

Local Assistance  
Highway Bridge Program Advisory Committee Meeting  
December 10, 2020—Decisions Made, Action Items and Summary

**Attendees**

Mark Samuelson, DLA  
Dee Lam, DLA  
Linda Newton, DLA  
Robert Peterson, DLA  
Andy Chou, DLA  
Jeremy Wright, DLA  
Robert Zeffoff, DLA  
Jim Perrault, DLAE D6  
Sudhakar Vatti, SLA  
Michael Johnson, SM&I  
Michael Chung, San Joaquin County  
Matt Randall, Placer County  
Chris Sneddon, Santa Barbara County  
Jason Vivian, Tulare County  
Debbie O'Leary, City of Oxnard

Rebecca Neves, City of Placerville  
Robert Newman, City of Santa Clarita  
Jesse Gothan, City of Sacramento  
Ross McKeown, MTC  
José Luis Cáceres, SACOG  
Jon Pray, CTC  
Tim Sobelman, CTC  
Greg Kolle, FHWA  
Julie Allen, City of Los Angeles  
Max Katt, Quincy Engineering  
Gavin Keating, Quincy Engineering  
Margot Yapp, NCE  
Jeremy Hall, NCE  
Bill Robert, Spy Pond Partners  
Susan Herman, CSUS  
Marina Espinoza, CSAC

**Decisions**

No decisions were made at this meeting.

**Action Items**

All completed Action Items will be removed from the list for the next meeting summary.

Item Number	Status	Who	Action	Date Created	Target Date
A95	Open	DLA	Bridge Capacity System (BCS) hosting: consider costs and risks, with input from County of LA, Caltrans IT, and LTAP Center	2/19/15	2021
A110	Open	CSAC reps	Contact county agencies whose unprogrammed bridge projects appear on the scour critical list coded 1 or 2, to promote awareness of HEC 23 chapter 2 (Scour Plan of Action and Countermeasures), available mitigation funding, and HBP prioritization criteria.	2/21/19	2021

Item Number	Status	Who	Action	Date Created	Target Date
A112	Open	DLA	Invite a specialist from Caltrans Division of Environmental Analysis to provide input on NEPA process, for discussion on how to streamline.	4/18/19	2021
A114	Open	All	Discuss possible changes to 6-A scoping document to help estimate project cost more precisely	4/18/19	2021
A115	Open	All	Discuss future of BIC program to balance flexibility and fairness—e.g., whether to simplify the program to encourage better utilization, discontinue program, or other action.	4/18/19	2021
A120	Open	DLA	Circulate letter for comment to 6 county agencies whose yet-to-be programmed bridge projects appear on the scour critical list coded 2, seeking response on Scour Plan of Action and Countermeasures.	8/22/19	2021
A125	Open	DLA	Increasing HBP apportionment: Dee will convene a group with Caltrans Federal liaison Nicole Longoria and report back on available channels for advocacy and sources of support.	6/18/20	2021
A126	Open	DLA	Form a subgroup to focus on AC policy to ensure fairness in reimbursement practices and to provide information for agencies on how AC reimbursement is prioritized	12/10/20	2021

## **Discussions**

### **1. Welcome and Introductions**

- Tim Sobelman is incoming Chief Engineer at CTC. Teri Anderson is retiring effective 12/11/20.

- Greg Kolle will retire from FHWA effective January 1, 2021. This is his last meeting with the HBP Advisory Committee. Numerous HBP Committee members thanked Greg personally for his service to the committee.

## **2. Agenda Review**

- Additional discussion of Advance Construction (AC) will be included in the Financial Constraint report (Agenda Item 8)

## **3. Review of 8/20/20 Draft action summary**

- No changes were made to the Action items from August.
- Ray Zhang was the original contact for A112; this item will be re-evaluated.
- A114 and A120 will be part of Chapter 6 reforms to be discussed in February.

## **4. 6<sup>th</sup> Street Bridge Update by Julie Allen of City of Los Angeles**

City of Los Angeles shared a report on the 6<sup>th</sup> Street Viaduct Replacement begun in 2016, including its design, materials, and seismic performance, and a time lapse showing its progress.

- All permanent parcels have been acquired; all utility relocations completed.
- All foundations were complete in 2018.
- Viaduct superstructure expected to be complete & open to traffic by June 30, 2022.
- Budget: City of Los Angeles spent \$100M to implement a change order and extend costs for Right of Way (RW) (railroad impact costs above expected) and construction engineering associated with delays. Total budget represents resolution of all contractor claims.
- Another unexpected cost was for geometric recovery. The Y-columns had more settling than expected, which damaged concrete falsework and rebar. Edge girders and other adjustments caused lengthy back and forth between construction engineer and design. Testing was needed to examine structural integrity of rebar.
- Remaining budget risks include a) the railroad impacts—extending C & M agreements, mitigation, flagging and b) financing costs exceeding estimate.
- COVID did not affect schedule until 2 weeks ago when 12 high-level members of the team became infected, necessitating quarantines.
- Presentation will be shared with Committee members to allow them to review details of the change order and other issues.

The Q & A session covered lessons learned from the Construction Manager/General Contractor (CM/GC) process. City of Los Angeles reported that:

- Errors and omissions were not covered by the negotiated guaranteed maximum price. Next project will include a clause to cover this.
- Liquidated Damages costs would be set higher in future, to offset turnover rates within the contractor's office.

- Some design engineering mistakes occurred such as standard vs. self-consolidated concrete, rebar was wrong type for the post-tensioning ducts. Some issues had to go through a dispute review board.
- Cost of borrowing was estimated at \$50M/year for purposes of reimbursement. This year's reimbursement closer to \$20M. For financing the AC amount, the City developed a revolving pool of \$98M within council authority. Currently interest rates are low, so the problem of financing costs is not as bad as it could be. Ultimately the City bore more risk than would be ideal for a CM/GC project.
- If the City enters other CM/GC projects, they will require decisions made between contractor and designer to be documented more thoroughly, to clarify who owns risk.

## **5. CA Statewide Local Streets and Roads Needs Assessment**

Quincy Engineering presented the National Bridge Inventory (NBI) needs analysis and National Bridge Investment Analysis System (NBIAS) scenario projections, which will be used for the California Statewide Local Streets and Roads Assessment report. The slides were shared with the Committee.

- There is a “wave” of California NBI bridges that are approaching 100 years old. As of now there are 2200 NBI bridges 80+ years old. Average age is 55-60 years old for local agency-owned bridges in the State. Lowering the average age through replacement cycles will take many decades.
- Next iteration of the “wave” graphic will quantify age of bridges in terms of total square footage of deck area affected, rather than raw number of bridges. Including both On- and Off-system local agency bridges, 8.39% of the bridges (by count) are in “poor” condition. 11.53% of the deck area is in poor condition.
- The methodology for needs estimating was updated to filter out Scour Critical bridges for immediate replacement. Method includes both structural safety and traffic needs. Also has more sophisticated algorithm to determine widening and other needs if only the deck is in poor condition.
- Work type and bridge type together determine the associated unit cost. Caltrans construction cost index shows 10-12% cost escalations over period from 2015-2020, as reflected in bids. Data from 2018-19 indicate some of these costs were flattening; however, there are short term uncertainties such as a new executive term beginning, long-term transportation bill renewal, and COVID-affected economy, making it challenging to identify future cost trends.
- Preliminary Bridge Needs Cost for 2020: \$6.7B. This represents the total need for repairs and replacements of local agency bridges as of today. This is “raw” prediction, i.e. the cost if all construction could take place today. Over the next 15 years the existing HBP has programmed closer to \$5.5B.
- NBIAS was used to calculate replacement costs projected over time. If spending continues at \$300M per year over 20 years, percent “poor” condition is projected to increase by 50%.

- To maintain current average bridge conditions over 20 years, about \$600M-700M/year is needed rather than current level. Including projected bridge deck growth into the analysis yields an estimated need of \$1B per year.
- Quincy will produce a draft final report by March when State legislature begins budget deliberations.

NCE, the main consultant for the Needs Assessment, demonstrated 2 web applications (apps) with data about the California Statewide Bridge Inventory. Neither is live yet; both are housed on local server. NCE asked for feedback from the Committee on usefulness of both. HBP Committee members can access the apps on the NCE's local server and provide further feedback on usability, filters, additional features that would be helpful.

- The first is Geographic Information System (GIS) based and intended for local agency engineers. Data feeds into it from the NBI, filtered to show locally owned bridges only.
  - Users can filter to show bridges by condition or year built. Currently condition is based on sufficiency rating; this will be changed to % deck area in poor condition.
  - On individual bridges users can see a street view, length of detour, operational status, year built, substructure condition, and superstructure condition.
- The second is more text-based storyboard, aimed at the public as an educational tool demonstrating the economic impact of bridges, costs of bridge failure, and includes information on inspection (including drone cameras) and maintenance.

The Q & A session covered the following points:

- RE: needs assessment methodology and report—The California Transportation Commission has adopted a 3.2% escalation rate for Caltrans projects. This metric should be included in needs assessment analysis.
- Preventive maintenance isn't calculated in the \$6.7B figure; NBIAS analysis does assume a certain deterioration in its calculations for future needs.
- For the HBP Committee's efforts in advocating for higher apportionment amounts it would be useful to separate on federal-aid system, off federal-aid system, and on National Highway System.
- Railroads are doing similar assessments of bridge life expectancy. How do railroad owners assess their bridges' condition and age? Can the road needs assessment do some comparison work between road bridge and railroad bridges? A deeper dive such as this is needed for policy makers.
- Re: App demonstrations—Both the GIS and storyboard applications seem to show that the State's bridges are in pretty good shape (lots of blue color coding). How can it drive the point home about aging bridges and the need for \$600-700M/year? NCE responded that more colors and a finer level of detail can be shown, and that the GIS app also has the capability to include total dollars needed per county.

- An additional filter might be needed in the GIS app to show Legal Loads vs. Permitted Loads, important to know where posted bridges are and not violate the posting.
- The story app should not portray bridge inspections carried out by drones as a cheaper option—these do not meet federal regulations. Drones do not provide cost savings but they do add a new dimension to existing inspections.
- The GIS app may improve local agencies' responsiveness to maintenance and other issues because it is quick, aggregated, visual—rather than staying out of sight in a binder of inspection reports.

## **6. FHWA Update**

FHWA reported briefly on the challenges facing the HBP. Assuming HBP continues at its current funding rate, it will take 275 years of replacement work to keep the average age under 100 for the entire inventory of local agency bridges in California. For most types of bridges, a 75-100-year life expectancy is reasonable. The national average bridge age is 44 years old. California's average bridge age is 55-60 years old. After a glut of building in the 1950s to early 70s, ownership for many of these bridges was transferred to local agencies. FHWA invited the Committee to ponder the following questions:

- What channels can locals use to reach out beyond their immediate networks into the State legislature and to lobbyists?
- How can HBP coordinate more effectively with programs doing pavement replacement to realize cost savings? HBP spends 30-40% of its annual budget for approach roadway.
- Transfer of bridges to local agency ownership was performed without a Uniform Act to govern right of way; without OSHA, ADA, etc. This will need to be considered in advocacy talks, along with actual dollar amounts.

## **7. Financial Status**

Fund status from 19/20 FFY: All apportionment has been obligated.

Current fiscal year:

- \$75M off system available.
- \$209M on system available (reflects \$5M Caltrans salaries; does not reflect repayment of \$8M of HSIP funding obligated in 18/19 to avoid being rescinded).
- \$6.5M de-obligations from prior projects.
- \$7.6M already obligated.
- Obligation Authority (OA) allocation is pending new highway legislation (FAST Act was extended one year but with OA up to December 11, 2020).

## **8. Project Status—Financial Constraint**

HBP reported that 43 projects went to construction last year with construction cost of \$363.9M, utilizing both true federal funds and AC:

- 14 projects utilized \$79.9M of true federal funds.

- 29 projects utilized AC for \$283.9M. About \$130M of this was for 3 high cost bridge projects. The 26 non-high cost projects could not be funded last year because of demand. Except for the high cost projects the rest of the agencies are expecting reimbursement in the current fiscal year. All the non-high cost bridge projects that used AC are Rank 0 in the CON rank analysis.

Financial constraint for 20/21 and 21/22 Federal Fiscal Years (FFY) was difficult due to demand:

- For the 20/21 FFY on system category, \$28.8M is programmed for Preliminary Engineering (PE), \$38.2 for RW, \$129M for Construction (CON) (\$98M of this is for fulfilling existing high-cost bridge agreements in construction).
- This means no programming capacity is left for 20/21 On-system projects that are programmed traditionally in the FTIP. Unfortunately, this is not an equitable situation because not all agencies can do AC—that is, front construction money for one or more years.
- The 20/21 and 21/22 PE amounts being programmed are not for new projects. Some of the amounts represent cost increases; some is to ensure agency can get NEPA clearance within 10 years.

The Q & A session focused on overall financial constraint issues as well as the need to help local bridge sponsors manage expectations about when they will receive a conversion for AC projects:

- When should bridge project sponsors expect their AC to convert (i.e., be reimbursed)? Per HBP policy, conversion dates are fluid. However, there are several variables that can cause the conversion date to move back—these are adjusted every six months. For example, if projects with programmed PE do not have National Environmental Policy Act (NEPA) clearance, the PE funds get pushed out and more capacity is available to convert AC.
- Is one of the financial constraint criteria whether the agency has started reimbursable work? Agencies submit their award package to the Districts, but HBP managers can query Districts for this data.
- Information that agency bridge sponsors need to know: 1) learn how to use AC. 2) Timeline for AC conversion is not fixed. 3) No capacity left in HBP for high cost agreements. 4) Cost increases in construction (beyond contingency) will be deferred to a later date. Consultant costs and the NEPA process is pushing more funding to PE. PE phase now represents 30% of total project cost (used to be closer to 10%). Locals need to get their projects “lean and mean.”
- The Sacramento Area Council of Governments (SACOG) region is looking into a creative liquidity solution like a loan, whereby a region programs regional funds to cover construction, then de-obligates so the funding is available for HBP.
- All of the above underlines the urgency for higher apportionment and the need to advocate for this.

## 9. Seismic Update

HBP shared an update on the Proposition 1B seismic retrofit projects. Four local agencies are already out of compliance with their delivery agreements; HBP will work with them to come back into compliance. Consequence is losing obligations for HBP projects currently in the HBP, but none is likely to reach that point. The consequence is losing obligations for HBP project currently in the HBP, but none is likely to reach that point.

- San Francisco County Transportation Authority put in for a large cost increase—review is in progress to determine which items are HBP eligible.
- Seismic projects are included in the financial constraint amounts. Funding was kept in the current FY for the seismic projects to be successful. None of them were pushed out to succeeding FYs.

## **10. Review new Action Items**

New Action Item A126 added

## **11. Roundtable**

A conversation was initiated regarding temporary construction easements. The local agency pays for the easements, from when they are signed to the end of the project. Most times, the easements are not needed for this amount of time. Is there any way that the easements are paid for only the time they are needed? Time ran out on this topic, so it will be brought back at a future meeting.

## **Adjourn**

Meeting adjourned at 3:30.