Chapter 6 **Highway Bridge Program**

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Chapter 6 **Highway Bridge Program**

6.1 Introduction

The Highway Bridge Program (HBP) is a safety program that provides federal-aid to Local Public Agencies (LPAs) to replace and rehabilitate structurally-deficient, locally-owned public highway bridges or complete preventive maintenance on bridges that are not deficient. This chapter explains eligibility requirements, reimbursable scopes of work, how to apply for HBP or Bridge Preventive Maintenance Program (BPMP) funding, and the general programming process.

This program is funded by the Federal Highway Administration (FHWA) authorized by United States Code (U.S.C.) Title 23. This program is subject to Obligational Authority (OA) limits. See LAPG Chapter 2: Financing the Federal-Aid Highway Program (Section 2.2) for more information regarding OA.

The programming of HBP projects is managed through a 15-year plan. This multi-year plan provides 4-years of HBP funding to be programmed in the Federal Statewide Transportation Improvement Program (FSTIP) and 11-years of planning. See LAPG Chapter 2: Financing the Federal-Aid Highway Program (Section 2.3) for information regarding what type of HBP projects may use the HBP programmed in the FSTIP.

The HBP has many statutory, regulatory, and policy limitations on how funds can be utilized on bridge projects. The purpose of these rules is to ensure that federal funds are dedicated to solving bridge structural safety problems. Since LPAs are financially accountable for meeting these requirements, it is essential that LPA decision-makers understand these guidelines.

The intent of the HBP is to remove structural deficiencies from existing local highway bridges to keep the traveling public safe. The HBP goal is to keep local highway bridges in good condition through a preventive maintenance program and to fix bridges that are in fair condition. A bridge that is in poor condition must utilize the most cost-effective and prudent solution to improve its condition from poor to fair or good.

LPAs assume full liability for the safety of their bridges and eligibility of participating costs of their projects.

Terms and Definitions

Advance Construction (AC) - LPAs provide local funds initially to be programmed with a conversion to federal funding at a later time.

Authorization to Proceed - Federal project funding eligibility approval for a phase of work by the Federal Highway Administration.

Baseline bridge – The most cost-effective structure necessary to span the obstructing gap. The baseline bridge must be designed to all current codes per LAPM Chapter 11 and meet the structural needs of the project.

Bridge - 23 CFR 650.305 defines a bridge as a structure including supports erected over a depression or an obstruction, such as water, highway, or railway, and having a track or passageway for carrying traffic or other moving loads, and having an opening measured along the center of the roadway of more than 20 feet between under copings of abutments or spring lines of arches, or extreme ends of openings for multiple boxes; it may also include multiple

pipes, where the clear distance between openings is less than half of the smaller contiguous opening.

Bridge Preventive Maintenance Program (BPMP) - A program to help LPAs extend the life of their bridges by performing preventive maintenance activities.

Bridge Rail - Bridge rails serve both safety and aesthetic functions in bridge projects. They are designed to safely redirect vehicles to minimize injury and damage in the case of accidents, as well as to retain pedestrians and bicyclists.

Department - The State of California, Department of Transportation as created by law; also referred to as State or Caltrans.

Fair Condition - When the lowest rating of the 3 National Bridge Inventory (NBI) items for a bridge (Items 58-Deck, 59-Superstructure, 60-Substructure) is 5 or 6, the bridge will be classified as Fair. When the rating of NBI item for a culvert (Item 62-Culverts) is 5 or 6, the culvert will be classified as Fair.

Federal Statewide Transportation Improvement Program (FSTIP) - A 4-year list of all state and local transportation projects proposed for federal surface transportation funding with the state. This is developed by Caltrans in cooperation with MPOs and in consultation with local non-urbanized government. The FSTIP includes FTIPs, which are incorporated by reference, and other rural federally-funded projects. The FSTIP, including incorporated FTIPs, is only valid for use after FHWA/FTA approval.

Federal Transportation Improvement Program (FTIP) - A 4-year list of local transportation projects proposed for federal surface transportation funding within the planning area of one of the eighteen Metropolitan Planning Organizations (MPOs) in the State. These are only valid for reference when incorporated into the FSTIP and approved by FHWA/FTA.

Good Condition - When the lowest rating of the 3 NBI items for a bridge (Items 58-Deck, 59-Superstructure, 60-Substructure) is 7, 8, or 9, the bridge will be classified as Good. When the rating of NBI item for a culvert (Item 62-Culverts) is 7, 8, or 9, the culvert will be classified as Good.

Historic Bridge - Any bridge that is listed on or eligible for listing on the National Register of Historic Places.

Hydraulic Engineering Circular-23 (HEC-23) - FHWA circular titled Bridge Scour and Stream Instability Countermeasures: Experience, Selection, and Design Guidance, Hydraulic Engineering Circular No. 23 (HEC-23).

High Cost Bridge Project - A bridge project with a Right of Way phase in excess of $20 million total funds or Construction phase in excess of $35 million total funds.

Highway Bridge Program Advisory Committee (Committee) - A committee made up of members from the California State Association of Counties, the League of California Cities, FHWA, California Transportation Commission, the California Councils of Government, and Caltrans Division of Local Assistance.

Local Assistance Program Guidelines (LAPG) - Provides local project sponsors with complete description of the federal and state programs available for financing local public transportation-related projects.

Local Assistance Procedures Manual (LAPM) - The processes, procedures, documents, authorization, approvals, and certifications which are required in order to receive federal-aid and/or state funds for many types of local public transportation related projects.

Local Bridge Seismic Retrofit Program (LBSRP) - All seismic retrofit projects, including mandatory Prop-1B seismic projects and voluntary seismic retrofit projects.

Mandatory Seismic Retrofit Program - The 1989 Mandatory Seismic Safety Retrofit program is a finite list of projects established under the Proposition 1B (Prop 1B) funding program.

Mid-Level Cost Bridge Project – A bridge project with a construction phase total cost between $15 million and $35 million.

National Association of City Transportation Officials (NACTO) - An association of 86 major North American cities and transit agencies formed to exchange transportation ideas, insights, and practices and cooperatively approach national transportation issues. NACTO produces the "Urban Street Design Guide" and the "Urban Bikeway Design Guide", which may be referenced for urban environments.

National Bridge Inventory (NBI) - This is an FHWA database containing bridge information and inspection data for all highway bridges on public roads, on and off Federal-aid highways that are subject to the National Bridge Inspection Standards.

National Cooperative Highway Research Program (NCHRP) - Administered by the Transportation Research Board (TRB) and sponsored by the member departments (i.e., individual state departments of transportation) of AASHTO and FHWA. The NCHRP was created in 1962 to conduct research in acute problem areas that affect highway planning, design, construction, operation, and maintenance nationwide.

National Environmental Policy Act (NEPA) - Federal environmental law requiring federal agencies to consider the environmental impacts of their action, evaluate least damaging alternatives, and ensure decisions are made in the public's best interest based on a balanced consideration of the need for safe and efficient transportation.

National Highway System (NHS) - Legislative designation of highways that are of national importance.

National Register of Historic Places (NRHP) - A listing of historically or archaeologically significant sites maintained by each state. The NRHP does not contain all significant sites. It only lists those currently identified and that the owner has allowed to be listed. There are many eligible sites that have not been registered, either because they have not been found or they have not yet been nominated.

Nearly Ready to Advertise - A project is considered "nearly ready to advertise" when NEPA is clear, R/W will be certified prior to or less than 6 months of an HBP financially constrained program list, and completion of final design plans are at 95% or greater. The R/W certification must be verified with Caltrans R/W staff.

Non-Participating Cost - A cost that is included in the project but is not eligible for Federal reimbursement.

Off System - Functional classification given to rural and urban local streets and roads, and rural minor collectors. These routes are off the federal-aid system.

On System - Functional classification given to all roadways that are on the federal-aid system.

Paint Condition Index (PCI) - Paint Condition Index is a 0–100 ranking system that utilizes the current paint condition of the various painted steel elements on a bridge. The PCI weighs the quantity and condition states of the various painted elements as well as the importance of that element in the bridge.

Participating Costs - A participating cost is an actual project cost paid for by the sponsoring LPA that is eligible for federal reimbursement in compliance with laws, regulations, and policies.

Preliminary Engineering (PE) - Preliminary Engineering phase includes all project initiation and development activities undertaken after its inclusion in an approved FSTIP through the completion of PS&E. It may include preliminary R/W engineering and investigations necessary to complete the environmental document.

Poor Condition - When the lowest rating of the 3 NBI items for a bridge (Items 58-Deck, 59-Superstructure, 60-Substructure) is 4, 3, 2, 1, or 0, the bridge will be classified as Poor. When the rating of NBI item for a culvert (Item 62-Culverts) is 4, 3, 2, 1, or 0, the culvert will be classified as Poor.

Prop 1B - Proposition 1B Bond funds to be utilized as local match to HBP for mandatory seismic projects.

Post Programming - Cost increases to a phase that has already been authorized to proceed and that has received federal funding.

Public Road - Any road or street under the jurisdiction of and maintained by a public authority and open to public travel.

Ready to Advertise - A project that has an approved NEPA document, approved R/W Certification, and completed PS&E package.

Scour Critical - A bridge with a foundation element that has been determined to be unstable for the observed or evaluated scour condition. When the NBI item 113 is 3 or less.

State Highway System (SHS) - The network of public highway systems that is owned and maintained by the Department.

Structurally Deficient (SD) - A classification given to a bridge which has any component in Poor or worse condition (23 CFR 490.405). This term is in the process of being phased out by FHWA. The replacement classification of this metric is Poor Condition.

State Transportation Improvement Program (STIP) - A 5-year list of projects proposed in the Regional Transportation Improvement Program. The proposed STIP that are approved and adopted by the California Transportation Commission.

United States Code (U.S.C.) - The U.S.C. is the codification by subject matter of the general and permanent laws of the United States. Title 23 relates to Highways.

Value Engineering Analysis (VA) - The systematic process of review and analysis of a project during the concept and design phases, by a multi-disciplined team of persons not involved in the project. For local HBP projects, a VA must be done when the estimated total project cost is $40 million or more. This applies to both NHS and non-NHS HBP projects. See LAPM Chapter 12: Plans, Specifications, & Estimate (Section 12.5) for further procedures.

Voluntary Seismic Retrofit Program - Self-funded seismic analysis calculations that show a potential for collapse of the bridge under a maximum credible earthquake. If Caltrans determines that the bridge is susceptible to collapse under a maximum credible earthquake the project may be eligible for HBP funding.

Acronyms and Descriptions

The acronyms table is a compilation of the acronyms that you will find throughout the guidelines.

Table 6-1: Acronyms

Acronyms	Description
AASHTO	American Association of State Highway and Transportation Officials
ADT	Average Daily Traffic
BIC	Bridge Investment Credit
BIR	Bridge Inspection Report
CTC	California Transportation Commission
CCO or CO	Construction Change Order or Change Order (terms used interchangeably)
CE	Construction Engineering
CFR	Code of Federal Regulations
CON	Construction
DES	Division of Engineering Services
DLAE	District Local Assistance Engineer
E-76	Electronic Authorization to Proceed
EPSP	Expedited Project Selection Procedures
FAST	Fixing America's Surface Transportation Act
FHWA	Federal Highway Administration
LBSRP	Local Bridge Seismic Retrofit Program
LPA	Local Public Agency
MPH	Miles Per Hour
MPO	Metropolitan Planning Organization
MASH	Manual for Assessing Safety Hardware
NBIS	National Bridge Inspection Standards
OA	Obligation Authority
OFP	Office of Federal Programs
OPI	Office of Project Implementation (North & South)
PM	Preventive Maintenance
PS&E	Plans, Specification and Estimate
RFA	Request for Authorization
RTPA	Regional Transportation Planning Agency
R/W	Right of Way
SEP	Senior Environmental Planner
SI&A	Structure Inventory and Appraisal
SLA	Structure Local Assistance
STBGP	Surface Transportation Block Grant Program
TL	Test Level

HBP Website

The HBP website provides information and references for local bridge owners. The website contains training opportunities, links to LPA bridge list, the HBP FTIP/FSTIP Program Lists, various reports, as well as the HBP and BPMP guidelines. The HBP website can be accessed at: https://dot.ca.gov/programs/local-assistance/fed-and-state-programs/highway-bridge-program.

Eligibility Requirements for HBP Funds

To be eligible to receive HBP funds, a bridge must be owned and maintained by a California LPA, be open to public travel, in the NBI, be in poor condition, be seismically vulnerable, scour critical or have a PCI below 70%. The information must be obtained from the most current BIR at the time of the application submittal. If the LPA needs to obtain a copy of a BIR, they must contact their DLAE.

Applying for HBP Funds

The steps to initiate and develop an HBP project are discussed throughout this chapter. The LPA must be knowledgeable about their bridge inventory and utilize an asset management system to prioritize their bridges for inclusion into the HBP or BPMP.

LPAs that have executed or have the authority to execute State/Local Federal-Aid Master Agreements with Caltrans may apply for HBP funds. Federal funds provided under these guidelines may only be spent on bridges carrying public highways (including local streets and roads) not included in the State Highway System and not owned by Caltrans.

The federal/local reimbursement ratios for all new HBP projects will be revised to 80%/20% for on-federal aid system projects and 88.53%/11.47% for off-federal aid system projects. This applies to projects that do not yet have an authorization to proceed in the PE phase by March 30, 2021.

The following is an overview of the process:

1. The LPA should contact the DLAE to review the program requirements. The DLAE may schedule an optional pre-field review meeting and coordinate with SLA as needed.
2. The LPA sends an application (LAPG 6-A: HBP Application/Scope Definition) for HBP funds, or a BPMP plan list and certification letter for preventive maintenance funds to the DLAE.
3. The DLAE reviews the application package for minimum requirements, makes recommendations, and forwards copies of the application to HBP Managers and to SLA.
4. HBP Managers will review the candidate project. If it is eligible, the candidate project will be added to the next project prioritization list. HBP Managers will notify the DLAE if the project will be prioritized. If the candidate project is not eligible, the DLAE will be notified. The prioritization list is generated on a 2-year cycle, in even-numbered years.
5. Once all new eligible candidate projects are prioritized, the funding cutoff is determined for separately on system and off system projects. The prioritized lists are taken to the Committee for the funding cutoff determination for each list. The projects above the cutoff will be accepted into the HBP. The projects below the cutoff will be returned to the DLAE. The LPA must update the application and re-apply for the next 2-year prioritization cycle, except functionally obsolete or low water crossings submitted before October 1, 2016. The LPA must notify Caltrans, in writing by June 30 of even-numbered years, that they want their functionally obsolete bridges and low water crossing projects to remain eligible.
6. After the project is adopted into the FTIP by the MPO, the PE funds can be authorized. See Section 6.8: Project Implementation.
7. The DLAE coordinates a field review with the LPA. It may be scheduled after consultants have been retained by the LPA.

8. Work begins on the preliminary design and environmental process per the funds management policy.
9. Once the environmental documents are approved, the LPA may commence with final design and proceed with R/W if needed.
10. When the PS&E is 65% complete, the LPA may request that Caltrans perform an optional cursory review of the PS&E. If this service is requested, the PS&E must be sent to the DLAE. The LPA must be clear regarding review deadlines to ensure the project stays on schedule. It is recommended to complete LAPG 6-D: Scope/Cost/Schedule Change Request to update the costs at this stage of the project.
11. Once R/W is certified and the PS&E package is completed, the LPA may submit the request for construction authorization.
12. The DLAE processes the request for authorization and notifies the LPA of the FHWA approval. The LPA may now advertise the construction project.

6.2 Roles and Responsibilities

Local Public Agency (LPA)

The LPA is the project manager and is responsible for all aspects of the project. They assume full liability for the safety of their bridges and eligibility of participating costs of their projects. The LPA is accountable for how it spends federal funds on eligible projects and is responsible for following these program guidelines, the BPMP Guidelines, and the procedures in the LAPM. The LPA is also responsible for requesting Caltrans funding approval for certain participating costs identified in LAPG 6-B: HBP Special Cost Approval Checklist.

LPAs that are performing their own seismic analysis and design are responsible for developing seismic retrofit projects from start to finish. This includes, but is not limited to, initiating the projects, performing (or overseeing consultant performance of) seismic analyses, presenting the retrofit strategy to Caltrans at mandatory strategy meetings, ensuring environmental compliance, preparing PS&E, advertising, and administering the construction contracts.

Caltrans, District Local Assistance Engineer (DLAE)

The DLAE is the point of contact for all local assistance projects. Written communication from Caltrans to the LPA will be executed through the DLAE. Copies of all written correspondence and appropriate emails will be kept in the DLAE project files.

The DLAE is responsible for providing expertise in understanding these program guidelines and the federal process as documented in the LAPM. The DLAE is also responsible for ensuring that all official written controversial correspondence to LPAs is copied to the HBP Managers and the Office of Project Implementation. Controversial correspondence includes, but is not limited to, any denial of funds to the LPA or an action on the part of Caltrans that delays the construction authorization of a local HBP project.

The DLAE is to coordinate Caltrans' internal activities for Local Assistance projects. The DLAE is proactive in ensuring that LPAs are aware of HBP scoping issues and offering help to resolve those issues. The DLAE utilizes the HBP Managers, Office of Project Implementation, SLA, District geometricians, District R/W, and Environmental experts, and must be familiar with the standards and AASHTO references identified in LAPM Chapter 11: Design Guidance.

The DLAE is also responsible for ensuring that LPAs are aware of all Caltrans services available to LPAs that can improve the quality and timely delivery of HBP projects.

For current names, addresses, and email addresses, see the DLAE website.

Caltrans, Structures Local Assistance (SLA)

SLA provides and coordinates technical services related to bridge projects regarding field reviews, feasibility studies, cost estimation, inspection, design, analysis, construction, consultant selection, and contracting, including expertise in explaining these program guidelines. SLA works directly with LPA staff and HBP managers after coordination with the DLAE. However, all Caltrans correspondence to LPAs is transmitted through the DLAE.

Project delivery is streamlined with SLA involvement. SLA may assist the LPA in making sure the project is scoped appropriately and meets the current design guidelines. SLA will work with HBP managers to determine the eligibility of the project. SLA comments are cursory in nature and the LPA must determine if they need to be implemented. SLA reviews are intended to assist the LPAs in making sure that their projects meet the current design guidance and standards. It is under the discretion of SLA to determine what Caltrans functional units need to review the project documents. Seismic safety projects must follow the guidance outlined in Section 6.3, Local Bridge Seismic Safety Retrofit Program**.**

SLA, at the request of the DLAEs, is responsible for working with LPAs in promoting the HBP and helping LPAs identify deficient bridges. SLA, in this function, must also promote the above mentioned services to improve the quality and timely delivery of local HBP projects.

Caltrans, Office of Federal Programs

HBP Managers work in this office and this office is responsible for:

- Prioritizing new HBP applications according to policy
- Programming funds for eligible LPA projects
- Approving special costs identified in LAPG 6-B: HBP Special Cost Approval Checklist
- Managing the statewide Local HBP apportionment fund balance
- Establishing program policy and procedures to maximize the use of federal funds and comply with federal requirements
- Working with the DLAE and SLA to resolve difficult project-related policy and eligibility issues
- Conducting program reviews to determine LPA compliance with federal and state laws, regulations, and policy
- Managing High Cost Bridge Projects and Mid-Level Cost Bridge Projects

Caltrans, Office of Project Implementation (North and South)

These offices are responsible for the actual authorization of federal funds and the development of program supplemental agreements on projects processed by the DLAE.

It is the responsibility of these offices to ensure that federal funds are authorized on projects in compliance with the LAPM. The OPI relies on information provided by the HBP Managers and

the DLAE regarding the amount of participating HBP funds on a project. Funds authorized on a project must not exceed amounts programmed in the HBP lists.

6.3 Reimbursable Project Scopes

LPAs developing HBP projects are required to ensure their projects are cost-effective and that the project scope address the bridge deficiencies. The HBP funds mandated inspections of local NBI bridges. The result of the inspections is a BIR that is sent to the local bridge owner. These BIRs inform the owner of the condition of their bridges and any deficiencies that may be addressed. The following project scopes participating under the HBP are bridge inspection, seismic retrofit, rehabilitation, replacement, painting, scour countermeasure, and preventative maintenance.

The HBP is a safety program to help LPAs with funding to keep their highway bridges in good condition. The HBP requires that all potential projects begin as rehabilitation or BPMP projects. Subsequent reviews of specific deficiencies will establish the eligible scope, whether its preventative maintenance, rehabilitation, or replacement.

Bridge Inspection Program

The Bridge Inspection Program is a federally mandated program established under 23 USC 144(b), 23 USC 144(d), and 23 USC 151.

The intent of the program is to:

- Establish an inventory of bridges carrying public highways
- Help LPAs manage their bridges
- Identify structural safety problems related to bridges

Generally, each bridge in the State carrying a public highway that has a minimum span greater than 20 feet is inspected every two years. Caltrans maintains the master bridge inventory for the State. Whenever a bridge is inspected, the owner is sent a bridge inspection report that discusses the health of the bridge including work recommendations. The BIR does not address the seismic vulnerability of the bridge. It does discuss the integrity of seismic safety items installed on bridge. For example, the BIR will discuss the condition of seismic restrainer cables but will not address if they are needed. The report also includes an SI&A sheet. The SI&A sheet provides all the detailed ratings required by federal law. These detailed ratings are sent to FHWA every year.

LPAs may request copies of the bridge inspection reports from the DLAE, SLA, or HBP managers. LPAs that inspect their own bridges should work with their own inspection departments to acquire the reports.

Local Bridge Seismic Retrofit Program

The purpose of this program is to address local bridge seismic concerns of publicly-owned bridges that may be in danger of collapse under a maximum credible earthquake. There are two types of seismic retrofit projects, mandatory and voluntary.

The 1989 Mandatory Seismic Safety Retrofit program is a predetermined finite list of projects established under the Prop 1B funding program. The funds for these projects are a combination of HBP and Prop 1B as the local match. New projects cannot be added to this list. LBSRP projects not included in the 1989 Mandatory Seismic Retrofit program are considered voluntary.

LPAs may perform self-funded seismic analysis to show a vulnerability of collapse under a maximum credible earthquake. The results of this analysis can be submitted to Caltrans for review and determination of acceptance into the voluntary seismic retrofit program. If Caltrans concurs with the analysis, a voluntary seismic retrofit project may be eligible for programming under the HBP. Once the voluntary seismic retrofit project is programmed, the process is identical to the Prop 1B retrofit projects. The local match of voluntary seismic retrofit projects is not eligible for Prop 1B funds.

Bridge Rehabilitation and Replacement

All projects requesting inclusion into the HBP program as a rehabilitation or replacement project must complete the LAPG 6-A with the scope of work as rehabilitation. Bridges must be rated in poor condition to be eligible candidates for rehabilitation or replacement. All deficiencies of the bridge must be reviewed to determine the project scope. The LPA must indicate if the preferred scope of work is replacement even though all projects initially are scoped as rehabilitation. The HBP managers will program the appropriate scope of work and may use SLA, district, and LPA input to help with that determination. In cases where replacement is self-evident, a detailed cost analysis may not be required. The work to produce a cost analysis is not HBP eligible unless approved by HBP Managers. The HBP will only fund projects at the most cost-effective solutions. HBP managers may approve special cases where the selected alternative is not the most cost-effective.

The LPA should consider BPMP to keep their bridges in good condition. For example, even though a bridge is eligible for rehabilitation, there may be cases where the prudent scope of work is BPMP. On a case-by-case basis, HBP managers may determine that the eligible scope of work for a bridge rehabilitation project is BPMP.

The HBP managers will notify the DLAE after a determination has been made whether a rehabilitation or replacement scope of work is HBP eligible. If the determination that replacement is the appropriate scope of work, the HBP managers will request that a new LAPG 6-A be submitted.

Rehabilitation funding is for major reconstruction of a bridge to meet current standards anticipating the transportation needs for a minimum of 10 years into the future. The development of a rehabilitation project must correct major deficiencies which may include structural problems, load capacity improvement, bridge deck replacement, seismic deficiencies, scour problems, and painting. Major reconstruction not triggered by the above deficiencies is not participating. (23 CFR 650.405(b)(2))

1. Constructing additional lanes (including turn lanes) on an existing bridge requires approval by the HBP Managers. LPAs must raise this issue for Caltrans review through the DLAE by providing supporting documentation demonstrating the need for widening. Supporting documentation may include discussion of specific AASHTO standards, planning studies, and master plans developed by MPOs or RTPAs. Discussion of proposed widening (including the construction schedule) of the transportation corridor must also be included if the corridor has not yet been widened to current standards.

   LPAs must have prior MPO and/or RTPA approval to program the capacity-increasing project into the HBP.

2. Bridge rail replacements are not HBP eligible unless the bridge deck is replaced or widened, even though they may be deficient on the BIR.

Bridge Painting

The purpose of this scope of work is to help LPAs fund eligible bridge painting projects as a stand-alone scope of work when the LPA does not wish to rehabilitate or replace a subject bridge. The paint condition is good when the PCI is > 85%, is Fair when the PCI > 70% and ≤ 85%, is Poor when the PCI ≤ 70%.

1. The PCI for a bridge must be in poor condition, or SLA must provide concurrence for a bridge painting project to participate in the HBP. The PCI is available from the BIR.
2. Minor rehabilitation of corroded structural members is an eligible participating cost under stand-alone paint projects. The cost of the rehabilitation effort must not exceed 10 percent of the cost of the painting project (paint contract items only).
3. The costs of resolving major deficiencies causing the bridge to be in poor condition are not participating in a painting project. If the bridge is in poor condition with SR<80, rehabilitation must be considered prior to the development of a painting project. Background information supporting this consideration must be documented in the LPA's project file.
4. HBP funded bridge painting is for major scopes of work. Minor spot painting is considered preventive maintenance and is not participating work under the HBP as a standalone paint project. When the PCI is in fair condition the work may be eligible under the BPMP.

Scour Countermeasure

The purpose of this scope of work is to help LPAs implement scour countermeasures as a stand-alone scope of work when the LPA does not wish to rehabilitate or replace a subject bridge.

1. To receive funds the bridge must have a rating of NBI Item 113 ≤ 3 or SMI Hydraulics must provide a recommendation that scour countermeasure is necessary.
2. The participating cost of a scour countermeasure project is limited to the installation of monitoring devices and/or modifying the bridge foundation or bank protection to resist scour damage. The repair of damage caused by scour without mitigating the scour problem is considered maintenance work and is not participating.
3. Correcting major deficiencies on a bridge is not a requirement of a scour countermeasure project. If the bridge is eligible for rehabilitation or replacement it must be considered prior to the development of a scour countermeasure project.
4. Scour countermeasure projects utilizing HBP funds must be designed to HEC-23 and SM&I must be able to change the NBI 113 code to 4 or greater.

Bridge Preventive Maintenance Program

The purpose of this program is to help LPAs fund bridge preventive maintenance work to keep their bridges in good condition. There are specific requirements for the LPA to request funding for BPMP projects, but the total cost of the proposed work needs to exceed $200,000 for programming purposes. The BPMP has separate guidance that can be found on the HBP website that lays out the requirements, eligibility, and timelines for submittal. Once programmed, BPMP projects follow the policy found in this chapter.

6.4 Eligible Costs

Participating Cost Limits

To ensure the purpose of the HBP is being fulfilled by LPA projects, certain costs and types of work have participation limits. These limits apply to all projects funded under this chapter. See LAPG 6-B: HBP Special Cost Approval Checklist for a summary of participating costs that require specific HBP Manager approval.

Approach Roadway Work

Federal participation for approach roadway must be limited to the minimum necessary to make the facility operable. The approach roadway length is measured from the bridge abutment to the touchdown on the existing roadway alignment. The approach length from each abutment in excess of 200ft for on federal-aid system projects and 400ft for off federal-aid system projects requires advance approval by the HBP Managers. The HBP eligible approach roadway width will match the HBP eligible bridge width.

The following quote from the CFR identifies work that is not eligible for participation under the HBP:

> 23 CFR 650.405(2)(c) Ineligible work. Except as otherwise prescribed by the Administrator, the costs of long approach fills, causeways, connecting roadways, interchanges, ramps, and other extensive earth structures, when constructed beyond the attainable touchdown point, are not eligible under the bridge program.

Preliminary Engineering Costs

HBP funds may not be used for general feasibility or general transportation corridor planning studies even if federally deficient bridges are on a corridor being studied for improvement. HBP participation in PE is for the development of specific HBP projects where the LPA is required to deliver a construction project.

Typical PE costs are 15-18% of bridge construction costs and Federal participation of total PE costs is limited to actual costs up to 25% of the estimated participating construction cost excluding construction engineering and contingency. Participation beyond 25% must be approved by the HBP Managers.

HBP participation in consultant contract management and quality assurance costs must not exceed 15% of a consultant's total charges.

For exceptions, LPAs must submit a justification in writing to the DLAE. The DLAE will review the request, provide recommendations and forward to the HBP Managers for approval.

For additional information, see LAPM Chapter 3: Project Authorization (Section 3.1) for eligible participating work.

Construction Cost Escalation

Construction cost escalation must be included in the construction estimate on the LAPG 6-A and LAPG 6-D forms. HBP participation in construction cost escalation should not exceed the escalation factor as approved by the CTC. The approved escalation factors are updated regularly and can be found on the HBP website.

Contingency Including Supplementary Work Costs

HBP participation in Contingency and Supplementary Work in the planning phase of a project should not exceed 25% of the participating construction contract item costs. Contingency and Supplementary Work in the final engineer's estimate must not exceed 10% of the participating construction contract item costs, unless approved by the HBP Managers.

Construction Engineering Costs

HBP participation in total Construction Engineering must not exceed 15% of the participating construction contract item costs, unless approved by the HBP Managers.

Architectural Treatments

Architectural treatments (decorative fascia, tile work, architectural lighting, exotic bridge railing, belvederes, etc.) generally are not participating. Location, public input, availability of funds, and cost-effectiveness play a role in the determination of HBP participation. HBP participation in architectural treatments in excess of 2% for non-historic bridges or 5% for historic bridges of the baseline bridge construction cost is not eligible. Costly structure types and structural elements will be limited to the cost of the baseline bridge. LPAs are required to justify architectural treatments in their project files for future audits. LPAs must notify the DLAE to request HBP participation of architectural treatments.

Environmental Mitigation

HBP funds are to be used to improve bridge structural safety. The environmental mitigation funding on an HBP project must relate to the purpose and need for addressing the original bridge deficiencies. Environmental mitigation beyond this may not be eligible. HBP funds can be used to reimburse LPAs for environmental mitigations for which the mitigation proposed actually results from the bridge project. Mitigations beyond the bridge project limits will require the approval of the HBP Managers prior to sign-off of the environmental document. The Caltrans District Local Assistance SEP is responsible for advising LPAs, the DLAE, and the HBP Managers when proposed mitigation is excessive and/or if any of their mitigation may not be reimbursed with HBP funds.

HBP funds may be used for mitigation measures necessary to mitigate adverse impacts when the DLAE, HBP Manager, and SEP mutually determine that:

- The impacts for which the mitigation is proposed actually result from the Administration action; and
- The proposed mitigation represents a reasonable public expenditure after considering the impacts of the action and the benefits of the proposed mitigation measures.

The following items may be considered eligible for HBP funding:

- Mitigation that is accomplished within the scope of the project.
- The funding of plant establishment may be accomplished using an escrow account. Plant establishment and monitoring longer than three years must be approved by the SEP, DLAE, and HBP Manager.
- Other participating mitigation, such as land bank mitigation purchases, may be required and must be documented in the NEPA documents.

Federal funds, including HBP funds, may not be used for:

- Endowment funds for biological monitoring or maintenance activities in perpetuity.
- Maintenance work; maintenance is the fiscal obligation of the LPA.

LPAs must contact the DLAE and SEP for detailed discussion and field review to scope appropriate mitigation strategies. The DLAE will work with the district environmental reviewer and the HBP Managers to resolve difficult issues.

Replaced Bridges to Remain in Place

Sometimes when a bridge is replaced with a new bridge on a new alignment but on the same corridor, the old bridge does not need to be demolished. The old bridge can remain in place to carry pedestrian and bicycle traffic. The old bridge may not be rehabilitated with HBP funds unless it is of historical significance and is limited to the estimated cost of removal.

The CFR provides the legal background and an additional example:

> 23 CFR 650.411(c)(2) Whenever a deficient bridge is replaced or its deficiency alleviated by a new bridge under the bridge program, the deficient bridge shall either be dismantled or demolished, or its use limited to the type and volume of traffic the structure can safely service over its remaining life. For example, if the only deficiency of the existing structure is inadequate roadway width and the combination of the new and existing structure can be made to meet current standards for the volume of traffic the facility will carry over its design life, the existing bridge may remain in place and be incorporated into the system.

Proposed work outside these examples requires HBP Managers approval. The LPA is responsible for requesting Caltrans approval.

Railroad Car Bridges

Permanent installation of railroad car bridges is not HBP eligible. Temporary railroad car bridges required for construction will be eligible.

The basis for not allowing HBP participation in the permanent installation of railroad car bridges is the following:

- It is very difficult for an engineer to certify that the structural members can meet Caltrans/AASHTO structural design standards.
- It is difficult to establish material properties.
- There are potential problems associated with meeting AASHTO minimum geometrics.
- It is expensive to inspect railroad car bridges due to the number of structural elements and welds.

LPAs are encouraged to consider slab deck bridges as an appropriate cost-effective alternative.

Seismic Retrofit Projects with Different Scope

The LPA may decide to develop a construction project that is more extensive than that approved at the strategy meeting. For example, the LPA may choose to replace a bridge when the strategy meeting recommended retrofit. LPAs may also expand the retrofit project to design to a higher performance standard than no-collapse, or to include bridge rehabilitation to address general bridge deficiencies. When these situations occur, the LPA is responsible for the extra

cost beyond the program's committed funding towards the no-collapse retrofit project as recommended by the strategy. The program's funding commitment is the cost estimate included in the final strategy approval document. This funding commitment may be increased if additional costs are needed to complete the approved strategy. Caltrans DLAEs will review these additional costs, and they must be approved by the LBSRP Manager. Appropriate costs will be allowed and added to the total project cost.

If a bridge qualifies as an HBP project and the extra work qualifies for HBP funding, the extra costs may be participating. For these combined projects, the LPA must take the project to the strategy meeting to establish estimated capital costs for the seismic project. For capital cost of the combined project (R/W and construction), the state may provide the matching funds with Prop 1B to the estimated seismic retrofit cost established at the strategy meeting and the LPA will provide the matching funds to the cost in excess of the seismic cost.

Bicycle and/or Pedestrian Access

HBP funds are eligible to accommodate bicycle and pedestrian access on replacement and/or rehabilitation bridge projects, however the funds will be reimbursed at the minimum AASHTO Standard Specification for Highway Bridges, or Caltrans Highway Design Manual design standards for bicycle and pedestrian facilities. When a bridge is being replaced or going under major reconstruction with HBP funds, replacing bicycle and pedestrian facilities in-kind, or providing new bike and pedestrian facilities as needed for consistency with the existing corridor is eligible for HBP funds. In addition, HBP funds can be used to provide bicycle and pedestrian access on bridges that are within corridors that have adopted bicycle and pedestrian corridor plans. The adopted bicycle and/or pedestrian plan must be included with the HBP application.

If the LPA disagrees with an eligibility determination and is unable to reach agreement with the HBP Program Managers, the LPA may appeal HBP eligibility determinations by following the Local Assistance Dispute Resolution Process as outlined on the DLA webpage.

For rehabilitation projects, HBP may participate in the widening when other major deck reconstruction or lane/shoulder widening is needed. Costs for bridge widening for the sole purpose of adding bicycle and/or pedestrian facilities are not participating.

New bicycle facilities must be identified as betterments in the HBP application and must be justified. The justification must show that the betterments are needed by the community and are appropriate for the location.

Temporary Bridges

If a project is programmed and the bridge collapses, the HBP may participate in the installation and rental of a temporary bridge for up to three years. Rental costs exceeding three years will not be HBP reimbursable. Special covenants must be included in the E-76 and program supplemental agreement to this effect.

All NEPA documents must be approved according to the standard process as outlined in LAPM Chapter 6: Environmental Procedures. Additionally, the installation of the temporary bridge must not preclude other more cost-effective bridge replacement options. The scope of the final project must be determined prior to the installation of the temporary bridge.

The basis of this eligibility determination is that the work to install the temporary bridge is simply an advance of the detour work needed for the final bridge replacement construction. These participating costs would have occurred anyway; therefore, the costs are participating.

Limited HBP Participation in Replacement Projects

When the LPA intends to design a bridge project beyond the recommended standards or intends a betterment in a design element (i.e. exceeding minimum standards) or when a bridge is eligible for replacement and a cost analysis shows that a rehabilitation alternative is more cost-effective, the HBP may participate in the project up to the costs of a minimum standard project as in the rehabilitation project (support and capital costs) with the LPA using other funds for the remainder. Other funds could be but not limited to STBGP, STIP, or local funds. If the LPA uses other federal funds on the HBP project, this must be documented on the LAPG 6-A or LAPG 6-D.

Special Historic Bridge Work

It is the intent of the HBP to place value on maintaining the historic integrity of qualifying historic bridges. The requirements associated with bridge rehabilitation and replacement apply to this section, except where discussed below:

1. A historic bridge is a bridge that is listed on or eligible for listing on the National Register of Historic Places. The California Office of Historic Preservation defines federally and state-mandated historic resources. The list of California historic bridges is available at https://dot.ca.gov/programs/environmental-analysis/cultural-studies/california-historical-bridges-tunnels#surveys. For qualifying bridges, NBI data item 37, Historical Significance, is rated 1 or 2.
2. 23 U.S.C.144(g)(4)(A) authorizes the use of HBP funds for the reasonable costs associated with actions to preserve or reduce the impact of an HBP project on the historical integrity of a designated bridge.
3. When a rehabilitation project is proposed the LPA must notify the DLAE to ensure that the proposed work is participating under the HBP. The DLAE will consult with SLA to ensure all reasonable rehabilitation alternatives have been considered. LPAs will be required to process the appropriate design decisions per LAPM Chapter 11: Design Guidance, as necessary.
4. For a historic bridge replacement project, where a new bridge will be on a new alignment, the historic bridge may be rehabilitated using HBP funds. The participating costs of the rehabilitation must not exceed the estimated cost of demolition of the historic bridge.
5. The LPA that proposes to demolish a historic bridge for a replacement project with HBP funds must first make the bridge available for donation to the State, another LPA, or to a private entity. This can be accomplished by notifying the State Historic Preservation Officer, Caltrans, or other cities or counties in the State.

   The costs incurred by the LPA to preserve the historic bridge, including funds made available to the receiving entity to enable it to accept the bridge, must be HBP participating up to an amount not to exceed the cost of demolition. The bridge will no longer be eligible for any federal-aid under Title 23. LPAs should consider using other federal programs before using HBP for this purpose.

   If HBP funds are involved in the preservation of the historic bridge, the donation may only take place if the receiving entity enters into an agreement with the LPA to:

   a. Maintain the bridge and the features that give it its historic significance; and;

b. Assume all future legal and financial responsibility for the bridge, which may include an agreement to hold the LPA harmless in any liability action.

6.5 Design Standards

Standards for local assistance projects are available in LAPM Chapter 11: Design Guidance. Note that the bridge inspection ratings must never be used as design criteria for meeting AASHTO standards. The minimum ratings triggering HBP eligibility do not necessarily reflect good design practice established by AASHTO in the Policy on Geometric Design of Highways and Streets and the Guidelines for Geometric Design of Low-Volume Roads.

If local standards or design decisions appear to compromise the intent of the HBP, LPAs must ensure the scope of work will result in a bridge that will not be rated poor. Local standards or design decisions processed under LAPM Chapter 11: Design Guidance do not provide exemption to this requirement. Decisions based on cost-effectiveness or in the public interest of historic structures must be approved by the HBP Managers.

Basic No-Collapse Standards

The primary philosophy for the Local Seismic Retrofit scope of work is to prevent bridge collapse. The result of a retrofit project must be a bridge that is safe from collapse in the event of a maximum credible earthquake. It is possible that the designer may demonstrate by analysis that a bridge will not collapse without any retrofit. In this case a no-retrofit-needed strategy is an acceptable assessment. Bridge replacement may also be an acceptable strategy when the existing bridge is in poor structural condition and the cost of retrofitting the bridge exceeds the cost of a new bridge with a similar configuration.

Some LPAs may desire to retrofit their bridges to a service level performance standard. They would like to retrofit their bridges not only to withstand earthquakes but to suffer only minor damage that could be quickly repaired to allow resumption of service. This would typically require extra or different retrofit measures that cost more than the standard no-collapse retrofit. Requests like this will be treated the same way as those with expanded scope. The LPA will be responsible for any cost above and beyond that of the standard no-collapse retrofit.

Minimum AASHTO Standards and NACTO Guidelines

HBP eligibility is based on minimum AASHTO standards and NACTO guidelines. Exceeding either of these is not HBP eligible. NACTO guidelines are typically used in urban environments and should not increase the eligible width or length of bridge projects.

Where proposed design solutions exceed AASHTO's A Policy on Geometric Design of Highways and Streets, the Guidelines for Geometric Design of Low-Volume Roads, NACTO's Urban Street Design Guide, or NACTO's Urban Bikeway Design Guide, the associated extra costs are not HBP participating. Minimum standards may be exceeded based on intermodal transportation considerations, serviceability issues, and good geometric design practice, but are not HBP eligible. These limits of eligibility apply to all phases of work.

Establishing Bridge Geometrics

Many areas of California are experiencing population growth and are demanding more diverse modes of transportation. Major capital projects such as bridge rehabilitation and replacement projects can involve difficult environmental problems and expensive construction. For this reason, it is important that LPAs properly plan their bridge projects from a transportation facility

point of view rather than a replace in kind approach or simply rehabilitate a bridge using current ADTs.

LPAs need to work closely with their RTPA and/or MPO and consult AASHTO's A Policy on Geometric Design of Highways and Streets or the Guidelines for Geometric Design of Low-Volume Roads to ensure that their bridge rehabilitation and replacement projects will meet their needs. The design future ADT is 20 years at the completion of the project.

Bridge geometrics must be established based on future ADTs, but may also be based on other appropriate transportation planning studies involving Design Hourly Volume analysis or other rational analysis. In many cases RTPAs have adopted transportation models that should be inputted to the geometric design of new or rehabilitation bridge projects.

HBP One Lane Bridge Policy

The cost of rehabilitating one-lane bridges or the new construction of one-lane bridges may not be HBP participating. The bridge must not be in poor condition upon completion of the project.

Decisions based on cost-effectiveness or in the public interest of historic structures must be approved by the HBP Managers. Even when this flexibility is exercised, design decisions must be approved by the LPA in accordance with Chapter 11 of the LAPM.

Special Circumstance: Historic Bridge

A bridge that is registered or eligible to be registered in the National Register of Historic Places is exempt from the requirement that all geometric deficiencies be corrected. LPAs may consider "replacing" the historic bridge with a new bridge on the same corridor with minor roadway realignments. See Section 6.4 of the HBP Guidelines for more information.

It is strongly encouraged that historic bridges be brought up to current load capacity design standards. Where increasing the load carrying capacity of a historic bridge impacts the historic characteristics of the bridge, the scope of the rehabilitation project need only bring the bridge to as-built design standards, provided that public safety is not compromised.

Special Circumstance: Cost-effectiveness

The HBP also allows flexibility in the design of new or the rehabilitation of one lane bridges even if an existing bridge is not historic. Where widening a bridge to meet AASHTO standards is not cost-effective because a local road is only one lane, the curb-to-curb geometrics must be established using AASHTO's Guidelines for Geometric Design of Low-Volume Roads. Holding queues at each end of the bridge will be eligible for HBP funds. As noted above, any design decision must be approved by the LPA in accordance with Chapter 11 of the LAPM. LPAs must provide written concurrence that local law enforcement and local firefighting officials concur with the proposed geometrics of the one-lane bridge rehabilitation or replacement projects.

For non-historic bridges, rehabilitation or replacement projects are required to meet the current load carrying design standards. Design exceptions will not be permitted.

An explanation must also be provided by the LPA showing how the public's safety is being improved by the project. If there is no significant improvement to the public's safety, the primary intent of the HBP is not being met and HBP funds cannot be used on the project.

Bridge Rails

Bridge rails must comply with MASH criteria for all new permanent installations or full replacements. HBP projects generally fall under two categories, TL-2 and TL-4. TL-2 is for barriers in locations up to a design speed of 45mph and TL-4 is for speeds greater than 45mph. Local projects off the State system may use any MASH approved railings. Local projects on the SHS must use a Caltrans approved MASH rail. If any modifications are made to a MASH approved rail, those modifications must be submitted for review to SLA to confirm that any modifications have not degraded the crashworthiness of the bridge barrier rail.

6.6 Application Process

LPAs that have executed or have the authority to execute State/Local Federal-Aid Master Agreements with Caltrans may apply for HBP funds. Federal funds provided under these guidelines may only be spent on bridges carrying public highways (including local streets and roads) not included in the State Highway System and owned by the LPA applying.

When Caltrans receives the application, the DLAE and HBP Managers will review the proposed work to ensure HBP eligibility. Compliance with eligibility requirements is the responsibility of the LPA. This is especially the case where the project evolves during the PE phase. LPAs needing further assistance in eligibility should ask the DLAE for a field review. All new applications must be submitted to the DLAE no later than November 30 of odd years for prioritization consideration.

When Caltrans determines that the project is eligible for HBP funds, it will be prioritized against the other new applications received. The HBP Managers will take the prioritized list to the HBP Advisory Committee for a funding cutoff determination. Projects that are above the funding cutoff will be accepted into the HBP. Projects below the funding cutoff will be sent back to the DLAE.

Note: Federal authorization for any phase of work must be in place BEFORE reimbursable work is performed. Do not confuse the programming process with the federal authorization process as reimbursement work done prior to authorization is not eligible.

Application Period

For all projects other than those considered High Cost Bridge Projects, applications will be accepted on a continuing basis. High Cost Bridge Project requirements are discussed in Section 6.7: Project Programming Policy and Procedure.

Application Requirements

The following information must be included in an HBP application package:

1. A cover letter from the LPA requesting that Caltrans program the project.
2. The HBP Application form, LAPG 6-A: HBP Application/Scope Definition, and attachments must be complete. LPAs needing help with the application should contact the DLAE.
3. Exhibit 7-B: Field Review Form and Exhibit 7-C: Roadway Data from LAPM Chapter 7: Field Review. The LPA should fill out only known data.
4. Applications for High Cost Bridge Projects will only be accepted by the DLAE after a solicitation for candidates has been transmitted from HQ to the DLAE's, then to LPAs.

The DLAE is responsible for ensuring the application package meets the requirements before forwarding it to the HBP Managers. The DLAE must identify any potential difficulties and provide recommendations.

Optional SLA Review of Application

The HBP Managers or DLAE may request an SLA review of a project. This level of oversight is consistent with LAPM Chapter 7, which places the responsibility of project scoping on the LPA. The level of service provided by Caltrans will be dependent on available staffing.

When HBP Managers request SLA to review an application or scope change, a request for construction authorization must not be processed by the DLAE until SLA's review is complete. At the discretion of the HBP Managers, PE authorization may be withheld pending the results of the SLA review.

SLA must notify the DLAE and the HBP Managers of any findings as a result of the application review. The HBP Managers will also notify the DLAE and SLA of the status of the application package. Any issues raised need to be resolved by the LPA, SLA, the DLAE, District R/W, or the District Environmental Reviewer. The DLAE is responsible for the coordination of the resolution of issues raised.

After the project is programmed, the DLAE will initiate the field review if it has not yet taken place. Field reviews should be scheduled to include the appropriate technical staff including an SLA representative; see LAPM Chapter 7: Field Review.

Project Prioritization Policy

The NBI coding from the BIR will be used to prioritize new applications. The prioritization below will be used to determine programming priorities for developing financially constrained HBP lists. The priority established will determine when the PE phase of new projects will be programmed. New projects will only be available for programming into the last two years of a new FSTIP cycle.

The lowest priority number is the highest priority.

PRIORITY 1:

Seismic retrofit projects and Scour countermeasure projects or rehabilitation and/or replacement of scour critical bridges (NBI Item 113 ≤ 2).

PRIORITY 2:

Bridges that have major structural deficiencies causing the bridge to be posted or closed. The NBI Item 41 Structure Open, Posted, or Closed to Traffic will be utilized to determine the sort order. The sort will be:

1. K = bridge closed to traffic
2. D = bridge open, would be posted or closed except for temporary shoring
3. P = bridge posted for load
4. R = bridge posted for other load-capacity restriction (speed, number of vehicles on bridge, etc.)

PRIORITY 3:

Bridge Preventive Maintenance Plan Projects.

PRIORITY 4:

Scour countermeasure projects or rehabilitation of scour critical bridges (NBI Item 113=3).

PRIORITY 5:

Projects that are eligible for replacement or rehabilitation.

PRIORITY 6:

Projects that are Functionally Obsolete with application dated prior to October 1, 2016.

PRIORITY 7:

Low water crossing projects with application dated prior to October 1, 2016.

Each of these 7 priorities, may have two additional levels of prioritization within each priority depending upon the number of projects in each priority.

The second level of prioritization will be based upon the length of bypass or detour, in miles. This is documented in NBI Item 19. The detour length will be ordered from longest to shortest.

The third level of prioritization will be based on the future ADT on the route. This is documented in the NBI Item 114. The Future ADT will be ordered from highest to lowest.

6.7 Project Programming Policy and Procedure

Policy

This policy and procedure provide details for compliance with the FSTIP regulations and CTC Policy. The CTC policy is to maximize the use of federal HBP funds. CTC Resolution LBS1B-G-0708 established the Prop 1B seismic retrofit program as the top priority for programming HBP funds.

It is CTC's intent that the Department also program funds for the local bridge inspection program and critical safety non-seismic projects. Bridges with serious structural deficiencies are a top priority for funding.

The HBP will be programmed consistent with the delivery schedule for Prop 1B seismic retrofit projects provided by LPAs and constrained by available federal funds. The statewide financially constrained program lists will be ranked based on the Ranking Policy in compliance with federal regulations and developed in cooperation with the Local Assistance Highway Bridge Program Advisory Committee. These procedures provide a basis for fully utilizing HBP funds and obtaining the policy goals of the HBP through the federal transportation programming process.

Procedure

1. At the beginning of every FSTIP Cycle, all years will be programmed to reflect the most current cost and schedule data for the Prop 1B seismic projects. Safety non-seismic bridge projects may also be programmed based on the HBP's project ranking policy.
2. The DLAEs must date stamp every Request for Authorization when the DLAE determines the package is complete and ready to obligate. The DLAE must update the FileMaker HBP programming database with the revised funds and schedule in the current year of the FSTIP. The date stamp must be keyed into the FileMaker HBP programming database when funds cannot be obligated due to problems including but not limited to scope issues, delays in modifying the FSTIP, or if the project phase is

programmed in a future year. The DLAE must not transmit the RFA for obligations until scope and FSTIP issues are resolved.

3. Post programming changes for the construction phase of HBP or seismic projects must be elevated to HBP Managers for funding approval as soon as the DLAE has reviewed the RFA package for completeness. Complete LAPG 6-D: HBP Scope/Cost/Schedule Change Request to provide justification for the cost increase. The DLAE must sign the LAPG 6-D recommending approval.
4. Beginning in January of every year and completed on February 15th of every year:
    a. The HBP Managers will review the quarterly status updates that LPAs are required to maintain through the LA-ODIS database. This review will flag which seismic projects in the current year cannot be delivered and which seismic projects can be advanced.
    b. The DLAEs will review projects programmed in the current year to evaluate if the project phases programmed can potentially be delivered. DLAEs, depending on staff resources, may need to coordinate with LPAs to ensure request for authorization packages are being developed.
    c. The DLAEs will maintain the “ready to advertise” or “nearly ready to advertise” flags in the HBP FileMaker database. These flags impact a project’s ranking and must be maintained by the DLAE.
    d. The HBP Managers will select the projects ready to obligate for inclusion into the FSTIP, if needed, or for funding projects advanced under EPSP or post programming changes.
5. Revised program lists may be released to the MPOs on March 30th of every year to ensure all current year federal funds are obligated. These lists would advance projects outside the 4-year element of the FSTIP so the projects could be obligated by September 30th of the current year, provided OA and apportionment are available at that time.
6. After March 30th of every year, EPSP and Post Programming procedures will be implemented for all projects funded in the 4-year element of the FSTIP until federal apportionment or OA is exhausted. Some reserves may be held if there were delays in processing FSTIP amendments based on the previous October program lists. The HBP Managers will review this situation on a case-by-case basis.
7. Starting in July each year, the DLAEs will request their LPAs for a status of next year’s needs. The annual status will be provided to the DLAEs by the HBP Managers. The HBP FileMaker database must be updated by DLAEs by the end of September. The HBP Managers will release new statewide program lists to the MPOs for inclusion into the FSTIP by the end of October of each year.

The HBP Managers update program lists every October and March to incorporate project cost and schedule updates and new funding requests from LPAs. Once developed, the HBP Managers release program lists to the MPOs for inclusion in to the FSTIP, and the program lists are posted on the Division of Local Assistance website.

Note that these program lists do not fulfill the federal programming requirements. Inclusion into the FSTIP by MPOs must precede fund authorization for any activity for which HBP funds are being sought.

The HBP programming process is summarized in the following table:

Table 6-2: HBP Programming Process Summary

Start	End	Responsible Party	Action
Oct. 1	Mar. 30	HBP Manager	EPSP, Post Programming changes are suspended, unless approved by HBP Managers.
Jan. 1	Feb. 15	HBP Manager	Review LA-ODIS for project slippage/advancement.
Jan. 1	Feb. 15	DLAE	DLAEs review current year programmed projects and reprogram funds in the HBP database as needed.
Feb. 15	Mar. 30	HBP Manager	Determine if new statewide program lists need to be developed and released to regions.
Mar. 30	Sept. 30	HBP Manager	EPSP, Post Programming changes enabled. Fund obligated until balances are zero. Statewide programming lists must be sent to MPOs if needed.
Jul. 1	Sept. 30	DLAE	DLAEs request project status from LPAs for next year's needs and update the HBP database. HBP managers provide DLAE with project status forms.
Oct. 1	Oct. 30	HBP Manager	New program lists are developed and released to MPOs to amend their FSTIPs.

Programming Tools to Advance Projects

EPSP allow most project programming in the 4-year element of the FSTIP to be advanced for authorization and obligation, provided OA and apportionment are available to fund the project and programming capacity is available in the year of obligation of funds. For HBP projects, EPSP is managed by HBP Managers. New projects that are requesting the first PE authorization to proceed cannot utilize EPSP.

Post programming changes are changes to phases of work that have already been authorized and obligated, and require additional funds. No pre-approved FSTIP amendment is required to obligate additional funds for a post programming change provided there is no scope change to the project. Post programming changes must be reflected in future FSTIP amendments to ensure that the FSTIP always reflects total project costs and is financially constrained. Post programming changes are subject to the approval of the HBP Managers.

1. EPSP and post programming Policy

a. Due to limited federal funds, funds programmed in the current year of the FSTIP will be reserved specifically for the project in the current year of the FSTIP. These funds will be held in reserve until March 30th of any given year.

b. Effective October 1st of every year, EPSP and Post programming changes will be suspended for all projects, unless otherwise approved by the HBP Managers.

Exceptions will be granted provided there will be no impact on the delivery of current year programmed projects. The HBP Managers will try to hold back a reserve of un-programmed capacity each year to fund construction change orders, cost overruns, and other mid-phase cost increases to help ensure smooth project development activities.

2. Advancing non-Prop 1B Seismic Retrofit Projects

a. Advancing means obligating funds on a project where the funds are not programmed in the current year of the FSTIP.

b. If there are schedule slippages or savings in current year programmed projects, and no Prop 1B seismic projects can be advanced to use current year funds, the Department will make HBP funds available to other HBP funded bridge projects programmed in future years within the 4-year element of the FSTIP.

c. The priority for programming federal HBP funds will be based on having a complete request for authorization package in the possession of the DLAE, the type of work, the deficiencies with the bridge, and having approved scopes of work.

Project Delivery Policy

This Policy is for programmed projects to address funds and delivery management. The intent is to maximize the use of funds and to have project delivery a high priority for HBP projects.

1. Funds Management

a. New projects are metered into the program. A project's PE phase may not be obligated in an earlier year than programmed.

b. LPAs that utilize AC to authorize PE will have the conversion to federal funds in the year PE is programmed.

c. To avoid delivery failure, by February 1 LPAs must either submit an RFA or notify Local Assistance of an anticipated project delay.

d. When an agency requests additional funding for an authorized phase, the funds must be obligated in the year programmed. If the LPA does not request the additional funding in the year programmed, it is considered a delivery failure and the funding will be moved to the last year of the FSTIP in the October updates. Project phases that fail to deliver will be required to wait until April 1 to advance the funding.

e. If LPAs fail to deliver the R/W or CON phase of a project as programmed, the phase will be moved to the last year of the FSTIP and will be required to wait until April 1 to advance the funding.

2. Delivery Management

a. Metering of the new projects will give the LPA, at a minimum, a 2-year notice of the available project start date. LPAs must authorize the PE Phase in the year programmed. Projects that fail to authorize PE, will have the project removed from the program. Re-application into the program will be under current guidelines.

b. LPAs that have projects with PE authorized over 10 years without NEPA clearance will not have new bridge projects programmed.

c. LPAs that have projects with PE authorized over 8 years without NEPA are required to submit a detailed environmental status report with the annual HBP status.

d. LPAs that have projects with NEPA clearance for more than five years and R/W certification is not complete, or construction authorized, will not be allowed to add new HBP projects to the program.

Exceptions to the above will require approval from HBP Managers. Projects will be evaluated regarding Project Delivery Policy during the annual HBP status. Data is processed at the end of the federal fiscal year.

Project Ranking Policy for Construction Programming

Subject to budgetary constraints, the PE phase for eligible projects is programmed only in one of the two new years of a new FSTIP cycle to facilitate the development of new projects.

Also subject to budgetary constraints, the R/W phase for eligible projects is programmed in the last year of the FSTIP. Funding for the R/W phase may be advanced to the year requested once full compliance with the provisions of NEPA has been documented and approved by Caltrans.

The ranks below will be used to determine funding priorities of the construction phase for developing financially constrained HBP program lists. After projects are ranked and funds programmed, Caltrans submits the financially constrained program lists to the MPOs for inclusion into the FSTIP.

The lowest number rank is the highest construction priority. Within each rank, projects are sorted by the NBI condition rating to reflect the general condition of the bridge. The lowest condition rating is the highest priority. This means that lower priority projects will have PE and R/W funded even though construction may be pushed out of the 4-year element of the FSTIP. When these projects are ready for construction authorization, the ranking system will allow these projects to receive a high priority for construction programming within updated statewide program lists.

These project ranks will be applied to programmed projects to financially constrain any program list needed to update the FSTIP. The DLAEs are responsible for maintaining fields in the HBP FileMaker database that indicate a project's readiness to advertise. LPAs are responsible for closely coordinating with the DLAEs on project status, schedule, and estimates as documented in these guidelines.

Rank 0

This is not technically a project rank. All projects with HBP funds obligated for construction fall in this rank for listing purposes only. These projects cannot be pushed out of the 4-year element of the FSTIP because funds have been obligated for construction. Local-funded AC projects not subject to cash management commitments are Rank 0 projects. Local-funded AC conversion can be converted to HBP funds when programming capacity is available.

Rank 1A

Projects for the general support of the federally-mandated Bridge Inspection Program.

Rank 1B

Projects that are ready to advertise AND;

Are critical HBP funded rehabilitation or replacement projects. These bridges must have major structural deficiencies causing the bridge to be posted or closed. The NBI item 41 must be coded B, D, E, K, P, or R.

Rank 1C

Cash management projects with future AC conversion commitments by the Department. Projects may or may not be ready to advertise for construction. Federal HBP funding commitments are case-by-case and approved by the Department.

Rank 1D:

Projects are ready to advertise AND;

Are Prop 1B seismic projects or;

Are scour countermeasure projects, rehabilitation, or replacement of scour critical bridges, NBI item 113≤3.

Rank 1E:

All other projects flagged as ready to advertise.

Rank 2A:

BPMPs are grouped listings of bridges that need PM work. This means construction funds are distributed over multiple years based on how projects in the BPMP are actually authorized. Stand-alone PM projects not part of a BPMP are excluded from this rank and will be treated like rehabilitation projects.

Rank 2B: Individually listed projects with Construction in the 4-year element of the FSTIP.

High priority regionally significant or non-air quality exempt (line item) projects that are not subject to cash management. The construction funding year is determined based on readiness to advertise and subject to Department case-by-case review. This rank highlights the sensitivities in rescheduling projects impacting regional air quality conformity determinations.

In the event of construction schedule slippage, the Department may push the project funding in the FSTIP a minimum of two years out, after consultation with the MPO. If there is no programming capacity, the project will need to be pushed out until the next FSTIP cycle. LPAs will be required to program local-funded AC if the project is only slipping one year or the HBP cannot afford to fund the project according to the new project schedule. LPAs will need to work with their MPOs/RTPAs to ensure the AC is programmed correctly in the FSTIP.

If NEPA or R/W is not clear and R/W includes lengthy property acquisition, the construction funding may be pushed outside the 4-year element of the FSTIP.

Rank 3A:

All projects flagged nearly ready to advertise within six months of a new financially constrained program list being generated AND;

Are critical HBP funded rehabilitation or replacement projects. These bridges must have major structural deficiencies causing the bridge to be posted or closed. The NBI data item 41 must be coded B, D, E, K, P, or R.

Rank 3B:

All projects flagged nearly ready to advertise within six months of a new financially constrained program list being generated AND;

Are Prop 1B seismic projects or;

Are scour countermeasure projects or rehabilitation or replacement of scour critical bridges, NBI item 113≤3.

Rank 3C:

All projects flagged nearly ready to advertise within six months of a new financially constrained program list being generated.

Rank 4:

Projects that are not flagged ready to advertise. NEPA documents and R/W are not clear. The bridge must have major structural deficiencies causing the bridge to be posted or closed. NBI item 41 coded B, D, E, K, P, or R.

Rank 5:

Includes Prop 1B seismic retrofit projects that are not flagged ready to advertise. NEPA and R/W are not clear. Includes scour countermeasure projects and rehabilitation or replacement of scour critical bridges, NBI item 113 ≤3.

Rank 6:

All types of projects with STIP matching funds or other federal STBGP funds for enhanced project scopes. Projects are not flagged ready to advertise. NEPA and R/W are not clear.

Voluntary seismic retrofit projects. Projects are not flagged ready to advertise. NEPA and R/W are not clear.

Rank 7:

General bridge rehabilitation, replacement, and other stand-alone scopes of work, including stand-alone PM. Projects are not flagged ready to advertise. NEPA and R/W are not clear.

Annual Project Status

The intent of the annual status is to provide an update of the project schedule for programming purposes. HBP Managers develop and distribute the annual status to the DLAEs for distribution. Prior to the development of program lists in October, the DLAE will request the project status of currently programmed projects from LPAs. Schedule information provided from the status may be incorporated into the program lists. Failure to provide status may result in project cancellation. The programming in the financially constrained lists provided to the MPOs may have different funding in a different federal fiscal year than requested by the LPA in the status. The financially constrained program lists are based on the Rank Policy.

The annual status must not result in cost or scope changes to projects. If there are scope changes, a submission of a LAPG 6-A may be necessary. There are times the scope can be changed without the use of the LAPG 6-A, contact with the DLAE may be needed to determine if the LAPG 6-A is necessary. If there are cost increases to a phase or phases of existing projects, the submission of a LAPG 6-D is required.

High Cost Projects Programming Policy

To ensure that HBP funds are made available throughout the state on a fair and equitable basis, in compliance with federal regulations, high cost projects have additional programming policy. It has been demonstrated that a high cost project commits large sums of federal funds but cannot spend the funds in one year due to LPA contract processes, time to mobilize the contractors and the time it takes to construct a large project. These idle federal funds could be used to advance other projects. Cash management of high cost projects is critical to effective

stewardship of the local HBP. The HBP Managers will identify the high cost projects and through the DLAE, will contact the project sponsors to explain the policy.

High cost bridge projects with R/W or construction totaling over $50 million require a scoping document to be accepted into the HBP. The scoping document must be paid for by the LPA and it is not HBP eligible. The scoping document must consist of 30% plans and estimate design package developed by the LPA. Funding for high cost bridge projects over $50 million of R/W or construction is limited to the 30% estimate. Project sponsors must present a justification to the Committee and the Committee must recommend programming beyond the 30% estimate. Programming for high cost bridge projects is capped at $50 million of R/W or construction if the scoping document was not done at the time of original programming.

New high cost bridge projects accepted into the HBP with a R/W or Construction phase totaling over $80 million programmed into the HBP are subject to a decreasing reimbursement rate and a total phase cap of $250 million. The HBP participating phase reimbursement rate will be determined using a straight-line approach from $80 million to $250 million.

The reimbursement rate incrementally decreases in relation to the increase in total participating phase costs. This will yield diminishing HBP reimbursement amounts in relation to the increase in total participating phase costs which results in a reimbursement rate varying between 80% to 50% for On System projects and 88.53% to 58.53% for Off System projects. A graphical representation of the policy is shown in Figures 6-1 and 6-2.

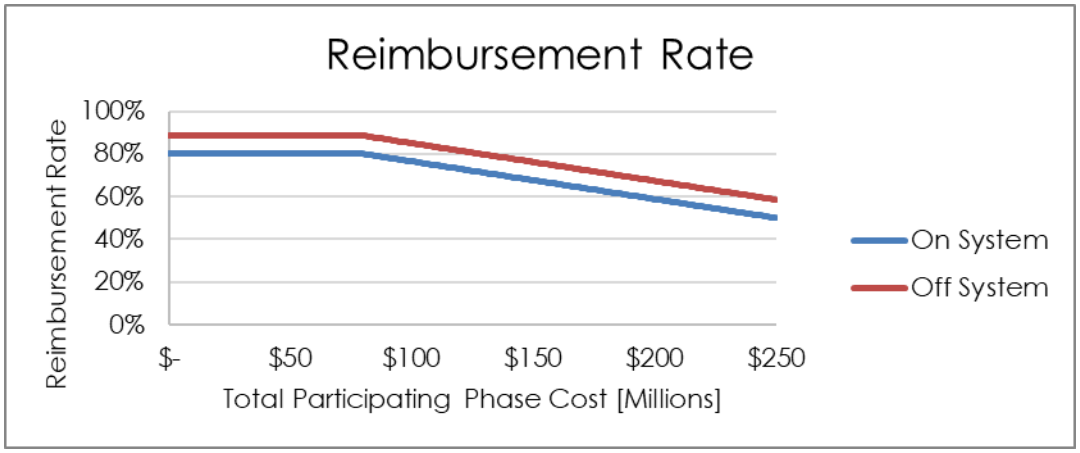

Figure 6-1: HPB Reimbursement Rate vs. Participating Phase Cost

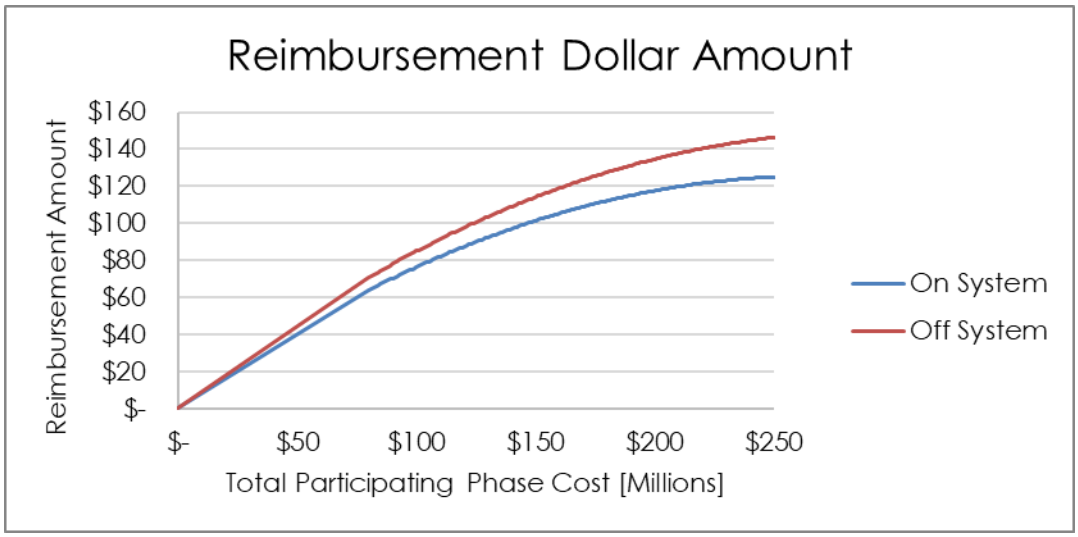

Figure 6-2: HBP Reimbursement Amount vs. Participating Phase Cost

Projects with total participating R/W or Construction costs below $80 million will maintain the existing federal reimbursement rate as stated in LAPG Chapter 6, Section 6.1. The reimbursement rate will decrease by 0.1765 for every $1 million of phase increase above $80 million to $250 million. The equations for this decrease by functional classification are:

- On System: Reimbursement Rate = 80 – 0.1765 x (phase cost – 80)
- Off System: Reimbursement Rate = 88.53 – 0.1765 x (phase cost - 80)

In the above equations, “phase cost” is in units of million dollars and the reimbursement rate is in percentage. For example, an On System phase cost of $85 million yields a reimbursement rate of 79.12% = 80 – 0.1765 x (85 – 80).

The HBP reimbursement amount is the product of the calculated reimbursement rate and the total participating phase cost. All projects will be capped at a $250 million amount of total participating costs for the high cost phase, which results to a maximum of $125 million of HBP contribution for On System projects and $146.33 million for Off System projects.

The following tables provide examples for On and Off System reimbursement rate calculations:

Table 6-3: On System Calculation Examples

Example Number	Participating Phase Cost, $ Million	Reimbursement Rate Calculation	Reimb. Rate, %	HBP Reimb. Amount, $ Million	Local Match Amount, $ Million
1	25	N/A	80	20	5
2	80	N/A	80	64	16
3	100	=80 – 0.1765 x (100 – 80)	76.47	76.47	23.53
4	250	=80 – 0.1765 x (250 – 80)	50	125	125
5	300	N/A	N/A	125	175

Table 6-4: Off System Calculation Examples

Example Number	Participating Phase Cost, $ Million	Reimbursement Rate Calculation	Reimb. Rate, %	HBP Reimb. Amount, $ Million	Local Match Amount, $ Million
1	25	N/A	88.53	22.13	2.87
2	80	N/A	88.53	70.82	9.18
3	100	=88.53 – 0.1765 x (100 – 80)	85	85	15
4	250	=88.53 – 0.1765 x (250 – 80)	58.53	146.33	103.67
5	300	N/A	N/A	146.33	153.67

Once reimbursement rates for project phases are determined, they cannot be changed. The HBP reimbursement rate of a high cost R/W phase will be determined at time of R/W authorization. The HBP reimbursement rate for a Construction phase will be determined at contract award.

When a high cost project phase is ready to be programmed in the 4-year element of the FSTIP, the LPA will notify the DLAE and discussions on programming the phase will begin.

- A funding commitment letter will be issued when a high cost phase of work needs to be programmed in the 4-year element of the FSTIP or as needed for an FHWA Project Financial Plan. NEPA and/or R/W clearance along with status of the PS&E package will play a role in determining the need for the funding commitment letter.
- The HBP Managers will issue a funding commitment letter, Exhibit 6-E: Sample Funding Commitment Letter, and associated funding sheet, Exhibit 6-F: Sample Funding Sheet for Commitment Letter, to the LPA for a high cost project that commits the Department, subject to state and federal budget legislation and other limitations, to specify HBP in the FSTIP over a multiple year period. The Department will program the HBP funds in the FSTIP after the LPA executes the AC Commitment Block included in Exhibit 6-E.
- LPAs will need to secure the availability of local funds (budget authority) to back the AC commitment.
- LPAs that cannot obtain a source of local funds for AC will not have R/W or construction programmed within the 4-year element of the FSTIP using HBP funds. These LPAs may appeal this policy and request a meeting with the Department to review the specific situation. Members of the Local Assistance HBP Advisory Committee (Committee) may be invited to the meeting to offer advice to the Department on implementing the policy as applied to the project in question.
- The sum of cash-managed high cost projects in any federal fiscal year must not exceed 50% of the annual revenue for that federal sub-apportionment for which the project is eligible without concurrence from the Committee.
- Funds allocated to a project for AC conversion should not exceed $20 million per year without concurrence from the Committee. LPAs must manage the cashflow and expenditure needs of high cost projects utilizing other sources of funding with this understanding. Financing costs such as interest or other costs incurred by the LPA while borrowing funds is not HBP eligible.
- High cost projects will not be accepted into the local assistance HBP if all (including high cost projects) projects cannot be funded over a 15-year period. If the project is not

accepted into the local assistance HBP, LPAs have the option of proceeding with their own funds using AC, but the Department will not budget the project(s) for AC conversion using HBP funds.

- AC conversion in the year programmed will not be obligated unless at least 50% of the prior years' federal funds have been invoiced. This keeps the federal funds available to advance other projects that can be delivered.
- To facilitate non-high cost project FSTIP programming procedures, the advancement of future year AC conversion using EPSP for high cost projects will be after April 15th of each year instead of after March 30th. This will provide smaller projects programmed in future years the opportunity to advance before the high cost projects use up available HBP funds.
- After April 15th of any year, conversion of AC for high cost projects will be prioritized and prorated as follows:
    - High cost projects with eligible costs that could be immediately reimbursed with AC conversion will be first priority for conversion and proration will be based on outstanding reimbursable expenditures.
    - Second priority will be advancing AC conversion amongst the high cost projects with remaining AC even if there are no project expenditures that could be immediately reimbursed.
    - Depending on current year delivery of the HBP, the Department may delay AC conversion of eligible projects in the above two bullets to a later date.

Mid-Level Cost Projects Programming Policy

Mid-Level bridge projects are for the construction phase of a project only, when the total construction cost is between $15 million and $35 million. Mid-level cost bridge projects have additional programming policies.

- Programming of Construction funds shall be split over two federal years. The first year will have up to half the construction cost with AC for the remainder. The second year will have the AC conversion. AC conversion to federal funds is dependent on availability of federal funds.
- At the time of initial programming, if the LPA suspects that the total construction cost of the project may exceed $35 million, the LPA should treat the project as a high cost bridge project and follow the appropriate programming policy for high cost bridge projects.

Bridge Investment Credit

Federal-aid highway funds provide valuable financial resources to LPAs in making improvements to transportation facilities on local roads. Federal funding also comes with many requirements that need to be met in carrying out a project. Ideally, the most efficient use of federal funds is to maximize federal funds on fewer, larger projects, funding smaller projects with non-federal funding sources such as local funds.

The BIC is a new element in the HBP aimed at encouraging LPAs to invest in making improvements to bridges on local roads using local or non-federal funds and receive credit to use as match funds for future HBP projects. The BIC allows LPAs to replace, rehabilitate, and

perform PM work on HBP eligible bridges using local funds, then receive credit for up to 100% of the eligible work. The credit, in turn, serves as the required non-federal match for a future local federal-aid bridge project.

To be eligible for BIC, a bridge must meet the current eligibility criteria for HBP as outlined in the current Bridge Preventive Maintenance Program Guidelines and this Chapter of the LAPG. Eligible HBP projects determined to be noncontroversial and PM projects are the best candidates to be funded by LPAs under this policy.

Eligible HBP projects that LPAs choose to design and build with local funds do not need to comply with Federal requirements, however the project must meet current minimum AASHTO design standards with the California amendments to receive credit.

1. **Project Programming for Banking BIC:**

   LPAs using local funds on an eligible HBP project to earn credits under the BIC must submit LAPG 6-A: HBP Application/Scope Definition which clearly defines scope and cost of the project. For BPMPs they must submit a certification letter and a BPMP plan list. Cost on the submittals should be 100% local funds. HBP Managers approval of the scope and cost for the BIC program is required prior to commencing work. If scope and cost is approved, the project will be programmed in the HBP database with 100% local funds. LPAs will be notified of BIC approval.

2. **Project Administration for Banking BIC:**

   The project sponsor is responsible for following all the applicable state and local laws and requirements in designing and constructing the project. Upon completion of the project, the sponsor must submit documentation including final project cost and as-built plans to Caltrans.

   Caltrans will review the documentation and may field review the completed project to confirm it was constructed in accordance with all applicable standards and to the approved scope. Caltrans will approve the credit as it was originally requested or as shown in the final project cost, whichever is lower. Upward cost adjustment is not allowed. Credit will be banked after project completion, and the sponsor notified.

3. **Project Programming for using BIC:**

   LPAs may apply to use their banked BIC to cover their local match for any phase of an HBP eligible project as long as their banked credit is 200% of the required local match for PE and R/W and 125% of the required local match for Construction at the time of obligation. The higher percentages are required to ensure that there are sufficient credits to cover potential cost increases and scope changes.

   As for any other HBP project, the project sponsor must submit an LAPG 6-A which clearly defines the scope and cost of the project. Cost on the submitted exhibit should be 100% federal funds. In addition to the LAPG 6-A, the project sponsor must provide a letter requesting their banked credit be applied to the phase or phases of the project that they want funded at 100% federal funds. The letter should include a table showing available credit and deduction based upon the percentages mentioned above. Caltrans approval of scope and cost for the BIC program is required prior to programming the project. When scope and cost is approved, and if the available credit is sufficient, the project will be programmed in the HBP database with 100% federal funds for the appropriate phase(s).

4. **Project Administration for using BIC:**

   Project administration for bridges using banked BIC to cover the required local match is the same as any other HBP project, except the reimbursement ratio will be at 100% federal. Since federal funds are involved, all the applicable federal, state, and local laws and requirements in designing and constructing the project must be followed.

   When the project completion paperwork is submitted to Caltrans, a reconciliation of the credit balance will be done based on the final invoice and the project sponsor notified.

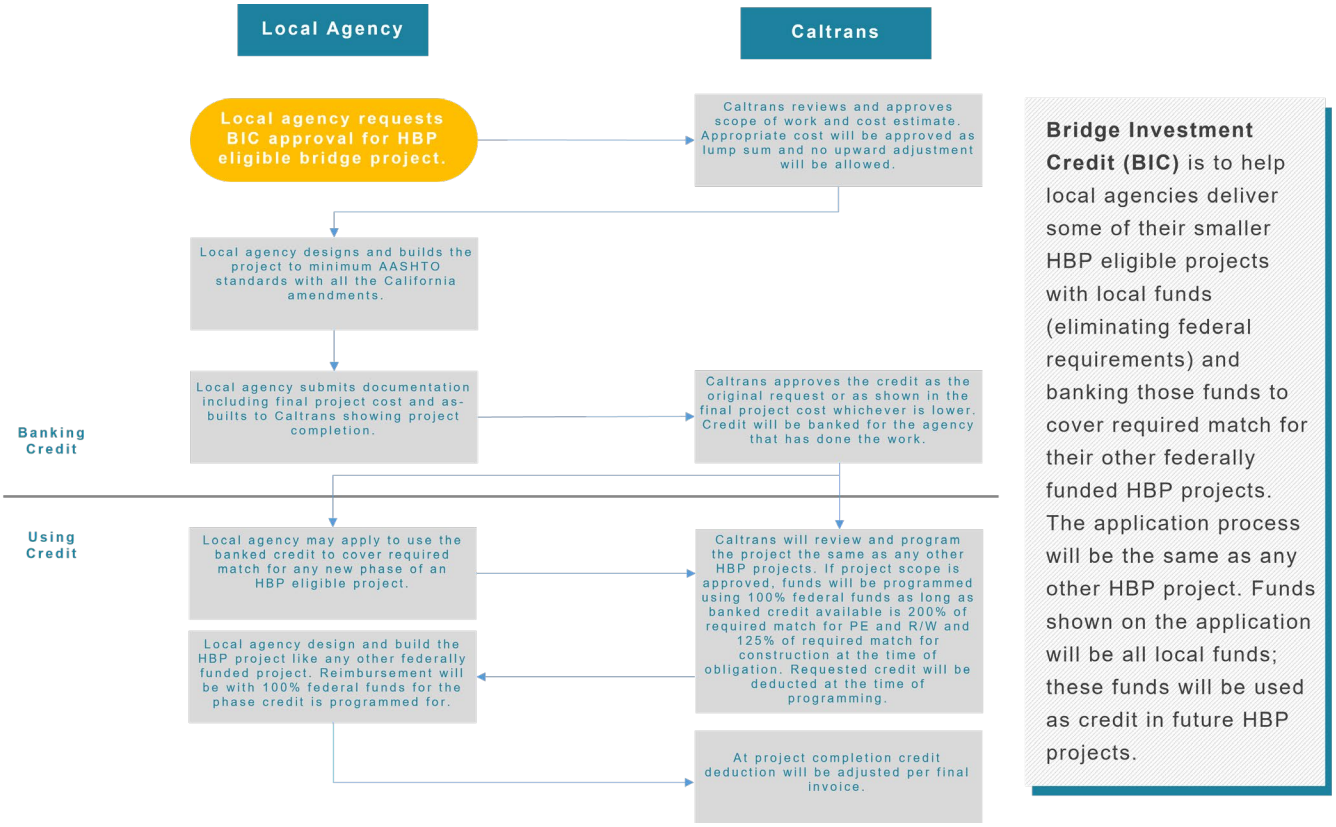

Figure 6-3: Bridge Investment Credit Concept Flowchart

6.8 Project Implementation

Once a project is programmed and PE is in the current year of an approved FSTIP, LPAs may request PE authorization for preparation of environmental documentation for NEPA clearance. The DLAE must ensure that the funds authorized do not exceed what is programmed as shown in the HBP program lists.

Mandatory Field Reviews

An in-person, on-site formal field review is mandatory for all HBP scour countermeasure, rehabilitation, and replacement projects. The objectives of field reviews for HBP projects are different in several ways from typical LPA projects. The objectives of an HBP field review include:

- Introductions between all relevant parties involved in the project development.
- Review the most recent LAPG 6-A to ensure no revisions are necessary.
- Begin to scope the project and discuss HBP eligibility; the project will not be fully scoped until after type selection concurrence.
- Identify project constraints.
- Verify that the as-built plans accurately represent the existing conditions.
- Discuss environmental considerations and complete the draft PES form at the field review.

Important items to keep in mind for HBP field reviews include access, clearance, coordination, detours, environmental, falsework, obstructions, utilities, modifications, hydraulics, and permits.

The field reviews must be attended by:

- Consultants, if any.
- LPA staff knowledgeable of utilities, R/W, environmental, traffic, etc.
- Caltrans SLA, DLAE staff, and District Environmental; the DLAE may invite other Caltrans staff as necessary.

The field review results:

- The preliminary scope of the project is documented.
- The existing conditions are verified, and any modifications are documented.
- Construction controls are identified.
- Responsibilities are reviewed.

All projects that have PE authorization after January 1, 2019 must comply with the mandatory field review requirement.

Bridge Preventive Maintenance Projects and paint-only projects are not subject to the mandatory field reviews, but field reviews are highly recommended to be held by the LPA and their consultant.

Mandatory Field Reviews for Local Seismic Retrofit Projects

Field reviews for seismic retrofit projects are mandatory. The objectives of field review for seismic retrofit projects are different in several ways from typical HBP projects. Seismic projects have additional objectives compared to Mandatory Field Reviews for HBP projects. These additional objectives are to:

- Begin to scope the project; the project will not be fully scoped until after the strategy meeting.
- Check for modifications that would affect the seismic response of the structure.
- Dimension any members that are not accurately shown on the as-built plans.
- If as-built plans are not available, measure and dimension all pertinent structural members.

- Check for new conditions that would be affected by construction work.

Mandatory Type Selection Report Review

Type Selection Reports for rehabilitation and replacement projects must be submitted to SLA and HBP Managers for review and concurrence. Preliminary hydraulic and geotechnical reports should accompany the Type Selection Report to substantiate the alternatives studied and proposed, if applicable. This review is to ensure that the chosen structure type and associated details are the most cost-effective solution that meets the structural needs of the project. SLA's review will focus on the technical structural issues (i.e., structure type, foundation type, hydraulics, bridge length, span configuration, vertical profile, etc.) and HBP Managers' review will cover eligibility (i.e., bridge width, approach road work, vertical and horizontal alignments, etc.). The objective of this review is to ensure that the most cost-effective solution is being considered and that the preferred alternative has justification for HBP eligibility. The Type Selection Report submittal timeline should be discussed at the Field Review. It is recommended that Type Selection concurrence is obtained from SLA prior to NEPA clearance. All projects with a NEPA clear date after September 30, 2021 must comply with this mandatory Type Selection Report review requirement.

Bridge Preventive Maintenance Projects, scour countermeasure-only, and paint-only projects are not required to submit a Type Selection Report for Caltrans concurrence.

Mandatory Strategy Meetings for Local Seismic Retrofit Projects

The objectives of the strategy meetings are to:

- Offer seismic designers support or alternative approaches.
- Determine that standard seismic retrofit details are being fully utilized.
- Establish alternative acceptable procedures to satisfy retrofits when unusual problems are encountered.
- Recommend alternative analysis when appropriate.
- Inform the project engineer of solutions to similar problems encountered by Caltrans, consultants, or other LPAs.
- Provide LPA personnel with information regarding potential traffic control, right-of-way, utility, and environmental problems.
- Achieve consensus agreement on economical and practical retrofit strategies.

The strategy meeting must be attended by:

- Design Consultants (Structural, Geotechnical, and Traffic if necessary)
- LPA staff
- Caltrans DES staff from Earthquake Engineering, Design, Construction, Maintenance, and/or Geotechnical.
- SLA
- DLAE

The designer or project engineer is expected to have performed the diagnostic analysis using the appropriate static and dynamic analysis, summarized the condition of columns, restrainers/hinges and abutments, and have a proposed solution prior to scheduling a strategy meeting. The designers should be prepared to discuss solutions considered and reasons for rejection of alternatives. At a minimum, a General Plan employing a legend of retrofit work and location of work, along with a table outlining the controlling design ductility ratios, should be presented. Additional tables and proposed details may be necessary.

The following materials are required for the Mandatory Strategy Meeting:

- Draft Strategy Report, including the General Plan, as-built plans, photographs, and an estimate of costs (capital and engineering). These materials must be submitted to the DLAE. The DLAE must forward the package to SLA two weeks prior to the scheduled strategy meeting.
- Any plans or reports pertinent to the proposed work such as utility layout, right-of-way maps, etc.

The strategy meeting should result in a consensus regarding the acceptable analysis and retrofit approach should be reached by the strategy meeting attendees. Additional strategy meetings should not be necessary if all the information noted above is provided before and during the meeting. The conclusions reached must be outlined and summarized by the agency responsible for seismic design in strategy meeting minutes and documented in the Final Strategy Report. A copy of the minutes must be sent to all attendees. A copy of the Final Strategy Report will be kept on file in SLA.

Mandatory PS&E Review for Local Seismic Retrofit Projects

PS&E reviews at 100% completion are required for all LBSRP projects. SLA will perform a cursory review of the 100% PS&E package of all seismic retrofit projects for concurrence with the Final Strategy Report. Concurrence must be in the form of a memorandum initialed by SLA and may include advisory comments.

Cost/Scope/Schedule Changes

If a cost/scope/schedule change occurs, the LPA must notify the DLAE immediately of the changes. A cover transmittal letter must be sent to the DLAE with the following attachments:

- An updated application with attachments, if there is a major scope change; LPAs should contact the DLAE for advice on whether an updated application is needed.
- A cost/scope/schedule change form (LAPG 6-D: Scope/Cost/Schedule Change Request).

The DLAE will forward copies of the scope change request package to the HBP Managers and SLA. The HBP Managers and SLA will review the package the same way as a new project application.

Optional Cursory PS&E Review

Optional PS&E reviews are cursory in nature. These reviews can help identify issues regarding roadway safety, constructability, obsolete or expensive standard specifications, and HBP eligibility that might have been overlooked.

Cursory PS&E reviews are not design checks and findings are usually advisory in nature. Findings that are significant to the cost-effectiveness or safety of the project must be addressed by the LPA or federal authorization or reimbursement will be withheld. Tort liabilities resulting from design decisions, mistakes, and omissions in the design are solely the responsibility of the LPA.

LPAs may request an optional cursory PS&E review by contacting the DLAE.

1. The DLAE is responsible for coordinating the cursory PS&E review with the LPA, SLA, and other units within Caltrans. SLA is the point of contact for technical services provided by Caltrans DES.
2. See LAPM Chapter 12: Plans, Specifications & Estimates (Sections 12.2 and 12.14) for procedures relating to cursory PS&E review. These reviews should occur when the PS&E is about 65% complete for HBP projects. At this stage of completion, generally the design calculations and plans have been completed but are unchecked.
3. LPAs requesting optional cursory PS&E reviews are strongly encouraged to have field reviews with Caltrans involvement.
4. Because these reviews are optional, incomplete PS&E packages may be submitted. Only what is submitted by the LPA will be reviewed.
5. LPAs may withdraw the request for PS&E review at any time if Caltrans staff is not available to meet LPA deadlines. If it appears that a PS&E review cannot be completed within the timeframe required by the LPA, the LPA must be the decision maker as to whether the PS&E review should be completed with the possible delay in advertising their project.
6. Prior to processing any work authorizations, the DLAE must coordinate with SLA and the LPA to ensure that the needs of the LPA are appropriately met. Under no circumstances is a DLAE to withhold prompt action on a request for authorization due to optional PS&E review.
7. Change orders or cost increases due to amending the PS&E after the project has been advertised may not be HBP participating. If there are significant changes to an advertised project, Caltrans may require the LPA to re-advertise the project. To avoid project delays, it is important that LPAs requesting help with their projects do so early in the project development cycle.
8. The PS&E packages submitted for review should include an electronic copy of all documents. The LPA should contact SLA prior to submittal, to verify the submittal requirements.

Proceeding to Final Design

Proceeding to final design and preparation of the PS&E may not commence until the DLAE has notified the LPA that the environmental documents have been approved and eligibility issues have been resolved. See LAPM Chapter 12: Plans, Specifications & Estimate for detailed discussion of procedures.

Scope Changes during Final Design

Minor scope changes may be resolved with a letter from the LPA to the DLAE. The LPA must contact the DLAE for a decision on whether the scope change is minor.

Major scope changes may invalidate the environmental documents and cause the project to be ineligible for federal funding. HBP Managers decide how to proceed in major scope changes during final design. The DLAE must consult with SLA, Caltrans District Environmental, and the HBP Managers.

Where a major scope change is required, HBP Managers require the project application be revised and resubmitted to the DLAE. If needed, the environmental documents may need to be reevaluated. If there are changes to the environmental documents, the DLAE must provide direction to the LPA if PS&E work may continue. The DLAE will need to work with District Environmental and HBP Managers to resolve complex environmental issues.

Construction Change Orders

LPAs assume full liability for the safety of their bridges and eligibility of participating costs of their projects.

Where the change orders exceed contingency, the LPA must contact the DLAE explaining the need for additional funds and submit LAPG 6-D: HBP Scope/Cost/Schedule Change Request to document the reason and amount of additional HBP funding. The following instructions must be followed:

- If the project is programmed with the lump sum item in the FSTIP, only the HBP Managers need to be consulted to ensure sufficient funds are available for the CCO.
- If the project is identified as a line item in the FSTIP, the LPA must obtain concurrence from the RTPA/MPO and the HBP Managers.

LPAs will work through the DLAE to obtain approval from the HBP Managers. If the FTIP needs to be amended for a project line item, the LPA must work with their appropriate RTPA/MPO for proper processing.

Project Closure during PE

If, during project development, it is determined that no work is needed the LPA must choose the no build option, and the LPA may close out the project in the PE phase. Sometimes during the project development phase, environmental, R/W, or legal issues arise that make the project not feasible or cost-effective. In these situations, the LPA will be reimbursed for the work performed under the E-76 authorizing PE. When the LPA submits the final invoice, a final report must be included documenting the conclusion with supporting information. See LAPM Chapter 17: Project Completion for detailed instructions.

If the LPA develops a final PS&E and the project is never advertised due to local match funding constraints, the HBP participation will be limited to the costs of scoping the project and developing the federal environmental documents. The engineering work to develop the final PS&E will be non-participating. Federal law does not authorize federal funds to be used to develop shelf projects.

Other reasons for canceling a project may not be grounds for reimbursement of PE costs. If the LPA cancels a project, all PE funds must be returned to the State. The State will then return the funds to FHWA.

6.9 References

California Streets and Highways Code Sections 2411 and 2413
https://leginfo.legislature.ca.gov/faces/codesTOCSelected.xhtml?tocCode=SHC

Code of Federal Regulations
https://www.archives.gov/federal-register/cfr

Local Assistance Program Guidelines
https://dot.ca.gov/programs/local-assistance/guidelines-and-procedures/local-assistance-program-guidelines-lapg

Local Assistance Procedures Manual
https://dot.ca.gov/programs/local-assistance/guidelines-and-procedures/local-assistance-procedures-manual-lapm

National Bridge Inventory Recording and Coding Guide
https://www.fhwa.dot.gov/bridge/nbi.cfm

United States Code Title 23, Section 144
http://uscode.house.gov/view.xhtml?req=(title:23%20section:144%20edition:prelim)