

APPENDIX C – Preparation Guidelines for Facility Project Study Report (Lands and Buildings)

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APPENDIX C – Preparation Guidelines for Facility Project Study Report (Lands and Buildings)

ARTICLE 1 Overview

Reference Information

Some of the references found in this appendix 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.

Use of Facility Project Study Report

An approved facility project study report (PSR) must be completed prior to programming a State Highway Operation and Protection Program (SHOPP) Facility Improvement Category project. These guidelines provide information for the preparation of the facility PSR. Use this guidance in conjunction with the policies and procedures described in [Chapter 9](#) – Project Initiation and [Chapter 32](#) – Lands and Buildings Facilities. The standards for maintenance facilities are described in the [Caltrans Maintenance Station Design Guidelines](#).

The SHOPP Facility Improvement Category includes the following programs:

- 20.XX.201.351 Equipment Facilities
- 20.XX.201.352 Maintenance Facilities
- 20.XX.201.353 Office Buildings
- 20.XX.201.354 Materials Labs

The following guidance is tailored to projects that provide facilities that support transportation activities. The facility PSR in Article 3 should be modified to include or exclude any applicable deficiencies or issues. [Appendix L](#) – Preparation Guidelines for Project Study Report and [Appendix K](#) – Preparation Guidelines for

Project Report for fundamental guidance and tools on the preparation of project initiation and project approval documents.

Preparation of Facility Project Study Report

Scoping Team

The scoping team evaluates the project purpose-and-need, and makes recommendations on the proposed scope and alternatives. The scoping team shall include:

- Appropriate district SHOPP program coordinator
- Appropriate Headquarters SHOPP program advisor
- Caltrans Headquarters Division of Engineering Services-Structure Design, Office of Transportation Architecture representative
 - The project architect will serve as the project Leadership in Energy and Environmental Design (LEED) coordinator
- As appropriate, for the specific SHOPP program, a representative from:
 - District equipment
 - District maintenance
 - District office building administration
 - District material laboratory
- District underground tank coordinator or hazardous materials coordinator
- District environmental representative
- District right-of-way representative
- District asset management representative

Field Reviews

The scoping team shall meet on the proposed site to review the scope, including the potential Leadership in Energy and Environmental Design credits, and evaluate the unsigned facility PSR.

Prior to final approval of the facility PSR, stakeholders in the district, Headquarters, and external agencies should review the unsigned facility PSR to resolve conflicts and omissions before any firm commitments are made.

For more detailed information on the process for maintenance facilities, see the [Caltrans Maintenance Station Design Guidelines](#).

Reliable Project Scope and Cost Estimate

To minimize future cost increases, a thorough scoping of the project and a reliable project cost estimate is needed. Reliable project cost estimates are extremely important at every stage in the project development process. Inaccurate estimates result in problems in Caltrans' programming and budgeting. The final scope and cost of each project must be established as early as possible. With the exception of office buildings, the Headquarters Division of Engineering Services-Structure Design, Office of Transportation Architecture should develop the cost estimate for the structural portion of the project and review the estimating assumptions for all site development work.

Approval of Facility Project Study Report

The District Director (or Deputy District Director per Caltrans' delegation of authority) is responsible for approval of the facility PSR.

Distribution of Facility Project Study Report

One copy of the unsigned report shall be sent to the appropriate Headquarters SHOPP program advisor. Descriptions of the SHOPP programs and the corresponding Headquarters SHOPP program managers and advisors can be determined from: [SHOPP Programs and Program Managers](#).

Two copies of the approved report shall be sent to:

Headquarters Division of Design
Office of Project Development Procedures
Attention: Design Report Routing
Mail Station #28

One copy of the approved report shall be sent to:

Appropriate Headquarters SHOPP program advisor.

Five copies of the approved report shall be sent to:

Headquarters Division of Engineering Services
Program/Project & Resource Management
MS 9-5/11g

ARTICLE 2 Outline

General

The template is a guideline for the facility project study report. The actual report should be similar in organization and may contain similar headings and subheadings, but will vary based on type of facility, complexity, and project-specific issues. A template for the facility PSR is located in Article 3. The space for filling in various sections of the template has been condensed for practical viewing of the template. As appropriate, each section can be expanded to accommodate necessary information. The template should be modified to include or exclude any pertinent project information.

The facility PSR for all maintenance facility project candidates should be based on the Building Site Data Submittal form and the facility PSR preparation guidelines included in the [*Caltrans Maintenance Station Design Guidelines*](#).

A similar level of detail is appropriate for the equipment facilities and materials labs State Highway Operation and Protection Program (SHOPP) candidates.

Not every outline topic is discussed; information is presented when it differs from or is in addition to that found in [Appendix L](#) – Preparation Guidelines for Project Study Report.

Front Matter

Cover Sheet

The facility PSR should have a standard cover sheet to provide project identification information and signatures.

Main Body of Report

1. INTRODUCTION

- Summary of proposal.
- Location of project.
- Estimated cost.
- Proposed SHOPP program year.
- District priority index number.

- For equipment and maintenance facilities, include the State-wide project priority rating as described in the [Caltrans Maintenance Station Design Guidelines](#) and the priorities from the 10-Year Facility Master Plan.

2. PURPOSE AND NEED

3. EXISTING CONDITION AND PROJECTED GROWTH

Description of Existing Facility

Fill in the table to provide information regarding the description of the existing facility.

History

Fill in the table to provide information regarding the history of the existing facility.

Joint Use Opportunities

Discuss compatible public facilities. Identify local or State plans to renovate, relocate or construct new facilities in area.

Projected Inventory Growth and Workload

As appropriate, discuss maintenance location model results or other justification for projections.

4. DEFICIENCIES

Fill in table. If topic is not applicable, fill in “Not applicable.”

Operational Needs

- If applicable, discuss the results of the maintenance facility location model.
- Discuss the operational needs at this location with respect to:
 - Space needs for additional crews or employees.
 - Deficiencies in the building spaces.
 - Changes in the employee or crew type.
 - Consolidation of facilities.
 - Temporary facility.

Service Needs

Discuss service needs with respect to:

- Deficiencies in response time.
- Workload based on personnel year and highway inventory.
- Identify if there is a life line route in the service area.

Safety, Site and Facility Needs

- Discuss any safety deficiencies. For example, are there any violations of the California Building Code in effect at time of original construction?
- Discuss site size, condition, security access or other deficiencies. Identify deficiencies that affect State, personal property, and staff safety.
- Discuss health and California Department of Industrial Relations, Division of Occupational Safety and Health compliance.

Site Requirements

- Ingress and egress issues.
- Pavement condition.
- Flooding and fire hazards.
- Local issues.
 - Composition of surrounding neighborhood and community pressure.
 - Growth patterns and zoning in community master plan.
- Major building repair due to age, damage, or deterioration.

Environmental Compliance

- Stormwater compliance mandated by lawsuits, court orders, or citations. (Stormwater issues are addressed in a different program: 20.XX.201.335).
- Other compliance requirements, such as hazardous material contamination.

Synopsis of deficiencies

5. ALTERNATIVES

Alternatives

Discuss the viable alternatives that address the identified deficiencies, environmental compliance, and compliance with the *Americans with Disabilities Act of 1990*.

Viable alternatives can include:

- Renovation
- Addition
- Joint use
- Relocation
- Consolidation

Include a summary of the issues and risk analysis for each viable alternative.

Staging

- Identification of staging areas for contractors work.
- Identification of portions of existing facility that can be closed during construction.

Competitive Cost of Each Alternative

Discuss the competitive cost of each alternative. The cost analysis should include:

- Construction costs:
 - Building costs developed by the Headquarters Division of Engineering Services-Structure Design, Office of Transportation Architecture
 - Site development costs – access, utilities, environmental, and etcetera
 - Identify specific LEED costs
- Phase/development costs:
 - Temporary leasing, moving costs, and etcetera
- Land costs:
 - New right-of-way for expansion or relocation
 - If Caltrans owned property is being considered as a new site, include value of property
 - Potential for exchange
- Revenue potential from vacated (excess) Caltrans property (if any)
- Joint use or consolidation costs/savings (if applicable)
- Operational costs (maintenance facility location model)

Alternative Analysis

No-Project Transportation Cost

Discuss the monetary impacts of not having a project.

Rejected Alternatives

Discuss alternatives that were considered but rejected. Include an explanation of why the alternative was rejected.

6. PROPOSAL

- Detailed description of alternative used to program project costs.
- Discuss the alternative that was used to program project costs.
 - How will proposal correct deficiencies?
 - How were characteristics like size and extent of modifications determined?
 - Result of alternative cost comparison. Discuss why the selected alternative is the most efficient.
- Discuss LEED scope to be included in the selected alternative:
 - Target rating level.
 - Target number of credits to be achieved.
 - Discuss use of extra target credits to insure desired rating is achieved.
 - Specific target credits included in the design.
 - Reference to LEED Credit Checklist to be attached.
- Preliminary plan drawing of proposal.
- Preliminary estimate.
- Results of review by appropriate district environmental units to determine extent, if any, of asbestos, hazardous waste, lead and other possible environmental problems.
- Identify the major risks associated with this proposal.

7. FUNDING, PROGRAMMING AND ESTIMATE

8. DELIVERY SCHEDULE

9. RISKS

10. EXTERNAL AGENCY COORDINATION

11. PROJECT REVIEWS

12. PROJECT PERSONNEL

13. ATTACHMENTS

- SHOPP project output
Contact the appropriate Headquarters SHOPP program manager for the SHOPP Project Output form and guidance on how to complete the form.
- Proposed project schedule.
- Detailed cost estimate sheet for selected alternative.
- Environmental determination/document.
- Right-of-way data sheet.
- Project development team roster.
- LEED Credit Checklist for selected alternative.
- Contact the Headquarters Division of Engineering Services-Structure Design, Office of Transportation Architecture for a copy of the LEED Credit Checklist and the *LEED Roles and Responsibilities for Caltrans Groups/Disciplines*.
- Storm water data report-signed cover sheet
- Life-cycle cost analysis
- Risk register

ARTICLE 3 Template

This article is a template for the facility project study report. When using the template, delete any italicized text within the body of the document. The italicized text provides instructions for template users and does not provide any value to the final document.

The template is located at:

<http://www.dot.ca.gov/hq/oppd/pdpm/templates/apdx-c-template.docx>