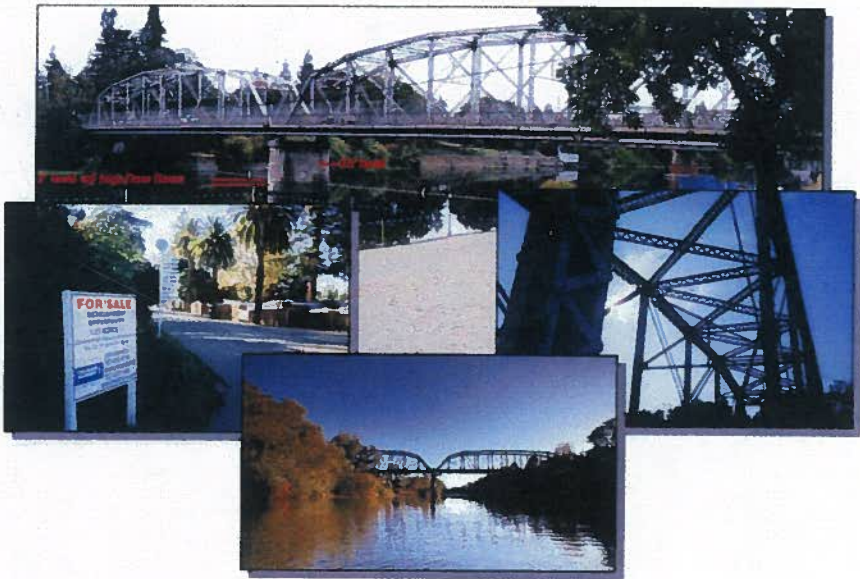


Healdsburg Avenue Bridge Over the Russian River Concept Analysis Process (CAP)



April 28, 2010



INTRODUCTION

River crossing improvement concepts will be individually evaluated using a series of nine criteria, each of which is important in the overall determination of the best concept river crossing solution. The Concept Analysis Process (CAP) will evaluate the following nine (9) criteria:

1. Historic Preservation

The historic nature of the project is of specific concern to nearly all involved or interested in this project. The analysis of each concept in the context of the existing historic fabric will be a significant issue in this analysis.

2. Public Safety

One of the primary reasons this project is being advanced is the concern over the seismic integrity of the existing structure, its sub-structure with scour/hydraulic issues and geometric deficiencies. The safety criterion provides a measure of potential safety enhancements as a result of the proposed improvement for each concept.

3. Environmental Sensitivity

This criterion will provide a subjective indication of the possible environmental effects resulting from each of the concepts. Environmental consequences can result from each concept including the "no-build" concept. No matter the concept ultimately selected mitigation measures will be identified.

4. Right of Way Impacts

Right-of way criteria are essentially a quantification of impacts by type and include potential impacts to homes, commercial buildings, public property, vacant land and Relocation Assistance Program (RAP) considerations.

5. Constructability

Constructability refers to the feasibility and cost implications of constructing a particular concept. In general, this is related to ease of construction access, staging areas, project phasing and the movement of motor vehicle traffic and pedestrians during construction.

6. Design Standard Conformance

Roadway and intersection design standards are set by the local agency, Caltrans and the FHWA. For purposes of the CAP, consistency with the requirements of each agency jurisdiction, or accepted standard for structure, roadway and hydraulic design will be evaluated.

7. Cost

The costs presented in the CAP are for comparative purposes only and may not represent the actual final construction costs. Actual project construction costs for each listed component or as totaled may vary from the early estimates and therefore should not be used outside of the context of this comparative study. Two factors which influence the total cost of a project concept are the initial capital cost and the long term maintenance requirements. Long term maintenance will be evaluated using a life cycle analysis on each concept deemed feasible.

CSDM Process
City of Healdsburg

Page 2
Concept CAP ProcessBriefWEBSITEAlternate.doc

8. Transportation Operations

This criterion refers to the quantification of transportation service provided to the area accessed via the Healdsburg Avenue Bridge. Impacts associated with each one of the concepts will be considered, so that the "relative" operating merits of the concepts can be assessed from a transportation standpoint. The transportation function is not just a matter of passenger vehicle level of service (LOS), but rather a measure of the transportation service function for all road users, including public transit, goods carriers, bicycle and pedestrian users as well.

9. Funding Capability (City Contribution)

This criterion is a comparative measure of the ability of the City of Healdsburg to fund each concept under evaluation. Total cost is NOT considered within this criterion, rather the amount of local funding required to accomplish the implementation of each concept is the sole basis for comparison.

While each of these evaluation criteria has importance to the final decision, undoubtedly they are not each considered equal in their individual impact on the final concept selection. Each stakeholder will have a different perspective on the relative importance of each criteria and this analysis process is designed to recognize these differences. In fact the community profile is the sum of the perspectives of all those who participate in this process.

B. Rating the Evaluation Criteria

The second step in the CAP evaluation procedure is to determine the "relative importance" of each evaluation criteria by weighing them on a scale. Certain criterion will more than likely be considered more important than others. Therefore, each evaluated criterion will be assigned a rating which is the representation of its relative importance to the project.

Each of the evaluation criteria will be rated on a scale of one to five. Five is the upper end of the scale and indicates that the evaluated criterion is of extreme importance; whereas, one is the low end of the scale and indicates that the evaluation criterion is far less important.

Each criterion is rated independent of the others. For example, multiple criteria may be considered extremely important and each assigned a five. Conversely, other criteria may be considered far less important and assigned lower numbers. The following table presents the potential rating level scale that each participant will be asked to use in valuing each project Criteria.

Relative Rating Scale	
Criteria Value in this Study	Rating
Unimportant	1
Less important	2
Important	3
Very important	4
Critical	5

CSDM Process
City of Healdsburg

Page 3
Concept CAP ProcessBriefWEBSITEAlternate.doc

C. Evaluation Criteria Rating

The formal Categorical "weighing" process as undertaken in the CAP procedure is dependent upon the evaluation and ranking of each Concept within each evaluation criteria, the result of which is the "relative weighing" to be used with respect to each study Concept. The "weighing" process is the cumulative judgment of the relative importance of each project criteria, as provided by all participants. The individual ratings in each evaluation criteria were accumulated and the "relative weighing" factor for each criteria identified.

The participants at the first Open House, March 31, 2010, were asked to provide a rating of the individual criteria, the results of that effort was accumulated with several community groups including:

- Open House #1 Participants
- Healdsburg Chamber of Commerce
- Healdsburg City Council
- Sonoma County Transit
- Sonoma County Parks
- Healdsburg Unified School District
- Emergency Services (Healdsburg Police and Fire)

Criteria	Weighing							
	Open House #1	City Council	County Transit	Emergency Services	County Parks	School District	Chamber of Commerce	Average
1. Historic Preservation	4.6	3.8	3.0	1.0	5.0	1.0	4.0	3.20
2. Safety	4.0	4.8	5.0	5.0	5.0	4.0	5.0	4.68
3. Environmental Sensitivity	3.9	3.8	3.0	3.5	5.0	4.0	4.0	3.88
4. Right of Way Impacts	3.3	3.5	3.0	3.5	5.0	2.0	4.0	3.48
5. Constructability	3.2	3.0	4.0	3.5	3.0	4.0	4.0	3.53
6. Design Standards Conformance	3.1	3.3	3.0	3.0	3.0	4.0	3.0	3.19
7. Cost	4.1	4.8	3.0	4.0	3.0	2.0	4.0	3.55
8. Transportation Operations	3.8	3.5	5.0	5.0	3.0	5.0	4.0	4.19
9. Funding Capability	4.3	4.8	3.0	4.0	3.0	4.0	5.0	4.00
								33.7

The "relative weighing" factor is applied to the individual score for each criteria for each Concept evaluated within the study. In this manner the "relative weighing" (importance) of the criteria is equally applied to all Concepts evaluated. This "adjusted" value for each criteria of evaluation is then totaled to arrive at an overall Concept criteria score.

CSDM Process
City of Healdsburg

Page 4
Concept CAP ProcessBriefWEBSITEAlternate.doc



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