

RAPID IMPLEMENTATION SCHOOL SAFETY PLANS

Happy Valley Elementary School



April 26, 2022



TOOLE
DESIGN

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Information contained in this document is for planning purposes and should not be used for final design of any project. All results, recommendations, concept drawings, cost opinions, and commentary contained herein are based on limited data and information and on existing conditions that are subject to change and have not been field-verified. Further analysis and engineering design are necessary prior to implementing any of the recommendations contained herein.

HAPPY VALLEY ELEMENTARY SCHOOL RAPID IMPLEMENTATION SCHOOL SAFETY PLAN

Introduction and Background Context

Toole Design was contracted by the City of Lafayette to study school safety issues and develop implementation plans to improve safety for students and caregivers walking, bicycling, and driving to and from the City's seven schools. In response to a heightened level of community concern about school-related traffic safety, this Rapid Implementation Safety Plan addresses these concerns by consolidating recommendations from past studies and public comments, adding new recommendations since these studies were completed, and prioritizing recommended projects so the most important safety improvements can be installed as soon as possible.

This report includes:

- A summary of relevant data and previous Safe Routes to School planning efforts
- A summary of the school site visits conducted with City of Lafayette staff, Transportation & Circulation Commissioners, Lafayette School District staff and community members
- Recommendations for short, mid- and longer-term improvements to address safety and access

Data and Document Review Summary

Previously, the City of Lafayette completed two Safe Routes to School plans, including the 2013 Safe Routes to School Summary Report¹ and the 2020 Berkeley SafeTREC City of Lafayette Complete Streets Safety Assessment². The City has also received public comments that identify safety issues and, in some cases, provide recommendations for safety improvements. Relevant points from each of these sources are summarized here to help inform the list of project recommendations.

2013 Safe Routes to School Summary Report

The 2013 Safe Routes to School Summary Report focused on Lafayette Elementary School and Springhill Elementary School and does not include specific recommendations for Happy Valley Elementary School.

2020 Berkeley SafeTREC City of Lafayette Complete Streets Safety Assessment

The 2020 Berkeley SafeTREC City of Lafayette Complete Streets Safety Assessment provides recommendations to improve walking and bicycling in the City of Lafayette. While the report was focused on Lafayette Elementary School, Stanley Middle School, Springhill Elementary School, Acalanes High School, and Burton Valley Elementary School the assessment also includes the following citywide recommendations to improve walking and bicycling that are relevant to every school in Lafayette:

- Advance limit lines (STOP bars) installed 4 feet in advance of the crosswalk
- Corner curb extensions (hardscape)
- Interim curb extensions (using paint and flexible delineators)

¹ Available on the City of Lafayette website at: <https://www.lovelafayette.org/home/showpublisheddocument/6437/637475310411830000>

² Available on the City of Lafayette website at: <https://www.lovelafayette.org/home/showpublisheddocument/6474/637516032395500000>

- Crosswalk markings
- Leading pedestrian interval
- Center islands on side streets (hardscape)
- Left-side warning signs (in addition to existing right-side warning signs for pedestrian and/or bicyclist crossings)
- Left-side signs on medians (in addition to existing right-side warning signs where feasible)
- Upstream sightlines (restrict parking within 20 feet of crosswalks – potentially installing curb extensions or bike corrals in these locations)
- Yield lines on multi-lane approaches in advance of crosswalks
- Directional curb ramps (rather than diagonal curb ramps)
- Pedestrian push-button accessibility
- Double yellow centerline 50 feet in advance of crosswalk
- Bicycle and motorcyclist detection on all actuated approaches to traffic signals
- Left-aligned shared-lane markings (i.e., “sharrows”) in right-turn lanes where width is insufficient to provide a full-width through bike lane
- Bicycle wayfinding signs

Summary of Public Comments

Presently no public comments have been received regarding Happy Valley Elementary.

If any public comments are received after this report is presented, they will be included in Appendix B: Public Comments.

Citywide Recommendations

Through review of these reports and public comments, some recommendations were categorized as citywide recommendations. These include:

- Increase Lafayette Police Department enforcement of traffic laws including no parking, no stopping, and no u-turns
- Develop Safe Routes to School example maps for each school showing optimal walking and biking paths
- Continue the crossing guard cost-sharing program
- Promote use of Street Story for reporting unsafe conditions or events
- Initiate additional school bus service
- Consider adopting a 15 MPH school zone speed limit

School Walk Audit Summary

Toole Design facilitated a walk audit and stakeholder meeting with City of Lafayette staff, Transportation & Circulation Commissioners, Lafayette school District staff, and community members on January 24, 2022. Participants expressed concerns, showed the project team where issues occur, and provided ideas for solutions. Recommendations from these walk audits are included in Table 1-4 and the full notes from the walk audits are included in Appendix A: Happy Valley Elementary School Site Visit Notes and Comments

Project Recommendations

A final list of recommendations was compiled using ideas from the 2020 Berkeley SafeTREC City of Lafayette Complete Streets Safety Assessment and 2022 walk audits. Recommendations are listed in Tables 1-4.

These recommendations are organized by short, mid, and longer-term improvements. Timelines for each project type are:

- Short-term: 0-6 months
- Mid-term: 6-12 months
- Longer-term: 1-3 years

Projects are also organized by medium or high-priority. The level of priority was assigned based on an assessment of expected safety benefits and support expressed by community members. All ideas and suggestions provided to the team were considered. Some of these project ideas were not recommended due to transportation design best practices, construction infeasibility, cost, or other project recommendations that better met the project safety goals.

Opinion of Probable Cost for Projects

A planning-level opinion of probable cost is included for each project in the recommendations table. However, there are not yet engineering drawings for these projects, so opinions of probable cost were developed by identifying major pay items and establishing rough quantities to determine a rough order of magnitude cost. Additional pay items have been assigned approximate lump sum prices based on a percentage of the anticipated construction cost. Planning-level cost opinions include a 30% contingency to cover items that are undefined or are typically unknown early in the planning phase of a project. Unit costs are based on 2021 dollars and were assigned based on historical cost data from Caltrans Contract Cost Data. Cost opinions do not include mobilization, traffic control, erosion and sediment control; design; unanticipated easement and right-of-way acquisition fees; permitting, inspection, or construction management; engineering, surveying, geotechnical investigation, environmental documentation, special site remediation, escalation, or the cost for ongoing maintenance. A cost range has been assigned to certain general categories such as utility relocations; however, these costs can vary widely depending on the exact details and nature of the work. The overall cost opinions are intended to be general and used only for planning purposes. Toole Design Group, LLC makes no guarantees or warranties regarding the cost estimate herein. Construction costs will vary based on the ultimate project scope, actual site conditions and constraints, schedule, and economic conditions at the time of construction.

Table 1. Short-term Projects on Happy Valley Road

ID	Implementation Timeline	Priority	Location	Draft Recommendation(s)	Source	Cost Estimate
HV1	Short-term	High	Southeast corner of the west school driveway	Add a paint-and-post bulbout to straighten the crosswalk and improve driver sightlines looking west	Walk audit	\$1,200
HV2	Short-term	Medium	Property immediately west of school (south side of Happy Valley Rd)	Trim the hedge that currently obstructs the sightline.	Walk audit	\$5,200
HV3	Short-term	Medium	Happy Valley Rd directly in front of school	Consider turning the parking lane in front of the school into a pickup/dropoff lane by replacing the existing "no parking" signs with "passenger pickup/dropoff" signs.	Walk audit	\$1,600
HV4	Short-term	Medium	Happy Valley Rd School Zone	Use delineators to keep drivers from driving into opposing traffic lanes to go around the pickup/dropoff queues.	Walk audit	\$10,100
					TOTAL	\$18,100

Table 2. Mid-term Projects on Happy Valley Road

ID	Implementation Timeline	Priority	Location	Draft Recommendation(s)	Source	Cost Estimate
HV5	Mid-term	High	Existing crosswalk directly in front of the school	Install Rectangular Rapid Flashing Beacons (RRFBs).	Walk audit	\$65,000
HV6	Mid-term	High	Southeast corner of the west school driveway	Add a concrete bulbout to straighten the crosswalk and improve driver sightlines looking west (mid-term version of HV1)	Walk audit	\$20,100
HV7	Mid-term	Medium	Existing crosswalk directly in front of the school	Consider adding a paint-and-post curb extension that shadows the existing parking lane on the south side of the street. This will shorten the crossing and improve visibility.	Walk audit	\$1,500
HV8	Mid-term	Medium	Happy Valley Road entering school zone at extents (east and west)	Install speed humps.	Walk audit	\$12,500
HV9	Mid-term	Medium	Happy Valley Road - south side walkway	Add an asphalt berm to separate the walkway from the edge of the roadway vehicle travel lane where it is currently missing.	Public comment	\$1,000
					TOTAL	\$100,100

Table 3. Longer-term Projects on Happy Valley Road

ID	Implementation Timeline	Priority	Location	Draft Recommendation(s)	Source	Cost Estimate
HV10	Longer-term	Medium	Existing crosswalk directly in front of the school	Add a raised crossing and convert the short-term paint-and-post curb extension on the south side of the street to a concrete version.	Walk audit	\$85,200
					TOTAL	\$85,200

Table 4. Mid-term Projects – Other Locations

ID	Implementation Timeline	Priority	Location	Draft Recommendation(s)	Source	Cost Estimate
HV11	Short-term	High	School Property	Consider allowing early drop-off for students to spread the peak traffic demand across a longer time period to reduce queuing.	Walk Audit	Not Cost Estimated
HV12	Mid-term	High	Palo Alto Drive	Consider adding traffic calming elements to this street such as speed humps	Walk Audit	\$25,000
HV13	Mid-term	Medium	Franklin Street near Happy Valley Rd	Consider remote drop-off. This was done during Walk to School Day a few years ago in tandem with a walking school bus.	Walk Audit	Not Cost Estimated
HV14	Mid-term	Medium	Paved lots adjacent (east) to the school	Consider using the adjacent paved play lot for pick up and drop off staging	Walk audit	\$1,000
					TOTAL	\$26,000

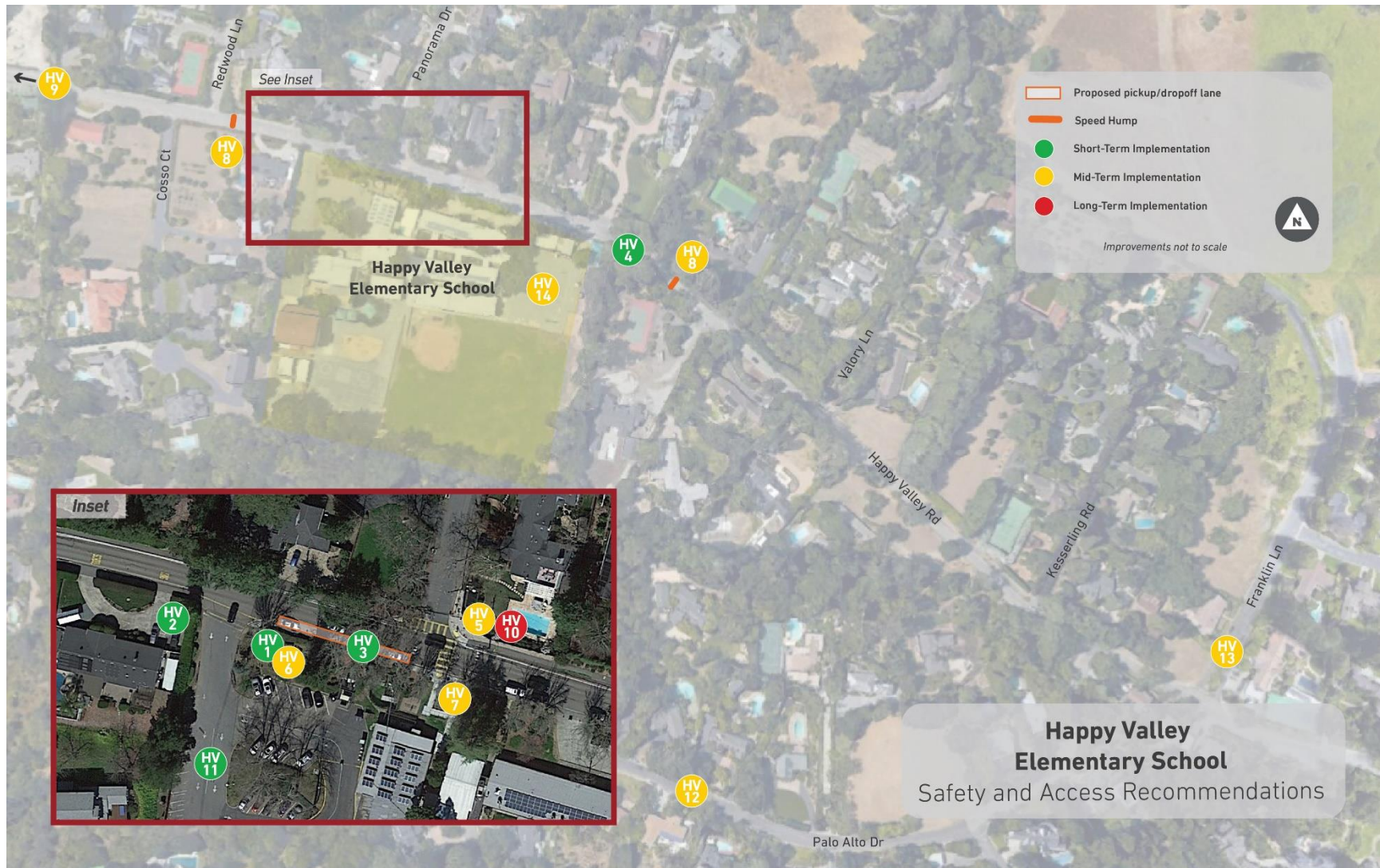
Table 5 below shows of summary of the recommended project costs by project area and implementation timeline.

Table 5. Summary of Recommended Project Costs

	Short-Term	Mid-Term	Longer-Term
Happy Valley Road	\$18,100	\$100,100	\$85,200
Other Locations		\$26,000	
TOTAL	\$18,100	\$126,100	\$85,200

Project Recommendations Map

The map below shows the recommendations color-coded by priority from the tables above.



Next Steps

Lafayette community members are eager to see Safe Routes to School projects constructed. To meet these expectations, a proposed step-by-step project development process is provided below.

Step 1: Review and Approval

The prioritized recommendations in Table 1 will be reviewed by the Transportation & Circulation Commission and City Council to confirm the overall direction in the recommendations and consider funding needs.

Step 2: Funding and Implementation Plan

Once the reports have been reviewed and approved, City staff will develop a funding plan and timeline for implementation.

Step 3: Design and Construction

City staff will develop design plans for the highest priority projects. Simpler project solutions that do not require civil construction (e.g., signing, striping, flexible delineators and minor traffic signal equipment or traffic signal operational changes) will be advanced rapidly through existing City construction contractor procurement processes. In some cases, additional data collection and traffic analysis may be required to support these efforts.

For projects that require civil construction (e.g., major reconstruction/re-construction of sidewalks, new curb and gutter, or other major roadway reconstruction designs) the design and construction process will likely include topographic survey and potentially evaluation of right-of-way which will lengthen the project development timeline and target construction date.

Step 4: Project Evaluation

After projects have been constructed, City staff will evaluate the effectiveness of the design interventions. Potential evaluation metrics may include decreasing vehicle travel speeds; increasing driver yielding compliance; increasing the number of students and caregivers walking, bicycling, and rolling to school; and reducing crashes. The timeline for evaluating each metric may be different. Ideally City staff will collect before data for the evaluation measure at each location, however, if this is infeasible due to the rapid installation of interventions, after-only results can provide useful conclusions about the effectiveness of constructed projects.

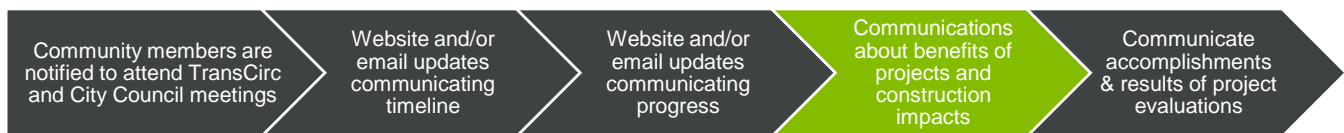
Ongoing Communications

Regular and ongoing communication with Lafayette community members is critical to public support of these projects. As staff resources allow for, monthly or bi-monthly updates on the City's website or via email will help keep stakeholders informed of the process. A dashboard showing the City's progress could be an effective way to demonstrate ongoing efforts.

Project Development Process



Sample Communications/ Public Engagement Process



Appendix A: Happy Valley Elementary School Site Visit Notes and Comments

January 24, 2022

General Comments & Observations

- There are approximately 460 students currently attending the school.
- The major issue noted by participants is queues backing up on Happy Valley Road in both directions from parents/caregivers waiting to enter the parking lots to pick up/drop off students.
 - Some drivers will get impatient and try to go around the queue by entering the opposing traffic lane creating a major safety concern. In one case during observations a vehicle started to make this maneuver and a vehicle came up the hill in the opposing lane, requiring the first vehicle to stop and then back up to get out of traffic again.
 - Queue east of the school (westbound traffic): During the morning and afternoon pickup/dropoff the queue extends well past the curve to the east of the school
 - Queue west of the school (eastbound traffic): This queue appears to be longer during the afternoon pickup period. It was observed to be 30+ cars lined up waiting to enter the westside parking/pickup loop.
 - The bi-directional queues in the afternoon both lasted approximately 15 minutes.
- At the west driveway, visibility looking to the west is poor, especially when making a left turn.
- Wednesday mornings are a little less hectic with a later start time for Kindergarteners
- The parking lane in front of the school is marked as no parking but people (and some staff) use it as parking. It appeared that it could be used as a pick-up/drop-off lane.
- On Palo Alto Drive near Cambridge parents are dropping off their students but there is a blind curve and this creates some safety issues. Residents in the area would like a speed hump. There was a resident petition for a speed hump submitted in September 2021.
- On Happy Valley Drive lots of trucks park on the sidewalk to get out of the street and this causes students to walk in the street.
 - One resident would like to see a detour required for larger projects that block the sidewalk for a longer amount of time.
- Concerns about utility poles in existing walkway on Panorama Drive
- It was noted by multiple residents that speeds are high on Happy Valley Road and there is poor stopping compliance at the two stop signs nearby the school.
- Participants asked if we could make it easier to bike on Happy Valley Road.
- A participant asked if colorized pavement or asphalt could be used near to school to increase visibility.

Nearer Term Participant Recommendations

- Place speed humps to the west of the school at the school zone speed limit signs on Happy Valley Rd.
- Add a bulbout on the southeast corner of the west school driveway to straighten the crosswalk and improve driver sightlines looking west.
- Trim the hedge on the property immediately to the west of the school that currently obstructs the sightline.
- Consider a remote dropoff using Franklin Lane. This was done during Walk to School Day a few years ago in tandem with a walking school bus and people had a good time.
- Consider turning the parking lane in front of the school into a pickup/dropoff lane
- Use delineators to keep drivers from driving into opposing traffic lanes to go around the pickup/dropoff queues.
- Install speed humps on Palo Alto Drive.
- Install RRFBs at the existing school crossing right in front of the school.

- Consider adding a curb extension shadowing the existing parking lane and making the crossing a raised crossing.
- Add speed humps on Happy Valley Road as drivers enter the school zone.
- Add more school zone signage on Happy Valley Road.

Longer Term Participant Recommendations

- The raised crossing and curb extension portion of the upgraded crossing in front of the school would likely be longer-term and more expensive design solutions.

Appendix B: Public Comments