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> ARLEEN P. TAYLOR EXECUTIVE OFFICER

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ANTONIO R. VILLARAIGOSA MAYOR

October 19, 2011

#1 BOE

City Council Room No. 395 City Hall

Subject: 6TH STREET VIADUCT SEISMIC IMPROVEMENT PROJECT – CERTIFICATION OF ENVIRONMENTAL IMPACT REPORT AND APPROVAL OF PROJECT BY CITY COUNCIL

As recommended in the accompanying report of the City Engineer, which this Board has adopted, the Board of Public Works recommends that the City Council review the 6th Street Viaduct Seismic Improvement Project – Certification of Environmental Impact Report/Environmental Impact Statement and Section 4(f) Evaluation (Final EIR/EIS), which finds that the project will have significant environmental impacts and that the City Council:

- a. Certify that the Final EIR/EIS has been completed in compliance with the California Environmental Quality Act (CEQA); that the Council has reviewed and considered the information contained in the Final EIR/EIS prior to approving the project; that the Final EIR/EIS reflects the City's independent judgment and analysis; and that the documents constituting the record of proceedings in this matter are in the custody of the City Clerk, and in the files of the Department of Public Works, Bureau of Engineering.
- b. Adopt all of the mitigation measures contained in Appendix F as conditions of project approval.
- c. Adopt the Mitigation Monitoring and Reporting Program.
- d. Approve the Findings and Statement of Overriding Considerations.
- e. Approve the project, identified as the preferred alternative in the Final EIR/EIS.
- f. Acknowledge that the President of the Board of Public Works has concurred with the Memorandum of Agreement between the California Department of Transportation and the State Historic Preservation Officer to resolve the adverse effects on the historic viaduct pursuant to the National Historic Preservation Act.

FISCAL IMPACT

The project's proposed budget is \$401.0 billion. Revenue is derived from various sources, as follows: Federal Highway Bridge Program Funds; Proposition 1B Bridge Seismic Funds; City Matching Funds, and other State Funds.

Respectfully submitted,

Arleen P. Táylor, Executive Officer Board of Public Works

APT:mp



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CALIFORNIA



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Arleen P. Táylor, Executive Officer Board of Public Works

APT:mp



Department of Public Works

Bureau of Engineering Report No. 1 ADOPTED BY THE BOARD PUBLIC WORKS THE CITY of Los Angeles California AND REFERRED TO THE CITY COUNCIL OCT 1 9 2011

CD No. 14

Executive Officer

6TH STREET VIADUCT SEISMIC IMPROVEMENT PROJECT - CERTIFICATION OF ENVIRONMENTAL IMPACT REPORT AND APPROVAL OF PROJECT BY CITY COUNCIL

RECOMMENDATIONS

October 19, 2011

- 1. Review and consider the 6th Street Viaduct Seismic Improvement Project Final Environmental Impact Report/Environmental Impact Statement and Section 4(f) Evaluation (Final EIR/EIS), which finds that the project will have significant environmental impacts.
- 2. Review this report and forward it to the City Council with the recommendation that the Council:
 - a. Certify that the Final EIR/EIS has been completed in compliance with the California Environmental Quality Act (CEQA); that the Council has reviewed and considered the information contained in the Final EIR/EIS prior to approving the project; that the Final EIR/EIS reflects the City's independent judgment and analysis; and that the documents constituting the record of proceedings in this matter are in the custody of the City Clerk, and in the files of the Department of Public Works, Bureau of Engineering (BOE).
 - b. Adopt all of the mitigation measures contained in Appendix F as conditions of project approval.
 - c. Adopt the Mitigation Monitoring and Reporting Program.
 - d. Adopt the Findings and Statement of Overriding Considerations.
 - e. Approve the project, identified as the preferred alternative in the Final EIR/EIS.
 - f. Acknowledge that the President of the Board of Public Works has concurred with the Memorandum of Agreement (MOA) between the California Department of Transportation (Caltrans) and the State Historic Preservation Officer (SHPO) to resolve the adverse effects on the historic viaduct pursuant to the National Historic Preservation Act (NHPA).

FISCAL IMPACT STATEMENT

The project's proposed budget is \$401.0 million. Revenue is derived from the following sources:

Source	(\$) Amount (in millions)
Federal Highway Bridge Program (HBP) Funds	\$365.5
Proposition 1B Bridge Seismic (LBSRA) Funds	\$ 29.7
City Matching Funds	\$ 5.6
Other State Funds	\$ 0.2
Total (including bond financing cost)	\$401.0

Page 2

TRANSMITTALS

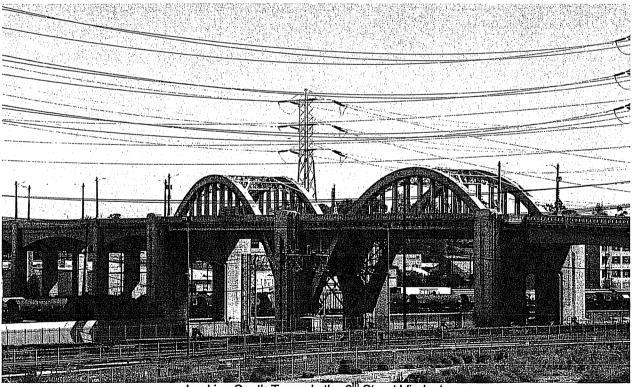
- 1. Final EIR/EIS and Section 4(f) Evaluation, dated October 2011.
- 2. Executive Summary of Final EIR/EIS, dated October 2011.
- 3. Mitigation Monitoring and Reporting Program (MMRP), dated October 2011.
- 4. Findings and Statement of Overriding Considerations (SOC), dated October 2011.

5. MOA between Caltrans and the SHPO, dated May 6, 2010.

DISCUSSION

Background

The 6th Street Viaduct, opened in 1933, is one of 12 historic bridges/viaducts crossing the Los Angeles River. It is a City of Los Angeles Historic-Cultural Monument (No. 905), and is eligible for listing on the California Register of Historic Resources. The structure is segmented for administrative purposes into a section 3,264 feet in length (Bridge No. 53C-1880) that is owned by the City, and a 235-foot segment (Bridge No. 53-0595), which crosses U.S. Highway 101 and is owned by Caltrans.



Looking South Towards the 6th Street Viaduct.

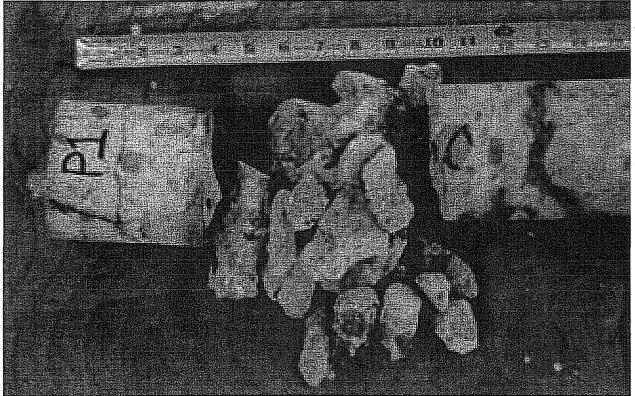
The concrete elements of the viaduct have been damaged by an ongoing chemical process, known as *alkali silica reaction* (ASR), which has led to significant deterioration of the structure's concrete strength and the loss of its seismic integrity. This deterioration has been ongoing for at least 75 years, and continues despite many efforts to arrest or limit its effect.

Department of Public Works Bureau of Engineering Report No. 1

October 19, 2011 Page 3

The structure's cumulative deterioration has rendered it vulnerable to collapse during a design seismic event. In addition, the viaduct has design deficiencies related to roadway width, horizontal sight distance, seismic detailing, and railing crash-worthiness. It has no shoulders for bicylists and has substandard sidewalks.

Sufficiency Rating is a computed numerical value that is used to determine eligibility of a bridge for Federal funding. The sufficiency rating formula result varies from 0 to 100. The formula includes factors for structural condition, bridge geometry, and traffic considerations. A bridge with a sufficiency rating of 80 or less is eligible for Federal bridge rehabilitation funding. A bridge with a sufficiency rating less than 50 is eligible for Federal bridge replacement funding. The Sufficiency Rating for the 6th Street Viaduct is 52.4, the one of lowest Sufficiency Ratings in the City of Los Angeles.



Concrete Core Sample Showing ASR Damage.

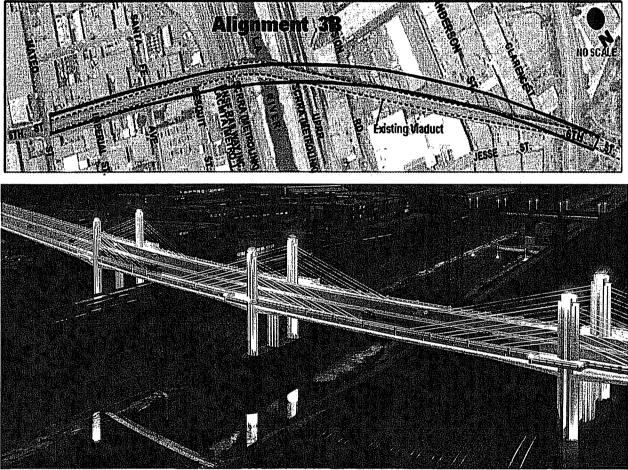
Description of Proposed Project

To resolve these deficiencies, the BOE proposes to undertake the replacement of the 6th Street Viaduct. As shown in the Final EIR/EIS (Transmittal Nos. 1 and 2), the proposed replacement structure would extend along Alignment Corridor 3B using Bridge Design Concept 4, subject to design refinements that result from future community input, technical requirements, and a discussion of how to include historical references.

Page 4

The proposed facility would create roadway shoulders, wider sidewalks, provide a safety median buffer, and accommodate bicyclists.

A Bureau of Street Services (BSS) maintenance yard beneath the existing viaduct will require relocation. BOE will work with BSS to find a suitable location.



Bridge Design Concept 4 Along Alignment Corridor 3B.

Environmental Impact Evaluation

Because the project proposes the use of federal funds, it must comply with both CEQA and the National Environmental Policy Act. The City is the lead agency for CEQA and must certify the EIR prior to approving the project. Caltrans is the lead agency for NEPA and will approve the EIS and prepare a record of decision.

A joint EIR/EIS was prepared to evaluate project alternatives. These alternatives included continued maintenance and repair, seismic retrofit, in addition to full replacement of the historic viaduct. For the replacement alternative, the EIR/EIS evaluated multiple alignments to eliminate the "kink" (sharp curve) in the existing viaduct. It also considered multiple bridge concepts, including replication of the main span as well as modern designs.

Department of Public Works Bureau of Engineering Report No. 1

October 19, 2011 Page 5

Public Participation

Coordination meetings with affected business owners, community groups, government agencies, railroads, and utility companies were held during the environmental document preparation and public review period to update interested parties on the status of the proposed project, to obtain public and agency input, and to resolve issues. The following project outreach meetings were held:

- Two public information meetings.
- Two scoping meetings.
- Three responsible agency coordination meetings.
- Three public hearings on the Draft EIR/EIS.

Due to the needs of this large-scale Public Works project, the following additional outreach meetings were held:

- 10 Community Advisory Committee (CAC) meetings.
- 32 community and property owner meetings.
- Three briefings for the Cultural Heritage Commission.

In addition to these outreach activities, business surveys were conducted to acquire information from businesses located within the project construction limits. The survey profiled business operations and identified issues and concerns. More than one hundred survey questionnaires were distributed to local businesses within the project area. All affected businesses were interviewed by the outreach team. The information collected was evaluated to determine the potential effects on businesses and employees as a result of project implementation.

Community Advisory Committee

A Community Advisory Committee was formed to solicit public input to the greatest extent possible. Members included representatives of neighborhoods and businesses as well as various other stakeholders. A total of ten CAC meetings were held.

Public Review of Draft EIR/EIS

The City and Caltrans circulated the Draft EIR/EIS for public review between June 16 and August 24, 2009. The Notice of Availability (NOA) of the Draft EIR/EIS was published in the *Federal Register*, the *Los Angeles Times*, *La Opinión*, the *Eastside Sun*, and the *Los Angeles Downtown News*. NOA's in English and Spanish were sent to occupants located

Page 6

within a 2,000-foot radius of the 6th Street Viaduct, potentially affected property owners, organizations, and public agencies. Copies of the Draft EIR/EIS were sent to public agencies, organizations, and individuals known to have an interest, and were made available for public review at local libraries and community centers. In addition, the Draft EIR/EIS was posted on the City's website, the Caltrans website, and a special 6th Street Viaduct Seismic Improvement Project website for public viewing. The executive summary and a compact disc with the Draft EIR/EIS were made available at the public hearings for any interested individuals to obtain.

Three public hearings were held on the Draft EIR/EIS, attended by a total of 54 members of the public.

In addition to verbal comments received during the public hearings, 25 written comments were received during the Draft EIR/EIS public review period. The public comments expressed support of both the replacement and retrofit alternatives. Several business owners expressed concerns about the right-of-way acquisition process, and the effect of construction activities. The responses to all comments are included in the Final EIR/EIS.

Completion of the Final EIR/EIS was delayed approximately one year due to a new mandate under the "Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users" which required Caltrans headquarters to perform a legal sufficiency review.

Identification of Preferred Alternative

The BOE recommends replacement rather than retrofit of the 6th Street Viaduct because it would provide a seismically safe structure for the traveling public with a 75-year design life, and would meet full secondary highway design standards. Although Alternative 2 (retrofit) would have a lower initial construction cost and may be desirable from a historic preservation point of view, retrofit is not preferred mainly because it does not stop or mitigate the ASR deterioration; it has the highest life-cycle cost; ant it does not correct the design deficiencies of the existing viaduct. It would require reduction of the railroad horizontal clearances, which do not meet requirements of the railroad operators, and retrofit would only meet a "no collapse" standard. Significant damage could occur during a design seismic event.

After consideration of the Draft EIR/EIS and public comments, the BOE compared the merits of the various alignments and bridge types and identified bridge Design Concept 4 on Alignment 3B as the preferred alternative. The BOE will go through a process to elaborate and refine the final design for the bridge replacement, as a means of ensuring that both an architecturally distinctive and cost-effective design is selected for construction. Design details of the preferred cable-supported bridge type (Design Concept 4) could evolve into different engineering and architectural expressions of the concept than those presented in the Final EIR/EIS.

Department of Public Works Bureau of Engineering Report No. 1

October 19, 2011 Page 7

Final EIR/EIS

The Final EIR/EIS contains the Draft EIR/EIS with minor revisions and corrections, comments received and responses to comments, and discussion of two additional bridge design concepts (Concepts 1A and 4A) in response to public comments. No significant new information was added.

Conditions of Approval

To avoid or substantially lessen the significant environmental effects of the project, the 23 mitigation measures identified in Appendix F of the Final EIR/EIS should be made conditions of approval.

Mitigation Monitoring and Reporting

CEQA requires public agencies, when approving a project for which an EIR has been prepared, to adopt a reporting or monitoring program for the changes to the project that have been adopted to mitigate or avoid significant effects on the environment. The program must be adopted by the public agency at the time findings are made regarding the significant impacts of the project. The Mitigation Monitoring and Reporting Program (Transmittal No. 3) for the 6th Street Viaduct Seismic Improvement Project is transmitted herewith for adoption by the City Council.

Statement of Overriding Considerations

Because the Final EIR/EIS finds that the project would result in significant and unavoidable temporary air quality impacts, traffic congestion, and emergency response delays during construction, as well as permanent land use impacts and the loss of cultural resources that cannot be mitigated to insignificant levels, the project cannot be approved unless the City Council finds that the benefits of the project outweigh and thus override the unavoidable significant environmental impacts. The proposed Findings and Statement of Overriding Considerations are transmitted herewith (Transmittal No. 4).

Memorandum of Agreement

To resolve the adverse effect on the historic viaduct in compliance with the NHPA, a MOA was prepared between the State Historic Preservation Officer and Caltrans, with the concurrence of the City (Transmittal No. 5). The President of the Board of Public Works has signed the MOA, which can be implemented only upon project approval by both the City and Caltrans.

Page 8

(JAT JED TSA RMK DJW)

Report Reviewed by:

BOE (EMG, PAC, and ASD)

Report Prepared by:

Bridge Improvement Program

James A. Treadaway, P.E. Program Manager Phone No. (213) 485-5239

JAT/JCK/LM/07-2011-0135.BIP.gva

Questions regarding this report may be referred to: John C. Koo, S.E., Project Manager Phone No. (213) 485-4750 E-mail: John.Koo@lacity.org and/or Linda Moore, Environmental Supervisor Phone No. (213) 485-5751 E-mail: Linda.Moore@lacity.org Respectfully submitted,

Aary Lee Moore

Gary Lee Moore, P.E. City Engineer