

Memorandum

To: Gail Payne
City of Alameda, CA

From: Hayden Clarkin, Chiranjivi Bhamidipati, and Rudy Franciamore

Date: May 24, 2019

Subject: Updated Existing Conditions on Clement Avenue Safety Improvement Project

This memorandum provides recent information on relevant plans/projects and existing conditions on Clement Avenue Corridor between Grand Street and Broadway (See **Figure 1**) on which a complete streets project is defined.

Figure 1. Clement Avenue Project Corridor



Relevant Plans/Projects

- City of Alameda and subsequently the Alameda Marina Master Plan¹ envision redevelopment of Northern Waterfront and transformation from industrial uses into a

¹ <file:///C:/Users/bhamidipatics/Downloads/Alameda-Marina-Master-Plan-March-2018-opt.pdf> (last accessed on May 8, 2018)

mixed-use and transit-oriented district that will provide a mix of jobs and affordable housing options. Alameda Marina is located on Clement Avenue between Alameda Marina Drive (just east of Grand Street) and Willow Street.

- Clement Avenue is Section 6 of a planned multi-use Cross-Alameda Trail² (as shown in **Figure 2**), a four-mile cross-town bicycling and walking corridor that will connect the west side of the island to the east, from the Seaplane Lagoon at Alameda Point to the Miller-Sweeney (Fruitvale) Bridge. Section 2 and parts of Section 4 have been constructed, and west of Section 1 in Alameda point are under construction, and Section 3, 5, and 7 are in the planning phase. Section 7 and Section 1 is the Clement Avenue East Extension/Tilden Way project, which would connect Clement Avenue with the City of Oakland’s planned and funded Fruitvale Avenue improvements and the Fruitvale BART station.

Figure 2. Proposed Cross-Alameda Trail Map

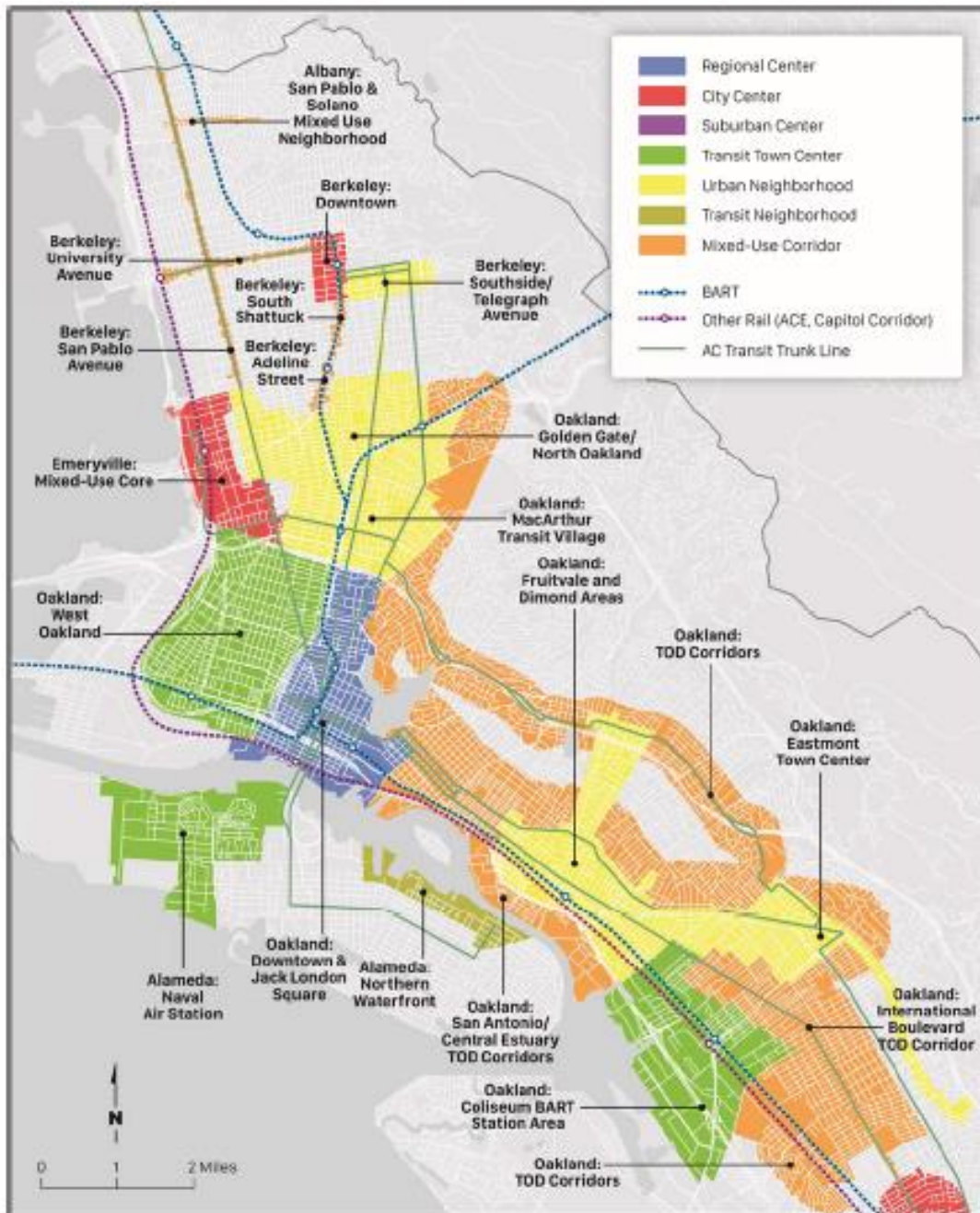


- The Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) adopted the second round of One Bay Area Grant (OBAG2) program as Resolution 4202, last revised in December 2016. As per this resolution, Bay Area’s congestion management agencies (CMAs), including the Alameda County Transportation Commission (Alameda CTC), work with jurisdictions within the county to develop a Priority Development Areas (PDA) Investment and Growth Strategy document. Alameda CTC and City of Alameda jointly identified the northern waterfront from Marina Village to Fruitvale Ave Bridge as a planned transit neighborhood³ (as shown in **Figure 3**). This covers the entire length of Clement Avenue Corridor.

² <http://bikewalkalameda.org/advocacy-2/cross-alameda-trail/> (last accessed on May 8, 2018)

³ https://www.alamedactc.org/wp-content/uploads/2018/11/2017_AlamedaCounty_PDA_IGS.pdf?x33781 (last accessed on May 8, 2019)

Figure 3. Priority Development Areas in Northern Part of Alameda County



- In 2018, construction began on traffic signal equipment upgrades on Park Street including Park Street & Clement Avenue intersection⁴. The project includes amending

⁴ <https://www.alamedaca.gov/GOVERNMENT/News-Media/Park-Street-Corridor-Safety-and-Operational-Improvements> (last accessed on May 8, 2019)

traffic timing, installation of sensors to detect the presence of vehicles, and installation of emergency vehicle preemption and is expected to go live in the fall of 2019.

Existing Conditions

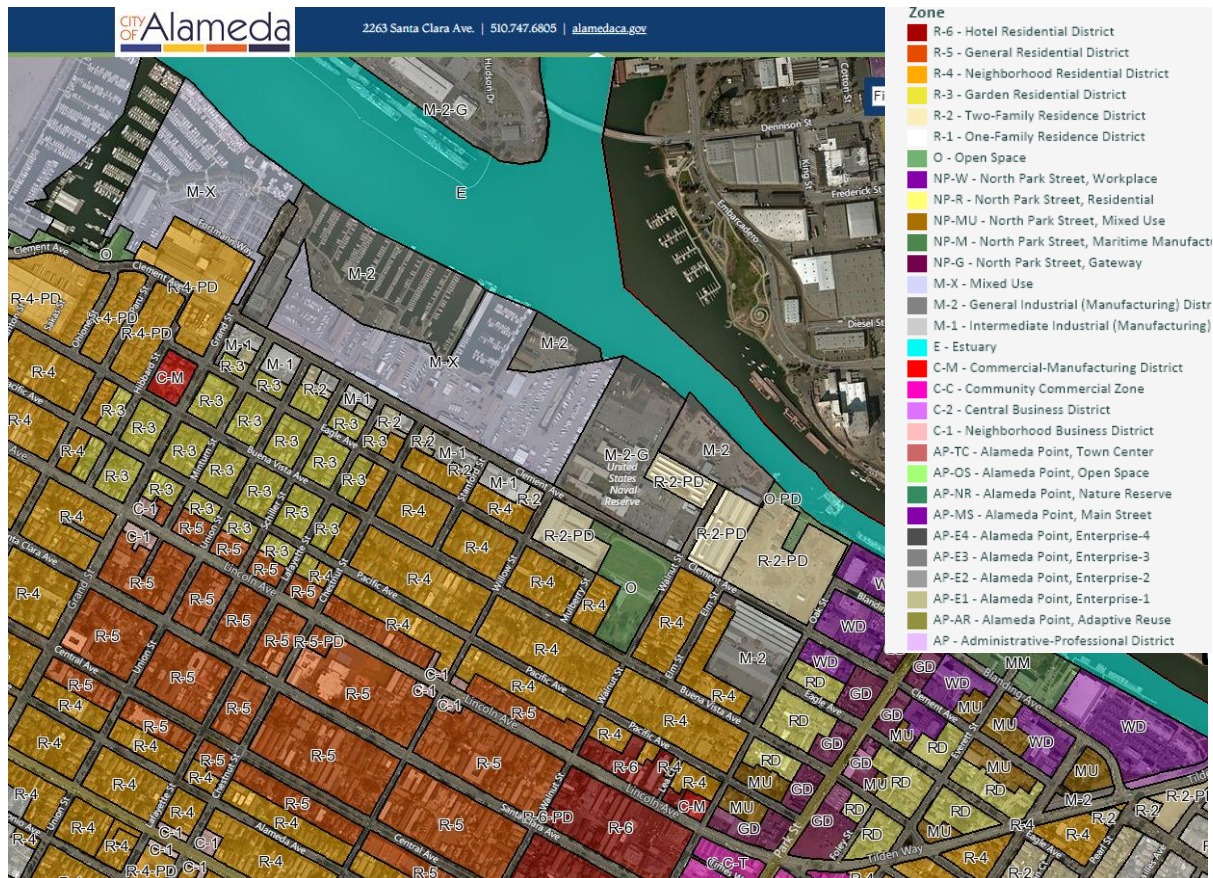
Alignment and Cross-Section

- Clement Avenue Corridor between Grand Street and Broadway is a 1.2-mile long southeast-northwest corridor on a flat terrain and with a straight alignment. It is intersected by several roadways, including Chestnut Street, Willow Street, Walnut Street, Oak Street and Park Street.
- The corridor generally has a curb-to-curb width of 48 foot with 5 to 6-foot wide sidewalks on both sides of the street. However, Clement Avenue between Oak Street and Park Street as an exception has a curb-to-curb width of 50 feet with 6 to 9-foot wide sidewalks.
- The corridor consists of two 13 to 14-foot wide travel lanes separated in the center by a striped median over a single set of 6-foot wide Alameda Belt Line railroad tracks which have been covered in an asphalt concrete overlay, once formally owned by Union Pacific Railroad. On-street parking that is 8-foot wide on both sides of the street takes up the remaining vehicle right-of-way.
- Sidewalks are in poor condition along portions of the corridor, with utility poles creating obstructions to pedestrians and ADA compliance.

Zoning and General Plan

- As shown in **Figure 4**, northern waterfront confined by Grand Street, Clement Avenue and Oak Street is predominantly mixed and general industrial uses. South of Clement Avenue and west of Oak Street, intermediate industrial and residential uses are the prevalent land uses. The eastern end of the corridor from Oak Street to Broadway is occupied by North Park Street residences and workplaces.

Figure 4. Existing Zoning along Clement Ave Corridor

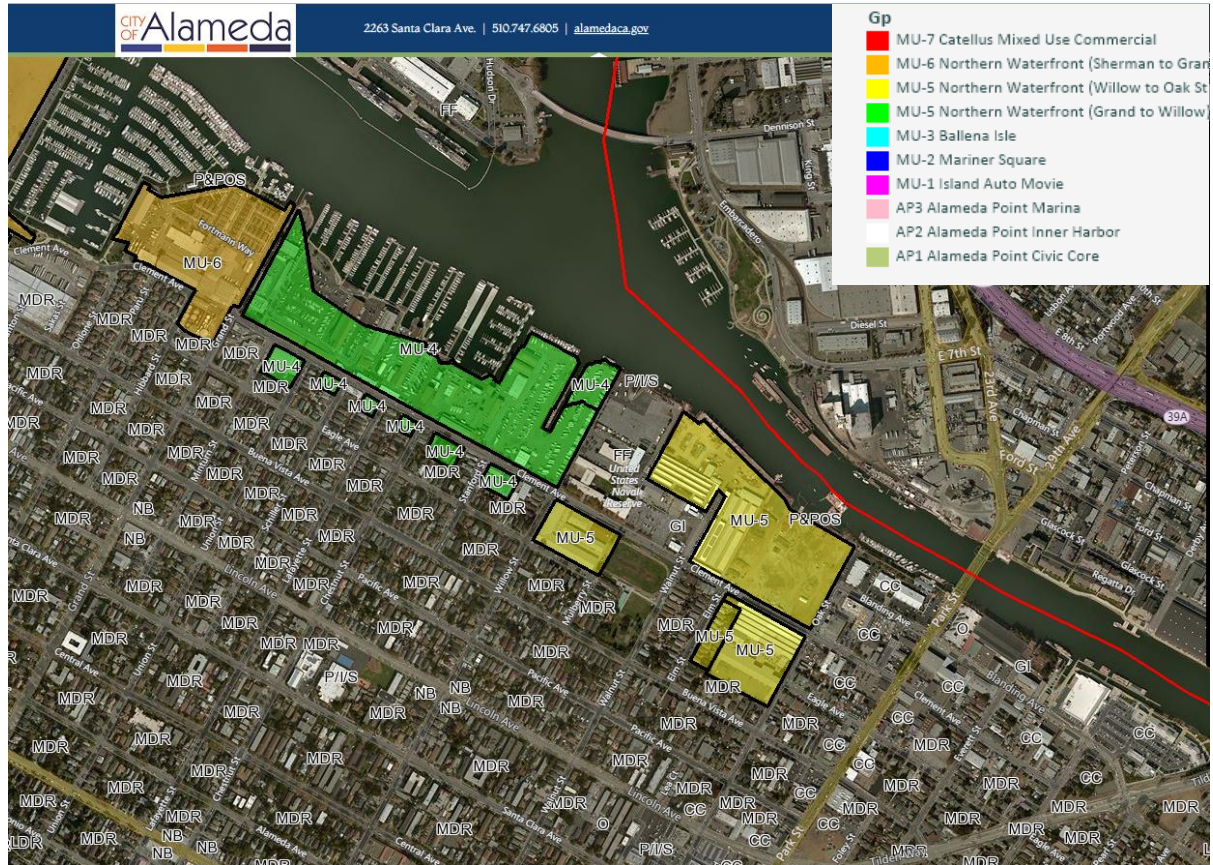


- As shown in **Figure 5**, Clement Avenue between Grand Street and Willow Street is expected to undergo land use changes with the Alameda Marina development totaling about 700 housing units and over 100,000 square feet of office/commercial. Clement Avenue between Willow Street and Oak Street will provide an opportunity to add up to 300 residential units by redevelopment of existing industrial sites with the Mulberry and Boatworks developments and to create continuous shoreline access except for the waterfront area of the Navy Training Center. These land use changes may result in a reduction in heavy vehicle percentage.

Traffic and Transit

- Clement Avenue is classified as a Tier 3 truck route, transit priority street, and bicycle priority street.
- In the Clement Avenue Complete Street Corridor Concept Study (2015), a 48-hour count was conducted on Clement Avenue between Willow Street and Walnut Street in January 2015 and found that articulated trucks (class 8 to class 13) make up about 10% of the total traffic on the corridor, averaging 8,300 vehicles per day. 1% to 1.6% of the total traffic consists of Class 13 trucks, which are the largest trucks (multi-trailer trucks with 7 or more axles).

Figure 5. General Plan along Clement Ave Corridor



- More recent vehicle counts were available from the Alameda Marina Master Plan in November 2016 but limited to the peak hours of 7-9 am and 4-6 pm and only at Grand Street and Clement Avenue intersection and Park Street and Clement Avenue intersection. Based on this, **Table 1** shows the vehicular counts at approach level on Clement Avenue by movement direction.

Table 1. Existing Vehicular Counts on Clement Avenue in AM and PM Peak Hours

Location	Time Period	Approach & Movement	Vehicular Traffic Count
Clement Ave @ Grand St/Clement Ave Intersection	AM Peak Hour	Westbound In	162
		Eastbound Out	192
	PM Peak Hour	Westbound In	326
		Eastbound Out	228

Location	Time Period	Approach & Movement	Vehicular Traffic Count
Clement Ave @ Park St/Clement Ave Intersection	AM Peak Hour	Westbound In	386
		Eastbound Out	112
		Westbound Out	156
		Eastbound In	277
	PM Peak Hour	Westbound In	201
		Eastbound Out	349
		Westbound Out	183
		Eastbound In	349

- Also, based on the counts taken for the Alameda Marina Master Plan, **Table 2** summarizes the bicycle and pedestrian counts at intersection level.

Table 2. Existing Bicycle and Pedestrian Counts on Clement Avenue Intersections in AM and PM Peak Hours

Location	Time Period	Count Category	Count
Grand St/Clement Ave Intersection	AM Peak Hour	Bicycles	20
		Pedestrians	1
	PM Peak Hour	Bicycles	20
		Pedestrians	2
Park St/Clement Ave Intersection	AM Peak Hour	Bicycles	8
		Pedestrians	27
	PM Peak Hour	Bicycles	6
		Pedestrians	97

- Clement Avenue is near many transit facilities. Clement Ave is 1.8 miles away from the Fruitvale BART station, and 3.3 miles away from the Alameda Main Street Ferry Terminal. The area is also served by the AC Transit Transbay O Line 5 blocks away and OX line which runs along Park Street. Local AC transit routes 51A and 19 run on Santa Clara Avenue and Buena Vista Avenue, which are five and two blocks away, respectively.