Local Programs Procedures

LPP 12-01 **Manual Update**
Subject: **Office Bulletin Consolidation Phase II & Technical Changes**

Reference: *Local Assistance Procedures Manual* (LAPM),
Chapter 1- Introduction & Overview; Chapter 2- Roles & Responsibilities
Chapter 3- Project Authorization; Chapter 7- Field Review;
Chapter 10- Consultant Selection; Chapter 11- Design Standards;
Chapter 12- Plans, Specifications & Estimate; Chapter 13- Right of Way;
Chapter 15- Advertise & Award Project; Chapter 16- Administer Construction Contracts; Chapter17- Project Completion; Chapter 19- Oversight & Process Reviews; Chapter 20- Deficiencies & Sanctions
Local Assistance Program Guidelines (LAPG)
Chapter 13- Intelligent Transportation Systems (ITS) Program

Effective Date: January 27, 2012 Approved: Original Signed By
Denix Anbiah, Chief
Division of Local Assistance

WHAT IS AN LPP

LPPs are Local Programs Procedures. These documents are used for the deployment of procedures and policies between updates of the Local Assistance manuals, guidelines and programs. They are numbered according to calendar year and order in which released.

PURPOSE

The purpose of this LPP is to incorporate several Division of Local Assistance Office Bulletins (DLA-OBs) and other technical changes into the LAPM and LAPG. This is Phase II of II to consolidate all relevant DLA-OB policy changes issued prior to January 1, 2011 into the LAPM and LAPG.

BACKGROUND

DLA-OBs were developed in September 2008 to disseminate recent policy or procedural changes until LPPs can be issued. DLA-OBs supersede specific DLA policy and or procedural publications including the LAPM, LAPG, and electronic forms. Six DLA-OBs were issued in 2009 and 16 were issued in 2010. The Phase I LPP consolidated 9 of the 22 DLA-OBs, and Phase II LPP incorporates 3 of the remaining DLA-OBs as well as several miscellaneous technical changes.

POLICY & PROCEDURE

The following Office Bulletins are incorporated into this Office Bulletin Consolidation Phase II LPP and therefore expire with its issuance: DLA-OB 09-02, 10-09, and 10-10. Several miscellaneous technical changes are also included in this LPP. The remaining DLA-OBs issued prior to January 2011 were not included in Phase I or Phase II LPPs because they:

- have already been issued as LPPs;
- have been superseded by other Office Bulletins;
- are temporary in nature, or;
- are in the process of being modified.

USER FRIENDLY FEATURES

- These new procedures are incorporated in the electronic version of the LAPM and LAPG that are available at the Division of Local Assistance (DLA) Home Page on the Internet at: http://www.dot.ca.gov/hq/LocalPrograms/. Under "Publications" select *Local Assistance Procedures Manual* or *Local Assistance Program Guidelines*.

- Sidebars are used to indicate where revisions were made to affected pages. However, when a chapter is released in its entirety, sidebars are not indicated. The revised pages in this LPP are to replace the pages affected in the hard copy of the LAPM and/or LAPG.

- To receive an electronic notification when new information is posted on the DLA web site, please subscribe to the DLA list server at: http://www.dot.ca.gov/hq/LocalPrograms/sub.htm

- Comments and suggestions for improvement to the manual or the processes and procedures are welcome. They may be submitted to:

Department of Transportation
Division of Local Assistance, MS 1
Attention: David Saia
P.O. Box 942874
Sacramento, CA 94274-0001
FAX (916) 654-2409
David_Saia@dot.ca.gov

SUMMARY OF CHANGES

LAPM Item	Change
Chapter 1 Section 1.4 (Terms & Definitions) Page 1-5	Under term "FTA" reference to section 3.10 changed to 3.11.
Section 1.5 (Manual Organization) Page 1-9b	Under "Chapter 20" summary, revised last sentence.
Chapter 2 Section 2.8 (Projects on the NHS) Page 2-8	Under "Quality Assurance Programs," *shall* changed to *may*.
Section 2.12 (City County & Other Local Public Agency Responsibilities) Page 2-15	Under "Project Implementation" removed "(non-NHS projects only)" from end of bullet point.
Chapter 3 Table of Contents	Table of Contents was reissued due to new section, changed section numbers, and new exhibits.
Section 3.3 (Request for Authorization) Page 3-10a thru 10b	Added sub-section "Non-Infrastructure Projects."

Section 3.10 (Toll Credit In-Lieu of Non-Federal Match) Page 3-16 thru 16-b	Section 3.10, "Toll Credit In-Lieu of Non-Federal Match" was added.
Section 3.11 (FTA Transfer) Page 3-16b thru 19	FTA Transfer, previously Section 3.10, has been changed to Section 3.11, and has moved from page 3-16 to 3-16b. Under "Highway Funds Eligible for Transfer," the last sentence shifted from page 3-18 to 3-17. Under "FTA Grant Programs," some content on page 3-18 shifted to page 3-17. Under "FTA Transfer Procedures," some content on page 3-19 shifted to page 3-18.
Section 3.12 (MPO/RTPA Programmed Fund Balances) Page 3-19 thru 20	MPO/RTPA Programmed Fund Balances, previously Section 3.11, has been changed to Section 3.12. Content shifted from page 3-20 to 3-19.
Section 3.13 (References) Page 3-20	References, previously Section 3.12, has been changed to Section 3.13. "23 USC 120(j)" was added to references.
Exhibit 3-Q Page 3-61 thru 62	Added new exhibit, "Request for Authorization to Proceed with Non-Infrastructure Project."
Exhibit 3-R Page 3-63	Added new exhibit, "Non-Infrastructure Project Work Plan Sample."
Chapter 7 Exhibit 7-D Page 7-18	Replaced HBRR with HBP.
Chapter 10 Exhibit 10-Q Page 10-77	Corrected typo in header.
Exhibit 10-R Page 10-87	Corrected typo under ARTICLE XII RETENTION OF RECORDS/AUDIT.

Chapter 11 Section 11.2 (Statewide Design Standards for Local Assistance Projects) Page 11-19	Under "Drainage, Hydraulic Design Criteria," HBRR Program was replaced with HBP.
Chapter 12 Table of Contents Page iii	The "Exhibits" section of the Table of Contents was updated to reflect the deletion of Exhibit 12-B.
Chapter 12 Section 12.16 (Projects Without Traditional PS&E) Page 12-39 thru 40	Last two paragraphs on page 12-39 were rewritten. First paragraph on page 12-40 was deleted.
Exhibit 12-B Page 12-43	Exhibit 12-B, "Scope of Work: CMAQ/TE Projects" has been deleted.
Exhibit 12-F Page 12-109	Under "Cost-Effectiveness Determination Required," (day labor) was removed and the CFR numbers were updated.
Chapter 13 Section 13.2 (Federal-aid & the Federal/State/Local Agency Relationship) Page 13-5 thru 6	Under "Local Agency Role, Caltrans Audits Office," the last sentence was removed. Content shifted from page 13-6 to 13-5.
Chapter 15 Section 15.4 (Project Advertisement) Page 15-7	Under "Procedures," third paragraph was revised.
Exhibit 15-G2 Page 15-32a	Fixed typo in exhibit title.
Chapter 16 Section 16.14 (Quality Assurance Program) Page 16-25, 26 & 30	Under "Introduction, Non-NHS Projects," the first two bullets points were revised on page 16-25 and the first paragraph on page 16-26 was revised as well. Revised content under "General Procedures, Non-NHS Projects" on Page 16-30.

Section 16.15 (Contract Claims) Page 16-43	Under "Additional Funds," removed discretionary funds parenthetical.
Section 16.18 (References) Page 16-46	Revised reference to "State of CA DOT, Quality Assurance Program Manual."
Exhibit 16-D Page 16-55	Under "*Note*," "for use by Local Agencies, December 2008" was added.
Chapter 17 Section 17.4 (As Built Plans) Page 17-4	Changed structure tracings to record drawings.
Chapter 19 Section 19.3 (Oversight & Process Review Methods) Page 19-3	Under "Other Caltrans Guidance and Assistance," "when Caltrans test methods are used" was added to the first bullet point on page 19-3.
Chapter 20 Section 20.1 (Introduction) Page 20-1	Changed "are not satisfied" to "disagree."

LAPG Item	Change
Chapter 13 Subsection 13.1.1 (Guidelines Overview Roadmap to ITS Compliance) Page 13-2	Step 3b was revised.
Section 13.2 (ITS Project Development & Funding) Page 13-9	Revised last paragraph.
Figure 13-4 Page 13-10	Figure 13-4: Funding Steps for Systems Engineering Process was updated.
Subsection 13.4.2 (Local agency) Page 13-12 thru 13	Under Step 2, "traditional single-phase" was removed from last paragraph on page 13-12 and revised first paragraph on page 13-13. Under Step 3b, "during which" was replaced with "as" in the first paragraph and the third paragraph was revised on page 13-13.
Subsection 13.4.3 (Caltrans Division of Local Assistance) Page 13-13 thru 14	Under 13.4.3.1 DLAE, Step 2, "traditional single-phase" was removed from the last paragraph on page 13-13 and the first two paragraphs on page 13-14 were revised. Some content shifted from page 13-13 to 13-14. Under Step 3b, paragraph was revised. Under 13.4.3.2 Headquarters DLA Implementation, Step 2 and Step 3b was revised.
Subsection 13.4.4 (FHWA ITS Engineer) Page 13-15	Under Step 2, some content shifted from page 13-14 to page 13-15. Under Step 3b, first paragraph was revised.
Subsection 13.5.1 (High-Risk [formerly "Major"] ITS Projects) Page 13-16 thru 18	Revised first paragraph. Under Step 2, revised #6 thru #10, first paragraph of #11, and #12 thru #24. Content under #9 shifted from page 13-16 to 13-17. Content under #19 shifted from page 13-17 to 13-18.
Section 13.6 (Environment) Page13-18	Revised first paragraph.
Exhibit 13-A Page 13-29	Exhibit 13-A "Process Flowchart – High-Risk (Formerly "Major") ITS Projects" has been revised.

This page intentionally left blank

- Finding of No Significant Impact (FONSI) - A document by a federal agency that briefly presents the reasons why an action will not have a significant effect on the environment and for which an environmental impact statement, therefore, will not be prepared.
- FTIP - Federal Transportation Improvement Program, a four-year list of all transportation projects proposed for federal surface transportation funding within the planning area of one of the eighteen Metropolitan Planning Organizations (MPOs) in the State. These are only valid for reference when incorporated into the FSTIP and approved by FHWA/FTA (see Chapter 4 of the Caltrans *Project Development Procedures Manual* for more discussion).
- FSTIP - Federal Statewide Transportation Improvement Program, a four-year list of all state and local transportation projects proposed for federal surface transportation funding with the state. This is developed by Caltrans with cooperation of the MPOs and in consultation with the local non-urbanized government. The FSTIP includes the FTIPs, which are incorporated by reference and other rural federally funded projects. The FSTIP, including incorporated FTIPs is only valid for use after FHWA/FTA approval. See Chapter 4 of the Caltrans *Project Development Procedures Manual* for more discussion. Also see STIP below.
- FTA - Federal Transit Administration, the federal agency responsible for administering the federal transit program. Rules for the transit program are not covered in this manual (see Chapter 3, "Project Authorization," Section 3.11 for procedures for transferring federal-aid funds from FHWA to FTA).
- Fully Funded – As related to the NEPA document, projects must be fully funded and shown in the applicable FTIP/RTP before Caltrans can approve the related NEPA document. Partial funding of a project may get their Preliminary Engineering (PE) started but the environmental NEPA document is not approvable without the total funding.
- Headquarters - The headquarters office of the Department located at 1120 "N" St., Sacramento, CA 95814.
- High Profile Project – High risk projects that meet one or more of the eleven criteria listed in Chapter 2 and in which FHWA has an involvement in the project oversight actions.
- Impacts - A term to describe the positive or negative effects upon the natural or human environment as a result of a specific project or projects.
- Independent Utility - The ability of a transportation improvement to be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made.
- Indirect Effects - Effects caused by a given action, occurring later in time, or farther removed in distance, but which are reasonably foreseeable. Induced changes to land use patterns, population density or growth rate are examples.
- ISTEA – Intermodal Surface Transportation Efficiency Act of 1991 was an Act signed by the President on December 18, 1991, providing authorization for six (6) years for highways, highway safety, and mass transportation. ISTEA was superseded by TEA 21 in 1998 and by SAFETEA-LU in 2005.

- Level-of-Service (LOS) - Also known, as "Traffic Service." LOS is a qualitative measure describing operational conditions within a traffic stream. LOS is based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience. LOS is also affected by conditions such as number of access points, lane width, number of lanes, and percentage of large vehicles. Six levels of service are defined by letter designations from A to F with LOS A representing the best operating conditions, and LOS F the worst.
- Local Agency - A California City, county, or other local public agency. In many instances this term is used loosely to include nonprofit organizations.
- Logical Termini - Features such as cross route locations that are considered rational end points for a transportation improvement and which serve to make it useable.
- Metropolitan Planning Organization (MPO) - Federally mandated regional organizations responsible for comprehensive transportation planning and programming in urbanized areas. Work products include the Transportation Plan, the Transportation Improvement Program, and the Unified Planning Work Program.
- Mitigation Measures - Specific design commitments made during the environmental evaluation and study process, which serve to moderate or lessen impacts deriving from the proposed action. In accordance with CEQ, mitigation includes avoidance, minimization, rectification, reduction, and compensation.
- National Environmental Policy Act (NEPA) – Federal environmental law requiring federal agencies to consider the environmental impacts of their actions, evaluate least damaging alternatives, and ensure decisions are made in the public's best interest based on a balanced consideration of the need for safe and efficient transportation.
- New Location - An area or an alignment proposed for highway development that is not currently used for transportation purposes.
- NHS - National Highway System (see Chapter 2, "Roles and Responsibilities," Section 2.2).
- No Action - An alternative that is used as the basis to measure the impacts and benefits of the preferred alternative(s) in an Environmental Assessment or EIS. The No Action alternative consists of the existing conditions on the roadway, plus any safety or maintenance improvements, which have been identified in the CDOT 5-Year Transportation Improvement Program.
- No-Build Alternative - Normally includes short-term, minor restoration types of activities (e.g., safety and maintenance improvements) that maintain continuing operation of an existing facility. The no-build alternative serves as a baseline for the comparison of other alternatives.
- Notice of Intent (NOI) - A notice published in the Federal Register that an EIS will be prepared and considered. The notice shall briefly describe the proposed action and possible alternatives, describe the agency's proposed scoping process including whether, when, and where any scoping meetings will be held, and state the name and address of a person within the agency who can answer questions about the proposed action and the EIS.

Chapters 15-17, "Advertise and Award Project," "Administer Construction Contracts," and "Project Completion," describe the procedures from advertising through construction administration, project completion, and completion of the final reports.

Chapter 18, "Maintenance," describes the ongoing maintenance responsibilities and activities needed to assure that the project remain a functional public asset, and the related inspection and reporting requirements.

Chapter 19, "Oversight and Process Reviews," describes the oversight and process review methods by which Caltrans and/or FHWA use to ensure that the agencies have complied with their commitments and certifications under federal and state laws, regulations, and these procedures.

Chapter 20, "Deficiencies and Sanctions," describes the course of action to be expected when local agencies fail to comply with state and federal requirements during their project. An appeal process is available when the local agency disagrees with district decisions or sanctions.

1.6 MANUAL UPDATES

This manual is available to each local agency on the Internet. The Caltrans Web Server is at http://www.dot.ca.gov. For direct access to this manual at the Division of Local Assistance Homepage go to: http://www.dot.ca.gov/hq/LocalPrograms/index

As updates are made, they will be available on the Internet and the agency will be responsible for obtaining its own printed copy if needed.

Comments and suggestions for improvement to the manual or the processes and procedures described herein are welcome. They may be submitted to: DLA_Webmaster@dot.ca.gov

This page intentionally left blank

Once a project or phase is determined to be High Profile, the process is carried one step further by highlighting activities on the project responsibilities list that can be further delegated. The FHWA maintains approval authority for those activities that cannot, by law, be delegated and activities that may pose a risk to individual projects. Highlighted boxes in the "High Profile" projects column of the Project Responsibilities List (refer to Appendix B of the 2010 Joint Stewardship and Oversight Agreement) are designated as either the FHWA or Caltrans and signed and dated by both agencies. The documented and signed project responsibilities list may also include a general summary of other involvement, including attending regular meetings, conducting project inspections, etc.

2.6 Right of way Certification Delegation

In addition to the delegations discussed above, the FHWA has also approved Caltrans request for delegation of right of way certificate approval for Delegated projects and not subject to FHWA oversight per the Stewardship Agreement. Procedures for processing local agency right of way certifications are described in Chapter 13, "Right of Way," of this manual.

2.7 Projects off the National Highway System (Non-NHS)

The reengineering of local assistance procedures in 1995 gave local agencies additional responsibility and accountability for non-NHS projects. Many of the responsibilities delegated to Caltrans under the Stewardship Agreement are further delegated to the local project sponsors. Caltrans preliminary engineering, construction review and approval activities are reduced, and other activities involving environmental reviews, project authorization, Disadvantaged Business Enterprises, consultant selection, and agreement procedures are streamlined to eliminate duplication of effort and multiple reviews.

2.8 Projects on the National Highway System (NHS)

The delegation of responsibilities to local agencies described above for non-NHS projects also applies for NHS projects. With the following exceptions (discussed in detail in the appropriate chapters of this manual), procedures are the same for both types of projects.

Field Reviews

Field reviews are required for local agency projects on the National Highway System and encouraged for all other Federal-aid projects. If the field review is not performed, document on the field review form the reasons why the field review was not performed as a completed field review form is required for all Federal-aid projects.

PS&E Procedures for Significant NHS Projects

When Caltrans requires a field review for significant NHS projects, PS&E procedures (standards, agencies involved, use of consultants, project management, specifications, etc.) will be discussed. These procedures will be put in writing for Caltrans approval before final design is initiated. With approval, the local agency will then certify their PS&E(s) for these projects the same as they do for non-NHS projects upon completion of the PS&E. Caltrans may review the PS&E(s) if resources are available, or as part of a process review. NHS projects that are not "significant" will not require these approval procedures.

Design Standards

Local agencies are required to use only American Association of State Highways and Transportation Officials (AASHTO), 3R, and other design standards officially approved for use on NHS projects that are off the SHS. For SHS projects, Caltrans standards are to be used. Locally approved design standards are not allowed on NHS projects, however

Caltrans may approve exceptions on a project-by-project basis except on High Profile projects, which requires FHWA approval.

METHOD OF CONSTRUCTION

In general, an open and competitive bidding process must be used for construction contracts on federal-aid projects. Exceptions to competitive bidding of construction contracts must be approved by Caltrans for "Delegated" projects. FHWA approval may also be required on High Profile projects.

RESTRICTED CONSTRUCTION CONTRACT PROVISIONS

Warranty clauses are restricted on NHS projects and the use of proprietary items is restricted on all federal-aid projects.

CONSTRUCTION ADMINISTRATION FOR SIGNIFICANT NHS PROJECTS

When Caltrans requires a field review for significant NHS projects, the local agency's construction administration procedures (staging, agencies involved, use of consultants, project management, quality assurance, etc.) will be discussed. These procedures will be put in writing for Caltrans approval before the "Request for Authorization for Construction" is approved. Caltrans will not review the construction administration unless requested and resources are available, or as part of a process review.

QUALITY ASSURANCE PROGRAMS

Local agencies may use the Quality Assurance Program described in this manual for projects on or off the NHS. Caltrans will perform Independent Assurance (IA) if Caltrans test methods are used.

FINAL INSPECTION

The local agency will make a final inspection of completed "Delegated" projects prior to FHWA authorizing reimbursement of the final project voucher.

2.9 FEDERAL-AID PROJECTS OF $100 MILLION TO $500 MILLION OR MORE

PROJECTS OF $500 MILLION OR MORE

The passage of "Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users" (SAFETEA-LU) requires a local agency receiving any amount of federal financial assistance for a "major" project with an estimated total cost of $500 million or more (includes all phases) and local agencies for such projects as may be identified by FHWA, submit to Caltrans for each project:

- A Project Management Plan
- An Annual Financial Plan

A cost Estimate Review must be completed by FHWA prior to the Final NEPA document, and prior to the construction authorization for all major projects (≥ $500 million).

PROJECT MANAGEMENT PLAN

A draft Project Management Plan shall be submitted prior to the Record of Decision (ROD), Finding of No Significant Impact (FONSI), or Categorical Exclusion (CE) determination. A final Project Management Plan shall be submitted within 90 days after the ROD, FONSI, or CE determination which determine the scope of the projects. The plan shall:

- Decision to hold field review for projects off the NHS
- Determining/Approving project DBE Availability Advisory percentage
- For ITS projects and other projects with ITS elements, make a preliminary classification of High-Risk, Low-Risk, or Exempt.
- Selecting consultant and approving consultant contracts
- Approving local design standards for projects off the NHS
- Approving design exceptions for projects "off" the NHS
- Preparing and Certifying PS&E (Caltrans must approve the local agencies' PS&E procedures for most NHS projects and FHWA for High Profile)
- Qualifying/selecting right of way consultants
- Right of Way acquisitions and relocation
- Preparing and approving Quality Assurance Programs
- Advertising and awarding construction project
- Construction contract administration and inspection (Caltrans must approve the local agencies construction administration procedures for high cost, complex, corridor-type NHS projects)
- Construction contract acceptance on delegated projects
- Coordinating railroad agreements
- Contract compliance

The individual chapters covering these topics should be consulted for details concerning the responsibilities.

2.13 California Transportation Commission

The California Transportation Commission (CTC) has programming and fund allocation responsibility for some federal-aid and state funded programs used for local assistance projects. It is the responsibility of the local agency to notify the DLAE to request a CTC vote where applicable.

Programming

The CTC currently selects federal Transportation Enhancements projects for inclusion in the STIP.

Fund Allocation

When a project is ready for implementation, the CTC must vote to allocate funding to the following programs. This action is commonly called the "**second vote**."

2.14 Metropolitan Planning Organizations, Regional Transportation Planning Agencies and County Transportation Commissions

These organizations have broad transportation planning duties and responsibility for programming most projects using federal-aid or state allocations from the programs described in this manual.

These organizations are responsible for providing each local agency with their application rules, procedures and timelines. They are also responsible for providing the

local agency with results of the decisions about its projects and the agency, CTC and federal approval dates.

The local agency must work closely with these organizations to ensure that its projects are placed in the appropriate TIP with the correct funds in the proper years. Federal funds and many state funds cannot be obtained without this programming step.

Chapter 4 of the *Caltrans Project Development Procedures Manual* discusses the programming process in more detail.

2.15 Other Public Agencies and Organizations

Other federal, state, regional and local entities may have an interest, role or jurisdiction in the development and implementation of a local project. Examples at the federal level include the Environmental Protection Agency, the Army Corps of Engineers, and the Fish and Wildlife Service. At the state level, examples include the Department of Fish and Game, Air Resources Board, and State Historic Preservation Officer, Regional agencies include the Air or Water Quality Control Boards and Flood Control Districts.

The State Resources Agency selects the projects to be funded by the CTC for the EEM program.

The role of these agencies will vary with the project scope, location and environmental impact. Coordination should begin early to prevent critical delays later in the project development.

Quasi-public or nonprofit organizations may apply for and receive programmed funds for some programs, notably EEM. These agencies must follow the same rules and regulations, which apply to any other local agency developing a state or federal-aid funded project. When such an agency does not have a full staff of administrative, engineering, contracting, or accounting personnel, Caltrans encourages it to work through a local agency that can provide these services and is familiar with the applicable rules.

2.16 References

Joint Stewardship and Oversight Agreement:
http://www.dot.ca.gov/hq/oppd/stewardship/

SAFETEA-LU Section 1904

23 USC 106(c)

FHWA Major Projects website:
http://www.fhwa.dot.gov/ipd/project_delivery/defined/fhwa_delivery_process.htm

CHAPTER 3 PROJECT AUTHORIZATION

CONTENTS

SECTION/SUBJECT PAGE NUMBER

3.1 INTRODUCTION 3-3
GENERAL 3-3
ACRONYMS 3-3
TERMS AND DEFINITIONS 3-5

3.2 PRIOR TO FEDERAL AUTHORIZATION 3-7

3.3 REQUEST FOR AUTHORIZATION 3-8
PRELIMINARY ENGINEERING 3-8
INTELLIGENT TRANSPORTATION SYSTEMS 3-9
RIGHT OF WAY 3-9
RIGHT OF WAY UTILITY RELOCATIONS 3-9
CONSTRUCTION AND CONSTRUCTION ENGINEERING 3-10
NON-INFRASTRUCTURE PROJECTS 3-11

3.4 ADMINISTRATIVE PROCEDURES 3-12
BUDGET AUTHORITY FOR PROJECTS ON THE STATE HIGHWAY SYSTEM (SHS) 3-12

3.5 OBLIGATION, ENCUMBRANCE & LIQUIDATION OF FUNDS 3-13
FINANCE LETTER 3-13

3.6 UNDERFUNDED PROJECTS 3-13
ADMINISTRATIVE RULES 3-14
FEDERAL REIMBURSEMENT OF UNDERFUNDED PROJECTS 3-14

3.7 LOCAL ADVANCE CONSTRUCTION PROCEDURES 3-14

3.8 TAPERED MATCH 3-15

3.9 FLEXIBLE MATCH 3-16

3.10 TOLL CREDIT IN-LIEU OF NON-FEDERAL MATCH 3-16

3.11 FTA TRANSFER 3-16b
HIGHWAY FUNDS ELIGIBLE FOR TRANSFER 3-17
FTA GRANT PROGRAMS 3-17
FTA TRANSFER PROCEDURES 3-18

3.12 MPO/RTPA PROGRAMMED FUND BALANCES 3-19

3.13 REFERENCES 3-20

FIGURES

FIGURE/DESCRIPTION PAGE NUMBER

FIGURE 3-1: FINANCIAL MANAGEMENT PROJECT AUTHORIZATION/OBLIGATION 3-1

EXHIBITS

EXHIBIT/DESCRIPTION PAGE NUMBER

EXHIBIT 3-A REQUEST FOR AUTHORIZATION TO PROCEED WITH PRELIMINARY ENGINEERING 3-21

EXHIBIT 3-B REQUEST FOR AUTHORIZATION TO PROCEED WITH RIGHT OF WAY 3-23

EXHIBIT 3-C REQUEST FOR AUTHORIZATION TO PROCEED WITH UTILITY RELOCATION 3-25

EXHIBIT 3-D REQUEST FOR AUTHORIZATION TO PROCEED WITH CONSTRUCTION 3-29

EXHIBIT 3-E - REQUEST FOR AUTHORIZATION TO PROCEED DATA SHEET(S) 3-33

EXHIBIT 3-F INSTRUCTIONS FOR REQUEST FOR AUTHORIZATION DATA SHEET(S) 3-35

EXHIBIT 3-G FEDERAL PROJECT LOG SHEET (MINIMUM REQUIREMENTS) 3-41

EXHIBIT 3- H REQUEST FOR CAPITAL SUBVENTION REIMBURSEMENT ALLOCATION 3-43

EXHIBIT 3-I REQUEST FOR LOCAL ADVANCE CONSTRUCTION AUTHORIZATION 3-45

EXHIBIT 3-J REQUEST FOR TRANSFER OF FEDERAL FUNDS TO THE FEDERAL TRANSIT ADMINISTRATION (FTA) 3-47

EXHIBIT 3-K ADMINISTRATIVE PROCEDURES FOR TRANSFER OF LOCAL FEDERAL-AID FUNDS TO FEDERAL TRANSIT ADMINISTRATION 3-49

EXHIBIT 3-L LOCAL ASSISTANCE PROJECT PREFIXES 3-51

EXHIBIT 3-M FEDERAL HIGHWAY TRANSPORTATION PROGRAMS 3-53

EXHIBIT 3-N FEDERAL HIGHWAY DISCRETIONARY PROGRAMS 3-55

EXHIBIT 3-O SAMPLE LOCAL FEDERAL-AID PROJECT FINANCE LETTER 3-57

EXHIBIT 3-P SAMPLE "DELEGATED PROJECT AUTHORIZATION" 3-59

EXHIBIT 3-Q REQUEST FOR AUTHORIZATION TO PROCEED WITH NON-INFRASTRUCTURE PROJECT 3-61

EXHIBIT 3-R NON-INFRASTRUCTURE PROJECT WORK PLAN SAMPLE 3-63

NON-INFRASTRUCTURE PROJECTS

Non-infrastructure (NI) projects are those transportation related projects that will NOT involve engineering design, right of way acquisition, and the eventual physical construction of transportation facilities. Examples of non-infrastructure projects include public awareness campaigns and outreach, Traffic Demand Management (TDM), traffic education and enforcement in the vicinity of schools, student sessions on bicycle and pedestrian safety, freeway service patrol, ridesharing activities, commuter incentives, and the purchase of alternative-fueled vehicles.

Federal-aid highway funds have primarily been used on highway construction projects. Recent Highway Acts have authorized the use of federal-aid highway funds for non-construction projects. For example, SAFETEA-LU mandated an allocation of 10-30% of the Safe Route to School Program (SRTS) funds to be used for non-infrastructure (NI) related activities. Other federal-aid funding programs that have been used for non-infrastructure projects are Transportation Enhancement (TE) and Congestion Mitigation and Air Quality (CMAQ) programs.

The eligibility of non-infrastructure projects for federal participation is governed by the various federal funding program guidelines, such as SRTS-NI, TE, and CMAQ Programs. While it is apparent that projects receiving funding from the SRTS-NI program should be processed as NI projects, project sponsors receiving funding from other federal-aid programs should consult with their Caltrans District Local Assistance Engineer to see if their projects can be processed as NI projects.

For typical federal-aid highway construction projects, authorizations to proceed for federal-aid projects are granted to one of the project delivery phases, i.e. Preliminary Engineering (PE), Right of Way (R/W) /Utility Relocation, or Construction (CON). NI projects do not neatly fit under any of the above traditional project phases. Due to various considerations such as the "PE over 10 years rule" and FTIP programming issues, federal authorization to proceed for NI projects will be processed under the "Construction" phase using "Exhibit 3-Q - Request for Authorization to Proceed with Non-Infrastructure Project".

FTIP/FSTIP: Most NI projects are programmed in the FTIP/FSTIP as "Grouped" projects, also known as "Lump-sum" projects. As such, they are traditionally programmed in the "Construction" phase. NI projects that are individually listed in the FTIP/FSTIP shall also be programmed under Construction.

Environmental Review: Even though NI projects do not involve the traditional engineering design, right of way, and ground disturbance during construction, environmental reviews are still required to ensure that the project will not have negative impacts on the environment. A full scale preliminary environmental study (PES), however, may not be required for NI projects. Instead, the Preliminary Environmental Screening Form for Non-Infrastructure Projects (PES-NI) may be used to streamline the environmental reviews of NI projects. The approval of the PES-NI will result in a Categorical Exclusion (CE) as the NEPA determination. A copy of the PES(NI) Form is available at:
http://www.dot.ca.gov/hq/LocalPrograms/lam/forms/lapmforms.htm

Right of Way: Since NI projects will not involve right of way acquisition or utility relocation, FHWA has agreed with Caltrans that Right of Way Certifications will NOT be required.

Plans, Specifications, and Estimates (PS&E): Any NI project requesting authorization to proceed must include a NI project work plan in lieu of the traditional PS&E. The work plan must be of sufficient detail to describe project tasks, schedule, activities, deliverables, and budgets/costs. A sample work plan is shown in Exhibit 3-R.

This page intentionally left blank

The following local federal-aid programs are eligible for Advance Construction:

- Congestion Mitigation & Air Quality Improvement (CMAQ) Program
- Regional Surface Transportation Program (RSTP)
- Highway Bridge Program (HBP previously HBRRP)

A project authorized under advance construction procedures must comply with all federal requirements including programming in the FTIP. Local advance construction federal authorization does not constitute a commitment of federal funds to the project, and a program supplement agreement will not be issued. The Federal Authorization date establishes the start date for performing federally reimbursable work. If and when federal funds become available, a follow-up Authorization to Proceed (E-76) must be processed to obligate the federal funds (i.e., place funds under agreement with FHWA). The project or project phase must be listed in the current FTIP/FSTIP at this time. The program supplement agreement between Caltrans and the local agency also must be executed and/or finance letter signed/approved by Caltrans before a local agency can receive federal reimbursement.

NOTE*: Federal-aid projects utilizing "tapered match" provisions (discussed below) are not eligible for advance construction authorization.*

3.8 TAPERED MATCH

The use of "tapered match" provisions enables a project sponsor to vary the nonfederal share of a federal-aid project over time provided, the federal contribution toward the overall project does not exceed the federal pro rata limit.

Traditionally, a project sponsor is responsible for paying the required nonfederal share of the project costs on each invoice submitted for reimbursement. Under the tapered match approach, a nonfederal-matching ratio is assigned to the project, rather than individual payments. The federal share can be as high as one-hundred percent in the early stages of project reimbursement provided, that the overall federal contribution does not exceed the statutory federal-aid limit at the end of project completion.

Tapered match provisions cannot be used on advance construction projects, STP funded projects where the nonfederal match is being provided on program-wide-basis, and bond projects authorized under Title 23-Section 122. These activities are considered inconsistent with the intent of tapered match.

The use of tapered match provisions is subject to review and approval by both Caltrans (Office of Federal Resources) and FHWA (California Division). The project sponsor must submit written taper match plan to the DLA for review. The project sponsor shall also show that they have their matching pro rata share available and are committed to providing it as applicable. The request must include the justification and a tapered match schedule.

The FHWA may approve cases where tapered match would:

- Expedite project completion.
- Reduce the project's overall cost.
- Provide incentive to attract additional nonfederal funds to the project.

3.9 FLEXIBLE MATCH

Federal flexible match provisions allow a wide variety of public and private contributions to be credited toward the nonfederal match for federal-aid projects. Eligible contributions include donations of public and private cash, R/W (Acquisition) and in certain cases, public and private materials or services rendered.

The use of flexible match also is subject to review and approval by both Caltrans (Office of Federal Resources) and the FHWA (California Division). The project sponsor must submit a written flexible match plan to the DLAE for review. The plan must specify the appraised value (fair market value) of donated property, materials, and/or services.

Eligibility of flexible match for credit against nonfederal match is subject to the following:

- **Cash -** Private, state, and local entity funds must be received during the period between project approval/authorization and submittal of the project final voucher.
- **Right of Way -** Private, state, local agency property may be donated any time during the project development process. The property must be appraised to determine the fair market value and must be included in the total project cost. The donation of the property shall not influence the NEPA process.
- **Materials -** Private and local entity donation of materials must be appraised to determine fair market value. Credit for state donated materials is not permitted.
- **Services -** State and local entity services may only be credited toward the nonfederal match for Transportation Enhancements (TE) projects. Private donation of services must be documented as to fair market value.

In addition to the referenced flexible match opportunities above, certain sources of federal grant funds may be eligible to match certain categories of highway projects. For more information refer to FHWA's "*Innovative Finance Primer*" Chapter 2 "Innovative Management of Federal Funds," located at:

http://www.fhwa.dot.gov/innovativefinance/ifp/innoman.htm

3.10 TOLL CREDIT IN-LIEU OF NON-FEDERAL MATCH

Federal-aid highway projects typically require the project sponsors to provide a certain amount of non-federal funds as match to the federal funds. For example, Surface Transportation Program (STP) funded projects require a minimum of 11.47% of non-federal matching funds. Through the use of toll-credits, the non-federal share match requirement can be satisfied by applying an equal amount of toll credit and therefore allow a project to be funded with up to 100% federal funds for federally-participating costs.

The amount of credit a state can earn is determined by the amount of toll revenue used for capital expenditures to build or improve public highway facilities. Once a credit amount is appropriately established, this credit will remain available until used by the state. The state is required to track the use of toll credit on a project-by-project basis and report such use to Federal Highway Administration (FHWA) on a regular basis.

The statutory authority for the use of toll credit was first established in Section 1044 of ISTEA that permitted the use of certain *toll* revenue expenditures as a *credit* toward the non-Federal matching share of all programs authorized by ISTEA and Title 23, thus the term "Toll Credit." Section 1111(c) of TEA-21 incorporated into 23 United States Code (USC) 120(j) toll credit provisions initially set forth in ISTEA. While this provision allows the federal obligation to be increased up to 100 percent of project costs to the extent that credits are available, the Division of Local Assistance's implementing policy for the use of toll credit on federally

funded Local Assistance projects is to apply sufficient toll credit to achieve a 100% reimbursement of federal-participating project costs.

The California Department of Transportation (Caltrans) Division of Budgets issued a statewide "Toll Credit Use Policy" as part of a demonstration program to apply $5.7 billion of toll credits which can be used on all federal-aid highway funding programs EXCEPT for the Emergency Relief (ER) Program, Local Safety Programs, and Local On Federal-Aid System Highway Bridge Program (HBP) projects.

The use of toll credits does not generate any additional federal funding, but rather its use is merely to comply with the non-federal match requirement of the federal participating cost. As such, the use of toll credit in lieu of the non-federal share cash match is advantageous for those projects that would otherwise be delayed by the lack of matching funds. The amount of toll credit a state can use each year is limited by the amount of annual Federal Obligation Authority (OA). It is also important to point out that one of the conditions for FHWA's approval of toll credit use is that it does not reduce the state's non-federal transportation capital expenditures. To meet this requirement, California must demonstrate continued efforts to maintain its non-federal transportation expenditure. Although this is done on a statewide basis, it is imperative that project sponsors do not redirect local transportation funds intended for non-federal match to other purposes not related to transportation.

Toll credits can be used in any phase of a federal-aid projects, Preliminary Engineering, Right of Way, or Construction, as long as that phase of work has not been authorized previously. FHWA policy does not allow the retroactive use of toll credit on a phase of work that has received federal authorization. However, subsequent phases can be authorized to use toll credit.

In order to use toll credit, a project must meet the following requirements:

- The project is funded with funds from one of the programs listed in Caltrans' Statewide Toll Credit Use Policy.
- Te project is properly programmed in the current Federal Statewide Transportation Improvement Program (FSTIP) as using toll credits;
- Be fully funded at the maximum allowable federal reimbursement rate, excluding federally non-participating costs;
- The intended use of toll credit is explicitly expressed in the Request for Authorization (RFA) to proceed by marking the appropriate toll credit use area;
- Federal funds on the signed project finance letter must equal 100% of the total participating costs;
- The use of toll credit is indicated in the "Remarks" of the signed project Finance Letter.

The following examples demonstrate how the use of toll credit is different than the normal federal-nonfederal match funding.

Scenario A – Traditional Project Funding with Match

For a project with a total cost of $120,000 including $20,000 of federally non-participating costs ($100,000 federally participating) using a federal reimbursement rate of 88.53%, the funding plan would normally be as indicated in the following Table 1.

Table 1 – Normal Funding

Prog Code	Total Cost	Participating Cost	Federal Funds	Non-Federal Funds	Toll Credit
L240	$120,000.00	$100,000.00	$88,530.00	$31,470.00	$0.00

The Federal Fund amount required in this scenario is 88.53% of the Participating Cost and the non-Federal Funding amount is equal to the Non-Participating amount plus the required 11.47% Non-Federal match.

Scenario B – Toll Credit Funding

When toll credit is being applied to the project, it will be used as a credit toward the non-federal share or $11,470. Since toll credits are not federal funds, federal share must be increased to accommodate the reduction of Non-Federal funds resulting from the toll credit being used as indicated in the following Table 2.

Table 2 – Use Toll Credit

Prog Code	Total Cost	Participating Cost	Federal Funds	Non-Federal Funds	Toll Credit
L240	$120,000.00	$100,000.00	$100,000.00	$20,000.00	$11,470.00

The federal fund amount required is changed from $88,530 to $100,000, the total Participating Cost, and the non-federal funding amount is equal to the Non-Participating amount.

3.11 FTA TRANSFER

Under provisions of the ISTEA of 1991, continued by the Transportation Equity Act for the 21st Century (TEA-21), and superseded by the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act - A Legacy for Users (SAFETEA-LU), state, regional, and local agencies have greater opportunity to select transit-related projects to meet their transportation needs. These provisions include:

- An expanded eligibility criteria under major funding programs (including STP and CMAQ) to implement both highway and transit improvements,
- The ability to transfer federal funds from one funding program to another permitting the implementing agencies to capitalize on expanded eligibility (e.g., HBP to STP), and
- The ability to transfer federal funds from the jurisdiction of the FHWA to that of the FTA and vice versa.

Section 134(k) of Title 23 (Highways) of the United States Code (USC) requires that Title 23 funds made available for public transit projects, typically administered by the FTA, be transferred from the FHWA to the FTA. These transferred funds are administered in accordance with the requirements of Chapter 53 (Mass Transportation) of Title 49 (Transportation), except that Title 23 (Highways) provisions related to the nonfederal share shall apply. Transit-related highway projects, typically administered by FHWA, should remain under the jurisdiction of FHWA. For transit projects that could be processed through either FHWA or FTA, the local agency and/or MPO may select the administering federal agency via placement of the project in the FTIP or FSTIP.

All FHWA apportioned federal funds must be programmed in an FHWA/FTA approved FSTIP prior to transferring the funds to FTA. The transferred funds must be used for the original programmed intent and remain eligible under the funding program. In other words, using the transferred federal funds for a different purpose than originally programmed is not permitted.

The FTA will only accept transfer applications from recognized transit operators. Most transit agencies are familiar with and often prefer to use FTA project implementation procedures. If a project is programmed to receive both FHWA and FTA apportioned funds, the transfer of funds facilitates the use of one set of project implementation procedures.

HIGHWAY FUNDS ELIGIBLE FOR TRANSFER

From a procedural perspective, local assistance federal funds, which can be transferred to FTA, fall into 2 categories: 1) Local federal-aid funds, and 2) Federal STIP funds. The Caltrans DLA Office and Headquarters DLA process the transfer of local federal-aid funds and Transportation Enhancements (TE) funds. The Headquarters Division of Mass Transportation (DMT) and Office of Federal Resources (OFR) process Federal STIP fund transfers except for STIP TE funds.

Local federal-aid fund categories eligible for transfer to FTA include:

- Regional Surface Transportation Program (RSTP) - Eligible transit activities include transit capital projects, including vehicles and facilities, publicly or privately owned that are used to provide intercity bus service, and safety improvements for transit. However, RSTP funds may not be used for Section 5307 (Urbanized Grant Program, discuss later) operating expenses.
- Congestion Mitigation and Air Quality Improvement (CMAQ) Program - CMAQ funds must be used to support transportation projects in air quality nonattainment areas. A CMAQ funded project must contribute to the attainment of the national ambient air qualify standards by reducing pollutant emissions from transportation sources. Eligible transit activities include transit capital projects and up to three years of operating expenses for new eligible services.
- Since 2004, TE projects are programmed in the STIP; therefore, TE funds can be transferred to FTA only after the allocation by the CTC.
- FHWA Discretionary funds include High Priority Demonstration, Ferry Boat Discretionary, Federal Lands Highway Program, and Transportation and Community and System Preservation Pilot Program (TCSP) programs. These funds may only be used for the designated purpose (line item description), as authorized by Congress or FHWA.

Federal STIP funds under the programming control of the RTPAs may be transferred to the FTA but must be allocated by the CTC prior to transfer to the FTA.

FTA GRANT PROGRAMS

FHWA funds may be transferred to three different FTA Formula Grant Programs. These programs are contained in Title 49 (Transportation), Subtitle III (General Intermodal Programs), Chapter 53 (Mass Transportation) of the United States Code (USC). They are the Section 5307 "Urbanized Area Formula Grant Program," Section 5311 "Formula Grants for Other than Urbanized Areas Program," and Section 5310, "Formula Grants and Loans for Special Needs of Elderly Individuals and Individuals with Disabilities Program." These programs vary by population density and whether the purchase of buses and vans for the elderly and disabled are involved.

- **Section 5307– Urbanized Area Formula Program.**

  Section 5307 Grant Program procedures are used by local agencies in urbanized areas of over 200,000 populations, as well as, in urban areas with populations of 50,000 to 200,000. Under Section 5307 Grant Program procedures, each local agency submits one grant application per fiscal year to the FTA. Following the FTA Transfer, the Applicant Agency will deal directly with the FTA on all project-related activities. Remember that the FTA only will accept grant applications from agencies that they have certified (i.e., recognized transit agencies). Noncertified agencies must find a certified project sponsor.

- **Section 5311 – Non-Urbanized Area Formula Program**

  Section 5311 Grant Program procedures are used in non-Urbanized areas and cities of under 50,000 populations. Every year, the FTA allocates apportioned Section 5311 Program funds to each state. For California, Caltrans is the delegated recipient of these FTA funds. The Caltrans DMT "Office of Rural and Small Transit Operators" manages the Section 5311 Program jointly with the assistance of the District Transit Offices.

  Under the Section 5311 Program, the Caltrans DMT acts as the grant applicant on behalf of the local agencies and deals directly with the FTA. The Caltrans DMT submits one annual statewide grant application to the FTA that includes both local and state-sponsored projects. Detailed procedures for the processing FTA transfers to the Section 5311 Program are contained in the Caltrans "Section 5311 Handbook and Guide" and are briefly summarized in Exhibit 3-K of this chapter, "Administrative Procedures for Transfer of Local Federal-aid Funds to Federal Transit Administration."

- **Section 5310 – Elderly and Persons with Disabilities Program**

  Section 5310 Grant Program procedures are used by nonprofit organizations and public agencies (approved by the state) for the purpose of meeting the transportation needs of the elderly and individuals with disabilities where existing public transportation services are, otherwise unavailable, insufficient or inappropriate. Similar to Section 5311 procedures, the Caltrans DMT' "Specialized Federal Transit Branch" acts as the grant applicant on behalf of the local agency and works directly with FTA. Section 5310 funds typically are used to purchase vans and small buses for the elderly and persons with disabilities.

FTA TRANSFER PROCEDURES

Under ISTEA the transfer of FHWA funds to the FTA was accomplished via the Federal Authorization and Obligation Process (E-76). The transferred federal funds remained with FHWA (Washington D.C.) until the FTA submitted project invoices that were reimbursed by the FHWA.

The FHWA and FTA have since developed procedures that provide for the direct transfer of federal funds and Obligation Authority (OA) to the recipient federal agency. Caltrans submits a formal FTA transfer request to the FHWA (California Division) via a "Request for Transfer of Federal Funds to the FTA" letter (see Exhibit 3-J). Upon FHWA concurrence, the federal funds are transferred and deducted from the appropriate State and RTPA/MPO apportionment balances.

See Exhibit 3-K, "Administrative Procedures for Transfer of Local Federal-aid Funds to the Federal Transit Administration," for a step-by-step discussion of the transfer of FHWA apportioned local federal-aid funds to the FTA.

Federal-aid funds programmed in the STIP also may be transferred to the FTA. The DLAE and DLA are **not** involved in the transfer process (except for TE funds) instead, Caltrans DMT and the Office of Federal Resources within the Division of Budgets process the transfer of these funds.

Detailed procedures for Transfer of STIP to the FTA funds under the Section 5307, 5311, and 5310 Grant programs are available on the Caltrans DMT website at:

http://www.dot.ca.gov/hq/MassTrans/

Upon transfer of FHWA apportioned federal funds to the FTA, the Applicant Agency, typically will deal directly with the FTA on all subsequent project-related matters. However, occasionally a FTA transfer project may qualify to receive State Match Funds through the STIP. The project must be programmed to receive the STIP State Match Funds by an RTPA/MPO and be used, eligible activities under Article XIX of the California State Constitution.

Prior to reimbursement with STIP State funds: 1) the CTC must allocate the STIP match funds, 2) a Program Supplement Agreement (PSA) between the Applicant Agency and Caltrans must be signed and executed, 3) the Applicant Agency must prepare and sign a project specific Finance Letter, and 4) the Applicant Agency must provide evidence that payment of federal funds were invoiced/received from the FTA. Invoice format and procedures must adhere to Chapter 5, "Accounting/Invoices," of the LAPM.

3.12 MPO/RTPA PROGRAMMED FUND BALANCES

Under state law, certain federal funds are apportioned to the RTPA/MPO regions by formula. These funds include RSTP and CMAQ funds. These funds are programmed to local agencies for specific projects through the FTIP/FSTIP processes. Both Caltrans and the FHWA monitor the obligation and balance of federal funds. Caltrans maintains reports showing the obligation

of funds summarized at the District, MPO and county levels. These reports show fund balances and list the individual city and county projects. Please refer to the Division of Local Assistance Home Page for balances located at:

- http://www.dot.ca.gov/hq/LocalPrograms/Reports_db.htm

3.13 REFERENCES

23 CFR 635.301 et. seq. at: http://www.fhwa.dot.gov/legsregs/legislat.html

23 CFR 630.106

23 CFR 645

23 CFR 940

USC 134(k)

23 USC 120(j)

49 USC, Section 5301, et. seq. (Federal Transit Laws)

A Guide to Federal-Aid, Programs, Projects and Other Uses of Highway Funds, Federal Publication No. FHWA-IF-99-006, dated May 1999

Federal-Aid Data System Instructions 06/06/02

Federal Uniform Relocation Assistance and Real Property Acquisition Act

Financing Federal-Aid Highways, Federal Publication No. FHWA-PL-99-015 dated August 1999.

Local Assistance Program Guidelines (LAPG) Web site:
http://www.dot.ca.gov/hq/LocalPrograms/public.htm

Joint Stewardship and Oversight Agreement (Stewardship Agreement)
http://www.dot.ca.gov/hq/oppd/stewardship/

SAFETEA-LU Web site: http://www.fhwa.dot.gov/safetealu/index.htm

EXHIBIT 3-Q REQUEST FOR AUTHORIZATION TO PROCEED WITH NON-INFRASTRUCTURE PROJECT

[Place this form on Local Agency Letterhead]

To: (DLAE Name)
District Local Assistance Engineer
Caltrans, Office of Local Assistance
(District Address)

Date: _____
FTIP/FSTIP ID: _____
Federal Project No: _____
EA: _____
PPNO (For STIP Projects): _____
Project Description: _____
_____

Dear (DLAE Name):

In order to begin federally reimbursable work for the above-referenced non-infrastructure project, we request that you secure Federal Authorization to Proceed and the obligation of funds. The federal funds requested will not exceed those provided to this agency in the federally approved Federal Transportation Improvement Program (FTIP)/Federal Statewide Transportation Improvement Program (FSTIP).

Attached are the following documents required to authorize this phase of work:

Request for Authorization Package

[ ] Completed Request for Authorization Data Sheet (Exhibit 3-E)
[ ] Copy of FTIP/FSTIP Reference
[ ] Completed Finance Letter (Exhibit 3-O)
[ ] NI project work plan, budget, schedule and deliverables

Toll Credit Usage

[ ] This project will use Toll Credit. It is fully funded.
[ ] This project will NOT use Toll Credit.

Field Review Form (Exhibit 7-B)

[ ] Completed Field Review Form (Exhibit 7-B), or
[ ] Project Application for SRTS-NI, or TE

Environmental Document

[ ] Categorical Exclusion (CE). Approval Date: _____.
[ ] Preliminary Environmental Screening Form for Non-Infrastructure Projects (PES-NI)

Disadvantaged Business Enterprise (DBE)

[ ] All work for this phase of the project will be performed by local agency staff.
[ ] For consultant contracts an Underutilized Disadvantaged Business Enterprise (UDBE) goal will be established for each contract and the Local Agency Proposer UDBE Commitment (Consultant Contracts) (Exhibit 10-O1) will be submitted with the proposal. Within 15 days of contract execution, the Local Agency Proposer DBE Information (Consultant Contracts) (Exhibit 10-O2) shall be forwarded to the DLAE.

Pre-Award Audit

[ ] Pre-award audit was not performed because the consultant contract is for **$1 million** or less and does not meet the criteria outlined in Exhibit 10-K requiring pre-award audit.

California Transportation Commission (CTC) Allocation

[ ] A CTC allocation is not required, or

[ ] A CTC allocation of $ _____ (federal/state) funds was made at the _____ meeting of the CTC, or

[ ] A CTC allocation of funds has been scheduled for the _____ meeting of the CTC. It is understood that the authorization/obligation of any federal STIP funds will not be made until after the CTC allocation.

Project Agreement and Liquidation of Funds

Upon FHWA issuance of the "Authorization to Proceed" and Agency submittal of the "Field Review" form (Exhibit 7-B), a "Program Supplement Agreement" will be prepared to encumber the federal and/or state funds for the project. This Agency understands that any federal and/or state funds encumbered for the project are available for disbursement for a limited period of time. It is anticipated that this phase of work will be completed by _____(month, year).

Invoice Submittal

This Agency understands that only work performed after federal "Authorization to Proceed" (E-76) is eligible for reimbursement. Invoices for reimbursement will not be submitted until after the federal and state (if applicable) funds are encumbered via an executed "Program Supplement Agreement" and/or State approval Finance Letter. In addition, it is also understood that an invoice must be submitted at least once every six (6) months for each project phase until all funds are expended. If there are no eligible expenses, then a written explanation will be provided for that six (6) month period along with the target amount and date for the next invoice submittal.

CERTIFICATION

I certify that the facts and statements in this Request for Authorization Package are accurate and correct. This Agency agrees to comply with the applicable terms and conditions set forth in Title 23, U.S. Code, Highways, and the policies and procedures promulgated by the Federal Highway Administration and California Department of Transportation relative to the above-designated project.

I understand that this Agency is responsible for all costs in excess of the federal and/or state funds obligated / encumbered as well as for all costs it incurred prior to receiving the FHWA issued "Authorization to Proceed." I further understand that all subsequent phases of the project will require a separate "Federal Authorization to Proceed."

Please advise us as soon as the "Federal Authorization to Proceed" has been issued. You may direct any questions to:

(Name of Local Agency Contact) at (phone number and e-mail address) .

_____
Signature of Local Agency Representative

_____
Print Name

_____
Title

_____
Agency

EXHIBIT 3-R NON-INFRASTRUCTURE PROJECT WORK PLAN SAMPLE

(This sample is for projects performed by local agency staff. It may be modified for work performed by consultant.)				
Date:	Jan. 01, 2011			
Project Number:	SRTSLNI-XXXX(XXX)			
Project Location:	In the City of Any Town, from Somewhere to Anywhere			
Project Description:				
Task Summary:		**Start**	**End**	**Cost**
Task "A"	Task Name	Month-Year	Month-Year	$
Task "B"	"	"	"	$
Task "C"	"	"	"	$
..	"	"	"	$
..	"	"	"	$
		GRAND TOTAL		$

TASK "A" DETAIL:					
Task Summary:					
Schedule:		**Start Date:**	Month-Year	**End Date:**	Month-Year
Activities/	1				
Deliverables:	2				
	3				
	"				
	"				

Staff Costs:			
Staff Time	**Hours**	**Rate**	**Total $**
Party 1 - Position/Title			
Party 2 - Position/Title			
"			
"			

Task Notes:		
	Staff Costs:	
	Indirect Costs:	
	Total Staff Costs:	
	Other Costs:	
	Travel:	
	Equipment:	
	Suppies/Materials:	
	"	
	"	
	Other Direct Costs:	
	Total Other Costs:	
	TASK GRAND TOTAL:	

- Repeat Task Details table for all identified tasks
- Include a Gantt Chart for the tasks, if appropriate.

This page intentionally left blank

MAJOR STRUCTURE DATA

(Attach a separate sheet for each structure)

Project Number _____

Bridge Name (facility crossed) _____

State Br. No. _____ Date Constructed _____ Historical Bridge Inv. Category _____

Road Name _____ Location _____

STRUCTURE DATA

	Existing	**Proposed**	**Minimum AASHTO Standards**
Structure Type	_____	_____	_____
Structure Length	_____	_____	_____
Spans (No. & Length)	_____	_____	_____
Clear Width (curb to curb)	_____	_____	_____
Shoulder Width	_____Lt _____Rt	_____Lt _____Rt	_____Lt _____Rt
Sidewalks or bikeway width	_____Lt _____Rt	_____Lt _____Rt	_____Lt _____Rt
Total Br. Width	_____	_____	_____
Total Appr. Rdwy. Width	_____	_____	_____

1. Preliminary Engineering by _____
2. Design by _____
3. Foundation Investigation by _____
4. Hydrology Study by _____

Detour, Stage construction, or Close Road _____

Length of Detour _____

Resident Engineer for Bridge Work: ____ Agency ____ Consultant (On Retainer as City/County Engineer)

Responsible Local Official _____

Discuss any special conditions; for example, federal ADA, state or local accessibility requirements, or proposed design exceptions.

_____
_____
_____

ESTIMATED STRUCTURE AND RELATED COSTS:

		Federally Participating **Yes**	**No**
Bridge Cost			
Construct Bridge	_____	_____	_____
Bridge Removal	_____	_____	_____
Slope Protection	_____	_____	_____
Channel Work	_____	_____	_____
Detour - Stage Construction	_____	_____	_____

Approach Roadway	_____	_____	_____
Preliminary Engineering	_____	_____	_____
Construction Engineering	_____	_____	_____
Right of Way Costs	_____	_____	_____
Utility Relocation	_____	_____	_____
Mobilization	_____	_____	_____
Total	_____		

Type of HBP funds: Check one (Major type if more than one)

- ☐ Seismic/Voluntary (88.53% Fed. Share)
- ☐ Rehabilitation (80%)
- ☐ Replacement (80%)
- ☐ Railing (88.53%)
- ☐ Painting (88.53%)
- ☐ Painting (80%)
- ☐ Special (80%)
- ☐ Low Water Xing (80%)

Summarize HBP funded costs of above estimate:
(HBP Federal-aid + local match for HBP only)

Indicate the estimated date for Federal-aid Authorization & Obligation or Check the box:

		Date:	
Prelim. Eng.	$_____	_____	☐ Not needed for this project
Right of Way	$_____	_____	☐ Not needed for this project
Construction.	$_____	_____	☐ Not needed for this project
Total	$_____		

VALUE ENGINEERING ANALYSIS

Required (Yes, if total project costs for bridge are $20M or more) ☐ Yes ☐ No

Remarks _____
_____
_____

******* The following must be attached if the project is funded by the HBP:**

1. Plan view of proposed improvements.
2. Typical Section.

******* The following is recommended:**

1. Right of way map to determine whether right of way acquisition or construction easements are necessary.

(Attachment to Field Review Form)

EXHIBIT 10-Q DISCLOSURE OF LOBBYING ACTIVITIES

DISCLOSURE OF LOBBYING ACTIVITIES

COMPLETE THIS FORM TO DISCLOSE LOBBYING ACTIVITIES PURSUANT TO 31 U.S.C. 1352

1. Type of Federal Action:

☐ a. contract
b. grant
c. cooperative agreement
d. loan
e. loan guarantee
f. loan insurance

2. Status of Federal Action:

☐ a. bid/offer/application
b. initial award
c. post-award

3. Report Type:

☐ a. initial
b. material change

For Material Change Only:
year_____ quarter_____
date of last report _____

4. Name and Address of Reporting Entity

☐ Prime ☐ Subawardee
Tier _____, if known

Congressional District, if known

5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime:

Congressional District, if known

6. Federal Department/Agency:

7. Federal Program Name/Description:

CFDA Number, if applicable_____

8. Federal Action Number, if known:

9. Award Amount, if known:

10. a. Name and Address of Lobby Entity
(If individual, last name, first name, MI)

b. Individuals Performing Services (including address if different from No. 10a)
(last name, first name, MI)

(attach Continuation Sheet(s) if necessary)

11. Amount of Payment (check all that apply)

$ _____ ☐ actual ☐ planned

12. Form of Payment (check all that apply):

☐ a. cash
☐ b. in-kind; specify: nature_____
Value _____

13. Type of Payment (check all that apply)

☐ a. retainer
☐ b. one-time fee
☐ c. commission
☐ d. contingent fee
☐ e deferred
☐ f. other, specify _____

14. Brief Description of Services Performed or to be performed and Date(s) of Service, including officer(s), employee(s), or member(s) contacted, for Payment Indicated in Item 11:

(attach Continuation Sheet(s) if necessary)

15. Continuation Sheet(s) attached: Yes ☐ **No** ☐

16. Information requested through this form is authorized by Title 31 U.S.C. Section 1352. This disclosure of lobbying reliance was placed by the tier above when his transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to Congress semiannually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Signature: _____

Print Name: _____

Title: _____

Telephone No.: _____ Date: _____

Authorized for Local Reproduction

Standard Form - LLL

Federal Use Only:

Standard Form LLL Rev. 04-28-06

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime federal recipient at the initiation or receipt of covered federal action or a material change to previous filing pursuant to title 31 U.S.C. Section 1352. The filing of a form is required for such payment or agreement to make payment to lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress an officer or employee of Congress or an employee of a Member of Congress in connection with a covered federal action. Attach a continuation sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered federal action for which lobbying activity is and/or has been secured to influence, the outcome of a covered federal action.
2. Identify the status of the covered federal action.
3. Identify the appropriate classification of this report. If this is a follow-up report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last, previously submitted report by this reporting entity for this covered federal action.
4. Enter the full name, address, city, state and zip code of the reporting entity. Include Congressional District if known. Check the appropriate classification of the reporting entity that designates if it is or expects to be a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the first tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in Item 4. checks "Subawardee" then enter the full name, address, city, State and zip code of the prime federal recipient. Include Congressional District, if known.
6. Enter the name of the federal agency making the award or loan commitment. Include at least one organization level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the federal program name or description for the covered federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans and loan commitments.
8. Enter the most appropriate federal identifying number available for the federal action identification in item 1 (e.g., Request for Proposal (RFP) number, Invitation for Bid (IFB) number, grant announcement number, the contract grant. or loan award number, the application/proposal control number assigned by the federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered federal action where there has been an award or loan commitment by the Federal agency, enter the federal amount of the award/loan commitments for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, state and zip code of the lobbying entity engaged by the reporting entity identified in Item 4. to influenced the covered federal action.
    (b) Enter the full names of the individual(s) performing services and include full address if different from 10 (a). Enter Last Name, First Name and Middle Initial (Ml).
11. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (Item 4) to the lobbying entity (Item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.
12. Check the appropriate box(es). Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.
13. Check the appropriate box(es). Check all boxes that apply. If other, specify nature.
14. Provide a specific and detailed description of the services that the lobbyist has performed or will be expected to perform and the date(s) of any services rendered. Include all preparatory and related activity not just time spent in actual contact with federal officials. Identify the federal officer(s) or employee(s) contacted or the officer(s) employee(s) or Member(s) of Congress that were contacted.
15. Check whether or not a continuation sheet(s) is attached.
16. The certifying official shall sign and date the form, print his/her name title and telephone number.

Public reporting burden for this collection of information is estimated to average 30-minutes per response, including time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, D.C. 20503.

SF-LLL-Instructions Rev. 06-04-90«ENDIF»

ARTICLE IX DISADVANTAGED BUSINESS ENTERPRISES (DBE) PARTICIPATION

(Use this Article when federal participating funds are used;incorporate Exhibits 10-I and 10-J as required.)

ARTICLE X COST PRINCIPLES

A. The CONSULTANT agrees that the Contract Cost Principles and Procedures, 48 CFR, Federal Acquisition Regulations System, Chapter 1, Part 31.000 et seq., shall be used to determine the allowability of cost individual items.

B. The CONSULTANT also agrees to comply with federal procedures in accordance with 49 CFR, Part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments.

C. Any costs for which payment has been made to CONSULTANT that are determined by subsequent audit to be unallowable under 48 CFR, Federal Acquisition Regulations System, Chapter 1, Part 31.000 et seq., are subject to repayment by CONSULTANT to the LOCAL AGENCY.

ARTICLE XI CONTINGENT FEE

The CONSULTANT warrants, by execution of this contract that no person or selling agency has been employed, or retained, to solicit or secure this contract upon an agreement or understanding, for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees, or bona fide established commercial or selling agencies maintained by the CONSULTANT for the purpose of securing business. For breach or violation of this warranty, the LOCAL AGENCY has the right to annul this contract without liability; pay only for the value of the work actually performed, or in its discretion to deduct from the contract price or consideration, or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

ARTICLE XII RETENTION OF RECORDS/AUDIT

For the purpose of determining compliance with Public Contract Code 10115, et seq. and Title 21, California Code of Regulations, Chapter 21, Section 2500 et seq., when applicable and other matters connected with the performance of the contract pursuant to Government Code 8546.7; the CONSULTANT, subcontractors, and the LOCAL AGENCY shall maintain all books, documents, papers, accounting records, and other evidence pertaining to the performance of the contract, including but not limited to, the costs of administering the contract. All parties shall make such materials available at their respective offices at all reasonable times during the contract period and for three years from the date of final payment under the contract. The state, the State Auditor, LOCAL AGENCY, FHWA, or any duly authorized representative of the federal government shall have access to any books, records, and documents of the CONSULTANT that are pertinent to the contract for audit, examinations, excerpts, and transactions, and copies thereof shall be furnished if requested.

Subcontracts in excess of $25,000 shall contain this provision.

ARTICLE XIII DISPUTES

(Choose either Option 1 or Option 2.)

(Option 1 - Use paragraphs A through D below for all contracts without PS&E submittal.)

A. Any dispute, other than audit, concerning a question of fact arising under this contract that is not disposed of by agreement shall be decided by a committee consisting of the LOCAL AGENCY's Contract Manager and (Insert Department Head or Official), who may consider written or verbal information submitted by the CONSULTANT.

B. Not later than 30 days after completion of all work under the contract, the CONSULTANT may request review by the LOCAL AGENCY GOVERNING BOARD of unresolved claims or disputes, other than audit. The request for review will be submitted in writing.

C. Neither the pendency of a dispute, nor its consideration by the committee will excuse the CONSULTANT from full and timely performance in accordance with the terms of this contract.

(Option 2 - Replace Paragraph B, above, with the following for contracts requiring the submission of PS&E.)

B. Not later than 30 days after completion of all deliverables necessary to complete the plans, specifications and estimate, the CONSULTANT may request review by the LOCAL AGENCY GOVERNING BOARD of unresolved claims or disputes, other than audit. The request for review will be submitted in writing.

ARTICLE XIV AUDIT REVIEW PROCEDURES

A. Any dispute concerning a question of fact arising under an interim or post audit of this contract that is not disposed of by agreement, shall be reviewed by the LOCAL AGENCY'S CHIEF FINANCIAL OFFICER.

B. Not later than 30 days after issuance of the final audit report, the CONSULTANT may request a review by the LOCAL AGENCY'S CHIEF FINANCIAL OFFICER of unresolved audit issues. The request for review will be submitted in writing.

C. Neither the pendency of a dispute nor its consideration by the LOCAL AGENCY will excuse the CONSULTANT from full and timely performance, in accordance with the terms of this contract.

ARTICLE XV SUBCONTRACTING

A. The CONSULTANT shall perform the work contemplated with resources available within its own organization; and no portion of the work pertinent to this contract shall be subcontracted without written authorization by the LOCAL AGENCY'S Contract Manager, except that, which is expressly identified in the approved Cost Proposal.

B. Any subcontract in excess of $25,000 entered into as a result of this contract, shall contain all the provisions stipulated in this contract to be applicable to subcontractors.

C. Any substitution of subconcontractors must be approved in writing by the LOCAL AGENCY's Contract Manager.

ARTICLE XVI EQUIPMENT PURCHASE

A. Prior authorization in writing, by the LOCAL AGENCY's Contract Manager shall be required before the CONSULTANT enters into any unbudgeted purchase order, or subcontract exceeding $5,000 for supplies, equipment, or CONSULTANT services. The CONSULTANT shall provide an evaluation of the necessity or desirability of incurring such costs.

B. For purchase of any item, service or consulting work not covered in the CONSULTANT's Cost Proposal and exceeding $5,000 prior authorization by the LOCAL AGENCY's Contract Manager; three competitive quotations must be submitted with the request, or the absence of bidding must be adequately justified.

C. Any equipment purchased as a result of this contract is subject to the following: "The CONSULTANT shall maintain an inventory of all nonexpendable property. Nonexpendable property is defined as having a useful life of at least two years and an acquisition cost of $5,000 or more. If the purchased equipment needs replacement and is sold or traded in, the LOCAL AGENCY shall receive a proper refund or credit at the

- The final design should be able to convey the base flood, Q100.
- The base flood (Q100) or overtopping flood, whichever is greater shall be used to evaluate the costs, risks and impacts associated with encroachments on the 100-year base flood plain.
- The minimum design flood for foundation analysis should be the base flood (Q100). Bridges with scourable beds should withstand the effects of the base flood (Q100) without failure. The top of pier footing should be placed at, or below the calculated total scour condition including anticipated lateral channel migration. Pile extensions and pile shafts should have sufficient embedment depth for the potential scour conditions.
- Consideration should be given to the long-term effects as to the bridge waterway adequacy. This is part of data to be collected and retained for FHWA's use per CFR Section 650.311. Specifically, this data is included in the Sufficiency Rating (see the *Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges*, published by FHWA), which is used in the HBP, as a basis for establishing eligibility and priority for replacement, and rehabilitation of bridges (CFR 650.409).

CULVERTS:

There are two primary design frequencies that should be considered in the design of drainage culverts. A culvert should convey:

- The ten percent (10%) probability flood or tide (Q10) without causing the headwater elevation to rise above the inlet top of culvert.
- The one percent (1%) probability flood (Q100) without damage to the facility or adjacent property.

OPEN CHANNELS/CONDUITS:

- Open channels/conduits should be designed according to the above bridge criteria with appropriate freeboard.

ROADSIDE DRAINAGE:

- The spacing of roadway inlets for pavement drainage vary with the desirable limits or water spread, which in turn depend on the type of facility, design storm frequency, traffic volume, design speed, and any local requirements. The recommended limits for water spread on various types of roadway facilities are provided in Chapters 800 to 890 of the *Caltrans Highway Design Manual*.

Additional information on the design of culverts including: hydrologic and hydraulic design considerations; height of fill limitations; protection from abrasion and corrosion; as well as, other economic, construction and maintenance considerations are included in the *Caltrans Highway Design Manual*.

Floodplain Encroachments

Proposed actions which encroach on a base floodplain or support incompatible flood-plain development must be evaluated in a location Hydraulic Study to assess impacts on natural and beneficial floodplain values in accordance with 23 CFR 650A. The location hydraulic study must provide the following information:

- A brief description of the project hydrology
- A description of the types of traffic
- Emergency access data, availability of detours, etc.
- Comments on constraints which influence selection of available alternatives
- The location of property at risk
- An estimate of potential damage to property at risk
- A discussion of the environmental impacts

A summary of the location hydraulic study shall be included in the environmental document. When there is a significant encroachment within the base floodplain, a finding that the project is the only practicable alternative (the local agency must assure the opportunity for early public involvement) shall be included in the final environmental "NEPA" document.

The Department will be responsible for floodplain studies and floodplain findings under the Pilot Program and Section 6004. For local assistance projects, the Summary Floodplain Encroachment Report and Floodplain Evaluation Report is to be filled out, signed by the local agency project engineer, and concurred by the DLAE. If a significant floodplain encroachmenet is identified as a result of floodplains studies, FHWA will need to approve the encroachment and concur in the Only Practicable Finding. See Chapter 17 of the SER for additional information regarding floodplains.

Encroachments within regulatory floodways are generally not permitted. Local agencies should consult the appropriate federal, state or local regulatory agency for more information.

The design selected for the encroachment must be supported by an analysis of design alternatives, with consideration given to capital costs, risks, and other economic, engineering, social, and environmental concerns. Refer to 23 CFR 650.117 for the required content of the design studies. Upon completion of the environmental process, a hydraulic design study is required as part of the final design process.

The above technical engineering reports shall be prepared by a registered Civil Engineer in the State of California. The reports shall bear the registration seal, signature, license number and registration certificate expiration date of the California Registered Professional Engineer responsible for preparing the report.

When there is a potential for extensive disruption of essential services or incurring losses due to implementation of the proposed action; a comprehensive risk and cost analysis may be advisable during the final design stage. If a risk/cost analysis is anticipated, it is recommended that the results of preliminary studies be reviewed with the FHWA to confirm the need for the analysis.

For additional information on analysis of encroachments onto a floodplain, refer to Chapter 17, "FloodPlains,"of the *Standard Environmental Reference* (SER) and at this web site: http://www.dot.ca.gov/ser/vol1/vol1.htm.

FEDERAL TRAINEE PROGRAM 12-36
ESTIMATES FOR FORCE ACCOUNT (DAY LABOR) 12-36

12.14 OPTIONAL BRIDGE REVIEW 12-37

12.15 PS&E CERTIFICATION 12-37
PS&E CHECKLIST 12-38
CHECKLIST REVIEW BY CALTRANS 12-38
SPECIAL PROVISIONS REVIEW BY CALTRANS 12-38
DLAE ACCEPTANCE OF THE CHECKLIST 12-39
SUBMITTAL OF PLANS, SPECIFICATIONS AND ESTIMATE (PS&E) 12-39
PROCESS REVIEW 12-39

12.16 PROJECTS WITHOUT TRADITIONAL PS&E 12-39

12.17 REFERENCES 12-40

EXHIBITS

EXHIBIT/DESCRIPTION — PAGE NUMBER

EXHIBIT 12-A PRELIMINARY ESTIMATE OF COST 12-41

EXHIBIT 12-B DELETED

EXHIBIT 12-C PS&E CERTIFICATION 12-45

EXHIBIT 12-D PS&E CHECKLIST 12-47

EXHIBIT 12-E PS&E CHECKLIST INSTRUCTIONS 12-57
ATTACHMENT A SECTION 14. FEDERAL REQUIREMENTS FOR FEDERAL-AID CONSTRUCTION PROJECTS 12-65
ATTACHMENT B REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS 12-67
ATTACHMENT C EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION 12-81
ATTACHMENT D NONCOLLUSION AFFIDAVIT 12-81
ATTACHMENT E DEBARMENT AND SUSPENSION CERTIFICATION 12-83
ATTACHMENT F NONLOBBYING CERTIFICATION FOR FEDERAL-AID CONTRACTS 12-85
ATTACHMENT G DISCLOSURE OF LOBBYING ACTIVITIES 12-87
ATTACHMENT H SECTION 2. PROPOSAL REQUIREMENTS AND CONDITIONS 12-91
ATTACHMENT I SECTION 3. AWARD AND EXECUTION OF CONTRACT 12-94
ATTACHMENT J SUBCONTRACTOR AND DBE RECORDS 12-99
ATTACHMENT K PERFORMANCE OF SUBCONTRACTORS 12-101
ATTACHMENT L SUBCONTRACTING 12-103
ATTACHMENT M BUY AMERICA REQUIREMENTS 12-105

EXHIBIT 12-F REQUEST FOR APPROVAL OF COST EFFECTIVENESS/PUBLIC INTEREST FINDING 12-109

EXHIBIT 12-G BIDDER'S LIST OF SUBCONTRACTORS (DBE AND NON-DBE) 12-111

The checklist has been designed to facilitate this review by providing space for the local agency to indicate the page number of the appropriate federal provisions. This review will help the local agencies become familiar with the use of the checklist and the corresponding federal contract provisions. It will not, however, relieve the local agency of responsibility for compliance with all federal requirements.

DLAE Acceptance of the Checklist

The DLAE will indicate acceptance of the checklist by checking the type of review (i.e. whether the checklist review included a review of the special provisions) and signing the form. The local agency's request for authorization for the construction phase of a project will not be forwarded to the Division of Local Assistance (DLA) for approval prior to acceptance by the DLAE.

Submittal of Plans, Specifications and Estimate (PS&E)

As a minimum, local agencies will submit the contract special provisions and the preliminary estimate with the PS&E Certification Letter. At the discretion of the DLAE, a set of plans will be also required. The plan requirement may be waived based on past experience with the agency and the number of federal-aid projects the agency has completed previously. As soon as the project is advertised, the local agency shall furnish the DLAE one copy of the "as advertised" plans and special provisions, or two copies if structures (bridges) are involved.

Process Review

Process reviews of a random sample of the local agency PS&E packages will be conducted as needed. The process reviews will be conducted on a "post audit" basis. Local agencies should be aware that if deficiencies are found during a process review, it may be too late to make corrections and the loss of all or a portion of the project federal funding will result.

12.16 Projects Without Traditional PS&E

Some projects, on or off the NHS, such as Congestion Mitigation and Air Quality (CMAQ) and Transportation Enhancement (TE) may consist of studies and other nonconstruction type projects. Examples include: Traffic Demand Management (TDM) studies relating to regional air quality, ride sharing, commuter incentives and commuter computer centers.

These projects will not have a set of plans or PS&E, but may only consist of a consultant contract agreement. The local agency shall submit a request for authorization to proceed in the same manner as Non-Infrastructure Projects discussed in Chapter 3 of the LAPM.

If the project is part of a regional study conducted by a Metropolitan Planning Organization (MPO), then the local federal-aid portion of the work plan must be segregated to show the project costs associated with each local agency.

12.17 REFERENCES

The Civil Rights Act of 1964
STAA Section 165
23 USC 106(b)(2)
23 USC 112
23 USC 113
23 USC 114
23 USC 140
23 USC 140(b)
23 USC 313
23 USC 315
23 USC 324
25 USC 472a
40 USC 276 (a) Davis-Bacon & (c) Copeland Act
40 USC 333
23 CFR 200
23 CFR 230
23 CFR 230 A&D
23 CFR 230.111
23 CFR 635.410
23 CFR 627.5
23 CFR 630.1010(a)(2)
23 CFR 633
23 CFR 635.410
23 CFR 771.113
25 CFR 170
28 CFR 35
29 CFR 1,3,5
29 CFR 1630
29 CFR 1926
41 CFR 60
48 CFR 31
49 CFR 1.48
49 CFR 20
49 CFR 21
49 CFR 26
Section 6730-6749 California Business and Professions Code

Presidential Executive Order 13202 "Preservation of Open Competition and Government Neutrality Towards Government Contractors' Labor Relations on Federal and Federally Funded Construction Projects" dated February 17, 2001 (Federal Register: February 22, 2001; Volume 66, Number 36, Presidential Documents, Pages 11225-11226)

Presidential Executive Order 13208 "Amendment to Executive Order 13202 Preservation of Open Competition and Government Neutrality Towards Government Contractors' Labor Relations on Federal and Federally Funded Construction Projects," dated April 6, 2001 (Federal Register: April 11, 2001; Volume 66, Number 71, Presidential Documents, Pages 18717-18718)

Caltrans Memorandum to "All District Directors" dated June 12, 2000; Subject: Delegation of Authority for Use of A+B Bidding and Incentive/Disincentive (I/D) Provisions

Joint Stewardship and Oversight Agreement between FHWA and Caltrans, http://www.dot.ca.gov/hq/oppd/stewardship/

SAFETEA-LU Web site: http://www.fhwa.dot.gov/safetealu/index.htm

http://www.dot.ca.gov/hq/LocalPrograms/lam/prog_p/p09crdbe.pdf

http://www.dot.ca.gov/hq/LocalPrograms/public.htm

http://www.ada.gov/stdspdf.htm

http://www.access.gpo.gov/nara/cfr/waisidx_04/28cfr35_04.html

This page intentionally left blank

This page intentionally left blank

EXHIBIT 12-F REQUEST FOR APPROVAL OF COST EFFECTIVENESS/PUBLIC INTEREST FINDING

U.S DEPARTMENT OF TRANSPORTATION	FEDERAL HIGHWAY ADMINISTRATION	CALIFORNIA DEPARTMENT OF TRANSPORTATION

REQUEST FOR APPROVAL OF COST-EFFECTIVENESS/PUBLIC INTEREST FINDING

COST-EFFECTIVENESS DETERMININATION REQUIRED	PUBLIC INTEREST DETERMININATION REQUIRED
☐ Use of force account (23 CFR 635.204, 205)* ☐ Use of publicly owned equipment (23 CFR 635.106) ☐ Other: _____	☐ Use of non-competitive negotiated consultant contracts (23 CFR 172.5)* ☐ Use of publicly furnished materials (23 CFR 635.407) ☐ Use of proprietary products and processes (23 CFR 635.411) ☐ Use of contracting method other than competitive bidding (23 CFR 635.104/204)* ☐ Use of mandatory borrow/disposal sites (23 CFR 635.407) ☐ Advertising period less than 3 weeks (23 CFR 635.112)* ☐ Waiver of Buy America Requirements (23 CFR 635.410)** ☐ Other: _____ *** Requires Caltrans District approval** **** Requires FHWA approval**

FEDERAL-AID PROJECT	CLASS OF FEDERAL FUNDS: ☐ IM ☐ NH ☐ STP ☐ OTHER:
	STEWARDSHIP: ☐ DELEGATED ☐ HIGH PROFILE

EA	DIST-CO-RTE- PM	ESTIMATED COST	FEDERAL FUNDS

GENERAL LOCATION	GENERAL DESCRIPTION OF WORK:

REASONS THAT REQUESTED APPROVAL IS CONSIDERED TO BE COST-EFFECTIVE OR IN THE PUBLIC'S BEST INTEREST (STATE):

REMARKS (STATE) :

PREPARED/APPROVED BY LOCAL AGENCY'S REPRESENTATIVE	REPRESENTATIVE NAME AND TITLE:	Date:
*APPROVED BY DISTRICT LOCAL ASSISTANCE ENGINEER (DLAE)	DLAE NAME:	Date:
**APPROVED BY FHWA (Buy America Waiver only)	FHWA REPRESENTATIVE NAME:	Date:

Distribution: 1) Local Agency File –Original 2) DLAE –Copy 3) Caltrans Project Manager -Copy if on the SHS

INSTRUCTIONS

1. Check appropriate box under "Cost-Effective Determination Required" or "Public Interest Determination Required."
2. Check "Class of Funds" as follows: IM-Interstate Maintenance, NH-National Highway, STP-State Transportation Program, Other (all other classes).
3. Provide the Federal-aid Project EA number in first column.
4. Identify Caltrans District-County-State Route-Post Mile, or City and street in second column.
5. List Estimated Cost of the portion of the project subject to this PIF.
6. List the amount of the Federal Funds in the portion of the project subject to this PIF.
7. Describe "General Location" applicable to this PIF.
8. Provide "General Description of Work" affected by this PIF.
9. Explain and give "Reasons that requested approval is considered to be cost-effective, or in the public's best interest." Provide cost analysis or comparison as evidence of cost-effectiveness.
10. "Remarks" is for the Local Agency Representative preparing the Finding.
11. Signature, Name, and Title of Local Agency Representative preparing or approving PIF, as appropriate, and Date.
12. Signature and Name of District Local Assistance Engineer approving the PIF, as required, and Date.
13. Signature and Name of FHWA representative approving the PIF for Buy America waivers, and Date.

qualifications, the size of their staff and their ability to perform the technical work, and subsequent reviews. Caltrans District Right of Way staff conducts a qualification review to determine if the local agency is adequately staffed, organized, and has the necessary expertise to perform right of way work properly and timely. The agency must agree to conform to Department's policies and procedures in order to meet state and federal requirements. The review is necessary before the local agency can begin right of way work on a federal-aid project.

To become qualified, the local agency must first contact the **District Right of Way Local Programs Coordinator,** requesting approval of qualification status. The Coordinator will then meet with the local agency's Right of Way/Real Property Department to explain state and federal requirements and what must be done to become qualified. The Coordinator will request copies of organizational charts, staff resumes and duty statements, and will see that the agency has all needed material: the Caltrans *Right of Way Manual*, any necessary policy and procedure memo, and current copies of Titles 23 and 49 of the Code of Federal Regulations. The manuals shall be in sufficient detail to adequately describe operational procedures for the functional areas to be certified so as to provide adequate instructions to Right of Way/Real Property employees on how to perform their assigned duties.

QUALIFICATION LEVELS

The local agency may have experienced staff but not in sufficient number to be qualified for every right of way function. The following levels of qualification can be obtained with prior Department's Region/District approval:

Level 1: Staff is qualified to do technical work in one or more specific functional areas. These areas will be shown in the qualification approval. As an example, some smaller rural agencies have sought approval to perform only appraisal or acquisition functions.

Level 2: Staff is qualified to do technical work in more than one functional area, but not in all. There is sufficient staff available to perform these functions on more than one project at a time.

Level 3: Staff is large enough and qualified to do technical work in all functional areas.

QUALIFICATION TERM

Level 1, 2 & 3 approvals are good for three years and require a review at the end of that time.

Please see the Local Programs Chapter 17, "*Caltrans Right of Way Manual*" for additional information on Local Agency Qualifications.

CALTRANS AUDITS OFFICE

Caltrans Audits and Investigations Office will help evaluate a local agency before the agency is approved for qualification. This audit evaluation will determine if the local agency's cost accumulation, accounting procedures and billing processes are compatible with Caltran's fiscal system, and ensure an awareness of federal reimbursement requirements where necessary. Follow-up reviews will be made necessary to ensure compliance is maintained. When District Right of Way Local Programs Coordinator receives a request from a local agency for prequalification, the Coordinator should notify the Division of Right of Way Local Programs Branch in writing and request Audits and Investigations Office to perform the audit evaluation.

WITHDRAWAL OF QUALIFICATION

It is important to note that the qualification status can be withdrawn if deficiencies are found and not corrected, or if the staffing and experience levels change, so that the local agency can no longer meet the minimum requirements. At the time each agency is notified of its qualification level, the agency is told to inform Caltrans if there are any major personnel changes, which would impact its ability to perform the respective right of way functions.

APPRAISAL REVIEW QUALIFICATION

On federal-aid projects, a formal review of the appraisal is necessary in order to establish the Fair Market Value for the property (see 49 CFR 24.104). A consultant review appraiser must have a valid general license issued by the State Office of Real Estate Appraisers (OREA). The review appraiser must determine that the appraisal meets applicable appraisal requirements and shall prior to acceptance, seek necessary corrections or revisions. If the review appraiser is unable to approve or recommend approval of the appraisal, the reviewer may develop additional documentation in accordance with Sec. 24.103 to support an approved or recommended value. The reviewer must state the basis for the value conclusion.

If the local agency receives a qualification status, Level 1 or 2 without having the staff or means to perform the appraisal review function, the local agency shall hire either a qualified licensed consultant (see below, "Local Agency Selection of Consultants"), **or** another local agency qualified to perform the appraisal review function. Note: Only the local agency can determine the just compensation to be paid. Another agency or consultant cannot do so.

NON-QUALIFIED LOCAL AGENCIES--OPTIONS

Local agencies that are not qualified to perform any or all of the respective right of way functions necessary for the project must either hire another local agency which is qualified to perform those functions, or directly hire a consultant(s) who meets the consultant selection criteria discussed below.

In summary, non-qualified local agencies have the following choices in hiring consultants:

- Contract with a qualified local agency.
- Contract with a private consultant(s) to perform one or more right of way specialties: Appraisals, Appraisal Review Acquisitions, Relocation Assistance, etc.
- Contract with a Right of Way Project Management consultant.
- Utilize a mixture of local agency staff and the resources available as mentioned in the first two items above.
- Contract with a "Turnkey" consultant who can perform all Right of Way functions.

Note**:** It is the local agency's responsibility to verify that the consultants have the necessary Certificates/Licenses to perform the right of way functions needed for the local agency's project.

Each local agency and all of its contractors, subcontractors, and vendors shall take all reasonable steps to assure that DBEs have equitable opportunity to compete for and perform contracts (see Chapter 9, "Civil Rights and Disadvantaged Business Enterprises").

WARNING:
No project shall be advertised for bids, nor shall any project work (by contract or other than contract) be undertaken, and no materials shall be purchased on any federal-aid project, prior to issuance of "Authorization to Proceed" by FHWA. Violation of this requirement shall result in the project being ineligible for federal funding.

Only one exception to this requirement can be made. It is for emergency relief projects involving emergency repair/opening of a facility. For more information on emergency relief projects see the *Local Assistance Program Guidelines*, Chapter 11, "Disaster Assistance".

Advertising costs shall be charged to the preliminary engineering work authorization if such authorization has been requested and has been established for the purpose of federal reimbursement.

PROCEDURES

Prior to project advertisement, the administering agency shall certify that their final PS&E package complies with all applicable federal and state regulations and procedures (see Exhibit 12-C "PS&E Certification"). Local agencies should also complete and retain the "Local Agency Project Advertising Checklist" (Exhibit 15-C) in the project files prior to requesting an Authorization to Proceed. All administering agencies must submit a completed "Request for Authorization" with the PS&E Certification before they can receive verification that construction has been authorized by Caltrans.

Upon receipt of "Authorization to Proceed" for construction by Caltrans, the local agency can proceed to advertise the project.

During the advertising period, the administering agency shall notify all prospective bidders of PS&E addenda in the same manner as all other nonfederal-aid projects. For award of federal-aid contracts, the local agency is required to certify that all bidders certify receipt of all addenda. The administering agency shall ensure free and open competition. The advertisement period is determined by the administering agency. A minimum advertisement period of three weeks is required for all federal-aid projects. Caltrans District Local Assistance Engineer may approve shorter periods in special cases where justified with a local agency Public Interest Finding (LAPM Exhibit 12-F). The advertising period begins with publication of a "Notice to Contractors" in a newspaper receiving wide local circulation. The Notice shall identify the DBE project availability advisory. The administering agency is responsible to approve and issue all addenda to the PS&E during the advertising period.

The local agency shall assure that all updated estimates are fundable from available local or federal resources.

As soon as the project is advertised, the local agency shall furnish the DLAE with one copy of the "as advertised" plans and special provisions or two copies if structures (bridges) are involved.

15.5 CONTRACT BID OPENING

INTRODUCTION

The contract bid opening is a public forum for the announcement of all bids, and is that point in time where the bids are opened and read aloud. It is also the last moment that bids can be accepted. No bids can be accepted during or after bids are opened. Normally the advertisement/bid documents will state a final time in which bids can be accepted. For the bidder, the reading of the bids confirms whether his bid is successful. For the local agency and the general public, this forum establishes the cost to build the project. The bid opening requirements as outlined below apply to all federal-aid highway construction projects.

REQUIREMENTS

FHWA policy requires all bids to be opened publicly and read aloud either item-by-item or by total amount. If a bid is not read, the bidder is to be identified and the reason for not reading the bid announced.

Reasons for not reading a bid include the bid itself being nonresponsive, often called "irregular" or the bidder is determined to be unreliable. Responsive bid and responsible bidder are defined as:

A Responsive bid is one that meets all the requirements of the advertisement and proposal, while

A Responsible bidder is one who is physically organized and equipped with the financial ability to undertake and complete the contract.

Some reasons for not reading a bid due to bidding irregularities include:

- Failure to sign the bid
- Failure to furnish the required bid bond
- Failure to include a unit bid price for each item
- Failure to include a total amount for the bid
- Failure to prepare the bid in ink
- Failure to submit a completed addenda certification statement
- Failure to submit a noncollusion affidavit
- Failure to commit to the achievement of the UDBE contract goals or demonstrate good faith efforts to do so
- Inclusion of conditions or qualifications not provided for in the specifications
- Submission of a materially unbalanced bid

The above examples do not include all possible bidding irregularities. The local agency's standard specifications govern regarding what constitutes a bidding irregularity. Accordingly, the local agency's bidding documents should clearly identify those requirements with which the bidder must comply to make the bid responsive.

EXHIBIT 15-G2 LOCAL AGENCY BIDDER DBE INFORMATION (CONSTRUCTION CONTRACTS)

(Inclusive of all DBEs including the UDBEs listed at bid proposal)

NOTE: PLEASE REFER TO INSTRUCTIONS ON THE REVERSE SIDE OF THIS FORM

LOCAL AGENCY: _____ LOCATION: _____

PROJECT DESCRIPTION: _____

TOTAL CONTRACT AMOUNT: $_____

BID DATE: _____

BIDDER'S NAME: _____

CONTRACT UDBE GOAL: _____

CONTRACT ITEM NO.	ITEM OF WORK AND DESCRIPTION OR SERVICES TO BE SUBCONTRACTED OR MATERIALS TO BE PROVIDED (or contracted if the bidder is a DBE)	DBE CERT NO. AND EXPIRATION DATE	NAME OF EACH DBE (Must be certified on the date bids are opened - include DBE address and phone number)	DOLLAR AMOUNT DBE

For Local Agency to Complete:

Local Agency Contract Number: _____

Federal-aid Project Number: _____

Federal Share: _____

Contract Award Date: _____

Local Agency certifies that all DBE certification have been verified and Information is complete and accurate.

_____ _____ _____
Print Name Signature Date
Local Agency Representative

(Area Code) Telephone Number: _____

Total Claimed DBE Participation $_____

_____%

_____
Signature of Bidder

_____
Date (Area Code) Tel. No.

_____
Person to Contact (Please Type or Print)

For Caltrans Review:

_____ _____ _____
Print Name Signature Date
Caltrans District Local Assistance Engineer

Local Agency Bidder DBE Information (Construction Contarcts)
(Rev 6/26/09)

Distribution: (1) Copy – Fax or scan a copy to the Caltrans District Local Assistance Engineer (DLAE) within 15 days of contract execution. Failure to send a copy to the DLAE within 15 days of contract execution may result in de-obligation of funds for this project.
(2) Copy – Include in award package to Caltrans District Local Assistance
(3) Original – Local agency files

INSTRUCTIONS - LOCAL AGENCY BIDDER DBE INFORMATION (CONSTRUCTION CONTRACTS)

SUCCESSFUL BIDDER:

The form requires specific information regarding the construction contract: Local Agency, Location, Project Description, Total Contract Amount, Bid Date, Bidder's Name, and Contract UDBE Goal.

The form has a column for the Contract Item Number and Item of Work and Description or Services to be Subcontracted or Materials to be provided by DBEs. Prime contractors shall indicate all work to be performed by DBEs including work performed by its own forces, if a DBE.The DBE shall provide a certification number to the Contractor and expiration date. Enter DBE prime and subcontractors certification number. The DBE contractors should notify the Contractor in writing with the date of the decertification if their status should change during the course of the contract. The form has a column for the Names of DBE certified contractors to perform the work (must be certified on the date bids are opened and include DBE address and phone number.

IMPORTANT: Identify **all** DBE firms participating in the project--including all UDBEs listed on the UDBE Commitment form (Exhibit 15-G1), regardless of tier. Names of the First-Tier DBE subcontractors and their respective item(s) of work listed should be consistent, where applicable, with the names and items of work in the "List of Subcontractors" submitted with your bid.

There is a column for the DBE participation dollar amount. Enter the Total Claimed DBE Participation dollars and percentage amount of items of work submitted with your bid pursuant to the Special Provisions. (If 100% of item is not to be performed or furnished by the DBE, describe exact portion of time to be performed or furnished by the DBE.) See Section "Disadvantaged Business Enterprise (DBE)," of the Special Provisions (construction contracts) to determine how to count the participation of DBE firms.

Exhibit 15-G2 must be signed and dated by the successful bidder. Also list a phone number in the space provided and print the name of the person to contact.

Local agencies should complete the Local Agency Contract Number, Federal-aid Project Number, Federal Share, Contract Award Date fields and verify that all information is complete and accurate before signing and sending a copy of the form to the District Local Assistance Engineer within 15 days of contract execution. Failure to submit a completed and accurate form within the 15-day time period may result in the de-obligation of funds on this project.

District DBE Coordinator should verify that all informations is complete and accurate. Once the information has been verified, the **District Local Assistance Engineer** signs and dates the form.

NON -NHS PROJECTS

For federal-aid projects off the National Highway System, local agencies may adopt their own Quality Assurance Program used for transportation projects not utilizing federal-aid funds, or adopt the Caltrans QAP described in this section. Caltrans will not process a Request for Authorization for Construction without verification of an adopted QAP.

For local agencies that adopt the Caltrans QAP procedures the following shall apply:

- Caltrans will certify the local agency's (or their consultants') laboratory or acceptance testers if Caltrans test methods are used.
- If the local agency's QAP does not include Caltrans test methods, Caltrans will not conduct the testing unless the local agency is also administering a project on the NHS or State Highway System at the same time. The local agency shall either conduct the testing or contract out with a consultant that meets local agency requirements.
- Acceptance of manufactured and prefabricated structural materials shall be based on either a Certificate of Compliance and/or source inspection by the local agency or a qualified consultant. If the administering agency cannot perform the source inspection and qualified consultants are not available, the agency may request that Caltrans conduct the inspections on a reimbursed basis (see "Source Inspection" in this chapter for details on requesting Caltrans' services).

For local agencies that do not adopt Caltrans QAP, they shall develop their own QAP that includes as a minimum:

- Acceptance Testing - procedures for regular testing of materials entering a construction project to verify that the materials, or products, comply with contract specifications or standards
- Independent Assurance Sampling and Testing - procedures to verify that acceptance testing is being performed correctly by:
    a) Verifying that equipment used for acceptance testing is properly calibrated and in good working condition.
    b) Witnessing sampling and testing by the Acceptance Tester.
    c) Splitting material samples and comparing the test results between the Acceptance Tester and Independent Assurance Sampler and Tester.
- Testing of Manufactured Materials - procedures for inspecting, accepting and testing of manufactures and prefabricated materials either by source inspection, job site inspection, or certificate of compliance

  Whatever QAP the local agency chooses for projects off the NHS, the program decided upon shall be documented and approved by the Public Works Director. A non-registered Public Works Director must delegate the approval to the City/County Engineer if such individual is appropriately registered. If the City/County Engineer is not registered, the delegation can be made to the highest level engineer in the agency who is. Copies of the approved quality assurance program shall be kept on file and available for State review.

If the local agency chooses to use the Caltrans test methods, Caltrans METS will perform the IAST if requested. Otherwise, it is the local agency's responsibility to perform IAST with its own staff, or hire a consultant determined qualified by the local agency.

NHS PROJECTS

It is Caltrans' responsibility to have a Quality Assurance Program (QAP) for use on both State highway and local street and road federal-aid construction projects. The QAP described in this section meets the requirements of the Federal Highway Administration (FHWA) for local agency projects. **Local agencies must follow the QAP procedures described in this section for all projects on the NHS.**

The Caltrans QAP requires IAST as a check on the reliability of sampling and testing performed during acceptance testing. The independent assurance sampling and testing is not to be used for determining quality and acceptability of material incorporated into the job. Such tests are used only for the purpose of determining the reliability of testing personnel, procedures used, and calibration of testing equipment. When the local agency elects to use ASTM test methods, it is Caltrans' responsibility to perform necessary IAST with its own ASTM proficient staff and equipment, or hire a qualified consultant to perform the ASTM IAST.

GENERAL PROCEDURES

Local projects covered by a cooperative agreement may be administered by the State. All material sampling and testing required for State-administered cooperative projects is performed as described in Chapter 6 of the Caltrans *Construction Manual* and the *Quality Assurance Program Manual*. Local projects typically are administered by the local agency. Materials sampling and testing for these projects must use the procedures described in this manual.

NHS PROJECTS

Correlation Testing Program

Testing and inspection of materials that cannot be adequately performed by the awarding local agency must be arranged for in advance of advertising a project. Testing options are permitted provided the laboratory utilized is a participant in a correlation testing program approved by the Caltrans Office of Materials Engineering and Testing Services. Three correlation testing programs approved by Caltrans are:

- The AASHTO Materials Reference Laboratory (AMRL)
- Cement and Concrete Reference Laboratory (CCRL)
- Caltrans' own Reference Samples Program (RSP)

These correlation testing programs conform to the FHWA requirement that each State Transportation Agency must participate in an approved laboratory inspection and comparative sample testing program. All laboratories which use Caltrans' test methods must participate in the Caltrans Reference Sample Program. Those laboratories which do not use Caltrans' test methods may participate in the AMRL and CCRL programs to fulfill correlation testing program requirements.

calibration tables for each device shall be used for all State and federally-funded contracts on the NHS. All nuclear gage compaction tests conducted without Caltrans' calibration tables shall be reported "Unacceptable" by Caltrans' IAST personnel.

Upon proper calibration, a decal shall be firmly affixed to each piece of calibrated equipment. Decal type and required information are specified on page 63 Appendix B of the *Quality Assurance Program Manual*. A manufacturer's or service contractor's decal is acceptable as long as the above-required information is readily available.

Should such decal become unreadable or lost, then the equipment is to be re-calibrated as soon as possible. Where such equipment either requires repair or cannot be repaired, a timely repair or replacement shall be secured.

The Caltrans Office of Materials Engineering and Testing Services, local agency, private contractor and sub-contractor laboratories shall participate in one or all of the following;

- The AASHTO Materials Reference Laboratory (AMRL),
- The Cement and Concrete Reference Laboratory (CCRL) inspection programs,
- The Caltrans Reference Sample Program

All laboratories shall maintain their laboratory testing equipment in accordance with recognized national calibration standards.

Local agencies that have their own laboratories may participate in Caltrans' RSP. The local agencies are furnished reference samples of road construction materials upon which they shall perform specific tests (California Test Methods). The results of such tests shall be submitted to the Office of Materials Engineering and Testing Services for analysis and evaluation. Test results which have poor correlation shall be repeated using new material. The District Materials Engineer shall be assigned follow-up responsibilities regarding retesting of reference samples by participating laboratories.

Notification of Equipment Calibration

Whenever a local agency wishes a Caltrans laboratory to perform equipment calibration, the local agency and/or the Caltrans District Local Assistance Engineer (DLAE) must furnish the following to the appropriate Caltrans District Materials Engineer:

- A letter requesting required testing services (letter should note if ASTM test methods shall be used in lieu of the California Test Methods (CTM))

- Specific instructions on how the agency is to be billed

- A Engineering Authorization number provided by the Caltrans DLAE

An advance deposit (procedures and amounts of advance deposits vary by Caltrans Districts) is required to cover the cost of calibration done by Caltrans. All such requests shall be made through the appropriate Caltrans DLAE.

Manufactured and Assembled Materials

A local agency may permit the use of certain manufactured products, materials or assemblies accompanied by a Certificate of Compliance prior to sampling and testing,

provided these products, materials or assemblies do not involve structural integrity or safety to the public. Additionally, these items must have a history of having met specifications based upon previous sampling and testing. The manufacturer of the products, materials or assemblies shall sign the Certificate of Compliance and state that the included materials and workmanship conform in all respects to the project specifications for the material.

Certificate of Compliance

Acceptance of manufactured and prefabricated structural materials shall be based on either a Certificate of Compliance and/or source inspection by the local agency, qualified consultant or Caltrans (see "Source Inspection" in this chapter).

The contract documents should specify which materials require a Certificate of Compliance. For such specified materials the Resident Engineer is responsible for insuring that a Certificate of Compliance is furnished with each lot of these materials delivered to the work site. The certified material lot number and project number shall be clearly identified on the certificate and on lot tags affixed or stenciled to the released materials. All materials accepted on the basis of a signed Certificate of Compliance shall be referenced by project inspectors to daily inspection reports and laboratory releases. Certified materials such as Portland Cement and Asphalt products shall be sampled for testing as indicated in the "Size, Frequency and Location of Sampling and Testing Tables" (Exhibit 16-R) (hereinafter referred to as "Frequency Tables").

Manufactured products, materials or assemblies used on the basis of a Certificate of Compliance may be sampled again at the job site and tested at any time during the life of the contract. Items found later not in conformance with contract requirements shall be subject to rejection whether in place or not. The form and distribution of Certificates of Compliance shall be acceptable to the DLAE. A Certificate of Compliance for each item shall be kept in the Resident Engineer's file. Exhibit 16-T is a listing of materials typically accepted by a Certificate of Compliance for projects advertised using Caltrans Standard Specifications - 1995 edition.

NON-NHS PROJECTS

For federal-aid projects off the National Highway System, the local agency may develop its own procedures for certification of personnel performing acceptance testing. Caltrans will certify acceptance testers if Caltrans test methods are used and if requested by the local agency.

TYPES OF SAMPLING AND TESTING

PRELIMINARY SAMPLES AND TESTS

Preliminary Tests are tests prior to award of a contract. Construction personnel rarely sample for Preliminary Tests. Such tests are for design purposes or to provide data for the "Materials Information" package for prospective bidders.

Samples and tests on potential sources sampled after award of the contract are typically called "Initial Samples and Tests," or "Process Control Samples and Tests." Normally, these samples and tests are performed on material proposed for use in the work by the contractor. The purpose of these tests is to:

- Determine the ability of a material or product to meet specifications; or

(b) Federal funds will participate in contract claim awards to the extent that any contract adjustments made are supported, and have a basis in terms of the contract and applicable state law, as fairly construed. Further, the basis for the adjustment and contractor compensation shall be in accord with prevailing principles of public contract law.

(c) Federal funds can participate in interest associated with a claim if three conditions are met:

- The interest must be allowable by statute or specification
- The interest is not the result of delays caused by dilatory action of the local agency or contractor
- The interest rate does not exceed the rates provided for by statute or specification

(d) Acts of local agency employees involved in contract administration and contract plan preparation matters, which subsequently give rise to claims are reimbursable to the extent the actions are reasonable and within the standards of the profession. Federal funds will not participate if it has been determined that local agency employees, officers, or agents acted with gross negligence, or participated in intentional acts or omissions, fraud, or other acts not consistent with usual local agency practices in project design plan preparation or contract administration.

(e) Federal funds will not participate in such cost items as consequential or punitive damages, anticipated profit, or any award or payment of attorney's fees paid by a local agency to an opposing party in litigation; and in tort, inverse condemnation, or other claims erroneously styled as claims "under a contract."

(f) In those cases where the local agency receives an adverse decision in an amount more than the local agency can support prior to the decision or settles a claim in an amount more than the local agency can support; the contract claim award is eligible for federal-aid participation up to the appropriate federal matching share, to the extent that it involves a federal-aid participating portion of the contract, provided that:

- The DLAE was consulted and concurred in the proposed course of action
- All appropriate courses of action had been considered
- The local agency pursed the case diligently and in a professional manner

ADDITIONAL FUNDS

If contract claim defense and or award costs will exceed the amount of federal funds authorized for the project, the local agency should contact the DLAE for assistance. For regionally programmed federal-aid funds (RSTP, CMAQ, etc.) the RTPA or MPO must be involved in authorizing additional funds. For state discretionary funds, the DLA will make the determination. Many of these programs may also require CTC approval for the additional funds. Caltrans *Local Assistance Program Guidelines* (LAPG) should be consulted for procedures for obtaining funding from the various local assistance funding programs.

Generally, the local agency must take action to settle the claims that are deemed to have merit first, and then initiate the request for the additional funds. However, if estimated claim defense costs alone will exceed available funds, approval for the additional claim defense costs may be obtained in advance, depending on the funding program. If approval is received, the DLAE will initiate authorization of the

additional federal funds upon receipt of a "Request for Authorization," and copies of a revised finance letter and detail estimate. It is important to note that while additional funds may be authorized and obligated, reimbursement of costs is still subject to the standards described in this manual.

Upon resolution of all contract claims, if additional federal funding is required, the DLAE will review the documentation and recommend the appropriate action depending on program constraints and the circumstances of the claim settlement. The adequacy of the local agency's project supervision and inspection, including the keeping of proper records, will be considered in this determination.

INVOICES

Claim defense costs are considered construction engineering if incurred before the final invoice and should be included in progress billing invoices prepared and submitted directly to Caltrans, Accounting Service Center (ASC) in Sacramento (see Chapter 5, *Accounting/Invoices*). These will be reviewed by the ASC and paid up to the limits of the project authorization.

Contract claim awards are billed as construction contract costs. These costs are usually not known until the final invoice is prepared. Claims awards costs are included in the Final Invoice, Final Detail Estimate, and reported on the CCO Summary. These documents are included in the mandatory Report of Expenditures submitted to the DLAE (see Chapter 17, *Project Completion*). Documentation of approvals from the appropriate fund manager for additional funds, if required, shall also be included in the Report of Expenditures.

Upon receipt of the Report of Expenditures, the DLAE will accept the local agency certification regarding the accuracy of the reported costs and approve payment after verifying the project was completed in accordance with the scope described in the project authorization.

DOCUMENTATION

The local agency shall document the determination of participation by setting forth in writing the legal and contractual basis for the claim, together with the cost data and other facts supporting the award or settlement. Federal-aid participation shall be supported by an audit of the contractor's actual costs unless; (1) the costs can be substantiated with project records; or (2) the audit would not be cost effective. Where difficult, complex, or novel legal issues appear in the claim, such that evaluation of legal controversies is critical to consideration of the award or settlement; the local agency shall include in its documentation a legal opinion from its counsel setting forth the basis for determining the extent of the liability under local law, with a level of detail commensurate with the magnitude and complexity of the issues involved.

All contract records must be retained by the local agency for a minimum period of three years from the date of final payment.

RECOVERY OF COMPENSATORY DAMAGES

In cases where local agencies affirmatively recover compensatory damages through contract claims, cross-claims, or counter claims from contractors, subcontractors, or their agents on projects on which there was federal-aid participation, the federal share of such recovery shall be equivalent to the federal share of the project or projects

involved. Such recovery shall be credited to the project or projects from which the claim or claims arose.

16.16 TRAFFIC SAFETY IN HIGHWAY AND STREET WORK ZONES

INTRODUCTION

The purpose of this section is to provide guidance and to establish procedures to ensure that adequate consideration is made for traffic safety in highway and street work zones, regarding motorists, pedestrians and construction workers on all federal-aid construction projects.

PROCEDURES

Each local agency shall develop and implement procedures consistent with the requirements of this section and Chapter 12, "PS&E," Section 12.6, "Plans," that shall contribute to the safety of motorists, pedestrians and construction workers on all federal-aid highway construction projects.

For each construction project, the local agency's procedures shall include, but not be limited to the following:

- Traffic Control Plan (TCP)

  1) A traffic control plan is a plan for handling traffic through a specific highway or street work zone or project. TCPs may range in scope from a very detailed plan designed solely for a specific project, to a reference to standard plans, or various manuals. The degree of detail in the TCP shall depend on the project complexity and traffic interference with construction activity.

  2) Traffic control plans shall be developed for all federal-aid projects and included in the plans, specifications and estimates (PS&Es).

  3) The scope of the TCP should be determined during the planning and design phases of a project.

  4) Provisions may be made to permit contractors to develop their own TCPs and use them if the local agency find that these plans are as good or better than those provided in the PS&E.

- Responsible Person

  The local agency shall designate a qualified person at the project level who shall have the primary responsibility and sufficient authority for assuring that the TCP and other safety aspects of the contract are effectively administered. While the project or resident engineer may have this responsibility, on large complex projects another person should be assigned at the project level to handle traffic control on a full-time basis. The person's name should be included in the "Resident Engineer Contract Administration Checklist" (see Chapter 15, Exhibit 15-B) if the resident engineer is not given this responsibility.

- Training

  All persons responsible for the development, design, implementation and inspection of traffic control shall be adequately trained.

- Accident Analysis

Local agencies should analyze construction and maintenance work site accidents for the purpose of correcting deficiencies which are found to exist on individual projects and to improve the content of future traffic control plans.

- Pay Items
  The method of payment for traffic control items should be described in the project specifications.

16.17 CONSTRUCTION ENGINEERING REVIEW BY THE STATE

On State administered projects the procedures outlined in the Caltrans *Construction Manual* shall be followed. On locally-administered projects the construction engineering of "Locally Administered" projects shall be reviewed as outlined in the "*Oversight and Process Reviews*," Chapter 19. When structure (bridge) work is involved, the process review team shall include a representative from the Caltrans Engineering Service Center, Office of Structure Construction.

As part of the process review, a Caltrans review team will annually review randomly selected local agency projects throughout the State for assessing the effectiveness of their traffic control procedures. The results of this process review will be forwarded to the FHWA Division Administrator.

A final inspection of the work shall be made by the local agency. This inspection shall be prior to final completion and acceptance by the local agency and before project verification by Caltrans DLAE. For details on final inspection see Chapter 17, Section 17.3, "Final Inspection Procedures for federal-aid Projects."

16.18 REFERENCES

18 USC 1020
23 CFR
29 CFR 5.7(b)
41 CFR 60
48 CFR Part 31 (provisions for contractor furnished equipment)
49 CFR
US DOT, FHWA, 1997 *Contract Administration Core Curriculum*
FHWA Technical Advisory, *Construction Contract Time Determination Procedures*, T 5080.15 - 10/11/91
California Department of Transportation Standard Specifications
California Public Contract Code Chapter 4
49 CFR part 23
Form FHWA 1273 Contract Provisions
State of California DOT, *Quality Assurance Program Manual* for use by Local Agencies, December 2008
Caltrans *Construction Manual*
California Division of Industrial Safety - *Construction Safety Orders*
"An informational Guide on Occupational Safety" 1972 AASHTO publication
California Public Records Act (Government Code Section 6253)
California Information Practices Act (Civil Code Sections 1798, et seq.)
Federal Aid Programming Guide (NS 23 CFR 635A) (Materials and right of way delays)
Technical Advisories (TA): T 4540.1 Equipment Rental Rates

CALIFORNIA DEPARTMENT OF TRANSPORTATION

CERTIFICATE OF PROFICIENCY

In the Sampling and Testing of Construction Materials

This certifies that

_____

is qualified to perform the following tests:

CALIFORNIA TEST	DATE CERTIFIED BY	DATE RENEWED BY
202 Sieve Analysis	_____	_____
217 Sand Equivalent	_____	_____
226 Moisture Content	_____	_____
227 Cleanness Value	_____	_____
229 Durability Index	_____	_____
231 Relative Compaction-Nuclear	_____	_____
375 Relative Compaction of AC	_____	_____
379 Asphalt Content-Nuclear	_____	_____
504 Air entertainment in PCC	_____	_____
518 Unit Weight-PCC	_____	_____
523 Flexural Strength of PCC-Beams	_____	_____
533 Kelly Ball penetration-PCC	_____	_____
539 Sampling Fresh Concrete	_____	_____
540 Fabricating PCC Cylinders	_____	_____
___ _____	_____	_____
___ _____	_____	_____
___ _____	_____	_____
___ _____	_____	_____

_____ _____
District Materials Engineer **IAST Certificate #**

Certification expires three years from above dates.

Note: This certificate is valid as long as the Acceptance Tester complies with the applicable requirements of the Caltrans *Quality Assurance Program Manual* for use by Local Agencies, December 2008

THIS FORM IS TO BE ON FILE AT THE DISTRICT MATERIALS LAB AND CONSTRUCTION OFFICES. A COPY OF THE MASTER LIST SHALL BE KEPT IN THE RESIDENT ENGINEERS PROJECT FILE.

MR - 0111 (1/93) (Old HC-1)

This page intentionally left blank

17.3 FINAL INSPECTION PROCEDURES FOR FEDERAL-AID PROJECTS

Local agencies shall document fulfillment of environmental mitigation commitments for final inspection Report of Expenditures and ultimate accountability as follows:

- Categorical Exclusion (CE) - Local agency shall provide the DLAE with a list of environmental mitigation commitments when requesting CE determination.
- Environmental Assessment (EA) - Local agency shall summarize when environmental mitigation commitments in the draft Finding of No Significant Impact (FONSI).
- Environmental Impact Statement (EIS) - Local agency shall summarize environmental commitments in the draft Record of Decision (ROD).

In addition, they shall acknowledge any long-term commitment to maintenance of those mitigation measures.

DELEGATED PROJECTS

Final Inspection by Local Agency - The local agency representative or his/her staff shall make the final inspection using Final Inspection Form FIF-6/05, (see Exhibit 17-C). The local agency representative or staff performing final inspection or signing the Final Inspection Form shall be one with authority for accepting the completed contract on behalf of the local agency and authorizing final payment to the contractor, as well as directing corrective action(s) to be undertaken by the contractor.

The inspection of work performed by contract shall be made sufficiently in advance of contract acceptance to allow time for possible corrective action. Neither FHWA nor Caltrans inspection is required at this time.

The construction contract may not include all of the work contemplated in the project authorized such as striping by day labor. This work should nonetheless be completed in a timely manner.

Upon successful completion of all corrective actions undertaken by the contractor, acceptance of the contract, and completion of all additional work required for the authorized project, the local agency representative should complete Items 1-10 of the Final Inspection Form and forward it to the Caltrans DLAE.

Project Verification by DLAE - The DLAE or his/her staff depending on the district organization and type of project, will review the job site and verify that the project was constructed in accordance with the scope and description of the project authorization document. Any safety, design or construction deficiencies noted should be immediately brought to the attention of the local agency for correction or resolution. Upon satisfactory review by Caltrans staff, the DLAE shall ensure that Items 1-10 have been completed by the local agency prior to completing Items 11-13 on the Final Inspection Form. The DLAE shall retain the Final Inspection Form and send a copy to the local agency for the Report of Expenditures.

HIGH PROFILE PROJECTS

Final inspection of significant NHS projects shall be in accordance with written construction administration procedures discussed in Section 15.3 of the LAPM. All High Profile projects shall be in accordance with the following:

Final Inspection by Local Agency – High Profile projects will require a final inspection by the FHWA. To initiate this inspection, the local agency will make the final inspection as described above for Delegated projects, accept the construction contract and submit the signed Final Inspection Form FIF-6/05 and reduced plan

cover sheet and typical cross sections to the Caltrans Oversight Engineer (OSE) immediately upon completion of all work in the project authorization.

Project Verification by OSE - Upon receipt of the Local Agency Final Inspection Form, the OSE shall verify that the project has been completed as described in the plans and specifications. The OSE shall then transmit the necessary documents to the FHWA Transportation Engineer.

Final inspection by FHWA - The final inspection by FHWA will be coordinated by the OSE in accordance with Caltrans "*Oversight Field Engineer Guidelines.*"

The DLAE shall receive from the OSE the "Report of Expenditures" prior to the DLAE processing the local agency's final project invoice.

17.4 AS BUILT PLANS

On locally administered contracts the resident engineer shall provide the DLAE a set of original record drawings with "As Built" corrections, or a clear, readable, black-line copy of the original tracings with "As Built" corrections. The "As Built" corrections shall be made by the engineer responsible for structure work. These shall be forwarded by the DLAE to the Division of Structures with a copy of the Report of Completion of Structures (Exhibit 17-J). These shall be returned to the local agency after microfilming, if requested.

"As Built" corrections for the roadwork portion of the plans should be recorded in

17.5 REPORT OF EXPENDITURES

The local agency is responsible for preparing and submitting to the DLAE the final report documents which collectively constitute a "Report of Expenditures." This report provides key information required to initiate timely project closure and payment. The Report of Expenditures is due at the completion of the project. Deadline for submittal of the Report(s) is six (6) months after project completion. If timely submittals are not received Caltrans shall initiate actions discussed under Section 17.6, "Consequences for Non-Compliance." The "Report of Expenditures" shall be signed by the public employee in responsible charge of the project.

FEDERAL-AID PROJECTS

For federal-aid projects, the Report of Expenditures includes, as a minimum, the following documents:

- **A Cover Letter and Federal Report of Expenditures Checklist** (Exhibit 17-A) - Identifies all mandatory documents to be included in the Report of Expenditures. This checklist shall be submitted by the local agency with the report of completion. Copies of all documents included in the report of expenditures shall be maintained on file at the local agency for any future audits as specified in the Master Agreement and Program Supplement, and to serve as verification that contractor labor requirements were met.

- Using Independent Assurance Caltrans personnel to certify local agency material samplers, testers, and laboratories when Caltrans test methods are used;
- Establishing the Local Oversight Action Plan (LOAP) team consisting of federal, state and local agency members to jointly prepare and implement changes and improvements to the *Local Assistance Procedures Manual*, and other local agency guidance, as well as identifying local agency, Caltrans, and FHWA oversight roles and responsibilities;
- Producing Office Bulletins to quickly implement regulatory and other changes to the *Local Assistance Procedures Manual* and *Local Assistance Program Guidelines*;
- Preparing the "Caltrans Oversight Information Notice" (COIN); alerting local agencies to new and innovative practices and/or procedures; and best practices; along with findings, areas or items of concern or non-compliance;
- Providing continuous federal-aid project training in consultant selection, contract procurement, administration, and closeout;
- Providing training such as the Resident Engineer's Academy and the Federal-aid Series for local agency staff, consultants, and related professionals.
- Hosting statewide meetings and conferences, such as the City-County-State-Federal Cooperative Committee meeting, to receive local agency and Caltrans district feedback.

The purpose of the foregoing efforts is to maintain a continual process of updating and improving local assistance procedures which will, again, lead to a more efficient and effective federal-aid and state funded local assistance program.

FHWA OVERSIGHT AND PROCESS REVIEWS

FHWA (California Division) verifies Caltrans and local agency compliance with federal regulations via annual program and process reviews for Delegated as well as High Profile projects of which Caltrans retains certain responsibilities and approval authorities as jointly determined by Caltrans and FHWA. The California Division uses the following reviews in their verification which typically result in observations, findings, and corrective actions that need to be implemented by the Division of Local Assistance.

- <u>Construction Contractor Payment Reviews</u>
  The purpose of these reviews is to evaluate and test the controls that are related to the financial aspects of construction contractor payments for local agency federal-aid projects. The review may include preparation of the project cost estimate, approval of and payment of monthly cost estimates, the preparation and processing of change orders and the completion, and final acceptance of the work.
- <u>Financial Integrity Review and Evaluation (FIRE)</u>
  Construction Contractor Payment Reviews, Improper Payment Reviews, Inactive Obligation Reviews, and other reviews may be performed to fulfill, in part, the requirements of the FIRE Program established via FHWA Order 45601 b. Performance of these reviews and other oversight activities are necessary to support FHWA's annual certification of the adequacy of the internal and financial controls in place to support the agency's financial statements. Construction Contractor Payment Reviews are one of the tools that can be used by FHWA in support of the FIRE.

- Process Reviews of Selected Local Agency Federal-aid Projects
  Based upon random selection of local agencies or local agency federal-aid projects, FHWA performs process reviews of the federal-aid program, and local agency federal-aid projects to establish a confidence level that verifies local agencies and their federal-aid projects fully comply with federal and state laws and regulations.
- Process Reviews of specially funded Federal-aid Projects
  Local agency specially funded projects frequently have unique requirements which may require special implementation. Such projects can be evaluated by FHWA to both measure compliance and the results. One example is the American Recovery and Reinvestment Act (ARRA) in 2009 which was of limited duration and had as one of its primary purposes for FHWA to expeditiously assist in the creation of jobs in the construction industry by rebuilding the transportation infrastructure.
- Program and/or process reviews of Caltrans/local agency high risk areas based upon risk analysis
  FHWA identifies high risk areas in the federal-aid process and program. Using the results of the risk analysis, FHWA may choose to perform program and/or process views of these high risk areas within Caltrans, local agencies, or local agency projects.
- FHWA's Verification Process
  Used for project authorizations/final vouchers; retained project-level approvals; High Profile project approvals; and inactive obligations.

In addition to the foregoing reviews conducted by the California Division, process reviews of local agency federal-aid projects and the Caltrans Division of Local Assistance are occasionally conducted by the FHWA Headquarters National Review Team, such as occurred in 2009/10. FHWA reserves the right to perform reviews of all federal-aid programs and projects at any time, while maintaining a focus on efficient project delivery. As previously mentioned, to ensure compliance the reviews may include projects or programs with unique features and high-risk elements as well as those with unusual circumstances.

OVERSIGHT AND REVIEWS BY OTHER FEDERAL AGENCIES

The Department of Transportation "Office of Inspector General (OIG)" and the federal "General Accounting Office (GAO)" may perform reviews of local agency federal-aid projects as well as reviews of the Caltrans Division of Local Assistance, such as occurred in 2009/10. Much of their impetus and concerns were focused primarily on ARRA funded local agency projects but other local agency federal-aid projects were also reviewed. These actions/reviews also result in observations and findings which typically result in corrective actions that need to be implemented by the Division of Local Assistance.

OVERSIGHT USING MINI PROCESS REVIEWS

In addition to the methods outlined above, projects may be evaluated by mini process reviews on a less formal basis such as random sampling or spot checking of project scope documentation, PS&E packages and so forth. The difference between a mini process review and regular process reviews is that the mini process reviews are usually conducted over one or several projects and can be conducted by either Division of Local Assistance

CHAPTER 20 DEFICIENCIES AND SANCTIONS

20.1 INTRODUCTION

As outlined in earlier chapters, Caltrans will no longer be involved in most project level reviews and approval activities. The Process Review is now Caltrans primary method of ensuring that federal and state requirements are met, (see Chapter 19, "*Oversight and Process Reviews*," of the Local Assistance Procedures Manual [LAPM]). During a Process Review of a local agencies project files or project site, errors and/or deficiencies could be found. If that happens, federal and/or state funds may be withdrawn from a project depending on the severity and circumstance of the deficiency.

It is important to note that the formal process review is not the only method of discovering project deficiencies. Errors or deficiencies are discovered occasionally as part of the normal routine of processing of project submittals by the District Local Assistance Engineers (DLAEs) or Division of Local Assistance Area Engineers.

This chapter is intended to assist local agencies that are involved in developing local assistance projects by providing examples of the deficiencies that have been found in the past and the possible ramifications for those errors or deficiencies. It should be understood that the examples given are by no means all inclusive. The key to avoiding possible sanctions is to follow the procedures outlined in this manual, the *Local Assistance Program Guidelines* (LAPG), and the *Standard Environmental Reference* (SER), and if you have any questions to consult your DLAE.

Section 20.4, "Local Assistance Dispute Resolution Process," of this chapter also provides means for local agency to appeal a sanction that they feel has been imposed upon them unfairly or they feel the penalty is too harsh for the error or deficiency. This appeal process is not limited to just the appeal of sanctions; it can be used by local agencies when they disagree with the decision they receive from a district office.

20.2 DEFICIENCIES

PROCEDURAL DEFICIENCIES

A Procedural Deficiency is defined as a finding that a local agency's practices and procedures fail to demonstrate sufficient familiarity for acceptable levels of conformance with procedures and required certifications defined in the LAPM. In addition to jeopardizing federal and/or state funding on completed or ongoing projects, certifications for future projects may be conditioned, or not accepted until the deficiencies are corrected.

Examples of some of the most common procedural deficiencies (found by Caltrans) are:

- Continued submission of Request for Authorization that contains errors and omissions (see Chapter 3, "Project Authorization," of the LAPM).
- Continued submission of Preliminary Environmental Study Form that contains errors and omissions (see Chapter 6, "Environmental Procedures," of the LAPM).

- Continued submission of Plans, Specifications & Estimate Certifications that contains errors and omissions (see Chapter 12, "Plans, Specifications & Estimate," of the LAPM).
- Continued submission of Right of Way Certifications that contains errors and omissions (see Chapter 13, "Right of Way," and Chapter 14, "Utility Relocations," of the LAPM).
- Continued submission of Local Agency Contract Award Checklist that contains errors and omissions (see Chapter 15, "Advertise and Award Project," of the LAPM).
- Failure of the local agency to comply with the Caltrans Disadvantaged Business Enterprise (DBE) program, particularly with regard to policy, utilization of DBEs, monitoring, and reporting (see Chapter 9, "Civil Rights and Disadvantaged Business Enterprises," of the LAPM).

MAJOR PROJECT DEFICIENCY

A Major Project Deficiency is defined as an error of commission or omission, which violates federal or state law or regulation, and <u>if uncorrected</u>, would prevent federal or state participation in all or a portion of the project.

Examples of some of the most common (found by Caltrans and FHWA) of Major Project Deficiencies (federal) are:

- Failure to initiate an environmental reevaluation following National Environmental Policy Act (NEPA) approval, when changes in the scope of the project are proposed, or when new project environmental impacts surface due to changes in law or investigations, shall result in loss of all or part of the federal funding for the project (see Chapter 6, "Environmental Procedures," of the LAPM).
- Failure to fulfill mitigation commitments or adhered to restrictions identified in the approved NEPA document shall result in a loss of all or part of federal funding for the project (see Chapter 6, "Environmental Procedures," of the LAPM).
- Right of Way activities in violation of the Uniform Relocation Assistance and Real Properties Policy Act, as amended, can result in all or partial loss of project funding. Project funding losses can result even if there are not federal funds in Right of Way but only in other phases (see Chapter 13, "Right of Way," of the LAPM).
- Force Account/Day Labor work, without proper justification, is not reimbursable (see Chapter 12, "Plans, Specifications & Estimate," of the LAPM).
- For Emergency Relief (ER) projects, billing for emergency opening but actually doing permanent restoration work can result in a loss of all or part of the federal funding for the project (see Chapter 11, "Disaster Assistance," of the LAPG).

CHAPTER 13 INTELLIGENT TRANSPORTATION SYSTEMS (ITS) PROGRAM

13.1 INTRODUCTION

These guidelines, "Intelligent Transportation System (ITS) Program", focus on federal-aid Intelligent Transportation Systems (ITS) project development procedures to ensure compliance with the federal ITS regulations, per Code of Federal Regulations (CFR), Chapter 23, Section 940 (23 CFR 940) entitled "Intelligent Transportation System Architecture and Standards." In addition, these procedures establish the roles and responsibilities for all parties who are involved in the federal-aid ITS process.

13.1.1 GUIDELINES OVERVIEW - ROADMAP TO ITS COMPLIANCE

The application and oversight process for ITS projects is different in some significant ways from the traditional roadway construction process. Because of this difference, many ITS projects have **not** been successful. This is especially true of ITS projects that involve something **new**, which the lead agency has not done before. This might include new technology or new software or new communications, or joint efforts with new partners. Because of the high risk of failure for certain ITS projects, a special process is required to help **mitigate those risks** and to avoid the waste of taxpayer's funds that occurs when ITS projects fall short.

The process is summarized immediately below and described in full detail in the following sections. The process varies depending upon degree of **risk** involved. As shown in Figure 13-1, there are three steps in the project funding and delivery process shown in Figure 13-1.

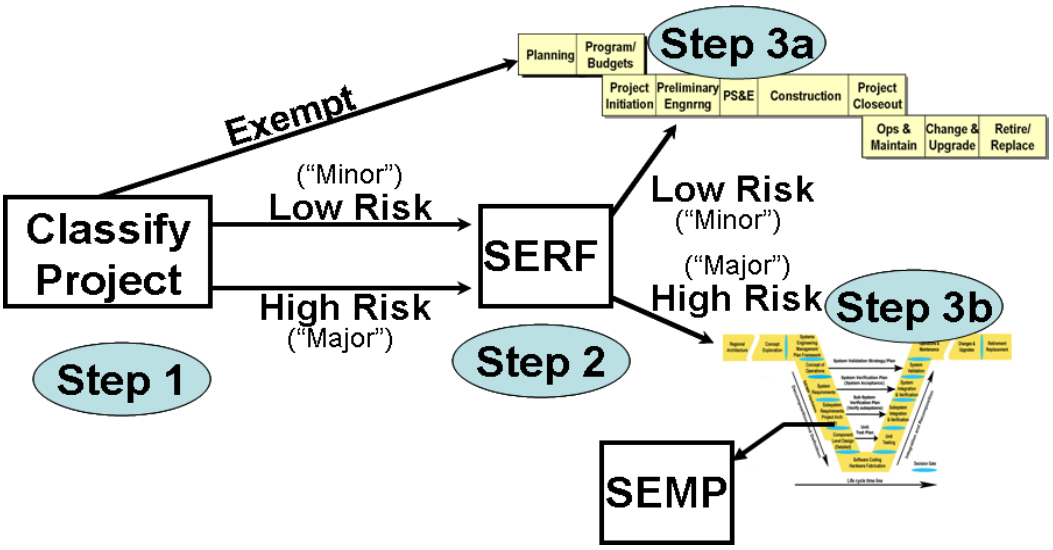


Figure 13-1: Steps to ITS Compliance

<u>**Step 1**</u> occurs when the ITS project is added to the Transportation Improvement Program (TIP). The lead agency makes a **preliminary** classification of the project as **High-Risk**, **Low-Risk**, or **Exempt**. If the project is **Exempt**, then the remainder of the process is exactly the same as for a traditional road building project. **Low-Risk** and **High-Risk** projects proceed to Step 2.

<u>**Step 2**</u> occurs when initial funding is requested. As part of the E-76 application package, the Project Manager must fill out a Systems Engineering Review Form (SERF), which consists of

seven questions. Based on the answers, the project is classified as **Low-Risk** or **High-Risk**, then proceeds accordingly.

Step 3a – For **Low-Risk** projects, the remainder of the process (after the E-76 is approved) is *exactly the same* as for a traditional road building project.

Step 3b – For **High-Risk** projects, the traditional road building process is **not** appropriate. Instead, the best approach is usually a Systems Engineering process. A Systems Engineering Management Plan (SEMP) must be completed early in the process to help manage the detailed system design, implementation, and testing.

13.1.2 How to Use these Guidelines

The ITS Program Guidelines are written for a diverse set of audiences, including: MPO/RTPA planners, local-agency project implementers, Caltrans Division of Local Assistance (DLA), and FHWA ITS staff. Some readers have ITS experience, others none.

For those with experience in using the previous version of these ITS Program Guidelines, **significant changes are included in this update.** Emphasis is now placed on **management of risk**. This has introduced new definitions of types of ITS projects and associated examples. The approach to compliance with 23 CFR 940 now takes a closer look at characteristics of risk in addressing the SERF requirements. With the experience from implementation of the ITS Program Guidelines in 2004, the resultant approach is more clearly defined and has resulted in the "Roadmap" in Figure 13-1. A new section on Americans with Disabilities Act (ADA) Requirements has also been added. By no means do we suggest that the reader skip any section of these guidelines, but the significant changes will be found in the sections on "Types of ITS Projects," "ITS Project Development and Funding," and "ADA Requirements."

Any new users of these ITS Program Guidelines should familiarize themselves with the entire chapter. Over time the users will likely return to specific sections. For example, to clarify which type category a project falls into, the user may want to revisit section 13.2 on "Types of ITS Projects." To initiate project funding, the user may revisit section 13.5 on "Funding Process Step-By-Step Procedures."

13.1.3 Purpose of these Guidelines

The ITS Program Guidelines describe best professional practices for planning and implementing ITS projects. They also establish the roles and responsibilities for all parties who are involved in the federal-aid ITS process, as well as define the process required for all ITS projects that will utilize federal funds (in any amount). 23 CFR 940 requires that all federal-aid projects:

- be consistent with **the Regional ITS Architecture**,
- use applicable **ITS Standards**,
- perform a **Systems Engineering Analysis** that is commensurate with the scope of the project.

Designing and developing ITS projects represent a paradigm shift in the engineering mindset, compared to traditional highway projects. For example, ITS projects may not have a clear break between the preliminary engineering phase and construction phase. Furthermore, some ITS projects may not include a construction phase and will not be suitable for "low-bid" construction contracts. The nature of the engineering development for ITS projects also implies a greater risk and uncertainties to successful completion.

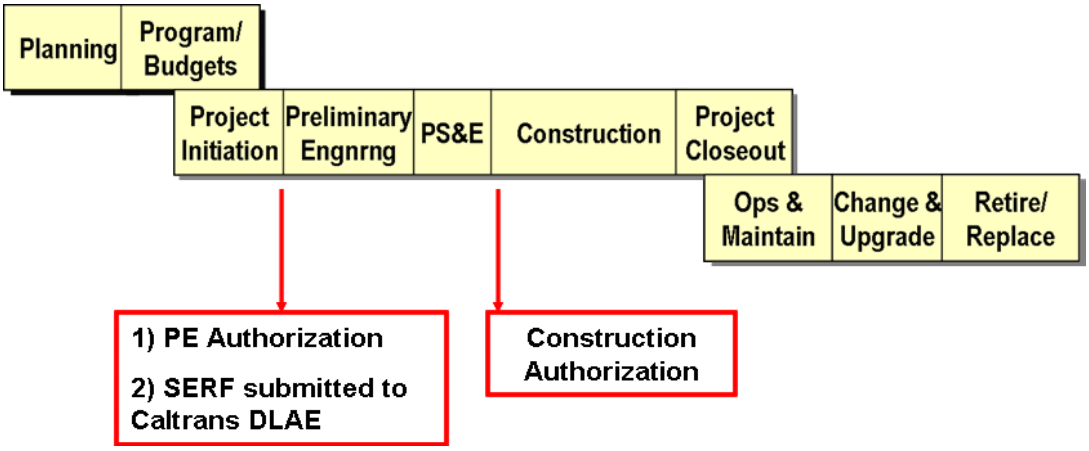


Figure 13-2: Process and Funding Steps for Low-Risk ITS Projects

More complex ITS projects lead to higher risk of failure (termination, time delays or cost increases). Additional elements are needed in the process of development to mitigate the higher risks. These additional elements can be thought of as extensions to the traditional road building process. The systems engineering approach is graphically depicted in Figure 13-3. To learn more about the Systems Engineering process, see the USDOT ITS Professional Capacity Building Program website: http://www.pcb.its.dot.gov, and FHWA/Caltrans "*Systems Engineering Guidebook for ITS*" at: http://www.fhwa.dot.gov/cadiv/segb/views/process/index.htm.

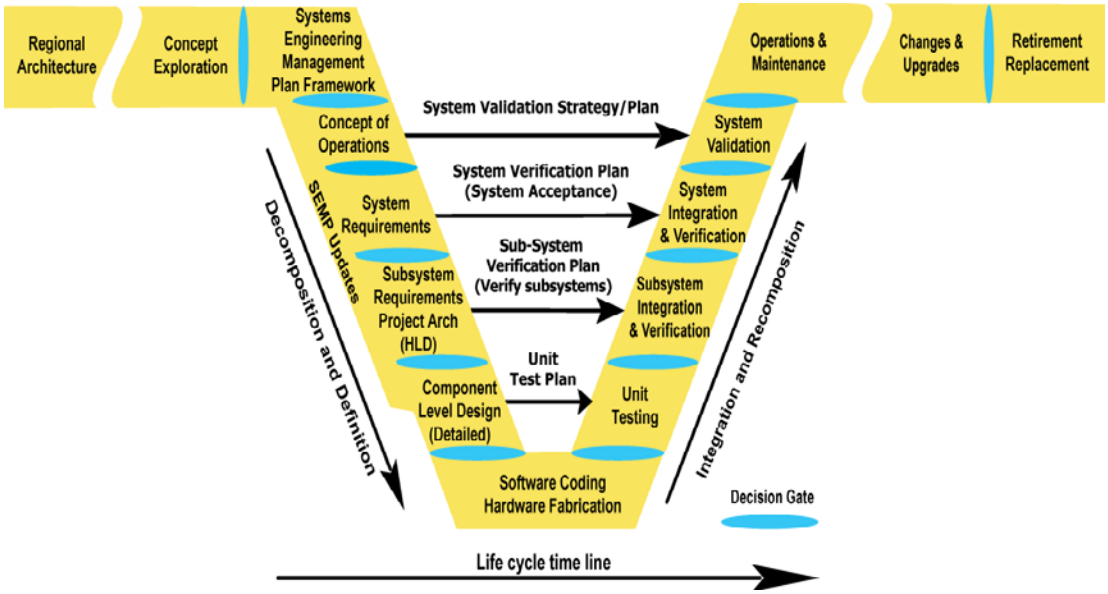


Figure 13-3: Systems Engineering Vee Life Cycle Process

For **High-Risk** (formerly "Major") ITS PE obligation and authorization is followed by two approval actions for project development to proceed. Figure 13-4 pinpoints where each approval occurs. A separate construction obligation and authorization will be needed for traditional roadway (infrastructure) improvements that accompany system development. Figure 13-4 does not infer that work provided by the PE contractor ends with Construction authorization. As shown in Fig 13-6 in Section 13.9, the same PE contractor will often be involved in system engineering activities on the right side of the Vee Life Cycle Process supporting verification and validation.

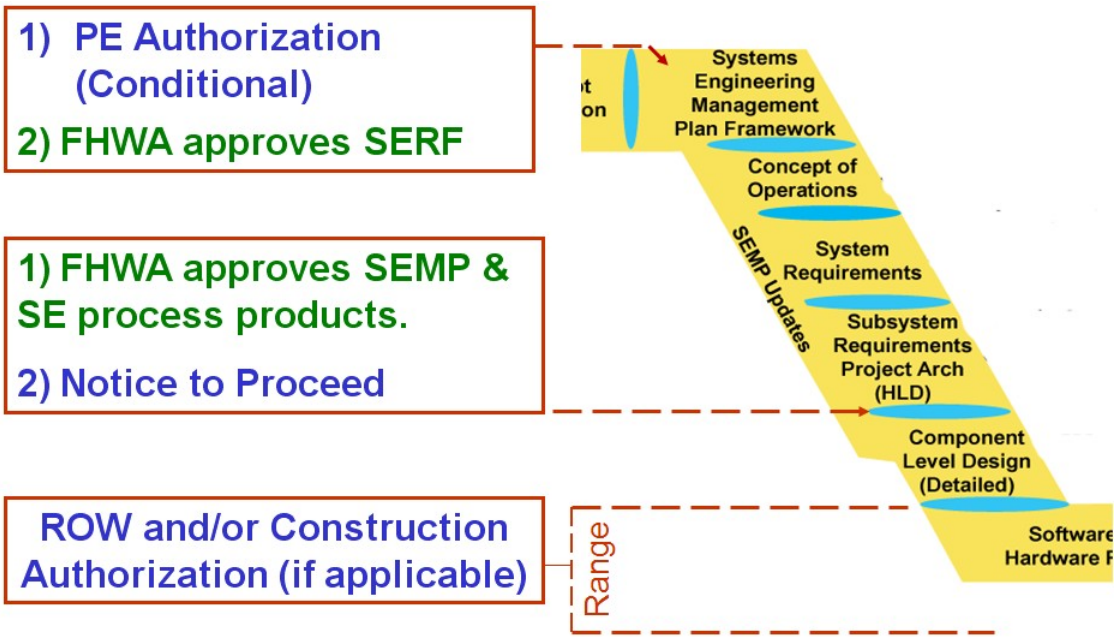


Figure 13-4: Funding Steps for Systems Engineering Process

Early determination of risk leads to early determination of type of ITS project, which leads to an early determination of budgeting approach. The systems engineering Vee process concentrates more time and cost on the up-front engineering activities relative to the traditional road building process that typically concentrates funding and scheduling priorities to the construction (back-end) phase.

For more information on Systems Engineering, the reader is encouraged to access the FHWA/Caltrans *Systems Engineering Guidebook for ITS* website at: http://www.fhwa.dot.gov/cadiv/segb/views/process/index.htm.

13.4 General ITS Responsibilities

This section describes ITS responsibilities, during planning and implementation of the project, from the perspective of four different roles:

1.) Regional/Metropolitan Transportation Planning Agency (RTPA/MPO)
2.) Local agency (including their consultants in a project management role)
3.) Caltrans Division of Local Assistance
4.) FHWA Project Engineer
5.) Communities

The user ***should*** read the section that corresponds to their role. The other sections are optional. For each role, the responsibilities are described for each of the three steps in the Roadmap below in Figure 13-5, which can be briefly described as Planning, Funding, and Implementation.

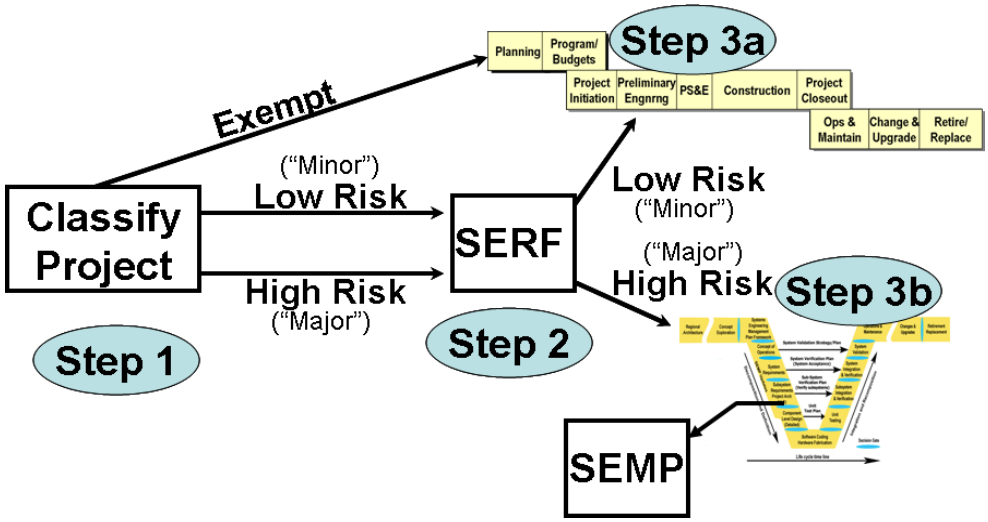


Figure 13-5: Steps to ITS Compliance

13.4.1 Regional/Metropolitan Transportation Planning Agency

Step 1 Roadmap Step 1

All ITS projects must be listed on the FTIP prior to obligation of funds. However, many ITS projects are not required to be listed individually, since they are classed as air quality exempt. Such projects may be lumped together in the FTIP. If a traditional roadway design project contains an ITS element, then the requirement for FTIP listing is determined by the overall project.

Because of this variation in project classification, projects with ITS elements may not be identified. For this reason, the MPO or RTPA is encouraged to coordinate with the local agencies (project sponsors) to "flag" ITS projects, or at least note the High-Risk (formerly "Major") ITS projects, within their FTIP submittal to Caltrans/FHWA. This may be a symbol designation within the current FTIP format, a separate page listing, or some other reporting means.

By delineating operational improvements from the rest of the capital program, this gives FHWA ITS Engineers opportunity to make pre-authorization outreach visits to project sponsors to assess degree of education, technical assistance, and oversight that will be needed before the project reaches its funding year. This can reduce risk of project failure.

Step 2 Roadmap Step 2

The regional planning agency (RTPA or MPO), as owner/maintainer of the regional ITS architecture, will assist the ITS project sponsor (local agency) to address the architecture aspects of the Systems Engineering Review Form (SERF).

For more information on regional ITS architectures, the reader is encouraged to access USDOT ITS Architecture website at: http://www.its.dot.gov/arch/index.htm.

Step 3 Roadmap Step 3

As each ITS project is implemented, the regional ITS architecture will need to be updated to account for any expansion in ITS scope, and to allow for the evolution and incorporation of new ideas. When actually defined or implemented, a project may add, subtract or modify elements, interfaces, or information flows from the regional ITS architecture. Because the regional ITS architecture is meant to describe the current (as well as future) regional implementation of ITS, it must be updated to correctly reflect how the developed projects integrate into the region.

Updates will be submitted by the local agency project manager. This can occur at two points in time during project development process. The first time is upon documentation of the project architecture at completion of the High-Level (functional) Design. Additionally, during implementation, project architectures may change. If so, the project manager will submit those changes at project completion.

A regional ITS architecture maintenance process is documented in the region, and used to make any changes.

13.4.2 Local agency (include consultants in project management role)

Step 1 Roadmap Step 1

The local agency is responsible for submitting their projects to the MPO/RTPA for inclusion in the State Transportation Improvement Program for Federal approval (FTIP). For projects that include ITS elements, the local agency makes a **preliminary** classification of the project's risk as exempt, low, or high. It may take a number of months for the project to be added to the FTIP, so Step 1 should be performed well ahead of the expected project start date.

If the project is considered **Exempt**, then all activities of the traditional roadway project development life-cycle process will be followed. Exempt projects are not considered "ITS" for purposes of these procedures and no further ITS-specific action is necessary.

Step 2 Roadmap Step 2

To initiate federal funding of the ITS project, the local agency verifies that the project is listed in the FSTIP and submits to Caltrans District Local Assistance Engineer (DLAE) the "Request For Authorization To Proceed With Preliminary Engineering" (LAPM Exhibit 3-A and associated data sheets (LAPM Exhibit 3-E). This is often referred to as the "E-76 Package" and the process of submitting and approving it is often referred to as the "E-76 Process."

This PE request will often include the completed Field Review Form (*LAPM* Exhibit 7-B) and associated Data Sheets (*LAPM* Exhibit 3-C to 3-I). This Field Review Form will include ITS administrative and financial elements to be addressed when applicable. To accommodate agencies with limited staffing, the Field Review Form may be submitted separate from the request for authorization to proceed, but within four (4) months after the Federal PE authorization date. See Chapters 3, "Project Authorization" and Chapter 7, "Field Review," of the *LAPM* for more information.

The completed Field Review Form includes an ITS Systems Engineering Review Form (SERF) that is required for all ITS projects. The SERF (LAPM Exhibit 7-I) provides responses to the seven requirements for systems engineering analysis within 23 CFR 940 Part 11. The SERF will assist the local agency in determining if the project is Low-Risk or High-Risk. If the local agency does not have enough information to answer all seven questions, the project is probably high risk.

This determination of risk is delegated to the local agency (project sponsor). Completion of the SERF is an opportunity to verify (or perhaps change) the preliminary determination of risk made during project programming in the Roadmap Step 1.

If the ITS project is **Low-Risk** (formerly "Minor"), the response to the SERF will be complete and will document conformance to 23 CFR 940. If DLAE agrees that the project is Low-Risk, then the PE obligation and authorization process is used.

IF the ITS project is **High-Risk** (formerly "Major"), response to some of the seven questions in the SERF cannot be decided at this early stage. Responses in the SERF will identify the tasks when each question will be answered during the systems engineering process. PE is conditionally authorized after submittal of the initial request for authorization by the local agency. The condition specifies that a SEMP be approved and a Notice-to-Proceed (NTP) be granted by FHWA before the local agency may proceed with project implementation. Expenditures for such work prior to NTP are NOT eligible for reimbursement.

Step 3 **Roadmap Step 3**

Step 3a For **Low-Risk** ITS projects, the agency's project development process used for regular roadway projects will be followed. These activities are denoted as Step 3a in the "Roadmap to ITS Compliance". For purposes of these procedures, no further ITS-specific action is necessary. Refer to *Section 13.9 Procurement/Construction* for more information on procurement options.

Step 3b For **High-Risk** ITS projects, conformance to 23 CFR 940 will be completed in Step 3b of the "Roadmap of ITS Compliance" as the systems engineering tasks on the left side of the Vee process are undertaken (i.e., Concept of Operations thru High-Level Design).

If the project architecture - defined as part of the High-Level (functional) Design - adds, subtracts or modifies elements, interfaces, or information flows from the regional ITS architecture, these changes need to be submitted to the RTPA/MPO who maintains the regional ITS architecture. This can be done upon completion of the SEMP. In addition, if similar changes occur during implementation, the project manager should submit those changes at project completion.

Prior to the Component-Level Design task within the SE Vee process, the local agency submits to DLAE the Systems Engineering Management Plan (SEMP) and Systems Engineering process products. Upon receiving final SEMP approval and Notice-to-Proceed, the local agency may proceed with project implementation. Expenditures for such work prior to NTP are NOT eligible for reimbursement.

13.4.3 Caltrans Division of Local Assistance

13.4.3.1 District Local Assistance Engineer (DLAE) –

Step 1 **Roadmap Step 1**

The DLAE has no responsibilities during Step 1.

Step 2 **Roadmap Step 2**

The DLAE reviews the request from the local agency for PE authorization to assure satisfactory completion. For those local agencies that require additional time to process the Field Review Form, the DLAE will prepare and submit the E-76 for PE to Headquarters DLA Implementation.

Upon receipt of the Field Review Form, including the SERF, the DLAE verifies that the risk determination made by the local agency is correct. If the DLAE agrees that the project is **Low-Risk** (formerly "Minor"), the PE obligation and authorization process will be used and no further ITS-specific action is necessary.

If the project is determined to be **High-Risk** (formerly "Major"), the DLAE forwards the SERF to DLA Implementation and FHWA concurrently for review and approval. The DLAE verifies from the E-76 system that PE is conditionally authorized and that FHWA has obligated the funds before issuing authorization to proceed with PE. The condition specifies that a SEMP be approved and a Notice-to-Proceed (NTP) be granted by FHWA before the local agency may proceed with project implementation.

In the instance where the Field Review Form follows Federal PE authorization, further verification of the earlier determination of risk is performed. Where the information leads to a change in project type (Low to High or vice-versa), a corrected E-76 is submitted to DLA Implementation. In the instance of a Low- to High-Risk change, the corrected E-76 will either de-obligate the PE dollar amount for system design and implementation or will include a conditional statement that limits Notice-to-Proceed (NTP) to only the systems engineering tasks (Concept of Operations to High-Level Design) on the left side of the SE Vee.

Step 3 **Roadmap Step 3**

Step 3a For **Low-Risk** ITS projects, the project development process used for regular roadway projects will be followed by DLAE, noted as Step 3a in the "Roadmap to ITS Compliance." Refer to *Section 13.9 Procurement/Construction* for more information on procurement options.

Step 3b For **High-Risk** ITS projects, the systems engineering tasks on the left side of the Vee process are undertaken (i.e., Concept of Operations thru High-Level Design). The Systems Engineering Management Plan (SEMP) is sent to DLA Implementation and FHWA concurrently for review and approval. The DLAE transmits the SEMP approval and Notice-to-Proceed from FHWA to the local agency. System implementation can begin with receipt of the Notice-to-Proceed. Expenditures for such work prior to NTP are NOT eligible for reimbursement.

13.4.3.2 Headquarters DLA Implementation –

Step 1 HQ DLA Implementation has no responsibilities during Step 1.

Step 2 For High-Risk ITS projects, DLA Implementation forwards the SERF to the FHWA ITS Engineer for review and approval. Upon notification of FHWA approval, DLA Implementation notifies DLAE, and PE may be authorized.

Step 3b DLA Implementation forwards the SEMP to FHWA for review and approval. Upon notification of FHWA approval and NTP granted, DLA Implementation notifies DLAE, who in turn notifies the local agency.

13.4.4 FHWA ITS Engineer

Step 1 **Roadmap Step 1**

The FHWA Project Engineer has no responsibilities during Step 1.

Step 2 **Roadmap Step 2**

If the project is a **High-Risk** (formerly "Major") ITS project, the SERF is submitted to FHWA for review and determination of level of federal oversight of the systems engineering process.

The following information defines the FHWA oversight of the Systems Engineering (SE) process for **High-Risk** ITS projects. Please note that **this oversight is limited to the ITS portions of the project only**. General oversight for all other aspects of the federal aid process will continue to be handled through the *Caltrans/FHWA Joint Stewardship & Oversight Agreement.*

The FHWA oversight process is built upon the common SE practice of using "control gates" as a project-management tool. It assumes that implementation of the ITS project (or the ITS elements within a larger construction project) will follow a pre-determined sequence of steps, with each step (or "milestone") being judged by the project manager to be satisfactorily completed before substantive work begins on the next step.

FHWA will exercise its oversight responsibilities primarily via review of deliverable(s) produced at each of the milestones in the SE process (e.g. Concept of Operations, Acceptance Tests, etc.). They will do this in a manner that avoids unnecessary delays to the project. The action at each step will take ONE of the following forms: a.) Review and approval, b.) Review and comment, or c.) Information only. These terms are explained below.

- Review and Approval - FHWA shall receive the final version of the milestone document for review and approval. They will respond within one week -- whenever given at least two weeks advanced notice of the document's arrival. Otherwise, turnaround time will be two to three weeks. If they do not respond within the applicable time period the document is automatically deemed approved.

- Review and Comment - FHWA shall participate in the normal review process that the agency uses at the "final draft" stage of developing the milestone document. They will abide by the same schedule that is given to all other reviewers. If they do not provide comments within the given schedule, project work may proceed without them. Their comments will be treated as suggestions that will be given the same consideration as comments from other reviewers.

- Information Only - Upon completion of the milestone, the project manager shall email the associated document to FHWA. No "approval" by FHWA will be needed. Upon emailing the document, the project may begin the next task immediately (but not before).

This determination of level of oversight, along with SERF approval, will be transmitted to DLA Implementation and DLAE concurrently.

Step 3b Roadmap Step 3b

Regardless of the level of oversight determined for each SE process milestone deliverable, the completed Systems Engineering Management Plan (SEMP) must always be submitted to FHWA for review and approval at completion of the system definition tasks (generally after the “High-Level Design” task). This approval and the Notice-to-Proceed will allow for the local agency to proceed with system design and implementation. Specific SEMP development and documentation guidance can be found at the "*Systems Engineering Guidebook for ITS"* website (www.fhwa.dot.gov/cadiv/segb/).

The FHWA review process can be expedited by documents being sent via email to FHWA simultaneously with distribution to Caltrans and/or other stakeholders involved in the project development. Paper copies are **not** required, unless the materials cannot be sent electronically.

13.5 FUNDING PROCESS STEP-BY-STEP PROCEDURES

This section presents an **integrated view** of the funding process, combining all four of the perspectives described separately above. Thus, it presents a more comprehensive picture of all activities and responsibilities during each step of the funding process. As before, the steps are discussed chronologically. The chronological steps for **High-Risk** projects are discussed first, followed by the procedures for **Low-Risk** and then **Exempt** ITS projects.

13.5.1 High-Risk (formerly "Major") ITS Projects

High-Risk federal-aid ITS projects shall follow the regular federal-aid procedures outlined in the LAPM, with the inclusion of two approval actions by FHWA to assure conformity with the federal regulation 23-CFR-940. Application and control of the Systems Engineering process is a key reason for the approval actions as specified below.

Step 1 Roadmap Step 1 - Transportation Planning:

1. The local agency submits project to the regional planning agency for inclusion in the Federal Approved State Transportation Improvement Program (FSTIP). The local agency makes a ***preliminary*** designation of risk for the project.

2. The MPO or RTPA is encouraged to coordinate with the local agencies (project sponsors) to "flag" ITS projects, or at least note the High-Risk ITS projects, within their FTIP submittal to Caltrans. This may be a symbol designation within the current FTIP format, a separate page listing, or some other reporting means.

3. The regional planning organization reviews the project for consistency with the Caltrans transportation planning process before submitting the FTIP to Caltrans HQ.

4. Caltrans HQ incorporates the FTIP in the FSTIP, and submits the FSTIP to the FHWA Division for review and approval.

5. The FHWA Division reviews and approves the FSTIP.

Step 2 Roadmap Step 2 - Project Development (PE1):

6. The local agency verifies that the project is listed in the FSTIP, and then submits a PE request package to the DLAE.

7. The DLAE enters a conditional approval statement into the E-76 system that states: *"No work for ITS system component detailed design, integration, and testing will be undertaken until FHWA approval of Systems Engineering Management Plan (SEMP) and Notice to Proceed by FHWA is granted. Expenditures for such work prior to NTP are NOT eligible for reimbursement."*

8. When the PE package is satisfactory, the DLAE forwards the package, and submits E-76 for PE to DLA Implementation.

9. When the PE package is satisfactory, DLA Implementation executes the E-76, and submits it to the FHWA for obligation, with a copy to the DLA ITS Coordinator.

10. The DLAE verifies from the E-76 system that FHWA has obligated the funds before issuing authorization to proceed with PE.

11. If not submitted with the PE request package, soon after PE begins the local agency submits the completed Field Review form with SERF (Exhibit 7-I System Engineering Report Form) to the DLAE.

    In the SERF, the local agency must provide as much information as possible for each of the following ITS requirements. If any of these items are not known at this time, the Local Agency must include a commitment to address them in detail during system design.

    a) Identification of portions of the RA being implemented
    b) Identification of stakeholders, communities and participating agencies roles and responsibilities
    c) Requirements definitions
    d) Analysis of alternative system configurations and technology options to meet requirements
    e) Procurement options
    f) Identification of applicable ITS standards and testing procedures
    g) Procedures and resources necessary for operations and management of the system

12. The DLAE forwards the field review package including SERF to DLA Implementation with a copy to the DLA ITS Coordinator.

13. The DLA Implementation forwards the package to FHWA.

14. FHWA reviews the SERF for FHWA oversight determination, comments on the SERF, and sends the information back to the DLA Implementation.

    FHWA oversight will consist of approval of the Systems Engineering Management Plan (SEMP). That oversight can also consist of approval of products from each step of the Systems Engineering process, or portions thereof, or merely participation in scheduled process technical review points. FHWA is also available to provide the local agencies with additional ITS technical assistance and guidance as needed.

15. The DLA Implementation relays the information to the DLAE, who relays it to the local agency.

16. Upon receipt of the Field Review package, the DLA Implementation prepares a Program Supplement, with ITS covenants added. After approval by Caltrans Local Program Accounting, the Program Supplement is transmitted directly to the local agency for signature.

17. The local agency signs the Program Supplement and returns it to DLA Implementation.

Step 3b Roadmap Step 3b –

18. Prior to component detailed design, the local agency submits the completed SEMP as well as the Systems Engineering process product(s) mentioned in Step #14 above, through the DLAE and DLA Implementation (with a copy to DLA ITS Coordinator) for FHWA's review and approval.

19. FHWA notifies the DLA Implementation that they approved the SEMP, and grants the Notice-to-Proceed (NTP) with project implementation.

20. The DLA Implementation relays the approval and NTP to the local agency thru the DLAE with a copy to the DLA ITS Coordinator.

21. The DLAE checks for environmental approval before transmitting the SEMP approval and NTP to the local agency.

22. Upon receiving final SEMP approval and NTP, the local agency may proceed with project implementation. Expenditures for such work prior to NTP are NOT eligible for reimbursement.

Construction:

23. If the ITS project includes activities defined as construction; the local agency must submit a PS&E package requesting construction authorization. The request includes the necessary federal-aid paperwork and approvals.

24. Beyond this point, normal federal-aid procedures apply for completing the project. Use Form 17-C "Final Inspection Form" of the LAPM to finalize the project.

13.5.2 Low-Risk (formerly "Minor") ITS Projects

Processing Low-Risk ITS projects will follow the traditional federal-aid PE procedures (see Exhibit 13-B for detail). The SERF (Exhibit 7-I, System Engineering Report Form) must be filled out as part of the field review package. However, SERF review and approval by FHWA are **not** required.

13.5.3 Exempt Projects

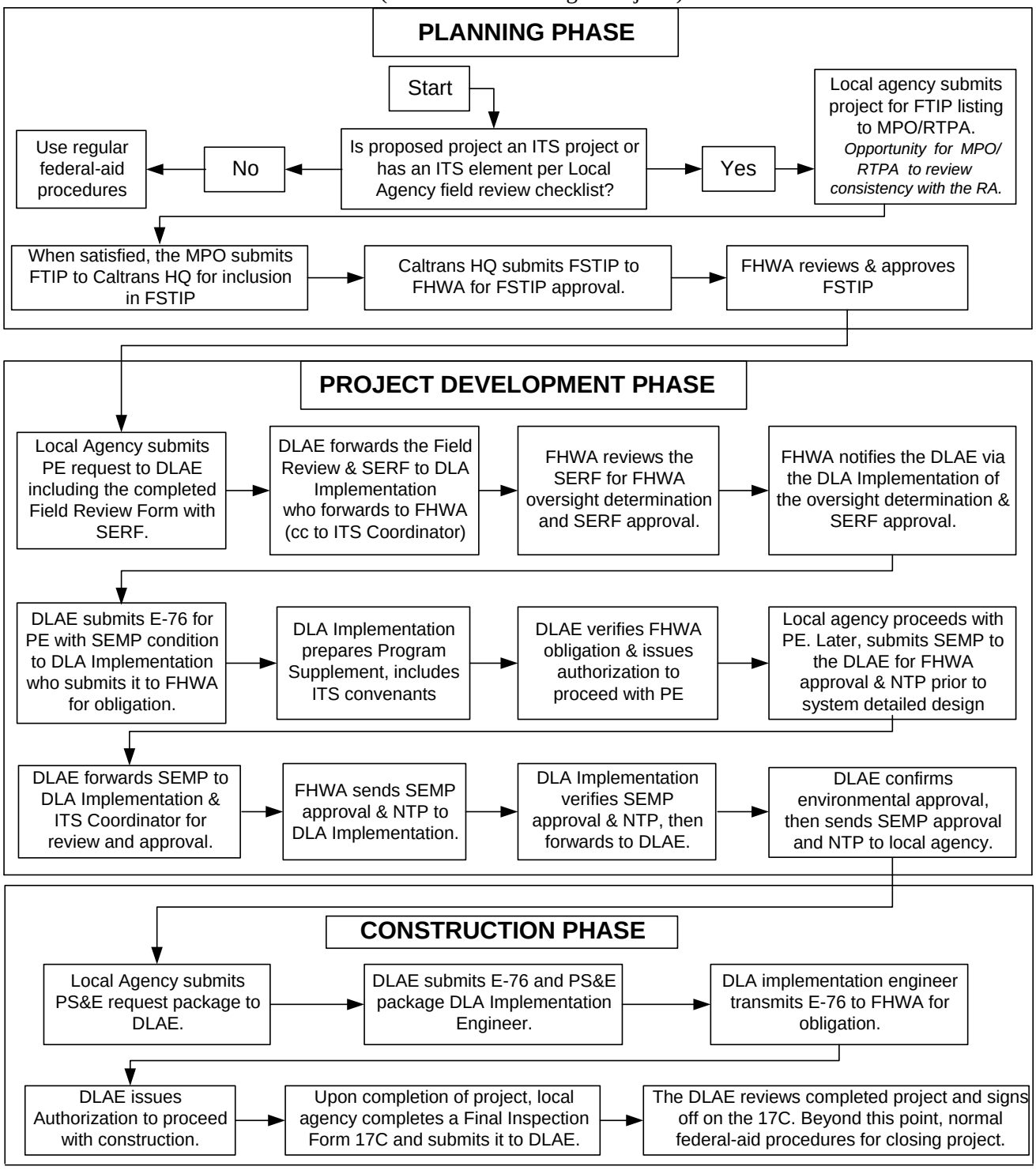
Processing Exempt ITS projects will follow the traditional federal-aid PE procedures. The **SERF will not be required** as part of the field review package.

13.6 ENVIRONMENT

The environmental process and environmental approval for ITS projects are processed under normal federal-aid regulations and procedures. For environmental guidance, see Chapter 6 "Environmental Procedures" of the LAPM. With few exceptions, most ITS projects can be classified as a Categorical Exclusion (CE). CE determinations are made by Caltrans.

Generally, ITS projects involve little to no disturbance of the ground. The ground disturbance that normally occurs on ITS projects is related to digging foundations for utility, signal, camera, or message sign poles and excavation of trenches for communications cabling. Occasionally ITS

Exhibit 13-A Process Flowchart – High-Risk (Formerly "Major") ITS Projects
(FHWA Full Oversight Projects)



Note:

This PE procedure requires FHWA review of the SERF, approval of the SEMP, and Notice-to-Proceed (NTP) granted. **Expenditures for system detailed design, implementation, and testing prior to NTP are not eligible for FHWA reimbursement.**

- FHWA Full Oversight for PE phases on all major ITS projects.
- FHWA Full Oversight for E-76 purposes.
- For simplicity, the right of way phase is not shown in this chart. If right of way is involved, refer to Chapter 13,"Right of Way," of the LAPM for information and procedures.
- For FHWA list of criteria for full oversight projects, refer to Section 2.4 of the LAPM.

This page intentionally left blank