EL CAMINO REAL CORRIDOR STUDY

Bicycle Commission Presentation
November 10, 2014
City of Menlo Park
Presentation Outline

- Study Objectives and Overview
- Existing Conditions and Survey Results
- Proposed Alternatives
- Input on Alternatives
STUDY OBJECTIVES AND OVERVIEW
Study Objectives

- Review potential transportation and safety improvements.

- Consider possible alternatives to allow for the addition of a bicycle lane or an additional through lane.

- Identify potential reconfiguration alternatives.

- Evaluate the feasibility and potential impacts of up to three (3) alternatives to improve multi-modal transportation.

- Impacts to traffic, active transportation, safety, parking and aesthetics will be addressed.

- Within the limited right-of-way available, assess safety, efficiency and convenience trade-offs between motorists and bicyclists.
Guidelines

- El Camino Real between Encinal Avenue and Sand Hill Road will be evaluated.
- Modifications to side-streets will be considered between the western side of the Caltrain tracks and the eastern side of Curtis Street-Hoover Street-Alto Lane.
- All proposed modifications should be consistent with the El Camino Real/Downtown Specific Plan.
- Only surface improvements will be considered (i.e., no grade separation or tunneling).
- Impacts (both beneficial and adverse) to all modes of travel will be considered in this study.
- Ultimate design and implementation of modifications to El Camino Real will need to meet Caltrans requirements and standards.
Study Elements

- Identify performance metrics
- Community Workshop #1 (complete)
- Document existing conditions
- Community Workshop #2 (complete)
- Develop travel demand forecasts
- Develop and analyze alternatives
- Community Workshop #3
- Prepare conceptual design plans and estimated costs for alternatives
- Based on feedback, a preferred plan will be identified
- Full design plans will be prepared for ECR/Ravenswood intersection
- Environmental analysis will be completed for the preferred plan
Community Participation Opportunities

- Completed 2 Community workshops (1 forthcoming)
- City Commission and Council Hearings
- Project website
  - www.menlopark-elcamino.com
- Online Survey
EXISTING CONDITIONS AND SURVEY RESULTS
El Camino Real Corridor Study

El Camino Real - Average Daily Traffic Volume

Average Daily Traffic Volume (Two-Way, Vehicles Per Day)

- **North**: Sand Hill Ave, Palo Alto Ave, El Camino Real, Middle Ave, Cambridge Ave, Menlo Ave
- **South**: El Camino Real, Ravenswood Ave, Roble Ave, Santa Cruz Ave, Oak Grove Ave, Genwood Ave

- **Truck traffic**: 1.5 - 2% of traffic during the afternoon
Current Conditions

Hourly Traffic Trends – ECR north of Middle Avenue
### Current Conditions

<table>
<thead>
<tr>
<th></th>
<th>Northbound</th>
<th>Southbound</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM Peak Average Travel Time</td>
<td>3:48</td>
<td>5:06</td>
</tr>
<tr>
<td>AM Peak Average Speed</td>
<td>21.5 mph</td>
<td>15.7 mph</td>
</tr>
<tr>
<td>Midday Peak Average Travel Time</td>
<td>4:35</td>
<td>3:48</td>
</tr>
<tr>
<td>Midday Peak Average Speed</td>
<td>17.5 mph</td>
<td>21.3 mph</td>
</tr>
<tr>
<td>PM Peak Average Travel Time</td>
<td>5:24</td>
<td>5:00</td>
</tr>
<tr>
<td>PM Peak Average Speed</td>
<td>14.9 mph</td>
<td>16.1 mph</td>
</tr>
</tbody>
</table>
**Current Conditions – Pedestrians & Bicyclists**

**Hourly volumes (morning – afternoon)**

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Pedestrian</th>
<th>Bicycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECR/Oak Grove Rd</td>
<td>53-88</td>
<td>20-7</td>
</tr>
<tr>
<td>ECR/Santa Cruz Ave</td>
<td>96-144</td>
<td>19-13</td>
</tr>
<tr>
<td>ECR/Ravenswood-Menlo Ave</td>
<td>35-46</td>
<td>26-25</td>
</tr>
<tr>
<td>ECR/Middle Ave</td>
<td>13-28</td>
<td>9-17</td>
</tr>
<tr>
<td>ECR/Sand Hill Rd</td>
<td>113-41</td>
<td>201-55</td>
</tr>
</tbody>
</table>
Existing Marked Crosswalks
Bicycle Facilities Plan
Current Conditions

Caltrain Menlo Park Station: Average Weekday Ridership

Train Direction

Northbound

Southbound

Average Weekday Rider Count

0

1000

Boardings

Alightings
Current Conditions

Samtrans Bus Route ECR Northbound: Average Weekday Ridership

- **Encinal Ave**
- **Glenwood Ave**
- **Oak Grove Ave**
- **Ravenswood Ave**
- **Middle Ave**
- **Cambridge Ave**

*Average Weekday Rider Count*

*Stops*

*Boardings*

*Alightings*
Current Conditions

Samtrans Bus Route ECR Southbound: Average Weekday Ridership

Average Weekday Rider Count

Stops

- Menlo College
- Valparaiso Ave
- Oak Grove Ave
- Live Oak Ave
- Middle Ave
- Cambridge Ave

Boardings
Alightings
Online Survey Results
El Camino Real Corridor Study

About the Survey
The survey was conducted online during the initial stage of the El Camino Real Corridor Study following the first community workshop. It was active between June 16 and September 12, 2014 and had a total of 309 participants.

Who took the survey?
The survey asked participants where they live and work.
- 46% LIVE in Menlo Park within 1/2 mile of the corridor
- 33% LIVE in Menlo Park, farther than 1/2 mile of the corridor
- 13% LIVE outside of Menlo Park, within 1/2 mile of the corridor
- 8% LIVE outside of Menlo Park, farther than 1/2 mile of the corridor

Why do participants travel on El Camino Real?
- 76% for shopping
- 69% are patronizing local businesses
- 56% to access Caltrain
- 51% to and from work
- 19% to and from school
- 17% for physical activity

Participants also use the corridor...
... to connect to other cities in the region
... to access the library and recreation center
... for events and children’s activities
... as an east-west crossing
... to visit friends and family

Of the Caltrain Users...
- 38% bike to Caltrain
- 34% walk to Caltrain
- 21% drive and park at Caltrain
- 7% are dropped off by another vehicle or transit

Walking to School
- 19% of participants have children who need to cross El Camino Real to get to school. Comments showed that many participants consider the corridor to be unsafe and would not allow their children to walk there alone.

How they travel on El Camino Real
- 83% regularly DRIVE
- 61% regularly BIKE
- 61% regularly WALK
- 6% regularly use local BUS TRANSIT

33% multiple times a day
14% approximately once per day
36% a few times a week
17% almost never drive

19% on a daily basis
22% several times per week
19% mostly on weekends
39% almost never bike

9% on a daily basis
25% several times per week
27% mostly on weekends
39% almost never walk

1% on a daily basis
4% several times per week
1% mostly on weekends
94% almost never use transit

Fun Facts
- 55% of drivers also ride bicycles on El Camino Real, and 61% also walk.
- Participants who drive the corridor multiple times a day also tend to live in Menlo Park within a 1/2 mile of the corridor.
- Most drivers travel El Camino Real to shop and visit local businesses, and 50% of drivers use it to travel to and from work.
- The potential change rated highest among drivers was the inclusion of bicycle lanes, followed by enhanced pedestrian safety and crossings.

- 76% of cyclists also drive, and 78% also walk.
- 61% of cyclists live within a 1/2-mile of the corridor and 47% work within a 1/2-mile.
- Most cyclists travel El Camino Real to shop and visit local businesses, and 60% are traveling to or from work.
- The potential change rated highest among cyclists was the inclusion of bicycle lanes, followed by enhanced pedestrian safety and crossings.

- 84% of participants who walk along the corridor also drive there, and 74% also bike.
- 72% of pedestrians live within a 1/2-mile of the corridor, and 56% work within a 1/2-mile.
- Most pedestrians travel El Camino Real to shop and visit local businesses, and 56% use it to travel to and from work.
- The most highly rated potential change among pedestrians was the inclusion of bicycle lanes, followed by enhanced pedestrian safety and crossings.

- Of the 18 respondents who regularly use bus transit, 15 live within a 1/2-mile of the corridor, while 11 work within that same distance.
- When not using transit, transit-riding participants were more likely to use a bicycle than a car to travel El Camino Real.
- The potential change rated highest among transit users was the inclusion of bicycle lanes, followed by enhanced pedestrian safety and crossings, and more bike parking.
Potential Changes to El Camino Real
The survey presented 17 ideas for potential changes to El Camino Real, based directly on input received at the first community workshop. Participants were asked to rate each idea from least desirable to most desirable.

**Ratings:** Positive Neutral Negative

**The most desirable changes:**
- 81% 16% 3% Enhanced pedestrian safety and crossings on El Camino Real
- 72% 10% 17% Inclusion of bicycle lanes on El Camino Real
- 70% 29% 8% More landscaping, providing buffers between pedestrians and bicyclists and vehicles
- 66% 24% 10% More bike parking close to downtown
- 64% 24% 12% Traffic signals to synchronize continuous north-south flow
- 56% 38% 6% Reduction in delay at signalized intersections
- 55% 30% 15% Wider sidewalks

**The least-desired changes were:**
- 17% 32% 51% Higher travel speeds on El Camino Real
- 8% 30% 62% More convenient on-street parking on El Camino Real

Other desired changes with over 50% positive ratings:
- 72% 10% 17% Inclusion of bicycle lanes on El Camino Real
- 70% 29% 8% More landscaping, providing buffers between pedestrians and bicyclists and vehicles
- 66% 24% 10% More bike parking close to downtown
- 64% 24% 12% Traffic signals to synchronize continuous north-south flow
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Some Opinions about El Camino Real
65% of participants agreed that there is enough capacity on El Camino Real for automobiles, and that future improvements should focus on other modes of travel such as bicycles, pedestrians, and transit.

79% of respondents disagreed or were neutral with the idea of placing dedicated Bus Rapid Transit lanes on El Camino Real through Menlo Park.

56% of participants felt that street parking on El Camino Real is not essential for the convenience of small businesses. A majority agreed that parking should be eliminated to make room for bike lanes, though 63% also agreed that any on-street parking that is removed should be replaced off-street, nearby.

84% of respondents agreed that routes parallel to El Camino Real are not convenient for bicycle travel, though many also agreed that El Camino Real is not safe for bicycles. If bicycling conditions improved, 74% would consider cycling rather than driving for short trips and errands.

69% of respondents agreed that a parallel pedestrian path or trail should be provided separate from the main roadway. If conditions for pedestrians improved, 66% said they would rather walk than drive for short trips and errands.

Open-Ended Questions
The survey asked 3 open-ended questions:

**In your opinion, how well does El Camino Real currently serve your transportation needs?**

“It’s fine for driving needs, though slow during rush hour. It’s useful for bicycling and an improvement to my riding more frequently. I never ride along El Camino and I very much dislike crossing it due to not always being noticed by drivers who are turning or simply going at a crawl. Not nearly enough time to cross as a pedestrian... dangerous.”

“El Camino Real is fine... if people want to go faster, take another route. I enjoy El Camino’s pace for walking and business, and understand that it is not as expressway.”

“The worst part of El Camino for me is trying to cross it because the lights at the intersections are too long, and I often have to wait for two or three light cycles in order to cross in the mornings and afternoons.”

**What intersection or portion of El Camino Real do you have concerns with?**

“I live near El Camino Real, and use it as a pedestrian, a cyclist, and a pedestrian. As a motorist, El Camino in Menlo Park is the most congested and lowest portion of my commute. As a cyclist (and Bicycle Commissioner), El Camino is a hazard, which must be carefully navigated at the beginning and end of my daily commute. As a pedestrian, El Camino is ridiculously dangerous.”

“I try to avoid using ECR where possible and go across to other parallel streets at commute times due to congestion. ECR is a more direct route, so I would prefer to use it for my transportation needs if the flow were better.”

**What is the most important traffic/transportation/circulation issue to you on the El Camino Real corridor in the City of Menlo Park?**

“This road always feels unsafe. It does not connect well with side streets and the local community. It is unsafe for bikers and walkers. This option that if safe might reduce car traffic for short trips. The traffic lights are incredibly annoying in their timing/lack of sensible programming.”

“The most important issue is how much of a physical barrier ECR is between the east and west sides of Menlo Park.”

“Pedestrian safety while walking along and attempting to cross El Camino. Access to public transit and bus is hampered by difficult crossing and dangerous crossing for poor sightedness, especially for visually impaired pedestrians.”

“Lack of safe alternatives to driving alone. That’s the #1 way to reduce congestion.”

“CONGESTION at most times during the day. Need to move through traffic through!”

“Safe routes to Schools and Parks should be a top priority. Many kids that are old enough to bike to soccer games, baseball practice, the library, Avis Lane, etc. don’t do it because it is not safe to cross El Camino on a bike. All bike travel and pedestrian safety issues should be top priorities.”

“Lack of coordination of traffic timing between neighboring jurisdictions...”

Online Survey Results
El Camino Real Corridor Study

What is the most important traffic/transportation/circulation issue to you on the El Camino Real corridor in the City of Menlo Park? [Multiple choice]

- This road always feels unsafe. It does not connect well with side streets and the local community. It is unsafe for bikers and walkers. This option that if safe might reduce car traffic for short trips. The traffic lights are incredibly annoying in their timing/lack of sensible programming.
- The most important issue is how much of a physical barrier ECR is between the east and west sides of Menlo Park.
- Pedestrian safety while walking along and attempting to cross El Camino. Access to public transit and bus is hampered by difficult crossing and dangerous crossing for poor sightedness, especially for visually impaired pedestrians.
- Lack of safe alternatives to driving alone. That’s the #1 way to reduce congestion.
- CONGESTION at most times during the day. Need to move through traffic through!
- Safe routes to Schools and Parks should be a top priority. Many kids that are old enough to bike to soccer games, baseball practice, the library, Avis Lane, etc. don’t do it because it is not safe to cross El Camino on a bike. All bike travel and pedestrian safety issues should be top priorities.
- Lack of coordination of traffic timing between neighboring jurisdictions...
PROPOSED ALTERNATIVES
Existing Cross Sections

Between Valparaiso & Oak Grove – Existing
Existing Cross Sections

South of Ravenswood – Existing
Existing Cross Sections

South of Middle Ave - Existing
Proposed Alternatives

- Continuous Three Lanes
- Buffered Bike Lanes
- One-Way Cycle Tracks
Alternative 1: Continuous 3 lanes

1A. Between Valparaiso & Oak Grove – 6-lane ECR
Existing Cross Sections

Between Valparaiso & Oak Grove – Existing
Alternative #2 – Buffered Bike Lanes
Alternative 2: Buffered Bike Lanes

2A. Btwn Valpo & Oak Grove – Buffered Bike Lane
Existing Cross Sections

Between Valparaiso & Oak Grove – Existing
Mixing Zone
Mixing Zone
Mixing Zone
Mixing Zone/Bike Box
Alternative #3 – One-Way Cycle Tracks
Alternative #3 – One-Way Cycle Tracks
Alternative #3 – One-Way Cycle Tracks
Alternative #3 – One-Way Cycle Tracks
Protected Intersections
Protected Intersections
Alternative #3 – One-Way Cycle Tracks

3A. Btwn Valpo & Oak Grove – One-Way Cycletrack
Existing Cross Sections

Between Valparaiso & Oak Grove – Existing
EL CAMINO REAL CORRIDOR STUDY

Next Steps

- Finalize Alternatives
- Develop travel demand forecasts
- Analyze Alternatives
- Community Workshop #3
- Prepare conceptual design plans and estimated costs for alternatives
- Based on feedback, a preferred plan will be identified
- Full design plans will be prepared for ECR/Ravenswood intersection
- Environmental analysis will be completed for the preferred plan