

**ACEC/Caltrans DES
Structures Liaison Committee
2022 ANNUAL REPORT**

I. Introduction

The ACEC / Caltrans Division of Engineering Services (DES) Structures Liaison Committee (the Committee) was formed in 1992 with the primary purpose of maintaining a professional working relationship between Caltrans DES and ACEC member firms that perform engineering services for transportation structure projects. The Committee Charter requires that an Annual Report on Committee activities be prepared each calendar year.

II. Committee Meeting Dates

During the 2022 calendar year, the Committee met on the following dates:

- February 04, 2022
- May 13, 2022
- August 19, 2022
- November 18, 2022

Similar to the previous year, due the COVID-19 Pandemic, meetings were once again held virtually via Microsoft Teams. Although the Committee discussed the option of resuming in-person meetings in Sacramento, it was decided to continue virtual meetings throughout 2022 and into the first quarter of 2023. Meeting minutes were prepared by the Committee Secretary and reviewed by DES for compliance with Caltrans ADA accessibility requirements.

Besides the regular meetings, the core committee also held pre-meeting conference calls to review and discuss the agenda and technical discussion topics, and to ensure appropriate staff attend the meetings.

III. Committee Members

DES staff had strong representation and attended on a regular basis. Ruth Fernandes served as Committee Co-chair with Lance Schrey serving as coordinator between ACEC and Caltrans Committee members. Caltrans' usual attendees included Tom Ostrom, Sudhakar Vatti, Shira Rajendra, Sid Pedaballi, Lance Schrey, Rich Foley, Tim Greutert, Gudmund Setberg, Robert Peterson, and John Lammers. Several guest speakers attended to address specific technical agenda topics.

The seven regular members from ACEC were:

- Member 1: Districts 1-3, 9 & 10 Mark Reno, Consor

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- Member 2: District 11 Jack Abcarius, NV5
- Member 3: District 4 Garrett Dekker, Moffatt and Nichol
- Member 4: Districts 7, 8 and 12 Y. Michael Van Duyn, HNTB
- Member 5: Districts 5 & 6 Bobby Zermeno, Cornerstone Structural Engineering
- Member 6 (CM&I): Districts 1-6 & 9-10 Hank Doll, TRC
- Member 7 (CM&I): Districts 7-8 & 11-12 Jon Rohrer, HDR.

For the 2022 meetings, the ACEC Committee Co-Chair was Bobby Zermeno, and the Committee Secretary was Mark Reno.

IV. Major Topics

A standing agenda with recurring topics was utilized and updated throughout the year. Modifications and additions to the standing agenda, including specific technical topics for each meeting, were made during the core Committee's pre-meeting conference calls. The standing agenda items included the following:

A. DES Updates

Caltrans reported throughout the year on the structures Capital Outlay Support (COS) workload, personnel changes, and other current news and events related to DES.

Caltrans provided updates on anticipated funding changes for DES including specific funding figures associated with the Infrastructure Investment & Jobs Act (IIJA) as well as SB-1. Additionally, Caltrans provided regular updates to the group on how the increase in funding from IIJA would be split between the State and local agencies. Caltrans also announced their initiative to go fully electronic/digital for contract delivery in 5 years.

B. Technical: Structure Technical Policy (STP), Memo to Designers, Technical Research

Caltrans provided regular updates on various Caltrans Structure Technical Policies (STP) and Bridge Design Memos (BDM) that were either recently completed or in progress throughout the year. Caltrans announced that for projects under development, STP's and California Amendments must be adopted on all projects with a Type Selection approval on or after the date of publication. Caltrans also gave a presentation on the implementation of Grade 80 bar reinforcing steel touching on items including lead times, testing, quality, couplers, welding, and sustainability. Lastly, Caltrans announced that bicycle railing is to be used on all Type 85 Barriers unless the roadway is explicitly signed to prohibit bicycle use.

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C. Project Development Oversight / Contradicting Opportunities

Caltrans kept the committee updated on upcoming contracting opportunities based on DPAC's Look-Ahead Report.

D. Local Assistance

Robert Peterson represented Caltrans Local Assistance throughout the year and provided regular updates to the Committee.

Caltrans Local Assistance reported the split in Bridge Funding Program (BFP) funding between the State and local agencies is \$321M and \$253M respectively. Caltrans shared the priority list for using this new funding with top priority assigned to paying for existing construction projects first, which primarily includes High-Cost and advanced construction (AC) projects. It was also noted that since the BFP only has 3 years to obligate funds and 5 years to spend funds, it will be used on right-of-way and construction phases only.

E. ACEC Statewide Committee Report

Garrett Dekker, an ACEC committee member who serves on the Statewide Committee provided updates on issues being discussed in the bi-monthly ACEC / Caltrans Headquarters Liaison Committee meetings.

F. Construction Management and Inspection Updates

Caltrans and ACEC reported throughout the year on various construction management and inspection related topics including staffing, workload, prevailing wage rates, indirect cost rates, Caltrans audits, and training of inspection staff.

Caltrans and ACEC also coordinated to put on a virtual Winter Training Session on Trenching and Shoring for the consultant community. The session was a full 8-hours and was very well attended by consultants and local agency staff.

G. Sub-Committee Updates

The Accelerated Bridge Construction (ABC) Sub-Committee attended the Caltrans/FHWA ABC Peer Exchange and provided a summary to the ACEC community. Items shared included lessons learned from case studies such as the Echo Summit Sidehill Viaduct completed in 2020, standardized forms to assist designers during the design making process, and keys during the planning, design, and construction phases of ABC projects.

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The CMGC/Design-Build Sub-Committee intended to hold an in person workshop in Northern California focused on “CMGC Lessons Learned” but it was unable to gain traction in 2022.

The Building Information Model (BIM) Sub-Committee, led by Bobby Zermeno and Doug Dunrud, in coordination with Caltrans gave an inaugural joint webinar on BIM in February 2022. Caltrans provided an update on the status of their own internal BIM efforts, accomplishments, and future plans. The BIM Sub-Committee presented both the challenges and advantages experienced while using a model centric workflow to deliver bridge projects. In August 2022, the BIM Sub-Committee partnered with Øystein Ulvstead, BIM Developer with SWECO, who presented the Randselva Bridge constructed in Norway which at the time of its completion was the longest bridge constructed in the world solely from digital models.

The Technical Sub-Committee consultant panel assigned to review of Structure Technical Policy (STP 2.6 – Hydraulic Design for Structures over Waterways) that replaced MTD 16-1 continued its coordination efforts with Caltrans Structures Hydraulics & Hydrology. These efforts focused on bridge scour at abutments. While Caltrans Structures Hydraulics & Hydrology agreed in concept that abutments should be treated differently than piers when considering scour, there continued to be some differences on how to implement design requirement revisions within both the AASHTO LRFD Bridge Design Specifications and California Amendments. The Technical Sub-Committee consultant panel and Caltrans Structures Hydraulics & Hydrology agreed to continue to work together on how to alleviate these differences.

V. Significant Accomplishments

In the second full year of a virtual format, the Committee acclimated to the online version of the quarterly meetings. In fact, it appears that overall participation has increased due to the ease of attending online. While the virtual format continued to delay in-person events requiring collaboration, such as the “CMGC Lessons Learned Workshop,” numerous events were held in a virtual format. The following describes some of the major accomplishments of the Committee in 2022.

Due to COVID-19, the typical in-person Winter Training Sessions that Caltrans holds for the consultant community had been put on hold in prior years. While 2022 did not mark the return to an in-person training session, a virtual 8-hour training was held covering Trenching and Shoring. The training was well attended and the Committee received positive feedback from those in attendance.

The Committee assisted in informing the consultant community of the Implementation of the 2022 Standard Plans and Specifications which came into effect on October 17th, 2022. The Committee also informed the consultant community of the Soil and Rock Logging, Classification, and Presentation Manual Revisions which included such changes as separate Test Boring Layout and Log of Test Boring sheets.

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While the ACEC Hydraulic Sub-Committee reviewing of STP 2.6 – Hydraulic Design for Structures over Waterways and Caltrans Structures Hydraulics & Hydrology finished the year with differences in opinion of what should be implemented in the design code for bridge abutments with respect to scour, great headway was made. More importantly, it is a good representation of how this Committee continues to effectively address complex issues affecting the bridge design community in seeking acceptable solutions that work for both DES and the ACEC consultant community.

VI. Future Plans (for the Coming Year)

The Committee plans to continue with a virtual meeting for the first quarter of 2023 before moving to in-person meetings for the remainder of the year. The Committee will continue to work collaboratively on technical issues, project development oversight, and education. The following education/training events are anticipated in 2023:

- DES Education Committee Presentations
- Structures Construction Winter Training – Spring 2023
- ACEC/Caltrans Joint BIM Development Webinar – Spring 2023
- CMGC Lessons Learned in-Person Workshop in Northern California – TBD
- ABC Workshop – Fall 2023

VII. Closing Statement

2022 was a year of hybrid work, with some returning to the office, others adopting a blend of in-office and remote work, and those who continued to work remotely full-time. Similar to 2021, ACEC/Caltrans DES Structures Liaison Committee continued to fulfill its core mission of providing a platform for interaction between Caltrans and the consultant community on subjects and issues related to bridge and structure design and construction while operating in a virtual environment. The quarterly meetings continued to be well attended at numbers that possibly exceeded their pre-COVID levels when the meetings were held in person with a remote location in Diamond Bar. In its current format, the Committee serves as an effective interface between DES and the ACEC design and construction management and inspection community.

Prepared By:
Bobby Zermeno, Committee Co-Chair