

Los Angeles County Metropolitan Transportation Authority (Metro)

2009 Transportation Improvement Program  
Call for Projects

## APPENDIX B

# PROJECT STUDY REPORT EQUIVALENT (PSRE) GUIDELINES

Metro  
Project Study Report Equivalent (PSRE)  
Guidelines

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### I. WHY ARE PSREs REQUIRED?

A Project Study Report (PSR) [or a PSR Equivalent (PSRE) for projects off the State Highway System] is a substantial document that contains a report of preliminary engineering efforts, a detailed alternatives analysis, and cost, schedule, and scope information, including estimated schedule and costs for environmental mitigation and permit compliance. A PSR/SPRE also must include an inventory of known environmental issues and constraints, a description of hazardous materials or waste in the project area, the type of environmental document anticipated for NEPA and/or CEQA compliance, and potential mitigation measures and their estimated costs.

Under State law (Government Code Section 14529(e)), the State Transportation Improvement Program (STIP) is limited to projects submitted or recommended through the Caltrans Interregional Transportation Improvement Program (ITIP) or a region's Regional Transportation Improvement Program (RTIP). Neither the ITIP nor RTIP may include a project without a Project Study Report or Project Study Report Equivalent (Government Code Sections 14526(b) and 14527(f)).

Please note that Metro does not fund stand-alone STIP projects for environmental and engineering work; projects funded must have a capital construction component. Metro wants to ensure that projects selected for discretionary funding through the Call for Projects are feasible and will be built according to the scope and within the cost assumptions specified in the Call for Projects funding application. Consistent with Government Code Sections 14526(b) and 14527(f)), Metro requires, as an eligibility requirement for awarding a project State Transportation Improvement Program funds (STIP funding), that a PSRE be completed for projects on local streets or roads. The cover sheet of the PSRE shall contain the following language: *The Project Study Report Equivalent has been prepared under the direction of the applicant's staff authorized to sign for the work. The staff person attests to the technical information contained therein and the engineering data upon which the recommendations, conclusions and decisions are based.*

### II. WHAT IS A PSR EQUIVALENT (PSRE)?

PSREs are intended to provide the Call for Projects with vital information about the feasibility of projects requesting funding through Metro's discretionary programming process -- the Transportation Improvement Program (TIP) Call for Projects. PSREs should present a clear definition of the project along with the magnitude of costs, identification of feasible alternatives, and identification of obvious environmental or other conditions that need to be addressed. Using the above information, the PSRE should also provide a reasonable time line for project delivery and identification of the steps needed to occur for project delivery. The project sponsor should ensure that the project time line and delivery schedule is consistent with Metro and STIP lapsing policies (*a delivery schedule that exceeds the lapsing*

*period would result in lapsing of funds.*) Caltrans defines PSREs as engineering reports whose purpose is to document agreement on the scope, schedule, and estimated cost of a project so that the project can be considered for inclusion in a future programming document such as the STIP.

A sponsor with a project which is located partly on a local highway and partly on a state highway will need to seek Caltrans determination on the appropriate document required. If the project involves state highway right-of-way, then a PSR or a PSR/Project Development Support (PDS) may be required. If the project abuts a state highway right-of-way, it is possible that a PSRE would suffice. Caltrans should be consulted early on to determine the type of engineering document that will be required.

The PSRE shall include, at a minimum, the following information as appropriate to address the specific project:

- Need and purpose of the project
- Background and project history
- Discussion and analysis of the alternatives (including project costs) that satisfy project need and purpose. The discussion of alternatives should include a No Build Alternative.
- Costs shall be summarized by the various project components as follows:
  - A. Completion of all permits and environmental studies
  - B. Preparation of Plans, Specifications, and Estimates (PS&E)
  - C. Acquisition of Right-of-Way
  - D. Construction and construction management and engineering, including surveys and inspection

If the project involves the State Highway system, project components No. C and No. D shall be further distinguished as follows:

- A. Right-of-Way capital
  - B. Acquisition of Right-of-Way (support/soft costs)
  - C. Construction capital
  - D. Construction management and engineering, including surveys and inspection
- System planning, including coordination and consistency with statewide, regional and local planning
  - Inventory of environmental resources, identification of potential environmental issues and anticipated environmental processing type. Potential mitigation requirements and associated costs should also be identified
  - Description of potential hazardous materials/waste problems and potential mitigation or avoidance. Associated costs should also be identified. *Please be advised that Metro programmed funds are not eligible for hazardous waste problems or mitigation.*

- Discussion of proposed implementation and the tentative delivery schedule of the significant milestones. Significant milestones include:
  - Start Environmental Studies
  - Draft Environmental Document
  - Final Environmental Document
  - Begin Design Engineering
  - Completion of Plans, Specifications, and Estimates
  - Start Right-of-Way Acquisition
  - Right-of-Way Certification
  - Ready to Advertise
  - Start Construction (Contract Award)
  - Project Completion
- Identification of potential programming and funding of the project, proposed sources of funding, project funding eligibility (e.g. "Federal Aid eligible"), other funding or revenue source issues
- Appropriate supporting attachments (i.e., maps, advance planning studies, cost estimate sheets, etc.)

### III. WHEN IS A PSRE NEEDED?

Approved PSREs for projects which will request funding are required at the time applications are submitted to Metro for the Call for Projects and must be included as part of the application package.

### IV. HOW LONG DOES IT TAKE TO DEVELOP A PSRE?

Depending on the complexity and nature of the project, the time frame for developing and approving the PSRE can vary. It should be emphasized that since the project sponsor will be responsible for preparing and approving the PSRE, the sponsor will have considerable influence over the time required for completion and approval. PSRE for Construction projects which are relatively complex may require six months or more to complete. Once approved, a PSRE is valid for approximately 3 years. Elements of the PSRE may need to be updated more often. For example, the cost estimate including right-of-way information may need to be updated if older than 1 year. Project milestones may need to be updated more often as costs and schedules change.

### V. WHO DEVELOPS THE PSRE?

The PSRE shall be prepared under the direction of staff authorized by the project sponsor to commit funding to the project. Typically, this person would be a California registered professional civil engineer (PE), or other registered engineer as appropriate for the scope of work, but may be done by persons without the PE certification. The PSRE can be completed using in-house staff or by qualified consultants on contract with the lead agency. The cover sheet for the PSRE shall contain the following language: *This Project Study Report Equivalent*

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*has been prepared under the direction of the following staff authorized to sign for the work. The staff person attests to the technical information contained herein and the engineering data if applicable, upon which the recommendations, conclusions, and decisions are based.*

In addition, the PSRE shall be signed by the local agency's chief executive officer. This could be either the jurisdiction's top elected official (i.e., mayor) or top agency staff authorized with chief executive authority (i.e. CEO, CAO, City Manager, Public Works Director or City Engineer, or equivalent).

### VI. WHO INITIATES AND MANAGES THE PSRE?

The lead agency applying for funding through Metro's Call for Projects shall be responsible for developing and completing the PSRE prior to Metro's application deadline.

### VII. PSRE COORDINATION WITH METRO AND LOCAL AGENCY

The PSRE shall be developed and approved by the local agency sponsoring the project. The PSRE shall then be submitted to Metro with the Call for Projects Application. Metro will not approve the PSRE, but requires a locally approved PSRE as a condition for funding consideration.

*Please be advised that Metro could request additional information and/or request the sponsoring agency to revise the PSRE supplied, if it is incomplete or does not address the minimum information requirements as stated in these guidelines.*

### VIII. BENEFIT/COST INFORMATION

Metro may conduct a benefit - cost analysis for the project covered by the PSRE. The PSRE should include the following quantitative information.

Cost of the project by: (must be in FY 09 dollars)

- total project cost
- cost anticipated for each year of the project
- cost by phase of the project (construction, right-of-way, engineering, design, environmental, etc.)

Benefits of the project (before and after):

- performance data (such as Level of Service (LOS) improvement, traffic counts (am, pm peak), and hours of delay)
- safety -- accidents reduced, damages prevented, \$ saved
- air pollution reductions

IX. DETAILED DESCRIPTIONS OF MINIMUM PSRE INFORMATION  
REQUIRED BY METRO

1. Cover Sheet -- Include the Information / Format as shown below

## PROJECT STUDY REPORT EQUIVALENT

### Vicinity Map

Show:

- Project limits (street to street)
- North Arrow

On Street \_\_\_\_\_

Between \_\_\_\_\_

And \_\_\_\_\_

Approved by Local Agency:

\_\_\_\_\_  
*Agency Chief Executive (i.e. Mayor, City Manager, CEO,  
CAO, PW Dir, City Eng., Gen. Mgr., or equivalent)*

\_\_\_\_\_  
*DATE*

This Project Study Report Equivalent has been prepared under the direction of the following staff authorized by the sponsoring agency to sign for the work. The person signing below attests to and certifies the technical information contained herein and the engineering data upon which the recommendations, conclusions, and decisions are based.

\_\_\_\_\_  
*authorized staff*

\_\_\_\_\_  
*DATE*

\_\_\_\_\_  
*If applicable California PE Stamp and Lic #*

*If the project is for a bus purchase, then the General Manager of the sponsoring Municipal Transit operator must sign.*

\_\_\_\_\_  
*General Manager*

\_\_\_\_\_  
*DATE*

## BODY OF REPORT

2. Project description, parameters and the functional improvement objective of the proposed project

### Problem to be Solved?

Briefly describe why the project is needed and what problem the project is going to mitigate.

### Work Description

Briefly describe major components of the proposed work, e.g., signals, bridge replacement, roadway widening, bicycle/pedestrian facility, etc.

### Project Limits

Briefly describe the physical limits or nature of the project. Attach a list, as needed, for multiple or various locations. Indicate length of project to nearest one-tenth of a mile. Use 0.1 if a spot location. Include additional sheets, if needed, to clearly define the project location or scope of work.

3. Need and purpose for the project

Provide a concise discussion of the need and purpose of the proposal, supplemented as needed, by attached maps, charts, tables, letters, etc. As applicable, discuss existing and forecasted traffic, level of service, capacity adequacy, and safety data. What are the physical, economic, social, and environmental constraints that would affect the solution? Discuss the need and purpose of the land use development proposal(s) generating need for the improvement. Briefly list any controversial aspects or issues of the proposed work.

4. Background and project history

Briefly cover any prior project history that will help understand the situation. Have any commitments been made? Does it mitigate a previous condition or new development? (Metro does not provide funding for developer mitigations) Does the project have outside support or opposition? Briefly describe. Provide documentation of any community/public outreach that has taken place and describe community reaction to the project, if known.

5. Discussion and analysis of the alternatives (including project costs) that satisfy project need and purpose. The discussion of alternatives should include a No Build Alternative

Briefly discuss project alternatives and variations of the project that will satisfy project goals, be cost effective, and avoid or minimize environmental and right-of-way effects; provide right-of-way and construction costs. Attach schematic maps of the alternatives and typical cross-sections as appropriate. Discuss and analyze existing and forecasted traffic. Are there



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alternative solutions? Provide estimated costs. Is right-of-way to be obtained? State the assumptions used in the right-of-way estimate. Discuss any potential adverse operational impacts due to the proposal. Should additional work be done to alleviate adverse impacts? As appropriate to the proposal, attach maps, alternatives (schematic geometrics), adjacent segments, and land uses.

From the CTC Adoption Guidelines -- the Project Study Report (and equivalent) cost estimate is to be based on preliminary-level engineering, but needs to be to the level of detail that, when considering the project for programming, will provide a reasonable approximation of the funding and staff resources that will be needed to deliver the project within the proposed schedule as outlined in the report.

Project costs shall be summarized in the project components as follows:

- A. Completion of all permits and environmental studies
- B. Preparation of Plans, Specifications, and Estimates (PS&E)
- C. Acquisition of Right-of-Way
- D. Construction and construction management and engineering, including surveys and inspection

If the project involves the State Highway system, project components No. C and No. D shall be further distinguished as follows:

- 1. Right-of-Way capital
- 2. Acquisition of Right-of-Way (support/soft costs)
- 3. Construction capital
- 4. Construction management and engineering, including surveys and inspection

In preparing the capital cost estimates, the degree of effort and detail for each study is expected to vary depending on the complexity and sensitivity of the issues. A cost breakdown for each of the major elements (i.e., roadway, structures, utility relocation, right-of-way acquisition, bikeways, striping, pedestrian improvements, transit facilities, etc.) of the project must be provided. A contingency factor to cover unanticipated items of work or cost increases may be applied. Generally, a factor of 25% is acceptable. However, a higher or lower percentage may be used. *Metro requires justification supporting the contingency factor used.*

- 6. System planning, including coordination and consistency with statewide, regional and local planning

Discuss the coordination, and consistency of the proposed project with statewide, regional and local planning efforts such as Metro's Long Range Transportation Plan and Short Range Transportation Plan, local general, specific area, and subdivision plans, the SCAG Regional Transportation Plan (RTP), Congestion Management Program (CMP), State Implementation

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Plan (SIP), Bicycle Transportation Strategic Plan, Short Range Transit Plans, etc., and information on expected timing of future local development.

7. Inventory of environmental resources, identification of potential environmental issues and anticipated environmental processing type. Potential mitigation requirements and associated costs should also be identified

Briefly describe the inventory of environmental resources and identify environmental issues. Are there potential adverse impacts that would affect the viability of alternatives? Describe the type of environmental clearance to be obtained for CEQA and identify who should be the lead agency. When a Negative Declaration is the type of environmental clearance anticipated, it should be qualified with "... because no significant resources appear to be impacted. More detailed studies may change this conclusion." The environmental issues should be discussed in sufficient detail to determine if extensive studies or time-consuming processes that affect schedules are involved. Describe the type of environmental clearance for compliance with NEPA when involved. If the highway work is to be part of a larger overall local agency development EIR, what steps are needed for any required FHWA or FTA approvals? An identification of the permits that may have significant impact on the proposal is necessary. Any mitigation that requires Right-of-Way cost or time to develop or negotiate must be identified.

8. Description of potential hazardous materials/waste problems and potential mitigation or avoidance. Associated costs should also be identified.

Identify existing known waste sites within or immediately adjacent to the proposed project. Discuss how probable project alternatives may affect the sites.

9. Identification of the potential or proposed sources of funding, project funding eligibility (e.g. "Federal aid eligible"), discussion of proposed implementation, and the tentative delivery schedule of the significant milestones.

Identify which agencies will be the source of funds. Include the type (color) of funding. Which agencies will be responsible; which agencies will execute agreements; and, which will be the lead. Include start and finish dates for the significant milestones below:

- A Start Environmental Studies
- B Draft Environmental Document
- C Final Environmental Document
- D Begin Design Engineering
- E Completion of Plans, Specifications, and Estimates
- F Start Right-of-Way Acquisition
- G Right-of-Way Certification
- H Ready to Advertise
- I Start Construction (Contract Award)
- J Project Completion

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### 10. Identification of the potential programming and funding of the project

If the project has already received partial funding [i.e., Project Development Support such as Project Approval/Environmental Document (PA/ED), Plans, Specifications and Estimates (PS&E), etc.], list the TIP, STIP, and/or Call for Projects identification numbers, the programmed amount, source of funds and phase of work programmed. Also include the amounts programmed by year.

#### PROGRAMMING DATA

FTIP (MPO/RTPA) \_\_\_\_\_ FY \_\_\_\_\_ \$ Programmed: \_\_\_\_\_ Page \_\_\_\_\_  
Amendment No. \_\_\_\_\_ FTIP PPNO \_\_\_\_\_ FHWA/FTA Approval Date \_\_\_\_\_  
Call for Projects Identification Number: \_\_\_\_\_  
Federal Funds \$ \_\_\_\_\_ Phases PE \_\_\_\_\_ R/W \_\_\_\_\_ Const \_\_\_\_\_  
Air Basin \_\_\_\_\_ (CMAQ only)

Also complete the funding tables in Attachments A (Financial Plan) & B (Cost Estimate)

11. A partially complete Project Programming Request, as described in the STIP Guidelines, shall be included as an attachment. Download from the Caltrans Web Site at:  
<http://www.dot.ca.gov/hq/transprog/ocip/2008stipdev.htm>

The Project Programming Request form should be completed with the information that is available at the time of PSRE preparation. Examples of information which can be completed include: Existing funding, local match funding, legislative districts, project description, responsible contacts, lead agency, project identification numbers, project map, etc.

12. Appropriate supporting attachments (i.e. maps, advance planning studies, cost estimate sheets, etc.)

Any of the above supporting documents should be attached, if useful.

13. Authorized staff signature or registered California Professional Engineer stamp

The appropriate staff authorized by the sponsoring agency must sign the cover of the report. Usually (but not a firm requirement), this person is a Civil Engineer with the Professional Engineer (P.E.) designation. The California currently registered professional civil (or other registered engineer authorized to sign for the work) engineer (PE) stamp or seal and number with signature should be placed on a separate sheet which shall be part of the report. Also included on this sheet shall be a statement indicating that the registered engineer or other staff person signing this document is attesting to the technical information contained herein and is judging the qualifications of any technical specialist providing engineering data upon which recommendations, conclusions, and decisions are based. The approval of the report will be a management decision. This Project Study Report Equivalent has been prepared under

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the direction of the following staff person, registered civil engineer or other registered professional engineer appropriate for the work. The appropriate staff or registered engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based. Also, please note that a signature of the top official of the sponsoring agency is required (Mayor, City Manager, City Engineer or Public Works Director, etc.).

If the project is for a bus purchase, then the General Manager of the sponsoring municipal transit operator can sign in place of the Civil Professional Engineer.

### 14. Recommendation

Please state which alternative is recommended. Briefly describe the alternative and the advantages and disadvantages of the recommended alternative. Also, describe the reasons why the other alternatives were not recommended.

### 15. Attachments

The following should be attached to a PSRE:

- a) STIP Fact Sheet
- b) Financial plan
- c) Approved cost estimate using appropriate format. Cost estimates must be in FY 09 dollars. The estimate must be attached to the PSRE for the studies and costs performed
- d) Appropriate maps and back-up

Please indicate whether work will be completed using over-time. Please also indicate the project management percentage used as well as any burden rates.

## FACTORS THAT AFFECT UNIT PRICES

### Restrictive Work Hours or Method of Work

Restricting the contractors' working hours or the method of work on a project may have major effects on prices. The prices for work that is limited to short shifts, or required to be completed in long shifts, or limited to night time operations should be increased to reflect the cost of premium wages required for such work and for the general inefficiencies and decreased productivity that may result. Night work for plant operations (i.e. - asphalt concrete production) can especially be expensive when small quantities are involved. Plants usually do not operate at night and may require special production runs at much higher than normal operating costs.

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**ATTACHMENT A: PROJECT FINANCIAL PLAN  
PROJECT STUDY REPORT EQUIVALENT (PSRE)**

**NOTE: INDICATE ALL AMOUNTS IN WHOLE NUMBERS AND IN FY 2008-09 DOLLARS**

PROJECT EXPENSES *		FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	TOTAL
<b><u>CAPITAL EXPENSES:</u></b>							
1	Design and PS&E .....						\$0
2	Construction .....						\$0
3	Construction Engineering .....						\$0
4	Right-of-Way Acquisition or Lease .....						\$0
5	Equipment Purchase or Lease (e.g. computers) .....						\$0
6	Vehicle Purchase or Lease .....						\$0
<b><u>OPERATING EXPENSES:</u></b>							
7	Administration .....						\$0
8	Operating Costs .....						\$0
9	Maintenance .....						\$0
10	Marketing .....						\$0
<b><u>OTHER EXPENSES (Specify):</u></b>							
11	.....						\$0
12	_____						\$0
13	_____						\$0
14	_____						\$0
15	_____						\$0
16	_____						\$0
17	<b>TOTAL PROJECT EXPENSES</b>	\$0	\$0	\$0	\$0	\$0	\$0

\* List only expenses to be incurred in the completion of the Scope of Services of the project for which you are applying for funding. Expense categories are not applicable for all projects.

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Attachment B - Cost Estimate

Transportation Problem:

Project Scope:

Route - Location

Description of Project Limits

Description of Project Scope

Special Conditions (if any):

Will overtime be required?

Project Component Costs: (must be in FY09 dollars)

	METRO REQUESTED \$	TOTAL \$
Environmental		
Design Eng		
R/W		
Right of Way		
Construction		
Overhead		
Total		

Proposed Schedule\*

Quarter & Year

- Start Environmental Studies
- Draft Environmental Document
- Final Environmental Document
- Begin Design Engineering
- Plans, Specifications, & Estimates
- Start R/W Acquisition
- R/W Certification
- Ready to Advertise
- Start Construction (award)
- Project Completion (open for use)

\* Are the Project Milestones consistent with Metro lapsing policy?

Responsible Agency

Contact Person and Contact Information