CHAPTER 2 – Roles and Responsibilities

Table of Contents

Table of Figures

CHAPTER 2 – Roles and Responsibilities

SECTION 1 Project Development Roles in Headquarters

Reference Information

Some of the references found in this chapter have hyperlinks that connect to Caltrans intranet pages which are not displayable to the general public. Until such time that the specific reference becomes available on the internet, the user will have to contact their district liaison, Caltrans project manager, or the appropriate Headquarters division to inquire about the availability of the reference.

Overview

Deputy Directive 23 describes the roles and responsibilities throughout Caltrans for development of projects on the State Highway System. Deputy Directive 23 includes definitions and responsibilities for the roles of owner/operator (including quality management assessment activities), project sponsor, and implementing agency (including quality management practice activities).

Various Headquarters programs and divisions provide technical expertise and assistance to the districts on topics including:

- State and federal laws, regulations, policies, standards, guidelines and practices
- Design for safety
- Development of quality, cost-effective projects
- Geometric design
- Project development process
- Design of pavement structural section and drainage facilities
- Hydraulics hydrology and stormwater

- Materials engineering and testing
- Project cost and scope
- Procedures for uniform cost estimating and control
- Issue resolution and coordination with other headquarters functional units and FHWA
- Second-level right of way reviews for resolutions of necessity to initiate condemnation cases
- Requests for acquisition of contaminated property
- Deviations from design standards
- Value analysis
- Resource conservation
- Encroachment and utility policy
- Developing work plans for experimental features

The following headings describe state-wide, program-project management and support roles of some of the Headquarters programs and offices involved in project development.

Planning and Modal Programs

The following sections describe some of the divisions and offices in Planning and Modal Programs that affect project delivery.

Division of Local Assistance

The Division of Local Assistance aids California local public agencies scope, organize, design, construct and maintain their public transportation facilities when they seek funding from the Federal Highway Administration (FHWA) or the State. The Local Assistance Procedures Manual describes processes, procedures, documents, authorizations, approvals, and certifications required to receive federal-aid or state funds for many types of local transportation projects. The Local Assistance Program Guidelines provides detailed descriptions of the various state and federal programs available for financing local public transportation projects. The offices of State Programs and Federal Programs are responsible for distribution, management and oversight control of each specific local assistance program, and for verifying that the funds are expended to meet the program goals and that allocations and budget authority are not exceeded. Under Title 23, United States Code, Caltrans is responsible for the administration of federal-aid (FHWA funded) transportation projects in

California and cannot delegate this overall administrative responsibility. See the *Local Assistance Procedures Manual* for further details.

Division of Transportation Planning

In the Division of Transportation Planning, the Office of Project Planning manages the guidance, templates, and resources for project initiation documents work in the districts. Project initiation documents must be developed and approved by Caltrans before any major or high complexity project can be programmed and constructed on the State Highway System (see Chapter 9 – Project Initiation).

Maintenance, Operations, Safety and Equipment Program

The following sections describe some of the divisions and offices in the Maintenance, Operations, Safety and Equipment program that affect project delivery.

Division of Maintenance Pavement Program

Under the direction of the State Pavement Engineer, the pavement program is responsible for:

- pavement management, engineering, policy, and specification development.
- partnering with districts to identify and program pavement projects.
- partnering with industry to develop new specifications and test methods through the Pavement and Materials Partnering Committee.

The pavement program consists of the following four offices:

- Asphalt Pavements develops tools, design standards, standard specifications, standard plans, guidance, and investigations for asphalt pavement.
- Concrete Pavements develops tools, design standards, standard specifications, standard plans, guidance, and investigations for concrete pavement.
- Pavement Management monitors the performance and estimates future condition of all pavements in the SHS.

- Pavement Programming assists districts with planning, prioritizing and programming pavement projects in SHOPP and Highway Maintenance programs.

Division of Traffic Operations, System Management

The Office of System Metrics and Automation collects data used to identify traffic volumes on the State Highway System, administers the traffic census data, and maintains the Performance Measurement System (PeMS).

The Office of Mobility and System Performance develops and maintains statewide policies and guidelines for the planning, design, and operation of managed lanes including HOV and express lane facilities. Mobility and System Performance also manages guidance for mobility hubs, ramp metering and traffic light synchronization. The Transportation System Improvement Program (formerly Highway Operational Improvement Program) manages the SHOPP program which is responsible for operational improvements on the State Highway System. The goal of the program is to improve traffic flow by reducing congestion and operational deficiencies at spot locations and addressing system-wide recurrent and non-recurrent congestion.

Division of Safety Programs

In the Division of Safety Programs, the Office of Safety Systems and Devices is responsible for the authorized material list for safety products, parts 2 (Signs), 3 (Markings) and 6 (Temporary Traffic Control) of the CA MUTCD, proven safety countermeasure guidance, and the Traffic Safety System Guidance. The Office of Strategic Safety and Implementation is responsible for the Highway Safety Improvement Program (HSIP), Highway Safety Manual (HSM) implementation, and SHOPP and HM safety program advisors.

Project Delivery

Division of Project Management

The Division of Project Management:

- facilitates the delivery of capital outlay support projects through construction and closeout activities.
- develops and manages the statewide capital outlay support budget.

- develops and implements statewide project management policy, standards, business processes, tools and the training needed to implement them.
- monitors and reports on the delivery status of the statewide portfolio of COS projects and maintains project management tools and applications.

The Division of Project Management maintains, among other documents, the *Project Management Manual*, the *Cooperative Agreement Handbook*, the *Project Changes Handbook*, the *Project Closeout Handbook*, and the *Risk Management Handbook*.

The office of Delivery Improvement and Agreements reviews and approves cooperative agreements, master agreements, and interagency agreements.

Division of Environmental Analysis

The Division of Environmental Analysis (DEA) administers Caltrans' responsibilities under federal and State environmental law by developing and maintaining Caltrans environmental standards, policies, procedures, and practices. Program staff work with the districts to identify and assess the effects of Caltrans projects on the state's natural and cultural environments and identify ways to avoid or mitigate those effects while encouraging the public to participate in the environmental evaluation process. DEA coordinators serve as liaisons between Headquarters and the districts for technical advice and assistance on environmental matters related to delivery of transportation projects.

Division of Right of Way and Land Surveys

The Division of Right of Way and Land Surveys administers the statewide program for right of way acquisition, real property management, surveying and right of way engineering for the delivery of transportation projects. Right of Way is responsible for upholding the Uniform Relocation Assistance and Real Property Acquisition Act (1970). The Office of Land Surveys is responsible for the development and recommendation of various initiatives, policies, tools, equipment, training programs, standards, and procedures for the statewide surveying and right of way engineering programs including the strategic planning needed to implement them throughout Project Delivery.

Division of Engineering Services

In addition to a policy making role in headquarters, the Division of Engineering Services (DES) is the project delivery organization for the design, construction, and oversight of bridge and other transportation structures. DES has several subdivisions.

Geotechnical Services maintains policy, standards, and procedures for and provides statewide geotechnical engineering and engineering geology products and services including:

- Field investigations
- Geotechnical earthquake engineering
- Exploratory drilling
- Geophysics
- Development of geotechnical recommendations for structures and earthwork projects, and emergency response

Materials Engineering and Testing Services includes the offices of Materials Management and Independent Assurance, Central Laboratories, and Quality Assurance and Source Inspection. Program/Project Management and Office Engineer (PPM&OE) manages the DES capital outlay support and non-capital programs. PPM&OE includes the offices of Project Delivery, Construction Contract Awards, and Construction Contract Advertisement and Quality Program and is responsible for implementing the *Construction Contract Development Guide*. Bridge Design is the bridge project delivery subdivision in DES, delivering plans, specifications, and estimates for structures including bridges, buildings, sign structures, sound walls, and earth retaining structures. Bridge Design provides technical guidance, policies, construction support, advance planning studies, photogrammetric services, and preliminary investigation services. Structure Construction provides construction contract administration.

Structures & Engineering Services (SES):

- provides statewide products and services for ancillary and transportation-related structures.
- develops earthquake engineering policy and guidance.
- provides oversight of structure local agency projects and structure local assistance support.

- manages the structure/geotechnical research program.
- performs special analysis of complex structures and hydraulic studies for structure projects.

Division of Construction

The Division of Construction is responsible for policies and procedures related to Caltrans construction personnel including the subjects of safety, training, acquiring and using resources, public relations, and coordinating with other Caltrans units and outside agencies and organizations (refer to the *Construction Manual*). The Division is also responsible for construction contract administration which includes making timely and accurate contract payments, labor compliance, and inspecting, testing, and documenting contractor compliance with contract requirements.

SECTION 2 Headquarters Division of Design

ARTICLE 1 Introduction

Role in Project Development and Design

Headquarters Division of Design provides policies, procedures, guidance, and the training and equipment needed to develop a safe, sustainable, integrated, and efficient transportation system. The Division does this by supporting application of federal and State requirements and design standards and by adopting best practices to promote statewide consistency and quality. The Division offers technical support and design expertise on highway design issues for motor vehicles, bicycles, and pedestrians.

Design Manuals and Guidelines for Project Development Process

Headquarters Division of Design provides guidelines and procedural directives for implementing the project development process. Headquarters Division of Design reviews and monitors the process to verify that Caltrans' goals are being accomplished, and to evaluate the need for changes.

Headquarters Division of Design office chiefs are responsible for developing and maintaining design standards, policies, procedures, and practices. These are contained in the Headquarters Division of Design manuals and guidelines listed in Chapter 1 – Introduction, Section 2 "Headquarters Division of Design Manuals and Guidelines Relating to Project Planning and Design."

Relationship with Others

While the responsibility of Headquarters Division of Design for project planning and design is limited to the State Highway System (SHS), many local agencies and consultants in California use the manuals and policies of Caltrans for their work or when they do work on the SHS. Such use of Caltrans manuals and policies requires Headquarters Division of Design to maintain liaison with, and develop overall policies and procedures in coordination with the district and Headquarters offices, local agencies, FHWA, the American Association of State Highway and Transportation Officials (AASHTO) and other State and

federal agencies and organizations. In addition, Headquarters Division of Design represents Caltrans on national committees for the Transportation Research Board (TRB), AASHTO, and the Western Association of State Highway and Transportation Officials (WASHTO), etcetera, to represent and protect the interests of California in the formulation of national design policies and standards.

ARTICLE 2 Division Chief

The Division Chief reports to the Deputy Director for Project Delivery (Chief Engineer). The Chief Engineer has delegated authority for specific design decisions to the Division Chief. The Division Chief of the Headquarters Division of Design is responsible for establishing and maintaining statewide standards, policies, guidance, tools, and training within the technical areas of responsibility assigned to the Division of Design. This responsibility covers all projects on State highways, regardless of funding, and projects involving State or federal programs on local facilities.

To maintain statewide consistency in the project development and design of projects the Headquarters Division of Design Division Chief has been delegated responsibility for approval or execution of the following project development and design documents:

- Freeway agreements (execution authority)
- Exception to encroachment and utility policy on controlled access highway and freeway (delegated to the Chief, Office of Project Support)
- Denominations as controlled access highway
- Deviation from boldface design standards on freeway (delegated to the Headquarters project delivery coordinator as designated in *Highway Design Manual*, Table 82.1A and Table 82.1B)
- Exceptions to project development policy, practices and procedures
- Route adoption maps
- Approval of experimental or research features

The authority of some of the preceding development and design documents are subject to district design delegation by agreement with the Division Chief of the Headquarters Division of Design. For more information, refer to the design delegation agreement for each district.

In this role, the Headquarters Division of Design Division Chief collaborates with the Headquarters Division of Environmental Analysis Division Chief, who is responsible for environmental, social, and economic aspects as they relate to the project development process.

ARTICLE 3 Division of Design Organization

Headquarters Division of Design accomplishes its role in project development by providing the following activities and services described in the following offices:

Hydraulics and Stormwater Design

The Office of Hydraulics and Stormwater Design engages in:

- Development and maintenance of guidance and state-of-the-practice information for Caltrans staff to promote uniformity and consistency in the design of roadway drainage-related features.
- Technical assistance to designers on unique or unusual drainage design issues.
- Liaison to industry, Federal Highway Administration, and other interested external entities for roadway drainage product approvals, processes, and requirements.
- Technical assistance to designers on storm water pollution control implementation.
- Assistance to designers to assure compliance with Caltrans' statewide NPDES permit.
- Guidance and training for implementing appropriate stormwater best management practices (BMPs).
- Management and performance of drainage related special studies and research activities.
- Development and oversight of drainage-related training courses.
- Development and maintenance of roadway drainage standard plans and specifications.
- Development and maintenance of stormwater data report forms.

Hydraulics and Stormwater Design maintains the Storm Water Quality Handbook – *Project Planning and Design Guide* (PPDG). As required by the National Pollutant Discharge Elimination System permit that regulates storm

water discharges from Caltrans facilities, the PPDG describes the process for Caltrans design staff to incorporate the best management practices from the Storm Water Management Plan into the planning and design phases of a project. The office is also responsible for the *Fish Passage Design for Roadway Crossings* guidance.

Innovative Design and Delivery

The office of Innovative Design and Delivery maintains programs for implementing innovative project design and delivery methods including construction manager/general contractor, design-build, and job order contracting. The office is responsible for policy, guidance, and training for the application of value analysis to projects and processes.

Performance Management

The office of Performance Management:

- implements the *Quality Assurance Program* for design products.
- supports the district *quality management plans* for design products.
- develops and monitors *performance measures* to support district design performance improvement.
- develops, facilitates, and maintains *design delegation master agreements* and performs compliance review.
- conducts periodic reviews of district quality management plan compliance.
- supports *advertise prior to CTC allocation*.

Project Support

The Office of Project Support (OPS) provides mentoring to the district design liaisons in their support of the Headquarters-District Design Delegation Agreements. For those design elements not delegated to the districts, OPS conducts project-specific reviews to support activities of the project delivery coordinators as well as independent review and approval of other non-delegated items.

OPS houses subject matter experts in the areas of geometrics (including but not limited to intersections, roundabouts, diverging diamond interchanges, non-motorized accommodation, and ADA design and implementation), route matters and freeway agreements, encroachment and utility policies, cost

estimating, performance-based design (that is, the Highway Safety Manual), and resolution of necessity appearances. OPS staff are content contributors to the Project Development Procedures Manual, Highway Design Manual, design information bulletins, and other design guidance,

Standards and Procedures

The Office of Standards and Procedures establishes the design standards, procedures, and practices that are used on the State Highway System. Office responsibilities include:

- Publication of the *Highway Design Manual*, Project Development Procedures Manual, various design information bulletins, and the *Project Development Workflow Guide*.
- Providing project-related consultation and reviews for projects on the State Highway System.
- Providing technical training.
- Providing technical assistance and design expertise on highway design issues related to motor vehicles, bicycles, and pedestrians (including American with Disabilities Act requirements) to Caltrans personnel statewide, local agencies, consultants, the Federal Highway Administration, and other state departments of transportation.
- Participating on national research panels and technical committees.

CADD and Engineering GIS Support

The Office of CADD and Engineering GIS Support is responsible for:

- Computer aided design and drafting (CADD) software policy, guidance and support.
- Training, Guidance, and Support for roadway design software and engineering GIS applications.
- Resource management by providing capital outlay support staff with computers, laptops, printers, plotters, and other necessary tools.
- CADD and system support including application development, testing, onsite support, and online support.
- Maintaining and publishing the *CADD Users Manual* and the *Plans Preparation Manual* used to produce project plans, project development drawings (route adoption map, freeway agreement exhibit, etcetera), and right of way engineering map drawings.

Construction Contract Standards

The Office of Construction Contract Standards is responsible for implementing the standard plans, revised standard plans, standard specifications, standard special provisions, special notices, specifications templates, and the coded contract items lists (see the *standard plans, specifications and item codes website*). The Office is also responsible for the Development Guide for Construction Contract Standards and the Specifications Style Guide.

Landscape Architecture Program

The Landscape Architecture Program develops roadside management standards, guidance, and policy, manages the safety roadside rest area program, manages the State scenic highway program, and implements the Director's policy on context sensitive solutions. The Landscape Architecture Program provides expertise in highway planting and irrigation, erosion control, revegetation and habitat restoration, visual impact assessment, mitigation design, water and natural resource conservation, transportation art, and community recognition. For further details on these subjects, see the *Highway Design Manual (HDM)* and Chapter 29 – Landscape Architecture.

Complete Streets Program

The Complete Streets Program is responsible for developing, maintaining, and updating policy, procedures, guidance, standards, and best practices to implement the design and construction of complete streets facilities supporting Caltrans and State goals for walking, biking, transit, and passenger rail. Refer to *Director's Policy 37* Complete Streets.

Professional Development

The Office of Professional Development equips design staff with professional knowledge, skills, and abilities to deliver quality projects. The Office of Professional Development:

- evaluates statewide professional development needs for design staff and develops a strategic plan to meet the needs.
- develops and administers the professional development training plan and budget.

- develops, updates, and manages typical *curriculum for design professionals*.
- develops, delivers, and administers professional training courses, *eLearning courses*, academies including the professional engineer academy, seminars, and workshops.
- develops Statewide Transportation Engineers (Civil) *Rotation Program* Guidelines and monitors the statewide rotation program.
- manages the *Professional Licensing Program* for all licensed professionals in Caltrans.

Strategic Information and Business Management

The office of Strategic Information and Business Management is responsible for budget management, contract management and contract administration support, PE academy support, Title VI compliance, professional licensing assistance, website maintenance and administration of the document retrieval system (DRS) and electronic document management system (EDMS).

ARTICLE 4 Project Delivery Coordinators

Liaison Role

To facilitate project development and design liaison with the districts, the Headquarters Division of Design Division Chief is assisted by Headquarters project delivery coordinators each assigned to one or more districts. The primary purpose of the Headquarters project delivery coordinator is to facilitate the project development process through early preliminary review, liaison and coordination. The Headquarters project delivery coordinator is the district's main contact with the Headquarters Division of Design on overall project development matters and procedures pertaining to planning, design, traffic, and environmental issues. The Headquarters project delivery coordinator also provides a channel through which any problem in a district can be brought to the attention of the pertinent party in Headquarters.

The success of this undertaking depends to a great extent on cooperation and communication between the Headquarters project delivery coordinator and the district. The district is encouraged to bring to the attention of the Headquarters project delivery coordinator, at the earliest possible time, all project development issues or project design features about which controversy or

schedule delay may develop, so that these problems may be resolved in a timely manner without loss of project development effort.

Specialists from other units are called upon by the Headquarters project delivery coordinator as the need arises: from Headquarters Division of Design, these may include a project development procedures subject matter expert; from other divisions, these may include a Headquarters Division of Engineering Services project functional manager or an environmental coordinator.

Exception Approval

For non-Interstate and Interstate freeway facilities not subject to district design delegation master agreement, the Headquarters Division of Design Division Chief has delegated approval authority for deviation from design standards to the Headquarters project delivery coordinator as designated in *Highway Design Manual*, Table 82.1A. See Chapter 21 – Design Standard Decisions for procedures.

Project Cost, Scope, and Schedule Changes

The Headquarters project delivery coordinator plays an integral role in the project scope, schedule, and cost change process (See Chapter 6 – Project Cost, Scope, and Schedule Changes). Cooperation and communication between the Headquarters project delivery coordinator and the district is essential when project changes are proposed. The Headquarters project delivery coordinator must be brought into the process at an early stage to explore the use of value analysis to assess alternative solutions to the problems causing project changes. Preferably, this should be done during the Headquarters project delivery coordinator's visit to the district, so details can be accurately ascertained. After exploring the alternatives, the district and the Headquarters project delivery coordinator recommend the appropriate course of action.

Dispute Resolution Process

Occasionally, there may be disagreements between the district and the Headquarters project delivery coordinator on the proper course of action. When disagreements cannot be resolved, the following dispute resolution process must be used:

- Pre-elevation: Every effort should be made to resolve disputes between the district and Headquarters Division of Design, at the lowest possible level.
  - District design office chief discusses issue with Headquarters project delivery coordinator.
  - District/region design manager discusses with district design office chief, staff, and project engineer to determine facts.
  - District/region design manager discusses with Headquarters project delivery coordinator.
  - Headquarters project delivery coordinator and district/region design manager may discuss with other district staff or Headquarters Division of Design staff.
  - District/region design manager and Headquarters project delivery coordinator discuss with District Director and other district managers.
- Formal elevation: If there is agreement at the district level and all attempts between the district and Headquarters project delivery coordinator fail to result in concurrence from the Headquarters project delivery coordinator;
  - District Director prepares written justification to Headquarters Division of Design Chief that includes signature of the district/region design manager.
  - Headquarters Division of Design Chief will:

    1. Attempt to resolve issue. If no resolution, go to steps 2 through 4;

    2. Appoint a three-member team of subject matter experts to review and make a recommendation to Headquarters Division of Design Chief.

    3. Consider the recommendations of the team and prepare a decision to either support or deny District Director's request.

    4. If Headquarters Division of Design Chief supports the District Director's request, the Headquarters Division of Design Chief will sign as the approval authority.

District Director can appeal to Deputy Director Project Delivery (Chief Engineer) with no further appeals.

SECTION 3 District

Design Delegation Responsibility

Each district is delegated authority from Division of Design for project level decisions identified in the design delegation master agreement. Delegation master agreements do not include approvals from other divisions. Responsibilities for each district include:

- Establish and maintain a quality management plan that defines how the district will verify adherence to the design delegation master agreement.
- Request specific additional delegations beyond the baseline delegations as supported by modification to the district quality management plan.
- Establish and maintain organizational structure to implement the design delegation master agreement including appointment of district design liaisons.
- Establish and maintain documented sub-delegations to managerial positions as authorized in the design delegation master agreement.
- Identify potential process improvements and best practices for implementation by the district or Division of Design.

For more information, refer to *Deputy Directive 23* Roles and Responsibilities for Development of Projects on the State Highway System and the current *delegation agreement* for each district.

Coordination with Outside Entities

The districts are Caltrans' contacts with outside entities and the public Refer to the *Caltrans Near Me* website for a map of the district boundaries and office locations. In those instances where an outside entity initiates a project on a State highway, the district is responsible for coordinating processes with the outside entity to verify compliance with project development procedures. (See Section 5 "Special Funded Projects and Related Projects" and Section 6 "Lead Agency.")

District Director

District Directors have the responsibility, approval authority, and accountability for those project development decisions within their district that will lead to the timely delivery of projects—within budget. District Directors are accountable for making sure their district follows the policies and guidelines contained in this

manual. This includes setting project goals, priorities, staffing plans, project delivery milestone dates, and capital cost budgets. Within tailored districts much of this responsibility resides with the District Director of the regional district and is spelled out in the delegation of authority document applying to the particular district.

Deputy District Director Design

The Deputy District Director for design supervises and monitors the work of the design and related support units. This division chief is the manager for this function, and negotiates and comes to agreement with project managers to provide needed services. This function does not exist in tailored districts.

Deputy District Director Project Management

The Deputy District Director for project management, also known as the Single Focal Point, supervises and monitors the work of the project managers. The division chief has overall responsibility for project delivery consistent with each project's scope, cost and schedule. This function does not exist in tailored districts.

Project Manager

A single project manager is to be assigned to coordinate and monitor all elements of the project development process for a specific project, including the timely delivery of the project—within budget. See the *Project Management Manual* for additional information.

Design Senior

A design senior:

- provides quality assurance for the products, and services produced by the design unit.
- manages tools, resources, time, and training needed by the design unit to deliver products and services.
- participates in the development of work plans and quality management activities defining project scope, cost, schedule, resource, and quality requirements.
- prioritizes commitments of the design unit.
- verifies written authorization to begin work.

- notifies the District Director or Deputy District Directors, via established reporting relationship, of changes, problems, or risks that could affect the scope, cost, schedule, and overall quality of projects on the SHS, or owner/operator approval.

Project Engineer

Refer to the memorandum "Seal, Signature, and Roles and Responsibilities of Registered/Licensed Professionals on Project Plans, Specifications, and Reports" dated April 12, 2022. The project engineer is the lowest-level registered civil engineer in "responsible charge" of appropriate project development documents (project study report, project report, etcetera) and project design. For more details, see Section 9, "Signatures on Technical Reports, Plans, and Specifications." The project engineer is a member of the project development team (PDT).

The project engineer coordinates closely with other functional units throughout the project development process and notifies other functional managers and staff of design changes as soon as feasible. Likewise, other functional units must communicate and coordinate closely with the project engineer whenever technical questions arise regarding the overall engineering effort. Additionally, each functional unit must keep the project manager informed of those technical issues that will affect the overall cost, scope, schedule, or quality of the project.

District Design Liaison

The district design liaison (DDL) acts as a design subject matter expert for district design staff and is supported by Headquarters Division of Design. Specific duties assigned to the DDL vary among districts. Typical activities and responsibilities of the DDL include:

- Review and assist Caltrans district staff, local agencies, and consultants in the preparation of project initiation documents, project reports, new connection reports, modified access reports, plans specifications and estimate, design standard decision documents, geometric approval drawings, freeway agreements, encroachment permits, and other documents as required.
- Act as liaison or subject matter expert for delegated design decisions and processes and engage with district functional unit and Headquarters subject matter experts to resolve specific issues.

- Participate in regular meetings hosted by Division of Design to disseminate information about policy, procedures, guidance, best practices and to facilitate networking, idea sharing, assistance from the project delivery coordinators and other Headquarters subject matter experts, knowledge transfer and consistent understanding of guidance among the districts.
- Coordinate Division of Design compliance document reviews with district design office chiefs, design seniors and project engineers.
- Communicate needs for training to the district technical training single point of contact.
- Participate with project development teams to identify items that require delegation review
- Participate in process improvement activates initiated by Headquarters and the district.

Managing a Specific Project

Specific projects are guided and developed by a PDT, managed by a district project manager who is usually the team leader. Applicable functional managers and functional units support the PDT. Section 4 “Project Management” describes these roles and responsibilities.

Responsibility for State Highway Improvements

As identified in Government Code section 14520.3 (b) and Streets and Highways Code section 90, Caltrans is the owner-operator of the State Highway System and is responsible for its planning, design, construction, operation, maintenance, and liability (refer to *Deputy Directive 23* Roles and Responsibilities for Development of Projects on the State Highway System). Caltrans is also responsible for providing for the authorized expansion of the system and for assessing the impact of improvements proposed by others to the existing system. All proposed improvements to the State Highway System need thorough evaluations by Caltrans. This applies even if the project will be financed by others.

All project planning, design, right of way acquisition, and construction should be performed in accordance with Caltrans standards and practices and according to Caltrans project development process.

The district provides staffing to the normal planned program outlined in the various State programming documents. (See Section 5 “Special Funded Projects and Related Projects” for staffing of projects-funded-by-others.)

SECTION 4 Project Management

Philosophy

Project management has been implemented by Caltrans to enhance project control and maximize the use of limited resources. The objective is to establish realistic project goals and then to control the progress of work such that quality projects are delivered within planned budgets and schedules.

According to this philosophy, a single project manager is assigned to control all elements of the project development process for a specific project.

The requirements of a specific project take precedence over other requirements of the functional organization that supports it. Functional managers should consider project work as top priority in accordance with agreements established with project managers.

Coordination Among Project Management Personnel

Continual and close coordination must be maintained between top district management and personnel assigned to manage the specific project: the PDT, the project manager, and the project engineer. District management is responsible for development and timely delivery of all district projects.

Project Manager

The project manager is responsible for all project development steps from project initiation to final project closeout. With project responsibility assigned to a single project manager, the project can be more successfully planned, managed, and delivered. *Deputy Directive 93* includes the responsibilities of the project manager.

A project manager will normally be assigned before the project initiation process begins. This also applies to projects developed by other Caltrans functional units such as transportation planning or traffic operations.

Resources should be assigned to a project based on the project work plan developed by the project manager and the PDT (see Chapter 1 – Introduction, Section 5 “Project Development Philosophy”). The project manager should

have the authority to control the designated resources and schedules. The project manager must use resources wisely and develop the project using accepted engineering standards and policies. The project manager should exercise appropriate authority to manage the allocated project resources and schedule and is held accountable for delivering a quality product on-schedule and within budget. See the *Project Management Manual* for more information.

Caltrans Project Manager for Special Funded Projects

For special funded projects, the Caltrans project manager has the responsibility to develop the quality management workplan with the Caltrans functional units and lead the review and concurrence of quality management plan submittals from the implementing agency to facilitate the delivery of a quality project. See Section 5 "Special Funded Projects and Related Projects". Refer to *Project Management Directive 023* – Quality Management of Project Components Implemented by External Partners.

Project Engineer

The project engineer is in "responsible charge" of preparation of project development documents (project study report, project report, etcetera) and the project design effort. Manuals and policies provide standards and guidance, but the project engineer must develop the project by proper application of these policies and standards. Refer to the heading "Project Engineer" in Section 3 "District" for more detailed information.

Functional Managers

The functional managers supervise the Caltrans functional units that provide technical data and plans to the project engineer and schedule and resource data to the project manager.

District functional units may operate in the traditional manner, but the functional-unit resources required for the project must be committed to the project manager to make sure schedule obligations are fulfilled.

See Chapter 3 – Involvement of Caltrans Functional Units, for more information.

SECTION 5 Special Funded Projects and Related Projects

Special Funded Projects

A special funded project is any project located on the State Highway System: (1) that is developed and constructed using local or private funds, (2) that is within the existing or future State highway right of way, and (3) that is processed through the Quality Management Assessment Process (QMAP). Special funded projects are also referred to as projects-funded-by-others in other Caltrans manuals. See the *Quality Assurance Program Guide for Design Products* and the heading "Application of Quality Management Assessment" in this section for more information.

There are four different types of special funded projects, and these are described in the following text.

Local Sales Tax Measure Projects

These are State Highway System projects identified in an approved sales tax measure expenditure or strategic plan—funded 50 percent or more from local sales tax revenues—and having no funding in State programming documents. See Chapter 4 – Programming, for more information.

Funds are generated from a voter-approved county-wide sales tax increase for transportation. Typically, sales tax measure projects are highway capacity improvement projects of county-wide significance that expand the transportation system: new routes, lane additions, major interchange improvements, transit projects in shared right of way, etcetera.

As owner-operator responsible for providing for improvements to the State Highway System, Caltrans is responsible for performing and funding all project development work through the environmental document (ED) and project approval phase. If Caltrans cannot comply with the schedules established by the sales tax measure authority for the approval of the project study report – project development support (PSR-PDS) and the environmental document approval, then the authority may undertake this work at authority expense—subject to quality management assessment performed and funded by Caltrans.

The sales tax measure authority is responsible for funding and performing all project development, right of way, and construction following approvals of the environmental document and the project. Caltrans performs quality management assessment for such activities at Caltrans expense. If requested by the sales tax measure authority, Caltrans may perform some of the services the authority is responsible for, on a reimbursed basis, if Caltrans has sufficient reimbursed budget authority.

To set forth the responsibilities and funding for the various phases of project development and construction for sales tax measure projects on the State Highway System, one or more cooperative agreements between the State and the sales tax authority will be required. (See the *Cooperative Agreement Handbook* for more information.)

Locally Funded Projects

These are defined as local-agency sponsored, non-sales-tax-measure projects on the State Highway System having no funding in a State programming document.

Funds may be generated from developer fees and contributions, assessment districts, local share of State gas taxes, local property taxes, local Federal-aid, and non-highway federal programs. Funds may also include sales tax measure revenue, if the total is less than 50 percent of the total construction cost and is included in a strategic or expenditure plan, or the total is more than 50 percent of the total construction cost and is not included in a strategic or expenditure plan.

Locally funded projects are typically highway projects of local significance, such as relatively minor interchange improvements, intersection improvements, over-crossing improvements, and signalization projects: projects that do not expand the transportation system.

As owner-operator responsible for assessing the impact of improvements on the existing State Highway System, Caltrans is responsible for preparing the PSR-PDS, at Caltrans expense. It is the responsibility of the local agency to provide suitable engineering data, as well as technical and financial information needed for Caltrans to prepare the PSR-PDS. The local agency may prepare and submit an unsigned PSR-PDS, at its own expense, to expedite the project

development process. All subsequent project development, right of way, and construction activities are to be performed and funded by the local agency, with Caltrans performing quality management assessment at Caltrans expense. If requested by the local agency, Caltrans may perform some of the services for which the local agency is responsible, on a reimbursed basis if Caltrans has sufficient reimbursed budget authority.

To set forth the responsibilities and funding for the various phases of project development and construction, one or more cooperative agreements between the State and the local public agency will be required for all locally funded projects on the State Highway System. (See the *Cooperative Agreement Handbook* for more information.)

Privately Funded Projects

These are defined as projects on the State Highway System that are sponsored by a private, non-public entity having no funding in a State programming document.

Once a proposed privately funded project is identified, a decision must be made in designating the project sponsor. Caltrans strongly encourages local public agencies to sponsor privately funded projects to demonstrate community acceptance of the project and to improve coordination with other local agencies. If a proposed privately funded project is sponsored by the local public agency, then it will be processed as a locally funded project. Caltrans will work directly with the private sponsor if a local public agency does not sponsor the privately funded project.

As owner-operator responsible for assessing the impact of improvements on the existing State Highway System, Caltrans is responsible for preparing the PSR-PDS at Caltrans expense. It is the responsibility of the private project sponsor to provide suitable engineering data, as well as technical and financial information needed for Caltrans to prepare the PSR-PDS. The private project sponsor may prepare and submit an unsigned PSR-PDS, at its own expense, to expedite the project development process. The private project sponsor is responsible for performing all subsequent project development, right of way, and construction activities, with Caltrans performing quality management assessment at the expense of the project sponsor. If requested by the private project sponsor, Caltrans may do some of the services for which the private

project sponsor is responsible, on a reimbursed basis if Caltrans has sufficient reimbursed budget authority.

A highway improvement agreement accompanied by an escrow agreement, if applicable, will be required for all privately funded projects. If Caltrans will do the work on a reimbursed basis, an additional agreement is required to provide for the reimbursement. See Chapter 9 - Project Initiation for more details.

Public Toll Road Facilities

These (not the "privatization" toll road projects) are defined as projects authorized under *California Streets and Highways Code*, Sections 531, 541, and 561. These sections authorized the creation of specific locally funded toll road facilities in Orange County which are to become part of the State Highway System and maintained as authorized under *California Streets and Highways Code*, Section 188.4.

As future owner-operator of the public toll road facilities, Caltrans is responsible for providing oversight of the local toll road project development (including compliance with Caltrans design standards) through construction. If requested by the toll road authority, Caltrans may do some of the work for which the toll road authority is responsible, on a reimbursed basis if Caltrans has sufficient reimbursed budget authority. One or more cooperative agreements between the State and the toll road authority will be required to cover responsibilities and funding, including maintenance, operation, and acceptance into the State Highway System.

Complementary Programs

Listed next are definitions of other types of projects that are complementary to special funded projects.

Encroachment Permit Projects

These are defined as projects on the State Highway System sponsored by either a local public entity, a local sales tax measure authority, or a private entity within the existing or future State highway right of way. Encroachment permit projects must meet evaluation criteria to be processed through the Encroachment Permits Office Process (EPOP). Such projects will follow established State policy and procedures for encroachment permits.

A cooperative agreement or a highway improvement agreement is typically not required for encroachment permit projects unless there is an exchange of funds. However, certain types of encroachment permit projects that include signalization, landscaping, and noise barriers may require various types of agreements. See *Encroachment Permit Manual* for the details of the applicable agreements.

The State representative responsible for overseeing the project construction will be provided by the construction unit if construction cost exceeds $300,000. Projects with construction costs of $300,000 or less may be overseen by either the construction unit or the permits unit.

All projects-funded-by-others, not just those that are called encroachment permit projects, require an encroachment permit whenever the project sponsor, its consultants, or its contractors work within the existing State highway right of way.

Jointly Funded Projects or Cooperative Projects

These are defined as projects that involve combinations of special funds (local, sales tax, or private) and funding in State programming documents. Roles, responsibilities, and funding must be defined in one or more cooperative agreements, regardless of the amount contributed by the project sponsor or Caltrans.

For projects where Caltrans is performing project development, right of way, or construction support, the project sponsor shall reimburse Caltrans for their support costs in the same proportion as the project sponsor's share of the total project capital cost, unless other equitable arrangements are specified in the cooperative agreement. (See the *Cooperative Agreement Handbook* for more information.)

Project Development Appeal Process

The process described here is used to address disagreements between local funding sponsors and the Caltrans district or FHWA on projects proposed on the State Highway System. The appeal process enables the project sponsor a means to resolve disputes concerning the project concept, scope, or design standards.

On projects funded by others, disagreement over scope and design standards should be resolved early in the project development process and documented through a PSR-PDS and cooperative agreement.

When there is disagreement on project concept, scope, or deviations from design standards, the project sponsor may request review of the District's decision by the Caltrans Deputy Director, Project Development. A request for a review of the district's decision is prepared by the project sponsor and submitted to the District Director for use in discussions with the Deputy Director, Project Delivery. This request is the local sponsor's final recourse.

The request must include the background of the project, nature of the concept or scope disagreement or requested design standard deviation, and the purpose and justification for the requested concept or scope change or deviation from design standard. The justification should include all pertinent reasons why the sponsor is requesting or disputing the concept or scope change or requesting the deviation from design standard, including but not limited to cost increases, schedule delays, unavailability of right of way, or environmental issues. Alternatives to the design standard deviation must be addressed and the reasons for dismissal of the alternatives must be documented. Where a concept or scope change is involved, there must be a discussion on how this change affects the project contained in the regional transportation plan (RTP) and Federal Transportation Improvement Program (FTIP) air quality conformity analysis.

The District Director reviews the request for completeness and accuracy and obtains any additional information which may be needed from the project sponsor. The District Director also prepares information on why the project sponsor's request was denied.

Both the project sponsor's request for review and the District Director's reasons for denial must be submitted to the Deputy Director, Project Delivery, before discussion of the issue with the Deputy Director, Project Delivery. The discussion, with all of the involved parties, including the project sponsor and FHWA, will consider both sides of the issue, following which the Deputy Director, Project Delivery, will make the final decision on the matter. The project sponsor will be informed of the decision by the District Director.

All reviews and discussions of the issue should be timely to avoid jeopardizing the project's scheduling and funding.

Cooperative Agreement Considerations

A cooperative agreement must be executed by the person that was authorized by resolution of the city council or the board of supervisors that approved the agreement. To expedite project delivery, a draft cooperative agreement may be submitted with the PSR-PDS. A preapproved cooperative agreement should be used if appropriate.

A subsequent cooperative agreement may be needed to reimburse Caltrans for contract administration during the construction phase. Such an agreement is usually negotiated when the PS&E is nearing completion and construction costs and special contract provisions have been more clearly defined.

Caltrans does not use cooperative agreements with private parties. Every effort should be made to work through the local entity rather than directly with a private party. Should this fail, the district must then enter into either a highway improvement agreement (described previously under "Privately Funded Projects") or some other type of agreement with the private party.

For more information, refer to Chapter 16 – Cooperative Agreements, and the *Cooperative Agreement Handbook*.

Local Use of Consultants

Local entities have the prerogative to use consultants for any work on a special funded project that is their responsibility and that was provided for in the cooperative agreement. However, Caltrans will monitor and participate in the consultant selection process and must also review the work they do on State highway improvement projects.

Local Acquisition of Right of Way

All right of way acquisition costs that are incurred after the identification of a special funded project or the passage of sales tax measures are the responsibility of the local entity. However, certain in-progress acquisitions may be completed at State expense: for instance, acquisition of hardship or protection parcels commenced before passage of the tax measure. If a

cooperative agreement has been executed, hardship and protection acquisitions should be made on a reimbursement basis, if in accordance with the agreement.

Contract Administration

For all projects, the responsibilities of advertising, awarding, and administering are viewed as a single process: whoever advertises, generally, also awards and administers.

In the traditional program, construction contract administration is a State-only process. In the special funded program, advertising, contract award, and contract administration may be managed by the project sponsor or by Caltrans if reimbursement work is authorized.

The importance and complexity of most special funded State highway projects dictates the need for Caltrans to maintain a strong oversight of work on the existing and future State Highway System, regardless of how the work is to be financed. Caltrans makes use of local agency staffs and private consultants, while assuring compliance with Caltrans' construction standards and practices, and consistency in the administration of all construction contacts.

For all projects financed entirely with funds other than State and federal highway funds, responsibility for construction contract administration is borne by the local entity. In rare cases, a private sponsor may be responsible for contract administration. If the work is routine utility or drainage work, the encroachment permit process is followed.

On sales tax measure projects, if reimbursed work is authorized, Caltrans may advertise, award, and administer the tax measure authority's construction contracts, at the discretion of the District Director—if the authority is willing to accept normal Caltrans processing, procedures, and scheduling - so that the project may be processed with regular State Transportation Improvement Program (STIP) projects.

On other locally and privately funded projects, if reimbursed work is authorized, Caltrans should consider doing the advertisement, award, and administration on the following types of projects:

- Those involving major urban freeway or expressway construction with heavy public traffic moving through construction areas
- Where extensive night work will be required
- Those with long or unusual structures
- Where FHWA requires State administration

Projects on conventional highways, and projects having minimum interference with traffic on the State highway, are normally administered by local entities or private sponsors. District Directors are responsible for making the final determination and for requesting reimbursed work authority during the budget process.

Reimbursing Construction Administration

The local entity or private sponsor pays for 100 percent of the direct and indirect advertising and administration costs for all locally or privately funded construction contracts advertised and administered by Caltrans. This includes the cost of Headquarters Division of Engineering Services-Office Engineer for advertising, opening and reviewing bids, and awarding the construction contract; the cost of Caltrans' construction engineering personnel (structure engineers, other staff and specialty personnel); and the cost of Caltrans' consultants. Time and effort expended by the district office engineer and the resident engineer shall be classified as oversight costs, to be paid for by Caltrans. The local entity or private sponsors should provide and pay for any of the remaining construction engineering team (construction field engineers, lab personnel and office engineers).

For jointly funded projects, the local entity or private sponsor reimburses Caltrans for the contract administration cost in the same proportion as their share of the total actual construction contract costs, unless other equitable arrangements are specified in the cooperative agreement.

Agreements for Construction Administration

For project-funded-by-others, Caltrans enters into a cooperative or highway agreement to cover the cost of the construction phase. The agreement specifies responsibility for construction contract advertisement, award, administration, and construction engineering. Note that landscape projects typically require various types of agreements such as maintenance agreement,

memorandum of agreement, etcetera. See Chapter 29 – Landscape Architecture for more details.

There are three ways for the local entity or private sponsor to interact with Caltrans for contract administration on State highway right of way. All require an agreement:

- Caltrans administers the project and provides a resident engineer and other staff and specialty personnel under reimbursement work authority. The local entity or private sponsor provides any remaining personnel required for the construction engineering team.
- The local entity administers the project under an encroachment permit, provides the resident engineer and construction engineering team, and uses Caltrans' Local Agency Automated Pay System (LAAPS) to pay the contractor. This is a local entity option; however, it requires that the resident engineer for the local entity be trained in Caltrans' Local Agency Automated Pay System and estimate system. Caltrans provides construction oversight.
- The local entity or private sponsor administers the project under an encroachment permit, provides the resident engineer and construction engineering team, and uses their own system of contractor payment. Caltrans provides construction oversight.

The agreement for construction will normally be prepared and executed during the design stage. Sufficient time should be allowed for negotiations and reviews. Duties for the local entity or consultant providing construction contract administration are covered in the agreement. Agreements will include, but not be limited to: detailed funding and requirements for advertisement, award, administration and construction engineering, State-furnished materials, materials testing, change orders, claims resolution, maintenance during and after construction, insurance, liability, bonding, advance deposits and escrow accounts, audits (if State or federal money is funding part of the cost), and as-built plans.

Once the design plans are acceptable to the district, the local entity or private project sponsor should submit a request for an encroachment permit. To make sure all real estate interests (right of way or utility easements) have been appropriately dealt with, a right of way certification is required of the local entity or private sponsor before the granting of an encroachment permit. Before commencement of construction work, the construction contractor for a local

entity must obtain an encroachment permit. The agreement should discuss the determination of fees charged to the contractor.

Generally, encroachment permit services should be considered as oversight. Refer to the *Encroachment Permits Manual* for further information.

All work on the State right of way is considered a public works project, unless it is work performed solely to allow private encroachments onto the State highway or for utility or drainage encroachments within the State highway. Public works projects come under prevailing wage and related provisions.

Encroachment Permit Considerations

All entities (other than Caltrans' forces or under a State highway construction contract with Caltrans and operating within their contract limits, consultants under contract with Caltrans, local agency forces with a delegation of a maintenance agreement operating within their jurisdictional boundaries and within the scope of their maintenance ties) must obtain an encroachment permit before conducting any activity within, under, or over the State highway right of way. The primary encroachment permit should be issued to a public entity for private development work when the public entity has sponsored the project. Otherwise, it should be issued to the developer or contractor and the applicable inspection fees charged.

When the encroachment (or a portion) is to be later maintained by a public entity, a second permit or maintenance agreement is required of the public entity.

When a public entity performs contract administration, an encroachment permit is also required. Under *California Streets and Highways Code*, Section 671.1 public entities are not charged fees for an encroachment permit.

For additional information, refer to the *Encroachment Permits Manual*.

Subsequent Agreements

Cooperative agreements are entered into for any applicable maintenance and operations costs that will arise after the project has been accepted into the State Highway System, regardless of the project's construction cost. Caltrans prepares and processes any necessary cooperative agreements. Maintenance

agreements are also entered into or amended as necessary to cover any changes in maintenance responsibilities.

Application of Quality Management Assessment

Although local entities and private entities are responsible for performing the work on projects-funded-by-others, Caltrans staff will still be involved in performing various activities, which may include the following: design advice or comment, environmental review or studies, issuance of notices, right of way processing, reviews and approvals, consultation from maintenance and operations, and furnishing project consultants with Caltrans' standards and processes.

Among other responsibilities, *Deputy Directive 23* – Roles and Responsibilities for Development of Projects on the State Highway System, states that the implementing agency has the responsibility to establish and implement a quality assurance program and generate a quality management plan (QMP) for each project component, and that Caltrans has the responsibility to perform quality management assessment (QMA). Caltrans QMA includes verifying the QMP is implemented, and, upon reviewing work product submittals from the implementing agency, forms the basis for their approval. For information about evaluating the QMP, see the *Quality Assurance Program Guide for Design Products*. Refer to Chapter 9 – Project Initiation, *Project Management Manual Chapter 19* – Externally Financed Projects, and *Deputy Directive 90* – Funding of Quality Management Assessment on State Highway System.

Early Relationship

It is important to establish a cooperative and communicative relationship with the local entity or developer at the earliest possible point in the development process. A district representative should be assigned to work with the local entity or developer. This representative will serve as both the Caltrans point of contact and, for projects processed through QMAP, the Caltrans project manager.

A processing assessment will be made, an initial meeting will be held, and processing will be started, as appropriate, per this manual (for encroachment permit projects see Chapter 9 – Project Initiation).

Single Liaison

A district representative provides a single contact point through which the outside entity will work. There should be, however, flexibility to provide for direct interaction with area project development personnel as appropriate.

The single contact point would also act as an ombudsman for outside entity problems or complaints. To prevent a breakdown in communication, the assigned district representative should contact the outside entity whenever a significant lapse in communication has occurred. Each contact should be documented, and copies sent to the various involved parties.

Items that Require Review and Coordination

The following items require review and coordination:

- The PSR-PDS should make clear recommendations for staffing responsibilities that are to be in effect for a period extending from the execution of the cooperative agreement (after approval of the PSR-PDS) until the approval of the environmental document. Staffing responsibilities for the design, right of way, and construction phases should be covered in the PSR-PDS in general terms. See Section 6, "Lead Agency," for more information.
- Approvals from Caltrans must be obtained for all project initiation and approval documents such as the PSR, PSR-PDS, PSR-PR or DEER. Chapter 9 – Project Initiation Identifies the circumstances that dictate the preparation, reviews, and approvals required.
- Earlier confirmation (by approval of a PSR-PDS) is required if a new connection to an expressway is proposed. See Chapter 9 – Project Initiation, and Chapter 27 – Access Control Modification for required reviews and approvals.
- The goal on locally funded interchange projects is to determine the design concept in considerable detail. No firm commitments can be made to local entities until Caltrans' conceptual approval is given, and FHWA's approval if on the Interstate System.
- Although the design concepts contained in a PSR-PDS contain considerable detail, they are still conceptual in nature and subject to further revision later in the project development process and therefore should not be used to identify final right of way requirements. If it is likely that the maps attached to a PSR-PDS will become the basis for identifying the right of way line, such as could occur to allow a development to proceed, all studies necessary to identify adequate right of way requirements need to be completed before PSR-PDS approval.

- Clear recommendations on staffing responsibilities for subsequent design, right of way activities, and construction should be included in the project report and any draft project report.
- For those projects that are processed by the Quality Management Assessment Process, the implementing agency must submit a quality management plan for each project phase.
- The time schedule should be realistic. Both the local entity and the funding sponsor should be sent written confirmation of the scheduling.
- PDT meeting minutes should be taken. Copies should be sent to the involved parties.
- The district must track progress. It must inform the local entity, funding sponsor, and consultants when schedule slippage occurs and a revised schedule should be prepared and agreed upon.
- A typical section should be developed and approved early in the development process by the project proponent and Caltrans. Bridge widths should also be shown and agreed upon.
- Geometric features should be carefully studied. Formal approval must be obtained for all deviations from design standards. Documentation is an extremely important resource for later questions by either party.
- All design plans should be carefully reviewed by the district for Caltrans requirements and standards. The Caltrans project manager will coordinate all reviews by other Caltrans units. To optimize communication, local agencies and consultants should use the Caltrans project manager as their liaison to Caltrans personnel.
- Before beginning detailed design, a general plan for each bridge should be submitted to the district and the Headquarters Division of Engineering Services-Bridge Design for review and comment.
- Before preparation for advertising, the PS&E must be checked by Caltrans district personnel for adequacy and compliance with standards and approved exceptions. The Caltrans *Standard Specifications*, standard special provisions, and test methods should be used. (It is acceptable for locally administered projects to use local specifications and standard plans.)

SECTION 6 Lead Agency

General

Since the term “lead agency” is used by a variety of different programs, its definition must be clarified within the context of the associated program. For example, a lead agency is used with respect to implementation of the California *Surface Mining and Reclamation Act of 1975* (SMARA) as well as with respect to the construction contract claims process for projects-funded-by-others. For project development purposes, reference to a lead agency is made with respect to its role in fulfilling the requirements of the *California Environmental Quality Act* (CEQA). Under CEQA, lead agency means “the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment.” When two or more public agencies will be involved in a project, the determination of which agency will be lead agency is governed by CEQA Guidelines Section 15051. A “responsible agency” under CEQA means “a public agency, other than the lead agency, which has responsibility for carrying out or approving a project.”

Under the National Environmental Policy Act (NEPA) implementing regulations found at 40 CFR 1500 et seq., lead agency “means the agency or agencies, in the case of joint lead agencies, preparing or having taken primary responsibility for preparing the environmental impact statement.”

Caltrans as Lead Agency for California Environmental Quality Act

Caltrans will normally be the lead agency for CEQA for projects sponsored by Caltrans for the SHS, as well as for locally sponsored projects that involve new mainline development, new mainline capacity, or relief of existing highway traffic safety or congestion problems. This would include projects like mainline improvements, new interchanges, conversion of expressways to freeways, adding new lanes, traffic relief improvements such as auxiliary lanes and ramp revisions not related to local improvements.

The general rule is that only one public agency will prepare an environmental document for a project.

Caltrans is responsible for the adequacy and objectivity of the draft environmental document, which must reflect the independent judgment of Caltrans. However, if another agency is the project sponsor, Caltrans can use information prepared by the sponsor. The local entity may prepare the environmental document, but Caltrans must still review, analyze, and approve the content of the draft and final versions before public circulation. In addition, Caltrans will usually handle all required public notices.

Local Agency as Lead Agency for California Environmental Quality Act

For other locally sponsored projects, the local entity may be the lead agency for CEQA. Examples of these include: a local road overcrossing of a freeway; new construction or substantial upgrading of a major element of the local road system, where a portion of the project involves a freeway interchange or State highway widening; work on the State highway required to improve circulation and access to mitigate the impacts of a large local development proposal.

As responsible agency under CEQA, Caltrans must;

- determine that the final environmental document (FED) has been completed in compliance with CEQA.
- certify that it was presented to the Caltrans decision maker.
- certify that the decision maker reviewed and considered the information contained in the final environmental document before approving the project.

All other environmental work and public involvement activities can be done by the sponsor or by Caltrans (within the limits of available resources and under a reimbursable contract for services).

Caltrans as Lead State Agency for National Environmental Policy Act

NEPA has been assigned to Caltrans pursuant to two Memoranda of Understanding (MOU) signed by FHWA & Caltrans. Caltrans is responsible for complying with all applicable federal environmental laws and with NEPA implementing regulations (23 CFR 771), policies, and guidance of the FHWA, and is legally responsible and liable for the environmental decisions made on projects under NEPA Assignment. When the local entity is lead agency for CEQA, and there is any FHWA involvement, Caltrans will be the lead, and act

as the Federal agency for NEPA compliance. This means that Caltrans and FHWA must be involved at the early stages in determining the requirements for environmental compliance under federal law.

If there are significant impacts involved in the portion of the project under authority assigned to Caltrans, then (1) a draft environmental impact statement (DEIS) must be prepared and approved for circulation by Caltrans and FHWA and (2) a final environmental impact statement (FEIS) must be prepared and approved by Caltrans. If Caltrans is the sole federal agency involved in a local entity or private development project that is predominantly a non-federal action, it will not accept the CEQA document for purposes of NEPA. Consequently, a concurrent or subsequent NEPA document usually needs to be prepared that solely addresses the highway-related impacts.

If there are no significant effects involved within the scope of the decision authority of Caltrans, and if the proposed work is not categorically excluded under the FHWA regulations, then an environmental assessment needs to be prepared that addresses highway-related impacts. This assessment must be made available to the public. Following these events, Caltrans can issue a finding of no significant impact (FONSI). This can be done concurrently with CEQA processing.

SECTION 7 Federal Government

ARTICLE 1 Federal Highway Administration

Authority

The FHWA is the federal agency most typically involved with transportation projects or actions taken by Caltrans on the State Highway System and as such has the authority and responsibility for implementing and monitoring federal laws, regulations, and executive orders. FHWA is involved when a project (or action) uses Federal-aid funding, requires an FHWA approval action, or is on the Federal-aid system. Caltrans assumes some of the FHWA responsibilities, defined in a stewardship agreement between the parties, pursuant to *Title 23 United States Code*, Section 106(c).

When a federal permit is required as part of NEPA compliance subject to the MOUs signed by FHWA & Caltrans, Caltrans will be the lead federal agency or co-lead agency. Because of these varied roles and responsibilities, FHWA still works with Caltrans through several project delivery functions such as right of way, environmental (program level only), construction, project management, office engineer, and design and also through other divisions including Local Assistance, Budgets, and Accounting. For a thorough and precise description of the types of communications with FHWA, contact these functions for additional information and guidance.

Stewardship and Delegation of Federal Highway Administration Authority

Stewardship is the process by which federal program responsibility and accountability are delegated to state transportation agencies to act as stewards over those federal functions.

Federal law allows FHWA to delegate their review and oversight for certain activities on Federal-aid projects and to delegate additional authority for approval and administration of the Federal-aid Highway Program. FHWA always must make the final eligibility and participation decisions for the Federal-aid Highway Program.

FHWA monitors Caltrans' stewardship responsibilities through programmatic and project oversight to ensure compliance with applicable federal requirements. Noncompliance with federal requirements risks the loss of delegated responsibilities and possibly federal funds.

See the latest *Stewardship and Oversight Agreement on Project Assumption and Program Oversight* between the FHWA, California Division and Caltrans for the project actions assumed by Caltrans and the project actions where FHWA has retained their authority as well as the detail associated with the various oversight responsibilities.

Federal Highway Administration Oversight

FHWA involvement, as dictated by the project aspects, must begin as early as possible for all projects on the National Highway System or when a project will be qualified for Federal-aid funding based on Caltrans federal and State budgetary management needs (see the Division of Budgets *Federal-aid Project Funding Guidelines*). FHWA should be consulted so that both parties have a clear understanding of the project aspects that will require coordination and information sharing to facilitate oversight and future approvals.

The FHWA oversight activities and approvals must be documented in the reports prepared for project initiation and project approval.

ARTICLE 2 Other Federal Agencies

Authority

Federal agencies have approval or permit authority over activities on federal lands and over certain resources (such as: air and water quality, wildlife, navigable waters, etcetera) when federal actions are undertaken. Federal laws, regulations and executive orders may have a bearing on a specific transportation project and may require approvals, permits or communication with federal agencies other than FHWA. See Figure 2-1 to determine which federal agencies may need to be involved due to the location, affected resources, or the activities involved in the project.

National Environmental Policy Act Compliance

All federal actions require compliance with the *National Environmental Policy Act of 1969*. When Caltrans exercises it's assigned authority under NEPA, other permitting or approving federal agencies will normally accept the NEPA determination made by Caltrans. For a project that requires federal action but lacks a transportation nexus, the permitting or approving federal agency must still comply with NEPA. Caltrans may be asked to prepare the draft NEPA document. See the *Standard Environmental Reference* for details.

Memorandum of Understanding Integrating the National Environmental Policy Act and Section 404 Processes

The U.S. Department of Transportation, U.S. Army Corps of Engineers, and the U.S. Environmental Protection Agency have adopted as policy (1) procedures to improve interagency coordination and (2) procedures to integrate the NEPA and the *Clean Water Act of 1972*, Section 404 processes. A memorandum of understanding was signed to implement those procedures on transportation projects in California (as well as in Arizona and Nevada).

The memorandum of understanding applies to all projects needing both FHWA/Federal Transit Administration action under NEPA and a U.S. Army Corps of Engineers individual permit under the *Clean Water Act of 1972*, Section 404. The memorandum of understanding is limited to issues pertaining to waters of the United States and associated sensitive species. Nothing in the memorandum of understanding or its appendices is intended to diminish, modify, or otherwise affect the statutory or regulatory authorities of the agencies involved.

The signatories to the memorandum of understanding are committed to integrating NEPA and the *Clean Water Act of 1972*, Section 404 in the transportation planning, programming and implementation stages of a project. They are committed to ensuring the earliest possible consideration of environmental concerns pertaining to waters of the U.S., including wetlands, at each of these three stages and place a high priority on the avoidance of adverse impacts to waters of the U.S. and associated sensitive species, including threatened and endangered species. Whenever avoidance of waters of the U.S. is not practicable, minimization of impacts must be achieved, and

unavoidable impacts must be mitigated to the extent reasonable and practicable.

The memorandum of understanding signatories have integrated the compliance process for the Section 404 (b) (1) guidelines with the compliance process for NEPA to improve interagency cooperation and consultation at all levels of government throughout the process. Contact the district environmental unit if further information is needed.

FIGURE 2-1 Federal Statutes, Regulations and Executive Orders That May Affect Transportation Projects

Resource, Geographic Area, or Activity	Other Federal Agencies (Besides FHWA) Potentially Involved	Federal Statute, Regulation or Executive Order
Air	U.S. Environmental Protection Agency (EPA)	Clean Air Act (42 USC 1857 et seq) Clean Air Act Amendments of 1990 (42 USC 7401 et seq) Code of Federal Regulations: Review of New Sources and Modifications, 40 CFR 51.18; Emission Offset Interpretative Ruling, 40 CFR Part 51, Appendix S; Prevention of Significant Deterioration, 40 CFR 51.24
Fish and Wildlife Habitat	U.S. Fish and Wildlife Service; U.S. Forest Service; National Park Service; National Marine Fisheries Service	Endangered Species Act (Section 7)
Water	U.S. Army Corps of Engineers; U.S. Environmental Protection Agency (EPA); U.S. Bureau of Reclamation; U.S. Fish and Wildlife Service; National Marine Fisheries Service	Federal Clean Water Act (Section 404) Regulations Concerning the National Pollutant Discharge Elimination System (40 CFR)
Navigable Waters	U.S. Army Corps of Engineers; U.S. Coast Guard	Rivers & Harbor Act
Federal Lands	U.S. Forest Service; U.S. Bureau of Land Management; National Parks Service	
Historic Properties	Advisory Council on Historic Preservation	National Historic Preservation Act (Section 106)
Coastal Zone	U.S. Army Corps of Engineers; U.S. Fish and Wildlife Service; National Oceanic and Atmospheric Administration	Coastal Zone Management Act
Wild and Scenic Rivers	National Parks Service	Code of Federal Regulations: 36 CFR 297; 43 CFR 8350
Wetlands	U.S. Army Corps of Engineers; U.S. Environmental Protection Agency (EPA)	Executive Order 11990 (Protection of Wetlands)
Floodplains	Federal Emergency Management Agency	Executive Order 11198 (Floodplains Management)
Hazardous Waste	U.S. Environmental Protection Agency (EPA)	Code of Federal Regulations (Title 40 CFR Part 261)
Dredging	U.S. Army Corps of Engineers; U.S. Coast Guard	
Airport Airspace	Federal Aviation Administration	Federal Aviation Regulations, Part 77
Farmland	U.S. Soil Conservation Service	Farmland Protection Policy Act

This figure is not intended to be all inclusive.

SECTION 8 Use of Consultants

California Government Code

As authorized by *California Government Code*, Sections 4525 et seq, 14101 14131, and 19130, Caltrans uses consultants for some professional and technical services required by law to be performed by a licensed architect, licensed registered engineer, licensed landscape architect, construction project manager, or licensed land surveyor. There is no dollar limit for an individual contract.

Types of Contracts

There are three types of professional services contracts:

1. On-call (indefinite delivery/indefinite quantity) – services are provided for several projects or a defined area through issuance of task orders issued on an as-needed basis
2. Project specific – services are provided for a defined scope of work related to a specific project or projects
3. Multi-phase – project-specific contract where the solicited services are divided into phases whereby the specific scope of work and associated costs may be negotiated and authorized by phase as the project progresses

Consultant Selection

Consultants are selected based on demonstrated competence and the professional qualifications necessary for the satisfactory performance of the required services. Professional services are publicly advertised through issuance of a request for qualifications, and consultants submit a statement of qualifications in response. Professional services cannot be sole sourced unless the services are emergency services as defined by California Public Contracting Code 1102. Caltrans Division of Procurement and Contracts, Division of Legal, Independent Office of Audits and Investigations, Office of Civil Rights, and FHWA are involved in the selection process.

Guidelines and Procedures

Information regarding contracting for professional services is on the Headquarters *Division of Procurement and Contracts* website.

Consultant Oversight

The products delivered by consultants must follow the same procedures and conform to all standards that Caltrans adheres to.

SECTION 9 Signatures on Technical Reports, Plans, and Specifications

California Business and Professions Code

Although this section deals specifically with civil engineering requirements, reports prepared by other registered or licensed professionals should comply with any similar requirements specified by that profession.

California Business and Professions Code, Section 6735 says all civil (including structural and geotechnical) engineering plans, calculations, specifications, and reports (documents) shall be prepared by, or under the responsible charge of, a licensed civil engineer and shall include the licensee's name and license number. All civil engineering plans and specifications that are permitted or that are to be released for construction shall bear the signature and seal or stamp of the licensee and the date of signing and sealing or stamping. All final civil engineering calculations and reports shall bear the signature and seal or stamp of the licensee, and the date of signing and sealing or stamping. If civil engineering plans are required to be signed and sealed or stamped and have multiple sheets, the signature, seal or stamp, and date of signing and sealing or stamping shall appear on each sheet of the plans. If civil engineering specifications, calculations, and reports are required to be signed and sealed or stamped and have multiple pages, the signature, seal or stamp, and date of signing and sealing or stamping shall appear at a minimum on the title sheet, cover sheet, or signature sheet.

Consultants and Local Entities

The procedures that follow also apply to final engineering reports developed by consultants and local entities. A Caltrans registered civil engineer would not normally sign and seal a report prepared by others. The local agency engineer or consultant in "responsible charge" would normally sign and seal the report.

Responsible Charge and Engineering Decisions

"Responsible charge of the work" is defined in Section 6703 of the Professional Engineers Act of the California Business and Professions Code as "the independent control and direction, by use of initiative, skill and independent

judgment, of the investigation or design of professional engineering work or direct engineering control of such projects."

According to the rules of the Board for Professional Engineers Land Surveyors, and Geologists (Title 16, California Code of Regulations sections 400 to 476), as used in the Professional Engineers Act, the term "responsible charge" directly relates to the extent of control a professional engineer is required to maintain while exercising independent control and direction of professional engineering services or creative work and to the engineering decisions which can be made only by a professional engineer.. The extent of control necessary to be in responsible charge requires that the registered civil engineer:

- Makes or reviews and approves engineering decisions.
- Determines the applicability of design criteria and technical recommendations provided by others before incorporating such criteria or recommendations.

In making or reviewing and approving engineering decisions, the engineer must be physically present or review and approve through the use of communication devices the engineering decisions before their implementation

The term "responsible charge" relates to engineering decisions within the purview of the Professional Engineers Act and does not refer to management control in a hierarchy of registered civil engineers, except as each of the individuals in the hierarchy exercises independent engineering judgement and thus responsible charge.

Engineering decisions which must be made by (and are the responsibility of) the engineer in "responsible charge," include permanent or temporary work that would create a hazard to life, health, property, or public welfare. Such decisions may include, but are not limited to, the following:

- The selection of engineering alternatives to be investigated, as well as the comparison of alternatives for engineering works.
- The selection or development of design standards or methods, and materials.
- Decisions related to the preparation of engineering plans, specifications, calculations, reports, and other documents for the engineered works.
- The selection or development of techniques or methods of testing to be used in evaluating materials or completed works, either new or existing.

- The review and evaluation of manufacturing, fabrication, or construction methods or controls to be used, including the evaluation of test results, materials, and workmanship insofar as they affect the character and integrity of the completed work.
- The development and control of operating and maintenance procedures.

As a test to evaluate whether a registered civil engineer is in "responsible charge," the following must be considered:

- The registered civil engineer who signs technical engineering documents must be capable of answering questions asked by equally qualified engineers. These questions would be relevant to the engineering decisions made during the individual's participation in the project and in sufficient detail to leave little question as to the registered civil engineer's technical knowledge of the engineering performed. Appropriate questions could address the criteria for design, methods of analysis, methods of construction, the basis for selection of materials, economics of alternative solutions and environmental considerations.
- The registered civil engineer in "responsible charge" should be able to clearly express the extent of control and how it is exercised and to demonstrate that the engineer is answerable within the controls stated previously.

Reports that Require Professional Engineering Conformance

Refer to the memorandum "*Seal, Signature, and Roles and Responsibilities of Registered/Licensed Professionals on Project Plans, Specifications, and Reports*" dated April 12, 2022. The following reports or documents shall be prepared by, or under the responsible charge of, a registered/licensed professional and must bear the signature, seal, license number, and expiration date of the registered/licensed professional that has the technical expertise and is responsible for the content of the report.

- Project initiation document
- Draft project report
- Project report
- Project study report-project report
- Design engineering evaluation report
- Permit engineering evaluation report
- Drainage report
- Materials report

- Structural section recommendation report
- Design standard decision document for deviation from design standards (signature and stamp or seal applies to the engineer in responsible charge)
- Traffic Operational Analysis Report
- Preliminary report (prepared by Headquarters Division of Engineering Services-Structure Design)
- Structures site data submittal (bridge, retaining walls, noise barriers)
- Bridge inspection report (prepared by Headquarters Division of Maintenance-Structure Maintenance and Investigations)
- Hydraulic report (prepared by Headquarters Division of Engineering Services-Structure Design)
- Geotechnical report (can include pre-remedial report concerning hazardous and toxic materials sites)
- Reports issued by the Headquarters Division of Engineering Services-Materials Engineering and Testing Services (METS) (applies to reports that go beyond the tabulation of test data: such as reports making recommendations and conclusions)

Application Procedures

Engineering Reports

Only one registrant's stamp or seal, and number with signature, are normally necessary on final civil engineering reports. That stamp or seal and number with signature should be of the appropriate lowest classification of registered civil engineer in responsible charge for developing the final engineering report. The signature area of the report must state that the registered civil engineer is attesting to the technical information contained therein and the engineering data upon which recommendations, conclusions, and decisions were based.

Special Provisions

Special provisions for each project are to be prepared by the appropriate registered/licensed disciplinary professional. The seal and signature of each registered/licensed professional that prepared special provision sheets or directed their preparation shall be included in the special provisions. Appropriate designated disciplines may include roadway, traffic, landscape, electrical (highway), electrical (structures), structures, mechanical, and architecture. The special provisions signature and seal sheets shall have the contract number at the top and specify that, "The Special Provisions contained

herein have been prepared by or under the direction of the following registered /licensed professionals."

If the Division of Engineering Services prepares a portion of a project special provisions, they shall submit a signature and seal sheet to the district with their proposed final project special provisions. The district office engineer unit will combine the project special provisions and submit, as part of the PS&E, both the Division of Engineering Services and district signature and seal sheets to Office of Office Engineer for inserting in the notice to bidders and special provisions.

Plans

Only one license number, seal and signature shall be placed upon a project plan; however, where appropriate, printed names and signatures of other individuals directly involved in developing and reviewing the project plan may be placed on the project plans without a license number, seal, or professional designation. Where the work shown on an individual plan sheet is to be financed by a permittee or local agency, the permittee or local agency name and address must be immediately below the signature block located in the upper righthand corner of the individual plan sheet or structure general plan sheet. A "traffic engineer" category license is not authorized for seal and signature on engineering elements of PS&E. Refer to the *Plans Preparation Manual* and the *CADD Users Manual*.

Coordination of the Effort to Produce Project Plans, Specifications, and Estimate

The title sheet of the PS&E serves as a cover sheet for the project to identify the locations of work and is not considered an engineering document, as no item of work is to be shown on the title sheet. As such, the title sheet shall include the seal and signature of the lowest classification registered/licensed professional delegated general responsibility for coordinating the effort to produce a complete, comprehensive, and quality plans, specifications, and estimate.

Depending on the project scope, a licensed landscape architect or other registered/licensed professional may be tasked with coordinating the effort to produce the PS&E for construction on projects that may contain engineering

elements. It is understood that this registered/licensed professional may not be directly involved in every element of the work needed to complete the PS&E (for example, roadway, hydraulics, electrical, landscape, structure, signing and striping elements) and individual plan sheets are to be signed by the registered/licensed professional who has the technical expertise and is responsible for the content of that sheet.

On the title sheet of projects developed by consultants or local agencies, the Caltrans individual providing design oversight approval shall have their printed name, signature, license number, license expiration date, and date of signature included in the block space located in the left margin of the title sheet. Where permittee or local agency finances and prepares the entire PS&E, their name and address shall be placed in the lower right-hand corner of the title sheet. A consultant that prepares the entire PS&E shall place their company name and address in the same location.

Changes to Plans and Specifications

All changes in plans and specifications that were added after the original responsible charge registered/licensed professional's seal and signature will be covered by an additional seal and signature of the appropriate registered/licensed professional in responsible charge for developing the change.

Expiration Date on Seal

The expiration date of the registrant's certificate must be included on the registered/licensed professional's seal when the seal is placed on a final civil engineering report or component of the PS&E.

Coordination with Environmental Documents

Environmental documents serve as public disclosure documents, explaining the effects of a proposed project on the environment; they do not require the seal or signature of a registered civil engineer. However, technical civil engineering reports that will be used in, or which will control the detailed design and construction of, a proposed project must be signed by a registered civil engineer.