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June 8, 2018

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**Reference: Seismic Peer Review**  
**Seismic Evaluation of Jenkins Hall – Humboldt State University**  
[Estructure No. 15200.25]

Dear Mike:

Per your request, we undertook a peer review of the seismic evaluation of Jenkins Hall by Thornton Tomasetti. This letter summarizes our review and conclusions.

### **Background**

Our peer review was based on the following items:

- Original architectural, structural, and MEP construction documents dated 1949.
- Humboldt State University, Jenkins Hall, Seismic Evaluation draft report dated February 6, 2018 by Thornton Tomasetti.
- Humboldt State University, Jenkins Hall, Seismic Evaluation Calculation Package draft dated February 6, 2018 by Thornton Tomasetti.

In conformance with the 2016 California Existing Building Code, Part 10, an ASCE 41-17 Tier 3 level evaluation of the Jenkins Hall was performed. The performance criteria were determined from prescribed performance requirements provided in Table 317.5 of the 2016 CEBC in conjunction with the CSU Seismic Policy Manual.

### **Findings**

Based on our review of the documents provided, we are in general agreement with the methodology and results of the seismic evaluation performed by Thornton Tomasetti in the draft report dated February 6, 2018. Namely, these finding include the following items:

1. If future work to Jenkins Hall triggers the requirements for structural upgrade to the building as required by the 2016 CEBC, Part 10, the items expected to require upgrade include the following:
  - Wall-to-roof anchorage along the west and east elevations of the building and the attachment of roof trusses to the diaphragm will require strengthening to resist walls pulling away from the roof diaphragm in a seismic event.
  - Wood roof diaphragm will require strengthening by overlaying new plywood to existing 2x wood sheathing, and new drag connections between wood and concrete diaphragms will be required.

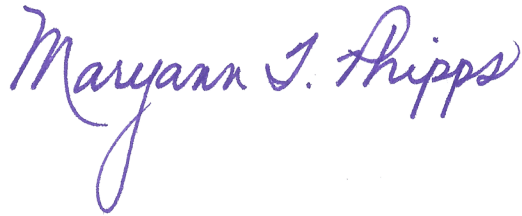
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- Narrow shear wall piers that are overstressed per the analysis will require retrofit, which may involve local infilling of windows or thickening of existing shear wall piers. Thornton Tomasetti's report indicates the probable locations of the required pier upgrading.
- 2. If mandatory seismic upgrades per the 2016 CEBC, Part 10 are not triggered, the voluntary seismic retrofit of the structural items indicated above should be considered to be implemented by the University. These retrofits will provide improved seismic performance and are expected to reduce downtime following a large earthquake.
- 3. If the University intends to excavate and incorporate the existing partial height rooms on the north and east sides, the seismic retrofit items listed in item 1 will be required and, from a structural perspective, are expected to be sufficient to incorporate the added space. New structural elements associated with rebuilding the walls or modifying the foundation will need to comply with current code requirements.

Based on this investigation, we are in general agreement with the approach and conclusions of the Jenkins Hall seismic evaluation performed by Thornton Tomasetti.

Sincerely,



Maryann T. Phipps



Heidi Schloegel