

Appendix G Traffic



MEMORANDUM

Date: May 6, 2015
To: Tamseel Mir, ICF International
From: Ivan Gonzalez & Tom Gaul

Subject: Updated Transportation Impact Assessment of Van Nuys Station 39

Ref: LA15-2530.01

This memorandum provides an update to the previous transportation impact assessment prepared for the proposed relocation of Van Nuys Fire Engine Company 39 to 14600-14614 West Aetna Street in Van Nuys. The proposed project's trip generation, on-site parking supply, site access and internal circulation are reviewed to assess the potential for project impacts.

The purpose of this update is to include the most recent project information and assumptions into the transportation impact analysis, which was originally completed in 2013. Los Angeles Fire Department staff have reviewed and updated the project-related assumptions from the previous analysis. The updated information contained in this document incorporates the Fire Department's review.

PROJECT DESCRIPTION

The proposed project is an 18,533 square foot fire station to be located at 14600-14614 West Aetna Street in Van Nuys. The fire station will be occupied by Engine Company 39, which currently operates out of a fire station at 14415 Sylvan Street, approximately 0.5 miles from the project site. The proposed project will include the following elements:

- 18,533 square foot fire station
- Six response vehicles, including:
 - Two engines
 - One ladder truck
 - Two ambulances
 - One Battalion Chief Command Vehicle
- 16 firefighters and rescue staff on-duty at all times
- 40 surface parking spaces for crew members
- Two surface parking spaces for visitors



TRAFFIC ASSESSMENT

Trip Generation

The proposed project consists of an 18,533 square foot fire station, with 16 firefighters and rescue staff on-duty at all times. The fire station will serve the service area currently covered by the existing Fire Station 39 on Sylvan Street, with an approximate 2% increase in activity estimated per year, as a city wide average. Since no universal trip generation standards are available for Fire Stations, trip generation estimates were developed based on existing travel behavior of Fire Station 39, coupled with assumptions regarding future growth. The trip generation forecasts provide a worst-case scenario assessment of travel behavior at Fire Station 39.

Discussions with Los Angeles Fire Department staff¹ provided detailed notes on existing response volume, travel behavior, and seasonal peak periods. The following details were included in developing trip generation forecasts:

- There are currently an average of 29 emergency responses per 24-hour period
 - With additional resources provided at the new site, the Engine Company expects a 2% increase in call volumes per year (as a citywide average)
 - On average, two vehicles respond to emergency calls. There are, on average, four fire calls per day, in which all emergency vehicles respond to the scene
 - Response times are not expected to increase due to the availability of less congested routes
- Sixteen firefighters and emergency staff will be on-duty at all times
 - Shifts are 24 hours long, with a shift change at 6:30 am
 - Most staff members leave immediately after the shift change; sometimes a few staff members stay later and leave by about 8:00 am
- In addition to emergency response calls, firefighters and emergency staff leave the site for detail work, including fire prevention education, tasks assigned by the fire chief, and assisting EMTs
 - Each crew member makes approximately one to two non-emergency trips per shift
 - There are, on average, two to five crew members per vehicle on non-emergency trips

¹ Fire Chief Klafta and Fire Captain Birg, Los Angeles Fire Department, May 7, 2014; August 23, 2014; September 4, 2014; October 16, 2014; May 1, 2015



- Crew members use assigned vehicles to attend events
- Detail work generally occurs in the late mornings and early afternoons

Based on these details, we developed the following set of assumptions for generating trips. As previously noted, these assumptions represent the most conservative estimates for each trip type.

- Each crew member travels by single occupancy vehicle to and from work, and makes one commute trip to work at the start of the shift and a second one at the end of the shift
 - 25% of employees leave their shift after 8:00am, during the AM peak hour of traffic
- There would be an average of 29 daily calls with an expected 2 percent annual increase in service calls at the new facility
 - Four calls would be fire calls, requiring all vehicles to respond to the scene
 - The remaining calls would require two vehicles to respond to the scene
 - To be conservative, one of the four daily fire calls would occur during each peak hour
 - The peak hour trip generation estimates that every response vehicle would leave the Fire Station and return to the site once within the peak hour (two trip ends per vehicle)
- Every staff member makes two non-emergency trips per day (four trip ends)
 - Vehicle occupancy for these trips averages two crew members per vehicle
 - None of the trips occur during the AM peak hour; 15% of trips occur during the PM peak hour
- There would be four deliveries/non-staff trips per day

Given the above assumptions, Table 1 presents the estimated trip generation for the new Fire Station 39.



TABLE 1 FIRE STATION 39 TRIP GENERATION			
Trip Type	Daily Trip Ends	AM Peak Hour Trip Ends	PM Peak Hour Trip Ends
Crew Start-of-Shift/End-of-Shift Trips	32	4	0
Emergency Response Trips	148	12	12
Crew Non-Emergency Trips	32	0	5
Deliveries	8	2	2
Total Trips	220	18	19

The trip generation estimates presented above do not include any credit for the trips currently occurring at Fire Station 39 on Sylvan Street, approximately 0.5 miles from the project site. With the operations moving from the existing location to the proposed site, all of the trips currently being generated by the Fire Station will be displaced to the new location. Given the proximity between the two stations, and a 6 square mile service area, it is likely that most of the trips being generated by the Engine Company will take similar routes. Beyond the trips being generated by the annual 2% increase in response capacity and additional response vehicles, the majority of the trips presented in Table 1 will be displacement trips, not net new trips. For the purpose of presenting a conservative analysis, we did not discount the displacement trips.

The trip generation estimates also do not include credit for any trips that may be generated at the existing parking lot on the project site.

Traffic Impact Assessment

As noted above, the proposed project will generate an estimated 220 daily trips, 18 AM peak hour trips, and 19 PM peak hour trips. The City of Los Angeles Traffic Study Policies & Procedures (August 2014) requires that a Technical Memorandum be required “when the project is likely to add 25 to 42 a.m. or p.m. peak hour trips, and the adjacent intersection(s) are presently estimated to be operating at LOS E or F.” (City of Los Angeles Department of Transportation, *Traffic Study Policies & Procedures*, August 2014) A more thorough Traffic Study is required “when the project is likely to add 500 or more daily trips, or likely to add 43 or more a.m. or p.m. peak hour trips.” Finally, the Los Angeles Congestion Management Program (CMP) requires that TIAs include “CMP arterial monitoring intersections... where the proposed project will add 50 or more trips during either the AM or PM weekday peak hours.” (Los Angeles County Metropolitan Transportation Authority, *2010 Congestion Management Program, Guidelines for CMP Transportation Impact Analysis*, D-2). The thresholds identified by these two agencies were developed to limit traffic



studies to locations where there is a true potential for traffic impacts. For a project with as few project trips as Fire Station 39, it is highly unlikely that a significant traffic impact could occur. Since the peak hour trip generation from Fire Station 39 is below all of the thresholds identified by Los Angeles City and CMP guidelines, no further traffic analysis is necessary.

PARKING SUPPLY & DEMAND

The proposed project includes 40 marked parking stalls in a surface lot, including 38 stalls for crew members and two visitor spaces. The surface lot will be accessed through a driveway on Aetna Street. Sixteen staff members are estimated on-site at any given time. The 38 crew stalls includes supply for personal vehicles and Fire Station owned non-emergency vehicles. There is therefore sufficient parking supply for personal vehicles.

The response vehicles will be parked in garages within the Fire Station, with separate response driveways along Vesper Avenue and Oxnard Street.

SITE ACCESS AND INTERNAL CIRCULATION

The proposed site plan includes a visitor driveway on Vesper Avenue, crew member driveway on Aetna Street, and response driveways on Vesper Avenue and Oxnard Street. All personal vehicle parking would be in surface lots on the project site, and emergency vehicle parking would be located in ground-floor garages with private driveways.

Based on the architect's plans for the proposed parking lots, there will be the following ingress and egress points:

- **Crew Member Parking:** Crew members will park personal vehicles and nonemergency vehicles in the crew member lot, which can be accessed via Aetna Street. Aetna Street is a two-lane roadway with predominantly industrial land uses. This driveway would permit full access to and from the project site.
- **Visitor Parking:** Visitors will access the project site and park in two marked stalls on the project site, to be accessed along Vesper Avenue. Vesper Avenue is a two-lane roadway with industrial land uses between Oxnard Street and the Orange Line Busway, and residential land uses south of Oxnard Street. There are no turning restrictions along Vesper Avenue. This driveway would permit full access to and from the project site.
- **Emergency Vehicle Parking:** Emergency vehicles will be housed in Station garages. Fire engines would exit the site from garages onto Oxnard Street, and would enter the facility via Aetna Street. Paramedic and other rescue vehicles would both exit and enter the station from garages fronting Vesper Avenue. Oxnard Street has a mix of commercial, industrial, and residential land uses.



All of the driveways allow for full access to enter and exit the site. Most vehicles will be accessing the site via the driveway on Aetna Street. The surface parking lot has a minimum 20' wide drive aisle, allowing for sufficient circulation within the lot. No impacts are therefore anticipated with regard to site access and internal circulation.

SUMMARY

The proposed Fire Station at 14600-14614 West Aetna Street will house the existing Engine Company 39, which currently operates out of a station at 14415 Sylvan Street. The proposed project would also include an on-site surface lot for personal and crew vehicles, and garages for emergency response vehicles. A general assessment was conducted of traffic impacts, parking supply, and site access & circulation and no potential impacts were found with regard to this project. This assessment remains valid based on the most recent information provided by Fire Department staff.