TECHNICAL MEMORANDUM

Date: October 28, 2004
To: Brian Stryzek, Kava Massih Architects
From: Kathrin Tellez, Fehr & Peers
Subject: West Berkeley Bowl Access Study

The purpose of this memorandum is to evaluate the potential effects of six access alternatives for the proposed West Berkeley Bowl to be located at the southwest corner of the Heinz Avenue/9th Street intersection. As currently proposed, vehicle access to the site would occur from three locations, as shown on Figure 1:

- The first driveway would connect the project parking lot to Heinz Avenue (via 9th Street).
- The second driveway would be at the 9th Street extension, north of Anthony Street.
- The third driveway would be offset with Anthony Street.

All driveways are proposed to provide unrestricted access in and out of the project site. The analysis presented in the Draft Report Traffic Impact Analysis - West Berkeley Bowl (Fehr & Peers, July 2004) assumed this access scheme in the intersection and roadway segment analysis.

City of Berkeley staff has requested an evaluation of six access alternatives to the West Berkeley Bowl site:

A) 9th Street south of Heinz Avenue one-way southbound
B) Northern driveway exit only
C) No northbound through traffic at the 9th Street/Heinz Avenue intersection
D) No northbound traffic on 9th Street, north of Heinz Avenue
E) Close northern driveway
F) Northern driveway entry only

One of the primary reasons for the access restriction would be to reduce the potential for neighborhood cut-through traffic on 9th Street, a designated bicycle boulevard. Cut-through traffic is traffic that does not have an origin or destination in the neighborhood. Information contained in the July 2004 traffic study was utilized to complete this analysis. Traffic volumes were reassigned based on the access alternatives. PM peak hour operations of the study intersections, and weekday daily and Saturday operations of the study roadway segment were evaluated for the Existing Plus Project and Cumulative Plus Project scenarios for the six access alternatives listed above. Existing and Cumulative Without Project PM peak hour traffic volumes are presented on Figures 2 and 3.

Results of the analysis are summarized in Table 1, which shows the traffic impacts and mitigation measures associated with each access alternative. With the proposed access scheme, the proposed project would result in a significant impact at the San Pablo Avenue/Heinz Avenue intersection. Installation of a traffic signal would mitigate this impact. The proposed access scheme would not divert existing traffic or effect the drop-off/pick-up operations at the East Bay French-American School, located at the northeast corner of the 9th Street/Heinz Avenue intersection.
TABLE 1
IMPACT AND MITIGATION SUMMARY

<table>
<thead>
<tr>
<th>Access Alternative</th>
<th>San Pablo Avenue/Heinz Avenue</th>
<th>Ashby Avenue/7th Street</th>
<th>Ashby Avenue/San Pablo Avenue</th>
<th>Traffic Diverted to 8th or 10th Streets and Changes to School Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed Access</td>
<td>Signalize for existing &amp; cumulative conditions¹</td>
<td>Not impacted</td>
<td>Not impacted</td>
<td>No</td>
</tr>
<tr>
<td>Alternative A</td>
<td>Signalize for cumulative conditions²</td>
<td>Install southbound right-turn overlap signal phase for cumulative conditions</td>
<td>Construct dual northbound left-turn lanes for cumulative conditions</td>
<td>No</td>
</tr>
<tr>
<td>Alternative B</td>
<td>Signalize for existing &amp; cumulative conditions</td>
<td>Not impacted</td>
<td>Construct dual northbound left-turn lanes for cumulative conditions</td>
<td>No</td>
</tr>
<tr>
<td>Alternative C</td>
<td>Signalize for existing &amp; cumulative conditions</td>
<td>Not impacted</td>
<td>Not impacted</td>
<td>Occurs in existing &amp; cumulative scenarios</td>
</tr>
<tr>
<td>Alternative D</td>
<td>Signalize for existing &amp; cumulative conditions</td>
<td>Not impacted</td>
<td>Not impacted</td>
<td>Occurs in existing &amp; cumulative scenarios</td>
</tr>
<tr>
<td>Alternative E</td>
<td>Signalize for cumulative conditions</td>
<td>Install southbound right-turn overlap signal phase for cumulative conditions</td>
<td>Construct dual northbound left-turn lanes for cumulative conditions</td>
<td>No</td>
</tr>
<tr>
<td>Alternative F</td>
<td>Signalize for cumulative conditions</td>
<td>Install southbound right-turn overlap signal phase for cumulative conditions</td>
<td>Construct dual northbound left-turn lanes for cumulative conditions</td>
<td>No</td>
</tr>
</tbody>
</table>

Notes:
¹ Significant project impact in Existing Plus Project and Cumulative Plus Project scenarios.
² Significant project impact in Cumulative Plus Project Scenario only.


For example, under access Alternative A, the signalization of the Heinz Avenue/San Pablo Avenue intersection would be warranted in the cumulative condition, and secondary impacts would occur at the 7th Street/Ashby Avenue and Ashby Avenue/San Pablo Avenue intersections. Installation of a southbound right-turn overlap phase at the 7th Street/Ashby Avenue intersection and construction of dual northbound left-turn lanes at the Ashby Avenue/San Pablo Avenue intersection would reduce these secondary impacts to a less-than-significant level.

Implementation of Access Alternatives C or D would divert existing traffic from 9th Street that could potentially use 8th or 10th Streets to the north of the project site.

Existing conditions results are presented in Table 2 for the intersection analysis and Table 3 for the roadway segment analysis. Cumulative conditions results are presented in Table 4 for the intersection analysis and Table 5 for the roadway segment analysis. Results for each access alternative are discussed below.

Consistent with the July 2004 traffic study, this analysis does not include the pass-by trip reduction in order to present a conservative analysis.
### TABLE 2
**EXISTING AND EXISTING PLUS PROJECT**
**PM PEAK HOUR INTERSECTION LEVEL OF SERVICE SUMMARY**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Delay</td>
<td>LOS</td>
<td>Delay</td>
<td>LOS</td>
<td>Delay</td>
<td>LOS</td>
<td>Delay</td>
<td>LOS</td>
<td>Delay</td>
</tr>
<tr>
<td>7th Street/Heinz Avenue</td>
<td>Signal</td>
<td>9 Sec.</td>
<td>A</td>
<td>9 Sec.</td>
<td>A</td>
<td>9 Sec.</td>
<td>A</td>
<td>9 Sec.</td>
<td>A</td>
<td>10 Sec.</td>
</tr>
<tr>
<td>9th Street/Heinz Avenue</td>
<td>AWSC</td>
<td>8 Sec.</td>
<td>A</td>
<td>8 Sec.</td>
<td>A</td>
<td>9 Sec.</td>
<td>A</td>
<td>9 Sec.</td>
<td>A</td>
<td>9 Sec.</td>
</tr>
<tr>
<td>San Pablo Avenue/Heinz Avenue</td>
<td>SSSC</td>
<td>25 Sec.</td>
<td>D</td>
<td>&gt; 50 Sec.</td>
<td>F</td>
<td>28 Sec.</td>
<td>D</td>
<td>&gt; 50 Sec.</td>
<td>F</td>
<td>&gt; 50 Sec.</td>
</tr>
<tr>
<td>7th Street/Ashby Avenue</td>
<td>Signal</td>
<td>42 Sec.</td>
<td>D</td>
<td>46 Sec.</td>
<td>D</td>
<td>53 Sec.</td>
<td>D</td>
<td>46 Sec.</td>
<td>D</td>
<td>46 Sec.</td>
</tr>
<tr>
<td>9th Street/Ashby Avenue</td>
<td>Signal</td>
<td>9 Sec.</td>
<td>A</td>
<td>13 Sec.</td>
<td>B</td>
<td>15 Sec.</td>
<td>B</td>
<td>13 Sec.</td>
<td>B</td>
<td>13 Sec.</td>
</tr>
<tr>
<td>San Pablo Avenue/Ashby Avenue</td>
<td>Signal</td>
<td>30 Sec.</td>
<td>C</td>
<td>36 Sec.</td>
<td>D</td>
<td>51 Sec.</td>
<td>D</td>
<td>45 Sec.</td>
<td>D</td>
<td>39 Sec.</td>
</tr>
</tbody>
</table>

Notes: 1 Signal = Signalized intersection; AWSC = All-way stop-controlled intersection; SSSC = Side-street stop-controlled intersection.  

### TABLE 3
**EXISTING AND EXISTING PLUS PROJECT**
**DAILY ROADWAY SEGMENT ANALYSIS SUMMARY**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Time Period</th>
<th>Existing</th>
<th>Proposed Access</th>
<th>Existing Plus Project</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Added Volume</td>
<td>With Project</td>
</tr>
<tr>
<td>9th Street, North of Heinz Avenue</td>
<td>Weekday</td>
<td>1,700</td>
<td>+348</td>
<td>2,048</td>
</tr>
<tr>
<td></td>
<td>Saturday</td>
<td>750</td>
<td>+586</td>
<td>1,336</td>
</tr>
<tr>
<td>Potential Diversion of Existing Traffic to 8th St. or 10th St.</td>
<td>Weekday</td>
<td>--</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Saturday</td>
<td>--</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: 1 Added Volume is the sum of project traffic and diverted traffic.  
### TABLE 4
**CUMULATIVE AND CUMULATIVE PLUS PROJECT**
**PM PEAK HOUR INTERSECTION LEVEL OF SERVICE SUMMARY**

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Control</th>
<th>Cumulative Plus Project</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Proposed Access</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Access Alt. A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Access Alt. B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Access Alt. C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Access Alt. D</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Access Alt. E</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Access Alt. F</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Delay</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7th Street/Heinz Avenue</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9th Street/Heinz Avenue</td>
</tr>
<tr>
<td></td>
<td></td>
<td>San Pablo Avenue/</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Heinz Avenue</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7th Street/Ashby</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Avenue</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9th Street/Ashby</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Avenue</td>
</tr>
<tr>
<td></td>
<td></td>
<td>San Pablo Avenue/</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ashby Avenue</td>
</tr>
</tbody>
</table>

Notes: 1 Signal = Signalized intersection; AWSC = All-way stop-controlled intersection; SSSC = Side-street stop-controlled intersection.  

### TABLE 5
**CUMULATIVE (2020) WITHOUT AND WITH PROJECT**
**DAILY ROADWAY SEGMENT ANALYSIS SUMMARY**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Time Period</th>
<th>Cumulative Plus Project</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Proposed Access</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Access Alt. A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Access Alt. B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Access Alt. C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Access Alt. D</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Access Alt. E</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Access Alt. F</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Added Volume</td>
</tr>
<tr>
<td>9th Street, North of</td>
<td>Weekday</td>
<td>1,750</td>
</tr>
<tr>
<td>Heinz Avenue</td>
<td>Saturday</td>
<td>775</td>
</tr>
<tr>
<td>Potential Diversion of Existing</td>
<td>Weekday</td>
<td>--</td>
</tr>
<tr>
<td>Traffic to 8th St. or 10th St.</td>
<td>Saturday</td>
<td>--</td>
</tr>
</tbody>
</table>

Note: 1 Added Volume is the sum of project traffic and diverted traffic.  
ALTERNATIVE A – 9TH STREET SOUTHBOUND ONLY

Access Alternative A would prohibit any northbound traffic on 9th Street between the West Berkeley Bowl driveway and 9th Street. This alternative would divert existing exiting traffic from the Orchard Supply Hardware (OSH) parking lot to the Ashby Avenue driveway. Project traffic from the West Berkeley Bowl was assigned to the roadway network based on this access restriction as shown on Figure A-1 and was added to the existing and cumulative traffic volumes, adjusted to account for 9th Street southbound one-way, as shown on Figures A-2 and A-3.

Results of the intersection analysis, presented in Table 2 for the existing condition and Table 4 for the cumulative condition, indicates that with this access restriction, the near-term impact identified at the San Pablo Avenue/Heinz Avenue intersection would not occur, although the cumulative impact would remain. With the access restriction, the proposed West Berkeley Bowl project would also result in a significant impact at the 7th Street/Ashby Avenue and the San Pablo Avenue/Ashby Avenue intersections in the cumulative condition. These impacts were not identified for the proposed access scheme in the July 2004 traffic study.

Traffic signal modifications at the 7th Street/Ashby Avenue intersection to provide a southbound right-turn overlap phase would reduce this impact to a less-than-significant level. At the San Pablo Avenue/Ashby Avenue intersection, widening of San Pablo Avenue to provide dual northbound left-turn lanes would result in LOS D operations at this intersection and reduce the impact to a less-than-significant level. However, substantial right-of-way acquisition would be required to implement this measure. Therefore, this impact would remain significant and unavoidable.

The roadway segment analysis presented in Tables 3 and 5 for the Existing Plus Project and Cumulative Plus Project scenarios, respectively, shows that this access restriction would lower the amount of weekday traffic on 9th Street, north of Heinz Avenue. Weekday traffic volumes with the project would be lower than conditions without the project as there would be no northbound through traffic at the Heinz Avenue/9th Street intersection. On a Saturday, daily traffic volumes are expected to increase by approximately 115 vehicles per day (vpd) to 863. This level of traffic is lower than the 3,000-vpd threshold established as the threshold for a bicycle boulevard in the July 2004 traffic study.

Traffic increases on 8th or 10th Streets north of Heniz Avenue are not expected with this alternative as all traffic exiting West Berkeley Bowl would be directed to the Ashby Avenue/9th Street intersection.

ALTERNATIVE B – RESTRICT NORTHERN DRIVEWAY TO EXIT ONLY

Access Alternative B would restrict the northern West Berkeley Bowl Driveway to exit-only operations; no changes to exiting traffic flows in the area would occur. Inbound project traffic was assigned to the roadway network assuming the access restriction in place, as shown on Figure B-1. The project trip assignments were then added to the existing and cumulative baseline traffic volumes, as presented on Figures B-2 and B-3.

Results of the intersection analysis show that in the near-term, the significant impact at the Heinz Avenue/San Pablo Avenue intersection identified in the July 2004 study would remain. In the cumulative condition, one additional intersection, San Pablo Avenue/Ashby Avenue would be significantly impacted. Mitigation to address this impact is discussed under access Alternative A.

The roadway segment analysis presented in Tables 3 and 5 for the Existing Plus Project and Cumulative Plus Project scenarios, respectively, shows that this access restriction would result in approximately
1,900 vpd on a weekday and approximately 1,050 vpd on a Saturday on 9th Street, north of Heinz Avenue with the addition of project traffic. These volumes are lower than the 3,000-vpd threshold established for a bicycle boulevard in the July 2004 traffic study.

**ALTERNATIVE C – NO NORTHBOUND THROUGH TRAFFIC AT THE 9TH STREET/HEINZ AVENUE INTERSECTION**

Access Alternative C would prohibit any northbound through traffic at the 9th Street/Heinz Avenue intersection between the West Berkeley Bowl driveway and 9th Street. This alternative would divert existing northbound traffic exiting the OSH parking lot east or west at the intersection of 9th Street and Heinz Avenue. Project traffic from the West Berkeley Bowl was reassigned to the roadway network based on this restriction, as shown on Figure C-1, and was added to the existing and cumulative traffic volumes, adjusted to account for no northbound through movements at the 9th Street/Heinz Avenue intersection, as shown on Figures C-2 and C-3.

Results of the intersection analysis show that in the near-term, the significant impact at the Heinz Avenue/San Pablo Avenue intersection identified in the July 2004 study would remain. No additional impacts were identified in either the near-term or cumulative condition.

The roadway segment analysis presented in Tables 2 and 4 for the Existing Plus Project and Cumulative Plus Project scenarios, respectively, shows that this access restriction would reduce the amount of traffic on 9th Street, north of Heinz Avenue, with the addition of project traffic during the weekday. Traffic volumes would be lower as there would be no northbound through traffic allowed at the Heinz Avenue/9th Street intersection. On a Saturday, daily traffic volumes are expected to increase by approximately 115 vpd to 882. This level of traffic is lower than the 3,000-vpd threshold established for a bicycle boulevard in the July 2004 traffic study.

Implementation of this alternative could increase traffic on 8th or 10th Streets, as the approximately 420 vehicles per weekday and 2010 vehicles per Saturday that travel northbound through the 9th Street/Heinz Avenue intersection would be diverted to alternate routes.

**ALTERNATIVE D – INSTALL TRAFFIC BLOCKS ON NORTH LEG OF 9TH STREET**

Access Alternative D would prohibit any northbound traffic on 9th Street north of Heinz Avenue through the installation of traffic blocks, which would prohibit the northbound through, westbound right-turn and the eastbound left-turn movements at the 9th Street/Heinz Avenue intersection. The traffic blocks would allow for northbound emergency access and bicycle access on 9th Street. Project traffic from the West Berkeley Bowl was assigned to the roadway network based on this restriction, as shown on Figure D-1, and was added to the existing and cumulative traffic volumes, adjusted to account for the turning movement restrictions at the 9th Street Heinz Avenue intersection, as shown on Figures D-2 and D-3.

Results of the intersection analysis show that in the near-term, the significant impact at the Heinz Avenue/San Pablo Avenue intersection identified in the July 2004 study would remain. No additional impacts were identified in either the near-term or cumulative condition.

The roadway segment analysis presented in Tables 3 and 5 for the Existing Plus Project and Cumulative Plus Project scenarios, respectively, shows that this access restriction would reduce the amount of traffic on 9th Street, north of Heinz Avenue, even with the addition of project traffic. Traffic volumes would be lower as no traffic would be allowed to access 9th Street northbound from Heinz Avenue.
Implementation of this alternative could impact the drop-off/pick-up operations at the East Bay French-American School, located at the northeast corner of the 9th Street/Heinz Avenue intersection. Increases in traffic on 8th or 10th Streets could also be experienced with this alternative, as the approximately 950 vehicles per weekday and 420 vehicles per Saturday that access northbound 9th Street though the 9th Street/Heinz Avenue intersection would be diverted to alternate routes.

ALTERNATIVE E – CLOSE NORTHERN DRIVEWAY

Access Alternative E would remove the northern driveway, leaving the southern entrances to serve all project traffic. Project traffic was reassigned to the roadway network assuming no northern entrance, as shown on Figure E-1 and added to the Existing and Cumulative traffic volumes as shown on Figures E-2 and E-3. No other traffic on the roadway would be affected.

Results of the intersection analysis presented in Table 2 for the Existing condition and Table 4 for the Cumulative condition indicates that with this access restriction, the near-term and cumulative impacts identified at the San Pablo Avenue/Heinz Avenue intersection with the proposed access would not occur. However, in the Cumulative condition, this access restriction would result in a significant impact at the 7th Street/Ashby Avenue and the San Pablo Avenue/Ashby Avenue intersections. Mitigation measures to address these impacts are discussed under access Alternative A.

Results of the roadway segment analysis shows that without the northern driveway, the West Berkeley Bowl would not increase traffic volumes on 9th Street, north of Heinz Avenue. Travel on 9th Street north of Heinz Avenue to access the site would be circuitous and patrons would find alternative routes to the site that would not involve 9th Street.

ALTERNATIVE F – NORTHERN DRIVEWAY ENTRANCE ONLY

Access Alternative F would restrict the northern driveway to entrance only. Project traffic was assigned to the roadway network assuming entrance only through the northern driveway, as shown on Figure F-1. Existing and Cumulative Plus Project traffic volumes with this restriction are shown on Figures F-2 and F-3, respectively.

Results of the intersection analysis show that in the near-term, the significant impact identified at the Heinz Avenue/San Pablo Avenue intersection in the July 2004 study would not occur. In the cumulative condition, two additional intersections, 7th Street/Ashby Avenue and San Pablo Avenue/Ashby Avenue, would be significantly impacted. Mitigation measures to address these impacts are discussed under access Alternative A.

The roadway segment analysis shows that this access restriction would result in approximately 1,900 vpd on a weekday and approximately 1,050 vpd on a Saturday on 9th Street, north of Heinz Avenue with the addition of project traffic. These volumes are lower than the 3,000-vpd threshold established for a bicycle boulevard in the July 2004 traffic study.

CONCLUSIONS

Existing Plus Project – In the Existing Plus Project scenario, no intersection impacts in addition to those identified in the July 2004 traffic study were identified with any of the six access alternatives. With implementation of the Alternatives A, E or F, the project impact identified at the San Pablo Avenue/Heinz Avenue intersection would not occur in the Existing Plus Project scenario.
Operations of the Bicycle Boulevard on 9th Street, north of Heinz Avenue would not be impacted by any of the access alternatives in the Existing Plus Project scenario.

**Cumulative Plus Project** – In the Cumulative Plus Project scenario, Access Alternatives A, E and F would degrade intersection service levels from an acceptable level to an unacceptable level at the 7th Street/Ashby Avenue (LOS C to LOS E) and the San Pablo Avenue/Ashby Avenue (LOS D to LOS E) intersections. Access Alternative B would degrade the operations of the San Pablo Avenue/Ashby Avenue intersection from an acceptable LOS C to an unacceptable LOS E. These are considered significant impacts based on the City of Berkeley’s significance criteria.

Traffic signal modifications at the 7th Street/Ashby Avenue intersection to provide a southbound right-turn overlap phase would reduce the impact at this intersection to a less-than-significant level. At the San Pablo Avenue/Ashby Avenue intersection, widening of San Pablo Avenue to provide dual northbound left-turn lanes would result in LOS D operations at this intersection and reduce the impact to a less-than-significant level. However, substantial right-of-way acquisition would be required to implement this measure. Therefore, this impact would remain significant and unavoidable.

The primary goal of access restrictions to the West Berkeley Bowl is to reduce the potential for cut-through traffic on 9th Street, north of Heinz Avenue. Therefore, should access restrictions be imposed on the West Berkeley Bowl, access Alternatives C (no northbound through movements at the 9th Street/Heinz Avenue intersection) or D (no northbound through, westbound right, or eastbound left movements at the 9th Street/Heinz Avenue intersection) are the most effective in reducing the amount of traffic on 9th Street and would not result in any additional off-site impacts. Under both Alternatives C and D, the intersection at San Pablo Avenue and Heinz Avenue would degrade to LOS F in the Cumulative Plus Project scenario without mitigation. As discussed in the July 2004 traffic study, the project impacts could be mitigated to a less than significant level with the installation of a traffic signal at that intersection. However, the drop-off/pick-up operations at the East Bay French-American School could be negatively affected by implementation of access Alternative D and should be considered in implementation of any access restrictions. Additionally, traffic could shift to 8th or 10th streets with either Alternative C or D.

With implementation of access Alternatives A, B, E or F, additional off-site intersection impacts are expected to occur. Weekday and Saturday daily traffic volumes on 9th Street, north of Heinz Avenue would remain below the 3,000-vpd threshold established for a bicycle boulevard in the July 2004 traffic study for all access alternatives.

Operations of the Bicycle Boulevard on 9th Street, north of Heinz Avenue would not be impacted by any of the access alternatives in the Cumulative Plus Project scenario.

This completes our assessment of the access alternatives for the proposed West Berkeley Bowl. Please call if you have any questions.
NOTE: This site plan was utilized for the July 2004 analysis. The site plan has since been modified.
DAILY WITH PROJECT
TRAFFIC VOLUMES
1,464 - WEEKDAY
863 - SATURDAY

9th STREET
One-Way Southbound
South of Heinz Avenue

PROJECT
SITE

Heinz Ave.

Anthony St.

Ashby Ave.

San Pablo Ave.

West Berkeley Bowl
ALTERNATIVE A
EXISTING PLUS PROJECT TRAFFIC VOLUMES
FIGURE A-2

Legend:
xx = PM
Peak Hour
Traffic Volumes

September 2004
1925-A2
ALTERNATIVE B - CUMULATIVE (YEAR 2020) WITH PROJECT TRAFFIC VOLUMES

DAILY WITH PROJECT TRAFFIC VOLUMES
1,924 - WEEKDAY
1,068 - SATURDAY

9th STREET
Northern Driveway Exit Only

PROJECT SITE

Not to Scale

LEGEND:
xx = PM Peak Hour Traffic Volumes

West Berkeley Bowl

FIGURE B-3
DAILY WITH PROJECT TRAFFIC VOLUMES
1,464 - WEEKDAY
863 - SATURDAY

9th STREET
No Northbound Thru Traffic
at Heinz Ave./9th Street
Intersection

PROJECT
SITE

1

2

3

4

5

6

12

13

ASHBY AVE.

SAN PABLO AVE.

9th ST.

10th ST.

8th ST.

7th ST.

HEINZ AVE.

ANTHONY ST.

LEGEND:
xx = PM
Peak Hour
Traffic Volumes

EXISTING PLUS PROJECT TRAFFIC VOLUMES

ALTERNATIVE C

FIGURE C-2
DAILY PROJECT TRAFFIC VOLUMES
174 - WEEKDAY
293 - SATURDAY

9th STREET
No Northbound Traffic on 9th Street at Heinz Avenue

PROJECT SITE

Legend:
XX = PM Peak Hour Traffic Volumes

ALTERNATIVE D
PROJECT AND DIVERTED TRIP ASSIGNMENT

FIGURE D-1

West Berkeley Bowl

Fehr & Peers
TRANSPORTATION CONSULTANTS

October 2004
1925-D1
DAILY WITH PROJECT TRAFFIC VOLUMES

942 - WEEKDAY
638 - SATURDAY

9th STREET
No Northbound Traffic on 9th Street at Heinz Avenue

PROJECT SITE

LEGEND:
xx = PM
Peak Hour
Traffic Volumes

Fehr & Peers
TRANSPORTATION CONSULTANTS

EXISTING PLUS PROJECT TRAFFIC VOLUMES

ALTERNATIVE D

FIGURE D-2
DAILY WITH PROJECT TRAFFIC VOLUMES
947 - WEEKDAY
649 - SATURDAY

9th STREET
No Northbound Traffic on 9th Street at Heinz Avenue

PROJECT SITE

LEGEND:
xx = PM
Peak Hour Traffic Volumes

West Berkeley Bowl
ALTERNATIVE D - CUMULATIVE (YEAR 2020)
WITH PROJECT TRAFFIC VOLUMES

FIGURE D-3