

KUNZMAN ASSOCIATES

TRAFFIC ENGINEERING AND
TRANSPORTATION PLANNING

April 7, 2023

Gevork Martirosian, P.E.
Gevork Consulting Engineering
285 E. Imperial Highway, Suite 208
Fullerton, Ca. 92835

Dear Mr. Martirosian:

INTRODUCTION

The firm of Kunzman Associates is pleased to submit this Vehicle Miles of Travel Screening Analysis for the 935 South Lilac Avenue project. Kunzman Associates has been asked to prepare this analysis to determine if the proposed project will potentially impact the local vehicle miles of travel.

This letter summarizes our methodology, analysis, and findings. Although this is a technical report, every effort has been made to write the report clearly and concisely. To assist the reader with those terms unique to transportation engineering, a glossary of terms is provided within Appendix A.

PROJECT LOCATION

The proposed project site is located at 935 South Lilac Avenue project in the City of Rialto. It is important to note that the project site is located in the southeast corner of the six-legged intersection of Lilac Avenue (NS)/Randall Avenue (EW)/Bloomington Avenue (SWNE). Figure 1 shows the project location map.

PROJECT DESCRIPTION

The proposed project site is currently developed with 1 single-family residential dwelling unit. The proposed project site is proposed to be developed with 8,806 square feet of Medical Office land use and 9,966 square feet of strip retail plaza land use. Figure 2 contains the proposed project site plan.

The proposed project will have full access to Lilac Avenue and right turn in/out only access to Randall Avenue.

VEHICLE MILES OF TRAVEL SCREENING ANALYSIS

Based on The City of Rialto's Traffic Impact Analysis Report Guidelines And Requirements, projects in a Transit Priority Area, Projects in a Low Vehicle Miles of Travel Area, or certain types of locally serving projects are exempt from conducting a full Vehicle Miles of Travel analysis. The project must meet one or more of the criteria to qualify.

Based on the Fehr and Peers screening tool, the project is NOT located in a Transit Priority Area. The project does not meet this criteria.

Based on the Fehr and Peers screening tool, the project IS located in a low Vehicle Miles of Travel area. The project does meet this criteria.

Based on the land use and quantity criteria, the project is a retail project that does not exceed 50,000 square feet of gross floor area. The project does meet this criteria.

No further vehicle miles of travel analysis is required.

CONCLUSION

The proposed project site is located at 935 South Lilac Avenue project in the City of Rialto.

The proposed project site is currently developed with 1 single-family residential dwelling unit. The proposed project site is proposed to be developed with 8,806 square feet of Medical Office land use and 9,966 square feet of strip retail plaza land use.

Based on the Fehr and Peers screening tool, the project IS located in a low Vehicle Miles of Travel area. The project does meet this criteria.

Based on the land use and quantity criteria, the project is a retail project that does not exceed 50,000 square feet of gross floor area. The project does meet this criteria.

No further vehicle miles of travel analysis is required.

It has been a pleasure to service your needs on this project. Should you have any questions or if we can be of further assistance, please do not hesitate to call (714) 904-2821 or e-mail bill@traffic-engineer.com.


Sincerely,

KUNZMAN ASSOCIATES



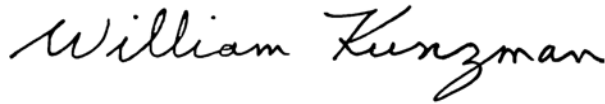
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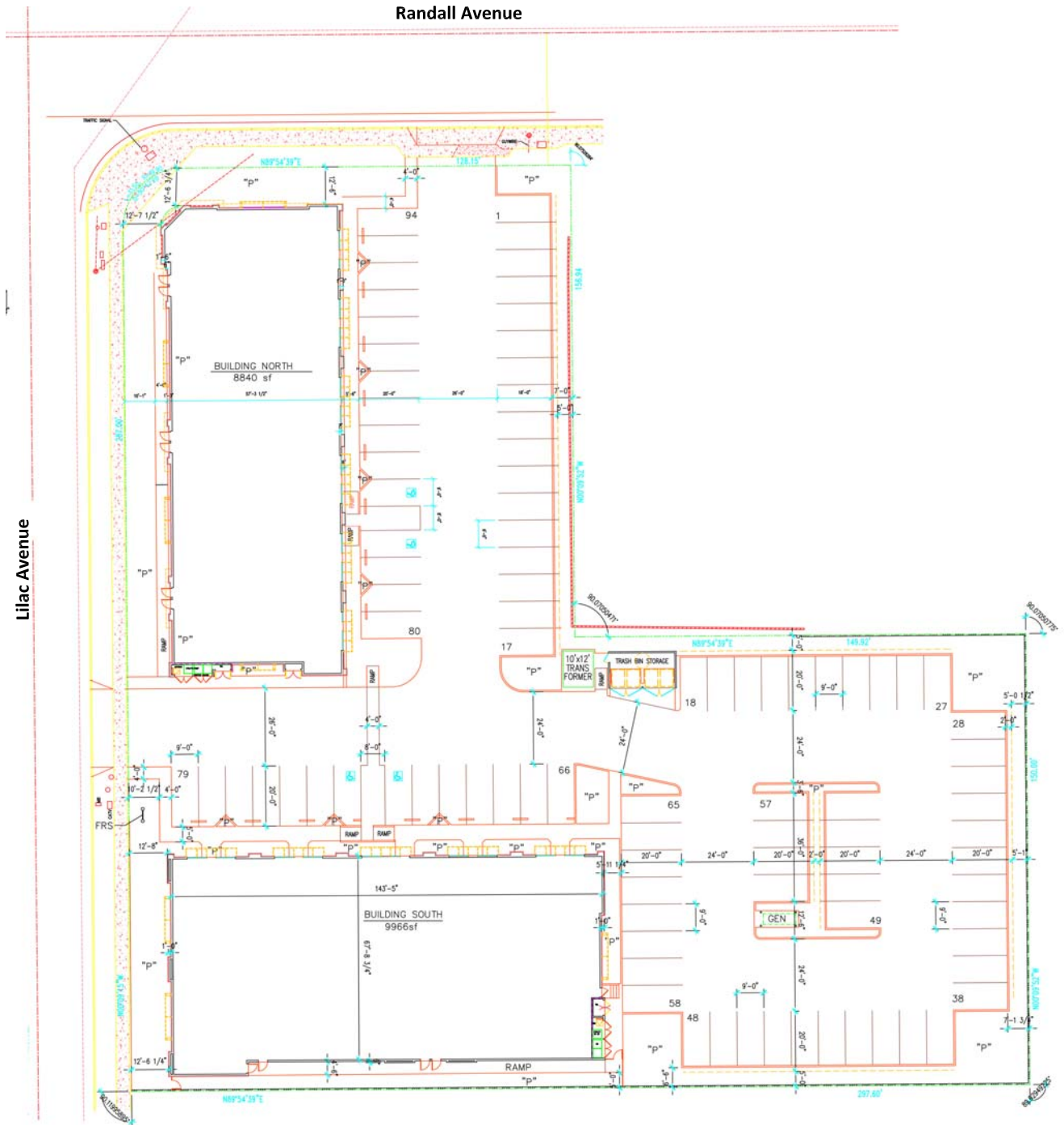
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Figure 1
Project Location Map



Figure 2
Site Plan



APPENDIX A

GLOSSARY OF TRANSPORTATION TERMS

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COMMON ABBREVIATIONS

AC:	Acres
ADT:	Average Daily Traffic
Caltrans:	California Department of Transportation
DU:	Dwelling Unit
ICU:	Intersection Capacity Utilization
LOS:	Level of Service
TSF:	Thousand Square Feet
V/C:	Volume/Capacity
VMT:	Vehicle Miles of Travel

TERMS

AVERAGE DAILY TRAFFIC: The total volume during a year divided by the number of days in a year. Usually, only weekdays are included.

BANDWIDTH: The number of seconds of green time available for through traffic in a signal progression.

BOTTLENECK: A constriction along a travelway that limits the amount of traffic that can proceed downstream from its location.

CAPACITY: The maximum number of vehicles that can be reasonably expected to pass over a given section of a lane or a roadway in a given time period.

CHANNELIZATION: The separation or regulation of conflicting traffic movements into definite paths of travel by the use of pavement markings, raised islands, or other suitable means to facilitate the safe and orderly movements of both vehicles and pedestrians.

CLEARANCE INTERVAL: Nearly same as yellow time. If there is an all red interval after the end of a yellow, then that is also added into the clearance interval.

CORDON: An imaginary line around an area across which vehicles, persons, or other items are counted (in and out).

CYCLE LENGTH: The time period in seconds required for one complete signal cycle.

CUL-DE-SAC STREET: A local street open at one end only, and with special provisions for turning around.

DAILY CAPACITY: The daily volume of traffic that will result in a volume during the peak hour equal to the capacity of the roadway.

DELAY: The time consumed while traffic is impeded in its movement by some element over which it has no control, usually expressed in seconds per vehicle.

DEMAND RESPONSIVE SIGNAL: Same as traffic-actuated signal.

DENSITY: The number of vehicles occupying in a unit length of the through traffic lanes of a roadway at any given instant. Usually expressed in vehicles per mile.

DETECTOR: A device that responds to a physical stimulus and transmits a resulting impulse to the signal controller.

DESIGN SPEED: A speed selected for purposes of design. Features of a highway, such as curvature, superelevation, and sight distance (upon which the safe operation of vehicles is dependent) are correlated to design speed.

DIRECTIONAL SPLIT: The percent of traffic in the peak direction at any point in time.

DIVERSION: The rerouting of peak hour traffic to avoid congestion.

FORCED FLOW: Opposite of free flow.

FREE FLOW: Volumes are well below capacity. Vehicles can maneuver freely and travel is unimpeded by other traffic.

GAP: Time or distance between successive vehicles in a traffic stream, rear bumper to front bumper.

HEADWAY: Time or distance spacing between successive vehicles in a traffic stream, front bumper to front bumper.

INTERCONNECTED SIGNAL SYSTEM: A number of intersections that are connected to achieve signal progression.

LEVEL OF SERVICE: A qualitative measure of a number of factors, which include speed and travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs.

LOOP DETECTOR: A vehicle detector consisting of a loop of wire embedded in the roadway, energized by alternating current and producing an output circuit closure when passed over by a vehicle.

MINIMUM ACCEPTABLE GAP: Smallest time headway between successive vehicles in a traffic stream into which another vehicle is willing and able to cross or merge.

MULTI-MODAL: More than one mode; such as automobile, bus transit, rail rapid transit, and bicycle transportation modes.

OFFSET: The time interval in seconds between the beginning of green at one intersection and the beginning of green at an adjacent intersection.

PLATOON: A closely grouped component of traffic that is composed of several vehicles moving, or standing ready to move, with clear spaces ahead and behind.

ORIGIN-DESTINATION SURVEY: A survey to determine the point of origin and the point of destination for a given vehicle trip.

PASSENGER CAR EQUIVALENTS (PCE): One car is one Passenger Car Equivalent. A truck is equal to 2 or 3 Passenger Car Equivalents in that a truck requires longer to start, goes slower, and accelerates slower. Loaded trucks have a higher Passenger Car Equivalent than empty trucks.

PEAK HOUR: The 60 consecutive minutes with the highest number of vehicles.

PRETIMED SIGNAL: A type of traffic signal that directs traffic to stop and go on a predetermined time schedule without regard to traffic conditions. Also, fixed time signal.

PROGRESSION: A term used to describe the progressive movement of traffic through several signalized intersections.

SCREEN-LINE: An imaginary line or physical feature across which all trips are counted, normally to verify the validity of mathematical traffic models.

SIGNAL CYCLE: The time period in seconds required for one complete sequence of signal indications.

SIGNAL PHASE: The part of the signal cycle allocated to one or more traffic movements.

STARTING DELAY: The delay experienced in initiating the movement of queued traffic from a stop to an average running speed through a signalized intersection.

TRAFFIC-ACTUATED SIGNAL: A type of traffic signal that directs traffic to stop and go in accordance with the demands of traffic, as registered by the actuation of detectors.

TRIP: The movement of a person or vehicle from one location (origin) to another (destination). For example, from home to store to home is two trips, not one.

TRIP-END: One end of a trip at either the origin or destination; i.e. each trip has two trip-ends. A trip-end occurs when a person, object, or message is transferred to or from a vehicle.

TRIP GENERATION RATE: The quantity of trips produced and/or attracted by a specific land use stated in terms of units such as per dwelling, per acre, and per 1,000 square feet of floor space.

TRUCK: A vehicle having dual tires on one or more axles, or having more than two axles.

UNBALANCED FLOW: Heavier traffic flow in one direction than the other. On a daily basis, most facilities have balanced flow. During the peak hours, flow is seldom balanced in an urban area.

VEHICLE MILES OF TRAVEL: A measure of the amount of usage of a section of highway, obtained by multiplying the average daily traffic by length of facility in miles.