STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

MANUAL CHANGE TRANSMITTAL

NO. **06-2**

TITLE: Department of Transportation *Construction Manual*	APPROVED BY:  Robert Pieplow Chief, Division of Construction	DATE ISSUED: December 29, 2006
SUBJECT AREA Index and other areas of the *Construction Manual*	ISSUING UNIT Division of Construction	
SUPERSEDES CPB 06-3 and CPB 06-8	DISTRIBUTION All Requested Manual Holders	

The purpose of this manual change transmittal is to provide updates and corrections to the 2001 edition of the Caltrans *Construction Manual.* Please update your manual in accordance with the table below. The relevant pages are indicated in the table.

Section(s)	Remove Old Page(s)	Insert New/Revised Page(s)
Update: Chapter 1, Section 308, "Training," Chapter 2, Sections 2-201, "Reference," 2-206F Lateral Shifting, and 2-207, "Speed Zone," to change "Manual on Uniform Traffic control Devices (MUTCD) and MUTCD CA Supplement" to "California Manual on Uniform Traffic Control Devices (California MUTCD)."	1-3.3 thru 1-3.4 2-2.1 thru 2-2.2 2-2.5 thru 2-2.8	1-3.3 thru 1-3.4 2-2.1 thru 2-2.2 2-2.5 thru 2-2.8
Update: Chapter 3, Section 606, "Out-of-State Fabrication," to change Form CEM-6001 to CEM-6101. Chapter 3, Section 908, "Deductions," Section 909, "Retentions," Section 909A & B and 3-912 are revised to change Form CEM-6001 to 6101.	3-6.3 thru 3-6.4 3-9.21 thru 3-9.24 3-9.29 thru 3-9.30	3-6.3 thru 3-6.4 3-9.21 thru 3-9.24 3-9.29 thru 3-9.30

Update: Chapter 4, Section 1201, "General," Section 4-1202A, "Flagging," and Section 4-1203A, "Flagging," to change "Manual on Uniform Traffic control Devices (MUTCD) and MUTCD CA Supplement" to "California Manual on Uniform Traffic Control Devices (CA MUTCD)."	4-12.1 thru 4-12.4	4-12.1 thru 4-12.4
Update: Chapter 4, Section 4-2002D (3), "Procedure for Sampling," to revise the procedure and Section 4-2002E, "Quality Assurance Seed Testing Results," to correct a typo.	4-20.5 thru 4-20.6	4-20.5 thru 4-20.6
Update: Chapter 4, Section 4-2702, "Before Work Begins," to correct web address.	4-27.1 thru 4-27.4	4-27.1 thru 4-27.4
Update: Golden Rod, Chapter 5, Section 101, "Forms Used for Contract Administration," revised to <u>delete</u> Form CEM-2025, and replace it with Form CEM-4401, "Solid Waste Disposal and Recycling Report," and add Form CEM-2510, "Truck Owner-Operator Certification of Ownership." <u>Delete</u> Form CEM-6001 and add Form CEM-6101, "Project Record-Estimate Request."	5-1.i thru 5-1.ii 5-1.v	5-1.i thru 5-1.ii 5-1.v
Update: Chapter 5, Section 101B, "Construction Forms," revised to delete **CEM-2025**, "Solid Waste Disposal and Recycling Report," and replace it with Form **CEM-4401** to correct the category code. The title does not change. Form **CEM-2510**, "Truck Owner-Operator Certification of Ownership is added. The form number **CEM-6001**, "Project Record – Estimate Request" is changed to Form **CEM-6101** to correct the category code.	5-1.3 thru 5-1.12	5-1.3 thru 5-1.12

Update: Chapter 5, Section 102C, "Description of Categories," Category 44 title is changed to, "Recycle Materials and Diversion of Solid Waste." The fourth bullet under Category 60 is deleted and added to the bullets under Category 61 with the form number corrected.	5-1.25 thru 5-1.26 5-1.29 thru 5-1.32	5-1.25 thru 5-1.26 5-1.29 thru 5-1.32
Update: Chapter 5, Section 102D, "Category Numbers and Headings," Category 44 is revised and renamed "Recycle Materials and Diversion of Solid Waste."	5-1.33 thru 5-1.36	5-1.33 thru 5-1.36
Corrections: Example 5-1.1 form number and Example 5-1.2 source doc. description and item number. Update: Chapter 5, Section 103B, "Project Initiation and Update," is revised to change Form CEM-6001 to CEM-6101. Update: Sections 5-103F, 5-103F (1a), 5-103F (1c), 5-103F (2), 5-103F (2a), 5-103F (3), 5-103H (6) to change CEM number 6001 to 6101.	5-1.37 thru 5-1.38 5-1.47 thru 5-1.48 5-1.59 thru 5-1.68	5-1.37 thru 5-1.38 5-1.47 thru 5-1.48 5-1.59 thru 5-1.68
Update: Chapter 5, Section 307A, "Contents of the Memorandum," is revised to add information for new fields in Form CEM-4903.	5-3.17 thru 5-3.20	5-3.17 thru 5-3.20
Update: Chapter 5, Section 501, "General," to revise the emergency contract $ amount. Section 5-508, "Prosecution of the Work," a web site is revised.	5-5.1 thru 5-5.4	5-5.1 thru 5-5.4
Update: Chapter 7, Section 109, "Solid Waste Disposal and Recycling Reporting," is revised to change CEM number 2025 to 4401.	7-1.21 thru 7-1.23	7-1.21 thru 7-1.23
Update: Golden Rod, Appendix 1, "Sample Forms," to insert new forms and to renumber pages.	A-1.i thru A-1.iii	A-1.i thru A-1.iii

Update: Appendix to include Forms CEM-2004, 2510, 4401, 4903 and 6101. Delete Forms CEM-2025, and 6001. Revised Forms CEM-3101, 3501 and 4501.	A-1.9 thru A-1.20 A-1.53 thru A-1.56 A-1.61 thru A-1.64 A-1.69 thru A-1.78 A-1.91 thru A-1.94 A-1.99 thru A-1.100	A-1.9 thru A-1.20 A-1.53 thru A-1.56 A-1.61 thru A-1.64 A-1.69 thru A-1.78 A-1.91 thru A-1.94 A-1.99 thru A-1.100
INDEX	I-1 thru I-16	I-1 thru I-16

1-305 Resources and Budgeting

1-305 Resources and Budgeting

As a minimum, individual construction employees must devote 2 percent of regularly scheduled work time to "in-service occupational training." In the 2 percent occupational training goal, do not include training other than that required in the occupational training plan. In addition to the resources for the 2 percent goal will be resources to sufficiently plan, prepare, and execute training instruction required to support the district's training and development plan. On average, organized in-service training may be distributed so that the average employee will spend approximately 2 percent of the time as a trainee.

1-306 Subject Matter, Trainees, and Instructors

1-306 Subject Matter, Trainees, and Instructors

The district construction administration must ensure the completeness and accuracy of the information disseminated through training and development activities. The Division of Construction, workforce development unit, will support, coordinate, and assist the district to the full extent of its abilities and resources.

Instructional subject matter for a course should be sufficiently broad to encompass all aspects of an operation or area of activity to which a person may be assigned. Occupational instruction should be offered close to the time when personnel will be required to use the job skills.

Personnel and consultant trainers who prepare and conduct training must be qualified in the subject matter and in the theory and techniques of training. Assistance for determining training expertise and training for trainers is available through the Division of Construction.

1-307 Just-in-Time Training

1-307 Just-in-Time Training

Some contract special provisions provide for "just-in-time training," which is joint training with industry and construction staff. This training should include all contractor and Caltrans staff who are directly involved in the construction operation. The objective of this training is to introduce new practices, improve workmanship, improve quality, and to provide current and timely training to the people actually performing the work.

1-308 Training Methods

1-308 Training Methods

In-service training can be handled in various ways. Depending on the particular subject, different methods may be appropriate. In all instances, encourage instructors to use learning techniques that involve their students rather than techniques that simply use lecture. Whenever possible, students should be provided with the opportunity to perform a task shortly after receiving instruction and watching a demonstration. Classes for inspectors should be participatory and include "guided discussions" that encourage and promote an exchange of ideas and experiences among participants.

Caltrans construction uses the following basic training references:

- *Construction Manual*
- *Standard Specifications*
- *Standard Plans*
- District construction manuals
- *Highway Construction Checklists*

- *California Manual on Uniform Traffic Control Devices*
- *Maintenance Manual*
- *Manual of Test*
- Other technical publications

The Division of Construction also has a number of training videos available for checkout. Many districts also have training videos available for staff viewing.

A highly effective method of industrial training and development is on-the-job training and mentoring by pairing less experienced staff with seasoned construction personnel. The supervisor must be careful to pair individuals with compatible personalities. The mentor should be knowledgeable and well versed in current Caltrans standards. The student can enhance the effectiveness of this training technique through the ability to respect the experience of the mentor, be genuinely interested, and become actively involved in the training process.

Occupational training must be accomplished as an organized effort followed by on-the-job experience. Certainly no complete substitute exists for experience, and often a well-regulated, on-the-job training program is an excellent method for the completion of instruction. It is just as certain that on-the-job experience is not necessarily synonymous with on-the-job training.

The districts must make every effort to coordinate their training activities with the other districts. For example, each of three districts may have only two or three people in need of training in a specific subject. It is preferable, therefore, to combine employees from the three districts to create one class. The districts and the Office of Structure Construction can also exchange qualified instructors.

Section 2 Traffic

Section 2 Traffic

2-201 References

2-201 References

Section 124 of the Streets and Highways Code authorizes Caltrans to close or restrict the use of any state highway whenever Caltrans considers such actions necessary for the following reasons:

- To protect the public
- To protect a highway from damage during storms, after major earthquakes, or other natural disasters
- To protect a highway during construction, improvement, or maintenance operations

Traffic control systems conform to the *Standard Plans*, unless the contract specifies otherwise.

All signs, lights, and devices must conform to Section 12, "Construction Area Traffic Control Devices," of the *Standard Specifications*. For how to apply signs, lights, and devices used on construction projects, review the current version of the *California Manual on Uniform Traffic Control Devices (California MUTCD).*

2-202 Objective

2-202 Objective

The objective of this section is to provide for worker protection and the safe passage of public traffic through and around construction with as little inconvenience and delay as possible.

2-203 Planning

2-203 Planning

Providing for worker safety and the safe movement of traffic through construction zones starts with planning. A traffic control plan must be included in all contract plans and special provisions. Before the district submits the plans, specifications & estimate to headquarters, the district construction plans and specifications reviewer must review the plan.

The plan must be adequate for conditions that will be encountered during construction. The reviewer should determine that the plan can be implemented and that it adequately facilitates the movement of traffic. Any comments or suggestions regarding traffic control should be discussed with district design and traffic units during the project's planning and design phase.

2-204 Responsibilities and Procedures

The following outlines the responsibilities and procedures for each of the key personnel involved in traffic control.

2-204A Resident Engineer

The resident engineer has the responsibility and authority for administering the traffic control plan and all other aspects of safety on construction projects. The resident engineer may delegate the administration of traffic control to another person assigned to the project, preferably to the project safety coordinator. For the duties and responsibilities of the project safety coordinator, see Section 2-1, "Safety," of the *Construction Manual* (manual).

Once assigned to the project, the resident engineer should perform the following administrative duties:

- Compare the plan for traffic handling to the conditions found at the site. Note any unusual local traffic movements and the movements of emergency vehicles. Include in the preconstruction conference a discussion of the traffic control plan. For details related to preconstruction conferences, see Section 5-003, "Preconstruction Conferences with the Contractor," of this manual.
- Modifications of the traffic handling plan may be considered at this point. Given the specifics of a contractor's needs, it may be possible to provide improved traffic service over the service originally contemplated. Changes requested by the contractor must provide at least equal traffic service to receive favorable consideration.
- Changes made in existing contract plans and specifications or new plans and specifications covering unanticipated conditions or conditions not fully delineated in the contract must be covered by contract change order. Such ordered changes must include plans in sufficient detail to define all elements of the proposed changes and roadway design.
- The district will establish a procedure for the preparation, review, and approval of changes related to roadway construction and detour plans that include signs and other traffic control devices. Generally, the district traffic unit is responsible for this review activity.
- Some unpredictable, immediate situations of a minor nature or short duration will arise during the work and will require good judgment to obtain optimum results. In these instances, formally approved plans are not required, but delineate or specify what is to be done and record in writing actions taken and orders given.
- To establish the geometry, markings, devices, and signs that existed at any time during the project, maintain in sufficient detail a record of the placement into service, changes, and discontinuance of roadways and detours. The form of the record may vary according to the magnitude and complexity of the subject. Dated notations or revisions to plans may be helpful. Dated photographic or video tape records, particularly of points of transition or difficult situations, may be very valuable.
- If the contractor's operations interfere with or cause potential safety problems with vehicular or pedestrian traffic, contact the contractor immediately and request correction of the deficiency. If necessary, direct the contractor in writing to act at once to remedy the unsatisfactory situation. Caltrans work

number of lanes, alignment, and necessary change of speed. Compensate for a required reduction of one by an improvement of another. For example, compensate for a sharper curve with solutions such as an increased lane width or a runoff area.

- Visualize what effect the changing conditions of visibility and lighting will create. Glare conditions such as rain at night or facing the setting sun may impact driver decisions. Such conditions may alter the apparent pattern of the roadway and cause an eradicated line to appear to be a lane line. Consider how the shape and the light versus the shadow of falsework openings will appear both in day and night. Anticipate any needs for special treatments such as lighting.
- Review the project for evidence of driving difficulty. For instance, look for such signs as broken delineators, skid marks, and tire marks on temporary railing (Type K), all of which indicate a potential need for improvement. Be aggressive in seeking changes to improve the situation. Continue this appraisal through the life of the project. Each day a condition can change that may have an impact on the facilities' effectiveness.
- Reductions in the width or number of lanes affect the capacity and the traffic flow. When severe congestion is forecast because of capacity reductions, include plans for media notification, alternate route development, metering via upstream ramp closures, and use of changeable message signs.

2-206 Elements of a Roadway

2-206 Elements of a Roadway

The following are some guidelines for the design of roadways carrying traffic through construction areas:

2-206A Geometrics

For conditions shown on the plans that need adjustment, discuss any proposed changes with the district traffic unit. Include the following considerations for conditions requiring minor changes in the field:

- Design for the speed vehicles will travel, not the speed one hopes they will travel. The following determine the safe speed of a vehicle:
  1. Alignment
  2. Profile
  3. Cross section
  4. Pavement surface character
  5. Lateral clearances to obstructions
- On the mainline facilities, design the temporary roadway for speeds consistent with the permanent roadway. On highways where the prevailing speed of the approach is limited by alignment, the design speed should be equal to the prevailing speed of the approach roadway. If this equality is not possible, ensure the design speed differential is no more that 15 km/h. The geometrics for a transition at the end of a high speed approach should be better than the geometrics that may be adequate for a situation within the construction area.
- Locate the approach transition so that it is visible to the approaching motorist.

Avoid placing the entering transitions on horizontal curves, just beyond horizontal curves, or beyond the crest of a summit vertical. The transition should be completed before reaching such features. The ideal transition is on a horizontal tangent with a slightly rising grade at the end of a level approach. Achieving this transition is worthwhile even though it may extend the traffic control system farther than the minimum necessary to just clear the construction area.

- If physically possible, in the transition give the driver at least the same effective traversable roadway width, and preferably more, as on the approach roadway. Adequate maneuver room at critical points is an important factor in preventing accidents.
- Design to require the least change, whether in change of direction, speed, or both. When changes are necessary, make one change at a time. For example, if the number of lanes must be reduced and the direction changed, complete the lane drop before starting the alignment change.

2-206B Cross-Over Transitions

The following guidelines apply to cross-over transitions:

- Design cross-over transitions to the highest geometric standards within tolerable limits of cost. Use flat diagonal crossing in preference to reversing curves.
- When cross-overs require the removal of median barriers or protective devices, review conditions, and where possible, maintain the integrity of the remaining portions of the devices. For example, anchor guardrail ends and install crash cushions.
- When cross-overs are not in use, place positive barriers across entry areas, including appropriate signing.

2-206C Existing Ramps

For temporary modifications of existing ramps, pay close attention to acceleration and deceleration lanes. Reducing standards on existing facilities, such as sharpening curves and shortening auxiliary lanes, can adversely affect the operating characteristics. Supplemental construction work may be necessary to retain the effective operating characteristics of the existing facility.

2-206D Run-Off Area

Whenever physically possible, establish and maintain a safely traversable area outside the delineated roadway of such width that there will be a run-off zone. To enhance night visibility, delineate material, equipment, excavations, or obstructions 4 m or more from the traveled way (outside of normal required protection parameters). Creating safe run-off areas may also require ordering the staging of certain elements of the work, cleanup grading, and temporary placement or removal of materials.

2-206E Lane Widths

Lane widths should be consistent with the widths of the approach roadway. A desirable standard consists of full-width lanes plus an effective width of constructed shoulder. To provide extra maneuvering room, provide wider lane widths or additional surfaced shoulder width in transitions and critical alignment.

2-206F Lateral Shifting

Construction situations frequently require a lateral shifting of traffic in relation to the normal path of travel. This lateral shift may involve dropping a lane. Use the standard formula for taper length as shown in the *California MUTCD* or in the details included in the project's traffic control plan.

Before opening lanes to traffic, remove or obliterate all conflicting lines and markings. Day and night and under all weather conditions, obliterated lines and markings must be unidentifiable as pavement delineation.

2-206G Surfacing Materials—Color and Texture

The following guidelines apply to the color and texture of pavement surfacing materials:

- Surface all roadways and detours, except very temporary or minor facilities, with an appropriate material (in most cases asphalt concrete).
- The area where the surfacing joins the existing roadway can be very critical. If asphalt concrete joins asphalt concrete the difference in texture and color between the existing and new creates a taper in the new traffic lane that may convey the wrong sense of direction, especially at night or in rain. An inevitable degree of mismatch between the old and new surfaces creates a slight discontinuity that may cause a car to lurch or swerve. Avoid these difficulties by bringing the temporary surfacing back onto the existing highway in a square joint.
- A square joint is even more necessary when asphalt concrete joins portland cement concrete because at night and during rainy weather the joints often stand out more prominently than the traffic lane lines.
- When conditions prevent starting the temporary surfacing at a square join on the existing pavement, the necessary continuity of the traveled lane can be established by a treatment such as a light sand seal. Establishing continuity of the traveled lane in some manner is especially necessary if previous traffic shifts have created confusing or conflicting diagonal joints and have eradicated pavement markings.

2-207 Speed Zones

2-207
Speed Zones

The following guidelines apply to speed zones:

- If the safe operating speed of traffic through a construction area is significantly less than the approach speed of traffic on the highway, a reduced work zone speed limit may be established.
- Do not use a reduced speed limit as a substitute for other means of creating a safe roadway.
- Establish reduced speed limits in accordance with the procedures stated in the *California MUTCD*. The district construction and traffic units must jointly review and agree to these limits. Also, it is advisable to discuss the limits with the California Highway Patrol. Participation in the Construction Zone Enhanced Enforcement Program (COZEEP) is a precondition for any project for which a reduced speed zone is proposed. See the heading “Construction Zone Enhanced Enforcement Program” later in this section.
- To avoid the necessity of obtaining more than one order for speed reduction per project, ensure the limits requested in the order cover the maximum distance where reduced speed would be required at any time during the life of the contract. Any part of the project within the limits stated in the order becomes a legal speed zone when signs are in place and displayed.
- It is imperative that the speed limit be posted only for the duration of the conditions justifying the reduction and only for those areas of the project within which it is unsafe at any and all times to travel at a speed in excess of the posted limit.

- Speed limit signing may be considered during work operation parameters. When work operations are complete for the day, remove or cover the signs immediately. Implement temporary speed limit reductions in conjunction with a COZEEP operation.
- Use the posting of advisory speeds on appropriate warning signs to advise the public of what speed is considered appropriate at specific localized situations such as points of curvature or traffic diversion. The selected speed should be that at which the driver exercising due care would drive in normal conditions of light and weather.

2-208 Night Work

2-208 Night Work

Frequently the special provisions for a project restrict work on the existing traveled way to a specified period at night. Based on traffic counts, the district traffic unit determines times for closing lanes and for night work.

The effectiveness of handling traffic through night construction depends upon the contract plans and upon the details of the contractor's operations. Require the contractor to submit and obtain approval of the plan or operations before proceeding with night work. Also, here are some details to consider:

- Avoid traffic splits if at all possible. Shift traffic to one side or to the other, but do not split it into two traffic streams. This requirement sometimes requires the closure of an extra lane.
- Confine the work area to as short a distance as is practical.
- The immediate work area should be well lighted by floodlights, but in such a way so as to not blind drivers of approaching vehicles. (See Section 7-1.06, "Safety and Health Provisions," of the *Standard Specifications*.) If properly shielded, most of the floodlights can be mounted on construction equipment. Ensure the intensity of the lighting is not any brighter than is necessary for inspection work.
- Ensure the contractor's plan of operation provides sufficient room for delivery vehicles so that none are ever forced to stop in the traffic lanes.
- Providing for exit ramp traffic within the limits of the coned-off area may be extremely difficult. Sometimes through traffic tends to follow an exiting vehicle. To expedite the work, it is helpful to temporarily close the exit if traffic patterns and volumes permit.
- In addition to the requirements for signs and warning devices shown on the plans for traffic control systems, changeable message signs in advance of the work may be used effectively. See Section 4-1203J, "Portable Changeable Message Signs," of this manual. You may also consult the district traffic unit.
- Use road flares to get motorists' attention only under emergency conditions. Take care to prevent fires in susceptible high-fire rated areas.
- For the use of amber flashing lights and for driving and parking in a closed lane at night, see the *Caltrans Safety Manual*.
- Either through illumination or suitable marking, ensure all equipment is visible to traffic.

3-605A(1) Resident Engineer Approval of Minimum Use Requirements

Buy America requiements do not apply to a minimal use of iron and steel materials incorporated in the work provided that all foreign source items do not exceed one tenth of 1 percent (0.1 percent) of the total contract cost or $2,500, whichever is greater. Before incorporating any foreign steel materials into the work, the contractor must submit documentation of the quantity and value of any foreign steel to the resident engineer. Review the documentation to determine if it supports the minimum use rule before allowing the material to be incorporated into the project. If the minimum use rule applies, approve the exception in writing. This applies as a one-time total exemption for each contract, not for each purchase. File the documentation, exceptions, and a running total of the value of foreign iron and steel allowed under the minimal use allowance under Category 41, "Report of Inspection of Materials." Foreign steel materials that exceed the minimal Buy America requirements cannot be designated as non-participating and therefore require a waiver. (See Section 3-605A(2)).

3-605A(2) Federal Highway Administration Approval of Waivers

Caltrans does not have the authority to waive the use of foreign steel and iron in federal aid projects without FHWA approval. The California FHWA Division administrator may grant waivers only upon receiving concurrence from FHWA headquarters in Washington D.C. Approval or denial may take several months.

The contractor must submit the following information to the resident engineer when requesting a waiver to Buy America requirements:

- A detailed description of the waiver item.
- Item cost – obtained from the manufacturer or supplier.
- The country of origin for the product.
- The reason for the waiver.

The resident engineer must provide the following information when preparing a waiver request for the FHWA engineer:

- The contractor's waiver submission.
- Federal aid project number, description, and location.
- Analysis of redesigns using alternate or approved equal domestic product for the project.

FHWA approval of the waiver is required prior to allowing foreign steel or iron into the project. Allowing foreign steel or iron products into a federal aid project without an FHWA approved waiver can result in the loss of all federal funds for the project.

3-606 Out-of-State Fabrication

3-606 Out-of-State Fabrication

Sections 49, 51, 55, 56, and 75 of the *Standard Specifications* include reductions in payment for fabrication at some distance from Sacramento and Los Angeles. In addition, some special provisions may modify the amount to be deducted. Deduct the appropriate amount, applying it as an administrative deduction on estimates that include payment for the item. Use a standard description of "Out of State Inspect" on Form CEM-6101, "Project Record-Estimate Request." This deduction should be made in whole, when appropriate. However, if the deduction is rather large, the resident engineer has the option to deduct incremental amounts until the full deduction is made.

3-607 Local Materials

3-607 Local Materials

Section 6-2, "Local Materials," of the *Standard Specifications*, covers the requirements for the use of local materials and the resident engineer's responsibility for testing the materials.

Section 6-2.02, "Possible Local Material Sources," of the *Standard Specifications* requires the contractor to execute certain documents when obtaining materials from property owners with whom Caltrans has arranged the use of such materials. These documents are titled "Supplemental Materials Site Agreement (1) and (2)." Samples of agreement (1) and agreement (2) follow:

Supplemental Materials Site

Agreement (1)

Contract No. _____
District _____
Date _____

TO:_____
District Director, District
, California

Dear _____,

In accordance with Section 6.2, "Local Materials," of the *Standard Specifications*, here is the agreement for using the materials source for the subject Contract, as required before removal of said materials:

WHEREAS, Contractor has entered into Contract No. ____ with the State of California, Department of Transportation, hereinafter called "Department," for the performance of _____ work on road _____, and

WHEREAS, Department has entered into an agreement dated _____,with _____for the obtaining of materials from the property described in said arrangement.

NOW THEREFORE, pursuant to the terms of said arrangement and of said Contract No. _____, Contractor hereby agrees to comply with all terms and conditions of said arrangement between the Department and said property owner and further agrees to hold said property owner harmless from all claims for injury to persons or damage to property resulting from Contractor's operations on owner's property.

DATE _____ _____
Contractor
By
Authorized Agent
Title _____

Origin.-Dist. Director
Dupl.-Contr.
Trip. -Prop. Owner
Quad. -Res. Engr.

2. Sign Structures. Structural steel that is used in overhead sign structures as described in Section 56, "Signs," of the *Standard Specifications* may be considered acceptable as raw material. However, pay for such material as raw material only, until shop fabrication of a usable member (such as a sign frame or other member) is 100 percent complete. After shop fabrication is complete, pay for the estimated fabricated value, subject to other specified restrictions and administrative guidelines.

- Verify proper storage of materials listed on Form CEM-5101 in accordance with the following procedures:

3-907D (1) Materials at the Project

For all valid requests for material located at or near the project, determine whether the materials are stored in conformance with the contract. To conform to this requirement, the contractor may have to store materials in fenced areas with locked gates, in locked warehouses or in areas where it is improbable that materials would be lost from any cause. In addition to having controlled storage, the contractor is required by the *Standard Specifications* to provide proper storage and handling so that the materials do not become damaged. Call any indication of improper storage to the contractor's attention. Withhold payment for materials on hand until the materials are properly stored.

Do not pay for material accepted on the basis of certificates of compliance until such certificates have been received.

The resident engineer or an assistant resident engineer must review Form CEM-5101 to verify that the request is acceptable.

3-907D (2) Materials Not at the Project

For materials not delivered to the jobsite, obtain evidence and establish the fact of purchase, proper storage, acceptability, accessibility and other factors. The Office of Materials Engineering and Testing Services (METS) maintains representatives in the major industrial areas and provides inspection in all other areas for this purpose. The following is the procedure:

- If it is not practical for the resident engineer or assistant resident engineers to verify quantity, quality, location and proper storage, send the duplicate copy of the Form CEM-5101 to METS.

- Upon receipt of Form CEM-5101, METS will notify the appropriate inspection office or offices immediately. The METS representative will notify the resident engineer directly by use of Form TL-0649, "Inspector's Report of Material on Hand," or TL-6037, "Fabrication Progress Report," that the material has been inspected and that it is in acceptable condition and properly stored. METS will use Form TL-6037, for structural steel, precast prestressed concrete members, or sign structures. For other products, METS will use Form TL-0649.

METS may also indicate on its correspondence, the percent complete of shop fabrication on various structural components. This figure is given for the purpose of reporting progress on the affected items. Do not use it to increase payment for materials on hand during fabrication.

- Upon receipt of the CEM-5101 and the above verification, the resident engineer can approve the partial payment. The contractor must submit a new CEM-5101

for each estimate, and the above procedure must be followed. However, it is possible METS may not be able to respond in time for payment on the estimate. METS gives priority to new or changed requests. Therefore, for requests that have not changed since a previous submittal, resident engineers may approve subsequent payments in the absence of any METS reports to the contrary.

On the monthly progress pay estimate, enter the total value of acceptable material as material on site regardless of storage location.

The maximum payment for materials on hand should be such that, when the estimated placing and other remaining costs of the work are added, the contract price is not exceeded. The purpose of this is to prevent payment of more than the contract price for the materials and to leave sufficient funds in the item to complete the work.

3-908 Deductions

Deductions (as opposed to retentions) are those amounts held back for specific purposes. The resident engineer must identify, initiate, and control all deductions.

Make a deduction from payment to the contractor as soon as the liability for the event requiring a deduction has been determined. It is preferable to base deductions on known amounts resulting from agreements or actual billings, but, if necessary, they can be estimated.

Resident engineers must keep source documents and summary sheets in the appropriate contract records to cover all deductions. In the absence of any information to the contrary, the Contract Administrative System (CAS) will carry deductions forward from the previous month.

Whenever the contractor's progress is unsatisfactory, and the project has progressed to a point where a reasonably accurate estimate of possible liquidated damages can be made, the resident engineer must deduct an amount sufficient to cover probable liquidated damages. Make the deduction in lieu of any retention for unsatisfactory progress. Enter the amount and description of deductions on Form CEM-6101, "Project Record-Estimate Request," and check "Override Unsatisfactory Progress," to prevent the retention.

3-909 Retentions

Retentions are made in accordance with the terms of the contract. For contracts without any federal funding, the Contract Administrative System (CAS) will calculate and withhold the retention, including any retention for unsatisfactory progress, without any specific action by construction personnel. On any estimate that shows satisfactory progress, the system will release all retentions previously made for unsatisfactory progress.

On federal aid contracts, retention will not be withheld by Caltrans except for unsatisfactory progress under very limited conditions. Federal rules also prohibit prime contractors from withholding retention from subcontractors.

Occasionally a contract will contain a nonstandard format for contract time or other circumstance resulting in satisfactory progress even though it is mathematically unsatisfactory. When this situation occurs, the resident engineer must waive the retention for unsatisfactory progress and document the reason for doing so. To waive the retention, check "Override Unsatisfactory Progress" on Form CEM-6101, "Project Record-Estimate Request."

In general, the retention for unsatisfactory progress should be waived only for landscape projects or on other projects only after a corrected entry has been made for "percent time elapsed" as covered below.

If the contractor requests a reduction of retention after 95 percent of the work has been completed, forward the written request to the disbursing officer in the Division of Accounting. CAS will reduce the retention when all the requirements specified in Section 9-1.06, "Partial Payments," of the *Standard Specifications,* have been met.

3-909A Calculating Progress - Projects with Single Time

Retentions are usually determined by unsatisfactory progress. On projects without any federal funding, progress is determined by comparing the contractor's actual progress with the curve on Form CEM-2601, "Construction Progress Chart." This requires calculation of the percent of work completed and the percent of time elapsed. If the plot of these percentages falls on or above the curve on Form CEM-2601, progress is considered satisfactory. Otherwise, it is considered unsatisfactory except under extenuating circumstances. The calculation of both the percent of work complete and the percent of time elapsed for contracts with federal funding is stated in the special provisions.

For contracts with federal funding, unsatisfactory progress is determined as follows.

- Progress is considered unsatisfactory when the following occurs:

    1. The number of working days charged to the contract exceeds 75 percent of the working days in the current time of completion, and

    2. The percent of working days elapsed exceeds the percent of work completed by more than 15 percentage points.

When both conditions are met, CAS will withhold 10 percent of the amount due on the current monthly estimate.

The percent of work completed (except on landscape projects with Type 1 plant establishment) is determined by dividing the amount on the line entitled "Total Work Completed" on the "Project Record Estimate" by the "Authorized Final Cost" on the "Project Status." CAS calculates this percentage (except on projects with Type 1 plant establishment).

CAS computes the percent of contract time elapsed by dividing the number of working days elapsed to the date of the progress estimate, by the original working days specified in the contract plus "Total time extension days approved to date (contract change order plus other)," on Form CEM-2701, "Weekly Statement of Working Days."

Occasionally the resident engineer has information indicating that the percent of time elapsed is different from that which CAS will calculate. The usual reason for this is that pending time extensions have not yet been approved and entered into the system. The percent of time elapsed can be calculated using the anticipated time extension in the formula in the preceding paragraph. The resident engineer must document the calculated percent of time elapsed as well as the reasons therefore. Enter the calculated percent of time elapsed in the appropriate place on Form CEM-6101, "Project Record-Estimate Request." CAS will calculate satisfactory or unsatisfactory progress based on this figure.

3-909B Calculating Progress for Landscape Projects

See Section 20-4.08, "Plant Establishment Work," of the *Standard Specifications,* and Section 4-2003C (8), "Plant Establishment Work," of the *Construction Manual,* for specifications and administrative guidelines for plant establishment time requirements. For projects with Type 2 plant establishment, the percent of time elapsed and percent of work completed is determined in the normal manner as described above. For projects with Type 1 plant establishment, compute the percent of time elapsed and the percent of work completed as follows for the periods prior to the start of plant establishment.

Determine the percent of work completed by dividing the value of work accomplished by the authorized contract amount minus the authorized plant establishment work.

$$\% \text{ Complete} = \frac{\$ \text{ Value Completed Work}}{(\$ \text{ Total Auth. Contract Amt.} - \$ \text{ Plant Estab. Work})}$$

Determine the percent of time elapsed by dividing the number of working days elapsed to the time of the estimate on Form CEM-2701 by the total contract time limit plus "Total time extension days approved to date (contract change order plus other)" on Form CEM-2701 and minus the length of the plant establishment period.

$$\% \text{ Time} = \frac{\text{Working Days Elapsed}}{(\text{Orig. Cont. Time} + \text{Time Ext. to date} - \text{Plant Estab. Period})}$$

On projects without federal funding, compare these two percentages to the curve on Form CEM-2601, "Construction Progress Chart." On projects with federal funding, compare these two percentages to the requirements specified in the special provisions. If progress is satisfactory, check the "Override Unsatisfactory Progress" on Form CEM-6101, "Project Record-Estimate Request."

After the start of Type 1 plant establishment, the resident engineer will decide if the progress is satisfactory. In general, consider progress considered satisfactory if the contractor entered the plant establishment period on time and carries out plant-establishment work on time. Progress will be considered unsatisfactory if there will be an overrun in contract time due to a delayed start of Type 1 plant establishment.

3-910 Payment After Acceptance

Caltrans makes final payment as soon as possible after the contract is accepted and the contractor submits the required documents requested by the resident engineer. Any estimate covering a payment after contract acceptance is identified either as "after acceptance," "semifinal," or "final." Section 5-4, "Disputes," of the *Construction Manual* lists the timeline for completing payment steps after the acceptance process.

3-910A Negative Estimates

Negative estimates reflect an overpayment made to the contractor, and should be avoided whenever possible. To reduce the processing time associated with negative estimates; contact the Division of Construction's progress pay coordinator to begin the process of generating a negative estimate.

The resident engineer is responsible for the accuracy of all payment estimates, including progress payment, after acceptance, semifinal, and final estimates. Verify the correctness of the contract item quantities and ensure the data submitted conforms to Caltrans policies. The district progress pay coordinator should hold the negative

In addition to the steps listed above for determining amounts to be paid or deducted for a progress estimate after contract acceptance, the resident engineer must also do the following:

1. Notify the district of what deductions are applicable.
2. Compound the deductions when a combination of the following situations, which were outlined above, occur:

- The contractor has delinquent or inadequate payrolls.
- The contractor failed to correct deficiencies in its equal employment opportunity program.
- The contractor failed to honor requirements related to disadvantaged business enterprises.

3. Also compound permanent deductions. Permanent deductions include items such as material royalties, railroad flagging charges, material testing, out-of-specification material, or restaking charges. Also considered permanent are deductions for anticipated liquidated damages. (When warranted, anticipated liquidated damages can be made on progress estimates. However, anticipated liquidated deductions will need to be made permanent on the after-acceptance estimate. To do so, release anticipated liquidated damages; then take actual liquidated damages under liquidated damages on the after-acceptance estimate.)
4. When you make deductions for outstanding items, advise the contractor in writing of the specific missing items and that they will result in a delay of final payment.
5. Before processing an after-acceptance estimate, run the following two reports, "Status of CCO," and "CCO master listing." These reports will show any adjustment of compensation credit or deferred time not yet taken.

3-912 Proposed Final Estimate

3-912 Proposed Final Estimate

The purpose of the proposed final estimate is to obtain formal agreement regarding final payment. For this type of estimate, follow these guidelines:

- Submit the proposed final estimate to the contractor within the time frame outlined in Section 5-4, "Disputes," of this manual.
- Soon after the contract is accepted, meet with the contractor to discuss submitting the required information to complete the contract. If the contractor does not submit the required data within four weeks after acceptance, you must notify the contractor in writing that Caltrans will issue the proposed final estimate and deduct the appropriate amount.
- Before the processing of the proposed final estimate, ensure all extra work bills submitted by the contractor are processed and ready for payment. Ensure the estimate's issuance is not delayed for force account billings that remain outstanding.

- If the contractor has not submitted required information in a timely manner, Section 5-4, of this manual dictates that the proposed final estimate must still be issued. In this situation, the following guidelines apply:

  1. Any time before a proposed final estimate is issued, the district may exercise an option described in Section 9-1.03C, "Records," of the *Standard Specifications*. This section identifies the conditions under which Caltrans may establish the cost of materials when valid copies of vendors' invoices are not forthcoming. When the district decides to establish such costs, use the following procedure:

     a. If the established cost is necessary to determine compensation, complete the pending contract change order, and have it unilaterally approved. To determine compensation, refer to Section 4-1.03B, "Work Performed by Special Forces or Other Special Services," or Section 4-1.03C, "Changes in Character of Work," of the *Standard Specifications*.

     b. If the established cost is necessary to make force account payment on an existing contract change order, include this established cost as a lump sum payment on a supplemental contract change order. Also, unilaterally approve this supplemental contract change order.

  2. On the proposed final estimate, you may list (in the amount the district determines to be payable) any force account billings that have not been paid because of a dispute. Upon return of the proposed final estimate, the contractor must reiterate the disputed extra work, which must be handled like any other claim. Do not list in the proposed final estimate any force account billings the contractor has not yet submitted. It is the contractor's responsibility to either submit these bills before the proposed final estimate or list them as exceptions to the proposed final estimate.

  3. The district will show the required deduction on the proposed final estimate in the same manner as for any other deduction when the contractor has the following outstanding items:

     a. Delinquent or inadequate payrolls

     b. Deficiencies in its equal employment opportunity program

     c. Violations of requirements related to disadvantaged business enterprises

     (These items are also described under the heading "Payment of a Progress Estimate After Contract Acceptance" in this section.) When such deductions are shown, include a statement similar to the following on the letter that accompanies the proposed final estimate: "The amount of $_____, which has been deducted for nonsubmittal of documents required by the contract, will be paid when all such documents have been received."

- Submit Form CEM-6101, "Project Record-Estimate Request," to the district office with the proposed final estimate box checked to initiate the proposed final estimate.

Section 12 Construction Area Traffic Control Devices

Section 12
Contruction Area
Traffic Control
Devices

4-1201 General

4-1201
General

This section provides guidelines for inspecting traffic control devices in construction areas. Section 2-2, "Traffic," of the *Construction Manual* (manual) provides guidelines and a general overview about providing a safe and convenient passage of public traffic through the construction area. Section 2-2 and this section complement each other. Engineers who administer the provisions in Section 12, "Construction Area Traffic Control Devices," of the *Standard Specifications*, must be familiar with both Section 2-2 and this section of the manual.

Engineers administering traffic control must also be familiar with the current *California Manual on Uniform Traffic Control Devices (California MUTCD)*. If a discrepancy occurs between the contract plans and specifications and the *California MUTCD*, the plans and specifications govern.

4-1202 Before Work Begins

4-1202
Before Work Begins

Take the following general steps before work begins:

- To obtain a thorough understanding of the project's traffic control needs and requirements, review the plans, special provisions, *Standard Specifications*, and *Standard Plans*.
- Determine what signs must be placed before work begins for the entire project and before work begins for each stage of the project.
- Determine the methods and equipment the contractor will use for closing lanes, ramps, and roadways, and for flagging and controlling one-way traffic.
- Note the various traffic control devices specified to be used. Some of these devices will require certificates of compliance. Signage and delineation materials listed in the special provisions must be listed in the Caltrans list of approved traffic products and must be covered by certificates of compliance. The resident engineer may accept another product as long as the district traffic engineer has approved it through written confirmation.
- Visually inspect all traffic control devices to ensure conformity with the specifications. If you approve the devices for use, record the approval in the daily reports.

4-1202A Flagging

Discuss any flagging operation with the contractor before the operation begins. Ensure flaggers are trained in accordance with the *California MUTC*D and the *Construction Safety Orders*. Review with the contractor how flaggers will communicate with each other, with pilot cars, and with workers inside the controlled area. Develop a plan for handling emergencies and emergency vehicles in the control zone.

4-1202B Barricades

Verify barricade construction complies with Section 12-3.02, "Barricades," of the *Standard Specifications* and with Sheet A-73C of the *Standard Plans* . Reflective sheeting requires a Certificate of Compliance and a listing in the Caltrans list of approved traffic products. The engineer may accept another product as long as the district traffic engineer has approved it through written confirmation.

4-1202C Flashing Arrow Signs

Verify Type I and Type II flashing arrow signs comply with Section 12-3.03, "Flashing Arrow Signs," of the *Standard Specifications*.

4-1202D Portable Delineators

Before initial placement, verify that the type the contractor proposes conforms to requirements in Section 12-3.04, "Portable Delineators," of the *Standard Specifications*. Portable delineators require a Certificate of Compliance and a listing in the Caltrans list of approved traffic products. The engineer may accept another product as long as the district traffic engineer has approved it through written confirmation.

4-1202E Portable Flashing Beacons

Verify portable flashing beacons conform to requirements in Section 12-3.05, "Portable Flashing Beacons," of the *Standard Specifications*.

4-1202F Construction Area Signs

At the preconstruction conference, remind the contractor of the following:

- The contractor must maintain an inventory of commonly required items at the job site and arrange for sign panels, posts, and mounting hardware or portable sign mounts to be furnished on short notice.
- The special provisions list requirements for signage materials. Substrate and reflective sheeting for construction area signs require a Certificate of Compliance and a listing in the Caltrans list of approved traffic products. The engineer may accept another product as long as the district traffic engineer has approved it through written confirmation.
- Before digging to install signposts, regional notification centers must be notified. Hand digging is required unless the location is free of underground utilities.

4-1202G Channelizers

For requirements for channelizers, review the plans, special provisions, and Section 12-3.07, "Channelizers," of the *Standard Specifications*. Channelizers require a Certificate of Compliance and a listing in the Caltrans list of approved traffic products. The engineer may accept another product as long as the district traffic engineer has approved it through written confirmation.

4-1202H Temporary Railing (Type K)

Determine if temporary railing (Type K) is to be cast on the project. For temporary railing (Type K) cast off the project, a Certificate of Compliance is required.

Determine if temporary railing (Type K) is to be placed within 3 m of a traffic lane. The contractor must provide reflectors and adhesive, as noted in Section 12-3.08, "Temporary Railing (Type K)," of the *Standard Specifications*.

Freshly painted temporary railing (Type K) is required only before its first use on the project unless the special provisions require otherwise.

Reflectors for temporary railing (Type K) require a Certificate of Compliance and a listing in the Caltrans list of approved traffic products. The engineer may accept another product as long as the district traffic engineer has approved it through written confirmation.

4-1202I Traffic Cones

Verify traffic cones comply with Section 12-3.10, "Traffic Cones," of the *Standard Specifications*. If the contractor plans to use cones for night work, determine the type of cone proposed. Removable reflective sleeves must be removed during daylight. Allow use of only one type of retroreflective cone. Reflective sleeves require a Certificate of Compliance and a listing in the Caltrans list of approved traffic products. The engineer may accept another product as long as the district traffic engineer has approved it through written confirmation.

4-1202J Portable Changeable Message Signs

Before the first deployment of portable changeable message signs, arrange with the contractor to have them inspected. Perform field tests to verify compliance with Section 12-3.12, "Portable Changeable Message Signs," of the *Standard Specifications*. Conduct these inspections and tests in conditions similar to those in which they will be used on the project, specifically, during the night or during the day.

Verify that the trailer can be leveled and that the sign operates within the required minimum and maximum heights.

4-1202K Temporary Crash Cushion Module

Review the project plans and sheets T1A, T1B, and T2 of the *Standard Plans*. Frequently the plans for stage construction, detour or traffic handling will require arrays of temporary crash cushion modules. Changes to any of these plans may alter the need for temporary crash cushion modules.

If installing temporary railing (Type K) creates a blunt-end exposure within 4.6 m of the edge of the traveled way, temporary crash cushions are required at that location.

The *Standard Plans* require that temporary crash cushions be installed on wooden pallets. The maximum acceptable pallet height is 115 mm. Pallets that exceed this height raise the sand in the crash cushions above an acceptable level. Do not use typical commercial pallets that exceed the allowed height.

Visually inspect crash cushion modules to ensure they conform to the requirements in the special provisions.

4-1202L Temporary Traffic Screen

For requirements for temporary traffic screen, review the special provisions and Sheet T4 of the *Standard Plans.*

4-1202M Temporary Signal System

As early as possible, verify that all state-furnished equipment is available at the location specified in the special provisions. If the equipment is not available, make other arrangements as soon as possible.

Verify that the actual visibility in the field meets the expected visibility. If sight distance is not adequate, contact the district traffic engineer for suggestions or recommendations.

Remote area signal installations are often located in forests or grasslands. Ensure all fire safety requirements are in place and operative before using the system. Checking fire safety requirements will often involve working with personnel from the local U.S. Forest Service, Bureau of Land Management, or California Department of Forestry.

4-1202N Traffic Plastic Drums

Before initial placement, verify the type that the contractor proposes complies with specified requirements. Reflective sheeting used on traffic plastic drums requires a Certificate of Compliance and a listing in the Caltrans list of approved traffic products. The engineer may accept another product as long as the district traffic engineer has approved it through written confirmation.

4-1202O Traffic Control System

- Before work begins, carefully review the plans, specifications, and sheets T10 through T17 of the *Standard Plans*. It is important to know in advance what personnel, signage, and equipment will be required to implement the traffic control system. Before using any traffic control system, ensure that all the components are on hand and have met all specified requirements.

  Refer to "Cooperation," if applicable, in the special provisions. Frequently a project is one of many in the same vicinity or in the same transportation corridor. In such instances, require that the various contractors coordinate their efforts by submitting in advance their schedules for lane closures and resolving schedule conflicts before any closures are implemented. Review these requirements with the contractors before work starts. Remove or cover any construction area signs that duplicate or contradict the signs for a project within 800 m of another project.

- In the contractor's or subcontractor's yard, if possible before the first use, inspect the signs and equipment the contractor proposes to use. Verify that all the necessary signs, cones, drums, and other equipment are on hand before setting up the system for the first time. If the proposed materials have already been used, check them for acceptability. Replace any unacceptable equipment. It is much easier to correct deficiencies before the system is installed.

- If the contractor is to place the traffic control system repeatedly in the same place, mark on the shoulder or pavement the locations of advance signs, cones, and drums. This will speed the placing of lane closures and ensure better taper alignment.

4-1203 During the Course of Work

4-1203 During the Course of Work

Contractors should maintain all traffic control devices in good working order throughout the project's life. During operations requiring traffic control systems, engineers should ensure that all traffic control devices are correctly located and functioning properly.

4-1203A Flagging

Observe the flagging operation to ensure that the flaggers are using correct procedures for directing motorists. Also, ensure that flagging stations are laid out correctly, are visible to approaching traffic, and have correct advance warning signs. The contractor's flaggers must be properly trained and equipped and must perform their duties in accordance with the *California MUTCD*. When pilot vehicles are used, radios are required.

- Observe the amounts and proportions of materials spread or entered into the hydroseeder. You may use sack counts and weights to determine the weights of seed, stabilizing emulsion, fiber, and commercial fertilizer.
- Compute and record the spread rates of the various materials applied. For each day of operation, compute and record the spread rates at least once.

4-2002D Seed Sampling

Use the following guidelines for obtaining samples for testing.

4-2002D (1) Scope

The purpose of seed testing is to get quality assurance data regarding the purity and viability (germination) of seed. For accurate laboratory test results, seed must be collected and handled to get representative samples. Samples submitted to the laboratory that are not representative can result in inaccurate or erroneous test results.

4-2002D (2) Size of Sample

For each seed lot greater than 1kg, take a seed sample of approximately 30 grams.

4-2002D (3) Procedure for Sampling

Before handling the seed sample, observe the following requirements:

- Do not touch or sample fungicide dyed seed, such as, dyed red or green, or mercury treated seed or seed labeled, "Treated Seed."
- Use protective gloves when sampling seed.
- Use clean gloves to avoid affecting the purity of the seed samples.
- Avoid inhaling any dust.

When taking the seed sample:

- Take a seed sample from a newly opened seed bag.
- Do not mix samples from different seed species or seed lots.
- Sample the seed by thrusting your gloved hand into the bag and withdrawing representative portions.
- Take at least seven equal portions of seed from various parts of the bag.
- Place each portion in a clean container and visually examine the seed for uniformity.
- When the portions appear to be uniform, combine them in a glassine lined bag provided by the contractor.

4-2002D (4) Sample Preparation, Preservation and Packaging

Sample preservation maintains the intergrity of the sample from the time of collection until the tests is performed.

- Keep the samples in a suitable and shaded location. Avoid placing samples in a hot or a damp location.

- Identify the contents of each sample by placing the vendor's original seed label in each bag. Place a custody seal over the bag opening.
- Protect the seed from damage. Package samples in a cardboard box with bubble wrap or insulating peanuts. No additional preservation is necessary.
- Include the following documentation:

  1. Completed Form TL-0101, "Identification Card."
  2. Copy of the seed requirements from the project special provisions.
  3. Seed vendor's seed lot test results.

Send (within 24 hours) the sample and documentation via express mail to the Caltrans contracted seed clearinghouse. The clearinghouse information can be located at:

http://pd.dot.ca.gov/design/landscape/

4-2002E Quality Assurance Seed Testing Results

Consider the following areas when making determinations about seed.

4-2002E (1) Results

Quality assurance testing results will be provided through Caltrans contracted seed clearinghouse.

The clearing house will contact the resident engineer by letter with the results of the quality assurance testing in conformance with the specifications. Some potential issues are:

- Species of seed on the seed label does not match the species in the special provisions.
- The percent total viability of the seed is lower than what is specified in the special provisions.
- The percent total weed identified on the vendor seed label is greater than what is specified in the special provisions.
- The presence of California prohibited noxious weeds is identified on the vendor seed label or test results.

4-2002E (2) Nonconformance Procedures

If the contractor fails to comply with the contract specifications for seed, enforce the appropriate contract provisions to ensure compliance based on the nature and severity of the situation. Refer to Section 6-1.04, "Defective Materials," in the *Standard Specifications*.

4-2002F Measurement and Payment

From the weight shown on the certified scale sheets, deduct any leftover straw not used in the work. If a "weigh back" certified weight is not available, you may use bale counts and average bale weights for this purpose.

To determine pay quantities, you may use sack counts and sack weights. Make accurate counts, and record them in the project records.

Determine the pay quantity of live seed using the germination and purity rates of the bulk seed.

Section 27 Cement Treated Bases

4-2701 General

Cement-treated base (CTB) is composed of a mix of aggregate, portland cement, and water. CTB, specified as either Class A or Class B, is generally used only with asphalt pavements and can be either plant mixed or road mixed. However, plant mixed is most common.

CTB can be spread by three allowable methods. The special provisions will specify the class, mix method, and possibly the spreading method.

4-2702 Before Work Begins

Before work begins, take the following steps:

- Hold a preproduction meeting with the contractor and the district materials unit to discuss the contractor's method of operations.
- From the special provisions or plans, determine the class of CTB required and the percent of cement to be added to the aggregate.
- For initial testing, obtain representative samples from the contractor's source of CTB aggregate, and test for the required quality. Compressive strengths of CTB can vary significantly because of variations in aggregate gradation and the type of cement used. The fine aggregate usually has the most variable effect on strength. Advise the contractor that any significant material change, including variations in gradation, must be covered by new tests for quality characteristics. Request strength tests at 5 percent of cement and other percentages above and below 5 percent (usually in 0.5 percent increments). For aggregates of borderline quality, consider making additional initial strength tests at varying gradations (within specifications), using 5 percent cement.
- For sources with reliable information on past performance, consider using such information in lieu of testing. However, a test should always be made at 5 percent for aggregate qualification.
- Based on test results, decide whether the percent of cement specified in the special provisions will produce the design strength in the finished product. When making the decision, consider that, because of production variables, a significant difference can exist between the strength indicated by a cylinder and the actual strength of the finished product. Allowable variations in cement content and compaction requirements are major contributors to differences between design and actual strength. If it is difficult to determine the effect of production variables on final strength, use the following guidelines:

  1. Increase cement content if the seven-day compressive strength of initial samples is less than approximately 6.9 Mpa.
  2. Decrease cement content if the seven-day compressive strength of initial samples at the percent specified is more than approximately 8.6 Mpa.

- Verify that safe and convenient facilities have been provided for sampling cement.
- In accord with the State Contract Act, verify that the material and aggregate source complies with the Surface Mining and Reclamation Act of 1975 (SMARA). Mining operations determined to be in compliance are listed on the AB 3098 SMARA Eligible List. You can obtain this list from the Division of Construction or the Department of Conservation's web site at:

  http://www.consrv.ca.gov/OMR/ab_3098_list/index.htm

  Also, see Section 7-103D to determine if the proposed materials site is exempt from SMARA.
- If the contractor will be batch mixing, examine the mixer before use and call to the contractor's attention any excessively worn or missing paddles.
- Before spreading any CTB materials, ensure that the subgrade complies with specifications and that the grade is free of loose or extraneous material. Record the findings in the daily report, including any instructions to the contractor.
- Determine that the asphaltic emulsion used for curing seal is the material specified, and obtain necessary certificates of compliance and samples.
- Decide on the application rate for the curing seal to be used, and advise the contractor accordingly. Base the determination on an amount that will provide a complete membrane without appreciable thickness. Ensure the application rate conforms to requirements.

4-2703 During the Course of Work

4-2703 During the Course of Work

During the work, do the following:

- Before mixing, obtain samples of the aggregate and test them for the specified attributes in accordance with the frequencies shown in Section 6-1, "Sample Types and Frequencies," of the *Construction Manual* (manual).
- To evaluate the compressive strength of Class A CTB, obtain samples during the first day of operation and approximately every fifth day of production thereafter. If these tests reasonably match the anticipated results based on the initial tests, you can reduce the frequency of the tests (unless a change in material is suspected or the material sources were changed).
- To determine compliance with permissible variations in cement content, obtain sufficient samples for California Test 338, "Determination of Cement or Lime Content in Treated Aggregate by the Titration Method." Section 6-1, "Sample Types and Frequencies," of this manual states the frequency should be "as necessary for control." This frequency may vary depending on the efficiency of the contractor's operation and rate of production. At a minimum, assign one inspector full time to run the titration tests while the operation is in full-time production. At the start of operations or when problems persist, more effort may be required.
- Determine whether compaction requirements are being met. It is Caltrans' policy to measure compaction separately for each lift whenever this separate measurement is physically possible.

4-2703A Road-Mixed CTB

For road-mixed CTB used during the course of work, do the following:

- If you think the quantity being placed obviously is not sufficient to complete the required structural section thickness, advise the contractor. Record any conversation in your daily report.
- Ensure the mixer introduces water by approved methods. To keep the resulting mixture uniformly moist, the mixer should be able to accurately vary the water rate. Advise the contractor to correct leaks or excessive water applications.
- Observe the mixing operation to ensure the uniform distribution of cement and water. When the mixer has a bottom shell or pan to pick up the material and separate it from the mixing table, ensure the shell or pan picks up all the material and doesn't cut into the subgrade.
- Ensure the cement is spread by mechanical equipment that can be calibrated to uniformly distribute the cement in the correct amount. Placing cement by hand methods, such as by sacks, is unacceptable.
- Take sufficient moisture tests to ensure the completed mixture's moisture content does not fall below one percentage point from optimum.
- For multilayer construction, ensure the contractor mixes and compacts each layer separately.

4-2703B Plant-Mixed CTB

For plant-mixed CTB used during the work, do the following:

- To calibrate and check the accuracy of weighing and metering devices, request assistance from the district weights and measures coordinator.
- Ensure the contractor is adding water by a method that permits the amount or rate to be verified. Obtain sufficient moisture tests to ensure the completed mixture's moisture content does not fall below one percentage point from optimum.
- To detect any obvious faults, observe the mixing operation and the mixture. Time the mixing operation to ensure it takes longer than 30 seconds. If observations or tests indicate poor cement distribution, require a longer mixing cycle.

4-2703C Depositing and Spreading CTB

During the depositing and spreading of CTB, do the following:

- Ensure the contractor uses the specified type of spreading operation.
- Generally, if loads are hauled in hot weather and if the haul takes more than 30 minutes, require covers on hauling units.
- Spreading can be a separate operation from depositing or it can be combined in a single operation with depositing. If spreading is a separate operation, ensure the contractor complies with the requirements for uniform placement.
- If you think the quantity being placed is insufficient to construct the required structural section thickness, advise the contractor. Record any conversation in the daily report.
- Immediately before placing CTB, ensure the underlying material is moist but not excessively wet.

- Observe whether significant segregation is occurring. If problems persist, perform additional tests to document the problem.
- Observe the surface condition of any lower layer of CTB. Ensure the contractor complies with moisture requirements for lower layers. Keep separate records for any curing seal placed on lower layers.
- Ensure the contractor uses satisfactory methods to place CTB in areas inaccessible to mechanical spreading equipment. The end product must be homogeneous, placed to the required thickness, and properly compacted.
- Ensure the contractor complies with temperature requirements for spreading CTB.

4-2703D Compacting CTB

During the compacting of CTB, do the following:

- Measure the operation's total time interval to ensure it conforms to Section 27-1.08, "Operation Time Requirements," of the *Standard Specifications*.
- To ensure compliance with compaction requirements, test each layer of multilayer construction.
- After the initial rolling, ensure the finished surface is within the specified tolerance. Require the contractor to trim high spots and to meet the requirements for filling low areas. Prohibit the contractor from filling low areas with loose material from the trimming operation.
- Ensure the equipment used for final compaction repairs any surface areas that the trimming has torn or segregated.
- To ensure compliance with the specified tolerance, measure the finished surface with a straightedge.

4-2704 Measurement and Payment

4-2704 Measurement and Payment

For measurement and payment, do the following:

- Use contract change orders to cover ordered changes in the cement content.
- Do not pay as CTB any excess material used at other locations.
- When CTB is paid for by the tonne, refer to the discussion of weighing and metering procedures in Section 3-9, "Measurement and Payment," of this manual. Make any appropriate deductions for excess moisture.
- When CTB is to be paid for by the cubic meter, obtain quantity calculations from the project engineer to determine if they are sufficiently detailed and accurate to be used in the project records. Make appropriate deductions for any lack of compliance with thickness specifications.
- For more information about measuring curing seal, refer to Section 4-94, "Asphaltic Emulsions," of this manual.

Section 1 Project Records and Reports

5-101 Forms Used For Contract Administration

5-101A General

5-101B Construction Forms

Form CEM-0101, Resident Engineer's Report of Assignment
Form CEM-0501, Relief from Maintenance
Form CEM-0601, Construction Safety Report
Form CEM-0602, Project Safety Program Statement
Form CEM-0603, Major Construction Incident Notification
Form CEM-1101, Documents Bond of State Highway Oversight Projects
Form CEM-1201, Subcontracting Request
Form CEM-1202, Contractor Action Request - Change of Name/Address Assignment of Contract Monies
Form CEM-1203, Contractor Action Request - Assignment of Contract Performance
Form CEM-2001, National Pollution Discharge Elimination System Annual Certification
Form CEM-2002, Notification of Construction (NOC)
Form CEM-2003, Notification of Completion of Construction (NCC)
Form CEM-2004, Notitfication of Completion of Construction (Desert Areas)
Form CEM-2101, COZEEP Daily Report
Form CEM-2102, COZEEP/MAZEEP Task Order
Form CEM-2103, COZEEP/MAZEEP Cancellation Form
Form CEM-2401, Substitution Report for Disadvantaged Business Enterprise/Disabled Veteran Business Enterprise
Form CEM-2402(F), Final Report- Utilization of Disadvantaged Business Enterprises (DBE), First - Tier Subcontractors (Federally Funded Projects)
Form CEM-2402(S), Final Report - Utilization of Disabled Veteran Business Enterprises (DVBE) State Funded Projects
Form CEM-2403(F), Disadvantaged Business Enterprises (DBE) Certification Status Change
Form CEM-2404(F), Monthly DBE Trucking Verification
Form CEM-2501, Fringe Benefit Statement
Form CEM-2502, Contractor/Subcontractor Payroll
Form CEM-2503, Statement of Compliance
Form CEM-2504, Employee Interview: Labor Compliance/EEO
Form CEM-2504 (Spanish), Entrevista de Empleado: Labor Compliance/EEO
Form CEM-2505, Owner - Operator Listing Statement of Compliance
Form CEM-2506, Labor Compliance – Wage Violation

Form CEM-2507, Labor Violation: Case Summary
Form CEM-2508, Contractor's Payroll Source Document Review
Form CEM-2509, Checklist – Source Document Review
Form CEM-2510, Truck Owner-Operator Certification of Ownership
Form CEM-2601, Construction Progress Chart
Form CEM-2701, Weekly Statement of Working Days
Form CEM-2702, Overrun in Contract Time
Form CEM-3101, Notice of Materials to be Used
Form CEM-3501, AC Production/Placement Checklist
Form CEM-3701, Test Result Summary
Form CEM-3702, Relative Compaction Summary
Form CEM-4101, Materials Release Summary
Form CEM-4102, Material Inspected and Released on Job
Form CEM-4202, Material Plant Safety Checklist
Form CEM-4204, California Test 109 Sticker
Form CEM-4401, Solid Waste Disposal and Recycling Report
Form CEM-4501, Resident Engineer's Daily Report/Assistant Resident Engineer's Daily Report
Form CEM-4601, Assistant Resident Engineer's Daily Report
Form CEM-4701, Drainage System Summary
Form CEM-4801, Quantity Calculations
Form CEM-4900, Contract Change Order
Form CEM-4901, Contract Change Order Input
Form CEM-4902, Extra Work Bill (Short Form)
Form CEM 4902A, Extra Work Bill - Title Page
Form CEM-4902B, Extra Work Bill - Labor Charges
Form CEM-4902C, Extra Work Bill - Equipment Charges
Form CEM-4902D, Extra Work Bill - Material Charges
Form CEM-4903, Contract Change Order Memorandum
Form CEM-5101, Request for Payment for Materials on Hand
Form CEM-6002, Contract Administration System (CAS) –Report Requests
Form CEM-6003, Progress Pay - Estimate Project Initiation or Update
Form CEM-6004, Contract Transactions Input
Form CEM-6101, Project Record - Estimate Request
Form CEM-6201, Notice of Potential Claim
Form CEM-6201A, Initial Notice of Potential Claim
Form CEM-6201B, Supplemental Notice of Potential Claim
Form CEM-6201C, Full and Final Documentation of Potential Claim
Form CEM-6202, Disputes Review Board (DRB) Establishment
Form CEM-6203, Dispute Review Board (DRB) Update Report
Form CEM-6204, Dispute Review Board (DRB) Issue Report
Form CEM-6205, Dispute Review Board (DRB) Completion Report
Form CEM-6301, Contract Acceptance
Form CEM-9001, Construction Manual Proposed Change

Form CEM-2001, National Pollution Discharge Elimination System Annual Certification

The resident engineer uses Form CEM-2001, "National Pollution Discharge Elimination System Annual Certification," to file the annual storm water permit certification by July 1 of each year. See Chapter 7, "Environmental," for details on the storm water permit certification.

Form CEM-2002, Notification of Construction (NOC)
The resident engineer, with the assistance of the district construction storm water coordinator, fills out Form CEM-2002, "Notification of Construction (NOC)." The Caltrans National Pollutant Discharge Elimination System Permit requires Caltrans to submit the notification to the Regional Water Control Board. Instructions are included on the back of the form.

Form CEM-2003, Notification of Completion of Construction (NCC)
Submits Form CEM-2003, "Notification of Completion of Construction (NCC)," for projects requiring a storm water pollution prevention plan to the Regional Water Quality Control Board upon completion of construction. Usually, the resident engineer submits the notification. However, districts may elect to have the storm water coordinator, project manager, construction engineer, or other responsible staff submit this form. This form is not required for water pollution control plan projects. Directions are on the back of the form.

Form CEM-2004, Notification of Completion of Construction (Desert Areas)
The resident engineer or district storm water coordinator submits Form CEM-2004, "Notification of Completion of Construction (Desert Areas)," for projects requiring a storm water pollution prevention plan for region 6 or 7 of the California Regional Water Quality Control Board.

Form CEM-2101, COZEEP Daily Report

Jointly, The California Highway Patrol and Caltrans use Form CEM-2101, "COZEEP Daily Report," to report highway patrol resources used for the Construction Zone Enhanced Enforcement Program. Chapter 2, "Safety and Traffic," of this manual describes the use of Form CEM-2101.

Form CEM-2102, COZEEP/MAZEEP Task Order

The resident engineer uses Form CEM-2102, "COZEEP/MAZEEP Task Order," to request highway patrol support for the Construction Zone Enhanced Enforcement Program. The use of this form is described in Section 2, "Safety and Traffic," of this manual.

Form CEM-2103, COZEEP/MAZEEP Cancellation Form

The resident engineer uses Form CEM-2103, "COZEEP/MAZEEP Cancellation Form," to cancel any previously requested highway patrol support for the Construction Zone Enhanced Enforcement Program. The use of this form is described in Section 2, "Safety and Traffic," of this manual.

Form CEM-2401, Substitution Report for Disadvantaged Business Enterprise/ Disabled Veteran Business Enterprise

The contractor fills out Form CEM-2401, "Substitution Report for Disadvantaged Business Enterprise/Disabled Veteran Business Enterprise." The resident engineer uses the form to approve disadvantaged business enterprise (DBE) subcontractor substitutions. For more information on substituting subcontractors refer to Sections 3-8, "Prosecution and Progress," and 8-3, "Disadvantaged Business," of this manual.

Form CEM-2402(F), Final Report- Utilization of Disadvantaged Business Enterprises (DBE), First - Tier Subcontractors (Federally Funded Projects)

The contractor fills out and certifies Form CEM-2402(F), "Final Report- Utilization of Disadvantaged Business Enterprises (DBE), First - Tier Subcontractors (Federally Funded Projects)." The resident engineer verifies the form. It describes work performed and materials provided by disadvantaged business enterprise subcontractors. See Section 8-3, "Disadvantaged Business," of this manual for details.

Form CEM-2402(S), Final Report - Utilization of Disabled Veteran Business Enterprises (DVBE) State Funded Projects

The contractor fills out and certifies Form CEM-2402(S), "Final Report - Utilization of Disabled Veteran Business Enterprises (DVBE) State Funded Projects." The resident engineer verifies the form. It describes work performed and materials provided by disabled veteran business enterprise subcontractors on state funded projects. See Section 8-3, "Disadvantaged Business," of this manual for details.

Form CEM-2403(F), Disadvantaged Business Enterprises (DBE) Certification Status Change

The contractor fills out and certifies Form CEM-2403(F), "Disadvantaged Business Enterprises (DBE) Certification Status Change." The resident engineer uses this form to verify the actual dollar amount paid to DBE subcontractors on federally funded projects that have a change in certification status during the course of the contract. See Section 8-3, "Disadvantaged Business," of this manual for details.

Form CEM-2404(F), Monthly DBE Trucking Verification

The contractor must submit Form CEM-2404(F), "Monthly DBE Trucking Verification," before the 15th of each month. It lists the dollar amount paid to the DBE trucking companies for truck work performed by DBE certified truckers and for any fees or commissions for non-DBE truckers utilized each month on the project. Instructions for filling out this form are on the back of the form.

Form CEM-2501, Fringe Benefit Statement

The contractor completes Form CEM-2501, "Fringe Benefit Statement," for labor compliance purposes. See Section 8-1, "Labor Compliance," of this manual for more information.

Form CEM-2502, Contractor/Subcontractor Payroll

When it is requested, furnish "Form CEM-2502, Contractor/Subcontractor Payroll," to the contractor. It is used to fulfill the payroll submittal requirements of the contract. See Section 8-1, "Labor Compliance," of this manual for more information.

Form CEM-2503, Statement of Compliance

The contractor may use Form CEM-2503, "Statement of Compliance," for the required statement of compliance with payroll submittals. See Section 8-1, "Labor Compliance," of this manual for more information.

Form CEM-2504, Employee Interview: Labor Compliance/EEO
(Stock # 7541-3512-3)

Use Form CEM-2504, "Employee Interview: Labor Compliance/EEO," to record information from interviews of contractors' employees. Directions to interviewer are on the back of the form. See Section 8-1, "Labor Compliance," of this manual for more information.

Form CEM-2504 (Spanish), Entrevista de Empleado: Labor Compliance/EEO

Same as above. Form printed in Spanish.

Form CEM-2505, Owner - Operator Listing Statement of Compliance

If they do not include this data on their certified payrolls, contractors may use Form CEM-2505, "Owner - Operator Listing Statement of Compliance," for reporting payments made to owner-operators. See Section 8-1, "Labor Compliance," of this manual for more information.

Form CEM-2506, Labor Compliance – Wage Violation

The district labor compliance officer uses Form CEM-2506, "Labor Compliance – Wage Violation," to document labor compliance wage violations. See Section 8-1, "Labor Compliance," of this manual for more information.

Form CEM-2507, Labor Violation: Case Summary

The district labor compliance officer uses Form CEM-2507, "Labor Violation: Case Summary," in conjunction with Form CEM-2506 to summarize labor violation cases. See Section 8-1, "Labor Compliance," of this manual for more information.

Form CEM-2508, Contractor's Payroll Source Document Review

The district labor compliance officer uses Form CEM-2508, "Contractor's Payroll Source Document Review" to document the verification of the contractors' payroll source document review. See Section 8-1, "Labor Compliance," of this manual for more information.

Form CEM-2509, Checklist – Source Document Review

The district labor compliance officer uses Form CEM-2509, "Checklist – Source Document Review," during the contractor's payroll source document review. See Section 8-1, "Labor Compliance," of this manual for more information.

Form CEM-2510, Truck Owner-Operator Certification of Ownership

The truck owner-operator uses Form CEM-2510, "Truck Owner-Operator Certification of Ownership," to identify the vehicle used and certify ownership or lease of the vehicle. The Form CEM-2510 should be submitted once per project to the district labor compliance office unless changes to the data would necessitate a new form. See Section 8-1, "Labor Compliance," of this manual for more information.

Form CEM-2601, Construction Progress Chart

The resident engineer maintains Form CEM-2601, "Construction Progress Chart," for each project. See Section 3-8, "Prosecution and Progress," of this manual for details.

Form CEM-2701, Weekly Statement of Working Days (Stock # 7541-3528-7)

The resident engineer uses Form CEM-2701, "Weekly Statement of Working Days," to track contract time on construction contracts. The back of the form and Section 3-8, "Prosecution and Progress," of this manual contain instructions for filling out the weekly statement of working days.

Form CEM-2702, Overrun in Contract Time

The Division of Construction uses Form CEM-2702, "Overrun in Contract Time," to approve "director days." For more information see Section 3-8, "Prosecution and Progress," of this manual.

Form CEM-3101, Notice of Materials to Be Used (Stock # 7541-3511-1)

The contractor must use Form CEM-3101, "Notice of Materials to Be Used," to list all materials to be used on the project. See Section 6-2, "Acceptance of Manufactured Material and Sampling Methods," of this manual for details on the use of this form. Instructions to the contractor are on the back of the form.

Form CEM-3501, AC Production/Placement Checklist

Resident engineers and assistant resident engineers may use Form CEM-3501, "AC Production/Placement Checklist," to identify asphalt concrete paving problems.

Form CEM-3701, Test Result Summary

Resident engineers may use Form CEM-3701, "Test Result Summary" to summarize acceptance tests on each material. See Category 37, "Initial Tests and Acceptance Tests," in Section 5-102, "Organization of Project Documents," of this manual for details.

Form CEM-3702, Relative Compaction Summary

Resident engineers may use Form CEM-3702, "Relative Compaction Summary," to summarize compaction test results in the same manner that Form CEM-3701 is used for other tests.

Form CEM-4101, Materials Release Summary

Resident engineers use Form CEM-4101, "Materials Release Summary," to summarize the materials released by METS and materials inspected at the job site.

Form CEM-4102, Material Inspected and Released on Job

Resident engineers use Form CEM-4102, "Material Inspected and Released on Job," to list certain materials that may arrive on the job site without a Form TL-0029, "Report of Inspection of Material." See Section 6-3, "Field Tests," of this manual for details.

Form CEM-4202, Material Plant Safety Checklist

The materials plant inspector uses Form CEM-4202, "Material Plant Safety Checklist," when checking a materials plant for safety.

Form CEM-4204, California Test 109 Sticker

The district weights and measures coordinator affixes Form CEM-4204, "California Test 109 Sticker" to each scale tested in accordance with California Test 109. Obtain the form from the Division of Construction weights and measures coordinator. Sample form not in appendix. See Section 3-903E, "Weighing and Metering Procedures," of this manual for details.

Form CEM-4401, Solid Waste Disposal and Recycling Report

The contractor completes and certifies the information reported on CEM-4401, "Solid Waste Disposal and Recycling Report." The resident engineer reviews then submits the approved form to the district recycling coordinator with a copy to the statewide recycling coordinator in headquarters Division of Design. The use of this form is described in Section 7-109, "Solid Waste Disposal and Recycling Reporting," of this manual.

Form CEM-4501, Resident Engineer's Daily Report/Assistant Resident Engineer's Daily Report (Stock # 7541-3506-1)

The resident engineer and the assistant resident engineers use Form CEM-4501, "Resident Engineer's Daily Report/Assistant Resident Engineer's Daily Report," to record project activities daily. For more information see Section 5-0, "Conduct of the Work," of this manual.

Form CEM-4601, Assistant Resident Engineer's Daily Report (Stock # 7541-3504-6)

Assistant resident engineers use Form CEM-4601, "Assistant Resident Engineer's Daily Report," to record daily individual contract item activity. It is also used to record extra work activity and to verify contractors' personnel listed on payrolls. For more information see Section 5-0, "Conduct of the Work," of this manual.

Form CEM-4701, Drainage System Summary (Stock # 7541-3521-2)

Resident engineers and assistant resident engineers use Form CEM-4701, "Drainage System Summary," to record progress and summarize activity on drainage contract items. See category 47, "Drainage Systems," in Section 5-102, "Organization of Project Documents," of this manual for details.

Form CEM-4801, Quantity Calculations (Stock # 7541-3520-0)

Resident engineers and assistant resident engineers use Form CEM-4801, "Quantity Calculations," for the basic source document for most contract item quantity calculations.

Form CEM-4900, Contract Change Order (Stock # 7541-3501-0)

Resident engineers use Form CEM-4900, "Contract Change Order," for contract change orders. See Section 5-3, "Contract Change Orders," of this manual for information about contract change orders.

Form CEM-4901, Contract Change Order Input (Stock # 7541-3516-2)

Resident engineers and assistant resident engineers use Form CEM-4901, "Contract Change Order Input," to input contract change orders for the project record and estimate data. See Section 5-103D, "Contract Change Orders," of this manual for details.

Form CEM-4902, Extra Work Bill (Short Form) (Stock # 7541-3500-8)

Contractors use Form CEM-4902, "Extra Work Bill (Short Form)," for billing extra work. Details for use are on the back of the form and are also included in Section 5-103E, "Extra Work Billing," of this manual. The resident engineer may approve contractor-designed forms. With prior approval from the Division of Construction, the contractor may submit extra work bill data on a computer report identical to Form CEM-4902 for all Caltrans projects.

Form CEM 4902A, Extra Work Bill - Title Page (Stock # 7541-3496-7)

Contractors use Form CEM 4902A, "Extra Work Bill - Title Page," for billing extra work. It is the first page of the 4-part extra work bill. It identifies the project, contract change order number, method of payment and performer of work. This form also provides for manual calculation of the bill. Details for use are on the back of the form and are also included in Section 5-103E, "Extra Work Billing," of this manual. The resident engineer may approve contractor-designed forms. With prior approval from the Division of Construction, the contractor may submit extra work bill data on a computer report identical to Form CEM-4902A for all Caltrans projects.

Form CEM-4902B, Extra Work Bill - Labor Charges (Stock # 7541-3497-9)

Contractors use Form CEM-4902B, "Extra Work Bill - Labor Charges," for billing extra work. It is used to enter labor charges and other expense subject to labor markup. This form is used with CEM-4902A, "Extra Work Bill Title Page." Details for use are on the back of the form and are also included in Section 5-103E, "Extra Work Billing," of this manual. The resident engineer may approve contractor-designed forms. With prior approval from the Division of Construction, the contractor may submit extra work bill data on a computer report identical to Form CEM-4902B for all Caltrans projects.

Form CEM-4902C, Extra Work Bill - Equipment Charges (Stock # 7541-3498-1)

Contractors use Form CEM-4902C, "Extra Work Bill - Equipment Charges," for billing extra work. It is used to enter equipment charges to the extra work bill. This form is used with CEM-4902A, "Extra Work Bill - Title Page." Details for use are on the back of the form and are also included in Section 5-103E, "Extra Work Billing," of this manual. The resident engineer may approve contractor-designed forms. With prior approval from the Division of Construction, the contractor may submit extra work bill data on a computer report identical to Form CEM-4902C for all Caltrans projects.

Form CEM-4902D, Extra Work Bill - Material Charges (Stock # 7541-3499-3)

Contractors use Form CEM-4902D, "Extra Work Bill - Material Charges," for billing extra work. It is used to enter material charges to the extra work bill. This form is used with CEM-4902A, "Extra Work Bill - Title Page." Details for use are on the back of the form and are also included in Section 5-103E, "Extra Work Billing," of this manual. The resident engineer may approve contractor-designed forms. With prior approval from the Division of Construction, the contractor may submit extra work bill data on a computer report identical to Form CEM-4902D for all Caltrans projects.

Form CEM-4903, Contract Change Order Memorandum (Stock # 7541-3544-0)

Resident engineers use Form CEM-4903, "Contract Change Order Memorandum" in conjunction with Form CEM-4900, "Contract Change Order," to report the necessary engineering and administrative data relative to the change. See Section 5-3, "Contract Change Orders," of this manual for details.

Form CEM-5101, Request for Payment for Materials on Hand (Stock # 7541-3522-4)

Contractors use Form CEM-5101, "Request for Payment for Materials on Hand," to request payment for materials on hand. Instructions for the form and administrative procedures are covered in Section 3-9, "Measurement and Payment," of this manual.

Form CEM-6002, Contract Administration System (CAS) - Report Requests

Use Form CEM-6002, "Contract Administration System (CAS) - Report Requests," to obtain reports available from the contract administration system. See Section 5-103, "The Contract Administration System (CAS)," of this manual for details.

Form CEM-6003, Progress Pay - Estimate Project Initiation or Update

Use Form CEM-6003, "Progress Pay - Estimate Project Initiation or Update," to add new information or to change information in the contract administration system. For details see Section 5-103B, "Project Initiation and Update," of this manual.

Form CEM-6004, Contract Transactions Input (Stock # 7541-3515-0)

Use Form CEM-6004, "Contract Transactions Input," to input estimate data into the contract administration system for the project record and estimate. See Section 5-103C, "Contract Transactions," of this manual for details.

Form CEM-6101, Project Record - Estimate Request

The resident engineer uses Form CEM-6101, "Project Record - Estimate Request," to request that an estimate be run. See Section 5-103F (1), "Procedure," of this manual for details.

Form CEM-6201, Notice of Potential Claim

Contractors use Form CEM-6201, "Notice of Potential Claim," to submit notices of potential claims to the resident engineer. For details on the use of this form see Section 5-4, "Disputes," of this manual.

Form CEM-6201A, Initial Notice of Potential Claim

Contractors use Form CEM-6201A , "Initial Notice of Potential Claim," to submit an early notice of a potential claim issue. For details on the use of this form, see Section 5-4, "Disputes," of this manual.

Form CEM-6201B, Supplemental Notice of Potential Claim

Contractors use Form CEM-6201B, "Supplemental Notice of Potential Claim," to submit a detailed description along with the necessary attachments of the nature, circumstances, and estimated costs of a potential claim as a follow up to Form CEM-6201A, "Initial Notice of Potential Claim."

Form CEM-6201C, Full and Final Documentation of Potential Claim

Contractors use Form CEM-6201C, "Full and Final Documentation of Potential Claim," to submit a complete documentation of a potential claim after completeion of the work for which Forms CEM-6201A and CEM-6201B have been submitted. For details on the use of this form, see Section 5-4, "Disputes," of this manual.

Form CEM-6202, Disputes Review Board (DRB) Establishment

Resident engineers complete and submit Form CEM-6202, "Disputes Review Board (DRB) Establishment Report," to the Division of Construction after the initial DRB meeting has been held. For details on the use of this form, see Section 5-4, "Disputes," of this manual.

Form CEM-6203, Dispute Review Board (DRB) Update Report

Resident engineers complete and submit Form CEM-6203, "Disputes Review Board (DRB) Update Report," to the Division of Construction yearly beginning on the anniversary of the contract first working day. For details on the use of this form, see Section 5-4, "Disputes," of this manual.

Form CEM-6204, Dispute Review Board (DRB) Issue Report

Resident engineers complete and submit Form CEM-6204, "Disputes Review Board (DRB) Issue Report," to the Division of Construction when Caltrans has sent a response to DRB recommendation and the contractor's response has been received or has been accepted by default. For details on the use of this form see Section 5-4, "Disputes," of this manual.

Form CEM-6205, Dispute Review Board (DRB) Completion Report

Resident engineers complete and submit Form CEM-6205, "Disputes Review Board (DRB) Completion Report," to the Division of Construction 30 days after receipt of the contractor's exceptions to the proposed final estimate. For details on the use of this form see Section 5-4, "Disputes," of this manual.

Form CEM-6301, Contract Acceptance

Resident engineers use Form CEM-6301, "Contract Acceptance," to document acceptance and the various quantities delivered by the contract. Instructions are on the back of the form. For details on the use of this form see Section 3-710, "Acceptance of Contract," of this manual.

Form CEM-9001 Construction Manual Proposed Change

Caltrans personnel may use Form CEM-9001 "Construction Manual Proposed Change," to submit a proposed change to the *Construction Manual*. Forms should be sent to the Division of Construction.

5-101C Office of Materials Engineering and Testing Services Forms (METS)

Order METS forms by stock number from district warehouses or stockrooms. Find forms without stock numbers on the Caltrans Electronic Form System's (CEFS) Intranet web site: http://adsc.caltrans.ca.gov/CEFS/. The appendix of this manual contains samples the forms that are generated in construction. Forms without stock numbers can also be obtained by contacting METS.

Form TL-0028, Notice of Materials to be Inspected

METS uses Form TL-0028, "Notice of Materials to be Inspected," to assign inspection duties. METS sends copies of these assignment forms to the resident engineer. Sample form not in appendix.

Form TL-0029, Report of Inspection of Material (Stock # 7541-6001-2)

METS will complete Form TL-0029, "Report of Inspection of Material," to confirm the inspection of material to which the inspector has attached inspection release tags or other means of identification. METS mails the report to the resident engineer, who will compare it with inspection tags or markings on delivered materials. Sample form not in appendix.

Form TL-0101, Sample Identification Card

Use Form TL-0101, "Sample Identification Card," to submit samples to METS or district materials laboratories for testing materials other than field samples of concrete (compressive strength) and cement samples.

Form TL-0502, Field Sample of Portland Cement Concrete Sample Card (Stock #7541-6018-8)

Use Form TL-0502, "Field Sample of Portland Cement Concrete Sample Card," to submit compressive strength samples of concrete. Refer to Section 6-3, "Field Tests," for details on marking of samples.

Form MR-0518, Job Cement Samples Record (Stock # 7541-6019-0)

Use Form MR-0518, "Job Cement Samples Record," to submit cement samples for testing. Instructions for the use of this form are found in Section 6-2, "Acceptance of Manufactured Material and Sampling Methods," of this manual.

Form TL-0608, Notice of Materials to be Furnished

METS uses Form TL-0608, "Notice of Materials to be Furnished," to notify the manufacturer that a METS inspector has been assigned to inspect a specific item. See Section 6-2, "Acceptance of Manufactured Material and Sampling Methods," of this manual for more details. Sample form not in appendix.

Form TL-0624, Inspection Release Tag

When a METS Inspector has inspected material, the inspector will attach Form TL-0624, "Inspection Release Tag," with lot numbers, inspector's initials, and date of inspection. For materials where it is not practicable to attach tags, the inspector will mark lot numbers on the material in lieu of attaching the tags. Sample form not in appendix.

Form TL-0649, Inspector's Report of Material on Hand

METS uses Form TL-0649, "Inspector's Report of Material on Hand," to verify that material has been inspected and is in acceptable condition. See Section 3-9, "Measurement and Payment," of this manual for details. Sample form not in appendix.

Form TL-3096, Pavement Core Record

The district materials unit uses Form TL-3096, "Pavement Core Record," to record the data on cores that are taken to determine pavement thickness. See Section 4-40, "Portland Cement Concrete Pavement," of this manual for details. Sample form not in appendix.

Form TL-6037, Fabrication Progress Report

DMETS uses Form TL-6037, "Fabrication Progress Report," to notify resident engineers of progress being made on fabrication of various items. See Section 3-9, "Measurement and Payment," for details. Sample form not in appendix.

5-101D Other State Forms

Following is a list of state forms used in contract administration that are not issued by the Division of Construction or METS.

Form DAS-1, Apprentice Agreement

Form DAS-1, "Apprentice Agreement," provides evidence of registration of the contractor's apprenticeship program (Sample form not in appendix). Contractors obtain Form DAS-1 from the *California Department of Industrial Relations, Division of Apprenticeship Standards.*

Form H-ESP-16, Request for Construction Staking (Stock #7541-4542-7)

The contractor uses Form H-ESP-16, "Request for Construction Staking," to request construction staking. The resident engineer and the survey party chief add information to the request. It serves as a record of construction staking and any charges to the contractor for re-staking. For information on construction surveys and use of Form H-ESP-16, see Chapter 12, "Construction Surveys," of the *Caltrans Surveys Manual.*

Form LA-16, Product, Material, or Method Report (For Highway Planting or Erosion Control)

Use Form LA-16, "Product, Material, or Method Report (For Highway Planting or Erosion Control)," to report new products, materials, or methods for erosion control and highway planting. Send the completed report to the district landscape architect and to the Landscape Architecture Program. See section 4-2001, "General," of this manual for details.

Form LA-17, Report of Chemical Spray Operations

The contractor uses Form LA-17, "Report of Chemical Spray Operations," to submit the required weekly pesticide application report. See Section 4-2003C (2), "Pesticides," of this manual for details.

Form TR-0019, Notice of Change in Clearance or Bridge Weight Rating

Use Form TR-0019, "Notice of Change in Clearance or Bridge Weight Rating," to report permanent changes to vertical or horizontal clearance for vehicular traffic or permanent changes in bridge permit ratings on divided roadways. See Section 3-705B, "Clearance and Bridge Permit Rating Changes (Permanent)," of this manual for details.

Form TR-0020, Notice of Change in Vertical or Horizontal Clearance

Use Form TR-0020, "Notice of Change in Vertical or Horizontal Clearance," to report permanent changes to vertical or horizontal clearance for vehicular traffic. See Section 3-705B, "Clearance and Bridge Permit Rating Changes (Permanent)," of this manual for details.

Form TR-0029, Notice of Change in Clearance or Bridge Weight Rating

Use Form TR-0029, "Notice of Change in Clearance or Bridge Weight Rating," to report permanent changes to vertical or horizontal clearance for vehicular traffic or permanent changes in bridge permit ratings on undivided roadways. See Section 3-705B, "Clearance and Bridge Permit Rating Changes (Permanent)," of this manual for details.

5-101E Federal Forms

Following is a list of some federal forms that are used in contract administration.

Form FHWA-47M Statement of Materials and Labor Used By Contractors On Highway Construction Involving Federal Funds

The contractor must submit Form FHWA-47M "Statement of Materials and Labor Used By Contractors On Highway Construction Involving Federal Funds," on federal-aid contracts when the amount paid to the contractor is in excess of $1,000,000. Instructions are on the back of the form. Sample form not in appendix. Obtain the form from the United States Department of Transportation, Federal Highway Administration's web site: http://www.fhwa.dot.gov/

Form FHWA-1022 United States Department of Transportation Notice

The contractor must post Form FHWA-1022 "United States Department of Transportation Notice," on each federal-aid highway project in one or more places where it is readily available to all personnel associated with the project. The resident engineer must also post the notice at the Caltrans field office. (Sample form not in appendix). Obtain the form from the United States Department of Transportation, Federal Highway Administration's web site: http://www.fhwa.dot.gov/

Form FHWA-1391 Federal-Aid Highway Construction Contractors Annual EEO Report

The contractor must submit Form FHWA-1391 "Federal-Aid Highway Construction Contractors Annual EEO Report," on all federal aid contracts over $10,000. All subcontractors on federal aid projects whose subcontracts exceed $10,000 must also submit the report. Contractors and subcontractors include project employment data for the last full week of July on the report. Sample form not in appendix. Obtain the form from the United States Department of Transportation, Federal Highway Administration's web site: http://www.fhwa.dot.gov/

Category 41, Report of Inspection of Material

In this category, file Form TL-0029, "Report of Inspection of Material." Create a subcategory for each contract item requiring inspection at the source by a Office of Materials Engineering and Testing Services inspector.

Place a summary sheet containing the date of inspection, quantity inspected, accumulated quantity, and lot numbers in each subcategory. Use form similar to that used by the Office of Structure Construction (Form DH-OS-C52, "Materials Release Summary"). The primary purpose of this form is to check that materials used in the work have been inspected.

Staple Form TL-0624, "Inspection Release Tag," removed from materials received on the project, to the report of inspection on a letter-size sheet of paper and file it in the appropriate subcategory of this category. The sheet should contain the name of the engineer who removed it and the date removed. When lot numbers are marked on the items, note the observed lot number on the related Form TL-0029.

When the Form TL-0029 includes material for more than one item, include a reference on the summary sheet showing the file location of the TL-0029.

File test reports (usually on Form CEM-4102, "Material Inspected and Released on Job") that cover material sampled on the job in lieu of source inspection in the appropriate subcategory of this category, not in Category 37.

File reports of inspection or certificates of compliance for materials assigned to the structure representative in this category in accordance with instructions contained in *Bridge Construction Records and Procedures Manual*.

Category 42, Material Plants

In this category, file Form CEM-4202, "Material Plant Safety Checklist" and all other project documents pertaining to material plant inspections.

Category 43, Concrete and Reinforcing Steel

In this category, file documents relative to concrete and reinforcing steel in accordance with instructions in the *Bridge Construction Records and Procedures Manual*.

Category 44, Recycle Materials and Diversion of Solid Waste

In this category, file a completed copy of Form CEM-4401, "Solid Waste Disposal and Recycling Report." The contractor completes the Form CEM-4401 and the resident engineer reviews the form within the reporting time constraints. The use of this form is described in Section 7-109, "Solid Waste Disposal and Recycling Reporting," of this manual.

Category 45, Resident Engineer's Daily Reports

In this category, file Form CEM-4501, "Resident Engineer's Daily Report/Assistant Resident Engineer's Report" and the structure representative's daily report.

Category 46, Assistant Resident Engineer's Daily Reports

In this category, file Form CEM-4601, "Assistant Resident Engineer's Daily Report."

Subcategories may be used. They may vary depending on the complexity of the project and the desires of the district. The resident engineer and the structure representative must agree on the subcategories before the start of work. Follow the procedures described below to establish the subcategories.

1. Reports Covering Contract Items

   Create a subcategory for each major operation so that all items affecting the major operations are grouped together. An example of a system for a relatively large project follows:

Category and Subcategory Number	Operations	Contract items Involved in the Operation
46.2	Clearing and Grubbing	5
46.3	Rdwy. Exc., Ditch Exc. Aggregate Subbase	8,13,11,15,22
46.4	Salvage Fence, New Fence Gates	2,78,79,80
46.5	Guard Railing, Markers, Barricades	1,4,82,83,87
46.6	AB,CTB	23,24
46.7	AC Slurry Seals, Dikes	28,29,30,31,32
46.8	Concrete Paving	35,36,37
46.9	Curbs and Sidewalks, Slope Paving, Curb Drains, Spec. Gutter Drains	73,74,76,77
46.10	Minor Str., Precast MH and DI, Reinf. Steel, Misc. Iron and Steel	42,69,70,46,75
46.11	RCP, CMP, SSP Arch, Drainage Gates, Under/Down Drain, Str Exc., Str. Backfill	9,11,58
46.2	Preparing Slopes, Straw	16,17,18,19,20
46.13	Permanent Signing	52,53,54,55
46.14	Hwy. lighting and sign illumination	88
46.15	Finishing Roadway	21
46.16	Structure #1	89,90,91
46.17	Structure #2	89,90,91

Category 49, Contract Change Orders

In this category, file contract change orders and supporting documents in numerical order.

Subcategories of this category are change order numbers in numerical order. Contained within each subcategory are:

- The Form CEM-4900, "Contract Change Order," Form CEM-4903, "Contract Change Order Memorandum," and any accompanying correspondence.
- Form CEM-4901, "Contract Change Order Input."
- Daily extra work bills and reports matched with assistant resident engineer's daily reports

Two additional subcategories may be:

- The *Labor Surcharge and Equipment Rental Rates (Cost of Equipment Ownership)* book(s) applicable to the contract.
- Equipment rental rates and memos covering rates not shown in the *Labor Surcharge and Equipment Rental Rates Book*.

Category 50, Adjustment in Compensation Calculations

In this category, file project documents and calculations to support adjustments in compensation.

After a contract change order is written, the supporting project documents may be transferred to the contract change order file or remain in this category. Provide cross references between categories 49 and 50 when the supporting documents and calculations remain in category 50.

List the subcategories under this category by contract item numbers.

Category 51, Materials on Hand

In this category, file Form CEM-5101, "Request For Payment for Materials on Hand", the related evidence of purchase, and any other project documents supporting material on hand payments.

Category 52, Charges to Total Contract Allotment

In this category, file the documents related to and supporting charges to the contract allotment for materials and services supplied by Caltrans.

Divide the category into the subcategories indicated below:

- State Furnished Material And Expenses.

  In this subcategory, file the contractor's letters requesting delivery of state furnished materials. Also, file the receiving records or other records of material furnished by Caltrans. When state furnished material is received as evidenced by a shipping record and a receiving record, file the related shipping and receiving records together.

- Service Contracts.

  In this subcategory file, supporting documents and records of project related services. These are not the service contracts connected with the project office.

Category 53, Credit to Contract

In this category, include a subcategory to keep a record of any salvaged or surplus material. Also set up a subcategory for copies of daily extra work reports which cover repair of damage to state property by third parties (see "Reports of Damage to State Highway Property" in the *Caltrans Safety Manual*).

Credit received for salvaged or surplus material or repair of damage is not applied to the contract allotment and the project is not given credit for any additional money to spend.

Category 54, Deductions From Payment to Contractor

In this category, file documents related to deductions from payments to contractors. Possible subcategories include the following:

- Royalties on material.
- Materials bought for the contractor by Caltrans.
- Laboratory testing done for the contractor (see Section 2.01, "General," of the *Standard Specifications*).
- Engineering and inspection charged to the contractor (see Section 3-506, "Lines and Grades," of this manual for restaking charges).
- Costs of damaged or missing state-owned signs.
- Railroad flagging charges.
- Noncompliance with the equal employment opportunity provisions of the contract.
- Liquidated damages (See Section 3-908, "Deductions," of this manual.
- Any other deductions. (See Section 3-9, "Measurement and Payment" of this manual.)

Categories 55 through 58, Extra Category Numbers

These are extra numbers that may be used for project documents that do not fit in presently established categories. When used, enter them on the index sheets.

Category 59, Bridge Estimate Data

In this category, file the bridge estimate data as covered in the *Bridge Construction Records and Procedures Manual*.

Category 60, Contract Administration System Inputs and Reports

In this category, file the outputs for "Project Record Item Sheets." Subcategories of this category are estimate numbers in numerical order. The subcategories contain documents resulting from the computerized contract administration system (CAS). These CAS reports are cumulative. Only the most current results need to be retained. Possible subcategories are:

- Project Record Item Sheets
- Form CEM-6003, " Progress Pay - Estimate Project Initiation or Update"
- Estimate Verification Form.
- Form CEM-6004, "Contract Transactions Input"
- Status of Contract Items

- Status of Contract Change Orders
- Contract Change Order Master Listing
- Daily Extra Work Report Edit Messages
- Form CEM-6002, "Contract Administration System (CAS) - Report Requests"

If desired, some of the above project documents (other than the "Project Record Item Sheets") may be filed in extra category numbers.

Category 61, Estimate and Project Status

In this category, file monthly Project Record - Estimate Request documents.

The suggested subcategories of this category are:

- Progress Payment Voucher
- Project Record-Estimate and Project Status
- Estimate Processing Results
- Form CEM-6101, "Project Record - Estimate Request"

Category 62, Disputes

In this category, file notes, photographs, information, and other project documents that may be necessary to establish facts with respect to a dispute. Include any documents that may be related to a dispute in this category or briefly describe and cross-reference them.

Number notices of potential claims in chronological order. These numbers may then be used for subcategories.

The scope of this category may vary considerably, depending upon the nature and circumstances of the dispute. The following types of documents indicate the type of information that should be included:

- Form CEM-6201, "Notice of Potential Claim"
- Acknowledgment of the contractor's dispute
- Disputes Review Board Agreement
- Contractor's claim for a time extension (cross-reference to Category 27)
- Acknowledgment of the contractor's claim for time extension
- Other correspondence relating to disputes
- Photographs pertaining to disputes

Category 63, Project Completion Documents

In this category, file documents related to the completion of the project. The following are suggested subcategories:

- Form CEM-6301, "Contract Acceptance"
- Form FHWA-47M, "Statement of Materials and Labor Used by Contractors On Highway Construction Involving Federal Funds"
- Materials certification
- Punchlist

5-102D Category Numbers And Headings

Category No.	Heading
1	Project Personnel
2	Project Office Equipment and Supplies
3	Equipment and Personnel Cost Reports
4	Service Contracts
5	General Correspondence
6	Safety
7	Public Relations
8	Construction Surveys
9	Welding
10	(Extra category number)
11	Information Furnished at Start of Project
12	Contractor
13	Signs and Striping
14	Photograph Records
15	Accidents
16	Utility Agreements
17	Utility Work Performed
18	Agreements
19	Hazardous Waste and Hazardous Materials
20	Water Pollution Control Plan or Storm Water Pollution Prevention Plan
21	Construction Zone Enhanced Enforcement Program
22	Traffic Management Information
23	(Extra Category Number)
24	Disadvantaged Business Enterprises and Disabled Veteran Business Enterprises
25	Labor Compliance and Equal Employment Opportunity
26	Progress Schedule
27	Weekly Statement of Working Days
28	Weekly Newsletter
29	Materials Information and Preliminary Tests
30	Basement Soil Test Results
31	Notice of Materials to Be Used (CEM-3101)
32	Notice of Materials to be Inspected (TL-0028)

33	Notice of Materials to be Furnished (TL-0608)
34	Treated Base
35	Asphalt Concrete
36	Portland Cement Concrete (other than structure items)
37	Initial Tests and Acceptance Tests
38	Quality Control Quality Assurance
39	Materials Testing Certification of Employees
40	Field Laboratory Assistant Reports to Resident Engineer
41	Report of Inspection of Material
42	Material Plants
43	Concrete and Reinforcing Steel
44	Recycle Materials and Diversion of Solid Waste
45	Resident Engineer's Daily Reports
46	Assistant Resident Engineer's Daily Reports
47	Drainage Systems
48	Contract Item Quantity Documents
49	Contract Change Orders
50	Adjustment in Compensation Calculations
51	Materials on Hand
52	Charges to Total Contract Allotment
53	Credit to Contract
54	Deductions from Payment to Contractor
55-58	(Extra category numbers)
59	Bridge Estimate Data
60	Contract Administration System Inputs and Reports
61	Estimate and Project Status
62	Disputes
63	Project Completion Documents

5-102E Alphabetical Listing Of Categories

Heading	Category No.
Accidents	15
Adjustment of Compensation Calculations	50
Agreements	18
Asphalt Concrete	35
Assistant Resident Engineer's Daily Reports	46
Basement Soil Test Results	30
Bridge Estimate Data	59
Treated Base	34
Charges to Total Contract Allotment	52
Concrete and Reinforcing Steel	43
Construction Surveys	8
Construction Zone Enhanced Enforcement Program	21
Contract Administration System Inputs and Reports	60
Contract Change Orders	49
Contract Item Quantity Documents	48
Contractor	12
Credit to Contract	53
Daily Reports, Assistant Resident Engineer's	46
Daily Reports, Resident Engineer's	45
Deductions from Payment to Contractor	54
Disadvantaged Business Enterprises and Disabled Veterans Business Enterprises	24
Disputes	62
Drainage Systems	47
Estimate and Project Status	61
Equipment and Personnel Cost Reports	3
Extra Categories	10, 23, 38, 56, 57, 58
Field Laboratory Assistant Reports to Resident Engineer	40
General Correspondence	5
Hazardous Waste and Hazardous Materials	19
Information Furnished at Start of Project	11
Initial Tests and Acceptance Tests	37
Labor Compliance and Equal Employment Opportunity	25
Materials on Hand	51

5-103 The Contract Administration System (CAS)

5-103A General

This section describes the Contract Administration System (CAS), sometimes referred to as "the progress pay system." The primary purpose of this computer system is to help administer Caltrans construction projects. Various functional units within construction update and maintain records on individual contracts in CAS from the award and approval of the contract through to the completion and final payment.

CAS is one of three subsystems of the Project Information System and Analysis (PISA). The three subsystems of PISA make up the primary computer system that Caltrans uses for tracking contract capital costs. These subsystems are: planning and design, bidding and award, and project construction. In essentially a straight line, each module of PISA passes data to the next module as a project progresses from conception to completion. See Table 5-1, "Contract Administration System, Systems Interface," for a general overview of how CAS relates to the other components of the Caltrans computer system used for tracking and paying contract capital costs.

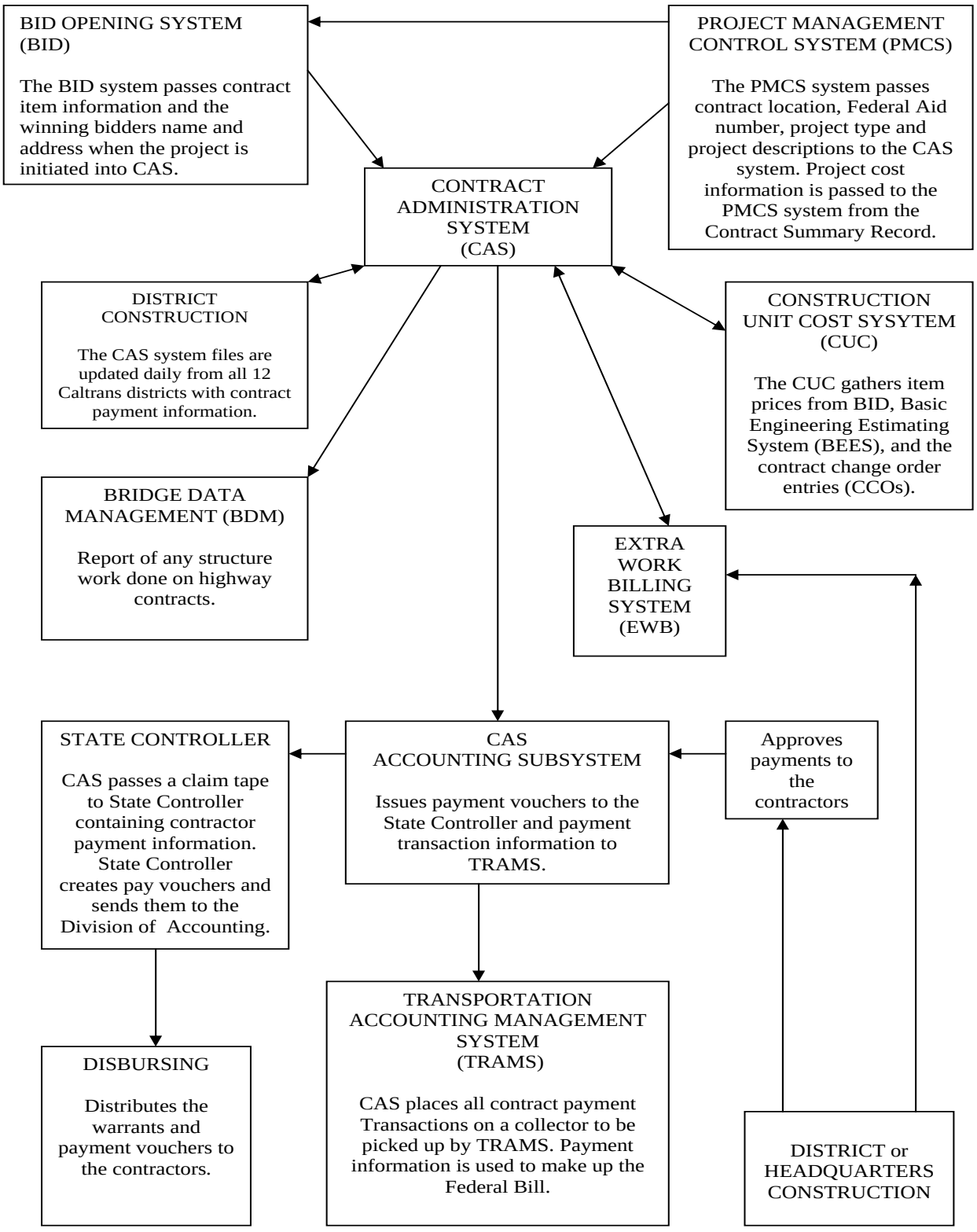
CAS is also composed of separate modules, each of which accomplishes a distinct function. The following are the most common of CAS's many modules:

- Project initiation and update
- Contract transactions
- Contract change order
- Daily extra work report
- Project record estimate
- Reports
- Online update and inquiry

Resident engineers use these modules to do the following:

- Account for quantities from source documents
- Account for change orders and payments for extra work
- Determine the status of the projects' financing
- Authorize payments to contractors

Table 5-1.1 Contract Administration System, Systems Interface



5-103B Project Initiation and Update

When Caltrans has determined the lowest responsible bidder, the Office of Office Engineer will transfer project data from the Bid Opening System to CAS. Usually, this data transfer will occur before awarding the contract and before determining the total allotment. When this information about the award and total allotment becomes available, the Division of Construction will then update the computer file (by adding to or changing existing information).

Immediately after the new contract information in the computer file has been transferred from the Bid Opening System, the data is available to the district for processing. The district must then update the file with district information such as the resident engineer's name and address, the bridge representative's name, and the project's password. To perform the update, the district uses Form CEM-6003, "Project Pay—Estimate Project Initiation or Update" which is explained in more detail under the heading "Filling Out Form CEM-6003," below.

The result of the district's file update will be a dummy Form CEM-6101, "Project Record-Estimate Request," and a contract contents report, which lists contract items. The form and report should be checked thoroughly and any discrepancies brought immediately to the attention of the Division of Construction progress pay coordinator.

During a contract's life, the contractor may request a local address change or a legal name style address change. The district must maintain the accuracy of local address information in CAS using Form CEM-6003, "Project Pay-Estimate Project Initiation or Update." The State Controller mails progress payment checks to the legal name style address. Only the Division of Construction's progress pay coordinator is authorized to make changes to the legal name style address from Form CEM-1202, "Contractor Action Request - Change of Name/Address-Assignment of Contract Monies," verified by the resident engineer with the Division of Construction field coordinators concurrence.

5-103B (1) Completing Form CEM-6003, "Project Pay-Estimate Project Initiation or Update"

The purpose of Form CEM-6003 is to add new information, or to change information, in the computer file. The computer program will accept such changes only for contracts in your own district.

Except for the "Project Key," complete only the data fields that you wish to update. The computer program will ignore blank fields and will place the data from the completed fields in the file whether or not such information is already on file. Fields left blank on the input form do not change what is in the file.

Ensure the data you enter on the form conforms to these rules, listed by data field as follows:

5-103B (1a) Project Key

Enter the letter "U" under "FB," and in the remaining spaces, enter the district and contract number.

5-103B (1b) Card type C05 (each field is independent and can be updated separately)

For the following data fields under card type C05, do the following:

- Resident engineer's phone number.
- Responsible unit: The responsible unit may range from 501 to 545. Warning: Until this number is in the computer file, progress pay estimates cannot be processed.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

QUANTITY CALCULATIONS

CEM-4801 (REV 11/1992) CT# 7541-3520-0 SHEET OF

JOB STAMP

07-1381U4
07-LA-210-47.5/57.3
Fed. No.: None

ITEM: 8 Temp. Railing (Type K)
FILE NO.: 48-8-2
LOCATION: Ramp 3
SEGREGATION: YES ☐ NO ☐
CALC. BY: I.M. Engineer
DATE:
CHK. BY: U.R. Wright
DATE:

Field Measurement:
Field Counted: ✓
Final Pay Item:

Estimated Quantity: 450
Unit of Measure: meter
Unit Price: $20.00
75%= 337.5
125%= 562.5

Remarks Or Other Calculations:

152.4 meters placed on 5-03-01 at Maple St. onramp ✓

Material Inspection/Release: Certificates of compliance obtained on 4-29-01

PAY THIS ESTIMATE: 152.4 ✓
PREVIOUS PAID: 140.2 ✓
TOTAL TO DATE: 292.6 ✓

POSTED BY: Office Engineer
DATE: 05/19/01
POSTED TO: CEM-6004, page 4, line 5

CEM4801

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

CONTRACT TRANSACTIONS INPUT

CEM-6004 (Rev. 10/1983) CT#7541-3515-0

Dist: 07 | Contract No.: 1381U4 | Password: 15#2 | **CAS0A** | Page No.04

LINE NO. 18	DATE MO. 20	DATE DAY 22	SOURCE DOCUMENT DESCRIPTION	BRIDGE	CONTRACT ITEM ENTRIES: ITEM NO. 4	+ 48	QUANTITY (UNITS) 49–60	CODE	ccO NO. 6–674	+	ALL OTHER ENTRIES: AMOUNT($) 66	TYPE 74		
01	05	19	48-14-17	b	014		1,273000						Time	URW
02	05	19	MAIL BOX ON ELM ST		028		15000	Q					Time	URW
03	05	19	ANT. ELIM. AC ON FL		038		1,500000	A					Time	URW
04	05	19	BAL. COMPL. ITEM 6		006			F					Time	URW
05	05	19	48-8-2		008		152400	F					Time	URW
06	05	19	RESTORE STATUS		039		REOPEN	F					Time	URW
07	05	19	REV GRADE FR2 LINE								15,000 00	ANI	Time	URW
08	05	19	51-4-2								2,174 37	MHS	Time	URW
09	05	19	52-4-1								2,000 00		Time	URW
10	05	19	11-3-1								3 15,000 00		Time	URW
11	05	19	DELET DRAINAGE						029		10,000 00	ACC	Time	URW
12	05	19	BAL. COMPL. CCO 18						018			BAL	Time	URW
13	05	19	RESTORE STATUS						005		REOPEN	BAL	Time	URW
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

IN CASE OF QUESTION CONTACT: NAME ______ PHONE

93 95682

- Supplemental progress estimate
- Semifinal estimate
- Final estimate

The resident engineer will regularly request the monthly progress and the progress after acceptance estimates while the remaining three types of estimates usually will be requested in cooperation with, or by, the district construction office.

Supplemental progress estimates may only be run between the completion of the monthly progress estimate run and the 15th of the following month.

Producing an estimate is completely automatic, based on data previously stored in the computer.

In addition, CAS will produce two other types of estimates that do not generate payments. These estimates are simply statements of the current status of the computer files. The following are the two types:

- Status purpose only estimate
- Proposed final estimate

5-103F (1) Procedure

Before requesting the first monthly progress estimate, enter the date work started and the responsible unit on Form CEM-6003, "Progress Pay-Estimate Project Initiation or Update." The Division of Construction progress pay coordinator enters the approval date. If the approval date is not in the computer file, the system will reject the estimate request.

The procedure for processing an estimate involves the following steps:

- Preparing Form CEM-6101, "Project Record-Estimate Request," and verifying the estimate. Transmit these to the district office.
- Computer processes your estimate and prints the reports.
- The district construction office verifies the estimate results.
- Returning the estimate reports to the resident engineer.

The schedule for completing the pay process and making payment to the contractor is rigid. This rigid schedule means all people involved must adhere to their individual schedules. District construction offices will advise resident engineers of the schedules.

5-103F (1a) Preparing Form CEM-6101, "Project Record-Estimate Request"
To request an estimate, prepare Form CEM-6101, "Project Record-Estimate Request." Complete this form accurately in accordance with the following:

5-103F (1b) Estimate Parameters:
For the estimate parameters follow the instructions below.

- Enter the contract number.
- Enter the estimate number. This number must be one greater than the last estimate that was successfully processed and paid.

- Enter the work period's ending date in the estimate for the form's "Work Performed Through" field. For a progress estimate or a supplemental progress estimate, enter the 20th day of the month. For all other types of estimates, use the date of completion.
- If this is a monthly progress estimate, place an "X" in the matching box on the form; otherwise, leave the box blank.
- If this is a progress estimate after acceptance, place an "X" in the matching box on the form; otherwise, leave the box blank.
- Enter the estimated date of completion. This date should be the resident engineer's best estimate, not necessarily the computed date. If this estimate is not a progress estimate, enter the date of completion.
- Enter the values as of the "date work performed through" for chargeable working days, weather nonworking days, approved time extension days (contract change order), and approved time extension days (other) in the four matching fields of the form. The system will check the chargeable working days and weather nonworking days against the working days calendar and inform you of possible entry errors. However, it cannot check the two types of time extension days. These values affect the system's computation of percent time elapsed.
- If you have a landscape contract that is in the plant establishment period, check one of the two boxes to indicate whether progress is satisfactory or unsatisfactory. These boxes are not for highway contracts that contain "Type 2" plant establishment periods. If you are unsure of this status, contact the district construction office after reading the special provisions.
- The system determines whether contract progress is satisfactory or unsatisfactory. Occasionally, a situation arises where, even though progress is mathematically unsatisfactory, the resident engineer wishes to override the system and record satisfactory progress. To accomplish this override, place an "X" in the field, "Override Unsatisfactory Progress." Also see the second bullet below this one about projects with dual time limits.
- For some contracts, the standard manual formula does not apply for computing percent time elapsed. For such contracts, interpret the special provisions, and determine this percentage. Enter the percent in the box on the form; this will override the system's calculation.
- If you have checked "Override Unsatisfactory Progress" (see the bullet two up from this one that discusses overriding the system) or entered a number in percent time elapsed (see the previous bullet), enter a short explanation in the 25 spaces immediately below these fields on the form. Typical entries might be "CCO days pending" or "Nonstandard time format."
- If the estimate is a supplemental progress estimate, proposed final estimate, semifinal estimate, or final estimate, check the appropriate box. Note that on a supplemental progress estimate the date for "Estimate for Work Performed Through" and all of the working day information should be the same as the date for the last estimate.

- If this estimate is a rerun (a recalculation) of a prior successful estimate, check the recalculation box. Note that, if the last estimate processed was a status purpose only estimate, you are not rerunning an estimate this month; instead, you are trying to run the estimate that did not generate payment. Normally, the district office will enter requests to rerun an estimate.

5-103F (1c) Deductions:
If you wish to take one or more deductions or to return one or more deductions from a prior estimate, enter them on Form CEM-6101,"Project Record-Estimate Request." If you wish to rerun an estimate or to pay an estimate after a status only estimate, you still must enter the deductions again because any deduction stored in the computer file and carrying this estimate number will be erased automatically. You can enter five types of deductions on this form. Each deduction entered requires an alpha code to be placed in the form's type field and an entry in the description field. Use a minus sign to take a deduction and a plus sign to return a previous deduction. The following lists the rules by type of description:

- Administrative deductions: Enter "ADM" in the type field. Both plus and minus deductions are allowed.
- Equal employment opportunity deductions: Enter "EEO" in the type field. Both plus and minus deductions are allowed, but plus deductions should be adjustments or reversals of deductions taken on prior estimates. If you wish to take an EEO deduction on this estimate, leave the amount field blank. The system will compute the deduction amount for you. Only one "blank" EEO deduction, normally entered by the labor compliance officer, can appear on the form. Note: The system will not accept EEO deductions if the contract item payment for this estimate is zero. It may be necessary to enter the minimum amount of $1000.
- Labor compliance violation deductions: The labor compliance officer usually makes these entries on the form. The officer will enter "LCV" in the type field. The rules for LCV deductions are identical to those for EEO deductions. Note: "LCV" deductions will not be taken if the contract item payment for this estimate is zero. It may be necessary to enter the minimum amount of $1000.
- Liquidated damages deductions: Enter "LIQ" in the type field. Both plus and minus deductions are allowed. Plus deductions reverse earlier deductions.
- Other outstanding documents deductions: Enter "OOD" in the type field. If you wish to take this deduction, leave the amount field blank. The system will compute the amount for you. Take this deduction only once per contract. The system will maintain the correct deduction on subsequent estimates by generating "OOD" in the type field with a description, "MAINTAIN OOD DEDUCT." You can reverse the deduction at any time by entering a plus amount that exactly reverses the OOD deductions to date from the previous estimate. Negative OOD deduction amounts are never allowed on the input form.

After carefully preparing Form CEM-6101, "Project Record-Estimate Request," promptly send it to the district office. The specific deadline for submittal may vary by district.

5-103F (2) Computer Processing

Once you have made your entries on Form CEM-6101,"Project Record-Estimate Request," and transferred them to the computer, the system edits the estimates and then produces reports showing the results of the system's processing.

5-103F (2a) Estimate Edits

Once Form CEM-6101,"Project Record-Estimate Request," has been entered into CAS, CAS will do the following:

- Edit Form CEM-6101 for consistency with previous estimates and with the working days calendar stored in the computer.
- Identify and summarize all daily extra work reports entered in the system and eligible for payment since the last estimate.
- Identify and summarize all contract transactions entered in the system since the last estimate.
- Identify and balance the contract change orders that require balancing.
- Identify and balance the contract items that require balancing.
- Make calculations for the item "Mobilization" (if necessary), for the various deductions and retentions, for percent time elapsed, for percent complete, and for various status totals, such as authorized final cost. The system also determines whether the contractor's progress is satisfactory.
- Edit any deduction submitted for processing on Form CEM-6101,"Project Record-Estimate Request." Special attention is given to three of the deductions as follows:

  1. If the resident engineer has submitted an EEO deduction, CAS computes the amount as 10 percent of the contract item payment on this estimate, or a minimum of $1,000 or a maximum of $10,000, and places the deduction on file.
  2. If the resident engineer has submitted an LCV deduction, the system performs the same calculation as for EEO deductions described above.
  3. If the resident engineer has submitted an OOD deduction, the system will compute the deduction under the following conditions:

     a. The contract has been completed, or retention is being reduced because the percent complete exceeds 95 percent. If one of these conditions is not met, the deduction will be rejected.

     b. The total of all OOD deductions from prior estimates must be zero, or the deduction will be rejected. An OOD deduction should be taken only once for a contract.

     c. If the first two conditions are met, the amount of the deduction is calculated as 5 percent of the total work completed to date less mobilization, or $10,000, whichever is less.

- Further deduction processing as follows:

  1. If the total to date for an OOD deduction is negative, the system will check whether the value for has changed since the last estimate for total

work completed to date less mobilization. If the value has changed, the system will generate a new OOD deduction with a description, "MAINTAIN OOD DEDUCT," and an amount equal to the difference between the amount demanded by the formula and the amount of the total to date for this type of deduction. Thus, an OOD deduction, once submitted, will be maintained at the formula's value unless it is exactly reversed by a positive deduction entry on Form CEM-6101,"Project Record-Estimate Request."

2. For each type of deduction, you cannot give back more than has been taken. If you make this error, the estimate will fail. Messages are produced stating which deduction is in error.

3. At this point in the processing, the final values are computed for total work completed and total payment to the contractor. If there are "Limitation of Payment" dates and amounts in the special provisions for this contract, the Division of Construction progress pay coordinator will have entered them in the computer. The system will check the period ending date of this estimate and will generate or return any split-year-financing deductions that are necessary under the contract's terms.

4. If retention is being released on this estimate and the total to date for liquidated damages is zero, the system will issue a warning message.

5. The system automatically computes overbid item deductions as required. These deductions are taken and returned at the appropriate times.

- Makes calculations for the progress payment voucher, including retentions and payments to escrow accounts.
- Determining the success of the estimate's processing.
- If processing is successful, CAS prints your estimate.
- If this estimate is for a zero or negative progress payment, the system prints a status purpose only estimate.

1. If the total authorized final cost is greater than the construction allotment, CAS will issue a severe warning.

2. If the total payment to date to the contractor on this estimate is greater than the construction allotment, the estimate will fail.

5-103F (2b) Estimate Output

Once CAS has processed the estimates, it produces the following reports:

- Schedule of extra work
- Schedule of deductions
- Project record estimate
- Project status
- Work done by office of structures
- Progress payment voucher

Only two copies of the estimate will be sent to the field, one for the resident engineer and one for the contractor. The contractor also must receive the first three reports listed above and the last report listed above.

In addition to the estimate documents listed above, CAS also produces a report called "Estimate Processing Results." This report is the tool by which the resident engineer can check the "estimate package." This report has the following sections:

- Edit messages: The system can produce many possible messages. If your estimate is rejected, the exact reason will be found here. To assist in preventing overpayments, among other problems, warning messages have been set based on carefully chosen tolerances. You must read these messages carefully.
- Transaction selection: The system will print a list of the exact pages and lines of contract transactions that were used to produce the estimate. This list enables you to verify that all the contract transactions you submitted were used to produce the estimate.
- Contract change order processing: This lists any balancing of contract change orders by the system. Occasionally, the list contains warning messages, too.
- Contract item processing: This part of the report does the same things as described in the bullet above, but for contract items instead of contract change orders.
- Contract transactions list: This list identifies all contract transactions used to generate your estimate. If you question any line item on the project record-estimate, examine the detailed records to see how the system derived its totals.
- Structure totals: This item summarizes all structure work the system found while processing the estimate.

5-103F (3) Potential Problems

For the unwary, several points in the estimate process can cause errors. These problems result from misunderstanding what constitutes an estimate and how the estimate number should be increased from estimate to estimate.

On the title page of the project record-estimate and in the estimate processing results, the system will print the type of estimate generated. If the estimate is one of the five types listed previously under the heading "Generating Estimates," a valid estimate was generated.

The progress pay system requires that the estimate number be increased only by valid estimates. Thus, if you request estimate number 3 to be processed, but the system generates a status purpose only estimate, a valid estimate was not generated. Request estimate number 3 again for the next estimate.

Another potential problem involves two types of contract transaction: materials on hand and anticipated changes. These transactions apply to a specific estimate period. If the estimate generated by the system is a status purpose only estimate, these transactions have not been "used." They will appear on the next valid estimate generated. If their appearance on the next estimate is not satisfactory, you must use reversing entries before requesting the next estimate from the system.

If the estimate has failed for any reason, the system will print, with one exception, as many of the estimate reports as possible to help you analyze the problem. The one exception, the progress payment voucher, is only printed for successful estimates that are eligible for payment according to the system's standards.

Processing the estimate is done by a series of computer programs that perform the following functions:

- Input edit of the CEM-6101, "Project-Record Estimate Request."
- Select from the computer file the extra work bills that will be used to generate this estimate.
- Select from the computer file the contract transactions that will be used to generate this estimate.
- Process the contract change orders.
- Process contract items.
- Process deductions.
- Conduct miscellaneous computations.
- Generate reports.

5-103G Approval of Estimates

The authority to approve an estimate depends on the type of estimate being run. The following is the general outline and method for approving contract estimates.

5-103G (1) The Resident Engineer

After an estimate has been run, the resident engineer must approve it before the process of payment is continued. To expedite payment, the resident engineer can approve through a memo, form letter, or telephone call with subsequent written confirmation to the district office.

5-103G (2) The District Director

At the time the estimate was produced, so was Form FA 729A, "Progress Payment Voucher,". If the estimate is a final estimate, an individual who has been formally delegated by the district director to do so must sign the form.

5-103G (3) Flagging an Estimate for Payment

Flagging an estimate in the computer system for payment indicates that Form FA 729A has been verified and approved.

For payments on after acceptance estimates, semifinal estimates, and final estimates, the Division of Construction progress pay coordinator must flag the estimates in the computer system for payment after the district's flagging.

5-103H Reports Available Through CAS

CAS provides many reports that must be requested specifically. Normally, resident engineers must request reports through the district construction office. Use Form CEM-6002, "Contract Administration System (CAS)-Report Requests," to obtain the reports. The following are the instructions for completing Form CEM-6002. A sample of Form CEM-6002 is included in the appendix.

5-103H (1) District (XX) Estimate Status

This report, which is also available statewide, provides information on the pay status of each contract in the district. For each contract, the report includes the following:

- Contract number
- Date of last estimate processed (if there was one)

- Number of the estimate
- Number of days elapsed since the estimate was processed
- Type of estimate
- Pay status and date paid (if paid)
- Date on which the payment voucher was approved
- Resident engineer's name and phone number
- Responsible unit
- Password

5-103H (2) Project Management

The project management report is for use by the district office and Division of Construction managers. This report consists of the following two separate reports that are produced whenever "Project Management" is requested.

5-103H (2a) The Project File Status Report

This report lists all contracts in the district (or statewide) that are on the computer's active list. For each contract, the report provides the following information:

- Contract number
- Status
- Date bids were opened
- Date of award
- Date of approval
- Date of acceptance
- Bid amount
- Name of contractor

After bid opening, projects are added to the list automatically. After the final estimate and approvals from the districts and the disbursing office, the Division of Construction removes the projects from the list.

5-103H (2b) The Exceptional Contracts Report

This report lists all contracts for which the following applies:

- More than 60 days have elapsed since the bid opening.
- More than 10 days have elapsed since the completion date and the contract needs an acceptance date.
- More than 45 days have elapsed since completion, but the proposed final estimates have not been run.
- More than 180 days have elapsed since completion, but the final estimates have not been run.

5-103H (3) District (XX) Project Status

This report is for use by construction managers. It lists all active contracts, and for each contract, provides the following information:

- Contract number
- Contractor's name and county-route-kilopost
- Date of the last estimate
- Percent complete
- Percent of time elapsed
- Construction allotment
- Total amount paid to date
- Estimated final cost
- Estimated final contingency balance

5-103H (4) Progress Payment-Work Done by Office of Structure Construction (Copies)

This report is for use by the Office of Structure Construction. For details, see Volume I, Section 6, of the *Bridge Construction Records and Procedures Manual*.

5-103H (5) Project Record-Estimate (Copies)

A request for estimate copies will produce all of the documents that were produced automatically during the previous estimate's run. Normally, therefore, you should not need to order copies through this program. For the estimate, the report contains the following information:

- Schedule of extra work
- Schedule of deductions
- Project record-estimate
- Project status
- Progress payment voucher

5-103H (6) Status of Contract Items

Normally, the district office requests this report monthly for all ongoing contracts. The report must be filed in Category 60, "Contract Administration System Inputs and Reports."

For this report, the system prints one line of information for each contract item and summarizes the net effect of all contract transactions that have been entered against the item. This report allows the resident engineer to review each item and determine whether quantity balances and anticipated changes, among other things, are necessary.

If any particular number on the report seems questionable, the project record item sheets provide supporting detail. For example, if the approved quantity differs from the bid quantity, the project record item sheets describe, under the item number, any changes due to contract change orders.

When applicable, take particular care to flag an item "COMPLETE" (using the item final balance transaction on Form CEM-6101) so that an accurate project status will be produced. Remember, flagging an item "COMPLETE" does not mean that contract item transactions will no longer be accepted; it means only that you have commanded the system to keep the item in balance at all times.

5-103H (7) Project Record Item Sheet

Normally, the district office requests this report monthly for all ongoing contracts. The report must be filed in Category 60.

With the following exceptions, the project record item sheets list every contract transaction entered into the system since the beginning of the contract:

- Item and contract change order final balance transactions will appear only on the report following the next estimate. Thereafter, they are dropped from the report.
- Miscellaneous anticipated change transactions also appear only on the report following the next estimate.

The report lists the contract transactions first by the estimate number on which they were paid and then by the page and line number of the input form. The total to date will be printed.

This is a cumulative report. Do not retain previous issues of this report in the project files. However, one issue of the report, usually the one requested immediately after all final quantities have been paid, must be retained in the project's files.

5-103H (8) Status of Contract Change Orders

Normally, the district office requests this report monthly for all ongoing contracts. The report must be filed in Category 60, "Contract Administration System Inputs and Reports."

This report is similar to the status of contract items, which allows the engineer to review each contract change order.

Use the report to determine when supplemental contract change orders will be necessary to complete the work. The report also facilitates a review of those contract change orders where a credit is due Caltrans.

When applicable, flag contract change orders "COMPLETE" (using the contract change order final balance transaction) so that an accurate project status can be produced. Similar to flagging a contract item, flagging a contract change order "COMPLETE" means only that you have commanded the system to keep the contract change order in balance at all times.

5-103H (9) CCO Master Listing

Normally, the district office requests this report monthly for all ongoing contracts. The report must be filed in Category 60.

This report summarizes all contract change orders stored in the computer file. It also contains the contract change order time extension and contract change order category code. The report lists each individual supplement with all the information the system contains. Do not retain previous issues in the project's files. However, one issue, usually the one requested immediately after final payment has been made on all contract change orders, must be retained in the project's files.

5-307 Contract Change Order Memorandum

Include with all contract change orders sufficient documentation to explain what the change does and why it is needed. For this purpose, use Form CEM-4903, "Contract Change Order Memorandum," with any necessary attachments. The memorandum is intended for interdepartmental use only. Do not send the memorandum to the contractor.

The memorandum must be sufficiently complete to enable a person unfamiliar with the details of the project to review the contract change order and determine the justification for the work, the reasonableness of the compensation, and the time extension provisions.

5-307A Contents of the Memorandum

Include the following in the memorandum:

- State what the contract change order provides. Supplemental contract change orders should also include a description of the original contract change order.
- Explain why the change is needed. When another Caltrans unit requests a change, the correspondence requesting the change should also justify the need for the change. Attach supporting letters to the memorandum.
- State why a particular method of payment was chosen. Include a complete cost analysis, or state that the cost analysis is on file with the project records. The statement should include the method used in making the cost analysis.
- Explain why the ordered change causes any change in the character of the work. To substantiate why any additional compensation is due, you may need to provide a summary of events leading up to the change.
- State the extent of coordination and concurrence. If agreement with any district unit cannot be obtained, then indicate specifically what was said and why it should or should not influence a decision for approval. See Section 5-307C, "Coordination and Concurrence by Others" in this section.
- If prior approval of the change order has been obtained, state the name of the person who granted prior approval and the date.
- Show the unobligated balance of funds available to finance the contract change order. The resident engineer must ensure the available funds are not exceeded. For obtaining additional funds, see Section 5-2, "Funds," of this manual.
- Show the total authorized funds to date, as well as the dollar amount of a supplemental contract change order.
- Indicate when funds for supplemental work shown in the detailed estimate of job cost are used in the contract change order.
- For major changes on federal "oversight" projects, indicate the name and date of discussion and concurrence, if any, by the Federal Highway Administration (FHWA) transportation engineer. For details relating to federal funding to be shown on the contract change order memorandum, see "Federal Requirements," "Federal Funding," and "Determining Federal Participation" in this section.
- For change orders involving participation by local agencies, identify the portion of the work that is applicable to the contributing agency.
- For a contract change order that is to be unilaterally approved, explain why the contractor will not sign it or why the contractor's signature is not required. Attach a copy of any correspondence from the contractor regarding the contract change order.

- Include justification for a contract time adjustment. Describe the method used to determine time extensions. State what operation controlled time during the delay period. Whenever possible, and when resolving a previously deferred time adjustment with a time extension, indicate the specific calendar or working days represented by the time extension. By indicating the specific days, you ensure that other time extensions do not cover the same time period.
- Indicate the cumulative time extension and total number of contract change orders with unreconciled deferred time.

5-307B Contract Change Order Category Codes

The resident engineer is responsible for assigning a four-letter code to every contract change order to indicate the main reason for the change. Preferably, there should only be one issue per contract change order. For contract change orders with multiple distinct issues, assign the coding based on the one issue that has the greatest impact to the project. Assign the coding according to the reason for the change, not according to how the problem was corrected. The resident engineer should enter this code on Forms CEM-4903, "Contract Change Order Memorandum," and CEM-4901, "Contract Change Order Input."

The contract change order code will identify discrete pieces of information about the change:

1. The type of contract change order (first character),
2. The specification which authorizes the change, or the physical asset which is affected by the change (second character),
3. The source document that led to the need for a change (third and fourth characters), or
4. The disposition of a dispute resolution (third and fourth characters).

Administrative types of contract change orders (accelerations, and changes that are anticipated and authorized by existing administrative specifications) require only minimal coding information. Consequently, extra coding positions will be assigned a default character placeholder, the letter *Z*. Assign characters from left to right, as subsequent character code selection is dependent on the preceding characters.

- Character 1: Contract Change Order Type

Use the codes in Table 5-3.1, "Contract Change Order Type," to categorize the contract change order according to its general type (for example: administrative, dispute resolution and others). Coding for dispute resolution takes precedence over coding for any other potential scenario. After selecting the first character code, use the corresponding directions on Table 5-3.1 to complete the coding for the remaining three characters.

- Character 2: Specification, or Physical Asset

Next, based on your selection for the first character code, and using the directions within Table 5-3.2, "Specification, or Physical Asset," select the code that most accurately identifies the appropriate administrative specification, or the affected physical asset. Enter this code as the second character. In the case of a contract change order that is strictly for acceleration, with no physical change in the planned work (the first character code is a B), then the second character code is defaulted to a placeholder Z character.

- Characters 3 and 4:Source Document, or Dispute Disposition

If the contract change order is needed to bring about a plan or specification change (the first character code is *C* or *D*), use Table 5-3.3, "Source Document," to identify the pair of character codes that together best describe the original document that created the need for the contract change order. The reason for the change may be due to:

- Constructability issues, errors, conflicts, or inconsistencies,
- The introduction of improved products, means or methods, or
- For any other reason, provided that the change will affect some physical aspect of the planned work.

If the contract change order is for a dispute resolution (first character code from Table 5-3.1 is either *E, F, G,* or *H*), use Table 5-3.4, "Dispute Disposition," to assign the third and fourth characters. Begin by selecting the code for the third character that most closely identifies the time frame ***before*** the dispute was resolved, Table 5-3.4 The milestones for the third character are listed chronologically. For the fourth character, choose a code from Table 5-3.4 that most accurately explains how the dispute was resolved (entitlement, negotiated settlement, and arbitration award, full or partial resolution.)

If the contract change order type was administrative (first character code is either *A* or *B*), then the third and fourth character codes are defaulted to *Z*s.

General Examples:

Contract change orders that are strictly for constructive accelerations when there is no change to the final configuration of a planned permanent physical asset are all coded *"BZZZ."* No additional coding information is necessary.

When a contract change order resolves a dispute based on contract administration, and there was no change to the planned work on some permanent physical asset:

1. The first character will be either *E* or *G*, (see Table 5-3.1,),
2. The second character represents the disputed administrative specification. Choose this character from the upper portion of Table 5-3.2,
3. The third and fourth coding characters are selected depending on when and how the dispute was resolved. Choose these characters from Table 5-3.4, "Dispute Disposition."

When a contract change order is authorized by an administrative specification and there is no formalized dispute involved:

1. The first character will be *A*, (see Table 5-3.1).
2. Select the second character from the upper portion of Table 5-3.2, and
3. The third and fourth characters will both default to the placeholder letter *Z*. No other coding information is necessary in this particular example.

The "Contract Change Order Code Generator" is a tool that is used to categorize types of contract change orders. It is available on the Division of Construction's Intranet web site at:

http://www.dot.ca.gov/hq/construc/cpb/CCO_Code_Generator

Table 5-3.1:Contract Change Order Type (Character 1)

CCO Type		Code	Description
Administrative	Contract or Supplemental Work	A	Contract change order used to pay for work or adjustments already authorized by specifications (supplemental work, quantity adjustments, and other) (Use only the specification codes from the upper portion of **Table 5-3.2** for the second character, and *Z*s for the third and fourth characters)
	Acceleration	B	Contract change order used to accelerate certain planned work. Describe the reason for acceleration in the transmittal memo (public convenience, staging coordination, delay mitigation, and other) (Use only *Z*s for subsequent code characters 2, 3, and 4)
Plan or Specification Change	Non-CRIP	C	Contract change order needed to change plans or specifications for reasons unrelated to a cost reduction incentive proposal (CRIP). (Use only the Physical Asset codes from **Table 5-3.2** for the second character, and ***Table 3*** for the third and fourth characters)
	CRIP-related	D	Contract change order needed to change plans or specifications due to a CRIP (Use only the Physical Asset codes from **Table 5-3.2** for the second character, and **Table 5-3.3** for the third and fourth characters)
Dispute Resolution	Potential Claim	E	Contract change order either fully or partially resolves certain notices of potential claim (NOPCs) due to some dispute over contract administration. (Use the specification codes from the upper portion of **Table 5-3.2** for the second character, and **Table 5-3.4** for the third and fourth characters)
		F	Contract change order either fully or partially resolves certain NOPCs due to a dispute over an ordered change, which affected some physical asset. (Use either the Physical Asset codes from the lower portion of **Table 5-3.2** for the second character, and **Table 5-3.4** for the third and fourth characters)
	Claim	G	Contract change order either fully or partially resolves certain contract claims due to some dispute over contract administration. (Use the specification codes from the upper portion of **Table 5-3.2** for the second character, and **Table 5-3.4** for the third and fourth characters)
		H	Contract change order either fully or partially resolves certain contract claims due to a dispute over an ordered change, which affected some physical asset. (Use the Physical Asset codes from the lower portion of **Table 5-3.2** for the second character, and **Table 5-3.4** for the third and fourth characters)

Section 5 Emergency Contract Administration

Section 5
Emergency
Contract
Administration

5-501 General

5-501
General

An emergency contract is authorized by a director's order. A director's order is a document that approves the use of special authority, delegated by state law, to set aside normal contracting procedures so that Caltrans can quickly initiate and complete emergency work sooner than can be done under normal processes. The district maintenance unit has the responsibility to obtain a director's order for emergency work. Director's orders may also be obtained to prevent the imminent threat of catastrophic damage.

The Public Contract Code, Section 1102, defines an emergency as "a sudden unexpected occurrence that poses clear and imminent danger, requiring immediate action to prevent or mitigate the loss or impairment of life, health, property, or essential public services."

Currently, a district director can approve emergency contracts costing up to $131,000. For emergency work exceeding this threshold amount, the director or delegated deputy director has approval authority.

For guidelines on director's orders, go to the Caltrans Division of Maintenance Intranet site at the following address:

http://onramp.dot.ca.gov/hq/maint/orway/ha23/index.htm

Deputy Directive 26, "Use of Director's Orders," also covers director's orders.

A number of different types of emergency contracts exist. District construction division is usually involved in emergency force account contracts and emergency informal bid contracts. Emergency informal bid contracts occur once the initial disaster response is accomplished. The district design unit will prepare plans and specifications for this type of contract. For contract administration, follow the normal procedures outlined in the *Construction Manual* (manual).

This section provides guidelines to assist resident engineers in administering emergency force account contracts.

5-502 Emergency Force Account Contracts

5-502
Emergency Force
Account Contracts

When time is of the essence to reopen a roadway or facility, or the need to prevent imminent failure exists, a "no-bid" (sole-source) emergency contract is allowed when covered by a director's order. The Office of Procurement and Contracts of the Division of Administrative Services typically prepares and executes these service contracts. The resident engineer becomes the contract manager on a force account contract once work begins.

Form ADM-0366, "Confirmation of Verbal Agreement Other than for Equipment Rental," is the document that allows the contractor to begin work with verbal approval, and the form obligates the contractor to enter into a service contract with Caltrans.

When using the form, which is limited to the highest level of emergency, the work should begin within a day. For written prior approval, the emergency work should begin within a few days of written approval. Do not permit the contractor to begin work until the proper approvals have been obtained.

5-503 Specifications

5-503 Specifications

In the description portion of Form ADM-0366, "Confirmation of Verbal Agreement Other Than for Equipment Rental," add the following:

- A brief description of the work and estimated total cost.
- The location and limits of the work.
- The business enterprise participation goals, if required.
- The statement: "All work will be paid for in accordance with Section 9-1.03, "Force Account Payment," of the Caltrans *Standard Specifications* dated (year) as amended by the attached provisions."

For the current provisions for force account emergency contracts, see the end of this section.

5-504 Selection of Resident Engineer and Support Staff

5-504 Selection of Resident Engineer and Support Staff

The construction engineer must establish adequate staffing levels to ensure control of work, testing, and documentation and to ensure current contract files and fund expenditures. To put an individual in responsible charge at the site, the construction engineer must also expeditiously assign a resident engineer.

When structure work is necessary, use personnel from the Office of Structure Construction.

5-505 Contractor Selection and Notification

5-505 Contractor Selection and Notification

District construction should appoint a construction engineer as "contractor selection coordinator." The district maintenance unit, contractor selection coordinator, and the construction engineer should coordinate their efforts to select a contractor for an emergency contract. The unit that selects, contacts, and notifies the contractor varies in each district. Generally, Caltrans prefers that district construction handle these duties because these divisions are most aware of local contractors' varying capabilities. The Division of Maintenance maintains a registry of contractors available for emergency contracts.

When selecting a contractor for an emergency contract, consider factors such as the following:

- Availability of resources
- Mobilization response time
- Proven management abilities
- Current contractor's license
- Corporate cooperation

Some local contractors can be as responsive and effective as a larger firm, so for quick emergency response, if the smaller firm is available and selecting that firm would prevent delaying other ongoing Caltrans work, consider the smaller firm.

When resource conflicts occur between ongoing and emergency work, and the selected contractor is the best for the emergency contract, district construction must determine the best course of action.

To avoid work conflicts, generally keep to a minimum the number of contractors; however, on large emergency contracts, multiple contractors may be necessary.

A representative from the Caltrans unit coordinating contractor selection will meet with a representative from the selected contractor to sign Form ADM-0366, "Confirmation of Verbal Agreement Other Than for Equipment Rental." A senior-level engineer or higher must also sign Form ADM-0366 when district construction coordinates the selection of the contractor.

5-506 Initial Stages of the Project

5-506
Initial Stages of the Project

A director's order may take several days to obtain. However, in severe emergencies it is possible for the district maintenance unit to obtain verbal approvals by telephone in less than a day from the director or delegated deputy director.

While the director's order is being obtained, representatives from the appropriate district units and divisions, such as district construction, maintenance unit, design unit, and environmental unit, should meet to discuss repair alternatives, cost estimates, and anticipated work duration.

The estimated cost and duration should be realistic. To cover unexpected situations, it is appropriate to place adequate cost and contingency time in the estimates.

During the initial meeting with the contractor, the resident engineer should discuss the scope of work, the proposed types of equipment and personnel, and expectations for performance.

Specifically document all discussions regarding safety. The discussions should include the nature of the operations, interaction with traveling public, worker fatigue, code of safe practices, and designation of the contractor's safety officer. Top priorities are the safe passage of public traffic through or around the work and the safety of workers.

Develop a traffic management plan for the project.

5-507 Tracking Costs

5-507
Tracking Costs

The director's order allows you to proceed with the emergency contract work. It describes the work's scope and limits of the work, funding allocation, and duration. You are legally allowed to authorize fund expenditures up to the director's order amount.

On emergency force account contracts, daily costs can be significant. Assistant resident engineers must include complete records of labor, equipment, and materials in the daily report. At the end of each shift, reach agreement with the contractor on this work. Make a daily estimate of costs based on the daily report. Encourage the contractor to submit a weekly bill itemizing labor, equipment, and material used on the contract.

For additional information on force account billing and record keeping, see Section 3-9, "Measurement and Payment," of this manual.

5-508 Prosecution of the Work

The resident engineer must define the work to be done but only provide general direction for accomplishing the work. Generally, the contractor must select the means and methods to be used.

The following bullets list items either that the resident engineer must perform or of which the resident engineer must be aware:

- As the work progresses, work plans will probably need adjusting. If you believe the emergency work is not progressing as quickly as it should, seek management advice, and discuss with the contractor ways to increase production. Be innovative by using the following:

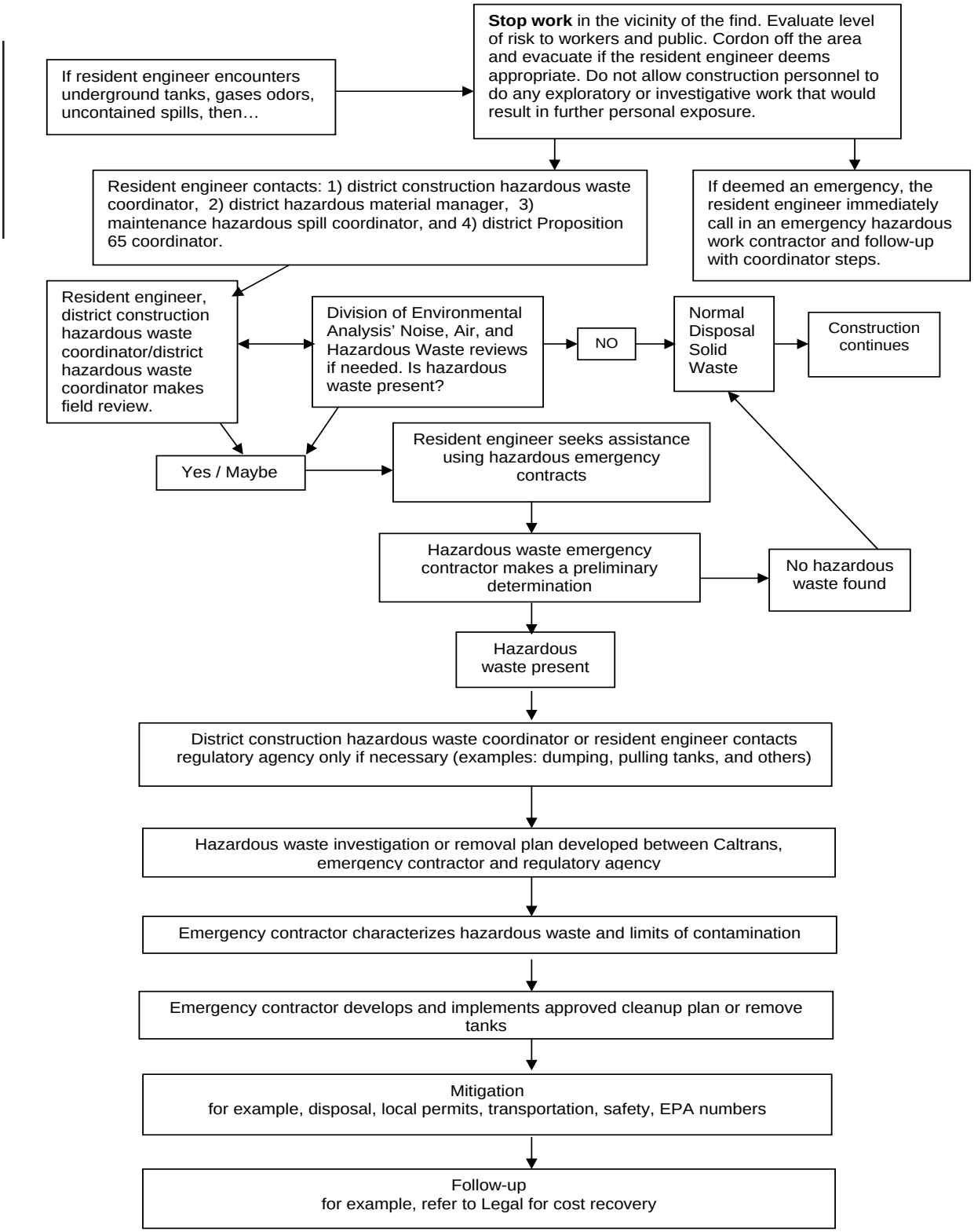
  1. Concurrent operations
  2. Multiple shifts
  3. Local material sites
  4. Detours to limit the effects on traffic
  5. Matches of the desired equipment and resources with the changing circumstances of the work to be performed

- Although cost effectiveness is always desirable, in some emergency situations production must predominate, sometimes requiring excess equipment to sit idle to gain overall production.
- Ensure that the means and methods the contractor proposes are safe and appropriate.
- To ensure that environmental mitigation, compliance requirements, and commitments are adhered to, always coordinate with your contractor selection coordinator, environmental - construction liaison, district or regional environmental office and project manager.
- Continuously try to prevent improper storm water runoff. Some operations may have unavoidable sediment runoff. To ensure the timely involvement of regulatory agencies, have prior discussions with them, both during the emergency and in the future.
- The governor's emergency proclamation for a disaster may temporarily waive the regulations of the Surface Mining and Reclamation Act of 1975 (SMARA). This waiver is intended to allow Caltrans to use non-SMARA certified locations if no other option is available to reopen a closed facility during the height of an emergency. (Mining operations determined to be in compliance are listed on the AB 3098 SMARA Eligible List. You can obtain this list from the Division of Construction or the Department of Conservation's web site at the following address: http://www.consrv.ca.gov/OMR/ab_3098_list/index.htm

5-509 Functional Unit Support

District management must assign a project manager to emergency contracts. The project manager will assist the resident engineer in coordinating support from other Caltrans units, other government agencies, the community, and legislators. To allow you more time to properly administer the contract, fully use the project manager and other appropriate units.

Table 7-1.1 Unknown Hazards Procedures



7-108 Certification of Environmental Compliance

7-108 Certification of Environmental Compliance

A Certificate of Environmental Compliance (CEC) is prepared at the end of the project to document the mitigation monitoring and reporting program required under the California Environmental Quality Act for every construction project unless no mitigation measures were identified or undertaken. This requirement is shown in Section 270.50 of the *Guide to Caltrans Capital Work Breakdown Structure*. The basic purpose of the CEC is to certify that the mitigation measures were implemented in accordance with the contract.

The resident engineer is responsible for ensuring that the CEC is prepared and distributed. The CEC lists all mitigation measures for the project and includes a discussion of:

- The effectiveness of the constructed mitigation measures;
- Whether the mitigation measures were met and, if not, what measures were implemented;
- How well the contract specifications satisfied all environmental commitments and concerns; and
- Additional mitigation measures required as a result of project changes along with their outcomes.

The Environmental Commitments Record can serve as the basis for the CEC documentation.

The CEC will be signed by all responsible parties including the environmental - construction liaison, environmental generalist, the project manager, and the resident engineer.

The CEC must be sent to the State Office of Planning and Research (1400 Tenth Street, Sacramento 95814) for review and filing. Provide copies of the CEC to all of the district or regional organizational units responsible for the project including the Divisions of Environmental, Design, Project Management and Construction.

Discuss the CEC fully at the project close out meeting. It identifies the lessons learned on the project and areas in environmental compliance that may need improvement.

7-109 Solid Waste Disposal and Recycling Reporting

7-109 Solid Waste Disposal and Recycling Reporting

Contracts containing special provisions for solid waste disposal and recycling reports require the contractor to chronicle landfill disposal and material recycling activity performed through the duration of the contract. The contractor reports this information annually via the Division of Constructions Form CEM-4401, "Solid Waste Disposal and Recycling Report." The resident engineer must ensure that the form is given to the contractor and checked as received during the preconstruction conference. The requirements of the form should be explained and reiterated during the preconference and other meetings.

Form CEM-4401 must include, at a minimum:

- the report calendar year
- amount of solid waste taken to landfills
- amount of solid waste diverted from landfills to recycling facilities

- quantity of recycled material generated and then reused on a project
- name, title and signature of the contractor's representative, and
- date of the report

The contractor submits the annual report for ongoing contracts to the resident resident engineer by the 15th day of January, and a final annual report five days following contract acceptance. If no work was conducted during the reporting period, the report states no work was performed during that period.

Contract special provisions require that all reports be received from the contractor in good order before the contract can be finalized. Form CEM-4401 must be completely filled out and signed by the contractor for it to be acceptable. The resident engineer must review all reports submitted by the contractor for accuracy. Compare the total amount of materials taken to and diverted from landfills, from the Solid Waste and Disposal and Recycle Reports with the approximate amount of work requiring the removal of materials. Before signing each report, you must resolve any discrepancies in material type or amount with the contractor. A deduction of $10,000 (ten thousand dollars) for non-compliance will be made for missing reports or for each report submitted by the contractor that is either delinquent, inaccurate or incomplete.

The resident engineer must submit the approved Form CEM-4401, "Solid Waste Disposal and Recycling Reports," to the district recycling coordinator and a copy each to the district construction office and the statewide recycle coordinator in the Division of Design no later than February 1st of each year or within 15 days after receiving the final report. Contact information for district and statewide recycling coordinators is available via the following Internet address:

http://www.dot.ca.gov/hq/oppd/ab75/coordinators.htm

Forms Used For Contract Administration Page No.

Division of Construction Forms

Office of Materials Engineering and Testing Services Forms

Other State Forms

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

SUBCONTRACTING REQUEST

CEM-1201 (REV. 4/99) CT# 7541-3514-7

Front

See Instructions On Back

		REQUEST NUMBER
CONTRACTOR NAME	COUNTY	ROUTE
BUSINESS ADDRESS	CONTRACT NO.	
CITY/STATE / ZIP CODE	FEDERAL AID PROJECT NO. *(From Special Provisions)*	

SUBCONTRACTOR *(Name, Business Address, Phone)*	BID ITEM NUMBER(S)	% OF BID ITEM SUBBED	CHECK IF: (See Categories Below) (1)	(2)	(3)	DESCRIBE WORK WHEN LESS THAN 100% OF WORK IS SUBBED	$ AMOUNT BASED ON BID $ AMOUNT

Categories: 1) Speciality 2) Listed Under Fair Practices Act 3) Certified DBE/DVBE

I Certify That:

- The Standard Provisions for labor set forth in the contract apply to the subcontracted work.
- If applicable, *(Federal Aid Projects only)* Section 14 *(Federal Requirements)* of the Special Provisions have been inserted in the subcontracts and will be incorporated in any lower-tier subcontract. Written contracts have been executed for the above noted subcontracted work.

CONTRACTOR'S SIGNATURE	DATE

NOTE: This section is to be completed by the Resident Engineer

1.	Total of bid items		$
2.	Speciality items (previously requested)	$	
3.	Specialty items (this request)	$	
4.	Total (lines 2+3)	$	
5.	Contractor must perform with own forces (lines 1 minus 4) x _____ %		$
6.	Bid items previously subcontracted	$	
7.	Bid items subcontracted (this request)	$	
8.	Total (lines 6+7)	$	
9.	Balance of work Contractor to perform (lines 1 minus 8)	$	$

APPROVED

RESIDENT ENGINEER'S SIGNATURE	DATE

COPY DISTRIBUTION: **Original** - Contractor **Green** - Resident Engineer **Canary** - Dist. Const Office/Labor Compliance Officer **Pink** - HQ Construction Program **Goldenrod** - Contractor's Information Copy

ADA Notice For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 263-2041 or TDD (916) 263-2044 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

Back

SUBCONTRACTING REQUEST

CEM-1201 (REV. 4/99) CT# 7541-3514-7

INSTRUCTIONS FOR COMPLETING SUBCONTRACTING REQUEST FORM

All First-tier subcontractors must be included on a subcontracting request.

Submit in accordance with Sections 8-1.01 of the Standard Specifications. Type or print requested information. Information copy (goldenrod) is to be retained by the contractor. Submit other copies to the project's Resident Engineer. After approval, the original will be returned to the contractor.

When an entire item is subcontracted, the value to be shown is the contractor's bid price.

When a portion of an item is subcontracted, describe the portion, and show the % of bid item and value.

THIS FORM IS NOT TO BE USED FOR SUBSTITUTIONS.

Prior submittal of a CP-CEM-1201 involving a replacement Subcontractor, submit a separate written request for approval to substitute a listed subcontractor. Section 4107 of the Government Code covers the conditions for substitution.

Submit a separate written request for approval of any DBE/DVBE substitution. Include appropriate backup information and state what efforts were made to accomplish the same dollar value of work by other certified DBE/DVBEs.

NOTE: For contractors who will be performing work on railroad property, it is necessary for the contractor to complete and submit the Certificate of Insurance (State Form DH-OS-A10A) naming the subcontractor as insured. ***No work will be allowed which involves encroachment on railroad property until the specified insurance has been approved.***

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

CONTRACTOR ACTION REQUEST - CHANGE OF NAME/ADDRESS - ASSIGNMENT OF CONTRACT MONIES

CEM-1202 (NEW 10/2005)

DATE OF REQUEST: _____

INSTRUCTIONS

- One form per contract
- To change the contractor's name, as shown on the contract, fill out Section 1, 2 and 5.
- To change the contractor's address, as shown on the contract, fill out Sections 1, 3 and 5.
- To assign contract "Monies" to another contractor, fill out sections 1, 4 & 5.

NOTES

- All transactions require original signatures.
- Signature of contractor, and signature and stamp of notary public must be acknowledged here or as an attachment.

SECTION 1 — CONTRACT INFORMATION (As Per Contract)

Contract Number:	
Contractor's Name:	
Mailing Address:	
Telephone:	
FAX:	

SECTION 2 — NAME CHANGE

New Name:	

SECTION 3 — ADDRESS CHANGE

New Address:	
Telephone:	
FAX:	

SECTION 4 — ASSIGNMENT of MONIES *(Standard Specifications, Section 8-1.02)*

Assignee:		Assignee's Representative	
Address:		Name:	
		Title:	
Telephone:		Telephone:	
FAX:		FAX:	

SECTION 5

I certify that the above information has been reviewed and determined to be complete and accurate. Both Assignor and Assignee have been verbally contacted to confirm validity of the requested action.

Contractor's Signature *Date*

Notary Public's Signature and Stamp

Notary Public's Signature *Date*

-For Department use only-

RESIDENT ENGINEER AUTHORIZATION

I certify the changes to be complete and accurate and confirmation completed. Approval is given for the requested changes.

Resident Engineer's Signature *Date*

Division of Construction Field Coordinator's Concurrence

Division of Construction Field Coordinator's Signature *Date*

Contract Administration System Updated

Division of Construction Progress Pay Coordinator's Signature *Date*

ADA Notice For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

CONTRACTOR ACTION REQUEST

Change of Name / Address • Assignment of Contract Monies

Approval Procedures

1. The contractor must submit one Form CEM-1202, "Contractor Action Request – Change of Name, Address or Assignment of Contract Monies" per job to the resident engineer.

2. Upon receipt of the CEM-1202, the resident engineer or delegate reviews the form for completeness of the following information, as applicable:

   - Caltrans contract EA
   - Current name, address and telephone number of the contractor
   - For a name change, the new name of the contractor
   - For an address change, the new address and telephone number
   - Name, address, telephone number and signature of contractor
   - Signature and stamp of a Notary Public verifying the signature of the contractor (or attach a notarized document)
   - Name, address and telephone number of assignee and assignee representative

3. If the resident engineer or delegate determines that the form is complete, the information is verbally confirmed by calling the contractor and the assignee, as applicable.

   NOTE: In the case of a name change, the contractor's bonding, insurance and licensing status should be verified to ensure the entity continues to maintain appropriate bonding, insurance and licensing requirements.

4. If the CEM-1202 form is incomplete, the resident engineer returns it to the contractor with a written explanation of the deficiencies.

5. Upon verification of the information, the form is signed by the resident engineer and forwarded to the appropriate Division of Construction field coordinator (coordinator) for approval. The coordinator conducts a quality assurance review in coordination with the resident engineer, and upon concurrence, signs and forwards a copy of the form to the Division of Construction progress pay coordinator to update the system. The original form and documentation are retained at the district.

6. The Division of Construction progress pay coordinator enters the new information into the CAS database and forwards a copy of the form to the Division of Accounting. The Division of Construction progress pay coordinator may perform an independent assurance verification of requested change. This independent assurance process may involve contacting the assignor, assignee or surety for information validation.

7. Any questions concerning Form CEM-1202 should be referred to the project's resident engineer.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

CONTRACTOR ACTION REQUEST - ASSIGNMENT OF CONTRACT PERFORMANCE

CEM-1203 (NEW 10/2005)

DATE OF REQUEST: _____

INSTRUCTIONS
- One form per contract
- To assign contract performance, complete Sections 1through 4.

NOTES
- All transactions require original signatures.
- Signature of contractor, assignee and surety representatives, and signature and stamp of notary public must be acknowledged here or as an atttachment.

SECTION 1

ASSIGNMENT OF PERFORMANCE

Assignor having contracted with the State of California Department of Transportation for the performance of below contract hereby assigns said contract performance and all payments becoming due there under to assignee as indicated herewith. Assignor shall remain responsible to the State of California, Department of Transportation to assure that its contractual obligations are satisfactorily completed.

CONTRACT INFORMATION (As Per Contract)

Contract Number	
Contractor:	
Address:	
Telephone:	
Representative:	

Contractor Principal's or CEO's Signature *Date*

SECTION 2

ACCEPTANCE OF ASSIGNMENT

Assignee hereby accepts said assignment and agrees to perform and complete said contract in accordance with the terms thereof. This assignment shall not be effective until the Director of the Department of Transportation has consented thereto in writing.

Assignee:	
Address:	
Representative:	
Title:	
Telephone:	

Assignee Representative's Signature *Date*

SECTION 3

NOTARY PUBLIC STAMP & SIGNATURE

Notary Public's Signature *Date*

SECTION 4

CONSENT OF SURETY

As surety upon the performance bond and the payment bond (or labor and materials bond) given on behalf of assignor, principal and in favor of the State of California, obligee, on said contract hereby consents to the foregoing assignment and agrees that said bond shall continue in full force and effect and that surety's obligations under said bonds shall be in no way impaired or diminished by reason of said assignment.

Bond Number:	
Surety Name:	
Representative:	
Title:	

Surety Representative's Signature *Date*

- For Department use only -

Resident Engineer Verification

I certify that the above information has been reviewed and determined to be complete and accurate. Both assignor and assignee have been verbally contacted to confirm validity of the requested action.

Resident Engineer's Signature *Date*

Director, Department of Transportation Consent

Director, Department of Transportation, acting by his undersigned authorized agent, consents to the foregoing assignment of performance of said contract upon the express condition that assignor and the surety on the contract bonds shall remain responsible to assure that its contractual obligations are satisfactorily completed.

Division of Construction Chief's Signature *Date*

Division of Construction Field Coordinator's Concurrence

Division of Construction Field Coordinator's Signature *Date*

Contract Administration System Updated

Division of Construction Progress Pay Coordinator's Signature *Date*

ADA Notice For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM ANNUAL CERTIFICATION

CEM-2001 (NEW 9/95)

RESIDENT ENGINEER NAME		CALTRANS CONTRACT NO.
PROPOSED STARTING DATE	PROPOSED COMPLETION DATE	COUNTRY, ROUTE, POST MILES
WORK DESCRIPTION		

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

CONTRACTOR SIGNATURE	DATE

THIS CERTIFICATION COMPLIES WITH THE REQUIREMENTS OF THE STATEWIDE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM PERMIT NO. CAS000002, ORDER NO. 92-08-DWQ FOR CONSTRUCTION.

APPROVAL

RESIDENT ENGINEER'S SIGNATURE	DATE

Note to Resident Engineer:
If you cannot certify compliance, notify the appropriate Regional Water Board. Identify the type of non-compliance and the action necessary to achieve compliance. Include a time schedule for achieving compliance. This notification must be made within 30 days.

ADA Notice For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 263-2041 or TDD (916) 263-2044 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

NOTIFICATION OF CONSTRUCTION

CEM-2002 (NEW 4/10/2000)

IN COMPLIANCE WITH CALTRANS STATEWIDE NPDES STORM WATER PERMIT Order No. 99-06 DWQ, NPDES No. CAS000003

I. IDENTIFICATION - Attach Vicinity Map, ½ size copy of Title Sheet

PROJECT	CHECK ONE: ☐ First Submittal or Amendment No.	CONTRACT NUMBER EA	DATE MM/DD/YYYY
CITY (if applicable)	COUNTY	TENTATIVE START DATE	TENTATIVE END DATE
ROUTE	POST MILE	KILOMETER POST	TENTATIVE DATE SWPPP AVAILABLE

II. CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARDS

☐ Region1, North Coast	Region 5, Central Valley	Region 6, Lahontan	☐ Region 7, Colorado River
☐ Region 2, San Francisco Bay	☐ Sacramento	☐ South Lake Tahoe	☐ Region 8, Santa Ana
☐ Region 3, Central Coast	☐ Fresno	☐ Victorville	☐ Region 9, San Diego
☐ Region 4, Los Angeles	☐ Redding		

III. CALTRANS DISTRICT

NAME/NUMBER	PROJECT CONTACT
ADDRESS	POSITION TITLE
CITY	PHONE

IV. CONSTRUCTION FIELD OFFICE - Attach Location Map

STREET ADDRESS			CONSTRUCTION CONTACT
PHYSICAL LOCATION IF DIFFERENT THAN ADDRESS ABOVE			POSITION TITLE
CITY	STATE	ZIP	PHONE

V. CONSTRUCTION SITE INFORMATION

DESCRIPTION AND TYPE OF WORK

ADDITIONAL RELATED REQUIRED APPROVALS: ☐ DTSC Variance ☐ CWA 404/401 ☐ DFG 1601 ☐ NPDES/WDRs ☐ OTHER

DESCRIBE:

TOTAL CONSTRUCTION AREA: ACRES HECTARES	TOTAL DISTURBED AREA: ACRES HECTARES
RECEIVING WATER NAME:	PROJECT IN OR ADJACENT TO RECEIVING WATER? ☐ YES

PROJECT DISCHARGES TO? ☐ GROUNDWATER INFILTRATION	BASIN LOCATION:	MUNICIPAL/OTHER SYSTEM NAME:

VI. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or to those persons directly responsible for gathering the information, the information submitted is true, accurate and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment of knowing violations.

SIGNATURE	DATE
PRINT/TYPE NAME	TITLE

ADA Notice For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 263-2041 or TDD (916) 263-2044 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

CALTRANS STATEWIDE NPDES PERMIT
Order No. 99-06 DWQ, NPDES CAS000003

The Permit requires that a Notification of Construction (NOC) for construction projects covered by the Permit be submitted to the appropriate Regional Water Quality Control Board (RWQCB) at least 30 days prior to the start of construction. In some cases, the RWQCB may view two or more smaller projects in the same corridor as part of a larger common plan of development. The Project Manager should be aware of other projects in the corridor. If needed, these projects should be mentioned in section V. Construction Site Information.

Typically, most of the information on the form is completed by the District Storm Water Coordinator, Environmental staff, Project Manager or Project Engineer. That individual also submits the NOC to the appropriate RWQCB(s) at the same time the PS&E package is transmitted to the Office Engineer. No fees are to be to submitted to the RWQCBs. A copy should also be transmitted to the District Construction Division.

At the time of the first submittal to the RWQCB, the District may elect to leave blank the information in Section IV. Construction Field Office and resubmit a copy of the form with that information filled in at the time the Resident Engineer (RE) is assigned. Alternately, the District may wish to fill in a contact name of someone other than the RE, such as the Area Senior Construction Engineer or Project Manager, who will remain the contact for that project until the NOC is resubmitted with the new contact information, or until the Notice of Completion of Construction (NCC) is filed.

The form may be filled in electronically or by printing legibly.

I. IDENTIFICATION. Provide a brief project descriptive name, a "nickname." When the NOC is first submitted to the RWQCB, check the First Submittal box. For subsequent changes of information, including contact information, enter the amendment number.

Enter the Contract Number. Use the construction phase EA.

Enter the date that the NOC is first submitted to the Regional Water Quality Control Board (RWQCB), or date of subsequent submittals.

Provide a "to scale" or "to approximate scale" drawing of the construction site and the immediate surrounding area. Limit the map to an 8.5" x 11" or 11" x 17" size. At a minimum, the map must show the site perimeter, the geographic features surrounding the site, general topography, and location of the construction project in relation to surface waters and named streets, roads, intersections, or landmarks. Do not submit a drawing unless it meets the above size limits.

Enter the city, if applicable, or N/A if not within city limits. Enter the county or counties, route number, post mile and kilometer post. Also enter the tentative start and end dates.

Enter a tentative date the Storm Water Pollution Prevention Plan (SWPPP) will be available.

CALTRANS STATEWIDE NPDES PERMIT
Order No. 99-06 DWQ, NPDES CAS000003

II. CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD(S).
Check the box of the RWQCB(s) that has jurisdiction over the area that the project is in.

III. CALTRANS DISTRICT. Enter the name and address of the Caltrans District individual responsible for submittal of the NOC to the RWQCB. Typically that individual is the Project Engineer, Project Manager, the District Storm Water Coordinator, or Environmental Program staff.

IV. CONSTRUCTION FIELD OFFICE. Enter Caltrans field office information, if known, and Construction Contact person information. As discussed above, the District may elect to use the contact information for the RE after the project has been assigned, or another individual, such as the Area Senior or Project Manager. If the Construction Contact information changes, then the District should resubmit a revised form to the RWQCB(s). Provide the physical address of the field office, or a description of the physical location of the field office if no physical address is available and a location map.

V. CONSTRUCTION SITE INFORMATION. Provide a brief narrative description of the work. You can attach a checklist of permanent and/or temporary BMPs if needed, or required by a RWQCB. A checklist of construction BMPs can also be attached later as an amendment after the SWPPP is completed.

Check the box or boxes to indicate any additional required approvals, permits or certifications. Some examples are: variance from the Department of Toxics Substances Control (DTSC) for reuse of soil containing lead, dredge or fill operations requiring Army Corps of Engineers 404 certification and/or Clean Water Act 401 certification, streambed alteration requiring Department of Fish and Game 1601 permit and non-storm water discharges requiring separate waste discharge requirements. Describe the condition and whether the approval, permit or certification has been issued. If the project involves soils subject to the DTSC variance, notify the appropriate RWQCB(s) to determine if separate waste discharge requirements must be issued. The RWQCBs have up to 120 days to issue waste discharge requirements, so the RWQCBs should be notified early in the process.

Indicate the total size in acres and hectares, of the construction project. Also indicate the size of the disturbed soil area. Disturbed soil area is defined in the Storm Water Management Plan as "areas of exposed, erodible soil, including stockpiles, that are within the construction limits and that result from construction activities."

Identify the name of the surface receiving water body for the storm water discharge. Indicate whether the project is in or immediately adjacent to the receiving water. If the storm water is infiltrated, check the box for infiltration basin, and identify the basin's location. If the discharge is to a separate storm sewer system, such as a collection system operated by a municipality, flood control district, utility, or similar entity, check the box for municipal/other system and the name of the system owner.

VI. CERTIFICATIONS. The permit requires that all reports and information requested by the SWRCB or RWQCBs be signed by an Executive Officer, Executive Director or a duly authorized representative if the authorization is made in writing. If signature authority is delegated to staff, a copy of that delegation letter should be sent to the Storm Water Manager at Headquarters.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

NOTICE OF COMPLETION OF CONSTRUCTION

CEM-2003 (NEW 4/12/2000)

IN COMPLIANCE WITH CALTRANS STATEWIDE NPDES STORM WATER PERMIT Order No. 99-06 DWQ, NPDES No. CAS000003

I. IDENTIFICATION

PROJECT	CONTRACT NUMBER	DATE MM/DD/YYYY
	EA	

CITY (if applicable)	COUNTY	ROUTE	KILOMETER POST / POST MILE (S)	START DATE	END DATE

II. CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARDS

☐ Region1, North Coast	Region 5, Central Valley	Region 6, Lahontan	☐ Region 7, Colorado River
☐ Region 2, San Francisco Bay	☐ Sacramento	☐ South Lake Tahoe	☐ Region 8, Santa Ana
☐ Region 3, Central Coast	☐ Fresno	☐ Victorville	☐ Region 9, San Diego
☐ Region 4, Los Angeles	☐ Redding		

III. CALTRANS DISTRICT

NAME/NUMBER		PROJECT CONTACT
ADDRESS		POSITION TITLE
CITY	ZIP	PHONE

IV. BASIS OF COMPLETION

☐ 1. The construction job is complete and requirements met as of ***Date:*** _____

☐ 2. Construction activities have been suspended, as of ***Date:*** _____ ***Expected Start Up Date:*** _____

☐ 3. Site can not discharge storm water to waters of the United States ***Reason:*** _____

☐ 4. Discharge is now subject to NPDES Permit ***No.*** _____ ***Date:*** _____

V. DESCRIPTION OF COMPLETION (Attach site photographs)

VI. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or to those persons directly responsible for gathering the information, the information submitted is true, accurate, and complete to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment of knowing violations.

SIGNATURE

PRINT/TYPE NAME

DATE

TITLE

ADA Notice For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 263-2041 or TDD (916) 263-2044 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

CALTRANS STATEWIDE NPDES PERMIT
Order No. 99-06 DWQ, NPDES CAS000003

I. IDENTIFICATION. The project name, contract number, city, county, route, kilometer post and post mile information should be identical to that on the Notification of Construction form. Enter the date the Completion of Construction (NCC) is submitted to the Regional Water Quality Control Boards (RWQCB) and the start and end dates of construction.

II. CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARDS. Check the box next to the appropriate RWQCB(s).

III. CALTRANS DISTRICT. Provide the Caltrans District information and the name, title and phone of the construction contact, which by District policy may be the Resident Engineer (RE), the Area Senior, the Program Manager, National Pollution Discharge Elimination System (NPDES) Coordinator or other responsible staff. The contact should be someone who can address RWQCB staff questions about project storm water controls or who can refer a RWQCB staff to a someone who can.

IV. BASIS OF COMPLETION. Check one of the boxes:

1. The construction project has been completed and
- all elements of the Storm Water Pollution Prevention Plan (SWPPP) have been completed;
- construction materials and equipment maintenance waste have been disposed of properly;
- final stabilization requirements have been met, i.e., when all soil disturbing activities are completed and either:
  a. a uniform vegetative cover with 70 percent coverage has been established or
  b. equivalent stabilization measures have been employed. (i.e., erosion resistant soil coverings or treatments). Caltrans projects typically include erosion control on all disturbed areas, which is considered to be equivalent stabilization.
- the post-construction storm water operation and management plan is in place.

2. Construction activities have been suspended, either temporarily or indefinitely and
- all elements of the SWPPP have been completed;
- construction materials and equipment maintenance waste have been disposed of properly;
- all denuded areas and other areas of potential erosion are stabilized;
- an operation and maintenance plan for erosion and sediment control is in place;
- the date construction activities were suspended, and the expected start up date

3. The construction site can not discharge storm water to waters of the United States. Indicate how prevention of all discharge is ensured, and if all storm water is retained on site or collected offsite.

4. The discharge of construction storm water from the site is now subject to another NPDES general permit or an individual NPDES permit. The general permit or individual permit NPDES number and the date coverage began should be provided.

V. DESCRIPTION OF COMPLETION
Briefly describe how the completion requirements have been met. Attach site photographs.

VI. CERTIFICATION
The permit requires information submitted be signed by the District Director or a duly authorized representative. If the District Director elects to delegate signature authority, the District must first have submitted the list of authorized representatives to the appropriate RWQCB.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

NOTIFICATION OF CONSTRUCTION (DESERT AREAS)

(APPLIES TO PROJECTS BELOW ELEVATION 1200 METERS IN RWQCB 6 & 7 JURISDICTION)
CEM-2004 (REV 8/2005)

ADA Notice
For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA

IN COMPLIANCE WITH CALTRANS STATEWIDE NPDES STORM WATER PERMIT Order No. 99-06 DWQ, NPDES No. CAS000003

I. IDENTIFICATION - Attach Vicinity Map, ½ size copy of Title Sheet

PROJECT	NOC SUBMITTAL (Check One) ☐ First Submittal or ☐ Amendment No. ___	CONTRACT NUMBER EA	DATE MM/DD/YYYY
CITY (if applicable)	COUNTY	TENTATIVE START DATE	TENTATIVE END DATE
ROUTE	POST MILE	KILOMETER POST	TENTATIVE DATE SWPPP AVAILABLE

II. CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARDS

☐ REGION 6, LAHONTAN RWQCB South VICTORVILLE OFICE 14440 Civic Drive, Ste 200 Victorville, CA 92392 Ph: (760-241-6583 FAX: (760) 241-7308	☐ REGION 7, COLORADO RIVER BASIN RWQCB 73-720 Fred Waring Drive, Ste. 100 Palm Desert, CA 92260 Ph. (760) 346-7491 FAX: (760-341-6820

III. CALTRANS DISTRICT

NAME/NUMBER	PROJECT CONTACT
ADDRESS	POSITION TITLE
CITY	PHONE

IV. CONSTRUCTION OFFICE - Attach location Map

STREET ADDRESS		CONSTRUCTION CONTACT	
PHYSICAL LOCATION IF DIFFERENT THAN ADDRESS ABOVE		POSITION TITLE	
CITY	STATE	ZIP	PHONE

V. CONSTRUCTION SITE INFORMATION

DESCRIPTION AND TYPE OF WORK:

BMPS TO BE IMPLEMENTED (CHECK BOXES THAT APPLY OR ATTACH SWPPP)

Temporary Soil Stabilization BMPs:

- ☐ SS-1 Scheduling
- ☐ SS-2 Pres. of Existing Vegetation
- ☐ SS-3 Hydraulic Mulch
- ☐ SS-4 Hydroseeding
- ☐ SS-5 Soil Binders
- ☐ SS-6 Straw Mulch
- ☐ SS-7 Geotextiles, Plastic Covers & Erosion Control
- ☐ SS-8 Wood Mulching
- ☐ SS-9 Earth Dikes/Drainage Swales & Lined Ditches
- ☐ SS-10 Outlet Protection & Velocity Dissipation Devices
- ☐ SS-11 Slope Drains
- ☐ SS-12 Stream Bank Stabilization
- ☐ Wind Erosion Control BMPs

Temporary Sediment Control BMPs:

- ☐ SC-1 Silt Fence
- ☐ SC-2 Desilting Basin
- ☐ SC-3 Sediment Trap
- ☐ SC-4 Check Dam
- ☐ SC-5 Fiber Rolls
- ☐ SC-6 Gravel Bag Berm
- ☐ SC-7 Street Sweeping & Vacuuming
- ☐ SC-8 Sandbag Barrier
- ☐ SC-9 Straw Bale Barrier
- ☐ SC-10 Storm Drain Inlet Protection

☐ Tracking Control BMPs ☐ Non-Storm Water Management BMPs ☐ Waste Mgmt. & Materials Pollution Control BMPs

ADDITIONAL RELATED REQUIRED APPROVALS: ☐ DTSC Variance ☐ CWA 404/401 ☐ DFG 1601 ☐ NPDES/WDRS ☐ OTHER
DESCRIBE:

USGS COORDINATES: NORTHING:	EASTING:	
TOTAL CONSTRUCTION AREA: ACRES	HECTARES	TOTAL DISTURBED AREA: ACRES HECTARES
RECEIVING WATER NEAREST PROJECT SITE:	APPROXIMATE CLOSEST DISTANCE TO RECEIVING WATER?	

PROJECT DISCHARGES TO? ☐ GROUNDWATER INFILTRATION	BASIN LOCATION	MUNICIPAL/OTHER SYSTEM NAME

VI. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or to those persons directly responsible for gathering the information, the information submitted is true, accurate and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment of knowing violations.

SIGNATURE	DATE
PRINT/TYPE NAME	TITLE

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

CHECKLIST - SOURCE DOCUMENT REVIEW

CEM-2509 (Rev. 11/1998) (USE WITH FORM CEM-2508)

CONTRACTOR REVIEWED	CONTRACT NUMBER
COMPLETION DATE	R.E.

N/A = NOT APPLICATABLE S/R = SEE REMARKS PR = PAYROLLS

ITEM	ITEM	YES	NO	N/A	S/R
A	GENERAL				
A1	Prime notified				
A2	Sub notified				
A3	Sub approved				
A4					
B	PAYROLLS				
B1	Same as submitted				
B2	Time Cards/PR agree				
B3	Canceled Checks/PR agree				
B4	Wages pd at/above contract min.				
B5	Nonworking supv. shown on PR				
B6	Fed/State tax held from employee wages				
B7	Employee interview on file (No.)				
B8	Employee interview reflect problem				
B9					
C	PROPRIETORSHIP				
C1	Sole proprietor				
C2	Partnership				
C3	Partnership papers available				
C4	Partnership profit papers available				
C5	Corporation				
C6	Are corp. officers laborers/ mechanics				
C7	If so, recieving proper wages				
C8					
D	BENEFITS				
D1	Fringes paid cash				
D2	Fringes paid to a trust fund				
D3	Trust fund approved				
D4	Trust statements available				
D5	Statement hrs per employee per month equal or exceed total PR hours				
D6	Canceled checks agree with payments				
D7	Canceled checks agree with statements				
D8					
D9					

ITEM	ITEM	YES	NO	N/A	S/R
E	MISCELLANEOUS				
E1	Business license: Co./City # Yr.				
E2	Subcontract contain Section 6				
E3	Home office bulletin board in order				
E4					
E5					
F	INVESTIGATION				
F1	Number of payrolls reviewed: All Random				
F2	Number of wage underpayments				
F3	Number of workers underpaid:				
F4					
G	CONCLUSIONS				
G1	Payrolls okay				
G2	Discepancies intentional				
G3					
G4					
H	DISTRICT RECOMMENDATIONS				
H1	Assess State penalties				
H2	Assess Federal penalties				
H3	Contractor aware of findings				
H4	Case to Hqs				
H5					
H6					

ENTER ITEM #	REMARKS

DISTRICT REVIEWER	DATE	DISTRICT LC OFFICER	DATE

ADA Notice For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 263-2041 or TDD (916) 263-2044 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

TRUCK OWNER-OPERATOR CERTIFICATION OF OWNERSHIP

CEM-2510 (REV 07/2005)

Caltrans Contract Number _____ **Project Location** _____

SECTION 1

I, _____, am the registered owner or lessee of the vehicle listed below:

Business Name: _____

Name of Registered Owner: _____

Name of Driver: _____

Driver License Number: _____

Address: _____

City, State, Zip: _____

Description of Truck: _____
(Example: 5-Axle Dump Truck)

MCP#: _____

Truck CA#: _____

Truck License Number: _____

SECTION 2

I, _____, do hereby certify under penalty of perjury that I am the owner of this
(Name of Owner-Operator)

vehicle, that I am an independent owner operating this vehicle as an owner-operator, and that I am not employed by any trucking company, broker, or contractor as an employee in accordance with the Fair Labor Standards Act, Employment Relationship.

Signature of Owner _____ Date _____

SECTION 3

I, _____, do hereby certify under penalty of perjury that I have sole use and
(Name of Owner-Operator)

discretion of this vehicle during the time period specified in my lease agreement with _____.
(Name of Lessor)

Signature of Lessor _____ Date _____

PLEASE COMPLETE ALL INFORMATION IN SECTION 1 and EITHER SECTION 2 or SECTION 3

ADA Notice For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

TRUCK OWNER-OPERATOR CERTIFICATION OF OWNERSHIP

CEM-2510 (REV 07/2005)

Instructions

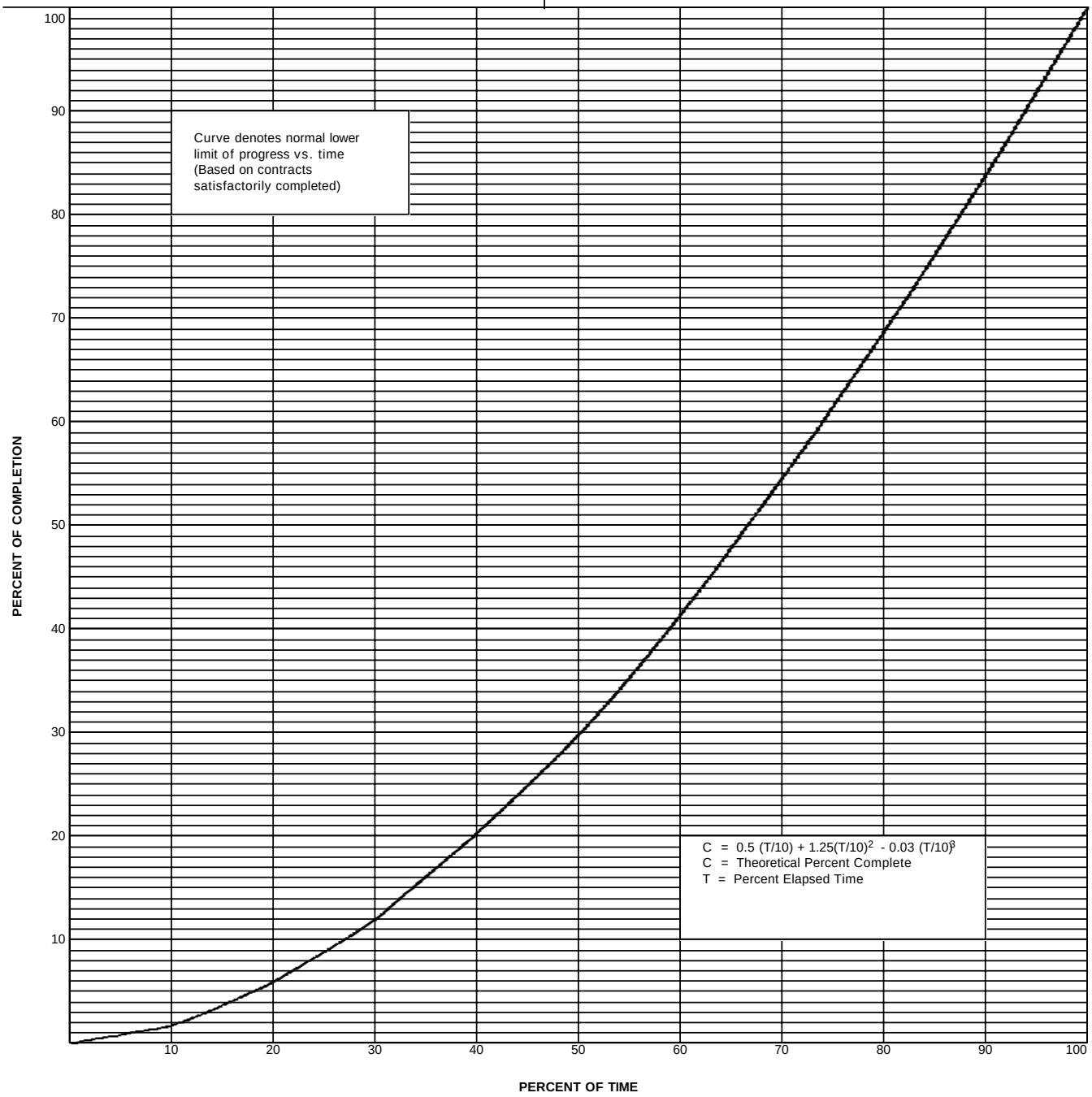
Caltrans Contract Number	District - Expenditure Authorization
Project Location	Description of Project
Name of Owner-Operator or Lessee	First and Last Name of owner-operator or lessee
Business Name	Name as indicated on truck or registration
Name of Registered Owner	First and Last Name of registered owner as listed with DMV
Driver License Number	Number listed on valid driver's license
Address	Street address of business
City, State, Zip	City, State, Zip of business
Description of Truck	Full description of make, model, year of truck
MCP#	Motor Carrier Permit Number issued by DMV
CA#	CA# as issued by CHP
Truck License Number	Number as provided by CA DMV registration
Name of Owner-Operator	First and Last Name of owner-operator
Signature of Owner-Operator	Full signature of owner-operator
Date	Date of completion of form
Name of Lessee	First and Last name of Lessee
Signature of Lessee	Full signature of Lessee

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PROGRESS CHART

CEM-2601 (REV. 6/1983)

CONTRACT NUMBER	ROAD	BID
LIMITS		
DESCRIPTION		WORKING DAYS
RESIDENT ENGINEER	CONTRACTOR	



STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

NOTICE OF MATERIALS TO BE USED

CEM-3101 (REV 05/2006) CT# 7541-3511-1

ADA Notice

For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

To (Resident Engineer): _____ Date: _____

You are hereby notified that materials required for use under Contract Number (1) _____

Dist. _____ Co. _____ Rte. _____ P.M. _____

will be obtained from the following sources:

Contract Bid Item Number (2)	Item Code (3)	Contract Item Description (4)	Item Component (5)	Item Sub-Component (5)	Manufacturer/Provider Name(s) and Address(es) (6)

It is requested that you arrange for sampling, testing and inspection of materials prior to delivery in accordance with Section 6 of the *Standard Specifications*. It is understood that source inspection does not relieve the prime contractor of the full responsibility for incorporating into the work, materials that comply in all respects with the contract plans and specifications. Nor does it preclude the subsequent rejection of materials found to be unsuitable.

(7) c: Materials Administrator, Mail Station #5
Materials Engineering & Testing Services
5900 Folsom Blvd, Sacramento, CA 95819
Fax: (916) 227-7084
Construction Senior Engineer
Contractor File
District Construction Office

Yours Truly,

Contractor		
Address		
Business Phone	Business Fax	E-Mail Address

NOTICE OF MATERIALS TO BE USED
INSTRUCTIONS TO CONTRACTOR

Section 6 of the *Standard Specifications* states that the contractor shall furnish the resident engineer a list of the contractor's sources of materials and the locations at which those materials will be available for inspection. The list shall be submitted on a state-furnished form and shall be furnished to the resident engineer in sufficient time to permit inspecting and testing of materials to be furnished from the listed sources in advance of their use.

In order to avoid delay in approval of materials, the Department of Transportation must receive, in a timely manner, your faxed Form CEM-3101, "Notice of Materials to Be Used." When filing your Form CEM-3101, please comply with the following as closely as possible:

The contract number and job limits should be the same as they appear on the special provisions.

The column headed "Contract Bid Item Number" refers to the sequential item number of the corntract.

The column headed "Item Code" refers to the number for which the material is to be used. It is a six-digit number.

The column headed "Contract Item Description" refers to an item description of the material as described in the special provisions.

The columns headed "Item Component" and "Item Sub-Component" refer to the specific description of material to be used, not necessarily the name of the contract item.

For Example:

Contract Bid Item Number (2)	Item Code (3)	Contract Item Description (4)	Item Component (5)	Item Sub-Component (5)
01	520101	Bar reinforcing steel	Coupler (service splice)	Service splice, CJP welded

The column headed "Manufacturer/Provider" refers to the manifacturer/fabricator of the item and the supplier/vendor of the item. List the name and address of the manufacturer/fabricator. Also, list the name and address where inspection will occur, if different from the manufacturer/fabricator.

Form CEM-3101, "Notice of Materials to Be Used," must be faxed to (916) 227-7084,
Attn: Materials Administrator or postal mail to: Material Engineering & Testing Services, 5900 Folsom Blvd., Sacramento, CA 95819.

If the sources of all materials are not known at the beginning of a contract, report those known. Supplemental "Notice of Materials to Be Used" should be submitted for the others as soon as possible thereafter. Do not delay submitting the original notice until all information is known. All changes in kinds and sources of materials to be used should be reported on supplemental "Notices of Materials to Be Used" immediately. Retain your copy and mail all other copies to the resident engineer.

Note: When placing orders for materials that required inspection prior to shipment, be sure to indicate on your order that state inspection is required.

AC PRODUCTION/PLACEMENT CHECKLIST

CEM-3501 (REV.11/2000)

PROJECT IDENTIFICATION

PROJECT EA	ROUTE	POST KILOMETERS	COMPLETION DATE (Contract)

COMPLETION DATE (Expected)	DATE PROBLEM DETECTED	CURRENT DATE	JOB SUSPENDED	AC (Tonnes Produced To Date)	AC (Tonnes Remaining)
			☐ YES ☐ NO		

PROBLEM STATEMENT

MIX PROPERTIES

TYPE MIX
- ☐ A
- ☐ B
- ☐ RECYCLED

TYPE GRADING
- ☐ DENSE
- ☐ GAP
- ☐ OPEN GRADED
- ☐ COARSE
- ☐ MEDIUM

MAX GRADING (mm)
- ☐ 38
- ☐ 19
- ☐ 12.5
- ☐ 9.5

ADDITIVES
- ☐ LIME
- ☐ LIQUID ANTI-STRIP
- ☐ CEMENT
- ☐ OTHER

AGGREGATE TYPE
- ☐ A or ☐ B
- ☐ ABSORPTIVE or ☐ NON-ABSORPTIVE
- ☐ OTHER

ASPHALT GRADE
- ☐ AR-1000
- ☐ AR-2000
- ☐ AR-4000
- ☐ AR-8000
- ☐ AR-16000
- ☐ PBA-1
- ☐ PBA-1a
- ☐ PBA-2
- ☐ PBA-3
- ☐ PBA-4
- ☐ PBA-5
- ☐ PBA-6a
- ☐ PBA-6b
- ☐ PBA-7

APPEARANCE
- ☐ OK
- ☐ SEGREGATED
- ☐ RICH
- ☐ DRY
- ☐ TENDER
- ☐ COLOR
- ☐ OTHER

PLANT TYPE
- ☐ BATCH or ☐ CONTINUOUS
- ☐ PORTABLE or ☐ STATIONARY

BACKGROUND DATA - Attach Test Method 109 verification, mix design, plant and street test results

ACTUAL ASPHALT CONTENT - Attach test results (including target asphalt content, source and date; note lift and location)

ACTUAL STABILITY OF STREET SAMPLES - Attach test results (note lift and location)

TEST MAXIMUM DENSITY - Attach test results (note lift and location)

MIX SUPPLIER AND LOCATION(S) -

FIELD CONDITIONS (at paving operation)

GENERAL
- ☐ COASTAL
- ☐ VALLEY
- ☐ MOUNTAIN
- ☐ DESERT

WEATHER
- ☐ CLEAR
- ☐ CLOUDY
- ☐ FOGGY
- ☐ RAINY or WORSE
- ☐ HUMID or ☐ DRY
- ☐ WINDY or ☐ CALM

AIR TEMPERATURE (ºC)
- ☐ UNDER 4
- ☐ 4-9
- ☐ 10-15
- ☐ 16-20
- ☐ 21-25
- ☐ 26-32
- ☐ 33-38
- ☐ GREATER THAN 38

SURFACE TEMPERATURE (ºC)
- ☐ UNDER 4
- ☐ 4-15
- ☐ 16-26
- ☐ 27-37
- ☐ 38-48
- ☐ 49-60
- ☐ GREATER THAN 60

MIX TEMP AT PLANT (ºC)
- ☐ UNDER 121
- ☐ 121-134
- ☐ 135-162
- ☐ 163-190
- ☐ 191-204
- ☐ GREATER THAN 204

MIX TEMP AT WINDOW (ºC)
- ☐ UNDER 65
- ☐ 65-89
- ☐ 90-125
- ☐ GREATER THAN 125

MIX TEMP AT BREAKDOWN ROLLER (ºC)
- ☐ UNDER 65
- ☐ 65-89
- ☐ 90-125
- ☐ 126-150
- ☐ GREATER THAN 150

DISTANCE, PAVER TO BREAKDOWN ROLLER (METER)
- ☐ UNDER 15
- ☐ 15-75
- ☐ 76-150
- ☐ 151-229
- ☐ 230-300
- ☐ GREATER THAN 300

WINDOW LENGTH (Meter)
- ☐ 0
- ☐ 0-30
- ☐ 31-61
- ☐ 62-91
- ☐ 92-122
- ☐ 123-152
- ☐ GREATER THAN152

AVERAGE ONE WAY HAUL TIME (hours)
- ☐ UNDER 1/2
- ☐ 1/2-1
- ☐ 1-2
- ☐ 2-3
- ☐ GREATER THAN 3

CEM3501

AC PRODUCTION/PLACEMENT CHECKLIST

CEM-3501 (REV 11/2000)

STRUCTURAL PROPERTIES

TACK COAT
- ☐ ASPHALT
- ☐ EMULSION
- ☐ OTHER _____

TACK SPREAD RATE (liters per metered square)
- ☐ 0.45
- ☐ 0.68
- ☐ 0.95
- ☐ 1.13
- ☐ OTHER _____

MIX THICKNESS (Compacted)
- FIRST LIFT _____
- SECOND LIFT _____
- THIRD LIFT _____

UNDERLYING CONDITIONS
- ☐ AC
- ☐ PCC
- ☐ ATPB
- ☐ AB
- ☐ OTHER _____

- ☐ OK
- ☐ GRINDER PREPARED
- ☐ CRACK SEAT
- ☐ PRE LEVELED
- ☐ CRACKED
- ☐ FABRIC
- ☐ OTHER _____

PAVER
- MAKE _____
- MODEL _____

PAVER OPTIONS
- ☐ PICKUP MACHINES
- ☐ SCREED EXT. (length _____)
- ☐ SKI (length _____)
- ☐ JOINT MATCHER
- ☐ GRADE WIRE
- ☐ OTHER _____

MECHANICAL PROPERTIES

NUCLEAR DENSITY GAGE

☐ METHOD SPECIFICATION or
☐ END RESULT COMPACTION SPECIAL PROVISION

MAKE _____ CALIBRATION (date) _____
MODEL _____ AVERAGE RELATIVE COMPACTION _____

BREAKDOWN ROLLER(S)
- TYPE _____
- WEIGHT _____

INTERMEDIATE ROLLER(S)
- TYPE _____
- WEIGHT _____

FINISH ROLLER(S)
- TYPE _____
- WEIGHT _____

IF VIBRATORY ROLLERS ARE USED:

ON CALTRANS APPROVED LIST ☐ YES ☐ NO

- MAKE _____
- MODEL _____

	SPEED	FREQUENCY	AMPLITUDE
ACTUAL	_____	_____	_____
SPECIFIED	_____	_____	_____

* A completed copy of this form should be filed in Category 35 of the Project Documents. A description of the form is included in the *Construction Manual*.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

MATERIAL PLANT SAFETY CHECKLIST

CEM-4202 (REV 11/2000)

NOTE: The contractor is responsible for all plant safety issues, regardless of any Caltrans' listing of acceptable or deficient items.

Report No.		Plant Owner	
Inspection By		Plant Location	
Inspection Date	District	Plant Make	Plant Type
EA		Plant Safety Certification Supplied By	Certification Date

INSPECTION AREA	PLANT FEATURE	*spec*	DEFICIENT	REMARKS
A. Asphalt Sample Area	1. Sampling height	☐		
	2. Plumbing size	☐		
	3. Insulation	☐		
	4. Shielding	☐		
	5. Housekeeping	☐		
	6. Fire protection	☐		
	7. Underground tank access	☐		
B. Aggregate/Cement Sample Area	1. Access stairs	☐		
	2. Access stairs, agg	☐		
	3. Access stairs, binder	☐		
	4. Guardrails	☐		
	5. Floor holes	☐		
	6. Housekeeping, agg	☐		
	7. Sample size, agg	☐		
	8. Sample size RAP	☐		
	9. Conveyor lockout, agg	☐		
	10. Conveyor lockout RAP	☐		
	11. Site, dust control	☐		
	12. Sample support rails	☐		
	13. Conveyor startup warning	☐		
C. Aggregate Belts and Drivers	1. Drive belt guards	☐		
	2. Conveyor guards	☐		
	3. Under conveyor clearance	☐		
	4. Other conveyors	☐		
D. Control Room	1. Stairs	☐		
	2. Landings	☐		
	3. Guardrails	☐		
	4. Fire protection	☐		
	5. Emergency exit	☐		
	6. First aid	☐		
	7. Drinking water	☐		
	8. Toilet facilities	☐		
E. Yard Equipment	1. Loaders	☐		
	2. Trucks	☐		
F. General Items	1. Lighting	☐		
	2. Wash pits	☐		
	3. Yard pits	☐		
	4. Electrical	☐		
	5. Auto control equipment	☐		

ADA Notice For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 263-2041 or TDD (916) 263-2044 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

SOLID WASTE DISPOSAL AND RECYCLING REPORT

CEM-4401 (NEW 11/2006)

ADA Notice For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

1

Project Name:		Type of Work:	Ongoing Report ☐ Final Annual Report ☐
Contract Number:	Co./Rte/PM	Report for Calendar Year _____	[Note: Separate reports needed for each calendar year]
Contractor Name:		Phone Number:	Fax:
Street Address		City, State, Zip	

Contractor Certification: I certify under penalty of perjury that the information provided in this form is complete and accurate.

Signature:	Print Name and Title:	Date of Report:

2

***NOTE: Earth and rock material must not be reported as either waste material diverted from or disposed to landfills.**

NAME AND LOCATION OF RECYCLING OR DISPOSAL FACILITY (OR ENTER "REUSED" FOR MATERIALS GENERATED AND REUSED ON THIS JOB)	CHECK IF LANDFILL	CHECK IF RECYCLER	**TYPE OF MATERIAL** (Please enter a letter for each type on a separate line): A = Asphalt Concrete; C = Concrete; M = Metal; D = Mixed Debris; W = Wood/Cleared Vegetation; O = Other [Please Describe][t] ***See note above**	**TYPE OF ACTIVITY** (Please enter one activity per line) 1 = Source - Separated Materials Recycling 2 = On-Site Reuse 3 = Mixed Debris Recycling 4 = Reuse of Salvageable Items 5 = Disposal at Landfill or Transfer to Station 6 = Other [Please Describe][tt]	**AMOUNT TAKEN TO LANDFILL (TONS)**	**AMOUNT DIVERTED FROM LANDFILLS TO A RECYCLING FACILITY (TONS)**	**AMOUNT GENERATED AND THEN REUSED ON THIS JOB (TONS)**

[t] Describe Material:

[tt] Describe the Activity:

3

I have reviewed the information submitted in this report for completeness.

Resident Engineer's Name (Please Print):	Phone Number:
Signature:	Date:

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

SOLID WASTE DISPOSAL AND RECYCLING REPORT - INSTRUCTIONS

CEM-4401 (NEW 11/2006)

Section 1: To be completed by the contractor

Project Name: Give a brief description of the project, e.g., "Route 1 widening in Fort Bragg, CA"
Type of Work: Enter a general work description, e.g. "AC Grinding"
Ongoing Report: Checking this box means this is an annual report for a continuing project. More reports will follow this one
Final Annual Report: Checking this box means this report is for the calendar year of contract acceptance
Contract Number: Enter District/EA
Co./Rte/PM: Enter County/Route/Post-Mile
Report for Calendar Year: The calendar year for which data was collected - January 1 to December 31 [Note: This report is an annual report. A separate report is needed for each calendar year]
Company Information: Contractor Name, Phone Number, Fax Number, Street Address, City, State and Zip

Contractor Certification: I certify under penalty of perjury that the information provided in this form is complete and accurate.

Contractor should verify the data entered on this form, then sign the report and print your name, title, and date.
Return this report to the resident engineer by January 15 of each calendar year or within 15 days of contract acceptance.

Section 2: To be completed by the contractor

To count towards diversion, "solid waste" is defined as including any solid waste which would normally be disposed of at a disposal facility (PRC Section 41781 (b))

***NOTE: Earth and rock material must not be reported as either waste material diverted from or disposed to landfills.**

NAME AND LOCATION OF RECYCLING OR DISPOSAL FACILITY (or enter "reused" for materials generated and reused on this job)
Each address should be checked as either landfills or recycler. When using a recycling facility that exists inside a landfill, check recycler and do not check landfill. When the solid waste is generated and reused on the job, the word "Reused" should be entered in place of the address.

TYPE OF MATERIAL Please enter a letter for each type on a separate line:
A = Asphalt Concrete, C = Concrete; M = Metal; D = Mixed Debris; W = Wood/Cleared Vegetation; O = Other
[Describe the material when "Other" is selected][t]

TYPE OF ACTIVITY Please enter a number for each activity one per line:
1 = Source-Separated Materials Recycling; 2 = On-Site Reuse; 3 = Mixed Debris Recycling; 4 = Reuse of Salvageable Items;
5 = Disposal at Landfill or Transfer to Station; 6 = Other [Describe the activity when "Other" is selected][tt]

AMOUNT TAKEN TO LANDFILL (Tons): Enter the amount of any solid waste, in tons, that is generated on this project and taken to a landfill.

AMOUNT DIVERTED FROM LANDFILLS TO A RECYCLING FACILITY (Tons): Enter the amount of any solid waste, in tons, that is generated on this project and taken to a recycling facility.

Solid waste from this job that is used in other projects, given to other agencies (county, city, etc.) or given to private individuals for reuse will be entered as taken to a recycling facility. In this case, check the activity as "Other" and describe who gets the solid waste in the row for other activity. (e.g. given to county, city or developer)

AMOUNT GENERATED AND THEN REUSED ON THIS JOB (Tons): Enter the amount of any solid waste, in tons, that is generated on this project and then reused.

TOTAL SOLID WASTE FROM EACH JOB SHOULD APPROXIMATE THE SUM OF THE THREE QUANTITIES ABOVE.

For calculating weights, some volume to weight conversions may be needed. These conversion factors may be found at the California Integrated Waste Management Board's (CIWMB) web site at:
http://www.ciwmb.ca.gov/LGLibrary/DSG/Apndxl.htm#Conversion

Section 3: To be completed by the resident engineer

I have reviewed the information submitted in this report for completeness.

Resident engineer please review the report. If the form is complete, sign and print your name, phone number, and date.
Discuss and resolve with the contractor any deficiency on the form.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

RESIDENT ENGINEER'S DAILY REPORT
ASST. RESIDENT ENGINEER'S DAILY REPORT

CEM-4501 (REV 11/2006) CT# 7541-3506-1

JOB STAMP

☐ RESIDENT ENGINEER'S DAILY REPORT

☐ ASST. RESIDENT ENGINEER'S DAILY REPORT

REPORT NO.	DATE S M T W T F S (Circle Day)
SHIFT HOUR: START MAX	TEMPERATURE MIN MAX
WEATHER	

SIGNATURE	TITLE

ADA Notice For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

CEM4501

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

Job Stamp

ASSISTANT RESIDENT ENGINEER'S DAILY REPORT

CEM 4601 REV 4/1999 CT# 7541-3504-6

Report No. _____

Date _____

M T W T F S S Circle

Shift Hours Start _____ Stop _____

ASSISTANT RESIDENT ENGINEER'S DAILY _____ **REPORT**

Location & Description of Operation _____

HOURS - ITEM NO.

WEATHER

EQUIPMENT AND / OR LABOR:

EQPT. NO.	NO. PERSONS	DESCRIPTION (Of Equipment or Labor)								IDLE OR DOWN	**REMARKS (Reason for Idleness or other remarks)**

Signature | Title

ADA Notice For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 263-2041 or TDD (916) 263-2044 or write Records and Forms Management, 1120 N Street, Sacramento, CA 95814.

91-92184

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

DRAINAGE SYSTEM SUMMARY

CEM-4701 (REV 05/2001) CT# 7541-3521-2

JOB STAMP

DRAINAGE SYSTEM NUMBER

PLAN. STA.	"AS BUILT" STA.

PROGRESS RECORD

STAKED: BY:

ITEM NUMBER										
DATE	ENGR.									REMARKS

ESTIMATE OF WORK COMPLETED

ITEM NUMBER																			
		REF.		REF.		REF.		REF.		REF.		REF.		REF.		REF.		REF.	
PLAN Q																			
#																			
#																			
#																			
#																			
#																			
#																			
#																			
ADJUST Q																			
ACTUAL Q																			

DRAINAGE SYSTEM SUMMARY

CEM-4701 (REV 05/2001) CT# 7541-3521-2

PIPE STATION	ROD	GROUND ELEV.	GRADE ELEV.	CUT / FILL	PAY DEPTH

STAKED:

PARTY:

STAKING PLAN

ADA Notice For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 263-2041 or TDD (916) 263-2044 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

QUANTITY CALCULATIONS

CEM-4801 (REV 11/1992) CT# 7541-3520-0

SHEET OF

JOB STAMP

ITEM	FILE NO.
LOCATION	SEGREGATION YES ☐ NO ☐
CALC. BY	DATE
CHK. BY	DATE

POSTED BY DATE POSTED TO

CEM4801

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

CONTRACT CHANGE ORDER

CEM-4900 (REV 05/2001) CT# 7541-3501-0

Sheet _____ of _____

Change Requested by: ☐ engineer ☐ contractor

CCO NUMBER	SUPPL. NUMBER	CONTRACT NUMBER	ROAD	FEDERAL NUMBER(S)

TO

contractor

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract. ***NOTE: This change order is not effective until approved by the engineer.***

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. The last percentage shown is the net accumulated increase or decrease from the original quantity in the engineer's estimate.

Estimated Cost: ☐ Decrease ☐ Increase $

By reason of this order the time of completion will be adjusted as follows:

SUBMITTED BY		
SIGNATURE	(PRINT NAME & TITLE)	DATE

APPROVAL RECOMMENDED BY		
SIGNATURE	(PRINT NAME & TITLE)	DATE

ENGINEER APPROVAL BY		
SIGNATURE	(PRINT NAME & TITLE)	DATE

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as may otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above. **NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specification as to proceeding with the ordered work and filing a written protest within the time therein specified.**

CONTRACTOR ACCEPTANCE BY		
SIGNATURE	(PRINT NAME & TITLE)	DATE

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

CONTRACT CHANGE ORDER

CEM-4900 (REV 05/2001) CT# 7541-3501-0

Sheet _____ of _____

Change Requested by: ☐ engineer ☐ contractor

CCO NUMBER	SUPPL. NUMBER	CONTRACT NUMBER	ROAD	FEDERAL NUMBER(S)

TO

contractor

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract. ***NOTE: This change order is not effective until approved by the engineer.***

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. The last percentage shown is the net accumulated increase or decrease from the original quantity in the engineer's estimate.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

CONTRACT CHANGE ORDER MEMORANDUM

CEM-4903 (REV 06/2006)

Page ____ of ____

DATE

TO

FROM

FILE
E. A.
CO-RTE-PM
FED NO.

CCO NO.	SUPPLEMENT NO	CATEGORY CODE

CONTINGENCY BALANCE (Including this change):
$

$ ☐ INCREASE ☐ DECREASE

HEADQUARTERS APPROVAL REQUIRED? ☐ YES ☐ NO

SUPPLEMENTAL FUNDS PROVIDED
$

IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS? ☐ YES ☐ NO

ORIGINAL CONTRACT TIME:	TIME ADJUSTMENT THIS CHANGE:	PREVIOUSLY APPROVED CCO TIME ADJUSTMENTS:	PERCENTAGE TIME ADJUSTED (Including this change)	UNRECONCILED DEFERRED TIME CCOs (Including this change)
DAY(S)	DAY(S)	DAY(S)	%	

THIS CHANGE ORDER PROVIDES FOR (Use additional pages as needed):

CONCURRED BY:

	DATE
CONSTRUCTION ENGINEER/BRIDGE ENGINEER	
PROJECT ENGINEER	
PROJECT MANAGER	
FHWA REP.	
ENVIRONMENTAL	
OTHER (SPECIFY)	
HQ OR DISTRICT PRIOR APPROVAL BY	
RESIDENT ENGINEER SIGNATURE	

ESTIMATE OF COST

	THIS REQUEST	TOTAL TO DATE
ITEMS		
FORCE ACCOUNT		
AGREED PRICE		
ADJUSTMENT		
TOTAL		

FEDERAL PARTICIPATION

☐ PARTICIPATING ☐ PARTICIPATING IN PART ☐ NONE
☐ NON-PARTICIPATING (Maintenance) ☐ NON-PARTICIPATING

FEDERAL SEGREGATION (If more than one funding source or P.I.P. type)

☐ CCO FUNDED PER CONTRACT ☐ CCO FUNDED AS FOLLOWS

FEDERAL FUNDING SOURCE	PERCENT

ADA Notice For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

CONTRACT CHANGE ORDER MEMORANDUM

CEM-4903 (REV 06/2006)

Page ___ of ____

THIS CHANGE ORDER PROVIDES FOR (Use additional pages as needed):

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

JOB STAMP

REQUEST FOR PAYMENT FOR MATERIALS ON HAND

CEM-5101 REV 5/2001 CT# 7541-3522-4

ADA Notice

For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 263-2041 or TDD (916) 263-2044 or write Records and Forms Managment, 1120 N Street, MS-89, Sacramento, CA 95814.

TO: RESIDENT ENGINEER *(Name)*	**FROM:** CONTRACTOR *(Name of Company)*	DATE

In accordance with the provisions of Section 9-1.06 of the Standard Specifications, request is made for payment as "Materials on Hand" for the following materials:

ITEM NUMBER	QUANTITY	MATERIAL DESCRIPTION	VALUE	TYPE OF SUBSTANTIATING EVIDENCE OF PURCHASE ATTACHED	WHERE STORED *

AFFIDAVIT:

The materials listed above have been purchased exclusively for use on the above-referenced project. The material is separated from other like materials and is physically identified as our property for use on Contract _____. The State may enter upon the premises for the purposes set forth in Section 6 of the Standard Specifications for inspection, checking or auditing, or for any other purpose you consider necessary. It is expressly understood and agreed that this information and affidavit are furnished to the State for the purpose of obtaining payment for the above materials before they are delivered to, or incorporated into, the project described above, and that the storage thereof at the location shown is subject to, and under the control of, the State. A revised form showing the current status of the value of materials for which payment is being requested will be submitted each estimate period.

SIGNATURE OF CONTRACTOR

* When stored at a location other than on the jobsite or at a fabricator's yard, a warehouse receipt for the materials issued in the name of the State shall accompany the request for payment. In case the storage location (other than the jobsite or fabricator's yard) is the Contractor's property, the area containing the material to be paid for shall be fenced and posted to indicate that the material within the fenced area is under the control of the State.

INSTRUCTIONS TO CONTRACTOR:
Submit original and one copy to Resident Engineer not later than one week prior to the end of the estimate period. Attach evidence of purchase (and warehouse receipt when required) to original.

INSTRUCTIONS TO RESIDENT ENGINEER:
Forward duplicate to Division of New Technology, Materials and Research.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT RECORD - ESTIMATE REQUEST

CEM 6101 (REV 11/2006)

Contract Number ___ 1 3 4

ADA Notice

For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

CASOAE

A. Estimate Number 10

B. Estimate for Work Performed Through 12

C. Type of Estimate Requested:

1) Monthly Construction Progress Estimate 18

2) Progress Estimate After Acceptance 19

D. Contract Progress:

1) Estimated Date of Completion (or Date of Completion) 20

2) Chargeable Working Days 26

Nonworking Days + Suspension Days 30

Contract Time Extension (CCO) ± 33 34

Contract Time Extension (Other)

3) If on Plant Establishment Period: 37

Progress is satisfactory 40

Progress is ***not*** satisfactory 41

1) Unusual Progress Conditions:

a) Override Unsatisfactory Progress 42

b) Percent Time Elapsed ***will be*** equal to 43 %

c) 46

2) Estimate Type:

a) Supplemental Progress Estimate 71

b) Proposed Final Estimate 72

c) Semifinal Estimate 73

d) Final Estimate 74

3) Indicate if this is a rerun of a prior estimate 75

2. DEDUCTIONS:

TYPE	DESCRIPTION	±	AMOUNT *
10	13	33	34
10	13	33	34
10	13	33	34

* NOTE: USE MINUS SIGN TO TAKE A DEDUCTION; PLUS SIGN INDICATES RETURN OF A PREVIOUS DEDUCTION.

IN CASE OF QUESTION CONTACT:

NAME		VERIFY
PHONE	DATE	

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

NOTICE OF POTENTIAL CLAIM

CEM-6201 (REV 3/2001)

FOR STATE USE ONLY

Received by _____ Date _____
(For resident engineer)

TO (resident engineer)	CONTRACT NUMBER	DATE

This is a Notice of Potential Claim for additional compensation under the provisions of Section 9-1.04 of the *Standard Specifications*. **The act of the engineer, or his/her failure to act, or the event, thing, occurrence, or other cause giving rise to the potential claim occurred on**

DATE

The particular circumstances of this potential claim are described in detail as follows:

The reasons for which I believe additional compensation may be due are:

The nature of the costs involved and the amount of the potential claim are described as follows:
(If accurate cost figures are not available, provide an estimate, or describe the types of expenses involved.)

The undersigned originator (Contractor or Subcontractor as appropriate) certifies that the above statements are made in full cognizance of the California False Claims Act, Government Code sections 12650-12655. The undersigned further understands and agrees that this potential claim to be further considered unless resolved, must be restated as a claim in response to the states proposed final estimate in accordance with Section 9-1.07B of the Standard Specifications.

SUBCONTRACTOR or CONTRACTOR
(Circle one)

(Authorized Representative)

For subcontractor notice of potential claim

This notice of potential claim is acknowledged and forwarded

PRIME CONTRACTOR

(Authorized Representative)

ADA Notice For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 263-2041 or TDD (916) 263-2044 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

CEM6201

A

B

C

C

D

E

F

G

H

I

J

L

M

M

N

N

O

O

P

Q

R

S

T

U

V

W

U

V

W