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. Should the Contractor elect 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 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 specifed 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.

**Payment:**

Hot Mix Asphalt 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 the preparation of existing asphalt concrete pavement for resurfacing including the furnishing and applying asphaltic emulsion (paint binder) shall be considered as included in the contract price paid for Hot Mix Asphalt.

**PAVEMENT REINFORCING FABRIC:**

This work shall consist of furnishing and placing the engineered fiber glass fabric within the pavement structure as shown on the plans or as directed by the Engineer. The engineered fiber glass fabric placing beneath the hot mix asphalt, shall provide a moisture barrier/stress relieving membrane and meeting the following physical properties table.

| PHYSICAL PROPERTIES OF ENGINEERED FIBER GLASS FABRIC | | | |
|---|---|---|---|
| **Property** | **Test Method** | **Units** | **MARV*** |
| | | | |
| Mass per unit area | ASTM D5261 | g/m2 (oz/yd2) | 125 (3.69) |
| Tensile strength, MD | ASTM D5035 | N/50 mm (lb/2 in) | 200 (45) |
| Tensile Strength, CD | ASTM D5035 | N/50 mm (lb/2 in) | 200 (45) |
| Elongation at maximum load, MI | ASTM D5035 | percent | <5 |
| Elongation at maximum load, CD | ASTM D5035 | percent | <5 |
| Melting point | ASTM D276 | C ( F) | >230 (>446) |
| | | | |
| * MARV = Minimum Average Roll Value | | | |

The same asphalt binder to be used in the first hot mix asphalt layer over the engineered fiber glass fabric shall be used as the tack coat material for the engineered fiber glass fabric, unless the manufacturer of the engineered fiber glass fabric material recommends a higher performance grade asphalt binder. Asphalt binder for use as tack coat shall be at least PG 70-XX.

Clean sand may be used for blotting purposes if necessary. Sand shall be a washed sand meeting the approval of the Engineer.

Equipment used to place the asphalt tack for the engineered fiber glass fabric, to install the engineered fiber glass fabric or to roll the engineered fiber glass fabric into the tack coat shall be in accordance with the manufacturer's recommendations.

**Construction Requirements:**

The engineered fiber glass fabric shall be stored as per the manufacturer's recommendations in a dry covered condition free from dust, dirt, and moisture. The engineered fiber glass fabric shall be installed in accordance with the manufacturer's specifications and these Special Provisions. Where a conflict exists between the specifications, the more stringent specifications will apply. A copy of the manufacturer's specifications shall be provided to the Engineer at the pre-construction meeting or no later than five working days prior to installation. A manufacturer representative shall be present, at minimum, for the first two days of installation of the engineered fiber glass fabric and available thereafter upon request by the Engineer. This requirement may be waived by the Engineer under the following conditions:

a. The Contractor has been certified by the manufacturer for installation of the engineered fiber glass fabric.

b. A manufacturer representative will be on at least the first two days of paving to ensure the certified Contractor's installation is correct.

The surface on which the engineered fiber glass fabric is to be placed shall be reasonably free of dirt, water, vegetation or other debris. The engineered fiber glass fabric shall be placed on a drainable surface, and any rutting or low spots in the pavement shall be removed by milling or by the use of a leveling course as shown on the plans. Cracks exceeding 1/8 inch in width shall be filled with suitable crack filler. Potholes shall be properly repaired as directed by the Engineer. Fillers shall be allowed to cure prior to placement of the engineered fiber glass fabric.

Neither the asphalt binder nor the engineered fiber glass fabric shall be placed when weather conditions, in the judgment of the Engineer, are not suitable. Air and pavement temperature shall be sufficient to allow the tack coat to hold the engineered fiber glass fabric in place. The air temperature shall be 50°F and rising for placement of the asphalt tack coat.

The application rate of tack coat shall be 0.20 gal/square yard +/- 0.03 gal/square yard. Tack coat application rate shall be sufficient to satisfy the asphalt retention properties of the engineered fiber glass fabric and to bond the engineered fiber glass fabric and hot mix asphalt overlay to the existing pavement. If the engineered fiber glass fabric is to be placed in milled areas, it is recommended that the milled area be pre-treated with the tack coat in order to ensure enough tack material is present to bond the engineered fiber glass fabric and create a suitable moisture barrier.

Application of the tack coat shall be by a calibrated distributor truck spray bar. Hand spraying, squeegee and brush application will only be allowed where the distributor truck does not have room to operate and shall be kept to a minimum. Temperature of the tack coat shall be sufficiently high enough to permit uniform spray pattern and shall be between 300°F and 400°F. It is recommended that tack coat be at least 350°F.

The target width of the tack coat application shall be the engineered fiber glass fabric material width plus 4 inches. Tack coat application shall be wide enough to cover the entire width of engineered fiber glass fabric material overlaps. The tack coat shall be applied only as far in advance of the engineered fiber glass fabric material installation as is appropriate to ensure a tacky surface at the time of the engineered fiber glass fabric material placement. Traffic shall not be allowed on the tack coat.

The engineered fiber glass fabric shall be placed onto the tack coat with minimum folds or wrinkles and before the tack coat has cooled and lost tackiness. As directed by the Engineer, wrinkles or folds in excess of 1 inch shall be slit and laid flat or pulled out and replace. In these repaired areas, additional tack coat shall be applied as needed to achieve a sound bond to the substrate. Damaged engineered fiber glass fabric shall be removed and replaced, per the manufacturer's recommendations, at the Contractor's expense with the same type of material.

Overlap of engineered fiber glass fabric joints shall be sufficient to ensure full closure of the joint, but shall not exceed 6 inches. Transverse joints shall be lapped in the direction of paving to prevent edge pickup by the paver. A second application of tack coat shall be placed beneath the overlapping engineered fiber glass fabric to ensure proper bonding of the double material layer.

Brooming, squeegee or pneumatic rolling shall be used to remove any air bubbles and to maximize engineered fiber glass fabric contact with the pavement surface and shall be done in accordance with the manufacturer's specifications and to the satisfaction of the Engineer.

Excess tack coat that bleeds through the engineered fiber glass fabric shall be removed by broadcasting clean sand on the engineered fiber glass fabric interlayer. Broadcasting of clean sand may also be used to facilitate movement of equipment during construction, to prevent tearing or delaminating of the engineered fiber glass fabric or to prevent pickup by the paving machine. If sand is applied, any excess sand shall be removed from the interlayer prior to placing hot mix asphalt overlay. Scattering loose hot mix asphalt out in front of the paver tires will also be permissible. No other material, such as asphalt release agents or diesel, shall be used for this purpose.

No traffic, except necessary construction traffic or emergency vehicles, shall be driven on the engineered fiber glass fabric, unless approved by the Engineer. If traffic on the interlayer is approved by the Engineer, clean sand shall be lightly broadcasted over the engineered fiber glass fabric interlayer, and any loose sand shall be removed prior to paving.

Placement of the first lift of hot mix asphalt overlay shall closely follow placement of the engineered fiber glass fabric. All areas in which the engineered fiber glass fabric has been placed shall be paved during the same day, unless approved otherwise by the Engineer. In the event of rainfall on the engineered fiber glass fabric prior to the placement of the first hot mix asphalt overlay lift, the engineered fiber glass fabric shall be allowed to dry before the hot mix asphalt is placed. The compacted thickness of the first lift of hot mix asphalt overlay on the engineered fiber glass fabric shall not be less than 1.5 inches, and the temperature of the mix at placement shall not exceed the engineered fiber glass fabric melting point temperature. Where the total hot mix asphalt overlay thickness is less than 1.5 inches, engineered fiber glass fabric shall not be placed.

**Payment:**

The contract unit bid price paid per square yard for Pavement Reinforced Fabric (Fiber Glass Fabric) shall include full compensation for all labor, materials, tools, equipment, and incidentals, for doing all the work involved in placement of the engineered fiber glass fabric, complete in place, as shown on the plans, and no additional compensation will be allowed therefor.

## ASPHALT CONCRETE DIKE AND OVERSIDE DRAIN:

Asphalt concrete dikes and overside drains shall conform to the Caltrans Standard Plans, County Road Improvement Standards And Specifications, as specified and as directed by the Engineer.

The pay quantity of asphalt concrete dikes and overside drains, the placing of which are to be paid for as a separate item of work in addition to the price paid for the asphalt concrete material.

The contract unit bid prices paid per linear foot for Asphalt Concrete Dike and per each for Asphalt Concrete Overside Drain, which prices shall include full compensation for furnishing all labor, material, tools, and equipment and doing all the work involved including the removal of existing asphalt concrete structures, the furnishing and installing the taper inlets and flume downdrains, complete in place and compacting, and no additional compensation will be allowed therefor.

Asphalt binder to be mixed with the aggregate shall be PG 70-10 for Asphalt Concrete Dike and Asphalt Concrete Overside Drain in accordance with the Special Provisions for Asphalts, or as directed by the Engineer.

**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 |

The compensation payable for asphalt concrete 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 adjustment in compensation will be determined in conformance with the following formulae when the item of asphalt concrete and asphalt rubber hot mix 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 tonne {ton} of paving asphalt used to produce asphalt rubber hot mix 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 tonnes {tons} of paving asphalt that was used in producing the quantity of asphalt concrete shown under "This Estimate" on the monthly estimate using the amount of asphalt determined by the Engineer.

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.

**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.

**METAL BEAM GUARD RAILING:**

Metal beam guard railing including terminal system (type SRT) shall conform to the provisions of Section 83 of the Standard Specifications, and these Special Provisions.

TERMINAL SYSTEM (TYPE SRT):

Terminal system shall be furnished and installed as shown on the plans and in conformance with these Special Provisions.

Terminal system (Type SRT) shall be an SRT-350 Slotted Rail Terminal (8-post system) as manufactured by Trinity Industries, Inc., and shall include items detailed for terminal system (Type SRT) shown on the plans. The SRT-350 Slotted Rail Terminal (8-post system) can be obtained from the manufacturer, Trinity Industries, Inc., P.O. Box 99, 950 West 400S, Centerville, UT 84014, Telephone (800) 772-7976.

The Contractor shall provide the Engineer with a Certificate of Compliance from the manufacturer in conformance with the provisions in Section 6-1.07, "Certificates of Compliance" of the Standard Specifications.

Surplus excavated material remaining after the terminal system has been installed shall be disposed of in a uniform manner along the adjacent roadway where designated by the Engineer.

Payment will be made at the contract bid price per linear foot for Metal Beam Guard Railing including Terminal System (Type SRT), and shall be considered as full compensation for furnishing all labor, materials (including anchor assemblies and end sections), tools, equipment and incidentals, and for doing all work involved in constructing the barrier, complete in place including excavation and backfilling barrier post holes and cable anchor assembly holes, the removal of existing metal beam guard railing and shoulder grading, and no additional compensation will be allowed therefor.

**THERMOPLASTIC PAVEMENT MARKING:**

Thermoplastic pavement markings shall conform to the provisions in Sections 84-1, "General", and 84-2, "Thermoplastic Traffic Stripes and Pavement Markings" of the Standard Specifications and these Special Provisions.

At the option of the Contractor, STAMARK Brand Pavement Tape, Pliant Polymer Grade, manufactured by the 3M Company; or Cata-Tile Elastoplastic Roadmarking Tile, manufactured by the Cataphote Division of the Ferro Corporation; or STAMARK Brand Pavement Tape, Bisymmetric 1.75 Grade, manufactured by the 3M Company, may be placed instead of the thermoplastic pavement markings specified herein. Pavement tape and roadmarking tile, if used, shall be installed in accordance with the manufacturer's specifications. If pavement tape or roadmarking tile is placed instead of thermoplastic pavement markings, the pavement tape or roadmarking tile will be measured and paid for as Thermoplastic Pavement Marking.

**Payment:**

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

**PAINT TRAFFIC STRIPE:**

Painting traffic stripe shall conform to the provisions in Sections 84-1, "General" and 84-3, "Painted Traffic Stripes and Pavement Markings" of the Standard Specifications and these Special Provisions.

Traffic striping shall be applied in two coats with airless equipment and shall be performed with a roadliner truck mounted striping machine. Where the configuration or location of a traffic stripe is such that the use of a roadliner truck mounted striping machine is unsuitable, traffic striping and glass spheres may be applied by other methods and equipment approved by the Engineer.

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 Engineer shall approve the layout of all striping and pavement markings prior to installation of striping and pavement markings.

The contract 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.

**PAVEMENT MARKER:**

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 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.

**SHOULDER BACKING:**

Shoulder backing shall provide for the grading of the shoulder as per plans prior to pulverizing existing asphalt concrete, or as directed by the Engineer. Unless otherwise specified, the width of the shoulder backing shall be six feet minimum, measured from the edge of pavement.

Shoulder Backing material must be placed adjacent to the road prior to beginning each nights work. Shoulder Backing must be graded and in place prior to opening the road to traffic each night.

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.

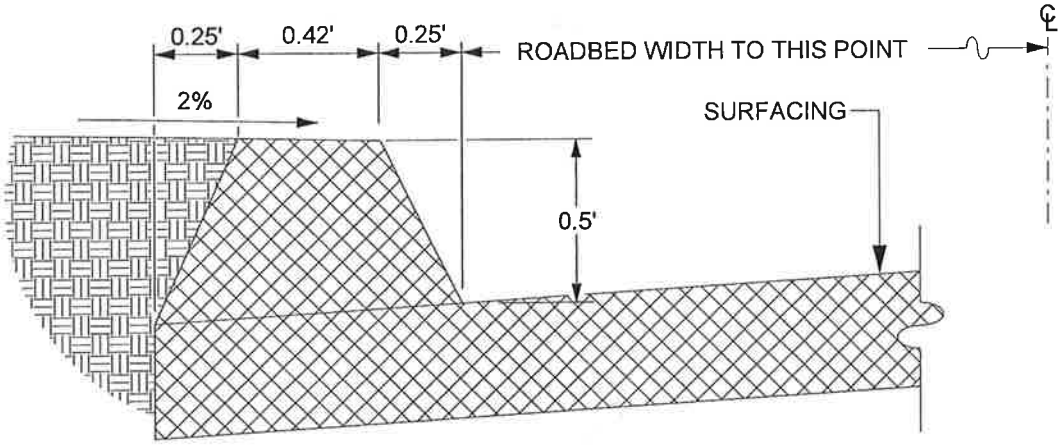
Payment for Shoulder Backing will be paid at the linear foot price bid and shall include full compensation for furnishing all labor, materials, tools, and equipment, including the importing of material and/or the handling of onsite material, and no separate payment will be allowed therefor.

**RUMBLE STRIP:**

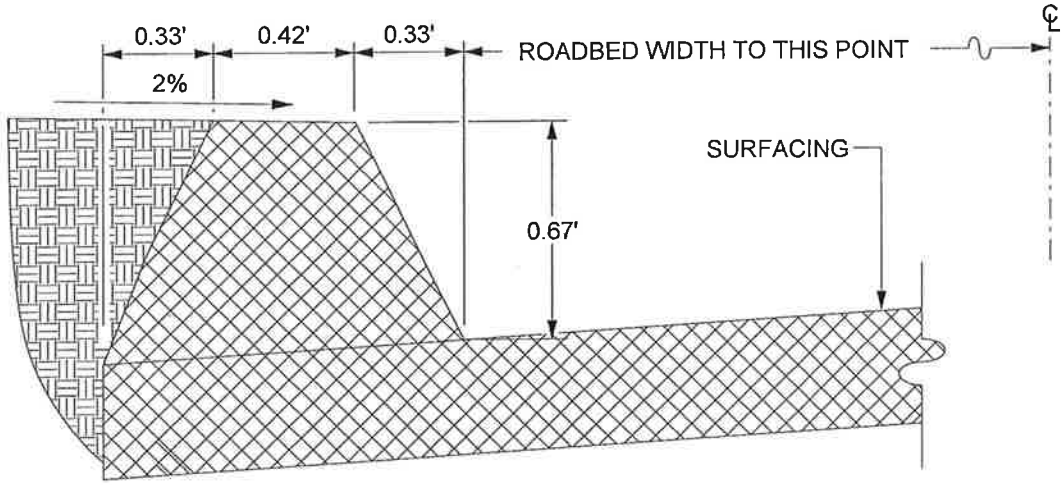
Construction of Rolled-In Indentations shall be per Caltrans Plan No. A40A. Indentation shall be completed prior to striping.

The contract unit bid price paid per linear foot for Rumble Strip 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 therefore.

# REFERENCE DRAWINGS




6" A.C. DIKE




8" A.C. DIKE

NOT TO SCALE

NOTE: A.C. DIKE REQUIRED WHERE FILL SLOPES ARE STEEPER THAN 4:1, MATERIAL IS SUSCEPTIBLE TO EROSION, OR WHERE ROADWAY GRADIENT EXCEEDS 3%.

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

| REVISIONS | | REV. | BY: | APR'D | DATE | REV. | BY: | APR'D | DATE |
|---|---|---|---|---|---|---|---|---|---|
| | | 1 | | | | 4 | | | |
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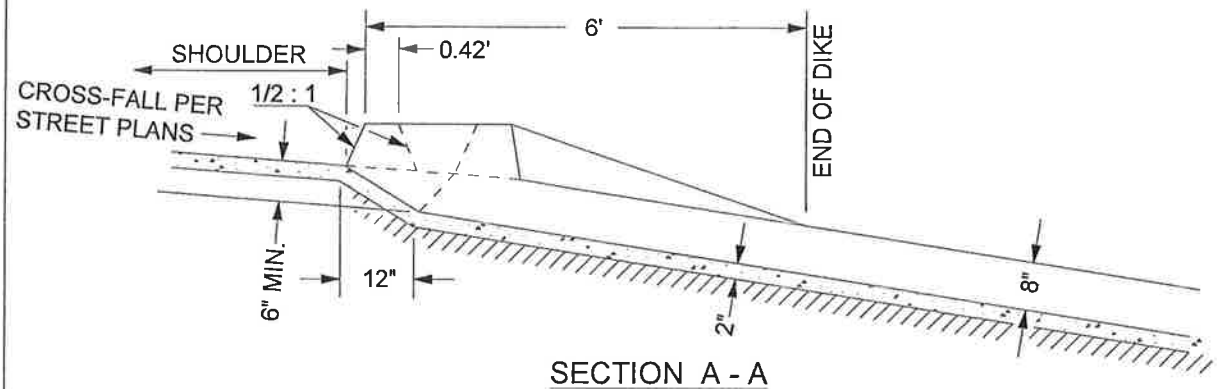
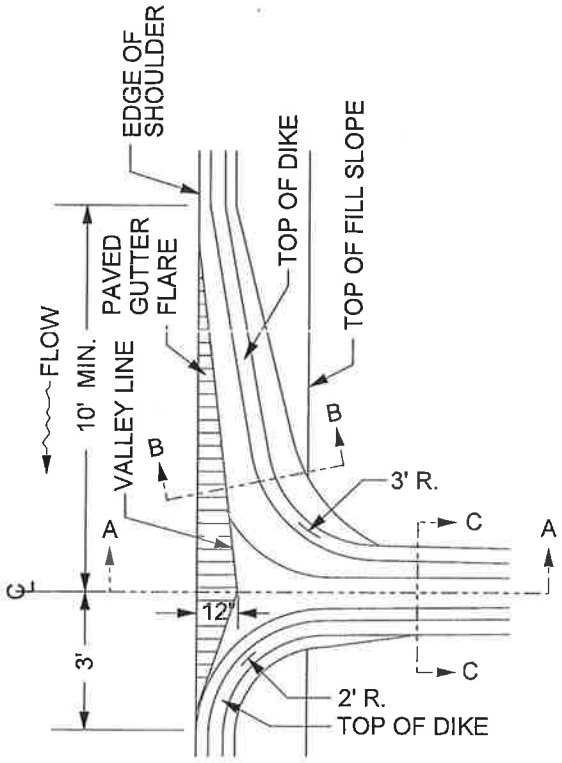
COUNTY OF RIVERSIDE

# ASPHALT CONCRETE DIKES

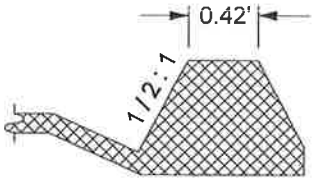
STANDARD NO. 212




SECTION A - A

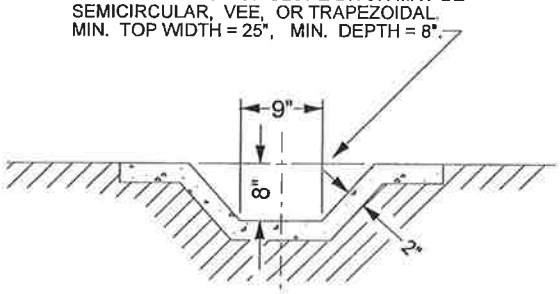



PLAN




SECTION B - B

NOTE:
CROSS - SECTION OF SLOPE DITCH MAY BE SEMICIRCULAR, VEE, OR TRAPEZOIDAL. MIN. TOP WIDTH = 25", MIN. DEPTH = 8".




SECTION C - C

NOT TO SCALE

TO BE USED ON FILL SLOPES FLATTER THAN 4 : 1. USE MIN. 10' LENGTH OF GUTTER ON BOTH SIDES IN A SAG LOCATION. USE PIPE DOWNDRAINS FOR SLOPES STEEPER THAN 4 : 1 SLOPES.

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

# ASPHALT CONCRETE OVERSIDE DRAIN

STANDARD NO. 306

| REVISIONS | | REV. | BY: | APR'D | DATE | REV. | BY: | APR'D | DATE |
|---|---|---|---|---|---|---|---|---|---|
| 8-18-77, 2-82 | | 1 | | | | 4 | | | |
| 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. C38301 — Exp. 6-30-06 — CIVIL — STATE OF CALIFORNIA

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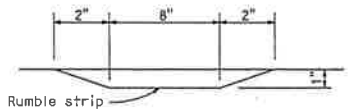
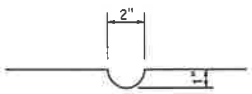
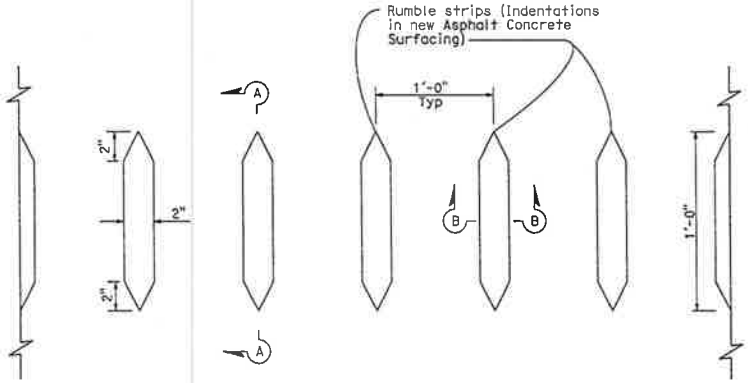


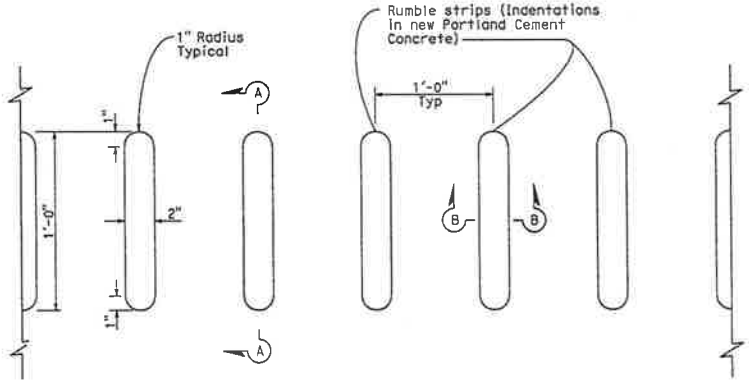

SECTION A-A



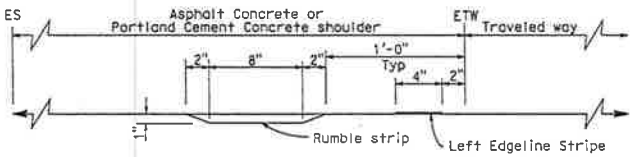

SECTION B-B



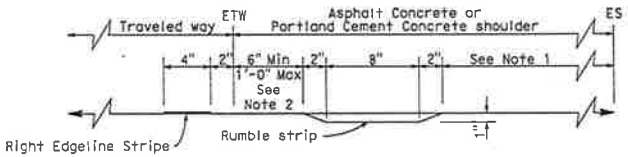

PLAN
ASPHALT CONCRETE SURFACING
ROLLED-IN INDENTATIONS
DETAIL A




PLAN
PORTLAND CEMENT CONCRETE
ROLLED-IN INDENTATIONS
DETAIL B




RUMBLE STRIP PLACEMENT
LEFT OF DIRECTION OF TRAVEL




RUMBLE STRIP PLACEMENT
RIGHT OF DIRECTION OF TRAVEL

## TYPICAL ROLLED-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 ROLLED-IN INDENTATIONS

NO SCALE

**A40A**

10-14-05



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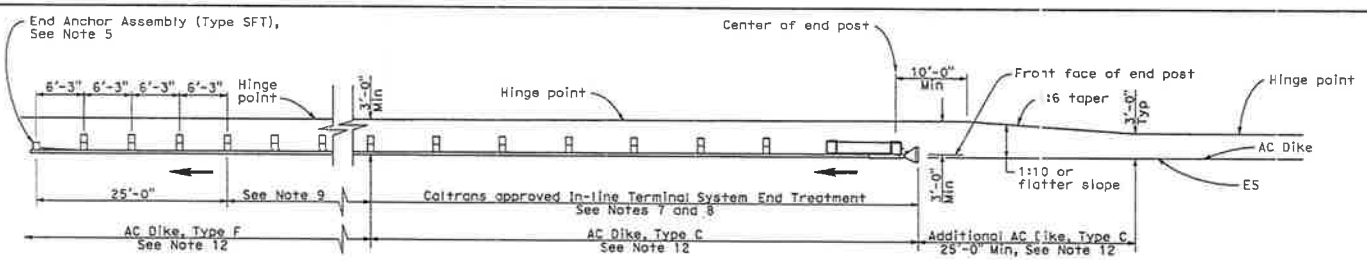
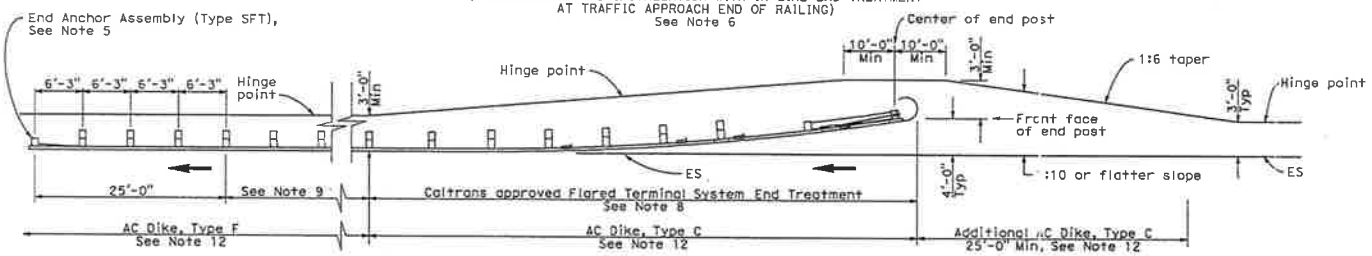


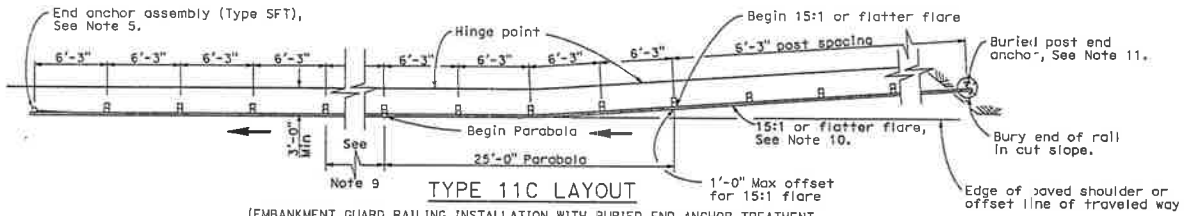

## TYPE 11A LAYOUT

(EMBANKMENT GUARD INSTALLATION WITH IN-LINE END TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Note 6



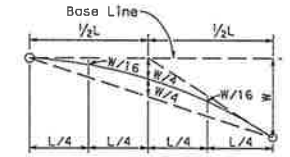

## TYPE 11B LAYOUT

(EMBANKMENT GUARD RAILING INSTALLATION WITH FLARED END TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Note 6

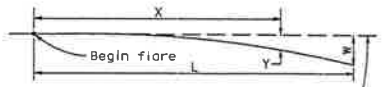



## TYPE 11C LAYOUT

(EMBANKMENT GUARD RAILING INSTALLATION WITH BURIED END ANCHOR TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Notes 6 and 12



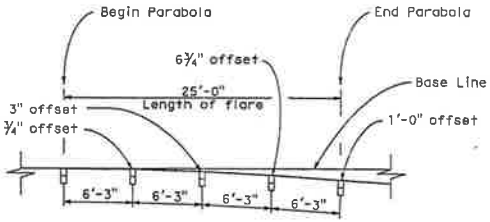

## TYPICAL PARABOLIC LAYOUT




$$Y = \frac{WX^2}{L^2}$$

Y = Offset from base line
W = Maximum offset
X = Distance along base line
L = Length of flare

## PARABOLIC FLARE OFFSETS




## TYPICAL FLARE OFFSETS FOR 1 FOOT MAX END OFFSET

### NOTES:

1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1, and A77C2.
2. Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
3. Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or recycled plastic blocks may be used for 6" x 8" x 6'-0" wood post with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
4. Direction of adjacent traffic indicated by ⟶.
5. For End Anchor Assembly (Type SFT) details, see Standard Plan A77H1.
6. Layout Types 11A, 11B or 11C are typically used where guard railing is recommended to shield embankment slopes and a crashworthy end treatment is required for only one direction of traffic.
7. In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
8. The type of terminal system end treatment to be used will be shown on the Project Plans.
9. Dependent on site conditions (embankment height and side slope), construction of additional guard railing (length equal to multiples of 12'-6" with 6'-3" post spacing) may be advisable.
10. The 15:1 or flatter flare used with buried end anchors is based on the edge of the paved shoulder or offset line of edge of the traveled way. The length of guard railing within the 15:1 or flatter flare is based on site conditions and should be a length equal to multiples of 12'-6".
11. For details of the buried post end anchor used with Type 11C Layout, see Standard Plan A77I2.
12. Where placement of dike is required with guard railing installations, see Standard Plan A77C4 for dike positioning details.

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

Randell D. Hiatt
REGISTERED CIVIL ENGINEER
May 1, 2006
PLANS APPROVAL DATE
No. C50200 Exp. 6-30-07 CIVIL
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STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

# METAL BEAM GUARD RAILING TYPICAL LAYOUTS FOR EMBANKMENTS

NO SCALE

**A77E1**

08-22-05

2006 STANDARD PLAN A77E1



Return to Table of Contents

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

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

May 1, 2006
PLANS APPROVAL DATE

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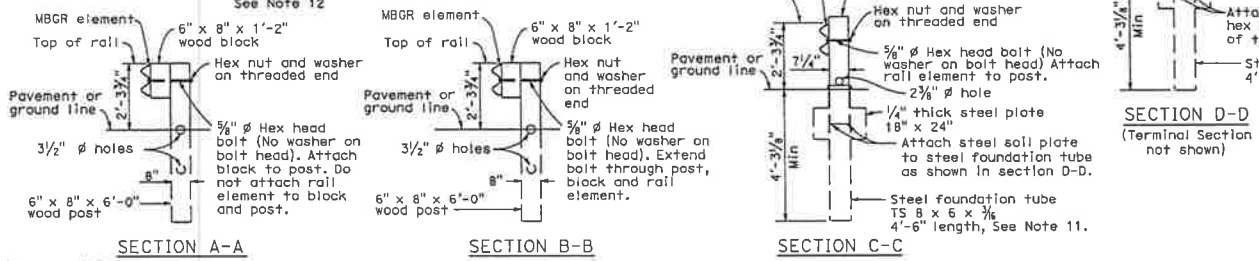
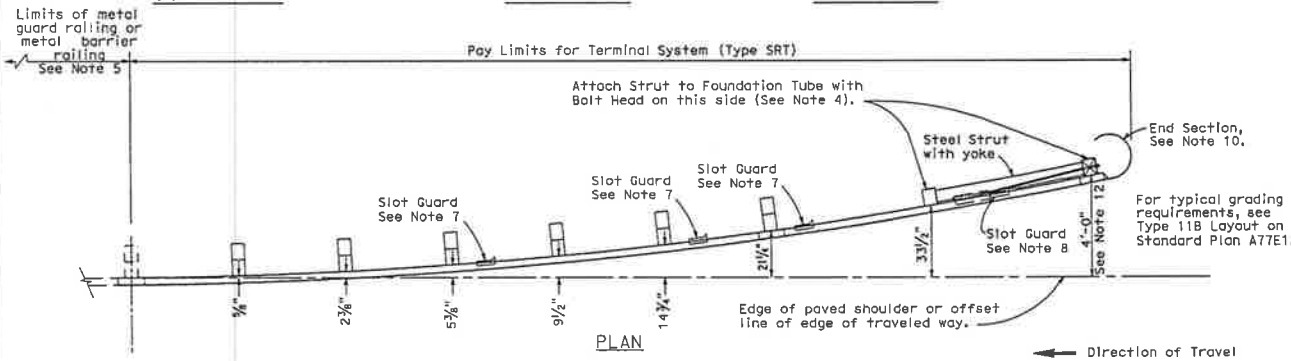
TABLE A

| POST OFFSET DIMENSIONS | | |
|---|---|---|
| Post No. | 3'-0" System End Offset | 3'-6" System End Offset |
| 1 | 36" | 42" |
| 2 | 22¼" | 27¼" |
| 3 | 11¾" | 16¼" |
| 4 | 6¾" | 10⅝" |
| 5 | 3" | 6" |
| 6 | ¾" | 2¾" |
| 7 | 0" | ¼" |
| 8 | 0" | 0" |

See Note 12




TERMINAL SYSTEM (TYPE SRT)
(8 Post System)
See Note 9

NOTES:

1. For additional details of Terminal System (Type SRT), refer to the manufacturer's installation instructions.
2. The post offset dimensions are given to the center of the traffic face of the block, except at the first two posts, where the dimension is to the center of the traffic face of the post. Offset points are to be located by chord measurements at the back of the rail equal to the nominal post spacings shown. Posts are to be set approximately radial to the railing at each post locations.
3. Do not attach rail elements to posts 7 and 8.
4. Attach strut to Post Nos. 1 and 2 foundation tubes with ⅝" ø hex head bolts, washers and hex nuts. Bolts extend through the strut, steel foundation tube, and wood posts.
5. For the length and type of metal beam guard railing or metal barrier railing the terminal system is attached to, see the Project Plans.
6. Attach rail element to this post and block. Payment for this post, block and hardware is included in payment for the type of railing or barrier the terminal system is attached to, not part of payment for Terminal System (Type SRT).
7. The deflector angle of the slot guard is to be positioned immediatley downstream of the slots.
8. For bearing plate orientation, refer to the manufacturer's installation instructions.
9. For typical use of this terminal system with guard railing, see the A77E, A77F and A77G Series of Standard Plans. See Standard Plan A78E for typical use of this terminal system with single thrie beam barrier.
10. A complete wrap around end section may continued to be used in existing installations. New installations shall be constructed with the ¾ wrap end section shown.
11. A 6'-0" length steel foundation tube, TS 8 x 6 x ⅜ without a soil plate, may be furnished and installed in place of the 4'-6" length steel foundation tube and soil plate shown. Minimum embedment of the 6'-0" length tube shall be 5'-9". A ⅝" ø hex head bolt and nut shall be installed in the hole in 6'-0" length tube to keep the wood post from dropping into the tube.
12. Where site conditions will not accommodate use of the standard 4'-0" system end offset, 3'-6" or 3'-0" system end offsets, as applicable, may be used. See Table A for post offset dimensions for 3'-6" and 3'-0" system end offsets.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

# METAL BEAM RAILING TERMINAL SYSTEM (TYPE SRT)

NO SCALE

A77L1



Return to Table of Contents

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
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REGISTERED CIVIL ENGINEER

May 1, 2006
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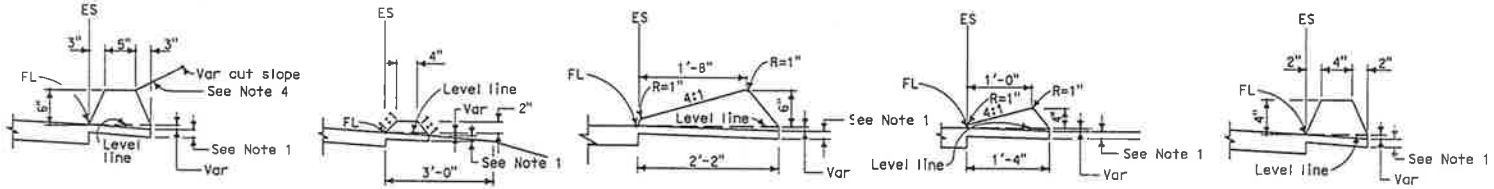



TYPE A
See Note 3

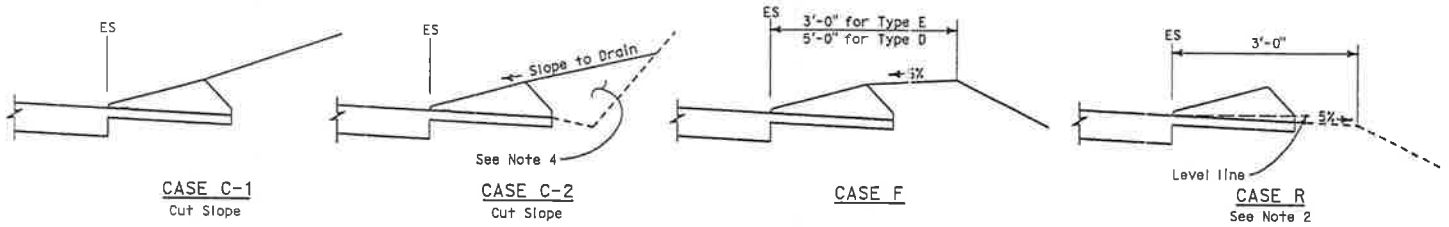
TYPE C

TYPE D

TYPE E

TYPE F
See Note 5

## DIKES




CASE C-1
Cut Slope

CASE C-2
Cut Slope

CASE F

CASE R
See Note 2

## TYPE D AND E BACKFILL DETAILS

### NOTES:

1. For AC shoulders only, extend top layer of AC placed on the shoulder under dike with no joint at the ES.
2. Case R applies to retrofit only projects where restrictive conditions do not provide enough width for Case F backfill.
3. Type A dike only to be used where restrictive slope conditions do not provide enough width to use Type D or Type E dike.
4. Fill and compact with excavated material to top of dike.
5. Use Type F dike, where dike is required with guard railing installations. See Standard Plan A77C4 for dike positioning details.

DIKE QUANTITIES

| TYPE | CUBIC YARDS PER LINEAR FOOT |
|---|---|
| A | 0.0135 |
| C | 0.0038 |
| D | 0.0293 |
| E | 0.0130 |
| F | 0.0066 |

Quantities based on 5% cross slope.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

# ASPHALT CONCRETE DIKES

NO SCALE

A87B

3-20-06

2006 STANDARD PLAN A87B



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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

March 9, 2010

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

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

**RE: NOTICE INVITING BIDS: VAN BUREN BOULEVARD RESURFACING PROJECT**

To Whom It May Concern:

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

| | | | |
|---|---|---|---|
| Thursday | - March 11, 2010 | Tuesday | - March 16, 2010 |
| Friday | - March 12, 2010 | Wednesday | - March 17, 2010 |
| Saturday | - March 13, 2010 | Thursday | - March 18, 2010 |
| Sunday | - March 14, 2010 | Friday | - March 19, 2010 |
| Monday | - March 15, 2010 | Saturday | - March 20, 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

**3.22 of 03-02-10**

## Gil, Cecilia

**From:** PE Legals [legals@pe.com]
**Sent:** Tuesday, March 09, 2010 12:02 PM
**To:** Gil, Cecilia
**Subject:** RE: FOR PUBLICATION: Van Buren Blvd. Resurfacing Project

I have received your ad for publication as soon as I have a proof for you I will send it over. Thank you

Kimberly Perez

THE PRESS ENTERPRISE
3450 Fourteenth Street, Riverside, CA 92501-3812
1-800-880-0345
Direct line (951) 368-9290
Fax (951) 368-9018
Email: ksolis@pe.com

---

**From:** Gil, Cecilia [mailto:CCGIL@rcbos.org]
**Sent:** Tuesday, March 09, 2010 11:09 AM
**To:** PE Legals
**Subject:** FOR PUBLICATION: Van Buren Blvd. Resurfacing Project

Good Morning! Attached is a Notice Inviting Bids for above-mentioned project, for publication from March 11 (Thursday) to March 20 (Saturday), 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:

**VAN BUREN BOULEVARD**
**RESURFACING PROJECT**
**FROM CLAY STREET TO LIMONITE AVENUE**

**PROJECT NO. B7-0739**

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, March 24, 2010, to be promptly opened in public at said address. Each proposal shall be in accordance with plans, specifications, and other contract documents, dated October 2009, and prepared by County of Riverside, whose address is same as the above, from whom they may be obtained upon deposit of $20.00 per set 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: | $ 771,650.00 - $900,300.00 |
| Bid Bond | 10% |
| Performance Bond | 100% |
| Payment Bond | 100% |
| Working Days | 30 Days |

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

Dated: March 9, 2010

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

THE PRESS-ENTERPRISE PE.com

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㉓ TOTAL AMOUNT DUE: 943.80

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⑧ BILLED ACCOUNT NAME AND ADDRESS

BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE
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Press-Enterprise

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03-12-10
03-13-10
03-14-10
03-15-10
03-16-10
03-17-10
03-18-10
03-19-10
03-20-10

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

Date: Mar. 20, 2010
At: Riverside, California

BOARD OF SUPERVISORS

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

Ad #: 10192448

PO #:

Agency #: _____

Ad Copy:

**NOTICE INVITING BIDS**
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**VAN BUREN BOULEVARD**
**RESURFACING PROJECT**
**FROM CLAY STREET TO LIMONITE AVENUE**
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| | |
|---|---|
| Engineering Estimate: | $771,650.00 - $900,300.00 |
| Bid Bond | 10% |
| Performance Bond | 100% |
| Payment Bond | 100% |
| Working Days | 30 Days |

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

Dated: March 9, 2010
Kecia Harper-Ihem, Clerk of the Board
By: Cecilia Gil, Board Assistant
3/11-20