

## 4.2.1 Citywide Programmatic Engineering Improvements

The recommended corridor projects in the AAA Vision Network focus on providing high-comfort, low-stress bikeways that create a continuous citywide network to meet the needs of all people who bicycle. Key programmatic engineering improvements that should be implemented alongside corridor projects are presented in **Table 4-2**. Information on education, encouragement, enforcement and evaluation support programs are critical complements to these citywide engineering programs. More information on those programs are presented in **Chapter 6**. Additional information on bicycle parking, wayfinding, traffic signals, highway interchanges and maintenance can be found in **Appendix A Design Guidelines**.

**Table 4-2: Citywide Programmatic Engineering Improvements**

<i>Category</i>	<i>Recommendation</i>
<b>Traffic Signals</b>	<ul style="list-style-type: none"> <li>• Install bicycle detection at each signal citywide, including in left-turn pockets and on side-streets</li> <li>• Review bicycle clearance intervals (green and yellow times) at all signals, with particular emphasis on signals at intersections of the bikeways network and consideration of slower riders near school zones and senior centers and where topography may make uphill bicycle speeds slower</li> <li>• To indicate where bicyclists will be detected and/or to tell bicyclists that intersection detection is present at a given intersection, always stripe a bicycle detection marking to show bicyclists where to position themselves</li> <li>• Explore next generation smart-phone app-based bike detection</li> </ul>
<b>Slip Lanes</b>	<ul style="list-style-type: none"> <li>• Remove slip lanes or modify slip lanes (e.g. through signal modifications or raised crosswalks) on the bicycle network to improve bicyclists safety and allow for protected intersections</li> </ul>
<b>Conflict Zone Markings</b>	<ul style="list-style-type: none"> <li>• Striping of green conflict zones at major driveways and intersection approaches to highlight where drivers may be merging across the bicycle lane</li> </ul>
<b>Interchanges</b>	<ul style="list-style-type: none"> <li>• Improve existing freeway interchanges to enhance bicycle and pedestrian safety (see <b>Table 5-13</b> for more information)</li> <li>• In the long-term, as interchange projects are proposed and completed, work with Caltrans to improve bicycle and pedestrian safety at interchanges through squaring up intersection ramps and providing both on-street and sidewalk-riding/off-street options for bicyclists through ramp areas</li> <li>• Coordinate with Caltrans on signal maintenance issues, including creating transparent channels for citizen requests around Caltrans signal issues in Fremont</li> </ul>
<b>Wayfinding</b>	<ul style="list-style-type: none"> <li>• Install bicycle wayfinding and consider branded Fremont neighborhood bikeway and trail signage</li> </ul>