Capitola City Council

Agenda Report

Meeting: February 13, 2025

From: Public Works Department

Subject: Bay Avenue and Hill Street Traffic Safety Update

Recommended Action: Provide direction on short-term modifications to the Bay Avenue and Hill Street intersection.

Background: On November 21, 2024, the City Council discussed the Quick Build Project at Bay Avenue and Hill Street, implemented in late July/early August 2024. The project introduced lane reductions, enhanced crosswalk markings, and temporary bulb-outs to improve pedestrian safety and manage traffic flow.

Since implementation, community feedback, technical evaluations, and further Council discussions have identified areas for improvement. During the November 21st meeting, staff was instructed to remove the current configuration in spring 2025 and implement specific modifications. These modifications include extending striping for a continuous bike lane, examining costs for raised crosswalks, expanding the crosswalk by adjusting the stop sign line, and determining whether bollards can remain at all intersection corners.

The City Council also directed staff to collect additional data to enable a comparison between the current Quick Build Project configuration and the proposed new layout. The Council requested that staff return in early 2025 to present updated findings and assess whether the new configuration could be implemented in coordination with the upcoming Bay Avenue Corridor Study.

Discussion: Following Council direction, staff collected updated traffic data to evaluate the current intersection configuration.

Traffic volume data was gathered on a single non-rainy day during regular school schedules to maintain consistency. While seasonal variations may impact certain modes of travel—such as lower bicycle volumes in colder months—the methodology ensures a reliable baseline for comparison. The data confirms that this intersection remains a high-use location for both vehicles and pedestrians, emphasizing the need for effective safety measures.

Traffic Data Summary

Bicycle Volumes (Total at Intersection)

Bike Volume Intersection Total				
Count Date	**Timeline**	**AM Peak**	**Mid-Day Peak**	**PM Peak**
2/15/2022	Before QB	24	25	19
3/7/2024	Before QB	19	N/A	15
10/24/2025	After QB	49	23	23
1/25/2025	After QB	31	22	20

Pedestrian Volumes (Total at Intersection)

Pedestrian Volume Intersection Total				
Count Date	**Timeline**	**AM Peak**	**Mid-Day Peak**	**PM Peak**
2/15/2022	Before QB	31	51	49
3/7/2024	Before QB	34	N/A	21
10/24/2025	After QB	18	57	61
1/25/2025	After QB	32	48	40

Vehicle Traffic – Bay Avenue Approach (Southbound)

Vehicle Traffic Bay Avenue Approach Southbound				
Count Date	**Timeline**	**AM Peak**	**Mid-Day Peak**	**PM Peak**
2/15/2022	Before QB	435	635	633
3/7/2024	Before QB	481	N/A	669
10/24/2025	After QB	484	538	545
1/25/2025	After QB	501	521	570

Vehicle Traffic – Bay Avenue Approach (Northbound)

Vehicle Traffic Bay Avenue Approach Northbound				
Count Date	**Timeline**	**AM Peak**	**Mid-Day Peak**	**PM Peak**
2/15/2022	Before QB	462	485	392
3/7/2024	Before QB	466	N/A	323
10/24/2025	After QB	477	418	417
1/25/2025	After QB	502	444	380

Intersection Level of Service (LOS) Observations

The Level of Service (LOS) analysis indicates the intersection's performance in January 2025 is expected to be similar to October 2024. The primary factors influencing LOS at this location are the northbound (NB) and southbound (SB) vehicle volumes along Bay Avenue.

Between October 2024 and January 2025, northbound traffic increased by approximately 5% during the morning and mid-day peak hours but saw a slight 4% decrease in the evening peak. Conversely, southbound traffic decreased by about 3% in the morning and mid-day, while remaining unchanged in the evening.

Despite these fluctuations, the changes are not significant enough to impact the overall LOS rating. While minor variations in vehicle delay (1–2 seconds) may occur, the intersection’s letter grade classification (e.g., A, B, C) remains consistent.

Evaluation of Proposed Modifications

The City’s traffic consultant, Kimley Horn, prepared a comparison which outlines the proposed modifications to the Bay Avenue and Hill Street intersection (Attachment 1). These modifications aim to enhance pedestrian and cyclist safety while balancing traffic operations and community needs. Below is an evaluation of key options under consideration:

Option	Benefits	Challenges	Staff Consideration	Estimated Cost
Raised Crosswalks	Safer, ADA access.	Cost, drainage, delays.	Worth considering (varies by material).	$6K–$25K each (asphalt, brick, stamped concrete).
Additional Green Bike Lanes	Improves bike safety.	Cost, driver confusion.	Possible improvement (includes striping removal).	$15–$30/sq. ft.
Bollards	Adds buffer, slows turns.	Maintenance, large vehicles.	Could be explored (durability concerns).	$50–$200 each
Staggered Stop Bars	May help visibility.	Minimal impact.	Not recommended	$8–$20/ft.

Staff recommends integrating the evaluation of these modifications into the broader context of corridor improvements. This approach will ensure that any short-term changes to the Bay Avenue and Hill Street intersection align with long-term strategies for the corridor.

Council is requested to provide direction to staff on the following:

1. Whether to proceed with short-term modifications, such as continuous green bike lanes, while awaiting the corridor study's final recommendations.
2. Identify any additional data collection or analysis required to further refine the proposed intersection changes.
3. Remove all quick-build components and return intersection to pre-project conditions.

Fiscal Impact: Costs for proposed modifications will depend on the selected measures. Based on preliminary estimates from the City's traffic consultant (Attachment 1):

- Raised crosswalks are estimated at $6,000 – $25,000 per location, with additional costs for brickwork, stamped materials, and drainage modifications.
- Continuous bike lanes (green thermoplastic striping) are estimated at $15 – $30 per square foot, including existing striping removal.
- Bollards for bike lane separation and pedestrian safety are estimated at $50 – $200 per bollard, depending on size and durability.
- Staggered stop bars are estimated at $8 – $20 per linear foot for white thermoplastic striping.
- Removing all quick build components will cost approximately $40,000.

Staff will incorporate approved actions into the annual Pavement Management Project budget for Council consideration on February 27, 2025.

Attachments:

1. Potential Improvement Matrix

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