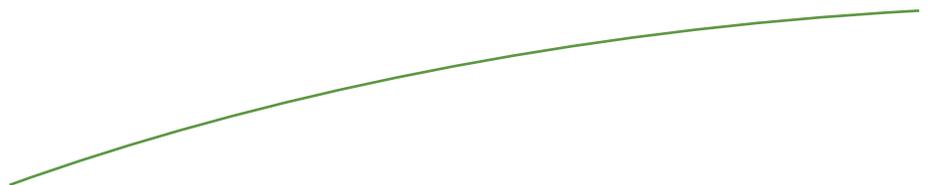




Appendix K

TRANSPORTATION EVALUATION
MEMORANDUM





MEMORANDUM

Date: January 26, 2015
To: Dave Claycomb and Elizabeth Scott, HELIX Environmental Planning, Inc.
From: Mollie Pelon and Matthew Ridgway
Subject: **Gateway Station West Transportation Analysis**

OK14-0021

This memorandum updates the Gateway Station West Transportation Evaluation prepared for HELIX and dated September 23, 2014. The report presented the findings of a transportation evaluation of the Gateway Station West Project located west of Hickory Street between Perrin Avenue and Enterprise Drive in Newark, CA. This memorandum details project trip generation and estimated volume on Hickory Street based on the site plan dated December 1, 2014.

TRIP GENERATION

The following section analyzes trip generation for the Gateway Station West Project within the Dumbarton TOD. This section also includes a summary of updated trip generation estimates for approved and pending entitlements in the Dumbarton TOD.

Trip generation was estimated using rates developed by the Institute of Transportation Engineers (ITE) and published in *Trip Generation (9th Edition)*. The Gateway Station West Project is estimated to generate approximately 4,400 daily external vehicle trips, 340 and 440 AM and PM peak hour external vehicle trips, respectively, as shown in **Table 1**. In comparison, the trip generation for the previously proposed Cargill project at this site, as calculated based on the information presented in the Specific Plan EIR (SP EIR), estimates 4,380 daily external trips, 340 AM peak hour trips and 425 PM peak hour trips. The SP EIR estimates that all Specific Plan land uses would generate 14,130 daily external vehicle trips, 1,165 and 1,320 AM and PM peak hour external vehicle trips, respectively.



TABLE 1: TRIP GENERATION

Land Use	Units ¹	ITE Code	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Single-Family	321 DU	210	3,056	60	178	241	202	118	321
Multi-Family Apartment ³	268 DU	220	1,782	27	109	137	108	58	166
Total			4,838	88	287	377	310	177	487
<i>Internalization²</i>			<i>435</i>	<i>8</i>	<i>26</i>	<i>34</i>	<i>28</i>	<i>16</i>	<i>44</i>
Net External Project Trips			4,403	80	262	343	282	161	443

Notes: 1. DU = dwelling unit

2. As in the Specific Plan EIR, 9% of the residential trips would be internal to the Specific Plan area.

Source: Fehr & Peers, 2015.

The Project's estimated contribution to the trips generated by the Specific Plan is 31 percent for a typical weekday, 29 percent for the AM peak hour, and 34 percent for the PM peak hour. On a land use basis, the Gateway Station West Project is about 24 percent of the Specific Plan residential dwelling units. In physical size, the Gateway Station West Project site is 34 percent of the land area designated for residential uses and 26 percent total land area for the site addressed in the Specific Plan.

Despite the Gateway Station West Project having a disproportionate amount of daily trips relative to the percentage of residential units on the Specific Plan site (24 percent of the total residential units and 31 percent of daily trips) as well as disproportionate amounts of the daily trips relative to land area (26 percent of the land area and 31 percent of the daily trips) the trip generation of the Gateway Station West Project is estimated to be only slightly greater (approximately 1% daily) than that of the calculated trip generation for the Cargill project, which included the same land area, for the SP EIR.

The proposed Gateway Station West project would generate approximately 23 more daily trips, 3 more AM peak hour trips and 18 more PM peak hour trips than the Cargill project. However,



previous entitlements granted or in review in the Dumbarton TOD Area have generated similar or fewer trips than analyzed in the SP EIR. Due to previous entitlements generating fewer trips than analyzed in the SP EIR, the total combined trip generation of approved and pending entitlements, including the Gateway Station West development, would not exceed the trips assumed in the SP EIR. Therefore, the proposed project would result in off-site transportation impacts consistent with the SP EIR.

The entitlements granted or in review for the Dumbarton TOD have generated the same or fewer trips than analyzed in the SP EIR. These sites are identified in **Figure 1**.

- **Trumark:** In March 2014, a Final Supplemental Environmental Impact Report (SEIR) was published for the Trumark Dumbarton TOD Project. No further analysis was necessary as part of the Trumark Project SEIR as “the traffic generated by the proposed project would be consistent with the trip generation estimates made in the Specific Plan EIR” (*Trumark Dumbarton TOD Residential Project Draft SEIR*, December 2013, p. 107).
- **Torian:** On November 29, 2012, the City of Newark City Council reviewed the addendum to the Dumbarton TOD EIR. As stated in the meeting minutes, the Torian project would consist of fewer residential units than already analyzed by the SP EIR. Consequently, “the Torian Project calls for development exclusively on land analyzed by the EIR, and calls for less impactful development on the Torian Project site than analyzed under the EIR, the EIR fully covers all impacts of the Torian Project... Thus, no new or increased significant impacts will result” (City of Newark, *Addendum to the Environmental Impact Report for the Dumbarton Transit Oriented Development Specific Plan*, Torian Project, p. 2).
- **SHH/FMC:** The Fehr & Peers Memorandum prepared for HELIX Environmental Planning, Inc. on February 26, 2014 provides a trip generation estimate for the revised land uses of the SHH/FMC project site. This memo provides “a trip generation estimate to confirm that the development generates similar or fewer trips than the land uses within the Specific Plan EIR, and hence is consistent with the Specific Plan from an off-site transportation impacts perspective” (*Transportation Evaluation of the SHH/FMC Project in Newark, CA*, p. 2). This site generates approximately 2,100 daily trips, 90 AM peak period trips and 170 PM peak hour trips fewer than identified in the SP EIR. In conclusion, the memorandum finds “Given that the trip generation of the SHH/FMC Project is less than that of the SP EIR, we do not anticipate that the development would produce off-site transportation impacts that were not already addressed in the EIR.”

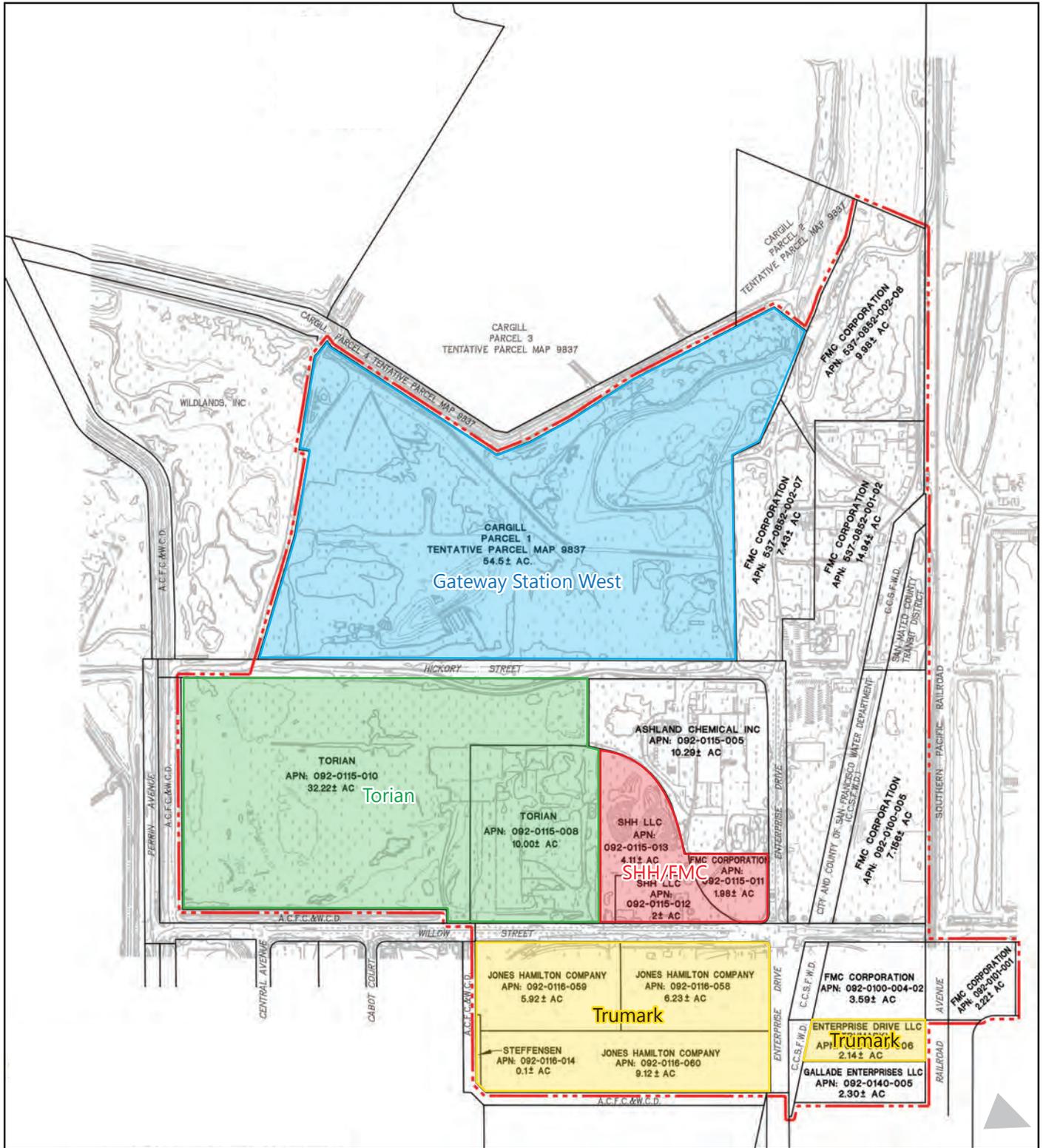


In conclusion, the trip generation estimate confirms that the Gateway Station West development generates similar trips to the land uses identified for the site within the SP EIR and that other entitled developments within the Dumbarton TOD would generate fewer trips than assumed in the SP EIR. Therefore, we do not anticipate that the development would cause off-site transportation impacts that were not already identified in the SP EIR (associated with development of the Gateway Station West site). The SP EIR identifies all transportation related impacts by the Gateway Station West project or combined with other entitled developments within the Dumbarton TOD.

TRAFFIC VOLUME ON HICKORY STREET

All access for the Gateway Station West development would be off of Hickory Street. The proximate Torian development will also provide access from Hickory Street however, it is expected most vehicle trips will use the development's Central Avenue and Willow Street access points as they provide more convenient access to the gateways of the Dumbarton TOD. Therefore, it is anticipated that vehicle trips on Hickory Street would be limited to those generated by the Gateway Station West project and approximately 5% of the Torian development trips.

It is estimated that about 4,590 vehicles per day would use Hickory Street. Of these trips, approximately 360 would occur during the AM peak hour and 460 would occur during the PM peak hour.



Source: RBF Consulting, Dumbarton TOD Specific Plan EIR

Figure 1
Specific Plan Site Plan



Gateway Station West Transportation Evaluation

**Prepared for:
HELIX**

September 23, 2014

OK14-0021.00

FEHR  PEERS



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EXISTING CONDITIONS

This report presents the findings of a transportation evaluation of the Gateway Station West Project located west of Hickory Street between Perrin Avenue and Enterprise Drive in Newark, CA. The proposed Project is part of a larger development area addressed in the *Dumbarton Transit Oriented Development Specific Plan Environmental Impact Report* (SP EIR) (Final EIR – July 2011). The site of the Gateway Station West Project (referred to as the Cargill site in the SP EIR) was originally designated for low, medium and high-density residential uses. The 54.43-acre Gateway Station West Project is currently planned for a transit-oriented residential development (TOD) with 234 single-family units and 373 multi-family units and 62 senior housing units for a total of 669 units. The original proposal was for 168 single family units and 484 multi-family units to total 652 units.

The Gateway Station West Project represents 27 percent of the planned residential units (669 of 2,500 units in the Specific Plan). Of the currently planned residential units in Gateway Station West Project, 35 percent are planned for single family residential units (234 of 669 units) as compared to 26 percent planned for the Cargill site in the SP EIR (168 of 652 units). Since single family residences generate more trips per unit than multi-family residences, a review of the effect of a unit mix change on traffic generation is part of this transportation evaluation.

The following transportation analysis is divided into two parts: (1) a trip generation estimate and comparison it to the total trip generation found in the SP EIR and (2) a site circulation and access evaluation.

TRIP GENERATION

The following section analyzes trip generation for the Gateway Station West Project within the Dumbarton TOD. This section also includes a summary of updated trip generation estimates for approved and pending entitlements in the Dumbarton TOD.

SUMMARY OF TRIP GENERATION

Trip generation was determined using rates developed by the Institute of Transportation Engineers (ITE) and published in *Trip Generation (9th Edition)*. The Gateway Station West Project is estimated to generate 4,478 daily external vehicle trips, 373 and 464 AM and PM peak hour external vehicle trips, respectively, as shown in **Table 1**. In comparison, the trip generation for the previously proposed Cargill project site, as calculated based on the information presented in the SP EIR, estimates 4,323 daily external trips, 336 AM peak hour trips and 413 PM peak hour trips. The SP EIR estimates that all Specific Plan land uses will generate 14,131 daily external vehicle trips, 1,165 and 1,320 AM and PM peak hour external vehicle trips, respectively.

The Project's estimated contribution to the trips generated by the Specific Plan is 32 percent for a typical weekday, 32 percent for the AM peak hour, and 35 percent for the PM peak hour. On a land use basis, the Gateway Station West Project contains 27 percent of the Specific Plan residential dwelling units. In physical size, the Gateway Station West Project site is 34 percent of the land area designated for residential uses and 26 percent total land area for the site addressed in the Specific Plan.

Despite the Gateway Station West Project having a disproportionate amount of daily trips relative to the percentage of residential units on the SP site (27% of the total residential units and 32% of daily trips) as well as disproportionate amounts of the daily trips relative to land area (26% of the land area and 32% of the daily trips) the trip generation of the Gateway Station West Project is estimated to be only slightly greater than that of the calculated trip generation for the Cargill site, which included the same land area, for the SP EIR.

The proposed Gateway Station West project will generate approximately 155 daily trips more than the Cargill site. However, previous entitlements granted or in review in the Dumbarton TOD Area have generated similar or fewer trips than analyzed in the SP EIR. Due to previous entitlements generating fewer trips than analyzed in the SP EIR by a large margin, the cumulative trip generation of approved and pending entitlements, including the Gateway Station West development, would not exceed the trips



analyzed in the SP EIR. Therefore, the proposed project would produce off-site transportation impacts commensurate with what was analyzed in the SP EIR.

TABLE 1: UPDATED TRIP GENERATION AT GATEWAY STATION WEST

Land Use	Units ¹	ITE Code	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Single-Family	234 DU	210	2,228	47	133	180	153	86	239
Multi-Family Apartment ³	373 DU	220	2,467	59	145	204	152	97	249
Senior Adult Housing Attached	62 DU	252	213	11	13	24	12	10	22
		Total	4,921	117	292	410	317	193	510
		<i>Internalization²</i>	<i>443</i>	<i>11</i>	<i>26</i>	<i>37</i>	<i>29</i>	<i>17</i>	<i>46</i>
		Net External Project Trips	4,478	107	266	373	289	176	464

Notes: 1. DU = dwelling unit

2. As in the Specific Plan EIR, 9% of the residential trips would be internal to the Specific Plan area.

3. The ITE *Trip Generation* defines apartments as rental units located within the same building with at least three other dwelling units. Trip generation rates for apartment land use are higher (i.e they generate more trips) than townhouse/condominium therefore, this classification was used to provide a conservative estimate.

Values may not sum exactly to totals due to rounding.

Source: Fehr & Peers, 2014.

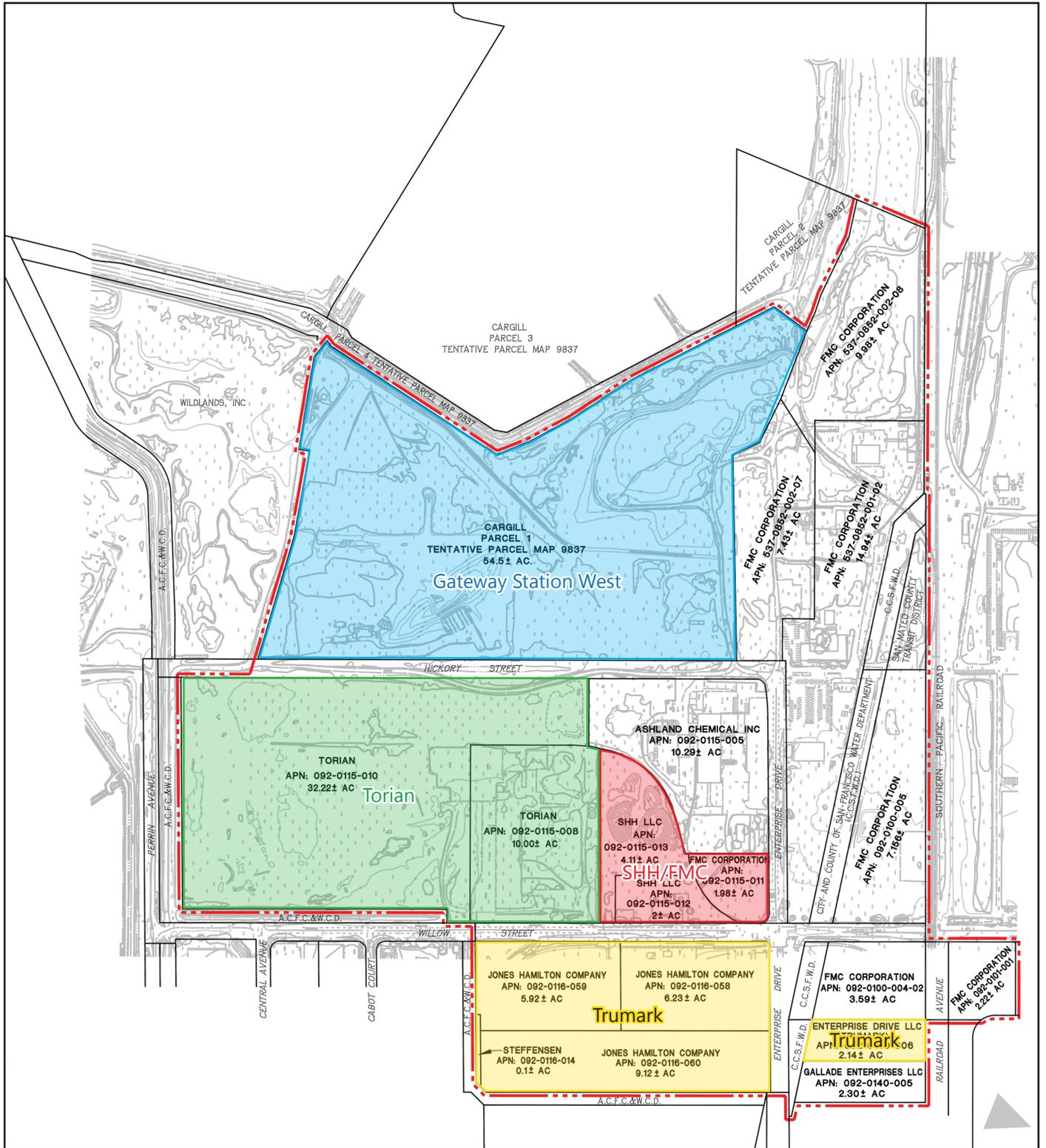
Of the entitlements already granted or in review for the Dumbarton TOD, all have generated the same or less trips than analyzed in the SP EIR. These sites are identified in **Figure 1**.

- In March 2014, a Final Supplemental Environmental Impact Report (SEIR) was published for the Trumark Dumbarton TOD Project. No further analysis was necessary as part of the Trumark Project SEIR as “the traffic generated by the proposed trip would be consistent with the trip generation estimates made in the Specific Plan EIR” (*Trumark Dumbarton TOD Residential Project Draft SEIR*, December 2013, p. 107).
- On November 29th, 2012, the City of Newark City Council reviewed the addendum to the Dumbarton TOD EIR. As stated in the meeting minutes, the Torian project calls for less residential units than already analyzed by the EIR. Consequently, “the Torian Project calls for development exclusively on land analyzed by the EIR, and calls for less impactful development on the Torian Project site than analyzed under the EIR, the EIR fully covers all impacts of the Torian Project... Thus, no new or increased significant impacts will result” (City of Newark, *Addendum to the*

Environmental Impact Report for the Dumbarton Transit Oriented Development Specific Plan, Torian Project, p. 2).

- The Fehr & Peers Memorandum prepared for HELIX Environmental Planning, Inc. on February 26th, 2014 provides a trip generation estimate for the revised land uses of the SHH/FMC project site. This memo provides “a trip generation estimate to confirm that the development generates similar or fewer trips than the land uses within the SP EIR, and hence is consistent with the SP from an off-site transportation impacts perspective” (*Transportation Evaluation of the SHH/FMC Project in Newark, CA, p. 2*). This site generates approximately 2,064 trips less than identified in the SP EIR. In conclusion, the memorandum finds “Given that the trip generation of the SHH/FMC Project is less than that of the SP EIR, we do not anticipate that the development would produce off-site transportation impacts that were not already addressed in the EIR.”

In conclusion, the trip generation estimate confirms that the Gateway Station West development generates similar trips to the land uses identified for the site within the SP EIR and that other entitlements within the Dumbarton TOD have represented lesser traffic generation than was analyzed in the SP EIR. Therefore, we do not anticipate that the development would produce off-site transportation impacts that were not already addressed in the SP EIR. Any expected transportation impacts associated with development of the Gateway Station West site or the sum of entitlements issued to date within the Dumbarton TOD area are addressed in the SP EIR.



Source: RBF Consulting, Dumbarton TOD Specific Plan EIR



Figure 2
Specific Plan Site Plan

SITE ACCESS AND ON-SITE CIRCULATION

This section analyzes site access and internal circulation for vehicles, pedestrians, bicycles, and transit vehicles based on the site plan (July 31st, 2014) presented in Figure 1. The site access and on-site circulation is considered adequate with several recommended changes described below. These recommendations address on-site vehicle circulation issues to reduce driver confusion and pedestrian and bicycle safety. Active and transit mode recommendations include provision of pedestrian and bicycle facilities and direct connections, and efficient linkages with existing and potential future transit stops external to the site.

VEHICLE SITE ACCESS AND CIRCULATION

Access to the Gateway Station West Project site would be provided via two main driveways and seven alleyways. All driveways would be along Hickory Street. The northernmost and southernmost driveways would serve as the main entrances. The northernmost entrance would provide direct access to Villages 6A, 6B, 7, 8 and 9 as well as two parks. The southernmost entrance would provide direct access to Villages 10 and 11. Alleyway entrances would provide access to Village 11.

The internal circulation for the proposed residential area was reviewed for issues related to safety, dead end aisles, and accessibility of parking spaces. As proposed, all circulation aisles accommodate two-way travel and all of the proposed parking spaces are parallel or perpendicular to the drive aisle centerline.

RECOMMENDATIONS

The Project is well-designed, but the following recommendation would further enhance transportation operations:

- (A) Redesign the drive aisle denoted in **Figure 2** by the letter "A" to decrease intersection size and subsequent internal circulation conflicts and visibility issues between vehicles, bicycles and pedestrians. This could be done by extending parking on the northwest corner of the intersection. Traffic control is not addressed in the current site plan so should be included in subsequent more detailed plans, but this location should likely be all-way stop controlled.
- (B) Alleyways coincide with neighborhood street requirements; however, turnaround maneuvers may be difficult at dead end alleys identified in Figure 1. Subsequent more detailed site plans should specifically address/demonstrate adequate access to driveways and circulation patterns for regular truck activities such as garbage pickup.

- Adequate service and emergency vehicle access is provided via the two entry streets. In subsequent, more detailed site plans, corners should be sized to accommodate regular use large vehicles (mainly garbage trucks) with larger vehicles, such as moving trucks, permitted to execute three-point turns and cross centerlines as their use of the site will be infrequent.
- (E) If additional housing is added at the location denoted by the letter "E", the end of the cul-de-sac could cause emergency circulation issues. Specifically, there would be too many units accessible by a single access route. Consideration should be given for connecting this street to adjacent development, at least for pedestrian, bicycle and emergency vehicle access.



Figure 2
Summary of Site Access Recommendations

PEDESTRIAN, BICYCLE, AND TRANSIT ACCESS AND CIRCULATION

This section of the report addresses both on-site facilities that provide pedestrian and bicycle access and circulation for the project.

ON-SITE PEDESTRIAN AND BICYCLE FACILITY EVALUATION

The existing site plan provides exceptional pedestrian facilities but the following would further enhance the pedestrian and bicycle environment:

- (C) Provide crosswalks at intersections and locations where bicycle/pedestrian pathways provide access to main sidewalks and streets. In accordance with Policy C-25 of the Specific Plan, it is recommended that contrasting or textured paving be used to finish crosswalks. The Specific Plan also recommends the use of in-ground, blinking crosswalk lights where feasible, but that guidance, while current in 2010/2011 should be revisited with greater emphasis on rapid rectangular flashing beacons as a preferred treatment. These improvements should meet ADA requirements.
- (C*) Remove parallel parking in locations where crosswalks are added and for 25 feet on either side of the crosswalk to "daylight" the crossing. If crosswalks are bulbed, daylighting is not required.
- (D) Bicycle and pedestrian connections to the perimeter trail along the north edge of the site should be provided where feasible.
- (D) Consider providing access to the perimeter trail in existing open spaces to decrease bicycle and pedestrian traffic in drive aisles.

BICYCLE ACCESS EVALUATION

The proposed project does not conflict with existing or planned off-site bicycle facilities, and no modifications to off-site bicycle facilities are recommended. Class III bicycle facilities are planned near the project site on Hickory Street and a Class I separated bike trail runs along the north border of the site. This trail is described as a perimeter trail in the Specific Plan. The Project would most likely increase bicycle demand and the project should ensure appropriate bicycle accommodations are provided for residents. These accommodations should be positioned in locations that provide direct access to recreational and residential uses on-site such as near building and park entrances and to the proposed Dumbarton station.



TRANSIT ACCESS

AC Transit's Line 275, a local bus line, has a stop along Willow Street approximately 0.2 miles from the Project site. The Specific Plan site plans provide continuous sidewalks from the Gateway Station West Project site to the location of the bus stop at full build out of the Specific Plan area. The Dumbarton TOD Specific Plan (Updated September 8th, 2010) includes the following policy: C-24: Where necessary, design streets to accommodate transit services, including bus stops and shelters.

This report recognizes the Dumbarton Rail project is currently on indefinite hold due to a failed transportation sales tax measure in Alameda County in 2012 however, transit, bicycle and pedestrian access should still be provided as detailed in the recommendations above.