



## Technical Memorandum

To: Marwan Alabbasi, Polomarmar, LP

From: Eliza Laws, Senior Environmental Analyst  
Noemi Avila, Assistant Environmental Analyst

Date: July 8, 2020

Re: Gas Station Health Risk Assessment for the Motte Country Plaza Project, City of Menifee, California (Plot Plan No. 2018-300)

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The following health risk assessment was prepared to evaluate whether the gasoline dispensing facility proposed as a part of the Project generates toxic air contaminants (TACs) that would exceed the South Coast Air Quality Management District's (SCAQMD) thresholds. This assessment was conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000 *et seq.*). The methodology follows the *Emission Inventory and Risk Assessment Guidelines for Gasoline Dispensing Stations* and *Risk Assessment Procedures for Rules 1401, 1401.1 & 212* prepared by the SCAQMD for quantification of health risk and evaluation of potential impacts.<sup>1</sup>

The Project proposes relocating existing train car restaurant buildings within the same existing commercial center and constructing a 16-pump gasoline station with convenience store and drive-thru fast food restaurant with drive thru and an automated car wash on the 1.43-acre site in the City of Menifee, California.

### ■ Health Risk Assessment

Emissions resulting from gasoline service station operations may include TACs such as benzene, MTBE, toluene, xylene, and hexane and have the potential to contribute to health risk in the Project vicinity that mainly occur during loading, breathing, refueling, spillage, and hose permeation. However, only three (benzene, ethylbenzene, and naphthalene) result in cancer effects and were analyzed for cancer risk. SCAQMD developed cancer risk screening tables for a generic retail gasoline service station for the various meteorological site/Source Receptor Areas (SRA's) locations in SCAQMD's jurisdiction. The Project site is located in SRA 24.

The gasoline station is subject to and required to comply with SCAQMD Rules 461 (Gasoline Transfer and Dispensing) as well as a Permit to Construct and Permit to Operate, Rules 201 and 203, respectively. These required permits identify a maximum annual throughput allowed based on specific fuel storage and dispensing equipment that is proposed by the operator.

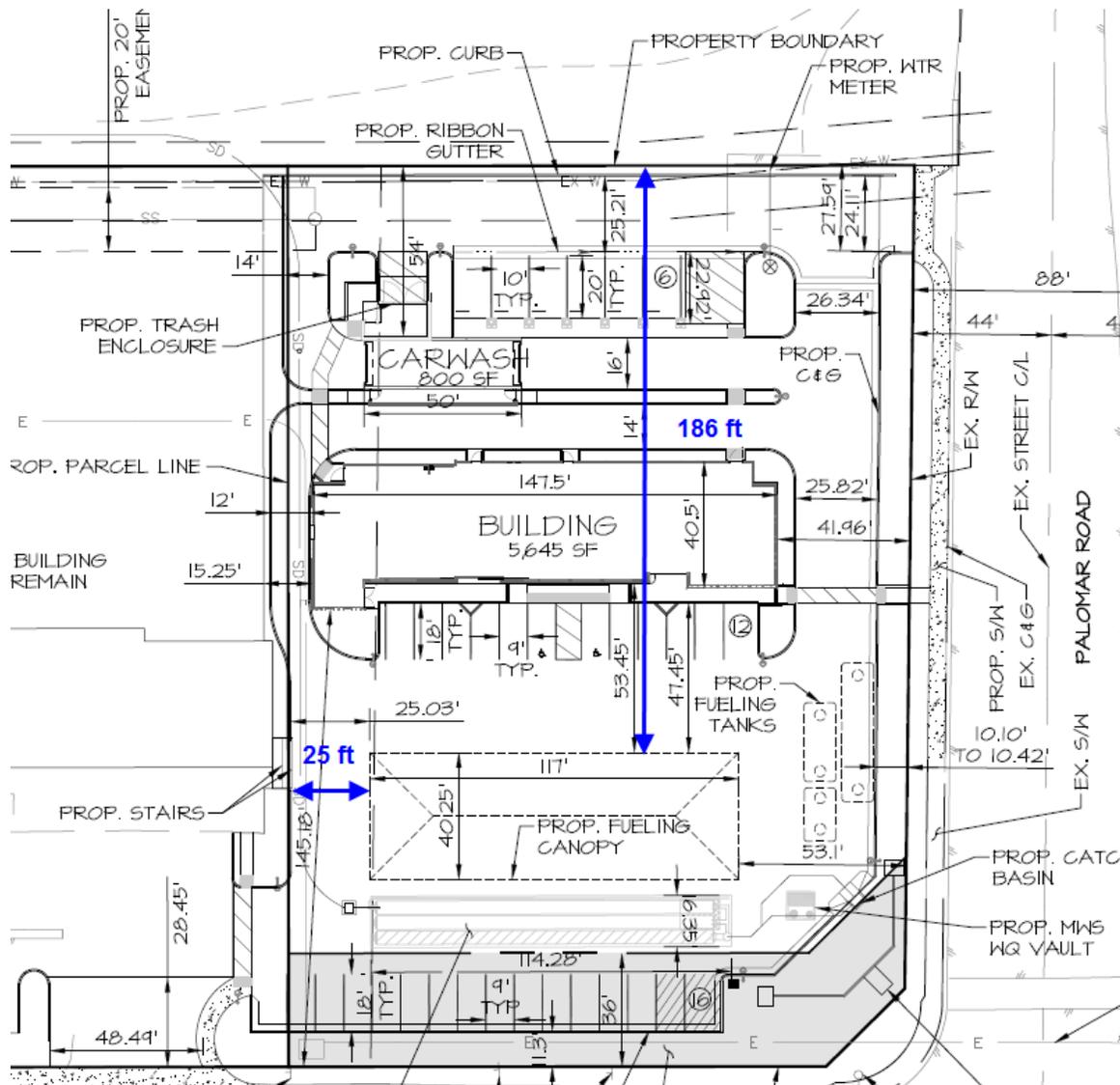
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<sup>1</sup> <http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/riskassessproc-v8-1.pdf?sfvrsn=12>

The Project applicant has identified an annual throughput of 1,600,000 gallons. However, ultimate fuel throughput limitations would be established by SCAQMD through the gasoline station permitting processes noted above.

The nearest sensitive receptors to the proposed gasoline station are shown in **Figure 1**, below. Sensitive receptors, as identified by SCAQMD, may include residences, schools, playgrounds, athletic facilities, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes. Sensitive receptors in the Project vicinity primarily include planned residences to the north of the Project site. As shown on **Figure 1**, the nearest potential future sensitive receptors are located approximately 186 feet (56.7 meters) north the proposed gasoline station canopy. Existing commercial receptors would include those located in the existing shopping center west of the Project site, 25 feet (7.6 meters) from the fuel canopy.

**Figure 1 – Nearest Receptor Location**



Based on the SCAQMD Risk Tool version 1.103 that implements the *SCAQMD Risk Assessment Procedures for Rule 1401, 1401.1, and Rule 212 and Permit Application Package "N" Version 8.1*<sup>2</sup> it is estimated that the cancer risk to sensitive and commercial receptors from the proposed gasoline dispensing station would be 1.83 in one million and 0.46 in one million, respectively.

As stated in the *Risk Assessment Procedures for Rules 1401, 1401.1 & 212*, although gasoline vapors and its TAC constituents (for example, benzene, toluene, and xylene) have non-cancer impacts, the risks from retail gasoline dispensing facilities are dominated by cancer risk. Therefore, the chronic and acute non-cancer health risk do not need to be calculated.

## ▪ **Conclusion**

The analysis indicates that operation of the proposed Project's gasoline dispensing station will not expose sensitive or commercial receptors to cancer risk greater than the SCAQMD threshold of 10 in one million. Thus, no mitigation is required.

Should you have any questions, please contact me at (951) 686-1070.

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<sup>2</sup> <http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/attachmentn-v8-1.pdf?sfvrsn=4>