

APPENDIX F

To:	Alex Morris	From:	Daryl Zerfass and Maria Morris
	City of Antioch		Stantec
File:	185705365	Date:	May 7, 2021

Reference: AMPORTS Antioch Vehicle Processing Facility Project LOS Traffic Analysis Screening and VMT Analysis Screening

Stantec Consulting Service Inc. (Stantec) has prepared the following screening memo for the AMPORTS Antioch Vehicle Processing Facility (Project) located on 2301 Wilbur Avenue in the City of Antioch, California. The Project proposes to construct an automotive logistics and processing facility on a 38.9-acre site. This memo summarizes the findings of a traffic analysis screening and a VMT analysis screening.

Project Description

The Project site will be used for delivery and storage of vehicles and limited processing prior to distribution to dealerships. The improved site will include conversion and upgrade of the existing wharf to support roll-on/roll-off (RORO) operations, a one-story vehicle processing building with offices, as well as grading, fencing, paving, and striping for car storage and loading prior to distribution. The vehicle processing building is approximately 25,328 square feet (s.f.). There is an existing 5,000 s.f. storage building and existing guard house, which will both remain.

The site was the previous location of the Gaylord Paper Mill. The project site is surrounded by State Route 4 to the east, residential development to the west, and Wild Horse Road, the Contra Costa Water District's Pumping Plant 4, and the Contra Costa Canal to the south. **Figure 1** shows the Project Location Map. **Figure 2** shows the Project's Site Plan.

Methodology

Level of Service (LOS) Traffic Analysis Project Screening

The City of Antioch requires that a LOS traffic analysis be conducted for projects adding 50 or more peak hour trips to an intersection. The Project's trip generation is estimated using a combination of the Project's anticipated number of employees, number of trucks, as well as by using trip rates from the Institute of Transportation Engineers (ITE) trip generation handbook. If the Project is found to add more than 50 peak hour trips to an intersection, a LOS traffic analysis is typically required.

VMT Impact Analysis Project Screening

The VMT analysis screening presented below complies with the updated California Environmental Quality Act (CEQA) guidelines that incorporates the requirements of Senate Bill 743 (SB 743). Generally, SB 743 moves away from using delay-based level of service (LOS) as the metric for identifying a project's significant impact to instead use VMT.

SB 743 requires the Governor's Office of Planning and Research (OPR) to establish recommendations for identifying and mitigating transportation impacts within CEQA, the document is referred to in this

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memorandum as OPR's Technical Advisory¹. OPR's Technical Advisory recommends methodologies for quantifying VMT, significance thresholds for identifying a transportation impact, and screening criteria to quickly identify if a Project can be presumed to have a less than significant impact without conducting a full VMT analysis. Lead agencies are to adopt local guidelines appropriate for their jurisdiction. At this time, the City of Antioch has not formally adopted VMT guidelines. In July 2020, the Contra Costa Transportation Authority (CCTA) released a draft VMT Analysis Methodology for Land Use Project in Contra Costa² but is currently in the process of developing VMT guidance. Therefore, this VMT analysis has been prepared in accordance with OPR's Technical Advisory guidance and CCTA's draft methodology.

LOS Traffic Analysis – Project Screening

The Project's trip generation is estimated using a combination of Project specific information that includes the anticipated number of employees, employee work shifts, occasional crew of stevedores, number of trucks, hours of operation, as well as by using trip rates from the ITE trip generation handbook.

Employees, Hours of Operation and Trip Generation

Table 1 summarizes the anticipated number of employee and hours of operations for the Project.

Table 1 Project Employee and Truck Hours of Operations

Description	Typical Daily Amount	Non-Typical (Vessel Arrival ¹) Amount
Employees		
Number of Employees	30	65
Number of Employee Shifts	1	1
Time of Employee Shift	7:00 AM - 3:30 PM	7:00/9:00 ² AM – 3:00 ² /3:30 PM
Days of Operations	Monday - Friday	Monday - Friday (when needed)
Trucks		
Number of Truck Trips per Year	3,000 - 3,800	nc
Number of Trucks per Day	10-12 (Average) 18 (Worst Case)	nc
Time of Truck Operations	8:00 AM to 4:00 PM	nc
Truck Operations	Monday - Friday	nc
¹ Vessel arrivals are anticipated up to 25 times a year ² Stevedore shift begins at 9:00 AM and ends at 3:00 PM nc = no change		

The Project would result in 30 full time employees, at the Project site on a typical day. For full time employees, there is anticipated to be one employee shift that starts at 7:00AM and ends at 3:30PM, Monday

¹ Technical Advisory on Evaluating Transportation Impacts in CEQA, Governor's Office of Planning and Research, State of California, December 2018.

² VMT Analysis Methodology for Land Use Projects in Contra Costa, Growth Management Task Force Review Draft, Contra Costa Transportation Authority, July 9, 2020.

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through Friday. For this analysis, approximately 75 percent of the employees are estimated to arrive on site prior to the start of the 7:00 AM shift, with the remainder conservatively estimated to arrive during the AM roadway peak hour (generally occurring between 7:00 AM and 9:00 AM). Similarly, approximately 75 percent of the employees are estimated to exit the site at the end of the 3:30 PM shift, with the remainder conservatively estimated to leave during the PM roadway peak hour (generally occurring between 4:00 PM and 6:00 PM). Weekend work is not anticipated in the normal course of business. In regard to truck activity on a typical day, the Project applicant reports that that 3,000 to 3,800 truck trips per year will occur. Trucks will be used to transport vehicles to other locations. Operations are anticipated to include on average 10 to 12 per day, but this study uses an estimated worst case of 18 to account for fluctuations, between the hours of 8:00 AM to 4:00 PM, Monday through Friday. Trucks will arrive and depart the site on the same day. Approximately one-third of the daily truck activity is conservatively estimated to occur during the morning roadway peak hour and again during the evening roadway peak hour.

In addition to employee and truck activity, additional trips would occur during the day for various purposes, such as deliveries and visitors. The number of visitor and delivery trips are estimated based on the size of the proposed new processing building (25,328 s.f.) based on typical warehouse ITE trip generation rates. Approximately 4 trips would occur during the AM peak hour of the adjacent roadway (typically one hour between 7:00 AM and 9:00 AM), 5 trips would occur during the PM peak hour of the adjacent roadway (typically one hour between 4:00 PM and 6:00 PM), and there would be 44 average daily trips (ADT).

On a non-typical day when vessels arrive at port (up to 25 times a year), a crew of stevedores (approximately 35 stevedores) would be on-site to unload the vessel. The crew is usually transported by vanpool, but on occasion may arrive in separate vehicles. For a conservative worse-case scenario, this analysis assumes that the crew will arrive in separate vehicles. The stevedores would start their shift around 9:00 AM and end their shift around 3:00 PM. For this analysis, approximately 75 percent of the stevedores are estimated to arrive on site prior to the start of the 9:00 AM shift, with the remainder conservatively estimated to arrive after 9:00 AM. Similarly, approximately 75 percent of the stevedores are estimated to exit the site at the end of the 3:00 PM shift, with the remainder conservatively estimated to leave before 3:00 PM. On these non-typical days, it is estimated that up to 65 total employees (full-time employees and crew of stevedores) will be onsite.

Based on the above employee and hours of operation information, the estimated Project trip generation for a typical day and a non-typical day are summarized in **Table 2**.

Table 2 Trip Generation Summary

Description	AM Project Peak Hour (6:00AM-7:00AM)			AM Roadway Peak Hour			PM Project Peak Hour (3:00-4:00PM)			PM Roadway Peak Hour			ADT
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Trip Rate													
Warehousing (ITE 150) ¹	na	na	na	0.13	0.04	0.17	na	na	na	0.05	0.14	0.19	1.74
Trip Generation													
FT Employees vehicles ²	22	0	22	8	0	8	0	22	22	0	8	8	74 ⁴
Trucks ²	0	0	0	6	1	7	0	3	3	0	6	6	36
Visitors/ Deliveries ^{1,3}	0	0	0	3	1	4	2	2	4	1	4	5	44
Total Typical Day	22	0	22	17	2	19	2	27	29	1	18	19	154

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Stevedores ^{2,5} (occasional)	0	0	0	26	0	26	0	26	26	0	0	0	86 ⁴
Total Non-Typical Day⁵	22	0	22	43	2	45	2	53	55	1	18	19	240
na = not available, Project trips estimated for these time periods based on expected operations FT = full-time ¹ Warehouse (ITE 150) trip rate used to estimate ancillary site visitors and deliveries not related to heavy truck operations ² Based on number of employees, employee shift, and truck operations ³ Based on 25.328 TSF new processing building ⁴ Based on ITE (140) Manufacturing trip rate of 2.47 per employee ⁵ Note that the crew of stevedores are usually transported to the site via vanpool. However, trips shown here assume a worse-case scenario where the crew of stevedores drive to project site separately.													

On a typical day, the Project's AM peak hour would occur between 6:00 AM and 7:00 AM when most employees would be arriving at the Project site in their personal vehicle. The Project's PM peak hour would occur between 3:00PM and 4:00PM when most employees would leave the Project site in their personal vehicles. There would be a nominal volume of trips that occur in the AM and PM peak hours of the adjacent roadways when off-site traffic impacts would generally occur. Specifically, as shown in **Table 2**, approximately 19 Project trips are anticipated for the peak hour of the adjacent roadways. Overall, there would be 154 daily trips generated by the Project for a typical weekday. Since the Project will not add 50 or more peak hour trips to an intersection, a LOS traffic analysis is not required.

On a non-typical day when a crew of stevedores are utilized to help unload a vessel, the AM Project peak hour (22 trips) would remain the same, but the project trips in the AM peak hour of adjacent roadways would increase to 45. The PM Project peak hour would increase to from 29 up to 53 trips. The project trips in the PM peak hour of adjacent roadways would remain the same as a typical day (19 trips). Since the Project's trips would be distributed to the adjacent roadways, where some vehicles are coming to/going to the east and some are coming to/going to the west, the project would not add 50 or more peak hour trips to an off-site intersection. In addition, the applicant has indicated that the crew is usually transported in via vanpool, therefore, trips would be reduced to below 50 trips. Therefore, a LOS traffic analysis is not required.

VMT Impact Analysis – Project Screening

Prior to undertaking a project-level VMT analysis, OPR's Technical Advisory and CCTA's draft methodology recommends applying a screening criteria. If a project satisfies one or more of the screening criteria, the Project could be presumed to have a less-than-significant impact. There are five screening criteria as shown in **Table 3**.

Table 3 Project Screening Criteria and Threshold

Category	Criteria/Screening	Threshold	Applicable to Project
CEQA Exemption	Any project that is exempt from CEQA is not required to conduct a VMT analysis.	None	No
Small Project	Small Projects can be screened out from completing a full VMT analysis.	If the Project generates less than 110 trips per day, the Project is assumed to have a less than significant impact.	No

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		Projects of 10,000 square feet or less of non-residential space or 20 residential units or less, or otherwise generating less than 836 VMT per day.	
Local-Serving Uses	Projects that consist of Local-Serving uses can be screened out from completing a full VMT analysis.	Local serving retail of less than 50,000 square feet may also be presumed to have a less than significant impact.	No
Transit Priority Area Screening	Projects within ½ mile of a major transit stop or a stop located along a high-quality transit corridor generally reduce VMT and therefore can be screened out from completing a full VMT analysis.	If the Project is within ½ mile of a major or high-quality transit stop/corridor, the Project is assumed to have a less than significant impact. The project should generally also meet the following criteria: <ul style="list-style-type: none"> - FAR > 0.75 - Not provide more parking than required by City - Be consistent with the regional SCS - Does not result in a net reduction in multi-family housing units - Not replace existing affordable units with a smaller number of moderate to high-income units 	No
Low VMT Area Screening	Residential and employment-generating projects that are located in areas with low VMT and that are similar in character to the existing development can be screened out from completing a full VMT analysis.	If the Project is in a low VMT area the Project is assumed to have a less than significant impact. The CCTA draft methodology defines low VMT area as: <ul style="list-style-type: none"> - For housing projects: Cities and unincorporated portions within CCTA's five subregions that have existing home-based VMT (HBVMT) per capita that is 85% or less of the existing county-wide average - For employment-generating projects: Cities and unincorporated portions within CCTA's five subregions that have existing home-based work VMT (HBWVMT) per worker that is 85% or less of the existing regional average (regional is defined as Bay-Area) 	Yes
FAR = Floor Area Ratio SCS = Sustainable Community Strategy Sources: OPR's Technical Advisory and CCTA draft methodology			

Low VMT Area Screening

As previously shown in **Table 3**, employment-generating projects located within a low VMT generating area can be presumed to have a less-than-significant impact. VMT screening maps prepared by CCTA for this purpose are utilized here. Traffic analysis zone (TAZ) level VMT estimates were also obtained from CCTA.

Two methods are presented here. The first method uses TAZ level VMT estimates and is compared to the Contra Costa County regional level, which is the City's preferred approach. The second method uses Citywide level VMT estimates and is compared to the Bay Area regional level, which is CCTA's recommended approach. CCTA recommends that for the analysis of employment-generating projects, the cities and unincorporated portions of CCTA's five subregions with existing home-based work VMT (HBWVMT) per worker that is 15% below the existing regional average are presumed to have a less-than-significant impact

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for any development within those areas³. According to CCTA, development projects may assume that the project's VMT output will be similar in nature to the existing Citywide average HBWVMT VMT per worker⁴. CCTA defines the regional area as the Bay Area region.

The Project is located in TAZ 30149. The Project is similar to the existing uses in the area; therefore, it is appropriate to assume that the Project would exhibit similar trip characteristics as exhibited by the existing TAZ. **Table 4** summarizes the average HBWVMT per worker for TAZ 30149 and the average HBWVMT per worker for Contra Costa County. **Table 4** also shows the City of Antioch and the average HBWVMT per worker for the Bay Area region.

Table 4 Low VMT Area Summary

Analysis Metrics: Employment-Generating	VMT
Method 1	
Project TAZ 30149 HBWVMT per Worker	10.8
Contra Costa County Average HBWVMT per Worker	14.9
Contra Costa County Average HBWVMT per Worker minus 15%	12.7
Is Project TAZ above or below the regional average minus 15%?	Below
Is Project in a low VMT area?	Yes
Method 2	
Citywide Average HBWVMT per Worker	10.9
Bay Area Average HBWVMT per Worker	15.6
Bay Area Average HBWVMT Worker minus 15%	13.2
Is Citywide average above or below the regional average minus 15%?	Below
Is Project in a low VMT area?	Yes
Source: Contra Costa Transportation Authority staff email correspondence "Request for Contra Costa Travel Demand Model VMT Data" on 4/8/21	

As shown in **Table 4**, the Project TAZ HBWVMT per worker is 10.8 and the Countywide average HBWVMT per worker with a 15 percent reduction is 12.7. Therefore, the Project is below the significance threshold and would not have a significant impact on VMT. Per CCTA methodology, the Citywide average HBWVMT per worker of 10.9 is below the regional average HBWVMT per worker significance threshold of 13.2. Therefore, the Project is in one of CCTA's cities that is considered a "low VMT area" and the Project is presumed to have a less than significant impact on VMT.

Cumulative VMT Analysis Screening

The City's General Plan last underwent a comprehensive update in 2003, with an update to the Land Use Element in 2017. The Project site is zoned for M-2 Heavy Industrial District and is shown in the City's General Plan as within the Eastern Waterfront Employment Focus Area. The Project land use is consistent with the City of Antioch General Plan. Since the Project is consistent with the City's General Plan, the Project would

³ Page 8 from VMT Analysis Methodology for Land Use Projects in Contra Costa, Growth Management Task Force Review Draft, Contra Costa Transportation Authority, July 9, 2020

⁴ Email correspondence with CCTA staff dated 4/8/2021.

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also be consistent with the Plan Bay Area 2040, the long-range Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) for the San Francisco Bay Area.

According to OPR's Technical Advisory⁵ and the CCTA's draft methodology⁶, when a project has a less than significant impact at the project level, the project would not have a cumulative impact. Since the Project was found to have a less than significant impact using the low VMT area screening criteria, the Project would also have a less than significant cumulative impact.

Active Transportation

The Project site is in an industrial part of the City. Currently, there are no sidewalks on both sides of Wilbur Avenue, except for a short half mile segment on the north side of Wilbur Avenue east of the Project site. Pedestrians walking on Wilbur Avenue would utilize the wide shoulders. There are no designated bicycle facilities around the Project site. The Project will not block, remove, or create barriers for walking and biking.

Transit

The Eastern Contra Costa Transit Authority (ECCTA) operates fixed-route and paratransit service under Tri Delta Transit and contracts with First Transit for the operation of buses. Tri Delta provides transit service near the Project site. The nearest bus stop is located near the corner of Veira and 18th street, approximately over a half a mile away. The bus stop provides service to for routes 383, 391, and 393. Route 303 provides weekday service from Blue Goose Park to Antioch BART. Route 391 provides weekday service from Brentwood Park & Ride to Pittsburg Center Station. Lastly, Route 393 provides service weekend service from Brentwood Park & Ride to Antioch BART. The Project would not block, remove, or create barriers for transit utilization.

Conclusion

A LOS traffic analysis screening and a VMT analysis screening was conducted for the Project.

On a typical day, approximately 19 Project generated trips are anticipated to occur during the peak hour of the adjacent roadways. The Project would generate the most traffic outside of the typical roadway peak hours. In the AM from 6:00 AM to 7:00 AM, the Project would generate approximately 22 peak hour trips when most employees would be arriving at the Project site in their personal vehicle. In the PM from 3:00PM to 4:00PM, employees leave in their personal vehicle, along with some truck trips and visitor/delivery trips, generating approximately 29 Project trips. Overall, there would be an estimated 154 daily trips generated by the Project for a typical weekday. Since the Project would not add 50 or more peak hour trips to an intersection, the Project does not meet the requirement for a LOS analysis.

On a non-typical day when a crew of stevedores are utilized to help unload a vessel, project trips in the AM peak hour of adjacent roadways would increase to 45. The PM Project peak hour would increase to from 29 up to 53 trips. Since the Project's trips would be distributed to the adjacent roadways, where some vehicles are coming to/going to the east and some are coming to/going to the west, the Project would not add 50 or more peak hour trips to an off-site intersection. In addition, the applicant has indicated that the crew is usually

⁵ Page 6 from Technical Advisory on Evaluating Transportation Impacts in CEQA, Governor's Office of Planning and Research, State of California, December 2018.

⁶ Page 13 from VMT Analysis Methodology for Land Use Projects in Contra Costa, Growth Management Task Force Review Draft, Contra Costa Transportation Authority, July 9, 2020

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transported by vanpool, therefore, trips would be reduced to below 50 trips. Therefore, a LOS traffic analysis is not required.

Using guidance from OPR's Technical Advisory, CCTA's draft methodology, and consultation with City staff, a VMT screening analysis was prepared for the Project. The analysis showed that the Project meets the Low VMT Area screening criteria since the Project is in a TAZ area where the HBWVMT per worker is below the Countywide average HBWVMT per worker with a 15% reduction. In addition, per CCTA's methodology, the Citywide HBWVMT per worker is below the regional average HBWVMT per worker with a 15% reduction. Therefore, the Project would have a less than significant impact on VMT.

If you have any questions on the above material, please feel free to contact Daryl or Maria to discuss.

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Attachment: Figure 1 Project Location Map
 Figure 2 Project Site Plan

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Figure 1
Project Location Map
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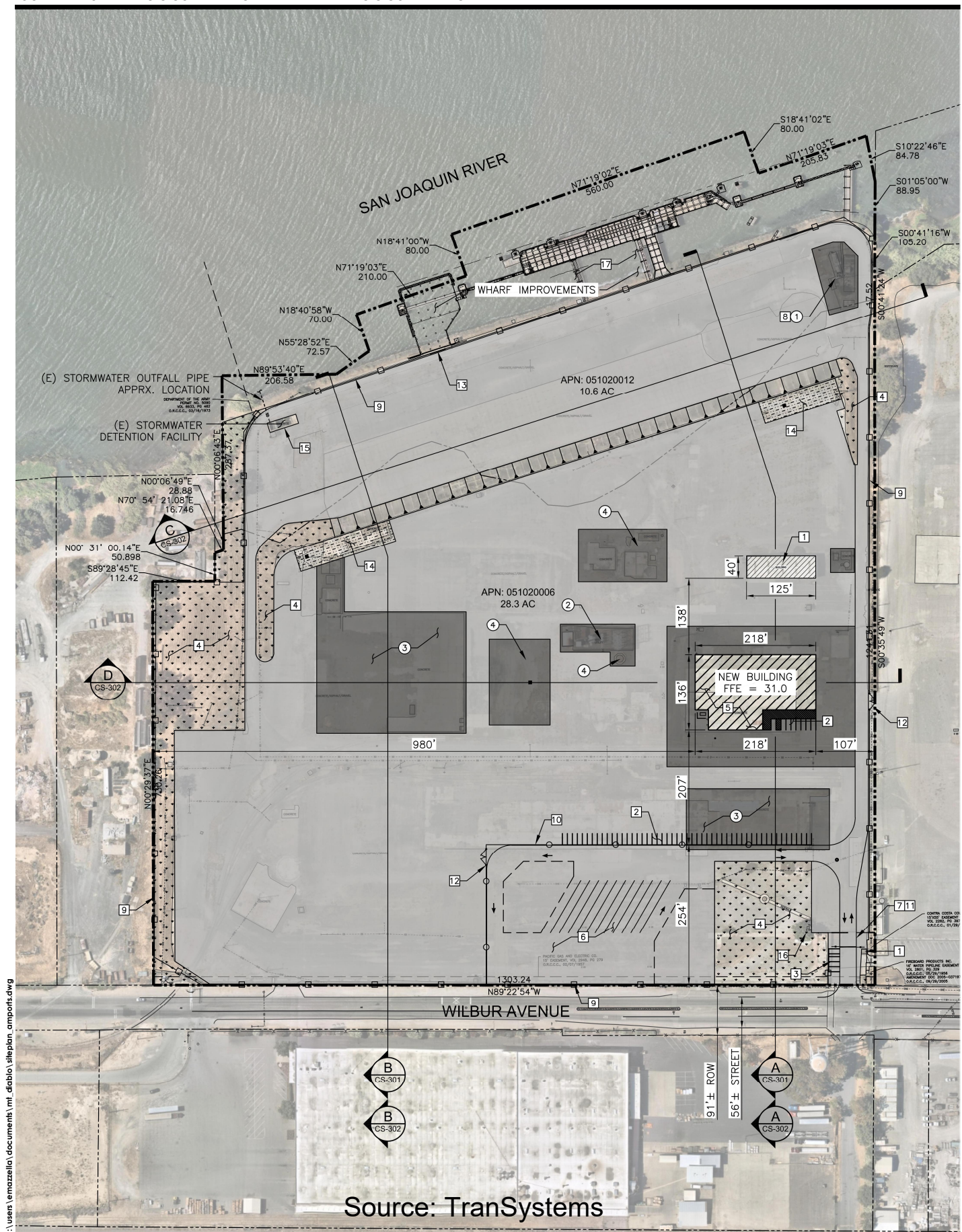


Figure 2

Project Site Plan