Office of Local Programs
Procedures Development Office

Process Review 98-04

Construction Contract Administration

FINAL REPORT

Recommended Approval:

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Office Chief

Approved:

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January 12, 1999
Date

Summary

The goal of this review was to determine if the procedures that the Office of Local Programs (OLP) implemented after last year's construction contact administration process review had reduced the number of local agencies who had major project deficiencies on their Federal-aid projects. This review found that:

- Of the 13 local agencies that were reviewed, eight projects were found to have one or more major project deficiencies. While the number of projects found with major project deficiencies has stayed about the same, the number of major project deficiencies in the construction engineering phase has decreased. Most of the major project deficiencies found were a result of errors or omissions during the preliminary engineering phase of the project.

- Most Resident Engineers (REs) said that they would like to have a Caltrans district construction contract administration specialist available to come to their office or available over the phone to provide technical assistance.

- Local agencies can handle bridge construction without Caltrans' oversight, but most local agencies would feel more comfortable with their new responsibilities if they had the ability to call on Caltrans to provide technical assistance.

- Seven out of the 13 projects that were reviewed, did not have a copy of the final environmental document in the Resident Engineer's project files. Also, several of the local agencies did not have a final copy of the environmental document in the design files.

- A review of the project sites found that most local agencies are doing a good job of traffic control in and around their construction work zones.

In considering the results of the survey, there are five recommendations presented in this report:

1. The number of RE academies offered and the number allowed to attend should be increased over what has been offered in previous years. The ITS Contract Administration course should be offered in those districts where it has not been offered and in those districts where there is a demand for the course.

2. If additional local assistance resources were to become available, some should be set aside so that Caltrans would be able to provide technical assistance to local agencies during the construction phase of their project.

3. Future construction contract administration process reviews should continue to look at ongoing construction projects so as to review construction work zone traffic control in operations for conformance with Federal-aid requirements.

4. A letter should be sent to local agencies emphasizing the importance of distributing copies of the signed environmental document to the project manager, project engineer and the RE.

5. This process review should be repeated again next year in four different districts.

CONSTRUCTION CONTRACT ADMINISTRATION

A. BACKGROUND

During the spring of 1997, OLP and FHWA conducted the first "Construction Contract Administration" process review on ongoing projects. Ongoing projects were selected because if deficiencies were found it was hoped that corrections could be made so that the local agency would not lose their Federal-aid funds. Ongoing projects were also selected to check and see how local agencies are handling traffic around and through their construction projects.

Of the 12 local agencies that were reviewed, five were found to have major project deficiencies. Four of the local agency projects had major project deficiencies to the extent that their progress payments of Federal-aid funds from the State were withheld until the local agencies took corrective action. Another local agency would have had their progress payments placed on hold for deficiencies except that it had not processed a program supplement, or a PR2, to be able to receive progress payments. If these five local agencies had been audited after their projects were completed, the local agencies would have lost all or part of the Federal-aid funding for their projects.

Considering the results of the process review, six recommendations were presented. These six recommendations were:

1. Develop a Local Agency and a Resident Engineers certification checklist for the Federal contract administration requirements.
2. Begin mini-construction contract administration process reviews.
3. Continue this process review again next year in four other districts.
4. Require the District Local Assistance Engineers (DLAEs) to verify that the local agencies have a Quality Assurance Program (QAP) prior to the DLAEs approving any of the local agency's "Request for Authorization" for construction.
5. Continue to offer at least two sessions of the Local Agency Resident Engineer Academy each year and offer the new ITS Contract Administration course in all districts at least once.
6. Make modifications to the *Local Assistance Procedures Manual* (LAPM) based on the findings.

Status of implentation of these six recommendations is:

1. Checklists have been developed and are included in the new LAPM. Local agencies and REs are required to complete the checklists prior to authorization of their project for construction.
2. No mini-construction contract administration process reviews were conducted. The review planned to review compliance with the new LAPM, but issuance of the manual was delayed.
3. This process review was conducted based on the recommendation.
4. DLAEs are now verifying the local agencies have a QAP prior to approving a local agency's "Request for Authorization" for construction.

5. Two sessions of the Local Agency Resident Engineer Academy were offered, one in Jackson, and the other in Ventura, California. The ITS Contract Administration course has been offered in all the districts, except District 9. The course is scheduled to be offered in District 9 sometime during the spring of 1999.
6. LAPM was modified based on the findings from the review.

B. GOAL AND OBJECTIVES OF REVIEW

The goal of this review was to determine if the procedures, implemented after last year's construction contract administration process review, have reduced the number of local agencies that are found deficient with the construction contract administration of Federal-aid projects.

The objective of this review was to check to see if local agencies are completing and using the new "Local Agency Construction Contract Administration Checklist" and "Resident Engineer's Construction Contract Administration Checklist" in accordance with the instruction. If they are not, this review will identify what the problems are and why these problems exist. Also, the objective is to measure the checklist's effectiveness in reducing the number of deficiencies found in last year's construction contract administration process review.

Another objective of this review is to look and see how local agencies are handling the technical administrative responsibilities required when providing construction engineering services for Federal-aid bridge projects.

C. REVIEW APPROACH

The review consisted of a review team spot-checking local agency's construction project files and a review of the job site on active construction projects during the Summer/Fall of 1998. Checking was done in four districts (1,7, 10 & 12). The review team members were: Rick Gifford, OLP, Process Review Engineer; Tay Dam, FHWA Transportation Engineer; Jim Alfieri, ESC – Structures' construction; Thomas Pate, District 1 Local Assistance (for District 1 projects); Tom Ortiz, Paul Lomboy, Fred Bral, and Morris Zarbi, District 7 Local Assistance (for District 7 projects); Alan Lee, District 10 Local Assistance (for District 10 projects); and Monroe Johnson, Ray Faraz, and Iraj Razavi, District 12 Local Assistance (for District 12 projects). Thirteen different local agencies were reviewed. The type of project that was reviewed varied from a small traffic signal project to a major interchange improvement project. The type of local agency that was reviewed varied also from small rural cities and counties to large urban cities and counties.

Review of local agencies' construction files consisted of those items that are listed on "Local Agency Construction Contract Administration Checklist" and "Resident Engineer's Construction Contract Administration Checklist," and selected items from Structures' construction "Contract Record Review Checklist." A copy of the survey form is attached.

D. FINDINGS, OBSERVATIONS AND RECOMMENDATIONS

FINDING 1A

Of the 13 local agencies that were reviewed, eight projects were found to have one or more major project deficiencies. Major project deficiencies is defined as an error of commission or omission, which violates Federal regulation and that if uncorrected, would prevent Federal participation in all or a portion of the project. Until such time as when the local agency shows the DLAE that corrective action has been taken to correct the major deficiency, progress payments from the State were suspended on those eight projects.

Also, on all the projects that were reviewed in which one or more minor deficiencies were found, the local agencies were advised to correct the deficiencies on those projects and to prevent the deficiencies on all future projects. Attached is a table summary of the deficiencies found during the process review.

The major project deficiency items that caused the progress payments to be suspended and the number of local agencies that had these deficiencies are as follows:

- Three projects did not have documentation to show that the DBEs listed on the DBE Information Form had actually performed a commercially useful function on the project.
- Three projects did not have documentation to show that iron and steel products purchased for, and incorporated into, the project had met the Buy America Requirements.
- One project did not physically incorporate the Federal wage rates into their contract.
- Two projects had outdated Federal wage rates in their contact.
- Two projects did not have a Quality Assurance Program (QAP).
- One project was using outdated Americans with Disabilities Act design standards.
- One project had contract provisions that contained a waiver of Buy America requirements that was not approved by FHWA.
- One project had an outdated environmental document.

The minor project deficiencies found are:

- Not conducting, or only conducting a few, employee interviews
- Not adhering to Traffic Control Plan requirements
- Not including On-the-Job Training (OJT) goals in the contract
- Not having documentation to show that the contractor is meeting OJT goals
- Not having the documentation to show that they are adhering to their QAP
- No source documentation to backup progress payments
- Not having a copy of the environmental document in the RE’s files
- Project files not in an established order
- Not having a QAP on file

OBSERVATION 1A

While the number of projects found with major project deficiencies has stayed about the same, the number of major project deficiencies in the construction engineering phase has decreased. Most of the major project deficiencies found were a result of errors or omissions during the preliminary engineering phase of the project. The two major project deficiencies that are attributable to the construction-engineering phase were due to a lack of documentation to show that the contractor was meeting the DBE goal and Buy America requirements.

OBSERVATION 1B

Many of the REs said that they had attended either or both the RE Academy and ITS Contract Administration course. Most of the REs had copies of the LAPM. Even with all of the new resources that are available to the REs, all said that it is hard to remember all of the rules, regulations, and procedures. But, the REs did say that the training they received was helpful in making them aware of the different rules, regulations, and procedures.

FIRST RECOMMENDATION

The number of RE Academies offered and the number of REs allowed to attend should be increased over what has been offered in previous years. The ITS Contract Administration course should be to offered in those districts where it has not been offered and in those districts where there is a demand for the course. Information obtained from this process review and other process reviews should be passed on to the instructors of the courses, and academy, so that they can relay it to the trainees.

OBSERVATION 2A

Those REs that had completed the RE checklist had fewer major project deficiencies and procedural project deficiencies than those that did not complete the checklist. Not all of the REs were required to complete the checklist; the checklist was required for those projects that submitted a request for PR2 after July 1, 1998.

OBSERVATION 2B

In the future, the high number of major project deficiencies during the preliminary engineering phase should be reduced now that DLAEs are required to review at least one PS&E package per year for each local agency that submits a “Request for Authorization for Construction.” This requirement was a recommendation from the PS&E process review completed earlier this year.

FINDING 2A

Most local agencies surveyed had a QAP on file. Those that did not have a QAP on file had submitted their project authorization prior to July 1, 1998. The LAPM requires DLAE to verify that the local agency has a QAP prior to authorization of the project for construction after July 1, 1998.

OBSERVATION 2C

When LPP 96-03 was issued on May 10, 1996, it had a requirement for local agencies to have a QAP, but there were no consequences if the local agencies did not establish one. Unless there is an urgency to implement a change in procedure, most local agencies will put off responding to change until they are affected by not complying. Holding back project authorization has forced local agencies to comply with the Federal requirement to have a QAP.

OBSERVATION 2D

Most REs said that they would like to have a Caltrans district construction contract administration specialist available to come to their office or available over the phone to provide technical assistance. The REs also said that they do not want Caltrans to oversight their projects (like what was the practice prior to reengineering), but they do want technical assistance that was provided earlier to resume.

FINDING 2B

On those projects involving structures construction it was found that local agencies were doing an adequate job of handling the technical administrative responsibilities required when providing construction engineering services for Federal-aid bridge projects. Several minor procedural omissions were found in the bridge project records that were reviewed. Some of the omissions were:

- Cement content not on the load slip
- Contractor responsible for keeping "Certificates of Compliance"
- Local agency not doing independent check on contractor's falsework plans
- No summary log of tests in the project files
- REs not seeing test reports
- Not having the contractor prepare plans for erection and stripping of falsework
- No written approval of mix designs

OBSERVATION 2E

Local agencies can handle bridge construction without Caltrans' oversight, but most local agencies would feel more comfortable with their new responsibilities if they had the ability to call on Caltrans to provide technical assistance. Some Structures' construction personnel have continued to provide technical assistance to local agencies on an informal basis even though there are no resources allocated to them to do this work.

<u>SECOND</u> RECOMMENDATION

If additional local assistance resources were to become available, some should be set aside so that Caltrans would be able to provide technical assistance to local agencies during the construction phase of their project. These resources would not be just for local assistance office, but could be used by the District Labor Compliance, District Materials Lab, District Construction or Structures' construction as needed.

FINDING 3A

A review was made of the local agency's accounting procedures to see if local agencies were following Federal-aid rules by not billing the State in advance of their payments to the contractor. Federal-aid rules require local agencies to seek reimbursement for payments they have made to the contractor. The review found no local agency seeking advance payments.

The review of the local agency's accounting procedures did find that six local agencies did not have source documentation of support payments made to the contractor. Instead, the local agencies had their contractors submit an estimate of work done to date. The local agency's project inspector would review the contractor's estimate. The REs would approve the estimate based on the inspector's recommendations. There were no source documents in the files to support the inspector's recommendations. Local agencies using this method were told that they need to provide source documentation as outlined in the LAPM if they want to continue to receive Federal funds.

OBSERVATION 3A

A surprising find was that most local agencies are not seeking reimbursement promptly. Four local agencies were prompt with their invoice for reimbursement. One was slow, about three months behind. The other eight local agencies had not invoiced Caltrans for reimbursement on progress payments they had already made to their contractors. These were not projects that had just been started, nor were they short duration projects that warrant a single invoice. These eight projects had estimates of several months to construct, and the local agency had already made several progress payments to their contractors out of their own funds. Also, one project was finished and the local agency had not invoiced. One local agency said they only submit one invoice, the final invoice, no matter what size of project.

FINDING 3B

A review of the project sites found most local agencies are doing a good job of traffic control in and around their construction work zones. A few minor traffic control deficiencies were noted. The deficiencies noted were with the Traffic Control Plan (TCP). Actual sight conditions did not match the TCP, and the contract required the contractor to prepare a TCP, but one had not been prepared and the contractor's operations were requiring traffic control.

<u>THIRD</u> RECOMMENDATION

Future construction contract administration process reviews should continue to look at ongoing construction projects so as to review construction work zone traffic control in operations for conformance with Federal-aid requirements.

FINDING 4A

Seven out of the 13 projects that were reviewed did not have a copy of the final environmental document in the REs' project files. Also, several of the local agencies did not have a final copy of the environmental document in the design files. There was a copy of the environmental document that was signed by the local agency and sent to DLAE for approval. The DLAE's files had the approved environmental document.

OBSERVATION 4A

Local agencies are adhering to the Federal requirements and are receiving environmental approval before the project is authorized for construction. The problem is that the DLAEs are not sending copies of the environmental document back to the local agency once the document is approved. Also, for those local agencies that are getting copies of the environmental document back, some are not giving a copy to the RE. The problem with the RE not receiving a copy of the environmental document should be corrected as the RE completes the Resident Engineer Checklist on a regular basis.

FOURTH RECOMMENDATION

A letter should be sent to all local agencies emphasizing the importance of both the designer and the RE having copies of ED to assure consistency with commitments. Also, the problem of the local agencies not receiving a copy of the final environmental document should be an item of discussion at the 1999 Local Assistance, Kingvale, meeting, along with other items found during this process review.

FIFTH RECOMMENDATION

This process review should be repeated again next year in four other different districts.

Attachments

PR 98-04 Construction Contract Administration
Survey Form for Non-NHS Projects

Local Agency: _____ **Project No.** _____
Reviewed by: _____
Date: _____ **Contract Amount $**_____ **% Work Complete** _____
Type of Work: _____ **Location:** _____

Project Staffing:
Is there a list of names and titles of all staff assigned to the project?
yes ☐ no ☐ Comments:

Who is the Resident Engineer, is that person in responsible charge of the project?
yes ☐ no ☐ Comments:

Authorization:
What is the date of the "Authorization to Proceed with Construction"? (Receive from DLAE)

What was the date the project was advertised?

What was the bid opening date?

Project Files:
Are the files in an established order?
yes ☐ no ☐ Comments:

Index used on this project is local agency's standard for all jobs ☐
Or, for Federal-aid jobs only ☐
Comments:

Resident Engineer's/Construction Inspectors Daily Diaries:
Are they current, thorough and neat?
yes ☐ no ☐ Comments:

Construction Records and Accounting Procedures:
Is the Detailed Estimate and Finance Letter in the project files?
yes ☐ no ☐ Comments:

Does the RE know the amount of Federal-aid funds encumbered for the project?
yes ☐ no ☐ Comments:

Is the Program Supplemental Agreement on file?
yes ☐ no ☐ Comments:

Is the RE aware of the Program Supplemental Agreement covenants?
yes ☐ no ☐ Comments:

Are there source documents supporting progress payments made to contractor?
yes ☐ no ☐ Comments:

Are there separate item sheets for each contract item paid? Randomly check.
yes ☐ no ☐ Comments:

Is there a procedure for Administrative or Labor Compliance deductions?
yes ☐ no ☐ Comments:

Do the invoices to the State match progress payments to the contractor?
yes ☐ no ☐ Comments:

Contract Time:
Is there an established method to account for contract time?
yes ☐ no ☐ Comments:

***Labor Compliance:**
Are payrolls spot-checked against certified payrolls?
yes ☐ no ☐ Comments:

What is the established method?

EEO/Wage Rate Posters:
Are the Federal posters posted for every worker to see at, or near, the contractor's office at the construction site or at the workers central gathering point? (Review jobsite)
yes ☐ no ☐ Comments:

Employee Interviews:
Is the local agency conducting employee interviews?
yes ☐ no ☐ Comments:

Have the interviews been signed and dated?
yes ☐ no ☐ Comments:

OJT:
Are OJT requirements included in the contract?
yes ☐ no ☐ Comments:

Is there documentation to account for the apprentices on the job?
yes ☐ no ☐ Comments:

DBE:
Is a copy of the contract Bidder DBE Information Form in the project files?
yes ☐ no ☐ Comments:

What was the contract DBE goal?

What is the contractor's DBE goal?

If the contractor's goal is less than the contract goal is there a "good faith" statement in the project files?
yes ☐ no ☐ Comments:

How is the local agency checking for DBE goal compliance?

Payrolls?
yes ☐ no ☐ Comments:

Interviews?
yes ☐ no ☐ Comments:

Diaries?
yes ☐ no ☐ Comments:

CCOs:
Is there a process for CCO approval?
yes ☐ no ☐ Comments:

Review a list of the approved CCOs.

Randomly check CCOs for Federal-aid eligibility, report on findings.
Comments:

Traffic Safety in Highway and Street Work Zones:
Is there a Traffic Control Plan (TCP)/Traffic Management Plan (TMP) in the PS&E?
yes ☐ no ☐ Comments:

Field review the project to see if the TCP/TMP agrees with the actual conditions, report on findings.
Comments:

Is the local agency analyzing construction work site accidents for the purpose of correcting deficiencies which might be found to exist on individual projects and to improve the content of future TCP/TMPs?
V

Materials Files:
Is there a Quality Assurance Program (QAP) in the project files?
yes ☐ no ☐ Comments:

Who approved the QAP?

Does the QAP say that this is the same program that they use for their other transportation-related projects constructed without Federal-aid funding?
yes ☐ no ☐ Comments:

Is the local agency adhering to the QAP?
yes ☐ no ☐ Comments:

Do the files back it up?
yes ☐ no ☐ Comments:

Does the local agency have a procedure for and filing of:

Notice of Materials to be used
yes ☐ no ☐ Comments:

Certifications of Compliance
yes ☐ no ☐ Comments:

Do all Certifications of Compliance contain the required information?
yes ☐ no ☐ Comments:

"Buy America" Requirements
yes ☐ no ☐ Comments:

Are there Acceptance Sampling and Testing Reports in the files?
yes ☐ no ☐ Comments:

Are trial batch test results properly identified and acceptable?
yes ☐ no ☐ Comments:

Is there a “Summary Log” of tests?
yes ☐ no ☐ Comments:

What is the frequency of tests?

Frequency tables used?
yes ☐ no ☐ Comments:

Is the frequency of tests being monitored?
yes ☐ no ☐ Comments:

Are failed tests documented in the files with cross references to re-tests?
yes ☐ no ☐ Comments:

Does the Resident Engineer see the test reports?
yes ☐ no ☐ Comments:

Environmental
Is the environmental document in the RE’s files?
yes ☐ no ☐ Comments:

Is the construction project adhering to the mitigation requirements in the document?
yes ☐ no ☐ Comments:

Bridge Projects
Are all approved concrete mixes on file?
yes ☐ no ☐ Comments:

Was a letter of approval written for all approved mixes?
yes ☐ no ☐ Comments:

Are proper tests being recorded on pour record?
yes ☐ no ☐ Comments:

Are load slips for PCC being properly filled our?
yes ☐ no ☐ Comments:

Is the falsework log on file?
yes ☐ no ☐ Comments:

Review set of approved falsework plans.

Properly stamped?
yes ☐ no ☐ Comments:

Plans for erection & stripping provided?
yes ☐ no ☐ Comments:

Calculations complete?
yes ☐ no ☐ Comments:

Is there welding on the job?
yes ☐ no ☐ Comments:

Does the contract require the Contractor to have a Quality Control Plan for welding?
yes ☐ no ☐ Comments:

Is a copy on file?
yes ☐ no ☐ Comments:

Are all Welder qualification tests on file?
yes ☐ no ☐ Comments:

Are the Weld Procedures Specifications on file?
yes ☐ no ☐ Comments:

Are the Contractor's certified copies of test reports for electrodes on file?
yes ☐ no ☐ Comments:

Are "As built" changes being currently maintained on a set of plans or in a file?
yes ☐ no ☐ Comments:

Additional comments:

PR 96-04 Construction Administration - Summary of Findings

Local Agency	Project Number	% Complete	Invoiced	Labor (1)	Interviews (2)	OJT (3)	DBE (4)	Traffic Safety(5)	QAP (6)	Materials (7)	Buy America (8)	Environmental (9)	Source Documents (10)
**********	STPLE-####(003)	15	yes	yes	yes	yes/no	yes	yes/yes	yes	yes	yes	yes	no
**********	BRLS-#### (016)	50	yes	yes	no	N/A	no	yes/no	yes	yes	yes	no	yes
**********	BRLS-#### (007)	80	slow	yes	yes	N/A	yes	yes/yes	yes	yes	yes	no	yes
**********	STPLE-#### (002)	95	yes	yes	yes	N/A	yes	N/A	yes	yes	no	yes	no
**********	STPL-#### (028)	15	have not	yes	yes	N/A	yes	yes/no	yes	yes	yes	yes	yes
**********	STPL-####015)	35	have not	yes	yes	yes/no	yes	yes/yes	yes	yes	yes	yes	yes
**********	ER-#### (005)	25	have not	yes	yes	yes/yes	yes	yes/yes	yes	yes	yes	yes	no
**********	STPLMA-###(051)	100	have not	yes	yes	N/A	yes	yes/yes	yes	no	n/a	no	yes
**********	STPLN-#### (001)	100	yes	yes	yes?	yes/no	no	N/A	yes	yes	no	yes	no
**********	STPL-#### (106)	45	have not	yes	yes	yes/yes	yes	yes/yes	no	yes	yes	no	yes
**********	DE-DBL-####(814)	40	have not	yes	yes	yes/yes	yes	yes/yes	yes	yes	yes	no	yes
**********	BRLS-#### (002)	75	have not	yes	limited	no/no	yes	yes/no	yes	yes	yes	no	no
**********	STPLHG-#### (015)	25	have not	yes	no	N/A	no	yes/yes	no	no	no	no	no

(1) Labor Compliance - Spot-checking payrolls against diaries
(2) Conducting employee interviews
(3) Have OJT goals in contract and is the local agency checking on goals? (Note: OJT goals are not required for small projects nor for short duration projects.)
(4) Local agency checking for DBE Compliance
(5) Is there a Traffic Control Plan and are they adhering to it?
(6) Does the local agency have a Quality Assurance Program (QAP)?
(7) Is the local agency performing materials testing and cross checking as required?
(8) Is the local agency in compliance with Buy America requirements (all iron and steel products be manufactured in the US)?
(9) Is the environmental document in the contract files?
(10) Has the local agency prepared source documentation to support progress payments made to the contractor?