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Kelly Ewing-Toledo, Senior Environmental Planner & Historic Resources Coordinator
California Department of Transportation, District 7
100 South Main Street, MS-16
Los Angeles, CA 90012

Pasadena Heritage comments on SR710 North Study Draft EIR/EIS

Dear Mr. Damrath and Ms. Ewing-Toledo:

As the local, community-supported nonprofit organization dedicated to the preservation of our area's architectural, cultural, and historic resources, Pasadena Heritage has closely monitored and been actively engaged in the SR-710 project since our founding in 1977. In 1999, Pasadena Heritage was a co-plaintiff in litigation against the proposed surface freeway, which would have demolished hundreds of historic homes in the heart of Pasadena's oldest neighborhood. Today we continue to participate in the public review process concerning the SR-710 North Study and associated Federal and State review procedures.

Since before the Draft EIR/EIS release, Pasadena Heritage has worked closely with multiple organizations and institutions also concerned about and/or affected by the proposed project. **Pasadena Heritage hereby adopts, endorses, and incorporates by reference the comments submitted by the Connecting Cities and Communities (C3) coalition, the Five Cities Alliance, the Cities of South Pasadena and Pasadena, the National Trust for Historic Preservation, the Natural Resources Defense Council, the No 710 Action Committee, the Los Angeles Conservancy, the West Pasadena Residents' Association, Westridge School, and Sequoyah School.** Although many of these comments overlap, we have attempted to avoid undue repetitiveness by relying in part on incorporation by reference.

In general, we find the Draft EIR/EIS fails to adequately evaluate the adverse impacts and risks of construction and operation of the proposed project, especially those associated with the tunnel alternatives, which would require bored tunnels beneath hundreds of historically significant properties in and adjacent to Pasadena. In addition to the comments referenced above, we have the following observations and questions:

Project Impacts

Page 22 of the Summary Chapter omits narrative identification and discussion of both Groundborne Vibrations and Cultural Resources impacts, however these are listed in Table ES-1. This oversight is misleading and must be corrected.

Areas of Controversy and Unresolved Issues

Table ES-1: Cultural Resources (page 33)

The “Avoidance, Minimization, and Mitigation Measures” column lists “vibration and settlement monitoring and documentation during tunneling and excavation activities, including implementation of Vibration Monitoring Plan and reporting procedures or Vibration isolation systems” for the LRT Alternative only; why weren’t they included for the Freeway Tunnel Alternative(s) as well?

Section 2. Project Alternatives

Section 2.2.3.4 –Freeway Tunnel Alternative

Pasadena Heritage is very concerned about the proposed Ventilation Systems (page 2-70), one of which is to be located at the north portal. Neither of the proposed options (one 50ft high Operations and Maintenance Building at the 710/134 interchange; or six 50ft high structures at the Colorado Blvd. bridge between St. John and Pasadena Avenues) is evaluated here or in the Cultural Resources chapter for their potential visual and physical impacts on the Old Pasadena National Register Historic District. Additionally, it is extremely concerning that there is no discussion or evaluation regarding how six 50ft high ventilation stacks on Colorado Blvd. would impact our historic and nationally significant annual Rose Parade event.

Additionally, the Draft EIR/EIS fails to provide any contingency plan for rescue should the tunnel boring machine (TBM) fail and need to be retrieved for repair, as has occurred in Seattle. The need to excavate a rescue pit in case of failure that is similar to the 80 feet by 120 feet hole required in Seattle could put multiple historic properties and neighborhoods at great risk.

2.2.3 Construction Vibration Impacts

Lack of information on the materials and condition of the foundations of historic structures makes it impossible to analyze potential impacts during construction. The document fails to state that properties above ground will be subjected to 2-3 days of CONTINUOUS vibration during tunnel construction, which not only exceeds annoyance thresholds, but also puts vulnerable historic buildings at a level of risk to their integrity that has not been sufficiently investigated. This is a serious oversight which could lead to uninformed decision making.

Section 3.7 - Cultural Resources

The Draft EIR/EIS mischaracterizes impacts to historic resources and their severity, and we find that accurate and meaningful thresholds of significance are missing. The description of a project's construction details should be commensurate with its size and scope, however the Draft EIR/EIS document only briefly summarizes identified potential impacts and concludes "No Adverse Effect." We find this conclusion premature and most likely false. As illustrated at length in our letter to Caltrans District 7 dated July 2, 2015 regarding the *Draft Finding of No Adverse Effect* (attached), the analysis of effects on historic properties is inadequate and its conclusions are consequently inaccurate. In addition to inconsistencies within individual technical reports, there is gross and alarming inconsistency between the findings in the Technical Reports and their representation and associated conclusions in the Draft EIR/EIS document. This flaw occurs repeatedly throughout the Draft EIR/EIS document. The relationship between the Draft EIR/EIS (released March 2015) and the *Draft Finding Of No Adverse Effect* (dated May 2015) is especially concerning, given that neither Caltrans nor the SHPO has endorsed the *Draft Finding of No Adverse Effect*, and yet the Draft EIR/EIS reflects the denials contained in it, which, for the reasons mentioned above, we find erroneous.

Regarding the Sequoyah School property located within the Markham Place Historic District, we are concerned that the Cultural Resource analysis does not consider impacts to all the historic structures on the Campus. Three historic buildings are individually eligible for the National Register in addition to it being a contributing property to the Markham Place District; all should be assessed for effects from noise, vibration, air quality and other impacts associated with both tunnel construction and operations. We also note that the *Supplemental Construction Vibration Impact Assessment for Historic Properties* report (Wilson, Ihrig & Associates 2015) does not appear to consider the impact of tunneling in alluvial soil, reportedly found below the Sequoyah School property. The potential effects from tunnel boring and months or years of constant construction activity on the Sequoyah properties located less than 50 feet above the tunnel crown in alluvium soils are inadequately addressed in the Draft EIR/EIS, which represents a major oversight.

Table 3.7.4 - Effects of the Non-Tunnel Segments of the Freeway Tunnel Alternative on Historical Properties in the Area of Potential Effects

Markham Place National Register Historic District

It is unclear why the Draft EIR/EIS simply concludes that the Freeway Tunnel Alternative would have "No Adverse Effect" on the Historic District when *Potential Settlement Effects on Historic Properties* technical memorandum (Jacobs 2015) concludes otherwise. Additionally, the document erroneously states that there are 69 parcels, of which 26 are contributing; there are 80 parcels in the district, of which 72 are contributing (certified by the Keeper in March 2013). These serious and concerning mistakes clearly demonstrate that the documentation is neither accurate nor complete.

Ambassador West and Ambassador Auditorium (page 3.7-79)

The document states that, based on the *Noise Study Report*, the noise level in the east part of this Historic District along South St. John Avenue, which is the area that would be nearest the North Portal and the closest to noise related to traffic entering and leaving the tunnel(s), would increase 11 dB from both the Existing and Future No Build noise level of 61 dB (i.e., up to 72 dB). Another statement in this table says, "Evaluation of the groundborne noise and vibration from motor vehicles traveling in the freeway tunnel(s) indicate that no sensitive receivers would be impacted by operational vibration." The analysis however fails to identify the Ambassador Auditorium, currently in use as a religious institution and celebrated performance venue, as well as the multiple educational institutions in the immediate vicinity, as sensitive noise receptors.

Old Pasadena Historic District (page 3.7-85)

The document repeatedly states, "The scale and proportion of the Freeway Tunnel Alternative improvements would be similar to historical patterns in and around the District." This statement is not substantiated with any meaningful documentation. The massive ventilation structures proposed on either side of Colorado Boulevard are completely foreign to and aesthetically impactful.

Table 3.7.5 - Effects of the Freeway Tunnel Alternative (Tunnel Segments) on Historical Properties in the Area of Potential Effects

The Potential Effects description erroneously explains that: "the duration of activity underneath any given resource would be approximately 1 or 2 days and would occur at a depth of 120 to 250 ft. At that depth, the tunnel boring-related activity under these properties would be undetectable at the surface." As the proposed tunnel(s) approach the north portal, near California Boulevard, engineering drawings, technical studies and memoranda, supplemental reports concerning historic properties and associated maps ALL state that the tunnel *centerline* depth decreases to less than 120 ft. (which places the tunnel crown even shallower). This glaring inconsistency is misleading and negligent.

As detailed, at length, in our letter regarding the *Draft Finding of No Adverse Effect* dated July 2, 2015, the "finding of no detectable risk of adverse effect (i.e. damage) to any of the historic properties listed in this table would occur as a result of the Freeway Tunnel Alternative," contradicts conclusions made in the *Potential Settlement Effects on Historic Properties* technical memorandum (Jacobs 2015).

Geology, Seismic, and Soil

Pasadena Heritage is gravely concerned about the evaluation of the potential collapse of the tunnel(s), either partially or completely, as the result of a seismic disturbance. Given that both the LRT and the freeway tunnels will cross the active Raymond fault and through an unknown variety of alluvial soils over bedrock, resulting in difficult geologic conditions, the document substantially understates the potential impacts. It also does not address alternative routing of the tunnels in order to avoid constructing a tunnel through active faults.

Excavation-Induced Ground Settlement

The Draft EIR/EIS document correctly concludes that proposed excavation and tunneling could cause ground settlement and differential settlement immediately above and adjacent to the bored tunnel portion(s) and the portal and station excavations of tunnel alternatives (pages 3.10-10 to 12). However, the extent of the potential settlement and its associated impacts to historic properties is only partially studied. As stated in our previous letter regarding the *Finding of No Adverse Effect*, properties located 100 ft or less above excavation are identified as being at the greatest risk, however the section of the technical study regarding this analysis is completely missing. Additionally, mitigation measures are not addressed in either this or the Cultural Resources chapter, which both conclude “no adverse impacts.” This is in conflict with conclusions made in the *Potential Settlement Effects on Historic Properties* technical memorandum (Jacobs 2015). Any conclusion that an impact is less than significant must be supported with substantial evidence.

Groundborne Noise and Vibration Impacts to Historic Resources

The Draft EIR/EIS inadequately analyzes construction-related vibration impacts resulting from construction of the tunnel alternatives. Construction-related vibration not only can contribute to high levels of annoyance, but also can cause substantial property damage. Given that the freeway tunnel alternative could have four boring machines directly below one of the oldest and most intact historic neighborhoods and a school, a more comprehensive assessment of these impacts would be expected and required.

For example, the *Groundborne Noise and Vibration Impacts* technical study erroneously states in Section 3.3 minor cosmetic damage to older buildings would only apply to residences built prior to 1940 where interior walls are constructed with lath and plaster. This assumption contradicts findings in the *Potential Settlement Effects on Historic Properties* technical memorandum (Jacobs 2015) and is not based on factual data regarding the construction types, ages, conditions, and site-specific circumstances.

The supplemental assessment by Wilson, Ihrig & Associates concludes that the projected vibration level for the commercial building in the Raymond Florist Historic District in Pasadena (62 E. California Blvd.) would *exceed* the criterion for cosmetic damage. Given the 10ft proximity of the historic resource to the station excavation, this impact is to be expected and special excavation and construction methods are called for. However, the Draft EIR/EIS at 3.14-9 to 10 dismisses this impact as unimportant because this will not produce structural damage and will not be permanent. How this conclusion was reached is a mystery; furthermore, any conclusion than an impact is less than significant must be supported with substantial evidence, which the associated technical memo does not present.

We are also alarmed by the explanation in Section 6: Tunnel Construction Groundborne Noise & Vibration Impacts that, because the LRT tunnel is shallower than the freeway tunnel, the freeway tunnel will have lower levels of impact. This assumption grossly and negligently overstates a lack of significant vibration impacts by omitting reference to impacts where the tunnel daylights at the north portal and is exceptionally shallow in depth. The freeway tunnel design proposed is entirely unprecedented; the LRT tunnel shares no common traits in dimension, depth, or operation with it, and to assume that the LRT analysis and discussion apply *carte blanche* to the freeway tunnel is a complete mischaracterization of potential impacts.

Finally, as pointed out in our previous letter, the *Finding of No Adverse Effect* states “13 historic properties are analyzed in Section 5.7 for effects due to excavation depths of 100 ft or less and a corresponding risk of... effects from construction and operational effects at the surface.” However, there is no Section 5.7 in the FONAE. The document fails to provide any information or analysis regarding the historic properties most likely to be affected by vibration due to the shallow depth of tunneling activities. Since there is no Section 5.7, it is unclear if conclusions made in the *Vibration Impact Analysis* (Wilson, Ihrig & Associates 2015) apply specifically to properties in the “100 ft or less” excavation depth, or to all properties located over the entire proposed freeway tunnel alignment(s). Therefore, the associated findings in Draft EIR/EIS are unsupported.

In addition to the above concerns about impacts to historic resources, we note that other identified environmental impacts of the proposed project would have serious implications for the neighborhoods in which the freeway tunnel(s) alternative is proposed. Although these impacts extend beyond physical impacts to cultural resources, they pose a serious threat to neighborhood stability. Successful preservation includes the protection of our established and healthy urban context because it is the foundation of our historic neighborhoods and their quality of life. We support the forward-thinking range of recommendations put forth by *Beyond the 710: Moving Forward - New Initiative for Mobility and Community* because they exemplify a more holistic approach to regional transportation needs.

In conclusion, Pasadena Heritage does not agree that the Project would not result in significant adverse impacts to historic and cultural resources; especially in the tunnel alternative areas. The inadequate analyses fail to sufficiently address the potentially severe impacts to cultural resources. Often, impacts identified in the technical studies regarding cultural resources contradict the conclusions put forth in the section summaries. We also found that the document offers insufficient mitigation measures for the protection of historic resources. Far too many critical aspects of the analysis are deferred. These deficiencies result in a misleading and biased document. Finally, the Draft EIR/EIS fails to include an adequate range of alternatives.

In light of all the aforementioned deficiencies, errors, omissions, and ill-supported conclusions and in addition to the comments submitted by the entities listed in our second paragraph which we endorse, Pasadena Heritage calls for the withdrawal of the Draft EIR/EIS. We urge Caltrans to work with the communities and groups involved to move forward with an improved alternative that addresses regional transportation needs in a sustainable and environmentally responsible manner.

Thank you for your careful consideration of these comments. Please feel free to contact us should you have any related questions.

Sincerely,



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