

CITY OF HAYWARD
AGENDA REPORT

AGENDA DATE 03/26/02
AGENDA ITEM 7
WORK SESSION ITEM _____

TO: Mayor and City Council
FROM: City Manager
SUBJECT: Route 238 Contingency Plan

The attached agenda report presents an overview of the results of the consultant's evaluation of the Route 238 Contingency Plan. In summary, the report notes that the Contingency Plan is technically feasible and improves traffic conditions in Hayward, both when compared against the no-build alternative and the current Bypass Project. The improved traffic conditions come about largely as a result of through traffic being separated from local traffic. Finally, the report notes that implementation of the Contingency Plan presents the City with certain redevelopment opportunities.

From the standpoint of cost, the Contingency Plan is more expensive than the Bypass Project, at approximately \$577 million in current dollars. The most significant difference is attributable to the cost of constructing a tunnel. Other factors relate to additional right of way acquisition, detailed design costs and an allowance of 30% in contingency expenses in recognition of the preliminary nature of the project design.

Although the Contingency Plan has a number of positive features and potentially could be beneficial to the community, it is clear that the cost of constructing a tunnel makes this an impractical option at this time.

While studying the feasibility of the Contingency Plan, a number of other possible solutions to Hayward's traffic problems emerged. From all accounts, constructing a grade separation at Mission/Foothill/Jackson seems to improve traffic circulation in the area. At the same time, it is unlikely that a grade separation by itself will satisfactorily mitigate current and projected growth in traffic. On the other hand, if it were combined with other improvements it might yield beneficial results. For purposes of illustration (and simply illustration), it might be worth exploring whether combining the grade separation with some widening of Mission and Foothill Boulevards would result in acceptable traffic circulation.

When the concept of a Contingency Plan was presented to the Council last year, it was reported that a lawsuit had been filed contesting the use of Measure B funds for the Bypass and that it seemed prudent to prepare a back up plan in the event the Court ruled against the use of Measure B funds for the Bypass.

Recently, the Court ruled that the Bypass Project is not the Measure B project approved by the voters in 1986. As a result of this ruling, the Alameda County Transportation Authority is prohibited from expending Measure B funds on the Bypass Project. Subsequent to the Court decision, the ACTA Board approved a notice of intent to file an appeal. In addition, ACTA decided to embark on what it calls the "Route 238 Consensus Process". Under this process, ACTA plans to bring project proponents and opponents together as a working group to:

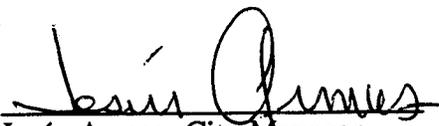
1. Clarify the traffic problem in the 238 corridor;
2. Identify potential solutions;
3. Review a "screening-level" analysis of the various solutions;
4. Develop potential "packages" of improvements for public review and comment.

Representing the City will be Mayor Roberta Cooper. (I will serve as staff liaison.) Other participants include Mayor Mark Green and Supervisors Gail Steele and Nate Miley. In addition, the following organizations have been invited to appoint a representative to the working group: California State University, Hayward; Citizens for Alternative Transportation Solutions; Hayward Area Planning Association; and Hayward Chamber of Commerce.

ACTA will initiate the process this month and plans to complete it by June, following which recommendations will be presented to the City and ACTA Board for consideration.

Although the Contingency Plan is not feasible due to cost, I believe it is advisable to continue to consider any and all measures which alleviate traffic conditions in Hayward, particularly in light of the uncertainty with regard to the use of Measure B funds for the Bypass Project. Whether the measures are those mentioned above, or others previously mentioned by different individuals and organizations, it is important to not lose site of the need to address the traffic problem facing this community. Critical to identifying acceptable solutions will be funding them. In this regard, it is especially important to take all steps necessary to assure that Measure B funds associated with the 238 project remain in Hayward.

The Council is requested to review and comment on the results of the Contingency Plan study and to provide guidance with regard to the issues it believes should be raised and addressed in the course of the aforementioned ACTA consensus process.


Jesús Armas, City Manager

Attachment:



CITY OF HAYWARD
AGENDA REPORT

AGENDA DATE 03/26/02

AGENDA ITEM _____

WORK SESSION ITEM _____

TO: Mayor and City Council
FROM: Director of Public Works
SUBJECT: Route 238 Bypass Contingency Plan Report

On December 19, 2000, the City Council authorized staff to solicit proposals for professional services for evaluation of the Route 238 Contingency Plan alignment. Exhibit A shows the contingency plan conceptual alignment and the existing Route 238 Bypass alignment. Subsequently, Council approved the selection of Parsons Transportation Group to undertake an evaluation of a "Route 238 Contingency Plan." An objective of this plan was to develop a contingency alignment that might be able to be implemented in the event the adopted alignment is not able to proceed.

As noted in the Final Report prepared by Parsons Transportation Group, the Contingency Plan preferred option provides for a four/six-lane divided expressway over a 3.1-mile route between I-580 and Harder Road. The six-lane segment would extend from I-580 south to past the Jackson Street interchange, and the remainder of the alignment south to Harder Road would narrow to four lanes. The Contingency Plan would tie into the Caltrans alignment proposed for the Route 238 Bypass at the north end (Interchange with I-580 and I-238) and at the south end (Stage 2). Four access points would be constructed as interchanges: 1) I-580; 2) Jackson Street; 3) Carlos Bee Boulevard; and 4) Harder Road.

A major component of the Contingency Plan is a tunnel partially under and along Foothill Boulevard through downtown Hayward, between Oakview Avenue and E Street. The tunnel would tie-in with a grade separation at Mission/Foothill/Jackson to facilitate movements between the three facilities. Foothill Boulevard would remain at grade as a four-lane facility.

Following are the stated objectives of the Contingency Plan:

- Provide a back-up to the adopted Bypass in the event the adopted alignment cannot go forward, as planned
- Address identified need in the community, primarily to relieve traffic on Foothill and Mission Boulevards in downtown Hayward.
- Preserve funding commitments to try to protect the Measure B funding that has already been approved for the project.

With staff input, Parsons developed several preliminary study options for the Contingency Plan. Exhibit A is Chapter 8 from the Final Contingency Plan report, which describes the five options that were essentially different combinations of travel lanes in the tunnel and travel lanes on Foothill Boulevard along with slightly different alignments for the tunnel portion. A sixth option - the Foothill/Mission/Jackson grade separation - was identified as a feature that would be added to any of the other options. Exhibit B also summarizes the input received during the July 13, 2001 Community Workshop. As summarized in Section 8.6 of Exhibit A, additional traffic analysis completed after the workshop as well as input from citizen comments led to the conclusion that any four-lane tunnel option provided insufficient traffic capacity. Also, it was concluded that the six-lane tunnel option fully under Foothill Boulevard would be more disruptive during construction with greater impacts to properties along the alignment.

Consequently, Option 4, the six-lane tunnel under the east half of Foothill Boulevard with four lanes on Foothill was chosen as the preferred Contingency Plan option. Moreover, the traffic analysis indicated that Option 6, the grade separation project, would be required as an important improvement for mitigating traffic impacts attributable to tunnel access from Jackson Street. Option 4 also benefits the redevelopment effort in the downtown. This Option, because of its right of way takes and necessary demolition would definitely provide significant opportunities for redevelopment along Foothill Boulevard.

In addition to the Mission/Foothill/Jackson intersection, impacts to two other intersections would need to be mitigated - Mission Boulevard/Carlos Bee Boulevard and Mission Boulevard/Harder Road. At Mission Boulevard/Carlos Bee Boulevard, the mitigation would involve widening of the existing intersection by adding dual left-turn lanes in the southbound to eastbound and in the westbound to southbound directions. At Mission Boulevard and Harder Road, the mitigation would be the addition of a westbound through lane, the conversion of a westbound through-left lane to a westbound left-turn lane, the addition of a northbound right-turn lane and the conversion of an eastbound through-left lane to an eastbound through lane. It should be noted that these same two intersections mitigations would also be required for Stage I of the Route 238 Bypass if subsequent stages of the Bypass were not built immediately following Stage I.

The traffic analysis portion of the Contingency Plan final report compared Option 4 to both the no-build scenario and to Stage I (I-580 to Harder) of the Route 238 Bypass in the year 2025. In reviewing the conclusions of the traffic analysis, it is helpful to note the major access and capacity related differences between the Contingency Plan and the Route 238 Bypass.

The Contingency Plan retains the current access from Foothill Boulevard to eastbound I-580, westbound I-580, and westbound I-238. While the adopted Bypass instead provides limited access from "A" Street, the consultant's work showed continuation of the existing Foothill Boulevard access is possible and would reduce impact on city and county local residential streets, which has been a particular concern expressed by the County.

In the downtown area, the contingency plan provides more capacity, because the six expressway lanes of the tunnel, plus the four arterial lanes on Foothill can carry more traffic

than four expressway lanes on the Bypass and six arterial lanes on Foothill. Also, the ability to provide direct access to and from Jackson Street (Route 92) is an advantage and contributes to a greater improvement on I-880 than even with the Bypass. Particularly in the downtown, this access from Jackson Street and the capacity of six lanes in the tunnel clearly helps draw the through traffic into the tunnel and thus separate it from local traffic remaining on Foothill Boulevard.

The study presented a level of service (LOS) comparison of critical intersections in the corridor between the no-build scenario and the contingency plan. No comparable LOS data is available for the Route 238 Bypass (Stage I) project for the year 2025. As can be seen in the summary table below, with the recommended mitigations, none of these intersections would exceed city LOS standards in 2025.

Level of Service, Year 2025 AM/PM Peak Hour				
	Intersection	No Build LOS	Contingency Plan LOS	Mitigated LOS
1.	Foothill Blvd./Grove Way	D/F	C/C	C/C
2.	Foothill Blvd./A Street	D/F	C/D	C/D
3.	Foothill Blvd./D Street	F/F	D/D	D/D
4.	Mission Blvd./Jackson-Foothill Grade Separation Intersections	F/F	F/F	A/B
5.	Mission Blvd./Carlos Bee	F/F	D/E	D/D
6.	Mission Blvd./Harder Road	C/D	F/F	D/D
7.	Harder Road/Bypass Off-Ramp		D/D	D/D
8.	Harder Road/Bypass On-Ramp		B/D	B/D
9.	Carlos Bee/Bypass Ramp		D/C	D/C

Also, the report indicates that total congestion, as measured by the ratio of total vehicle hours traveled divided by total vehicle miles traveled, is reduced by more under the contingency plan than the Route 238 Bypass. This appears to be a direct result of the connection to Jackson Street and the increased capacity for through traffic under the contingency plan.

While the study identified that the contingency plan is technically feasible and provides many positive benefits, even when compared to the adopted Route 238 Bypass, it also identifies that it costs significantly more. Option 4, which is the preferred option for the contingency plan, would cost approximately \$577 million in today's dollars. About \$286 million of that is for the tunnel construction and about \$141 million is for the right of way acquisition. This compares to \$146.3 million to complete Stage I of the Route 238 Bypass.

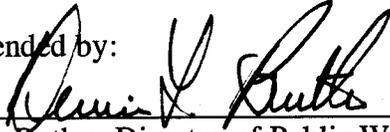
Notices for this agenda item were mailed to everyone who either attended the first workshop or expressed an interest in future discussion on the Contingency Plan. Copies of the Final Report were also provided to representatives of Citizens for Alternative Transportation Solutions (CATS), the Hayward Chamber of Commerce, Hayward Area Planning Associates, Cal State

Prepared by:



Robert A. Bauman, Deputy Director of Public Works

Recommended by:



Dennis L. Butler, Director of Public Works

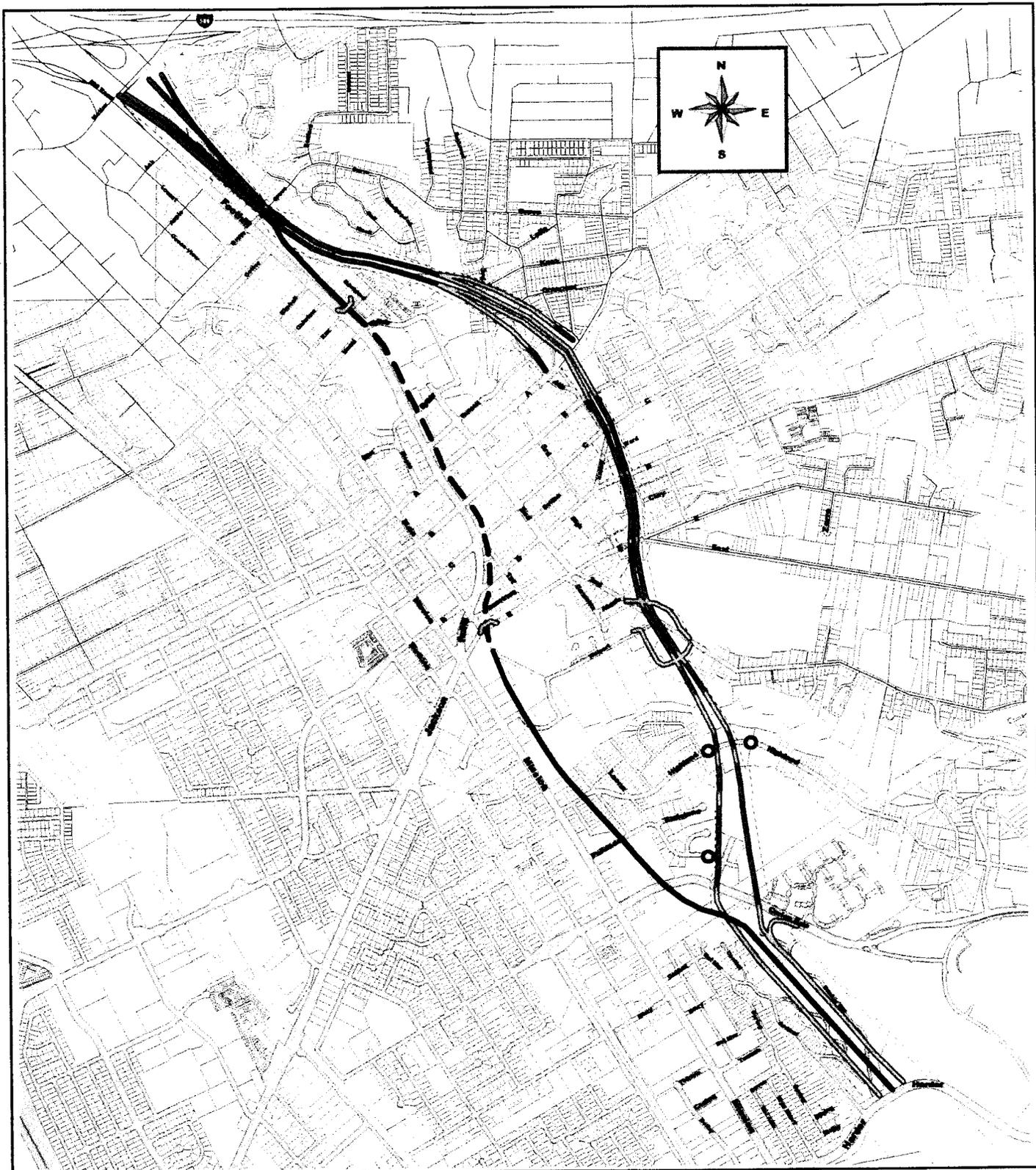
Approved by:



Jesús Armas, City Manager

Exhibit A: Figure 1- Final Report Evaluation of Route 238 Bypass Contingency Plan

Exhibit B: Chapter 8 - Final Report Evaluation of Route 238 Bypass Contingency Plan



ROUTE 238 - 580 to Harder

Caltrans Proposed Route

-  4 Lane Expressway
-  Ramps
-  Shoulders (Roadway)
-  Structures (Bridge)
-  Cul-de-sac
-  Fill

Contingency Plan

-  Centerline Alignment
-  Underground Section
-  Tunnel Entrance

**ROUTE 238
CONTINGENCY PLAN
580 to Harder**

Figure 1



Exhibit A

8. CONTINGENCY PLAN OPTIONS CONSIDERED

8.1 Description of Design Options

Five alignment options were evaluated during the Contingency Plan Feasibility Study. The five options are described below and summarized in Table 8-1. Plan, profile and typical sections for the options are provided in Appendix A.

Table 8-1
Contingency Plan Options Considered

Options	Method of Tunnel Construction	Tunnel Lanes	Foothill Blvd. Lanes	Tunnel Alignment
1. Four-lane Tunnel/ Four-lane Foothill	Cut and Cover	4	4	Under East Half of Foothill
2. Deep Tunnel	Mined	4	4	Under Foothill
3. East of Foothill	Cut and Cover	4	6	East of Foothill
4. Six-lane Tunnel/ Four-lane Foothill (Preferred)	Cut and Cover	6	4	Under East Half of Foothill
5. Six-lane Tunnel/ Four-lane Foothill	Cut and Cover	6	4	Fully Under Foothill

The principal feature of **Option 1** is a **Four-Lane Tunnel** and southerly expressway extension to Harder Road. The 4-lane tunnel would be constructed partially outside the Foothill Boulevard right-of-way to minimize impact on existing traffic and businesses during construction and to open redevelopment opportunities for properties east of Foothill Boulevard. Foothill Boulevard would be reconstructed as a four-lane arterial street with left turn pockets, widened sidewalks, and on-street parking.

The distinguishing characteristic of **Option 2** is a 4-lane **Deep (Mined) Tunnel** under Foothill Boulevard. The vertical alignment for this alternative descends to a depth of approximately 90 feet (27.5 m) below Foothill Boulevard to permit use of mining technology to construct the tunnel in a manner which minimizes impact to surface land uses and associated right-of-way acquisition requirements. Cut-and-cover construction would be used in ramping down/up from the deep tunnel segment. Foothill Boulevard would be reconstructed as a four-lane arterial street with left turn pockets, widened sidewalks, and on-street parking. The Option 2 alignment outside the tunnel is the same as for Option 1.

The principal feature of **Option 3** is a four-lane cut-and-cover tunnel constructed **Entirely East of Foothill Boulevard**. The horizontal alignment for this alternative has been placed outside the footprint of Foothill Boulevard in order to minimize slope retention during construction (the cut-and-cover concrete box structure would be constructed in a trench without shoring adjacent ground). Foothill Boulevard would remain a six-lane arterial with left turn prohibitions, narrow sidewalks and on-street parking. The Option 3 alignment outside the tunnel is the same as for Option 1.

Option 4 features a **Six-Lane Cut-and-Cover Tunnel, Partially Under Foothill Boulevard**. The six-lane tunnel with four-lane Foothill Boulevard is on the same basic alignment as Option 1; however, it would have greater traffic carrying capacity through the downtown area. The Option 4 alignment outside the tunnel is the same as Option 1. Six lanes have been transitioned to four lanes south of the Carlos Bee Boulevard Interchange.

Option 5 is a **Six-Lane Cut-and-Cover Tunnel, Entirely Under Foothill Boulevard**. To fit the six-lane tunnel within existing right-of-way underneath Foothill Boulevard will require elimination of roadway shoulders within the tunnel (an exception from Caltrans design standards) and will require "top down" construction to maintain traffic flow on Foothill Boulevard over tunnel construction. The Option 5 alignment outside the tunnel is the same as Option 1. Six lanes have been transitioned to four lanes south of the Carlos Bee Boulevard Interchange.

A Grade-Separation Structure at Foothill/Jackson/Mission could be added to Options 1 through 5. (This add-on grade-separation structure was referred to in the public workshop as Option 6.) Mission Boulevard would be raised approximately 10 feet while Foothill/Jackson would be lowered approximately 10 feet. The Foothill/Mission Grade Separation and proposed two-lane ramps into/out of the tunnel east of Mission Boulevard will facilitate greater traffic flow between the Route 238 tunnel and Jackson Street.

Table 8-2 compares the Contingency Plan options with respect to compliance with Caltrans design standards.

**Table 8-2
Exceptions from Caltrans Design Standards**

Caltrans Standard (HDM, 5th Edition)	Option 1 Four-lane Tunnel, Partially Under Foothill	Option 2 Deep Tunnel	Option 3 East of Foothill	Option 4 Six-lane Tunnel, Partly Under Foothill (Preferred)	Option 5 Six-lane Tunnel, Fully Under Foothill
Shoulder Widths: 5 ft. (1.5 m) Inside; 10 ft. (3.0 m) Outside: Ref. Sec.302.1, Table 302.1					In Tunnel, Inside Shoulders 2 ft (0.6 m); Outside Shoulders 4 ft. (1.2 m)
Grades: 4 % on Mainline: Ref. Sec. 204.3, Table 204.3	6 % Entering Tunnel; 8 % South of Carlos Bee	6 % Entering Tunnel; 8 % South of Carlos Bee	6 % Entering Tunnel; 8 % South of Carlos Bee	6 % Entering Tunnel; 8 % South of Carlos Bee	6 % Entering Tunnel; 8 % South of Carlos Bee
Median Width (Advisory): 36 ft. (10.8 m) Ref. Sec. 305.1(1)(a)	In Tunnel 13 ft. (4.0 m)	In Tunnel 35 ft. (10.6 m)	In Tunnel 13 ft. (4.0 m)	In Tunnel 13 ft. (4.0 m)	In Tunnel 7 ft. (2.1 m)

Note: The Foothill/Jackson Grade Separation (referred to in public workshop as Option 6) is believed to fully comply with Caltrans Design Standards for Conventional Roadway.

8.2 Cost Comparison

Table 8-3 compares estimated costs for the Contingency Plan options. Appendix B provides a detailed breakdown of the estimates for Options 1, 3, 4, and the grade separation. Options 2 and 5 were withdrawn from consideration prior to detailed cost estimation. Preliminary costs developed for Options 2 and 5 have been adjusted for internal consistency and are shown here for comparative purposes.

8.3 Traffic Comparison

Table 8-4 compares traffic characteristics for the Contingency Plan options.

8.4 Environmental Comparison

Table 8-5 compares environmental impacts for the Contingency Plan options.

8.5 Public Open House/Community Workshop

Introduction—The City of Hayward hosted an Open House and Community Workshop on Tuesday, July 31, 2001, to discuss the Route 238 Bypass Contingency Plan, and to obtain public input on the feasibility study. Specifically, the workshop served as an opportunity to identify key issues related to the Plan overall and to offer feedback on a series of preliminary design options. Approximately 125 people attended the event, held at Centennial Hall in downtown Hayward (the workshop sign-in sheets have been included in Appendix G).

Jesús Armas, the City Manager of Hayward, welcomed participants and presented the purpose of the workshop. Paul Holley, of Parsons Transportation Group, provided an overview of the Contingency Plan project, including a brief description of each of the options. The project overview was followed by an opportunity for participants to ask questions about the information presented.

Appendix G contains a record of public comments expressed at the workshop.

Table 8-3
Cost Estimates (in Millions of Dollars)

	Option 1 Four-lane Tunnel, Partially Under Foothill	Option 2 Deep Tunnel	Option 3 East of Foothill	Option 4 Six-lane Tunnel, Partly Under Foothill (Preferred)	Option 5 Six-lane Tunnel, Fully Under Foothill
A. Site Preparation	\$5.2	\$3	\$5.1	\$5.2	\$5
B. Tunnel					
• Tunnel Approach ("U") Structure	\$9.8	\$10	\$10.1	\$11.7	\$10
• Cut-and-Cover Concrete Box	72.0	18	77.6	85.7	73
• Mined Tunnel	--	154	--	--	--
• Tunnel Systems-Ventilation, Power, Safety, etc.	35.0	35	346.1	48.9	35
• Tunnel Construction—Excavation, Dewatering, Temporary Decking, Waterproofing, Backfilling, Surface Restoration	<u>67.2</u>	<u>18</u>	<u>61.2</u>	<u>73.5</u>	<u>75</u>
• Tunnel Subtotal	184.0	235	185.0	219.8	1930
C. Bridges	16.3	16	14.3	16.3	16
D. Roadway—Grading, Paving, Signing, Landscaping	37.8	37	37.1	25.1	25
E. Construction Contingency—30 % of A-D	73.0	87	72.4	79.9	72
F. Right of Way—Real Estate Acquisition, Easements	138.4	122	137.0	141.4	122
G. Other Implementation Costs—Project Administration, Environmental, Design, Permits	59.0	59	55.6	61.3	59
H. Mitigation					
• Foothill/Jackson/Mission Grade Separation*	23.9	23.9	23.9	23.9	23.9
• Carlos Bee/Mission Improvements	2.0	2.0	2.0	2.0	2.0
• Harder/Mission Improvements	2.0	2.0	2.0	2.0	2.0
• Mitigation Subtotal	27.9	27.9	27.9	27.9	27.9
Total	\$534.5	\$615	\$530.4	\$577.0	\$548
Escalated Total (8 Years at 3 %)	\$677.0	\$779	\$671.8	\$730.8	\$694

Source: See Appendix B for detailed cost estimates for Options 1, 3, 4 and the grade separation. Detailed cost estimates were not developed for Options 2 and 5; cost estimates shown are preliminary estimates, adjusted for internal consistency.

*Estimate is for incremental cost of Foothill/Jackson/Mission grade separation in lieu of at grade intersection improvements assumed in Options 1-5.

**Table 8-4
Comparison of Traffic Characteristics**

	Option 1 Four-lane Tunnel/ Four-lane Foothill	Option 2 Deep Tunnel	Option 3* East of Foothill	Option 4 Six-lane Tunnel/ Four-lane Foothill	Option 5 Six-lane Tunnel/ Four-lane Foothill Fully Under Foothill
Hourly Tunnel Traffic Capacity, Per Direction	3,600 to 3,800 vehicles	3,600 to 3,800 vehicles	3,600 to 3,800 vehicles	5,400 to 5,700 vehicles	5,400 to 5,700 vehicles
Hourly Tunnel Traffic Volume, Peak Direction PM	3,227	3,227	3,227	4,991	4,991
Foothill Blvd North of A Street, Peak Hour Volume (AM/PM)	1,454/1,499	1,454/1,499	1,454/1,499	1,054/1,362	1,054/1,362
Mission Blvd North of Carlos Bee, Peak Hour Volume (AM/PM)	1,312/1,385	1,312/1,385	1,312/1,385	1,213/1,350	1,213/1,350

In option 3, Foothill Boulevard remains as a six-lane facility. Forecasts were not developed for this option. Theoretically, volumes for this option would be similar to volumes for Option 1; however, they would most likely be somewhat lower in the tunnel and higher on Foothill Boulevard to reflect increased capacity along Foothill Blvd.

**Table 8-5
Preliminary Comparison of Environmental Impacts of Project Options**

	Option 1 Four-lane Tunnel/ Four-lane Foothill	Option 2 Deep Tunnel	Option 3 East of Foothill	Option 4 Six-lane Tunnel/ Four-lane Foothill	Option 5 Six-lane Tunnel/ Four-lane Foothill Fully Under Foothill
Wetlands	Impact at San Lorenzo Creek, Ward Creek, 2 unnamed drainages	Avoids impact at San Lorenzo Creek	Greater impact at San Lorenzo Creek	Impact at San Lorenzo Creek is greater than Base Case, lesser than Option 3.	Impact at San Lorenzo Creek is less than Base Case, greater than Option 2.
Special-Status Species	Possible impact at San Lorenzo Creek, Ward Creek 2 unnamed drainages, chaparral and non-native grasslands.	Avoids impact at San Lorenzo Creek	Greater impact at San Lorenzo Creek	Impact at San Lorenzo Creek is greater than Base Case, lesser than Option. 3.	Impact at San Lorenzo Creek is substantially less than Base Case, greater than Option. 2.
Parklands	Impact to San Lorenzo Creek parkland, Memorial Park, and Julio Bras Park.	Avoids impact at San Lorenzo Creek and Julio Bras Park	Greater impact at San Lorenzo Creek	Impact at San Lorenzo Creek is greater than Base Case, lesser than Option. 3.	Impact at San Lorenzo Creek is substantially less than Base Case, greater than Option. 2.
Cultural Resources	Impact to DeAnza Campsite 98, Memorial Park resources, San Lorenzo Creek, Ward Creek, two unnamed drainages.	Avoids impact to DeAnza Site 98 and San Lorenzo Creek	Greater impact at San Lorenzo Creek.	Impact at San Lorenzo Creek is greater than Base Case, lesser than Option 3.	Impact at San Lorenzo Creek is substantially less than Base Case, greater than Option 2.

**Table 8-5
Preliminary Comparison of Environmental Impacts of Project Options**

	Option 1 Four-lane Tunnel/ Four-lane Foothill	Option 2 Deep Tunnel	Option 3 East of Foothill	Option 4 Six-lane Tunnel/ Four-lane Foothill	Option 5 Six-lane Tunnel/ Four-lane Foothill Fully Under Foothill
Relocations	Relocations required the length of the project, including businesses, residences, and one house of worship.	Substantially fewer relocations of businesses and residences along Foothill Boulevard.	Extent of relocations along Foothill Blvd. would likely be comparable to that of Option 1.	Relocations not substantially different from Option 1.	Substantially fewer relocations along Foothill Boulevard, when compared to Option 1.
Noise	Construction noise impacts throughout project. Long-term noise impacts to adjacent sensitive receptors at north and south ends of project.	Substantially lesser construction noise impacts in tunnel vicinity.	Impacts would not differ substantially from Option 1.	Impacts would not differ substantially from Option 1.	Businesses remaining on Foothill Blvd. would be subject to construction noise. However, lesser impacts to next "tier" of properties.
Air Quality	Air quality benefits may occur if congestion is relieved. Local impacts at tunnel vents. Construction impacts, including demolition and possible asbestos.	Substantially lesser construction air quality impacts in tunnel vicinity.	Impacts would not differ substantially from Option 1.	Impacts would not differ substantially from Option 1.	Businesses remaining on Foothill Blvd. would be subject to construction air quality impacts. However, lesser impacts to next "tier" of properties, and fewer demolitions means less potential for asbestos exposure.

**Table 8-5
Preliminary Comparison of Environmental Impacts of Project Options**

	Option 1 Four-lane Tunnel/ Four-lane Foothill	Option 2 Deep Tunnel	Option 3 East of Foothill	Option 4 Six-lane Tunnel/ Four-lane Foothill	Option 5 Six-lane Tunnel/ Four-lane Foothill Fully Under Foothill
Hazardous Waste	Demolition of properties throughout project, including gas stations. Likely occurrence of aerially-deposited lead in soils and lead paint in buildings.	Avoids some gas station takes. Avoids demolition of other buildings that may have contamination, including lead paint.	Impacts would not differ substantially from Option 1.	Impacts would not differ substantially from Option 1.	Avoids some gas station takes. Avoids demolition of other buildings that may have contamination, including lead paint.

Community members in attendance were then asked to participate in small group sessions to discuss the Contingency Plan options and process. Several community members suggested that they preferred to have this discussion among the large group. Lou Hexter, of MIG, Inc., explained that the format of the small group sessions was designed to provide an open dialogue between the public and members of the project team. The size of the groups would ensure everyone received an opportunity to offer their concerns or suggestions. Small group participants received handouts illustrating each of the six options (see Appendix F for copies of handouts).

Four breakout group sessions were conducted during the workshop. Each group discussion was facilitated by an MIG staff person who was accompanied by a representative from the City Engineering and Transportation Division or Parsons Transportation Group able to provide participants with technical information about the Plan. The following questions served as starting points for the discussion:

- *Should the study consider additional evaluation factors?*
- *How well does the Contingency Plan address traffic issues?*
- *What do you think are the most important things that should guide the decision-making process regarding the Contingency Plan?*

In addition, participants were asked to review and discuss the strengths and weaknesses of each option during the small group session.

Following the small group sessions, participants reconvened into the large meeting room to hear reports from the other groups about their key issues. These small group reports, along with comments heard during the small group sessions, received on comment sheets and submitted in follow-up letters, have been summarized below (see Appendix F for copies of comment sheets and letters). The comments have been grouped by each of the major areas of concern regarding the development of the Contingency Plan.

Evaluation Criteria--Participants were asked to review the evaluation criteria listed on the comment sheet and to provide feedback on the proposed evaluation criteria. In particular, participants were asked if there were any additional factors that should be used during technical studies to be conducted by the consultants. Participants' suggestions are listed below. The numbers in parentheses following each factor represents the frequency at which the factor was suggested.

- Economic (5)
- Disruptions to the Area (4)
- Impacts on California State University at Hayward (2)
- Future Growth Impacts (1)
- Encourages Alternative Transit Solutions (1)

Traffic Issues—Overall, participants felt that insufficient information about each option was presented and, therefore, it was difficult to comprehend the potential impacts of the Contingency Plan on traffic. However, many participants suggested that a bypass must include six-lanes in order to maximize traffic and congestion mitigation. Participants were concerned with both the short-term and long-term impacts of the Contingency Plan on traffic. For example, construction of the bypass would severely impact travel throughout the proposed project area for several years. The Contingency Plan does not address the impacts of growth in the area related to traffic, which would be multiplied without the implementation of infrastructure and transit enhancements. Participants reiterated that they had approved the preferred alignment due to its design and alleviation of traffic congestion.

Key Issues—Participants were asked to provide the project team with the three most important issues that the study should address in order to allow decision makers to assess the feasibility of the Contingency Plan. Participants wrote their top three issues on the comment sheets and discussed these issues during the small group sessions. At the end of the small group sessions, participants highlighted the most common issues heard during the discussion. The common issues from each small group were then reported to the large group at the end of the workshop. The following issues were revealed during the small group reports.

- Address safety concerns among the community, particularly, due to seismic conditions in the project area.
- Enhance traffic capacity to mitigate traffic and congestion. The plan must include a 6-lane tunnel and alleviate traffic and congestion similar to the voter approved plan.
- Consider future traffic demand including traffic flow.
- Analyze cost versus benefits and consider the cost of right-of-way acquisitions.
- Evaluate the cost benefits of surface improvements and impact on traffic and congestion.
- Assess potential environmental impacts.
- Consider impacts on regional land use and increase opportunities for regional integration.
- Identify expected disruptions to the public and inform community members about the expected disruptions such as traffic impacts during construction.
- Identify specific properties to be impacted by surface improvements.
- Provide the public with information about the projected timeline including planning, litigation, and construction processes.

- Involve key interest groups and community representatives throughout planning and development processes to enhance efficiency and minimize opportunities for legal action.
- Determine the feasibility of each option proposed during the development of the Contingency Plan.
- Mitigate the “slicing and dicing” of Hayward resulting from large traffic thoroughfares.
- Develop public transportation improvements for implementation in the project area.
- Compensate residents and businesses to be negatively effected by the implementation of the bypass (i.e., tax increase exemptions).
- Address the infrastructure needs in the community.

General Comments on the Contingency Plan—Among the Contingency Plan options presented to workshop participants, support was expressed for the options that included a 6-lane tunnel with shoulders due to its positive impacts on traffic capacity and safety. Options that proposed construction in the existing right of way were also favored in order to reduce the extent of surface disruption, required land acquisitions, and negative impacts on surrounding property values. Participants also supported the options that provided opportunities for surface redevelopment. The following are general comments to be considered during the further development of bypass options:

- Reassess need for the development/construction of a bypass based on current traffic and congestion.
- Recognize community support of options that connect to I-580 and reduce through traffic.
- Minimize disruptions to traffic flow and adjacent businesses on Foothill Blvd during construction.
- Determine the cost of the “total” project (Contingency Plan plus Stages 2 and 3 of the Bypass).
- Determine use of right of way acquired by Caltrans for the voter-approved bypass if not used for proposed options.
- Assess the amount of property value depreciation for homeowners and, in particular, properties located on or near Margaret Drive, Gail Drive and Redstone Drive.
- Determine the impact to each property (businesses and residences) on or adjacent to Foothill Blvd.
- Evaluate the environmental impacts in the surrounding areas including Memorial Park, Ward Creek, and the hills.

- Conduct comprehensive studies regarding tunnel design elements to ensure appropriate width, lighting, drainage, etc. and consider City policies regarding trucks in tunnels.
- Design tunnels to release traffic onto Mission Blvd. and Jackson Street.
- Assess benefits of landscaped medians compared to loss of traffic lanes on Foothill Blvd.
- Identify roles and responsibilities regarding future maintenance of tunnels, medians, and parks.
- Extend bypass to Carlos Bee Blvd. (not Harder Road).
- Consider building a freeway to alleviate traffic from San Mateo Bridge and locate away from central Hayward.
- Construct entire bypass as a tunnel.
- Maintain access from local streets including A, B, C, and D Streets.
- Determine appropriate locations for traffic signals.
- Consider City plans to beautify Mission Blvd. during the development of options.
- Design options to force traffic onto Route 238 and I880.
- Consider widening exit and entry ramps on Route 238 and I880 to minimize back-ups.
- Consider widening Mission and Foothill Boulevards to mitigate traffic and congestion problems.
- Locate project in an area of the City that needs to be redeveloped.
- Protect landmark properties such as the Plunge, YMCA, nearby schools and other important community resources.
- Study additional options such as an east-west connection to Route 238 via Meekland and Cherryland or conversion of Western Blvd. into an expressway.

Comments Related To Specific Options—Comments specific to each of the options presented during the community workshop are summarized below. Option 4 and 6 appeared to have the most support for the following reasons:

- Option 4 most effectively improves traffic capacity with minimal negative impacts in the project area.
- Option 6, providing a grade separation between Foothill and Mission Boulevards, offers good and safe access from local streets and could be applied to any of the 5 previous options.

Option 1—Base Case

Strengths

Provides redevelopment opportunities including bike/pedestrian networks, park enhancements, and landscaped medians.

Ensures minimal environmental impacts (i.e., noise, vibration, etc.)

Weaknesses

Requires additional right of way.

Decreases surrounding property values of businesses and residents.

Requires further study of environmental impacts (i.e., the Plunge, Ward Creek, noise, exhaust, vibration, etc.)

Does not adequately address traffic capacity.

Appears to be an inefficient design.

Raises safety concerns particularly due to seismic conditions in area.

Appears to be a weaker structural concept compared to bored tunnel.

Option 2—Deep Tunnel

Strengths

Offers an option constructed in the existing right of way.

Presents minimal surface disruption during construction.

Reduces length of time to construct bypass.

Reduces impact on utilities due to depth of construction.

Appears to be strong structural concept due to rounded design of tunnel.

Weaknesses

Does not provide opportunities for redevelopment.

Seems to be a costly design due to boring of tunnel.

Does not adequately address traffic capacity.

Negatively impacts surrounding property owners and local access.

Assess impacts related to the construction of option under a creek.

Requires further study of environmental impacts (i.e., the Plunge, Ward Creek, noise, exhaust, vibration, etc.)

Creates steeper grades at both ends which reduces visibility upon entering the tunnel and presents a safety issue.

Option 3—Tunnel East of Foothill Blvd./Six-Lane Foothill Blvd.

Strengths

Provides redevelopment opportunities including bike/pedestrian networks, park enhancements, and landscaped medians.

Locates bypass east of Foothill Blvd. minimizing disruption on the major roadway.

Improves traffic capacity.

Weaknesses

Locates bypass outside of the existing right of way.

Requires acquisition of adjacent land.

Reconstructs Foothill Blvd. as a 6 -lane roadway, which increases the amount of traffic and related safety concerns for pedestrians and bicyclists.

Constructs tunnel as a 4 -lane roadway only.

Decreases tax base due to land acquisitions.

Negatively impacts surrounding property owners including residents and businesses.

Option 4—Six-Lane Tunnel (Partially Under Foothill Blvd.)/Four-Lane Foothill Blvd.

Strengths

Improves traffic capacity.

Provides redevelopment opportunities including bike/pedestrian networks, park enhancements, and landscaped medians.

Locates bypass partially east, which requires minimal land acquisition.

Represents an efficient design in conjunction with Option 6.

Weaknesses

Consider parking needs for adjacent merchants and businesses.

Option 5—Six-Lane Tunnel (Fully Under Foothill Blvd.)/Four-Lane Foothill Blvd.

Strengths

Locates bypass in the existing right of way.

Weaknesses

Does not provide opportunities for redevelopment.

Lacks shoulders in the tunnel.

Presents serious safety concerns (i.e., trucks in tunnel).

Negatively impacts surrounding property owners including residents and businesses.

Option 6—Foothill/Mission Grade Separation (Potential Addition to Other Options)

Strengths

Provides good and safe access from local streets due to grade separation design.

Represents an opportunity to deliver traffic from downtown and intersections at Jackson Street/Route 92 and Mission/Foothill Blvd. to tunnel proposed in other options.

Offers opportunity to replace complex signal system with improved signalization.

Presents a mitigation measure that can be constructed without the other proposed options, impacting the road surface only.

Weaknesses

Negatively impacts traffic flow on Mission Blvd.

Requires additional studies regarding safety and, particularly, emergency response needs.

Does not adequately address traffic capacity.

8.6 Rationale for Preferred Plan

Immediately following the July 31, 2001 Community Workshop, and based upon workshop discussion and findings from technical analysis, Options 2 and 5 were removed from further consideration. Reasons for removing Options 2 and 5 were:

- Option 2 is the least cost-effective of the tunneling options. It involves boring through mixed rock and earth strata, meaning cost-efficient tunneling techniques (ATM) could not be used. Resulting construction costs would be higher than other

tunnel options. Even with deep tunnel right-of-way cost savings, this option is the most expensive of the 4-lane tunnel options.

- Option 5 could be particularly disruptive in that construction would be “top down”, involving excavation and construction in close proximity to existing buildings, beneath temporary decking along Foothill Boulevard. Considerable impact to traffic (temporary lane closures, detours) and impacts on properties abutting the tunnel (vibration, pedestrian and access) can be expected.

Following completion of traffic analysis in late September, it was concluded by City staff that a 6-lane tunnel would be required to carry 2025 traffic through the corridor. Consequently, Options 1 and 3 featuring a 4-lane tunnel were removed from further consideration. The other 4-lane tunnel option (#2) had previously been removed from consideration from the standpoint of cost-effectiveness.

By process of elimination, Option 4 —six lanes in tunnel, partially offset to the east of Foothill Boulevard—became the Preferred Contingency Plan. Traffic analysis did indicate the need for the Foothill/Jackson/Mission grade separation (referred to as Option 6 in the public workshop) as an add-on to Option 4 in order to mitigate traffic congestion at the tunnel portals and to/from Jackson Street. Intersection improvements at Carlos Bee/Mission and Harder/Mission were similarly needed with Option 4 to mitigate traffic congestion accessing the Contingency Plan alignment.

Due to the length of the additional exhibits, they are not available for website viewing. The report, in its entirety, is available in the City Clerk's Office, Engineering Division, and at the Main Library.