

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

Table of Contents

APPENDIX C - Preparation Guidelines for Facility Project Study Report (Lands and Buildings)	3
CHAPTER 1 – Overview	3
Use of Facility Project Study Report.....	3
Preparation of the Facility PSR.....	3
PID Approval	4
FPSR Distribution	4
CHAPTER 2 – Guidelines for Completing Facility Project Study Report Template.....	6
General	6
Cover Sheet	6
Vicinity Map Sheet (Separate Sheet)	7
Registered Civil Engineer's Stamp and Statement (Separate Sheet)	7
Table of Contents (Separate Sheet)	7
List of Attachments	11
CHAPTER 3 – Template for Facility Project Study Report.....	12

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

CHAPTER 1 – Overview

Use of Facility Project Study Report

An approved facility project study report (FPSR) must be completed prior to programming a State Highway Operation and Protection Program (SHOPP) Facilities Category project. These guidelines provide information for the preparation of the FPSR. Use this guidance in conjunction with the policies and procedures described in [Chapter 9](#) and [32](#) of the [Project Development Procedures Manual \(PDPM\)](#). The standards for maintenance facilities are described in the *Maintenance Facility Design Manual*.

The SHOPP Facility Category includes the following programs:

- 20.20.201.351 Equipment Facilities Program (351).
- 20.20.201.352 Maintenance Facilities Program (352).
- 20.20.201.353 Office Buildings Program (353).
- 20.20.201.354 Materials Labs (354).

The following guidance is tailored to projects that provide facilities that support transportation activities. The FPSR shown in [Chapter 3](#) of this appendix 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 PID and project approval documents.

Preparation of the Facility PSR

Scoping Team for Facilities

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 Office of Transportation Architecture representative.
 - The project architect will serve as the project 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 for Facilities

The scoping team shall meet on the proposed site to review the scope, including the potential Leadership in Energy and Environmental Design (LEED) credits, and evaluate the draft FPSR.

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

For more detailed information on the process for maintenance facilities, see the *Maintenance Facility Design Manual* developed by Division of Maintenance.

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, Caltrans 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.

PID Approval

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

FPSR Distribution

A copy of the draft FPSR shall be sent to the appropriate HQ SHOPP program advisor.

The final FPSR shall be distributed to the following Headquarter units:

Two copies of the report shall be sent to:

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

One copy shall be sent to:

Appropriate HQ SHOPP program advisor

Five copies of the report shall be sent to:

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

CHAPTER 2 – Guidelines for Completing Facility Project Study Report Template

General

The following template is a guideline for the Facility Project Study Report (FPSR). 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 FPSR is found in [Chapter 3](#) of this appendix. 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 FPSR for all maintenance facility project candidates should be based on the Building Site Data Submittal form and the FPSR preparation guidelines included in the *Caltrans Maintenance Facility Design Manual* published by Division of Maintenance.

A similar level of detail is appropriate for the 351 and 354 State Highway Operation and Protection Program (SHOPP) Facilities Category candidates.

Cover Sheet

The FPSR should have a standard cover sheet to provide project identification information and signatures. Information to be provided includes the following:

- Title

Indicate "Facility Project Study Report"

- File Reference

District-County-Route-Post Mile (Dist-Co-L-Facility Number)

Responsible Unit (RU)

The unit source code of the registered civil engineer in charge of the technical features of the project.

Program Code

Expenditure Authorization (EA)

Month Year

Provide the preparation month and year of the report.

- Clearly state the reason for the PID on the title sheet.

"Request Programming in the 200X SHOPP"

- Recommended Approval

A recommendation for approval must be signed by the project manager as an indication that all appropriate studies have been included and as an indication that the proposal is in accord with Caltrans' policies.

- Approval

The FPSR is signed and dated by the District Director (or Deputy District Director per Caltrans delegation of authority).

Vicinity Map Sheet (Separate Sheet)

Provides brief description of the project location. Show commonly known physical features on the ground that can be identified on available mapping.

Registered Civil Engineer's Stamp and Statement (Separate Sheet)

The FPSR shall have a separate sheet with the required stamp or seal and signature of a registered civil engineer who is the person in responsible charge. The sheet must include a statement indicating that the registered civil engineer attests to the technical information contained herein and the data upon which recommendations, conclusions, and decisions are based. Approval of the FPSR is a management decision and is separate from this technical signature of the person in responsible charge.

Table of Contents (Separate Sheet)

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 *Maintenance Facility Design Manual* and the priorities from the 10-Year Facility Master Plan.

2. PURPOSE AND NEED

The following website has further guidance on the development of purpose and need statements. http://www.dot.ca.gov/ser/guidance.htm - purpose_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.
- Work load based on Person Year (PY) 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 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 Occupational Safety and Health Administration (OSHA) 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

- Storm water compliance mandated by lawsuits, court orders, or citations. (Storm water issues are addressed in a different Program: 335).
- Other compliance requirements, e.g., hazardous material contamination.

Synopsis of deficiencies

5. ALTERNATIVES

Alternatives

Discuss the viable alternatives that address the identified deficiencies, environmental compliance, and American Disability Act compliance.

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 Caltrans Office of Transportation Architecture.
 - Site development costs – access, utilities, environmental, etc.
 - Identify specific LEED costs.

- Phase/Development costs:
 - Temporary leasing, moving costs, etc.
- Land costs:
 - New R/W 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 preferred 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. PROJECT SUPPORT/SCHEDULE

Complete tables.

8. REVIEWS

The template includes a list of suggested reviews. Each district should modify the template to reflect reviews established by district procedures.

Include reviewer's signature and review completion date, or N/A if not applicable.

List of Attachments

- SHOPP Output Table -Contact the appropriate Headquarters SHOPP 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.
- R/W data sheet.
- Project development team roster.
- LEED Credit Checklist for preferred alternative.
Contact the Office of Transportation Architecture for a copy of the LEED Credit Checklist and the *LEED Roles and Responsibilities for Caltrans Groups/Disciplines*.

CHAPTER 3 – Template for Facility Project Study Report

This Chapter is a template for the facility project study report. Guidance for completing this template is located in Chapter 2 of this appendix.

Dist - Co - Rte – L- Facility
Program Code
EA
Month/Year

FACILITY PROJECT STUDY REPORT

To

Request Programming in the 20XX SHOPP

APPROVAL RECOMMENDED:

PROJECT MANAGER

APPROVED:

DISTRICT DIRECTOR

DATE

Dist - Co - Rte - PM
Program Code
EA
Month/Year

Vicinity Map

Show:

- Project Location
- Topographical Features Listed in Report
- North Arrow

Dist - Co - Rte – L- Facility

This Facility Project Study Report has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

REGISTERED CIVIL ENGINEER

DATE



Table of Contents

1. INTRODUCTION

2. PURPOSE AND NEED STATEMENT

Need:

Purpose:

3. EXISTING CONDITIONS AND PROJECTED GROWTH

Description of Existing Facilities

Location:	
Number of crews or employees:	
Size of crews:	
Service area in lane miles:	
Equipment used (type, size and number):	
Description of improvements (uses, ages, sizes, construction):	
Site size, shape and access:	
Value of site separately:	
Value of site improved:	
Number and size of existing buildings on site for existing facility.	

History

Modifications to facilities since original construction:	
Citizen complaints:	
Local government input:	
Other:	

Joint Use Opportunities

Projected Inventory Growth and Workload

4. DEFICIENCIES

Operational Needs

Service Needs

Safety, Site and Facility concerns

Site Requirements

Environmental Compliance

Synopsis of Deficiencies

**5. ALTERNATIVE ANALYSIS – RENOVATION, ADDITION, JOINT USE,
RELOCATION, CONSOLIDATION**

Alternatives

Staging

Energy Conservation

Competitive Cost of Each Alternative

Alternative Analysis

No Project Transportation Cost

Rejected Alternatives

6. PROPOSAL

7. PROJECT SUPPORT/SCHEDULE

Project Support:

	PROJECT SUPPORT COMPONENTS								
	PA&ED 0 Phase		Design 1 Phase		Right of Way 2 Phase		Construction 3 Phase		Total
	Dist	DES	Dist	DES	Dist	DES	Dist	DES	
Estimated PY's									0
Estimated PS \$'s									0
Estimated PYE \$'s (\$1000's)									0
Total \$'s	0	0	0	0	0	0	0	0	0

Project Schedule:

Milestones	Delivery Date (Month, Day, Year)
Begin Environmental	
Notice of Intent (NOI)	
Circulate DED	
PA & ED	
Regular Right of way	
Project PS&E	
Right of way Certification	
Ready to List	
Approve Contract	
Contract Acceptance	
End Project	

8. PROJECT REVIEWS

A. Field reviewed by:

_____ Date _____
 _____ Date _____
 _____ Date _____

B. Project reviews with signature and printed name by:

District Maintenance	_____	Date	_____
District Safety	_____	Date	_____
HQ 351 Program Advisor	_____	Date	_____
HQ 352 Program Advisor	_____	Date	_____

ATTACHMENTS