

**ACEC/Caltrans DES
Structures Liaison Committee
Meeting Minutes
August 19, 2022**

The meeting of the ACES/Caltrans DES Structures Liaison Committee was held by Virtual Microsoft Teams Meeting on August 19, 2022, from 10:00 AM to 12:00 PM.

I. Call to Order

A. Changes to the Agenda

Bobby Zermeno queried the attendees if there were any updates or changes to the agenda and no changes were requested.

B. Review Previous Meeting Minutes

No changes or comments were made to the 5/13/22 meeting minutes. The meeting minutes were finalized and approved.

II. DES/ACEC Updates

A. General: Shira Rajendra

- Informed the group that Nina Choy was named Deputy Division Chief, Geotechnical Services
- One of the biggest challenges facing Caltrans DES is they are now in charge of delivering the Broadband Middle Mile Network which will involve installing fiberoptic lines within the state right-of-way along 10,000 miles of existing state highways
 - About one half of California does not have access to internet speeds of 100mbps. The Broadband Middle Mile Network aims to correct this problem.
 - Caltrans DES is responsible for handling the supports of the fiberoptic lines across existing state-owned bridges
 - Caltrans DES is also responsible for 230 repeater huts which are stations that are located approximately 50 miles apart and are used to boost the signal
 - Repeater huts required to have electrical backup power supplies
 - Districts are putting out CMGC contracts as well as job order contracts
 - The north region and District 4 considering advertising full service architectural and engineering contracts including both bridge and repeater hut work
 - Caltrans DES developing standard details for the bridge supports
 - Will require significant geotechnical services where trenching through rock is required
 - Goal is to deliver contract plans in next 12 to 18 months with construction occurring in 2024/2025.
 - Facilities must be completely constructed by December 2026 in order to receive federal reimbursement

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B. Technical: Structures Technical Policies, Technical Research: Sudhakar Vatti/Don Nguyen-Tan

- STP 1.7 – Complex Bridge Policy has been posted
 - Will be changed to STP 1.3
- CA Amendments
 - Website to change to single download of all amendments, rather than individual chapter downloads. File size only 3.5Mb
 - Will also add addenda in addition to Errata
 - Summary table in front to show what has changed
 - Will always retain table to show old vs. new
 - Will be adding Tsunamic Effects Specification links – separate manual - to CA Amendments
- Upcoming STP & BDMs:

Priority	Document Name	Review Stage
1	CA Amendment (memo and all sections)	final
	BDM 16.4 Material Properties of Existing Structures	final proofread
	STP 10.7 Deep Foundations	Tech manager
	STP 4.4 Horizontally Curved CIP Box with Skewed	In limbo
	BDM 10.15 Foundation Modeling	review before going to the deputy
2	BDM 4.4 Horizontally Curved CIP Box with Skewed	Tech manager
	BDM 4.7 Max Moments and Shears for LL	Tech manager
	BDM 16.6 Stresses in PT Existing Steel Girder	as a BDOC
	BDM 5.50 Anchorage to Concrete Dill and Bond Dowel	Tech manager
	BDM 5.4 Deck Closure Pour Waiting Period	Tech manager
	STP 16.10 Overlays on Existing Bridge Deck	Tech manager
	BDM 6.13 Section properties of Steel-Concrete composite sections	Tech manager
	BDM 5.3 Precast Prestressed Girders	Committee Chair

- Caltrans Structure Technical Policies (STPs)
<https://dot.ca.gov/programs/engineering-services/manuals/structure-technical-policies>
- Caltrans Bridge Design Memos (BDMs)
<https://dot.ca.gov/programs/engineering-services/manuals/bridge-design-memos>

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C. Contracting Opportunities: Shira Rajendra/Andrew Tan

- Broadband Middle Mile Network Contracts, including structures
 - DES developing standard details for bridge crossings to provide to districts for a quick PS&E
 - 18 projects to deliver by end of year
 - Caltrans will be writing task orders for consultant work including structures
 - For federal funds to be used, projects need to be fully constructed by December 2026
 - 10,000 miles are expected to be touched with this effort and it will affect every district
 - Job Order contracts to be advertised in next 6 months. This is new tool to deliver Broadband Services Contracts
- CA Transportation Commission (CTC)
 - \$2 billion worth of construction contracts coming, including support dollars (approximately 20%-30%)
 - View CTC website for approved projects
 - Several construction contracts to be advertised in next 3-6 months
 - CTC voted for supplemental funds to be used in construction because of increase in bid prices
 - Pandemic supply chains also affecting bid prices
 - Buy America 2.0. Infrastructure & Jobs Act includes increase in Buy America requirements. Have 6 months to implement Buy America 2.0.
 - Challenges with supply chain affecting this, CT working to obtain waivers for meeting this requirement in certain circumstances
 - Acrylic Panels for see-through Soundwalls not manufactured in US. It's been advised for designers to be more diligent with Buy America products, so issues don't arise in construction
- 2 contracts in Look Ahead Report
 - District 11 Construction Inspection Contract will be advertised next month
 - Supplemental Design Services Contract

D. Local Assistance: Robert Peterson

- HBP update coming later in meeting
- Local Assistance looking to staff up, as they have already hired 1. Looking to hire 2 more
- HBP portions have been allocated. Still have some capacity on OA side. Looking to borrow other funding to help with HBP. Will require reimbursement

E. Statewide ACEC Committee: Garrett Dekker

- CT looking to streamline delivery of Revised Standard Plans to reduce size of document. Looking to incorporate Revised Standard Plans into Standard Plans once a year

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- DPAC looking to lump contracts together. Mainly due to the Broadband contracts coming. Should start to show up on Look Ahead Report
- Subcommittee was formed to discuss salary increases in ACEC industry. Salary increases outpacing allowable escalation rates on contracts.

F. Construction Management and Inspection Updates: Rich Foley/Jon Rohrer

- No update

III. Sub-committees

A. ABC (Accelerated Bridge Construction): Garrett Dekker

- Summary of ABC Peer Exchange from May 2022 shared.
 - Day 1 was a full day of Peer Exchange
 - Day 2 was a half day of collaborative discussion
 - Those in attendance included individuals from Caltrans HQ, Design, various districts, FHWA, other state DOTs (New York, Minnesota, Vermont, Washington, Connecticut, Tennessee) and local agencies, precast and construction industry, design consultants
 - First theme of the presentation was ABC uses the most efficient combination of innovative planning, design, materials, and construction to significantly reduce construction related impacts by reducing the number of onsite construction days and/or minimizing traffic disruption
 - Case studies shared included the Echo Summit Sidehill Viaduct along SR 50 completed in 2020
 - The Caltrans ABC Manual dated July 2021 was reviewed during a presentation and shared as a tool for designers to use
 - Standardized forms are available to assist during the decision-making process on ABC projects such as the one accessible at the link below
 - <https://portal.ct.gov/DOT/Bridges/Bridge-Standard-Practices>
 - A general theme of the presentations was ABC lends itself to alternative delivery methods with contractor input during design/planning phases
 - ABC keys during the planning phase of a project
 - Bring construction and design knowledge into the discussion as early as possible
 - Try asking why to use ABC on a project, try asking why we shouldn't use ABC
 - Consider technology that can be used to reduce on-site impacts
 - This through contingency plans during the planning phase and rethink risk register
 - ABC keys during the design phase of a project
 - Socializing ABC and changing the culture, public outreach is key. Social media videos shared with the public are helpful.
 - Strengthen communication gap between designer, planner, and owner

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- Capture lessons learned to advance ABC in practice
- Obtain contractor input during design
- ABC keys during the construction phase of a project
 - Need to maintain an emphasis on safety during construction ensuring that all proposed operations can be carried out safely
 - Challenges of wider ABC application. For instance, does the precast industry have sufficient capacity if ABC is adopted more widely.
 - CMGC is ideal
 - Keep an open mind to have various structure options available at 30% level and obtain contractor feedback on the various options
- Question was asked about cost implication of ABC contracts versus non ABC contracts. Garrett stated it depends on the projects. There are hidden costs in field that aren't captured in cost estimates due to road closure. Matrices included in the slides help capture some of these costs.

B. CMGC/Design-Build (Lessons Learned): Sudhakar Vatti

- Facility ID in Sacramento for holding workshop later this year, early next year. More to come
- Workshop to be in person

C. BIM (Building Information Model): Doug Dunrud/Bobby Zermeno

- Joint Caltrans/AGC/ACEC BIM Workshop
 - Still in the early stages of being planned
- Doug planning webinar of project in Norway utilizing BIM
 - Doug shared link: <https://www.fastcompany.com/90761934/the-2000-foot-bridge-was-constructed-without-a-single-drawing>
 - BIM modeler for this project is willing to present at a lunch and learn webinar
 - Meeting to be in August/ September. Presentation to be 30-45 min followed by Q&A

D. Technical Subcommittee: Jack Abcarius/Sudhakar Vatti

- No update. Hydraulic discussion to follow

E. Education Training/Seminar/Webinar: Lance Schrey

- CMGC Lessons Learned Webinar 3rd Quarter (mentioned above)
- Joint Caltrans/ACEC ABC Webinar December 2022 (mentioned above)

F. Discussion Items

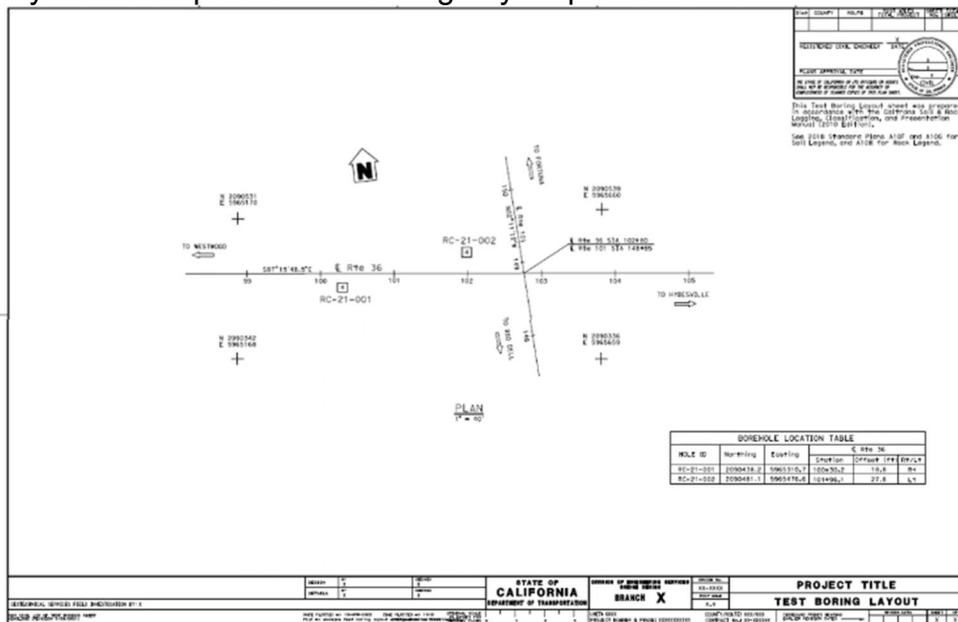
- A. **Update on new STP 2.6 HYDRAULIC Design for Structures Over Waterways: Tony Nedwick**
- B. STP still under review. Finalizing decision document on Check Flood. In review before going to approval

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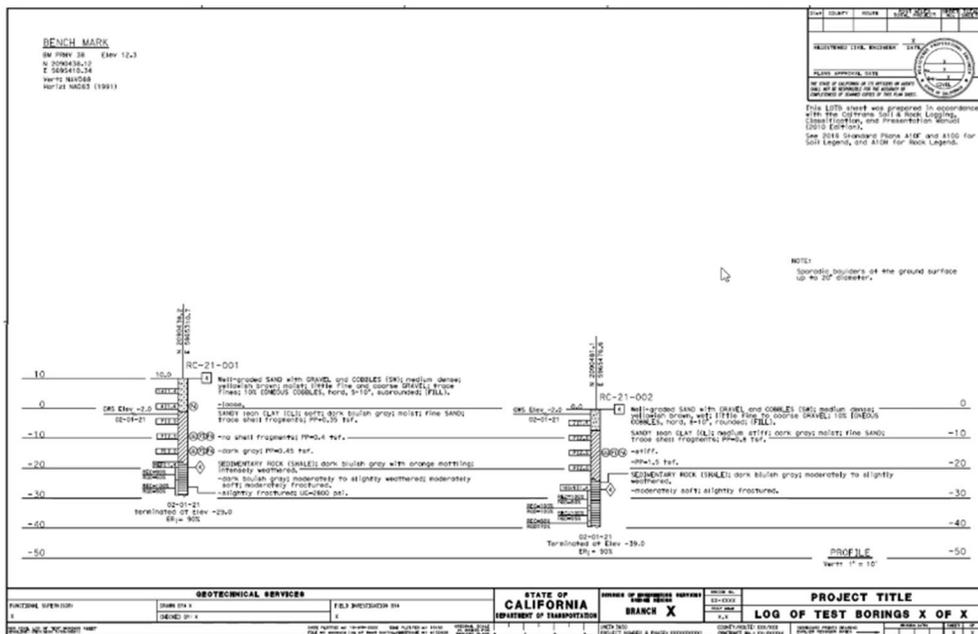
- Tsunami section:
 - Evaluating sea level rise considerations and distance to coast (currently says withing 5 miles).
 - Current sea level rise is considered overly conservative. Caltrans suggesting 1.5 feet rise for existing bridges, 3.5 feet for new bridges.
 - Coastal Commission asks for consideration of critical and recovery bridges that have larger return period. Current inundation map only considers a 975 return period.
 - Maybe a separate policy for scour at retaining walls.
- Shallow abutments are already included in draft STP
- Will be looking at utilizing flow chart prepared by ACEC
- Presentation coming soon to be delivered to ACEC

**B. Soil and Rock Logging, Classification, and Presentation Manual Revision:
Richard Rusnak**

- New Test Boring Layout plan sheet coming out
- Historically the alignment (geometrics) and the locations of the test borings in plan view have been displayed on the Log of Test Boring (LOTB). They will now be displayed on a separate Test Boring Layout plan sheet.



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- Geotech to stamp LOTB
- Designer to stamp Test Boring Layout
- New 2002 edition of Manual coming out in next month, including new LOTB and Test Boring Layout plan sheets
- Borders to reference Standard Plans and Rock Logging Manual – need to pay attention to dates
- 2022 Standard Plans Coming out End of October

C. IIJA Funding and Highway Bridge Program Update: Robert Peterson

- HQ working to right-size program and make it more efficient
- DLA get guidance from HBP advisory committee to develop multiyear program, establish selection criteria, and develop timely used of fund procedures
- Current High-Cost Project Programmed vs Cost Allocation:
 - 34 high-cost projects in 700+ in program, which account for 34% for HBP project costs
- Program eligibility doesn't change with IIJA
- No change to scopes or prioritization
 - BPMP did move up in priority earlier this year
 - A lot of projects waiting in the wings, should be accepted with IIJA funding
- New Funding:
 - NHPP – Core Apportionment – Highway Trust Fund (\$231M)
 - STBGP – Core Apportionment – Highway Trust Fund (\$100M)
 - BFP – New Apportionment – General Fund
 - \$574M split between state and local; \$321M to State and \$253M Local
 - BFP has 3 years to obligate funds and 5 years to spend funds
 - BFP providing biggest increase

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- Priorities for spending IIJA funding:
 1. Priority is paying for existing construction projects first, which primarily includes High-Cost projects and AC (advanced construction projects). 500-600 million dollars in AC payback
 2. Projects Ready to Advertise for Construction
 3. Projects Nearly Ready to Advertise as they achieve milestones
 4. Projects that could potentially advance
 5. Projects on Prioritization List
 6. HBP will use BFP on construction and RW phases only due to expenditure deadline

- Best practices for local agencies
 - Know your HBP projects
 - Know authorization dates
 - Meet milestones
 - Provide accurate project reporting
 - Submit changes early
 - Keep DLAE in loop

V. 2022 Meeting Schedule

~~February 4, 2022 (1st Friday)~~
~~May 13, 2022 (2nd Friday)~~

~~August 19, 2022 (3rd Friday)~~
November 18, 2022 (3rd Friday)

VI. Distribution:

A. Caltrans:

Tom Ostrom	Caltrans DES	Michael B. Johnson	Caltrans SMI
Ruth Fernandes	Caltrans SES	Shira Rajendra	Caltrans PPM & OE
Rich Foley	Caltrans SC	Sudhakar Vatti	Caltrans OSFP/SLA
Nina M Choy	Caltrans GS	Sid Pedaballi	Caltrans OPD & SCM
Tim Greutert	Caltrans METS	Robert Peterson	Caltrans HQ/LA
Gudmund Setberg	Caltrans SD	John Lammers	Caltrans SC

B. ACEC Regular Committee Members:

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