## Agenda and Coordination Information for Value Analysis Study

### **(In Person VA Study)** *October 3-6, 2023*

**I-210 Barrier Replacement Project   
(Project 2, S-Curve)**

Metro Project No. verify

HDR Project No. 10381561

**Los Angeles County Metropolitan Transportation Authority (LA Metro)**

**California Department of Transportation (Caltrans)**

**Pre-Study Coordination Meeting: September 27, 9:00 a.m. – 10: a.m. PDT, 2023  
VA Study Dates Tuesday, October 3, through Friday, October 6, 2023  
VA Executive Summary Presentation (2:00 pm - 4:00 pm Friday, October 6, 2023)**

### **Introduction and Project Description**

Advanced review of the project materials can be found here and will be beneficial to review before the VA study : [1\_Project Information](https://hdrinc.sharepoint.com/:f:/r/teams/DL10381561/Shared%20Documents/I-210%20Barrier%20Replacement%20VE%20Study/1_Project%20Information?csf=1&web=1&e=CziLWY)

This scope of work describes the services to be provided by HDR, Inc. (Consultant) to facilitate a Value Analysis (VA) study on I-210 Barrier Replacement Project (Project 2, S-Curve), hereinafter referred to as “the project”, for the stakeholder agencies of: LA Metro and Caltrans. This Scope of Services for this task consists of providing Value Analysis Services for the I-210 Barrier Replacement project in accordance with SAVE International Value Methodology Job Plan, to create recommendations to improve the value of the project.

The Project focuses on the 6-mile portion of the Metro Gold Line which operates within the median of the I-210 freeway. To date, there have been 13 recorded instances where tractor trailers and cars have breached the median concrete barrier and entered Metro’s right-of-way. The latest incident occurring on July 26, 2021. Fortunately, none of the 13 incidents have contacted a Metro Gold Line train. This VA study will focus on a portion of the project called Project 2, S-curve, which is approximately 1-mile in length.

The purpose of the project is to replace the existing non-standard median barriers with taller Caltrans standard Manual for Assessing Safety Hardware (MASH) compliant barriers to greatly reduce the potential of any vehicle breaching the median barrier and entering Metro’s right-of-way in the future. Due to construction funding constraints, only the S-curve portion of the overall 6-mile project is currently being designed. The S-curve portion was selected for construction first because the majority of the 13 barrier breaches as well as the last 4 barrier breaches have occurred along the S-curve portion which is approximately 1-mile long.

The VA study is being implemented by HDR during the final design review phase of the project. The independent design firm is Jacobs.

## Value Engineering Study Goals and Methodology

### The general mission of the VA study is to provide the LA Metro and Caltrans with recommendations for improved value solutions, where possible, for meeting the goals of the project. A VA Team will provide recommendations that seek to minimize total initial and life-cycle cost and will also address functional improvements where possible. HDR will lead the VA Team, consisting of HDR Subject Matter Experts (SME’s), with participation from LA Metro and Caltrans staff.

## In-Person VA Study with Virtual Participation Option

The VA study will be held in person at LA Metro and HDR offices in downtown Los Angeles. The LA Metro meetings will include the VA Orientation Meeting on the morning of Day 1 of the study (Oct. 3rd), and the VA Executive Summary Presentation on the afternoon of Day 4 (Oct. 6th). The 4-day, 40-hour VA study will take place at HDR’s downtown office in Los Angeles during the remaining times (afternoon of Day 1 through early afternoon of Day 4).

There will be virtual meeting links within the email invitations available for remote participants from LA Metro, Caltrans, and possibly additional Jacobs representatives at select times, for each day of the study.

HDR’s office address in downtown Los Angeles is: 350 S Grand Ave Suite 2900, Los Angeles, CA 90071

HDR Staff Contacts: For any necessary phone communications with HDR during the study, please contact:

Eugene Bougdanos – Project Manager, Mobile: (213) 359-6587

Paul Johnson – VA Facilitator, Mobile: (808) 202-7875

Christopher Johnson – VA Assistant, Mobile: (704) 915-7810

Refer to the Attendance Sheet for E-mail addresses and phone numbers for all VA participants.

## VA Study Participants

Refer to Attachment A – VA Study Participants. Waiting to finalize , do not have all the names

## Study Dates and Location

**Pre-Study Activities (Phase 1, Preparation), September 27, 2023 (prior to VA study)**

The Pre-Study Activities will include the following:

1. Prepare VA Study Agenda, List of Participants and Contact Information
2. Distribute design information and VA Agenda electronically or by shared site link to participants
3. HDR to forward final Webex virtual meting invitations to all team members by September 28, 2023
4. Hold Pre-Study Coordination Meeting on September 27, 2023. This meeting is for stakeholder and VA team member introductions, to review the VA Agenda and make any final adjustments, to confirm all participant’s contact information, to outline all materials available on a shared site for review in advance of the study, and for Q/A.

### **VA Study, October 3-6, 2023 (In-Person Meetings)**

**The VA Study will take place from Tuesday, Oct. 3, through Friday, Oct. 6, approx. 10 working hours per day, for the planned 40-hour VA Study.**

**Refer to the following Agenda which also shows study dates, times, and locations.**

**Tuesday, Oct. 3:  Day 1 of VA Study**.  Location:  **LA Metro Office (morning) Monterey Conference Room 17th Floor**. Orientation meeting with Metro, Caltrans, Jacobs participants in the morning of Oct. 3rd. **8-11:30** ( 30 Min travel time and 30 min lunch) Afternoon of Oct. 3rd the VA team will continue our own at **HDR Los Angeles Office** with Function Analysis and Brainstorming (inclusive of any Metro and/or Caltrans staff who wish to participate full time on the VA study.) from **12:30 to 7 P.M. 11 hours**

**Wednesday, Oct. 4:  Day 2 of VA Study**.  **Wed 8:00 a.m. to 6:00 p.m. 10** hours Location**:  HDR LA Office**.  Continue Brainstorming, and Analysis (Pass/Fail) of ideas.  Late afternoon:  Mid-week briefing to Metro and Caltrans who can participate in person at HDR’s LA office, or virtually via meeting link.  Owner to advise yes or no to continued development of individual proposals generated by VA team (for purpose of focusing on the ideas most valuable to the project).

**Thursday, Oct. 5:  Day 3 of VA Study.** Location**:  HDR LA Office. 8:00 a.m. to 7:00 p.m. 11 hours** VA team continues with Development of VA ideas.

**Friday morning, Oct. 6**:  **Day 4 of VA Study**.  Location:  **HDR LA Office.  8:00 a.m. -11:30 p.m. (30 Min travel time and 30 min lunch**)  VA team completes cross-checking of developed VA proposals and prepares for the afternoon VA Executive Summary presentation.

**Friday late afternoon, Oct. 6:  Day 4 of VA Study – continued**. **LA Metro Office 12:30- 2:00 p.m. PM Presentation prep and finalization. Monterey Conference Room 17th Floor**

**2:00 p.m. to 4:00 p.m. presentation** VA Executive Summary presentation by VA Team to LA Metro and Caltrans.  In-person meeting for those who can attend, and virtually for any others who cannot attend in person.

All meetings will have a virtual meetings component using Webex, hosted by HDR.

**Mid-Week VA Briefing; Wednesday, October 4, 2023, 2:00 p.m. to 4:00 p.m. PDT**

A mid-week briefing will be held at the date and time shown above. The purpose of this meeting will be for the VA Facilitator and supporting VA team members to outline the brainstormed VA Ideas for consideration by the stakeholder representatives. The VA team’s preliminary outline of the ideas we suggest for further development into formal VA proposals will be discussed. The stakeholder representatives will have the opportunity to support or reject the initial slate of ideas. This will allow the VA team to use the remaining time of the study as productively as possible to develop VA alternatives that have the greatest potential for functional enhancement, cost savings (initial and life-cycle), and potential for approval by the conclusion of the VA study.

### **Executive** **Summary Presentation; Friday, October 6, 2023**

A 2-hour VA Executive Summary Presentation will be scheduled on Friday, October 6 from 2:00 p.m. to 4:00 p.m. at METRO headquarters

### **Pre-Study Information Gathering**

The HDR VA Team Leader will coordinate with the METRO Project Manager – Dana De Vera and HDR’s design team’s design manager to request compilation of and electronic access to pertinent project design information for the VA Study.

The VA Team Leader will confirm that file access and/or PDF copies of existing design documentation will be available to the VA Team prior to and during the week of the study. Pertinent documentation includes but is not limited to design drawings, cost estimates, environmental documents, schedules, budgets, soils reports, aerial photographs, right-of-way plans, any project alternatives reports, existing site conditions reports, risk analyses conducted to date, and other information that describes existing conditions, final design, and interfaces with existing infrastructure and adjacent projects (current or future).

### **Materials and Equipment for VA Study Support**

The VA Study Assistant will assist the VA Team Leader to make sure all VA templates are prepared in advance and made available to VA team members during the study.

All VA study participants are requested to have available their own reference materials for the study, including any resource that may be needed for VA study calculations, such as design guidelines, cost estimating references, and other relevant materials.

All VA study participants will need to have a suitable laptop.

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| VA Study Agenda | **I-210 Barrier Replacement Project  (Project 2, S-Curve)** |
| Tuesday, October 3, 2023  **Phase 1 – Information Phase**  *Note: All times shown herein are Pacific Daylight Time (PDT).* | VA Day #1 Location:  **LA Metro Office (morning)**  Participants: VA Team (full day); with LA Metro, Caltrans, Jacobs and HDR Design Team Representatives (morning) |
| 8:00 a.m. to 8:30 a.m. | **INTRODUCTIONS** **AND SAFETY MOMENT** |
| 8:30 a.m. to 9:00 a.m. | **OVERVIEW OF STUDY AGENDA AND VA PROCESS** – Paul Johnson CVS, VA Team Leader |
| 9:00 a.m. to 11:30 p.m.  Session Break 10:15 to a.m. to 10:30 a.m. | **OVERVIEW OF THE PROJECT** (LA METRO, CALTRANS, AND JACOBS)   1. What LA Metro, Caltrans, and Jacobs would like from the VA Study 2. **JACOBS DESIGN TEAM OVERVIEW:** 3. Project Inception, purpose and need 4. Project location 5. Overview of existing Folsom Dam TCS 6. Design objectives – Crash barriers and all other significant project elements 7. Construction staging, phasing, scheduling, traffic control, security for access to site, working hours: highway and rail right-of-way considerations 8. Permitting Agency Requirements 9. Project Funding/Constraints 10. Scheduling Requirements/Commitments 11. Community Concerns 12. Other Sensitive Issues 13. Overview of 35% Design 14. Geotechnical and Structural Conditions 15. Basic Project Assumptions (Preliminary Design Report) 16. Project Phasing and Schedule 17. Budget/Estimate 18. Opinion of Probable Cost 19. O&M Costs 20. Environmental Requirements/Commitments 21. Utilities (if applicable) 22. Safety Criteria in Design 23. Adjacent Improvements 24. Other Major Design Components 25. Summary of High-Cost Areas 26. Community 27. Environmental (Flood, Drainage, River) 28. Right-of-Way (confirm if N/A) 29. Photographs and/or videos 30. Design Information and Virtual Site Visit 31. Sensitive Issues 32. Risk Assessment Overview for any existing Risk Assessments that have been conducted on the project 33. Project Delivery Considerations (DBB, CM/GC or other) 34. General Comments 35. Q/A with VE Team |
| 11:30 p.m. to 12:30 p.m. | **VA Day #1 – Continued at HDR LA office (afternoon)**  **Session Break** (Lunch – Travel to HDR Headquarters)   * Full VA Team with LA Metro, and Caltrans representatives as designated. * Design team is requested to be available for any calls from VA team to address questions, but not to participate full time in the VA study. |
| 12:30 p.m. to 2:00 p.m. | **TEAM FOCUS QUESTIONS AND ANSWERS**   * What is the problem we are about to discuss? * Why do we consider this a problem? * Why do we believe a solution is necessary? * What are the highest cost components of the project? * What are the highest risk issues associated with the project? * What are the expected outcomes from the VA study? * What are the project requirements that cannot be compromised? * What are the project attributes by which the VA recommendations will be compared to the base design? |
| ***Phase 1a – Function Analysis***  2:00 p.m. to 4:00 p.m.  Session Break 2:45 p.m. to a.m. to 3:00 p.m. | **FUNCTION ANALYSIS**   * Further review of design information * Identify significant project functions with opportunities for cost reduction or functional enhancement * FAST Diagram * Recap of FAST Diagram for team consensus |
| Phase 2 – Creative  4:00 p.m. to 7:00 p.m. | **BRAINSTORMING**  **Participants:** Full VA Team   * Ground rules * Generate alternative solutions to current designs by function, by area, by discipline * Process for validation of design elements * Generate alternative solutions to current designs by function, by area, by discipline * Process for validation of design elements |
| Wednesday, October 4, 2023  ***Phase 3 – Evaluation***  8:00 a.m. to 10:00 a.m. | **VA Day #2 Location: HDR Los Angeles Office (all day)**  **PASS/FAIL OF ALTERNATIVE SOLUTIONS** (Discussion of advantages and disadvantages) |
| 10:00 a.m. to 12:00: p.m.  Lunch Break: 12:00 to 12:30 p.m. | SELECTION AND REFINEMENT OF PROMISING ALTERNATIVE SOLUTIONS   * Preliminary Ratings Against Performance Requirements And Performance Attributes |
| 12:30 p.m. to 2:00 p.m. | Prepare draft proposal list for the mid-week briefing. |
| 2:00 p.m. to 4:00 p.m. | Mid-week briefing  **Participants:** HDR, LA METRO, CALTRANS, AND JACOBS (at HDR or virtually)   * Determination of Proposals to remain for Development, and any that should be dropped from consideration. |
| Phase 4 – Development Phase  4:00 p.m. to 6:00 p.m... | * Discussion of Attribute Rating System * VA recommendation examples * Overview of Templates for VA Proposals * Assign Individuals or Small Teams For Development of VA Proposals * Begin recommendation development   Begin Write-Ups, Economic Calculations, Sketches For Cost Proposals |
| Thursday, October 5, 2023  Phase 4 – Development Cont.  8:00 a.m. to 12:00 pm | **VA Day #3 Location: HDR LA Office (all day)**   * Continue recommendation development   Continue write-ups, economic calculations, sketches for cost proposals |
| 12:00 p.m.-12:30 p.m. | Lunch |
| Phase 4 – Development - Continued  12:30 to 5:00 p.m. | * Continue recommendation development * Continue write-ups, economic calculations, sketches for cost proposals. |
| Phase 4 – Development - Continued  5:00 p.m. to 7: p.m. | * Risk review I-210 Barrier Replacement Project  (Project 2, S-Curve) and of proposals/alternatives developed during the VA study * Prepare VA executive summary presentation |
| Friday, October 6, 2023  Phase 4 – Development - Continued  8:00 a.m. to 12:00 pm | **VA Day #4 Location: HDR LA Office (morning to early afternoon)**   * Finalize recommendation development * Finalize write-ups, economic calculations, sketches for cost proposals Finalize materials for executive summary presentation * Cross-checking/peer review of VA proposals   Small teams to review proposals by other small teams. |
| 12:00 p.m. to 12:30 p.m. | Lunch |
| 12:30 p.m. to 2:00 p.m. | * Practice Presentation |
| Friday, October 6, 2023  2:00 p.m. to 4:00 p.m. | Phase 5 – Presentation Location: Metro Office (afternoon)  **VA EXECUTIVE SUMMARY PRESENTATION TO LA METRO, CALTRANS, AND JACOBS**   * (This Presentation will conclude the Value Analysis Study.) * The Draft VA Report will be prepared within 25 days following the VA study. It will be distributed to LA METRO, CALTRANS, AND JACOBS Design Team, and select VA participants in electronic PDF format. |
| ***Follow-up*** | Phase 6 – Implementation |
|  | * The Implementation Phase will be after the VA Study, following the project and other participants’ review of the Draft VA Report. LA Metro with input from Caltrans is requested to complete the Implementation Form prior to the “Implementation meeting” to determine acceptance, rejection, or modification of the VA proposals for incorporation into the design as appropriate. * The Implementation meeting will be held virtually with appropriate HDR VE Leads, LA METRO, CALTRANS, and JACOBS Design Team, and design team members. HDR will follow-up with a Final VA Report summarizing the VA methodology and the final disposition of the VA proposals. * An electronic PDF copy of the Final VA Report will be sent to LA METRO who can make further distribution to CALTRANS AND JACOBS Design Team at LA Metro’s discretion. |