

(NOT SO)
**BRIEF GUIDE OF VEHICULAR TRAFFIC GENERATION RATES
 FOR THE SAN DIEGO REGION**



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NOTE: This listing only represents a guide of average, or estimated, traffic generation "driveway" rates and some very general trip data for land uses (emphasis on acreage and building square footage) in the San Diego region. These rates are subject to change as future documentation becomes available, or as local sources are updated. For more specific information regarding traffic data and trip rates, please refer to the San Diego Traffic Generators manual, always check with local jurisdictions for their preferred or applicable rates.

LAND USE	TRIP CATEGORIES (PRIMARY:DIVERTED:PASS-BY)*	ESTIMATED WEEKDAY VEHICLE TRIP GENERATION RATE (DRIVEWAY)	HIGHEST PEAK HOUR % (plus IN:OUT ratio)		TRIP LENGTH (Miles)**
			Between 8:30-9:30 A.M.	Between 3:30-4:30 P.M.	
AGRICULTURE (Open Space).....	[80:18:2]	2/acre**			10.8
AIRPORT.....	[78:20:2]				12.5
Commercial		12/acre, 100/light, 70/1000 sq. ft.**	5% (8:4)	7% (5:5)	
General Aviation		5/acre, 3 light, 7/based aircraft**			
Helipads		100/acre**	10% (8:4)	15% (5:5)	
AUTOMOBILES*					
Car Wash					
Automatic		900/acre, 500/acre**	4% (5:5)	9% (5:5)	
Self-serve		100/wash stall**	4% (5:5)	8% (5:5)	
Gasoline.....	[21:5:128]				2.8
With/Food Mart		150/vehicle fueling space**	8% (5:5)	8% (5:5)	
With/Food Mart & Car Wash		155/vehicle fueling space**	8% (5:5)	9% (5:5)	
Old Service Station Design		750/station, 120/vehicle fueling space**	7% (5:5)	11% (5:5)	
Sales (Dealer & Repair)		50/1000 sq. ft., 300/acre, 60/service stall**	5% (7:3)	8% (4:8)	
Auto Repair Center		20/1000 sq. ft., 400/acre, 20/service stall**	8% (7:3)	11% (4:8)	
CEMETERY		5/acre*			
CHURCH (or Synagogue).....	[64:25:11]	8/1000 sq. ft., 30/acre** (quadrate rates for Sunday, or days of assembly)	4% (8:2)	8% (5:5)	5.1
COMMERCIAL/RETAIL*					
Super Regional Shopping Center (More than 60 acres, more than 800,000 sq. ft., w/usually 3+ major stores)		40/1000 sq. ft., 400/acre*	2% (7:3)	9% (5:5)	
Regional Shopping Center.....	[54:35:11]	50/1000 sq. ft., 500/acre*	2% (7:3)	9% (5:5)	5.2
(30-60 acres, 200,000-600,000 sq. ft., w/usually 2+ major stores)					
Community Shopping Center.....	[47:31:22]	70/1000 sq. ft., 700/acre**	3% (6:4)	10% (5:5)	3.6
(10-30 acres, 100,000-300,000 sq. ft., w/usually 1 major store and detached restaurant)					
Neighborhood Shopping Center (Less than 10 acres, less than 100,000 sq. ft., w/usually grocery store & drug store)		120/1000 sq. ft., 1200/acre**	4% (6:4)	11% (5:5)	
Commercial Shops.....	[45:40:15]				4.3
Specialty Retail/Strip Commercial		40/1000 sq. ft., 400/acre*	3% (6:4)	9% (5:5)	
Supermarket		150/1000 sq. ft., 2000/acre**	4% (7:3)	10% (5:5)	
Convenience Market (15-16 hours)		500/1000 sq. ft.**	8% (5:5)	8% (5:5)	
" (24 hours)		700/1000 sq. ft.**	9% (5:5)	7% (5:5)	
Discount Club		80/1000 sq. ft., 800/acre**	1% (8:2)	9% (5:5)	
Furniture Store		70/1000 sq. ft., 500/acre**	2% (6:4)	10% (5:5)	
Lumber Store		8/1000 sq. ft., 100/acre**	4% (7:3)	9% (5:5)	
Hardware/Paint Store		30/1000 sq. ft., 150/acre**	7% (6:4)	9% (5:5)	
Garden Nursery		60/1000 sq. ft., 600/acre**	2% (6:4)	9% (5:5)	
" (40/1000 sq. ft., 90/acre**)			3% (6:4)	10% (5:5)	
EDUCATION					
University (4 years).....	[81:9:0]	2.5/student, 100/acre*	10% (5:1)	9% (2:7)	8.9
Junior College (2 years).....	[92:7:1]	1.5/student, 80/acre*	12% (5:1)	8% (2:7)	9.0
High School.....	[75:19:6]	1.4/student, 11/1000 sq. ft., 50/acre**	20% (5:2)	14% (2:7)	4.8
Middle/Junior High.....	[83:25:12]	1.0/student, 40/acre**	24% (7:3)	7% (2:7)	5.0
Elementary.....	[57:25:10]	1.4/student, 14/1000 sq. ft., 60/acre**	28% (5:4)	5% (2:7)	3.4
Day Care.....	[28:58:14]	5/child, 80/1000 sq. ft.**	19% (5:5)	18% (5:5)	3.7
FINANCIAL*	[35:42:23]				3.4
Bank (Walk-In Only)		150/1000 sq. ft., 1000/acre**	4% (7:3)	8% (4:5)	
With Drive-Through		200/1000 sq. ft., 1500/acre*	5% (6:4)	10% (5:5)	
Drive-Through Only		250 (125 one-way/lane)	3% (5:5)	13% (5:5)	
Savings & Loan		60/1000 sq. ft., 600/acre**	2%	9%	
Drive-Through Only		100 (50 one-way/lane)**	4%	15%	
HOSPITAL.....	[73:25:2]				6.3
General		20/bed, 20/1000 sq. ft., 300/acre*	9% (7:3)	10% (3:7)	
Convalescent/Nursing		3/bed**	7% (6:4)	7% (4:6)	
INDUSTRIAL					
Industrial/Business Park (commercial included).....	[79:19:2]	16/1000 sq. ft., 200/acre*	12% (8:2)	12% (2:8)	9.0
Industrial Park (no commercial)		8/1000 sq. ft., 90/acre*	11% (9:1)	12% (2:8)	
Industrial Plant (warehouse/abital).....	[92:5:3]	10/1000 sq. ft., 120/acre*	14% (6:2)	15% (3:7)	11.7
Manufacturing/Assembly		4/1000 sq. ft., 50/acre**	20% (9:1)	20% (2:8)	
Warehousing		5/1000 sq. ft., 60/acre**	15% (7:3)	16% (4:6)	
Storage		2/1000 sq. ft., 0.2/vent, 30/acre*	5% (5:5)	9% (5:5)	
Science Research & Development		8/1000 sq. ft., 80/acre*	16% (9:1)	14% (1:9)	

(OVER)

LAND USE	TRIP CATEGORIES (PRIMARY/DIVERTED/PASS-BY) ¹	ESTIMATED WEEKDAY VEHICLE TRIP GENERATION RATE (DRIVEWAY)	HIGHEST PEAK HOUR % (plus IN/OUT ratios) Between 4:30-6:30 A.M. Between 3:30-6:30 P.M.		TRIP LENGTH (Miles) ²
LIBRARY	[44:44:12]	50/1000 sq. ft., 400/acre ³	2% (8:2)	10% (5:5)	3.8
LOGGING	[58:38:4]				7.8
Hotel (w/convention facilities/restaurants)		10/room, 300/acre	8% (6:4)	8% (6:4)	
Motel		3/room, 200/acre ⁴	2% (4:6)	9% (6:4)	
Resort Hotel		3/room, 100/acre ⁴	5% (6:4)	7% (4:8)	
MILITARY	[32:16:2]	2.5 military & civilian personnel ⁵	9% (9:1)	10% (2:8)	11.2
OFFICE					
Standard Commercial Office (less than 100,000 sq. ft.)	[77:19:4]	20/1000 sq. ft., 300/acre ⁶	14% (9:1)	13% (2:8)	8.8
Large (High-Rise) Commercial Office (more than 100,000 sq. ft., 5+ stories)	[32:15:3]	17/1000 sq. ft., 500/acre ⁶	12% (9:1)	14% (2:8)	10.0
Corporate Office (single tenant)		10/1000 sq. ft., 150/acre ⁶	15% (9:1)	16% (1:9)	
Government (Civic Center)	[50:34:16]	20/1000 sq. ft., 300/acre ⁶	9% (9:1)	12% (3:7)	6.0
Post Office					
Central/Walk-in Only		90/1000 sq. ft. ⁶	5%	7%	
Community (incl. including mail drop lanes)		200/1000 sq. ft., 1300/acre ⁶	6% (6:4)	9% (5:5)	
Community (w/mail drop lanes)		300/1000 sq. ft., 2000/acre ⁶	7% (5:5)	10% (5:5)	
Mail Drop Lane only		1500 (750 one-way/lane) ⁶	7% (5:5)	12% (5:5)	
Department of Motor Vehicles		180/1000 sq. ft., 900/acre ⁶	8% (6:4)	11% (4:8)	
Medical	[60:30:10]	50/1000 sq. ft., 500/acre ⁶	8% (8:2)	10% (3:7)	6.4
PARKS	[86:28:6]		4%	8%	5.4
City (developed)		50/acre ⁶			
Regional (developed)		20/acre ⁶			
Neighborhood/Regional (undeveloped)		5/acre ⁶			
Amusement (Theme)		80/acre, 130/acre (summer only) ⁶		8% (6:4)	
San Diego Zoo		115/acre ⁶			
Sea World		80/acre ⁶			
RECREATION					
Beach, Ocean or Bay	[52:39:9]	800/1000 ft. shoreline, 50/acre ⁶			6.3
Beach, Lake (fresh water)		50/1000 ft. shoreline, 5/acre ⁶			
Bowling Center		30/lane, 300/acre ⁶	7% (7:3)	11% (4:8)	
Campground		4/campsite ⁶	4%	8%	
Golf Course		3/acre, 40/hole, 600/course ⁶	5% (8:2)	9% (3:7)	
Marinas		4/berth, 20/acre ⁶	3% (2:7)	7% (6:4)	
Racetracks/Health Club		40/1000 sq. ft., 300/acre ⁶ - 40/court ⁶	4% (6:4)	9% (6:4)	
Tennis Courts		16/acre, 30/court ⁶	5%	11% (5:5)	
Sports Facilities					
Outdoor Stadium		50/acre, 0.2/seat ⁶			
Indoor Arena		30/acre, 0.1/seat ⁶			
Racetrack		40/acre, 0.6 seat ⁶			
Theaters (multiplex)	[56:17:17]	80/1000 sq. ft., 1.8/seat ⁶	7%	8% (7:3)	6.1
RESIDENTIAL	[36:11:3]				7.9
Estate, Urban or Rural (average 1-2 DU/acre)		12/dwelling unit ⁶	8% (3:7)	10% (7:3)	
Single Family Detached (average 3-6 DU/acre)		10/dwelling unit ⁶	8% (3:7)	10% (7:3)	
Condominium (or any multi-family less than 20 DU/acre)		8/dwelling unit ⁶	8% (2:8)	10% (7:3)	
Apartments (or any multi-family units more than 20 DU/acre)		6/dwelling unit ⁶	8% (3:7)	9% (7:3)	
Mobilehome					
Family		5/dwelling unit, 40/acre ⁶	9% (3:7)	12% (6:4)	
Adults Only		3/dwelling unit, 20/acre ⁶	9% (3:7)	10% (6:4)	
Retirement Community		4/dwelling unit ⁶			
Congregate Care Facility		2/dwelling unit ⁶	3% (6:4)	8% (5:5)	
RESTAURANT ⁷	[51:37:12]				4.7
Quick		100/1000 sq. ft., 3/seat, 500/acre ⁶ **	1% (6:4)	8% (7:3)	
Sit-down, high turnover		250/1000 sq. ft., 7/seat, 1200/acre ⁶ **	8% (5:5)	6% (6:4)	
Fast Food (w/drive-through)		700/1000 sq. ft., 22/seat, 3000/acre ⁶ **	4% (6:4)	8% (5:5)	
Delicatessen (7 am-6 pm)		150/1000 sq. ft., 11/seat ⁶	9% (6:4)	3% (3:7)	
TRANSPORTATION					
Bus Depot		25/1000 sq. ft. ⁶			
Truck Terminal		10/1000 sq. ft., 7/bay, 30/acre ⁶	9% (4:8)	8% (5:5)	
Waterport		170/berth, 12/acre ⁶			
Transit Station (Rail)		300/acre ⁶	14% (7:3)	15% (3:7)	
Park & Ride Lots		400/acre (600/paved acre) ⁶	14% (7:3)	15% (3:7)	

¹ Primary source: San Diego Traffic Generator

² Other sources: ITE The Generation Report Trip Generation Rates (other agencies and publications); various SANDAG & CALTRANS studies, reports and estimates.

³ The category percentage roads are taken from local household surveys, often cannot be applied to very specific land uses, and do not include non-resident drivers (per SANDAG Analysis of Trip Generation Revised November, 1990)

⁴ PRIMARY - one trip directly between origin and primary destination.

⁵ DIVERTED - one or more trips along the way to a primary destination where distance compared to direct distance ≥ 1 mile.

⁶ PASS-BY - undiverted or diverted < 1 mile.

⁷ Trip weights are average weighted for all trips to and from general land use site. (All trips are assumed average length = 6.9 miles)

⁸ Fitted curve equation: $\ln(T) = 0.756 \ln(d) + 5.25$ d = total trip, t = 1,000 sq. ft.

⁹ Fitted curve equation: $\ln(T) = 0.756 \ln(d) + 3.95$

¹⁰ Fitted curve equation: $t = 2.188 \ln(d) + 12.85$ t = trips/DU, d = density (DU/acre), DU = dwelling unit

¹¹ Suggested PASS-BY (undiverted or diverted < 1 mile) percentages for trip rate reductions only during P.M. peak period (based on comparison of local data/review and other sources¹²):

COMMERCIAL/RETAIL	
Regional Shopping Center	20%
Community "	30%
Neighborhood "	40%
Specialty Retail/Small Commercial (other)	10%
Supermarket	40%
Convenience Market	50%
Discount Club/Store	30%
RECREATION	
Base	25%
AUTOMOBILE	
Gasoline Station	50%
RESTAURANT	
Quick	10%
Sit-down high turnover	20%
Fast Food	40%