoplastic crosswalk and pavement marking shall conform to the provisions in Sections 84-1, "General" and 84-2, "Thermoplastic Traffic Stripes and Pavement Markings" of the Standard Specifications, the plans, these Special Provisions and as directed by the Engineer.

The contract price paid per square foot for Thermoplastic Crosswalk and Pavement Marking shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work necessary to place the crosswalk and pavement markings complete in place, and no additional compensation will be allowed.

PAVEMENT MARKERS:

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

Pavement markers shall be placed to the line established by the Engineer. All additional work necessary to establish satisfactory lines for markers shall be performed by the Contractor.

Pavement markers shall be installed where indicated on the plans in accordance with the indicated striping detail. Refer to Standard Plans A20-A through A20-D for striping and markings details.

Markers and adhesive removal shall be performed by a method approved by the Engineer. Any pavement scarring resulting from the markers removal shall be repaired to the satisfaction of the Engineer.

Payment for furnishing and placing Pavement Markers (Non-Reflective) and Pavement Markers (Reflective) will be at the unit price bid and shall include full compensation for furnishing all labor, materials, tools, equipment and no additional compensation will be allowed therefor.

MARKERS AND DELINEATORS:

Markers and delineators shall conform to the provisions in Section 82, "Markers and Delineators," of the Standard Specifications and these special provisions.

Flexible posts shall be made from a flexible white plastic which shall be resistant to impact, ultraviolet light, ozone, and hydrocarbons. Flexible posts shall resist stiffening with age and shall be free of burns, discoloration, contamination, and other objectionable marks or defects which affect appearance or serviceability.

Retroreflective sheeting for metal and flexible target plates shall be the retroreflective sheeting designated for channelizers, markers, and delineators conforming to the requirements in ASTM Designation: D 4956-95.

Method of Payment

The contract price paid **per each** Object Marker shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals and no additional compensation will be allowed therefor.

The contract price paid **per each** Delineator shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals and no additional compensation will be allowed therefor.

MINOR CONCRETE- CURB AND GUTTER:

Concrete curb and gutter shall be constructed in accordance with the County of Riverside Road Improvement Standards and Specifications and in conformance with Sections 51, 73 and 90 of the Standard Specifications.

Class 3 concrete shall be used for curb and gutter.

Construction of concrete improvements shall include all removal and restoration of the affected irrigation and landscaping, and related work, to return the area adjacent to the new improvements to its original condition and to conform the area to the new improvements.

The area behind and along the concrete improvements shall be filled and compacted with native or select material and graded to match and provide a smooth transition from the edge of the new improvements, to the satisfaction of the Engineer.

Preparation of subgrade for the concrete structures shall be done in conformance with the requirements of Section 73-1.02 of the Standard Specifications. Unless otherwise specified, all curbs and gutters will be backfilled as shown on the plans.

Excess material resulting from the excavation of the subgrade shall be disposed of as elsewhere provided in these Special Specifications.

The Contractor is responsible for meeting requirements of all American with Disability Act (ADA).

Construction of sidewalk, curb outlet, driveway, and curb ramps shall include, but not be limited to, the following:

1) Removal and disposal of existing sidewalk, curb, and/or curb and gutter, curb outlet, driveway, and existing soil and aggregate as required;
2) Establishing grades, and assuring that all grades are met;
3) Performing all grading and compaction – including all required aggregate import, as directed by the Engineer and in accordance with County Standard 403;
4) Construction of new curb ramp, sidewalk, curb, and/or curb and gutter, and curb outlet, driveway;

5) All scoring/grooving and required saw cutting;
6) Repair of existing asphalt and PCC surfacing;
7) Installing 1/2" wide expansion joints;
8) All landscaping, and related work, to return the area adjacent to the sidewalk, cur ramps, driveways, driveway approaches, curb and/or curb and gutter to its original condition and to conform the area to the new improvements;

At a minimum, the area from the BCR to ECR shall meet all required ADA standards. Therefore, to conform to existing conditions and/or to achieve the required four-foot level area (maximum of 2.0% crossfall) at the top potion of the curb ramp, it may be necessary to extend the work beyond the BCR/ECR in certain instances.

The contract unit bid prices paid per linear foot for Minor Concrete (Curb and Gutter), shall include full compensation for furnishing all labor, equipment, including the excavation or placing of suitable fill to prepare the sub-grade, furnishing and placing expansion joint material, materials and tools, and incidentals, and for doing all the work involved in the construction and complete in place as shown on the plans, or as herein specified, or as directed by the Engineer.

MINOR CONCRETE STRUCTURES:

Minor concrete structures shall conform to the applicable portions of Section 51, 52, 75 and 90 of the Standard Specifications.

Minor concrete structures for this project shall consist of: Headwalls

Concrete to be used in the construction of minor concrete structures shall be Class "2" concrete.

All exposed metal shall be galvanized in conformance with Section 75-1.05 of the Standard Specifications.

Method of Payment

The contract price paid by cubic yard minor concrete headwall will not be adjusted if the constructed height of said minor structure, including revisions by Engineer, is within + 0.5 foot of the vertical dimension shown on the plans.

Payment for all work involved in the construction of minor concrete headwall will be paid by the cubic yard and shall include full compensation for furnishing all labor, materials, tools and equipment, and doing all work involved in the complete structure, including the structure excavation and backfill, furnishing and placing reinforcement, and metal frames, covers and grates and no further allowances shall be allowed.

MINOR CONCRETE FOOTING:

Minor concrete footing shall be constructed to details as shown on the plans and shall conform to the applicable portions of Sections 51, 52, 55, 75 and 90 of the Standard Specifications and these Special Provisions, and as directed by the Engineer.

The contract unit bid price paid per each for Minor Concrete Footing shall include full compensation for furnishing all labor, materials, tools and equipment, and doing all work involved in the complete structure, including removal and dispoal of existing concrete footing, structure excavation and backfill, furnishing and placing reinforcement and no additional compensation will be allowed therefor.

REINFORCED CONCRETE PIPE:

Reinforced concrete pipe shall conform to the provisions in Section 65, "Reinforced Concrete Pipe" of the Standard Specifications and these Special Provisions.

GENERAL

Pipe shall be placed under existing paving in a trench 12" minimum wider than the outside diameter of the pipe being installed. Trenching shall be 6" minimum in width on each side of the pipe.

Pavement shall be cut to a depth of 3" with an abrasive type saw or with a rock cutting excavator specifically designed for this purpose. Cuts shall be neat and true with no shatter outside the removal area.

The pipe shall be placed in the bottom of the trench and the trench shall be backfilled with two sack slurry to finish grade.

Temporary road steel plates shall be installed over the trench and recessed to the existing pavement along the edges of the plates to allow traffic movements until the new asphalt concrete is installed or as directed by the Engineer.

Prior to final paving, the top of the slurry backfill shall be pulverized with existing pavement section to allow the final pavement surface or as directed by the Engineer.

If so directed by the Engineer, the two sack slurry backfill shall be installed to a depth of 0.30' below the final pavement surface.

The D- loading for the proposed reinforced concrete pipes is 2000D.

The slurry shall be allowed to cure a minimum of two days prior to final paving.

Slurry cement backfill shall conform to Section 19-3.062 of the Standard Specifications, except for full compensation therefor shall be considered as included in the prices paid for the contract

unit bid paid per linear foot for Reinforced Concrete Pipe of the types specified in the Engineer's estimate and no additional compensation will be allowed therefor.

Full compensation for providing, installing and maintaining temporay road steel plates shall be considered as included in the prices paid for the contract unit bid prices paid per linear foot for Reinforced Concrete Pipe of the types specified in the Engineer's estimate and no additional compensation will be allowed therefor.

Except as otherwise designated by classification on the plans or in the specifications, joints for culvert and drainage pipes shall conform to the plans or specifications for standard joints.

MATERIALS

The concrete for reinforced concrete pipe shall contain not less than 470 pounds of cementitious material per cubic yard and have a water–cementitious material ratio that does not exceed 0.40 by weight. Supplementary cementitious material is optional. Reinforcement shall have a minimum cover of 1 inch.

Special reinforced concrete pipe, having concrete cover over the steel reinforcement greater than the cover specified in AASHTO Designation: M 170, shall conform to the provisions in Section 65-1.02, "Materials" and Section 65-1.02A, "Circular Reinforced Concrete Pipe" of the Standard Specifications, except the width of crack produced by the D-load test specified in AASHTO Designation: M 170 shall be the width determined by the following formula:

$$b = \frac{t - 3/8d}{t - 3/8d - C} \times 0.01 \text{ inch}$$

Where:

b = Width of crack to be produced in lieu of the 0.01-inch crack specified in AASHTO Designation: M 170
t = Wall thickness of pipe, inches
d = Effective depth of the section to be tested, feet
C = Concrete cover over steel reinforcement in excess of cover specified in AASHTO Designation: M 170

Reinforced concrete pipe that is to be hydrostatically tested shall be strength tested by the 3-edge bearing method to a maximum D-load of 10 percent greater than the 0.01-inch cracking D-load specified in AASHTO Designation: M 170 or to the actual D-load required to produce a 0.01-inch crack, whichever is the lesser.

Special oval shaped reinforced concrete pipe, having concrete cover over the steel reinforcement greater than the cover specified in AASHTO Designation: M 207, shall conform to the provisions in Section 65-1.02, "Materials" and Section 65-1.02B, "Oval Shaped Reinforced Concrete Pipe" of the Standard Specifications, except the width of crack produced by the D-load test specified in AASHTO Designation: M 207 shall be the width determined by the following formula:

$$b = \frac{t - 3/8d}{t - 3/8d - C} \times 0.01 \text{ inch}$$

Where:

b = Width of crack to be produced in lieu of the 0.01-inch crack specified in AASHTO Designation: M 207
t = Wall thickness of pipe, inches
d = Effective depth of the section to be tested, feet
C = Concrete cover over steel reinforcement in excess of cover specified in AASHTO Designation: M 207

Oval shaped reinforced concrete pipe that is to be hydrostatically tested shall be strength tested by the 3-edge bearing method to a maximum D-load of 10 percent greater than the 0.01-inch cracking D-load specified in AASHTO Designation: M 207 or to the actual D-load required to produce a 0.01-inch crack, whichever is the lesser.

MEASUREMENT AND PAYMENT

The County does not pay any additional cost for excess concrete cover over steel reinforcement.

The contract unit bid price is paid per linear foot for Reinforced Concrete Pipe. They are specified in the Engineer's estimate and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved including structures excavation and slurry backing, removal and disposal of the existing culvert being replaced as shown on the plans, grading of a flow line to the proposed RCP and disposing of any excess soil material resulting from the grading of flow line and the removal of the existing culvert, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

CORRUGATED METAL PIPE:

Corrugated steel pipes shall conform to the provisions in Section 66, "Corrugated Metal Pipe" of the Standard Specifications and these Special Provisions.

Asphaltic mastic coating or polymeric sheet coating substituted for bituminous coating shall be placed on the outside and inside surfaces of the pipe.

Corrugated steel pipe shall be fabricated from zinc-coated steel sheet.

Timber bulkheads shall be constructed and placed across the ends of unconnected corrugated metal pipe as shown on the plans. Wood for timber bulkheads shall be construction heart grade redwood at least one inch thick. Full compensation for constructing and placing timber bulkheads shall be considered as included in the contract price paid per linear foot for the size of corrugated metal pipe involved and no separate payment will be made therefor.

Pipe reducers will be measured and paid for by the linear foot as the corrugated metal pipe of the larger diameter connected to the reducer.

Reinforced Concrete Pipe shall be placed under existing paving in a trench 12" minimum wider than the outside diameter of the pipe being installed. Trenching shall be 6" minimum in width on each side of the pipe.

Pavement shall be cut to a depth of 3" with an abrasive type saw or with a rock cutting excavator specifically designed for this purpose. Cuts shall be neat and true with no shatter outside the removal area.

The pipe shall be placed in the bottom of the trench and the trench shall be backfilled with two sack slurry to finish grade.

Temporary road steel plates shall be installed over the trench and recessed to the existing pavement along the edges of the plates to allow traffic movements until the new asphalt concrete is installed or as directed by the Engineer.

Prior to final paving, the top of the slurry backfill shall be pulverized with existing pavement section to allow the final pavement surface or as directed by the Engineer.

If so directed by the Engineer, the two sack slurry backfill shall be installed to a depth of 0.30' below the final pavement surface.

The slurry shall be allowed to cure a minimum of two days prior to final paving.

Slurry cement backfill shall conform to Section 19-3.062 of the Standard Specifications, except that full compensation therefor shall be considered as included in the prices paid for the contract unit bid paid per linear foot for Corrugated Steel Pipe of the types specified in the Engineer's estimate and no additional compensation will be allowed therefor.

Full compensation for providing, installing and maintaining temporay road steel plates shall be considered as included in the prices paid for the contract unit bid prices paid per linear foot for Corrugated Steel Pipe of the types specified in the Engineer's estimate no additional compensation will be allowed therefor.

The contract unit bid price paid per linear foot for Corrugated Steel Pipe of the types specified in the Engineer's estimate shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved including structures excavation and backing as shown on the plans, removal and disposal of the existing culvert being replaced as shown on the plans, grading of a flow line to the proposed CMP and disposing of any excess soil material resulting from the grading of flow line and the removal of the existing culvert, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

MISCELLANEOUS FACILITIES-FLARED END SECTIONS:

Flared end sections shall conform to the provisions in Section 70, "Miscellaneous Facilities" of the Standard Specifications and these Special Provisions.

The contract unit bid prices paid per each for Flared End Sections of the types specified in the Engineer's estimate shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved including structures excavation and backing as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

GRAVEL DRIVEWAY:

Gravel driveway shall be constructed as shown on the plans and as directed by the Engineer.

Surfacing for driveway shall consist of a replacement in kind of the existing driveway surfacing. Gravel shall be furnished and placed by the Contractor, and compensation therefor shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed 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.

The Contractor shall assume that every house, building and lot within the project limits has utility service pipes and conductors (laterals), and that utility main and trunk facilities exist within the project limits. The Contractor shall determine if it is warranted to determine the exact location of these utility service laterals and existing main lines, unless directed by the Engineer to pot-hole at specific locations, or as otherwise required herein. The Contractor will not be directly reimbursed for determining the exact location of the utility main lines or services laterals but shall include any compensation for this work in the contract price paid for the various items of work. Any damage to existing main lines or service laterals for which pot-holing was not performed shall be considered damage due to not using reasonable care and the damage shall be repaired at the Contractor's expense.

The Contractor shall conduct his operations with the assumption that underground utility facilities exist within the project limits. The Contractor shall exercise caution and best construction practices for safety and for protection of underground facilities. The approximate locations of underground utility facilities, as shown on the plans, are based on information provided by the respective owners, listed below. The Contractor shall also utilize the markings of the regional notification center (Underground Service Alert), and above-ground utility appurtenances to determine the existence and approximate location of underground utilities.

No excavation shall be made within 4 feet of any underground utilities, as shown on the plans and/or marked by Underground Service Alert, unless and until such utilities have been positively located as to horizontal and vertical position. This requirement applies to all underground electric, natural gas, toxic or flammable gas, chlorine, oxygen or petroleum facilities.

Forty-eight hours prior to beginning construction, the Contractor shall notify the following agencies:

Underground Service Alert	800-227-2600
Southern California Edison Company	951-928-8318
Eastern Municipal Water District	951-928-6107
Southern California Gas Company	909-335-7561
MWD	213-217-6961
Nuevo Water Company	951-928-1922
Verizon Communications	951-925-5319
Time Warner Cable	909-975-3402
Mediacom Cable	951-672-8385
Elsinore Valley Municipal Water District	951-674-3146
Sprint Communication Company	909-873-8022

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.

Adjustments to Grade for Obstructions

The Contractor shall adjust to finish grade any valve covers encountered within the project limits, as required, for those utility valves that are provided with slip cans and are adjustable without the replacement of parts or the removal of concrete collars. In cases where the owning utility company insists upon upgrades in the standards, or when additional parts or the removal of concrete collars are required for the adjustment, said adjustment will be the responsibility of the owning utility company.

Communication and coordination with the owning utility company shall be the responsibility of the contractor.

For public safety, traffic shall not be allowed on temporary or permanent pavement until all manholes are either adjusted to grade or otherwise protected, as approved by the Engineer. The Contractor shall adjust to grade manholes and valves when and as necessary for the protection of the traveling public during construction, and shall coordinate all work on said facilities with the owning utility companies. This requirement is intended for traffic that is to be allowed on temporary surfaces during the course of construction. Final adjustment to grade will be the responsibility of the owning utility company, except as provided herein.

Said work shall be performed in accordance with Section 15-2.05A, "Frames, Covers, Grates, and Manholes" of the Standard Specifications. Full compensation for adjustment of valve covers shall be considered as included in the contract price paid for asphalt concrete, or applicable items of work in the event that there is no asphalt concrete bid item, and no additional compensation will be allowed therefor.

All existing utility facilities shall be protected from damage by the Contractor's operations.

Unless otherwise provided herein, the owning utility companies will not be obligated to lower their surface utilities (manholes and valve covers) for Contractor's grading, grinding and/or paving operations. The contractor shall lower surface facilities, including manholes and valve covers, to facilitate construction, and the following shall apply:

1. Contractor shall coordinate all work with the utility owner.

2. Contractor shall be responsible for all costs and shall be responsible for any damage caused to the owner's facilities. If the Contractor observes any pre-existing damage to the utility facilities, the Contractor shall notify the Engineer and the utility owner of that damage prior to performing additional work on the facility.

3. Contractor shall, after removing grade rings and covers, arrange for pickup by, or delivery to, the owner's yard. Any and all concrete collars removed by the Contractor shall become the property of the Contractor, and shall be disposed of as specified elsewhere in these special provisions.

4. The Contractor is advised that he is responsible for ensuring that construction materials do not enter the utility owner's facilities. The Contractor shall install traffic bearing steel plates for this purpose, and provide all coordination and transportation necessary. It is recommended that the Contractor request the utility owner to provide such steel plates. If the Contractor provides steel plates, it shall be the Contractor's responsibility to coordinate with the utility owner for the return of the steel plates to the Contractor after final adjustment to grade. If the Contractor utilizes utility owner's steel plates, and if the Contract items of work include adjustment to final grade, the Contractor shall return the steel plates to the Utility owner's yard, or as otherwise arranged with the Utility owner.

5. Prior to paving or covering the plated utility facility, the Contractor shall tie-out the facility utilizing a method acceptable to the utility owner and provide notes and data of all covered facilities to both the utility owner and the Engineer.

6. The Contractor shall notify the utility owner, upon completion of the Contractor's work, when the utility owner may move in to make the final adjustments to grade.

7. The requirements for lowering of surface facilities shall not apply to vaults. The Contractor shall notify the utility owner of the need to make adjustments to such major facilities.

8. The Contractor is reminded that the utility facilities are owned by public and private utility companies that operate their facilities within public rights of way. The utility owner's preferences with regards to the handling of its facilities shall be complied with to the greatest extent feasible.

Method of Payment

Full compensation for initial lowering of surface utilities facilities shall be considered as included in the contract price paid for asphalt concrete, or applicable items of work in the event that there is no asphalt concrete bid item, and no additional compensation will be allowed therefor.

MISCELLANEOUS DIRECTED WORK:

Miscellaneous directed work shall consist of necessary work that is not included in other contract bid items, as determined by the Engineer. Miscellaneous directed work shall be performed as directed by the Engineer and in accordance with the applicable standards and specifications. Payment for implementing miscellaneous directed work will be paid for on a force account basis, in accordance with Section 9-1.03 of the Standard Specifications, up to the fixed bid price, for the work performed.

MOBILIZATION:

Mobilization shall conform to Section 11 of the Standard Specifications and these Special Provisions.

Payment – Full compensation for Mobilization, except as otherwise provided herein, for conforming to the requirements of this article shall be paid for by various contract items of work and no additional compensation will be allowed therefor.

INSURANCE:

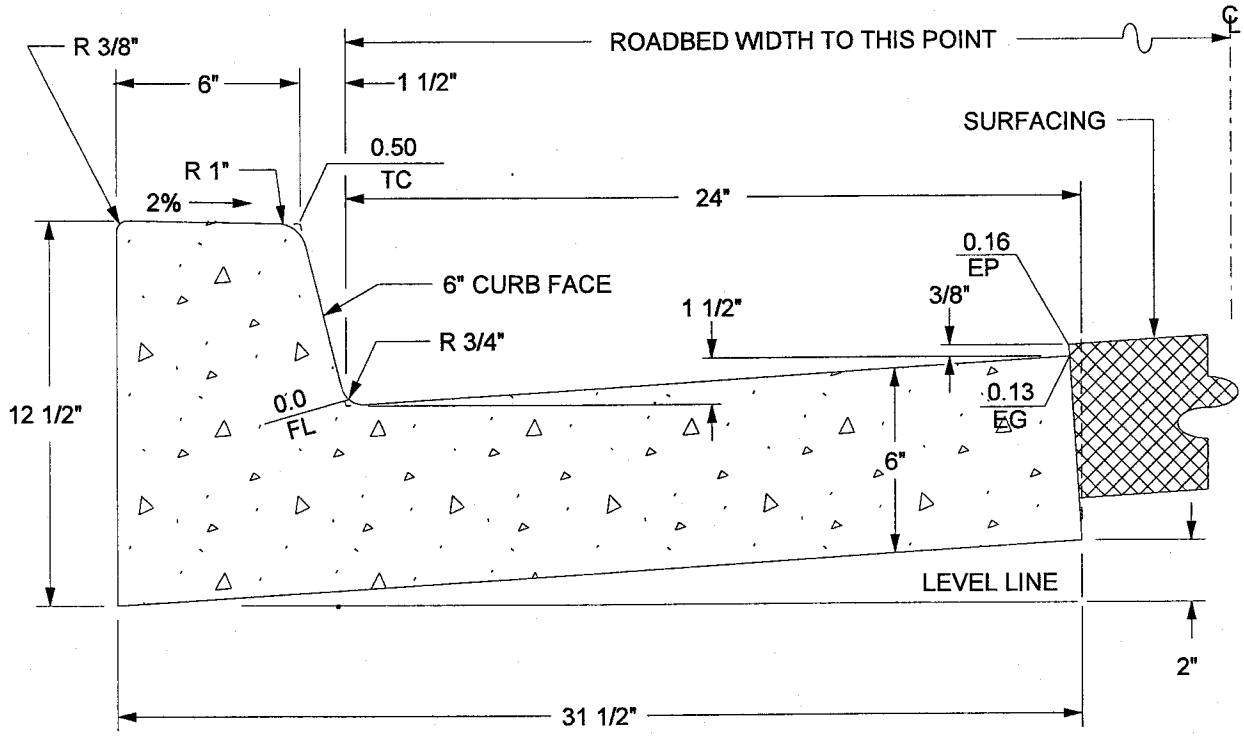
In addition to the requirements of Section 18, "Insurance – Hold Harmless" of these contract documents, the Contractor's Certificate of Insurance and endorsements for the project shall name the following listed entities as additional insured under the Contractor's general liability, excess liability, and auto liability insurance policies, and each listed entity shall be named on the Waiver of Subrogation for the Contractor's Workers Compensation policy.

1. "City of San Jacinto, its officers, directors, agents and employees".

Each of the above listed entities shall also be held harmless, in accordance with the requirements of Section 18, "Insurance – Hold Harmless" of these contract documents.

Full compensation for compliance with the requirements of this Section shall be considered as included in the various items of work, and no additional compensation will be allowed therefor.

REFERENCE DRAWINGS



CLASS "B" CONCRETE

1.601 CU. FT. / L.F.

1 CU. YD. = 16.86 L.F.

ABBREVIATIONS:

TC = TOP OF CURB
FL = FLOWLINE
EG = EDGE OF GUTTER
EP = EDGE OF PAVEMENT

APPROVED BY:

DATE: 05/01/07

DIRECTOR OF TRANSPORTATION
GEORGE A. JOHNSON, RCE 42328

REGISTERED PROFESSIONAL ENGINEER
GEORGE A. JOHNSON
No. CE 42328
Exp. 3-31-08
CIVIL
STATE OF CALIFORNIA

COUNTY OF RIVERSIDE

TYPE A-6 CURB

STANDARD NO. 200

REVISIONS		REV.	BY:	APR'D	DATE	REV.	BY:	APR'D	DATE
8-71, 9-88		1				4			
2-90, 11-04		2				5			
		3				6			

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

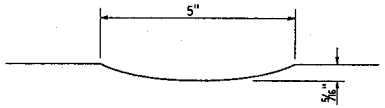
Craig A. Copelan
REGISTERED CIVIL ENGINEER

May 1, 2006
PLANS APPROVAL DATE

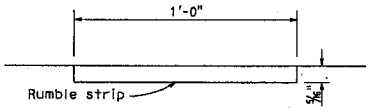
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

REGISTERED PROFESSIONAL ENGINEER
Craig A. Copelan
No. C36301
Exp. 6-30-06
CIVIL
STATE OF CALIFORNIA

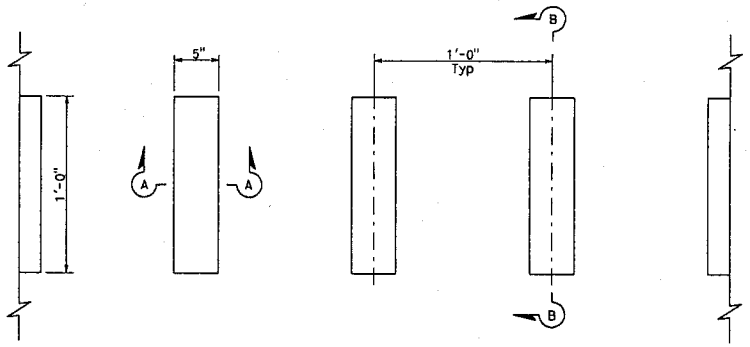
To get to the Caltrans web site, go to: http://www.dot.ca.gov



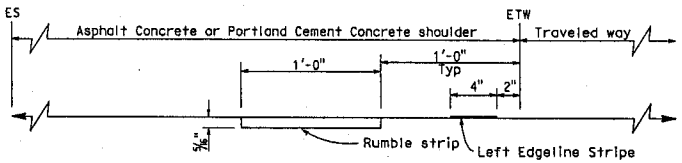
SECTION A-A



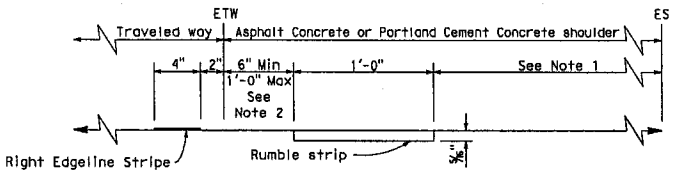
SECTION B-B



PLAN
GROUND-IN INDENTATIONS



RUMBLE STRIP PLACEMENT
LEFT OF DIRECTION OF TRAVEL



RUMBLE STRIP PLACEMENT
RIGHT OF DIRECTION OF TRAVEL

TYPICAL GROUND-IN RUMBLE STRIP SHOULDER PLACEMENT

NOTES:

1. Where bicycles are permitted, shoulder rumble strips should not be used right of direction of travel unless a minimum of 5'-0" of clear shoulder width for bicycle use is available between the rumble strip and the outer edge of the shoulder. Where bicycles are not permitted, a minimum of 4'-0" of distance is required between the rumble strip and the outer edge of the shoulder.
2. Unless otherwise shown on the plans or specified in the special provisions, the 6" offset from the edge of traveled way to the edge of the rumble strip shall be used for rumble strip placement right of the direction of travel.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

SHOULDER RUMBLE STRIP DETAILS GROUND-IN INDENTATIONS

NO SCALE

A40B

9-30-05

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

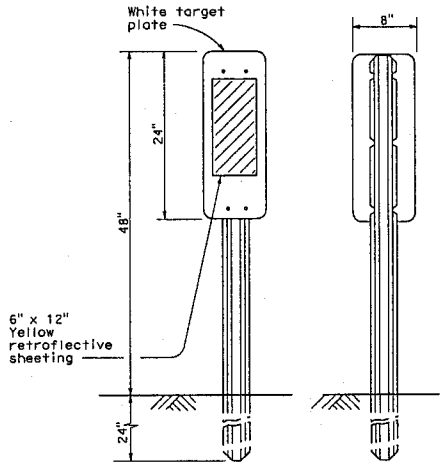
REGISTERED CIVIL ENGINEER

Greg W. Edwards No. C36386 Exp. 6-30-06 CIVIL REGISTERED PROFESSIONAL ENGINEER STATE OF CALIFORNIA

May 1, 2006
PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

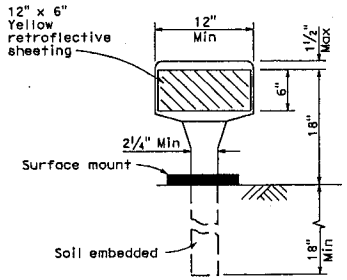
To get to the Caltrans web site, go to: http://www.dot.ca.gov



FRONT BACK

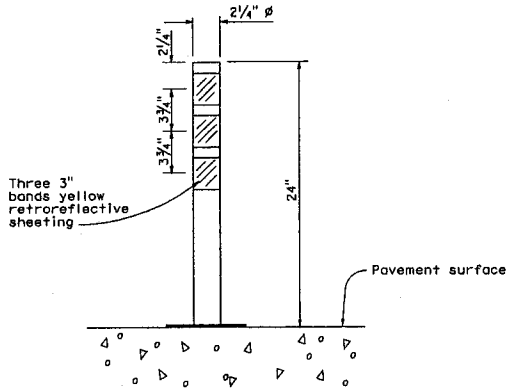
TYPE L-1 (CA)

See Note 1



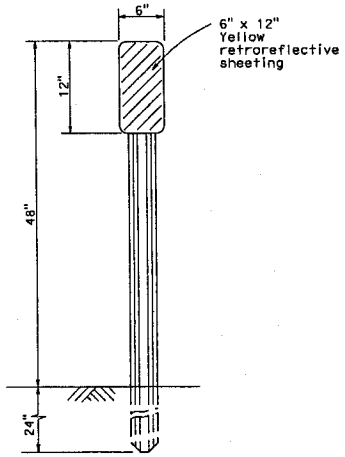
TYPE K-1 (CA)

(Flexible post with horizonal orientation of sheeting)



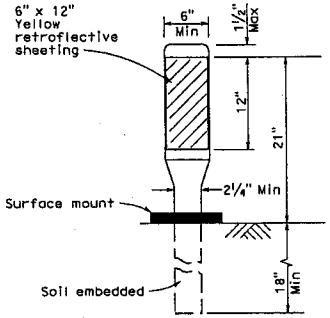
TYPE Q (CA)

(Tubular flexible post surface mount)



TYPE L-2 (CA)

See Note 1



TYPE K-2 (CA)

(Flexible post with vertical orientation of sheeting)

NOTE:

1. See Standard Plan A73B for metal post details and additional markers.

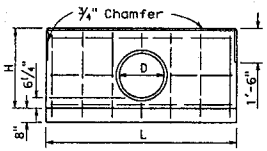
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

OBJECT MARKERS

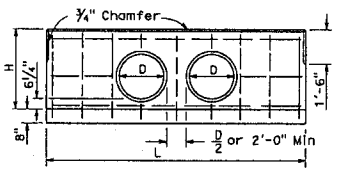
NO SCALE

A73A

8-27-03



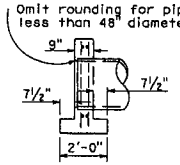
FRONT ELEVATION
SINGLE HEADWALL



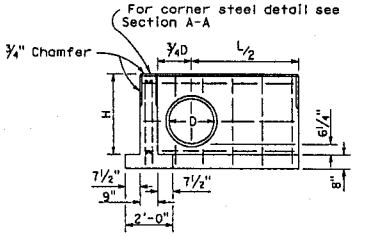
FRONT ELEVATION
DOUBLE HEADWALL

D	H	SINGLE L	SINGLE Steel LB	SINGLE Conc CY	DOUBLE L	DOUBLE Steel LB	DOUBLE Conc CY
12"	2'-8"	5'-0"	35	0.60	8'-0"	50	0.94
15"	2'-11"	6'-0"	40	0.75	9'-6"	60	1.17
18"	3'-2"	7'-0"	50	0.91	10'-6"	75	1.35
21"	3'-5"	7'-6"	60	1.02	11'-6"	90	1.52
24"	3'-8"	8'-6"	75	1.20	12'-6"	100	1.72
27"	3'-11"	9'-6"	85	1.39	14'-0"	115	2.00
30"	4'-2"	10'-0"	90	1.52	15'-0"	126	2.21
33"	4'-5"	11'-0"	100	1.73	16'-0"	130	2.42
36"	4'-8"	12'-0"	105	1.95	17'-0"	145	2.65
39"	4'-11"	12'-6"	130	2.09	18'-0"	170	2.88
42"	5'-2"	13'-6"	140	2.34	19'-0"	185	3.13
45"	5'-5"	14'-6"	150	2.60	20'-0"	195	3.38
48"	5'-8"	15'-0"	160	2.75	21'-0"	200	3.64
51"	5'-11"	16'-0"	180	3.03	22'-6"	225	4.02
54"	6'-2"	17'-0"	190	3.31	23'-6"	240	4.30

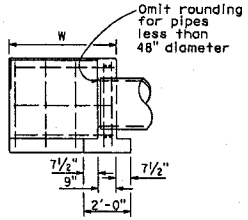
STRAIGHT HEADWALLS



SECTION, SINGLE &
DOUBLE HEADWALLS



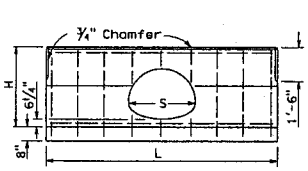
FRONT ELEVATION "L" HEADWALL



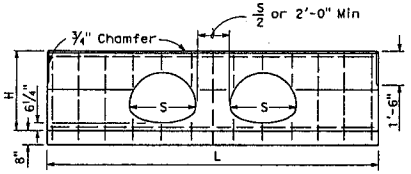
SECTION "L" HEADWALL

D	H	L/2	LENGTH OF W 3'-4" Steel LB	3'-4" Conc CY	4'-10" Steel LB	4'-10" Conc CY	6'-4" Steel LB	6'-4" Conc CY	7'-10" Steel LB	7'-10" Conc CY	9'-4" Steel LB	9'-4" Conc CY
12"	2'-8"	2'-6"	50	0.79	60	0.98	—	—	—	—	—	—
15"	2'-11"	3'-0"	55	0.91	65	1.11	—	—	—	—	—	—
18"	3'-2"	3'-6"	65	1.04	75	1.25	—	—	—	—	—	—
21"	3'-5"	3'-9"	75	1.15	90	1.36	—	—	—	—	—	—
24"	3'-8"	4'-3"	85	1.29	100	1.51	110	1.74	—	—	—	—
27"	3'-11"	4'-9"	90	1.44	105	1.67	115	1.91	—	—	—	—
30"	4'-2"	5'-0"	95	1.55	110	1.80	120	2.05	135	2.29	—	—
33"	4'-5"	5'-6"	105	1.71	120	1.97	135	2.23	150	2.48	—	—
36"	4'-8"	6'-0"	110	1.88	125	2.15	140	2.41	155	2.68	170	2.95
39"	4'-11"	6'-3"	—	—	150	2.28	170	2.56	185	2.84	200	3.12
42"	5'-2"	6'-9"	—	—	155	2.42	175	2.76	190	3.05	210	3.34
45"	5'-5"	7'-3"	—	—	—	—	180	2.97	200	3.27	215	3.57
48"	5'-8"	7'-6"	—	—	—	—	190	3.13	215	3.44	230	3.75
51"	5'-11"	8'-0"	—	—	—	—	—	—	220	3.67	235	3.99
54"	6'-2"	8'-6"	—	—	—	—	—	—	235	3.91	250	4.24

"L" HEADWALLS
CIRCULAR PIPE CULVERT HEADWALLS



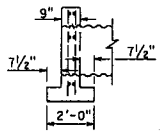
FRONT ELEVATION
SINGLE HEADWALL



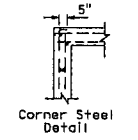
FRONT ELEVATION
DOUBLE HEADWALL

CMP ARCH SIZE	H	SINGLE L	SINGLE Steel LB	SINGLE Conc CY	DOUBLE L	DOUBLE Steel LB	DOUBLE Conc CY
21" x 15"	2'-11"	6'-6"	45	0.80	10'-0"	60	1.22
24" x 18"	3'-2"	7'-6"	50	0.96	11'-6"	70	1.45
28" x 20"	3'-4"	8'-6"	60	1.12	13'-6"	90	1.76
35" x 24"	3'-8"	10'-6"	85	1.47	15'-6"	120	2.16
42" x 29"	4'-1"	12'-6"	110	1.76	18'-0"	145	2.57
49" x 33"	4'-5"	14'-6"	130	2.26	21'-0"	170	3.13
57" x 38"	4'-10"	17'-0"	155	2.81	24'-6"	210	3.86
64" x 43"	5'-3"	19'-0"	175	3.31	27'-0"	230	4.42
71" x 47"	5'-7"	21'-0"	195	3.81	30'-0"	255	5.09

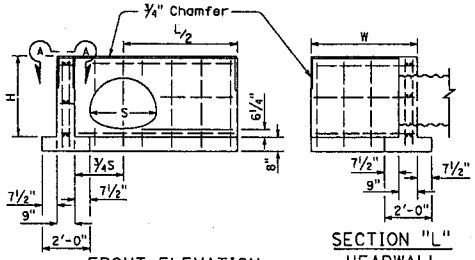
STRAIGHT HEADWALLS



SECTION, SINGLE &
DOUBLE HEADWALLS



SECTION A-A



FRONT ELEVATION
"L" HEADWALL

SECTION "L"
HEADWALL

CMP ARCH SIZE	H	L/2	LENGTH OF W 3'-4" Steel LB	3'-4" Conc CY	4'-10" Steel LB	4'-10" Conc CY	6'-4" Steel LB	6'-4" Conc CY	7'-10" Steel LB	7'-10" Conc CY	9'-4" Steel LB	9'-4" Conc CY
21" x 15"	2'-11"	3'-3"	60	1.00	65	1.18	75	1.38	90	1.58	100	1.77
24" x 18"	3'-2"	3'-9"	60	1.07	70	1.32	80	1.53	95	1.74	110	1.94
28" x 20"	3'-4"	4'-3"	70	1.26	80	1.47	90	1.68	100	1.90	115	2.11
35" x 24"	3'-8"	5'-3"	100	1.51	110	1.74	120	1.97	140	2.20	155	2.42
42" x 29"	4'-1"	6'-3"	115	1.82	130	2.06	140	2.31	155	2.55	170	2.83
49" x 33"	4'-5"	7'-3"	130	2.12	145	2.37	155	2.64	170	2.90	185	3.15
57" x 38"	4'-10"	8'-6"	145	2.52	160	2.79	175	3.07	190	3.35	205	3.61
64" x 43"	5'-3"	9'-6"	185	2.89	200	3.11	215	3.48	235	3.77	250	4.06
71" x 47"	5'-7"	10'-6"	200	3.25	215	3.56	235	3.86	250	4.17	270	4.48

"L" HEADWALLS
CORRUGATED METAL PIPE ARCH CULVERT HEADWALLS

NOTES:

1. No deduction made in quantities for thickness of pipe walls.
2. All reinforcing steel #4 bars. All vertical and horizontal tie bars 1'-6" maximum spacing.
3. Length of wall "W" may be varied to suit conditions encountered in the field, and straight line interpolation may be used to calculate quantities.
4. Quantities are for design purposes only.
5. Cable railing to be installed on top of headwall when shown on Project Plans. See Standard Plan B11-47 for cable railing details.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

Glenn DeCou
REGISTERED CIVIL ENGINEER

May 1, 2006
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Glenn DeCou
No. C34547
Exp. 9-30-07
CIVIL
STATE OF CALIFORNIA

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To get to the Caltrans web site, go to: http://www.dot.ca.gov

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PIPE CULVERT HEADWALLS STRAIGHT AND "L"

NO SCALE

D89

2006 STANDARD PLAN D89

176

2-6-06

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

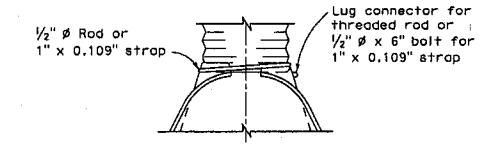
REGISTERED CIVIL ENGINEER

May 1, 2006
PLANS APPROVAL DATE

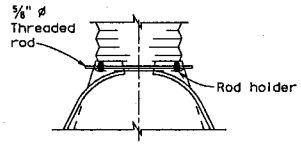
Glenn DeCou
No. C34547
Exp. 9-30-07
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

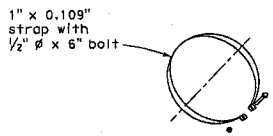
To get to the Caltrans web site, go to: http://www.dot.ca.gov



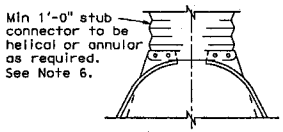
TYPE I



TYPE II



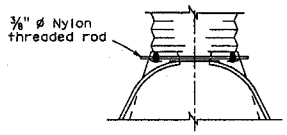
CONNECTOR STRAP DETAIL



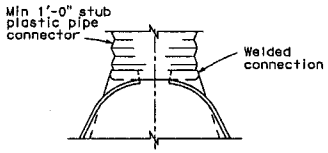
TYPE III

ALTERNATIVE CONNECTIONS FOR PIPE TO METAL FLARED END SECTIONS

See Note 7

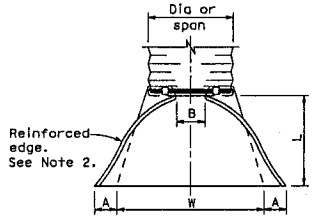


TYPE A
12" - 24"

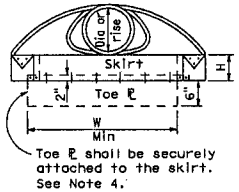


TYPE B
30" - 36"

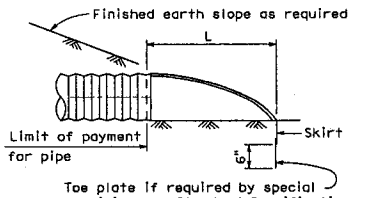
ALTERNATIVE CONNECTIONS FOR PIPE TO PLASTIC FLARED END SECTIONS



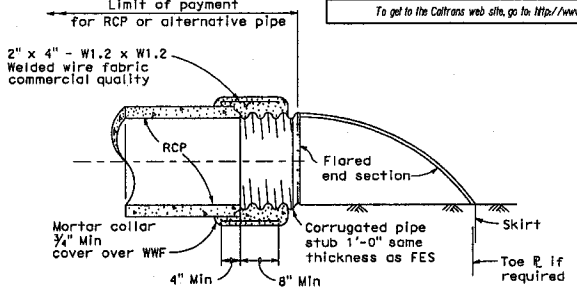
PLAN



ELEVATION



TYPICAL CROSS-SECTION



FLARED END SECTION CONNECTION TO RCP

NOTES:

1. All 3-piece bodies to have 0.109" thick sides and 0.138" thick center panels. Width of center panels to be greater than 20% of the pipe periphery. Multiple panel bodies to have lap seams which are to be tightly joined by rivets or bolts.
2. Reinforced edges to be supplemented with stiffener angles for the 60" thru 84" round, 77" x 52" and 83" x 57" pipe-arch sizes. The angles will be 2" x 2" x ¼" for the 60" thru 72" round, 77" x 52" and 83" x 57" pipe-arch sizes and 2½" x 2½" x ¼" for 78" and 84" round. The angles to be attached by ⅜" ø nuts and bolts.
3. Angle reinforcement shall be placed under the center panel seams on the 77" x 52" and 83" x 57" pipe-arch sizes.
4. Toe plate to be available as an accessory when specified.
5. End of pipe to be finished with annular corrugations to conform flared end section so that minimal leakage results from the connection. Other designs may be used with approval of the Engineer.
6. For 12" thru 24" helical end section connection, a universal coupling band attached to the metal end section by rivets, bolts or 1" long shop tack welds spaced at same intervals as dimples may be used in place of the 12" stub. See Standard Plan D97C.
7. The types of alternative connections for pipe to metal flared end sections shall conform to the following:

   CIRCULAR PIPES -
   12" thru 24" Type I or III
   30" thru 84" Type II or III

   PIPE-ARCHES -
   21" x 15" thru 57" x 38" Type II or III
   64" x 43" thru 83" x 57" Type III

CIRCULAR PIPES							
PIPE DIA	END SECTION THICKNESS	DIMENSION					
		A	B	H	L	W	
		1"±	Max	1"±	1½"±	2"±	
12"*	0.064"	6"	6"	6"	1'-9"	2'-0"	
15"*	0.064"	7"	8"	6"	2'-2"	2'-6"	
18"*	0.064"	8"	10"	6"	2'-7"	3'-0"	
21"	0.064"	9"	1'-0"	6"	3'-0"	3'-6"	
24"*	0.064"	10"	1'-1"	6"	3'-5"	4'-0"	
30"*	0.079"	1'-0"	1'-4"	8"	4'-3"	5'-0"	
36"*	0.079"	1'-2"	1'-7"	9"	5'-0"	6'-0"	
42"	0.109"	1'-4"	1'-10"	11"	5'-9"	7'-0"	
48"	0.109"	1'-6"	2'-3"	1'-0"	6'-6"	7'-6"	
54"	0.109"	1'-6"	2'-6"	1'-0"	7'-0"	8'-6"	
60"	0.109"	1'-6"	2'-9"	1'-0"	7'-3"	9'-6"	
66"	0.109"	1'-6"	3'-0"	1'-0"	7'-3"	10'-0"	
72"	0.109"	1'-6"	3'-3"	1'-0"	7'-3"	10'-6"	
78"	0.109"	1'-6"	3'-6"	1'-0"	7'-3"	11'-0"	
84"	0.109"	1'-6"	3'-9"	1'-0"	7'-3"	11'-6"	

* Equivalent plastic FES to meet AASHTO M-294 and ASTM D-1248 Specifications, and shall conform to all dimensions shown above except for end section thickness, which may be 0.004" thinner.

PIPE-ARCHES								
DESIGNATION		END SECTION THICKNESS	DIMENSION					
			A	B	H	L	W	
SPAN	RISE		1"±	Max	1"±	1½"±	2"±	
21"	15"	0.064"	7"	10"	6"	1'-11"	3'-0"	
24"	18"	0.064"	8"	1'-0"	6"	2'-4"	3'-6"	
28"	20"	0.064"	9"	1'-2"	6"	2'-8"	4'-0"	
35"	24"	0.079"	10"	1'-4"	6"	3'-3"	5'-0"	
42"	29"	0.079"	1'-0"	1'-6"	8"	3'-10"	6'-3"	
49"	33"	0.109"	1'-1"	1'-9"	9"	4'-5"	7'-1"	
57"	38"	0.109"	1'-6"	2'-2"	1'-0"	5'-3"	7'-6"	
64"	43"	0.109"	1'-6"	2'-6"	1'-0"	5'-10"	8'-6"	
71"	47"	0.109"	1'-6"	2'-9"	1'-0"	6'-5"	9'-6"	
77"	52"	0.109"	1'-6"	3'-0"	1'-0"	6'-5"	10'-6"	
83"	57"	0.109"	1'-6"	3'-3"	1'-0"	6'-5"	11'-6"	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL AND PLASTIC FLARED END SECTIONS

NO SCALE

FLARED END SECTIONS FOR CORRUGATED METAL AND PLASTIC PIPE CULVERTS

D94A

10-5-05

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

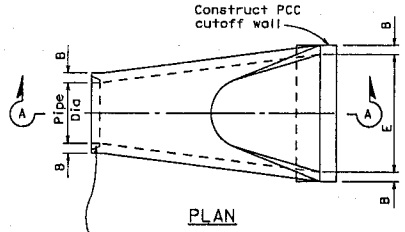
REGISTERED CIVIL ENGINEER

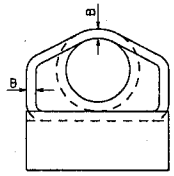
May 1, 2006
PLANS APPROVAL DATE

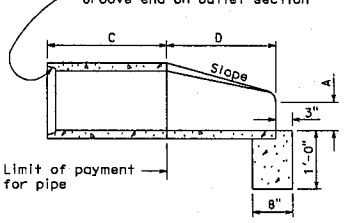
Glenn DeCou
No. C34547
EXP. 9-30-07
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To get to the Caltrans web site, go to: http://www.dot.ca.gov

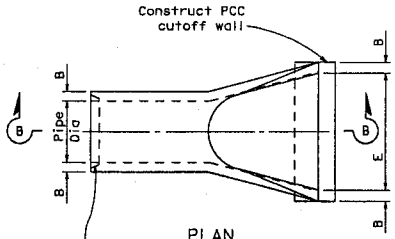


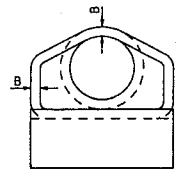


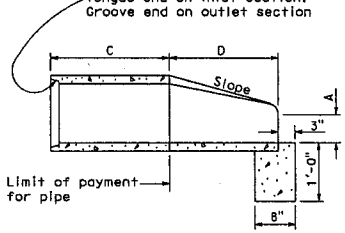


MINIMUM DIMENSIONS						
PIPE Dia	A	B	C	D	E	SLOPE
12"	4"	1¾"	See Note 2	2'-0"	2'-0"	2:1 or flatter
18"	9"	2¼"		2'-3"	3'-0"	
24"	9½"	2¾"		3'-7½"	4'-0"	
30"	1'-0"	3¼"		4'-6"	5'-0"	
36"	1'-3"	3¾"		5'-3"	6'-0"	
42"	1'-9"	4¼"		5'-3"	6'-6"	
48"	2'-0"	4¾"		6'-0"	7'-0"	
54"	2'-3"	5¼"		5'-5"	7'-6"	

PRECAST CONCRETE FLARED END SECTION TYPE A







MINIMUM DIMENSIONS						
PIPE Dia	A	B	C	D	E	SLOPE
12"	4"	1½"	See Note 2	1'-10"	2'-0"	2:1 or flatter
18"	9"	1¾"		2'-1"	3'-0"	
24"	9½"	2¼"		3'-6"	4'-0"	
30"	1'-0"	2¾"		4'-5"	5'-0"	
36"	1'-3"	3¼"		5'-2"	6'-0"	
42"	1'-9"	3½"		5'-3"	6'-6"	
48"	2'-0"	4"		6'-0"	7'-0"	
54"	2'-3"	4⅜"		5'-6"	6'-10"	

PRECAST CONCRETE FLARED END SECTION TYPE B

NOTES:

1. Contractor has the option of using either Type A or B precast concrete flared end section.
2. "C" dimension varies by manufacturer and will be paid for as concrete pipe.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CONCRETE FLARED END SECTIONS

NO SCALE

D94B

8-3-05

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

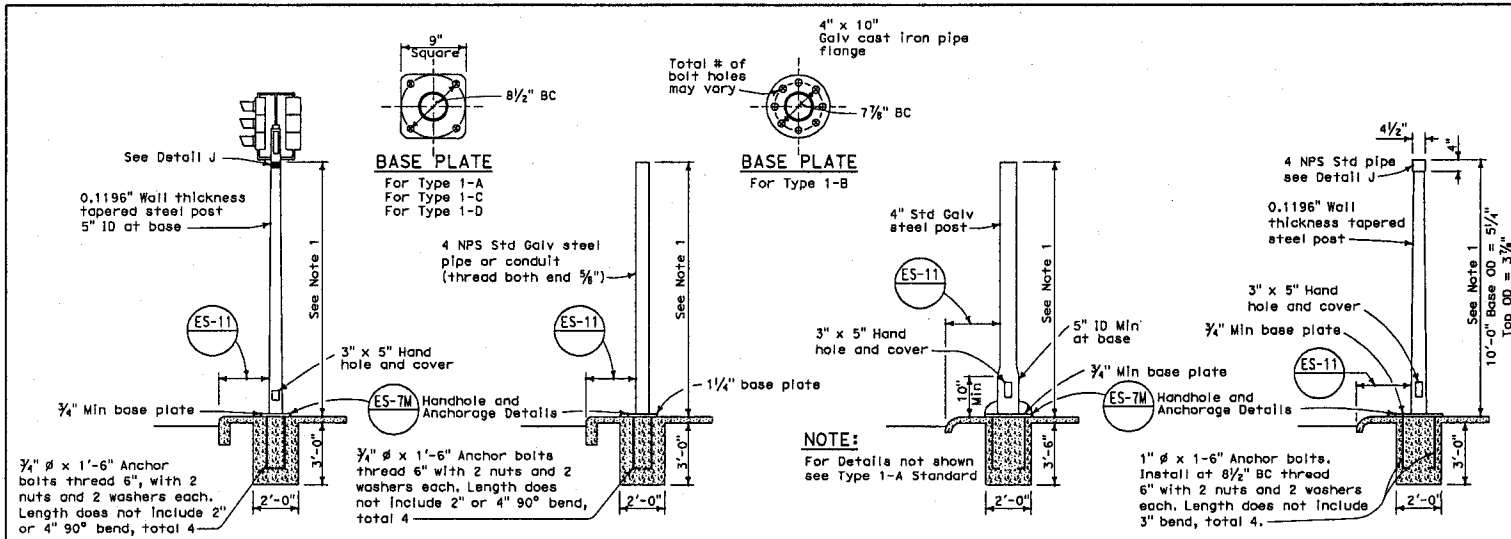
REGISTERED CIVIL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

REGISTERED PROFESSIONAL ENGINEER — Stanley P. Johnson — No. C57793 — Exp. 3-31-08 — CIVIL — STATE OF CALIFORNIA

To accompany plans dated _____

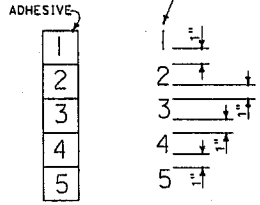


TYPE 1-A STANDARD | TYPE 1-B STANDARD | TYPE 1-C STANDARD | TYPE 1-D STANDARD

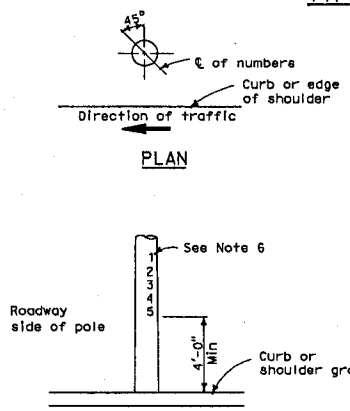
TYPE 1 SIGNAL STANDARDS

NOTES:

1. Standards shall be 10'-0" ± 2" for vehicle signals and 7'-0" ± 2" for pedestrian signals unless otherwise noted on plans.
2. Top of standards shall be 4½" OD.
3. Conduits shall extend 2" maximum above finished surface of foundation and for Types 1-A, 1-C and 1-D shall be sloped toward handhole.
4. Anchor bolts shall be bonded to conduit or grounding conductor.
5. Conduit between standard and adjacent pull box shall be 2" minimum.
6. Point numbers on roadway side facing traffic when electroller or post is left of direction of traffic.

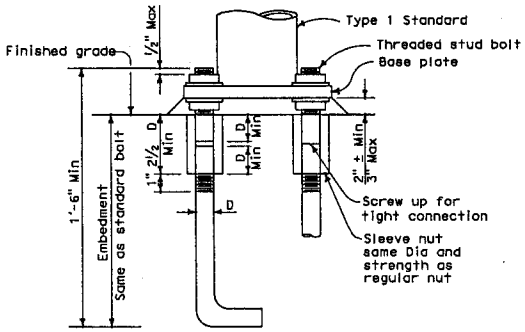


NUMBER DETAIL



TYPICAL NUMBER FORMAT

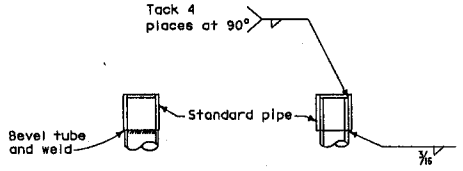
LOCATION OF EQUIPMENT NUMBERS ON STANDARDS AND POSTS



ANCHOR BOLTS WITH SLEEVE NUTS

Sleeve nuts to be used only when shown or specified on Project Plans

D = Diameter of anchor bolt



DETAIL J

Tube may be inserted into pipe or butted as required

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SIGNAL AND LIGHTING STANDARD TYPE 1 STANDARD AND EQUIPMENT NUMBERING)

NO SCALE

RSP ES-7B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-7B DATED MAY 1, 2006 - PAGE 438 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-7B

7-19-07

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[1] 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

[1] 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 Inspections					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.[2]

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.

[2] 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.

OFFICE OF
CLERK OF THE BOARD OF SUPERVISORS
1st FLOOR, COUNTY ADMINISTRATIVE CENTER
P.O. BOX 1147, 4080 LEMON STREET
RIVERSIDE, CA 92502-1147
PHONE: (951) 955-1060
FAX: (951) 955-1071

KECIA HARPER-IHEM
Clerk of the Board of Supervisors

KIMBERLY A. RECTOR
Assistant Clerk of the Board

December 20, 2010

THE PRESS ENTERPRISE
ATTN: LEGALS
PO BOX 792
RIVERSIDE, CA 92501

FAX (951) 368-9018
E-MAIL: legals@pe.com

RE: NOTICE INVITING BIDS: RAMONA EXPRESSWAY FROM FIFTH ST. TO WARREN ROAD B9-0960

To Whom It May Concern:

Attached is a copy for publication in your newspaper for **TEN (10) TIMES:**

Wednesday	- December 22, 2010	Monday	- December 27, 2010
Thursday	- December 23, 2010	Tuesday	- December 28, 2010
Friday	- December 24, 2010	Wednesday	- December 29, 2010
Saturday	- December 25, 2010	Thursday	- December 30, 2010
Sunday	- December 26, 2010	Friday	- December 31, 2010

We require your affidavit of publication immediately upon completion of the last publication.

Your invoice must be submitted to this office in duplicate, WITH TWO CLIPPINGS OF THE PUBLICATION.

NOTE: PLEASE COMPOSE THIS PUBLICATION INTO A SINGLE COLUMN FORMAT.

Thank you in advance for your assistance and expertise.

Sincerely,

Mcgil

Cecilia Gil, Board Assistant to
KECIA HARPER-IHEM, CLERK OF THE BOARD

Gil, Cecilia

From: PE Legals [legals@pe.com]
Sent: Monday, December 20, 2010 9:08 AM
To: Gil, Cecilia
Subject: RE: FOR PUBLICATION: RAMONA EXPWY FROM FIFTH TO WARREN B9-060

Received for publication from Dec. 22 to 31st

Please Note: The Press Enterprise Offices will be closed on Friday, December 24th in observance of the Christmas Holiday and on Friday, December, 31st in observance of the New Years Day Holiday. Our Legal Advertising Holiday deadlines are as follows:

Pub Date	Deadline to PE
Dec. 22 & 23	12/20 @ 10:30 AM
Dec. 24 & 25	12/21 @ 10:30 AM
Dec. 26 – 28	12/22 @ 10:30 AM
Dec. 29 & 30	12/27 @ 10:30 AM
Dec. 31 & Jan. 1	12/28 @ 10:30 AM
Jan. 2 – Jan. 4	12/29 @ 10:30 AM

From: Gil, Cecilia [mailto:CCGIL@rcbos.org]
Sent: Monday, December 20, 2010 8:32 AM
To: PE Legals
Subject: FOR PUBLICATION: RAMONA EXPWY FROM FIFTH TO WARREN B9-060

One more Notice Inviting Bids for publication from Dec. 22 to Dec. 31, 2010. Please confirm. THANK YOU!

Cecilia Gil
Board Assistant to the
Clerk of the Board of Supervisors
951-955-8464

THE COUNTY ADMINISTRATIVE CENTER IS CLOSED EVERY FRIDAY UNTIL FURTHER NOTICE.
PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING.

NOTICE INVITING BIDS

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

RAMONA EXPRESSWAY
RESURFACING AND ROAD WIDENING PROJECT

FROM FIFTH STREET TO WARREN ROAD
PROJECT NO. B9-0960

Proposal shall be delivered to the Riverside County Transportation Department, 14th Street Annex, 3525 14th Street, Riverside, California 92501, telephone (951) 955-6780 not later than 2:00 p.m., on Wednesday, January 5, 2011, to be promptly opened in public at said address. Each proposal shall be in accordance with plans, specifications, and other contract documents, dated November 2010, and prepared by County of Riverside, whose address is same as the above, from whom they may be obtained upon deposit of $35.00 per set plus mailing. No refund. Prospective bidders may preview the plans, specifications and other contract documents, at no charge prior to purchase, at the above noted location.

The Contractor is required to have a Class "A" license or C-12 license at the time of bid submission.

Engineering Estimate:	$ 3,984,000 - $4,648,000 (Base Bid)
	$ 49,800 - $ 58,000 (Alternate 1)
Bid Bond	10%
Performance Bond	100%
Payment Bond	100%
Working Days	60 Working Days

www.tlma.co.riverside.ca.us/trans

Dated: December 20, 2010

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

THE PRESS-ENTERPRISE PEcom

Legal Advertising Invoice

⑨ REMITTANCE ADDRESS
POST OFFICE BOX 12009
RIVERSIDE, CA 92502-2209
FAX (951) 368-9026

① BILLING PERIOD: 12/31/10 - 12/31/10
② ADVERTISING/CLIENT NAME: BOARD OF SUPERVISORS
⑤ BILLING DATE: 12/31/10
FOR BILLING INFORMATION CALL: (951) 368-9713
④ PAGE NO: 1
㉓ TOTAL AMOUNT DUE: 1,004.30
* UNAPPLIED AMOUNT
③ TERMS OF PAYMENT: Due Upon Receipt

⑧ BILLED ACCOUNT NAME AND ADDRESS
BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE
P.O. BOX 1147
RIVERSIDE CA 92502

⑥ BILLED ACCOUNT NUMBER: 045202
REP NO: LE04

Statement #: 56576211 Amount Paid $_____ Your Check #_____

PLEASE DETACH AND RETURN UPPER PORTION WITH YOUR REMITTANCE

⑩ DATE	⑪ REFERENCE	⑫ ⑬ ⑭ DESCRIPTION-OTHER COMMENTS/CHARGES	⑮ SAU SIZE ⑯ BILLED UNITS	⑱ RATE	⑲ GROSS AMOUNT ⑳ NET AMOUNT
12/22	4258427 CO	NIB - RAMONA EXPRESSWAY Class : 10 Ctext Ad# 10502151 Placed By : Cecilia Gil	83 L	1.30	107.90
12/23	4258427 CO	NIB - RAMONA EXPRESSWAY Class : 10 Ctext Ad# 10502151 Placed By : Cecilia Gil	83 L	1.20	99.60
12/24	4258427 CO	NIB - RAMONA EXPRESSWAY Class : 10 Ctext Ad# 10502151 Placed By : Cecilia Gil	83 L	1.20	99.60
12/25	4258427 CO	NIB - RAMONA EXPRESSWAY Class : 10 Ctext Ad# 10502151 Placed By : Cecilia Gil	83 L	1.20	99.60
12/26	4258427 CO	NIB - RAMONA EXPRESSWAY Class : 10 Ctext Ad# 10502151 Placed By : Cecilia Gil	83 L	1.20	99.60
12/27	4258427 CO	NIB - RAMONA EXPRESSWAY Class : 10 Ctext Ad# 10502151 Placed By : Cecilia Gil	83 L	1.20	99.60
12/28	4258427 CO	NIB - RAMONA EXPRESSWAY Class : 10 Ctext Ad# 10502151 Placed By : Cecilia Gil	83 L	1.20	99.60
12/29	4258427 CO	NIB - RAMONA EXPRESSWAY Class : 10 Ctext Ad# 10502151 Placed By : Cecilia Gil	83 L	1.20	99.60
12/30	4258427 CO	NIB - RAMONA EXPRESSWAY Class : 10 Ctext Ad# 10502151 Placed By : Cecilia Gil	83 L	1.20	99.60
12/31	4258427 CO	NIB - RAMONA EXPRESSWAY Class : 10 Ctext Ad# 10502151 Placed By : Cecilia Gil	83 L	1.20	99.60

Transp.
3.58 eq 12/14/10

RECEIVED RIVERSIDE COUNTY
CLERK/BOARD OF SUPERVISORS
2011 JAN 11 PM 12:33

㉑ CURRENT NET AMOUNT DUE	㉒ 30 DAYS	60 DAYS	OVER 90 DAYS	* UNAPPLIED AMOUNT	㉔ PLEASE PAY THIS AMOUNT
					1,004.30

THE PRESS-ENTERPRISE PEcom
P.O. BOX 12009
RIVERSIDE, CA 92502-2209
TELEPHONE (951) 368-9711
(951) 368-9720 ▯ (951) 368-9713

ADVERTISING
STATEMENT/INVOICE

SBI™

* UNAPPLIED AMOUNTS ARE INCLUDED IN TOTAL AMOUNT DUE

㉔ STATEMENT NUMBER	㉕ ADVERTISER INFORMATION ① BILLING PERIOD	⑥ BILLED ACCOUNT NUMBER	⑦ ADVERTISER/CLIENT NUMBER	② ADVERTISER/CLIENT NAME
56576211	12/31/10 - 12/31/10	045202		BOARD OF SUPERVISORS

THE PRESS-ENTERPRISE

3450 Fourteenth Street
Riverside CA 92501-3878
951-684-1200
951-368-9018 FAX

PROOF OF PUBLICATION
(2010, 2015.5 C.C.P.)

Press-Enterprise

PROOF OF PUBLICATION OF

Ad Desc.: NIB - Ramona Expressway

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 of 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 and under date of August 25, 1995, Case Number 267864; 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:

12-22-10
12-23-10
12-24-10
12-25-10
12-26-10
12-27-10
12-28-10
12-29-10
12-30-10
12-31-10

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

Date: Dec. 31, 2010
At: Riverside, California

BOARD OF SUPERVISORS

P.O. BOX 1147
COUNTY OF RIVERSIDE
RIVERSIDE CA 92502

Ad #: 10502151

PO #:

Agency #: _____

Ad Copy:

NOTICE INVITING BIDS

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

RAMONA EXPRESSWAY
RESURFACING AND ROAD WIDENING PROJECT
FROM FIFTH STREET TO WARREN ROAD
PROJECT NO. B9-0960

Proposal shall be delivered to the Riverside County Transportation Department, 14th Street Annex, 3525 14th Street, Riverside, California 92501, telephone (951) 955-6780 not later than 2:00 p.m., on Wednesday, January 5, 2011, to be promptly opened in public at said address. Each proposal shall be in accordance with plans, specifications, and other contract documents, dated November 2010, and prepared by County of Riverside, whose address is same as the above, from whom they may be obtained upon deposit of $35.00 per set plus mailing. No refund. Prospective bidders may preview the plans, specifications and other contract documents, at no charge prior to purchase, at the above noted location.

The Contractor is required to have a Class "A" license or C-12 license at the time of bid submission.

Engineering Estimate: ..... $3,984,000 - $4,648,000 (Base Bid)
$ 49,800 - $ 58,000 (Alternate 1)
Bid Bond 10%
Performance Bond 100%
Payment Bond 100%
Working Days ..... 60 Working Days

www.tlma.co.riverside.ca.us/trans

Dated: December 20, 2010
Kecia Harper-Ihem, Clerk of the Board
By: Cecilia Gil, Board Assistant 12/22 - 12/31