September 28, 2022

Mr. Steve Tangney
West Coast Self-Storage
39 Castledown Road
Pleasanton, CA 94566

Transportation Impact Study for a Self-Storage Facility at 2875 Sebastopol Road

Dear Mr. Tangney;

W-Trans has completed an evaluation of the potential transportation impacts associated with the self-storage facility proposed to be located at 2875 Sebastopol Road in the City of Santa Rosa. The purpose of this letter is to set forth the project's trip generation, provide an evaluation of potential impacts under the guidance of the California Environmental Quality Act (CEQA), and address potential policy issues relative to the project.

Project Description

The project as proposed includes about 43,500 square feet of storage space on a currently vacant site. The three-story self-storage facility would include a 750-square-foot rental office for new customers, open from 9:00 a.m. to 5:30 p.m., and storage units accessible to existing customers between the hours of 7:00 a.m. and 7:00 p.m. The site would be accessed via a two-way driveway on Sebastopol Road at the southeastern corner of the site, while one-way egress from the gated loading area would occur on Brittain Lane at the northwestern corner of the site. The project as proposed would include 43 feet of street dedication to Sebastopol Road to provide space for an eventual second westbound travel lane, gutter, and planter strip.

Trip Generation

The anticipated trip generation for the proposed project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 11th Edition, 2021, for Mini Warehouse (LU #151) as this description most closely matches the proposed project. Based on application of these rates, the proposed project is expected to generate an average of 63 trips per day, including four a.m. peak hour trips and seven trips during the p.m. peak hour. These results are summarized in Table 1.

Table 1 – Trip Generation Summary

Land Use	Units	Daily		AM Peak Hour				PM Peak Hour			
		Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
Mini Warehouse	43.5 ksf	1.45	63	0.09	4	2	2	0.15	7	3	4

Note: ksf = 1,000 square feet

Given that the project would generate fewer than 50 peak hour trips, an operational analysis is not required under the City's guidelines.

Setting

The study area consists of Sebastopol Road, which runs along the south side of the project site, and Brittain Lane, which is located along the west side of the project site. Sebastopol Road is classified by the City as a regional/arterial street with a posted speed limit of 35 miles per hour (mph) near the project site. Brittain Lane is a local street providing access to residences to the north of the project site. Based on 24-hour traffic counts obtained

on May 18, 2022, the segment of Sebastopol Road between Corporate Center Parkway and Brittain Lane has a daily volume of approximately 13,500 vehicles. A copy of the traffic count is enclosed.

Alternative Modes

Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, etc. There is intermittent sidewalk coverage on the north side of Sebastopol Road along developed property frontages. There are, however, continuous sidewalks and street lighting along the south side of Sebastopol Road. There are no sidewalks or streetlights on Brittain Lane.

The nearest pedestrian crossings are 400 feet west of the project site at Sebastopol Road/Corporate Center Parkway and 750 feet east of the project site at Sebastopol Road/Lombardi Lane. To reach either crossing, pedestrians must walk through grassy, unpaved areas and areas with minimal separation from traffic. There are no plans in the *City of Santa Rosa Bicycle & Pedestrian Master Plan Update 2018* to add sidewalks to the north side of Sebastopol Road, but future developments, including a proposed housing development on the west side of Brittain Lane, and dedications could lead to a continuous sidewalk.

The Joe Rodota Regional Trail connects to Brittain Lane about 750 feet north of the project site. This paved trail, used by both pedestrians and bicyclists, is 8.5 miles long and offers walking access to a residential neighborhood west of the project site, to a retail center to the east, and to Stony Point Road.

The project as proposed would add a six-foot sidewalk on the north side of Sebastopol Road, a five-foot sidewalk on the east side of Brittain Lane, and a curb ramp at the northeastern corner of Sebastopol Road/Brittain Lane.

Pedestrian Safety

The collision history for the study segment, defined as the quarter-mile segment of Sebastopol Road between Corporate Center Parkway and Lombardi Lane, was reviewed to determine any trends or patterns that may indicate a safety issue for pedestrians. Collision records available from the California Highway Patrol as published in their Statewide Integrated Traffic Records System (SWITRS) reports were reviewed for the most current five-year period available, which was January 1, 2017, through December 31, 2021, at the time of the analysis. During the five-year study period there were no reported collisions involving pedestrians on the study segment.

Bicycle Facilities

On Sebastopol Road, there are Class II bike lanes east of Lombardi Lane and intermittently to the west of Lombardi Lane, including in the eastbound direction across from the project site. There are also Class II bike lanes on Corporate Center Parkway. The Joe Rodota Regional Trail is a Class I multi-use path and offers access to the project site for bicyclists via Brittain Lane. According to the *Santa Rosa Bicycle and Pedestrian Master Plan Update 2018*, a 1.8-mile Class IV Bikeway is proposed on Sebastopol Road in front of the project site and would extend from Corporate Center Parkway to the SMART Trail to the east.

Bicycle Safety

Collision records for the study area were reviewed to determine if there had been any bicyclist-involved crashes. During the five-year study period between January 1, 2017, through December 31, 2021, there was one reported collision involving a bicyclist; it occurred 100 feet east of Corporate Center Parkway. Both the driver and bicyclist were traveling east on Sebastopol Road, and the collision was reported to be caused by improper turning when the bicyclist changed lanes.

Bicycle Storage

According to Table 3-4 of the Santa Rosa Municipal Code, Section 20-36.040, there is no minimum number of bicycle parking spaces for self-storage facilities. Two short-term bicycle parking spaces are proposed to be provided at the site, east of the rental office.

Transit Facilities

Santa Rosa CityBus Routes 2 and 2b provide service along Sebastopol Road connecting to the Santa Rosa Transit Mall and the Sonoma-Marin Area Rail Transit (SMART) Downtown Santa Rosa station. Both routes stop at Sebastopol Road/Corporate Center Parkway and Sebastopol Road/Lombardi Lane within a quarter mile of the project site. Bus service is generally available on weekdays from 6:00 a.m. to 8:30 p.m. at 15-minute headways, Saturdays from 7:00 a.m. to 8:30 p.m. with 30-minute headways, and Sundays from 10:00 am to 6:00 pm with one-hour headways. Access to these stops would require traversing unpaved areas or walking on the shoulder adjacent to traffic.

Dial-a-ride, also known as paratransit, or door-to-door service, is available for those who are unable to independently use the transit system due to a physical or mental disability. Santa Rosa Paratransit is designed to serve the needs of individuals with disabilities within Santa Rosa and the greater Santa Rosa area.

On-demand private vehicle service (e.g., taxi, Uber, Lyft, etc.) is also available in Santa Rosa 24 hours per day. SMART offers commuter rail travel within the Marin and Sonoma counties, reaching as far north as the Sonoma County Airport and terminating to the south at Larkspur.

Finding – The project would partially fill in an existing sidewalk gap on Sebastopol Road. Existing bicycle facilities are adequate. Existing transit facilities are difficult to access on the existing pedestrian network given the sidewalk gaps along Sebastopol Road, though the project would improve access by partially closing the gap and the storage facility would be unlikely to generate pedestrian or transit trips except by an employee. Therefore, the project would have a less-than-significant impact on pedestrian, bicycle, and transit facilities.

Vehicle Miles Traveled (VMT)

The City of Santa Rosa has issued guidelines for vehicle-miles-traveled (VMT) analysis, as described in *Vehicle Miles Traveled (VMT) Guidelines Final Draft* from June 2020. The City's parameters are consistent with guidance from the publication *Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory*, California Governor's Office of Planning and Research (OPR), 2018. Both documents indicate that projects that generate or attract fewer than 110 vehicle trips per day are unlikely to have a VMT impact and can be "screened" from further VMT analysis. The proposed project is expected to generate 63 trips per day, which falls below the threshold.

Finding – The project can be presumed to have a less-than-significant impact on VMT.

Safety

Collision Analysis

The collision history for the section of Sebastopol Road from Corporate Center Parkway to Lombardi Lane was reviewed to determine any trends or patterns that may indicate a safety issue. Collision rates were calculated based on records available from the California Highway Patrol as published in their SWITRS reports. For the five-year period from January 1, 2017, through December 31, 2021, there were eight collisions reported along the quarter-mile study segment, which translates to a calculated collision rate of 1.30 collisions per million vehicle miles (c/mvm). This is slightly higher than the average collision rate for similar facilities statewide of 1.20 c/mvm, as indicated in *2018 Collision Data on California State Highways*, California Department of Transportation (Caltrans).

The incidence of injuries on the study segment (62.5 percent) was also higher than the statewide average (39.9 percent). A copy of the collision rate calculation is enclosed.

Five of the eight collisions reported on the study segment resulted in injuries, and two of those injuries were classified as severe. Four of these collisions were attributed to unsafe speed. To address the high rate of collisions due to unsafe speed on the study segment, the City may wish to consider increased enforcement or traffic calming measures to slow drivers on Sebastopol Road near Corporate Center Parkway. The proposed Class IV Bikeway on Sebastopol Road may deliver a traffic calming effect, particularly if a through lane is removed and/or a physical divider is added between the bike lane and travel lanes.

No collisions took place involving vehicles turning to and from Brittain Lane or adjacent land uses, so the project driveway would likely not present any additional hazard compared to the existing driveways along the corridor.

Sight Distance

Sight distances along Sebastopol Road and Brittain Lane at the project driveways were evaluated based on sight distance criteria contained in the *Highway Design Manual* published by Caltrans. The recommended sight distances are based upon approach travel speeds. Based on the posted speed limit of 35 miles per hour on Sebastopol Road, the minimum stopping sight distance needed is 250 feet. According to field measurements, sight lines to and from the main project driveway extend at least 600 feet in each direction which is adequate for speeds up to 55 miles per hour, or substantially more than the 35 miles per hour speed limit. At Brittain Lane, the minimum stopping sight distance needed is 150 feet given the posted speed limit of 25 miles per hour. As the project plans include removal of a damaged oak tree that may obstruct vision, sight distances from the northwestern project driveway exceed the required minimum and are also adequate.

Left Turn Warrant

The need for a left-turn lane on Sebastopol Road at the entrance to the project site was evaluated based on criteria contained in the *Intersection Channelization Design Guide*, National Cooperative Highway Research Program (NCHRP) Report No. 279, Transportation Research Board, 1985, as well as an update of the methodology developed by the Washington State Department of Transportation and published in the *Method For Prioritizing Intersection Improvements*, January 1997. The NCHRP report references a methodology developed by M. D. Harmelink that includes equations that can be applied to expected or actual traffic volumes to determine the need for a left-turn pocket based on safety issues. Under a.m. and p.m. peak hour Existing plus Project volumes with all inbound project trips assigned as left-turns to present a conservative analysis, a left-turn lane is not warranted on Sebastopol Road at the project driveway. A copy of the left-turn lane warrant worksheet is enclosed.

It is noted that Sebastopol Road has a striping center median island along the site's frontage, making it illegal to turn left into the site. To accommodate the nominal number of such turns that may occur a break in the striping should be made by eliminating a short portion of the double yellow stripe on the south side of the median island.

Finding – During the five-year study period, the collision and injury rates on the segment of Sebastopol Road between Corporate Center Parkway and Lombardi Lane were above average. However, there were no collisions reported involving vehicles turning onto or out of Brittain Lane or adjacent land uses. Existing sight lines are adequate to accommodate all turns into and out of the project driveways. A left-turn lane is not warranted on Sebastopol Road at the entrance to the project site. As there were no relevant collisions in the vicinity of the project site, adequate sight distance would be provided, and addition of a left-turn lane is not warranted, the project would have a less-than-significant impact on traffic safety.

Recommendation – To allow legal left turns into the site, the double yellow line on the south side of the striped median island should be removed for a distance of approximately 40 feet.

Emergency Response

The project site plans indicate that the primary two-way driveway connecting to Sebastopol Road would be 23 feet wide and the secondary one-way driveway connecting to Brittain Lane would be 16 feet wide. Both driveway widths are adequate to meet the minimum required width of 20 feet for two-way traffic and 12 feet for one-way traffic indicated in the City of Santa Rosa's Municipal Code Section 20-36.080. Interior drive aisles and parking stalls appear to be in accordance with City design standards. Site access and circulation is therefore expected to function acceptably for emergency response vehicles. Since all roadway users must yield the right-of-way to emergency vehicles when using their sirens and lights, the added project-generated traffic would not appreciably affect emergency response times.

Finding – The project would have a less-than-significant impact on emergency response.

Parking Supply

City of Santa Rosa parking supply requirements are based on the Santa Rosa Municipal Code, Section 20-36.040. This code requires two spaces for the manager or caretaker unit where one space must be covered, in addition to five spaces for customers. As there is not a manager or caretaker unit proposed for this facility, it is assumed that one parking space would instead be needed for the manager and five for customers, for a total of six parking spaces. The site plans show a total of seven proposed off-street parking stalls, three of which would be covered and large enough for a truck up to 25 feet long. These spaces are designed and located to be ideal for loading and unloading activities.

For a parking area with seven spaces, one van-accessible parking space is required per City Code requirements. The site plan indicates that one of the spaces would be van-accessible, fulfilling this requirement.

Finding – The proposed parking supply for the project would satisfy the City's Code requirements. The covered spaces indicated on the site plan are designed and located for loading and unloading, and they would accommodate activity during inclement weather.

Conclusions and Recommendations

- The proposed project would be expected to generate an average of 63 trips per weekday, including four trips during the morning peak hour and seven trips during the evening peak hour.

- While there are existing gaps in the sidewalk network along Sebastopol Road, the project would help fill in the gap along its frontage, improving pedestrian and transit access. The existing bicycle facilities on Sebastopol Road adequately serve the project site. Therefore, the project impact on pedestrian, bicycle, and transit facilities would be less-than-significant.

- The project is presumed to have a less-than-significant impact on VMT as it would generate fewer than 110 vehicle trips per day.

- The calculated segment collision and injury rates for Sebastopol Road from Corporate Center Parkway to Lombardi Lane were higher than the statewide averages, although no collisions were reported involving Brittain Lane or the adjacent land uses. Sight lines from and to the project driveways were measured and determined to be adequate. A left-turn lane on Sebastopol Road into the project site would not be warranted, but it is recommended that a 40-foot length of the double yellow line on the south side of the striped median along the frontage of the site be removed to allow legal left turns into the site. Altogether, a less-than-significant impact to traffic safety is anticipated.

- The project is expected to have a less-than-significant impact on emergency response.

- The proposed parking supply of three covered spaces and four uncovered spaces, including one van-accessible space, is adequate to meet City requirements.

We hope this information is of use to the City in preparing the project's environmental clearance documentation. Thank you for giving us the opportunity to provide these services.

Sincerely,

Nathan Sharafian, EIT
Assistant Engineer

Dalene J. Whitlock, PE, PTOE
Senior Principal

REGISTERED PROFESSIONAL ENGINEER
DALENE J. WHITLOCK
TR001552
TRAFFIC
STATE OF CALIFORNIA

DJW/nms/SRO613.L1

Enclosures: Vehicle Count Data, Collision Rate Calculations, Left-Turn Lane Warrant Worksheet

Prepared by NDS/ATD

VOLUME

Sebastopol Rd Bet. Corporate Center Pkwy & Brittain Ln

Day: Wednesday
Date: 5/18/2022

City: Santa Rosa
Project #: CA22_080134_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	6,623	6,886	13,509

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00			12	3	15	12:00			138	112	250
00:15			5	13	18	12:15			149	110	259
00:30			8	8	16	12:30			138	119	257
00:45			5	5	10	12:45			118	120	238
			30	29	59				543	461	1004
01:00			21	13	34	13:00			115	131	246
01:15			10	6	16	13:15			107	160	267
01:30			4	5	9	13:30			129	132	261
01:45			5	5	10	13:45			113	116	229
			40	29	69				464	539	1003
02:00			9	6	15	14:00			126	124	250
02:15			2	5	7	14:15			112	112	224
02:30			3	4	7	14:30			142	126	268
02:45			3	7	10	14:45			151	135	286
			17	22	39				531	497	1028
03:00			2	5	7	15:00			112	103	215
03:15			1	9	10	15:15			93	120	213
03:30			4	9	13	15:30			144	121	265
03:45			7	8	15	15:45			140	125	265
			14	31	45				489	469	958
04:00			2	8	10	16:00			166	122	288
04:15			9	10	19	16:15			129	111	240
04:30			7	18	25	16:30			184	108	292
04:45			11	36	47	16:45			138	109	247
			29	72	101				617	450	1067
05:00			20	19	39	17:00			155	108	263
05:15			27	29	56	17:15			119	105	224
05:30			30	42	72	17:30			117	90	207
05:45			40	72	112	17:45			121	88	209
			117	162	279				512	391	903
06:00			27	43	70	18:00			120	74	194
06:15			37	59	96	18:15			88	91	179
06:30			27	50	77	18:30			104	76	180
06:45			40	83	123	18:45			84	89	173
			131	235	366				396	330	726
07:00			53	62	115	19:00			83	76	159
07:15			69	103	172	19:15			61	65	126
07:30			74	102	176	19:30			58	57	115
07:45			117	149	266	19:45			61	56	117
			313	416	729				263	254	517
08:00			102	174	276	20:00			54	46	100
08:15			90	173	263	20:15			42	53	95
08:30			84	156	240	20:30			67	71	138
08:45			92	141	233	20:45			48	48	96
			368	644	1012				211	218	429
09:00			86	106	192	21:00			49	65	114
09:15			90	87	177	21:15			41	56	97
09:30			87	94	181	21:30			38	43	81
09:45			95	118	213	21:45			40	36	76
			358	405	763				168	200	368
10:00			96	95	191	22:00			21	34	55
10:15			97	94	191	22:15			23	27	50
10:30			105	106	211	22:30			19	25	44
10:45			112	99	211	22:45			17	17	34
			410	394	804				80	103	183
11:00			114	84	198	23:00			12	23	35
11:15			113	131	244	23:15			15	18	33
11:30			135	135	270	23:30			7	17	24
11:45			115	119	234	23:45			11	8	19
			477	469	946				45	66	111
TOTALS			2304	2908	5212	TOTALS			4319	3978	8297
SPLIT %			44.2%	55.8%	38.6%	SPLIT %			52.1%	47.9%	61.4%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	6,623	6,886	13,509

AM Peak Hour			11:45	07:45	07:45	PM Peak Hour			15:45	12:45	15:45
AM Pk Volume			540	652	1045	PM Pk Volume			619	543	1085
Pk Hr Factor			0.906	0.937	0.947	Pk Hr Factor			0.841	0.848	0.929
7 - 9 Volume	0	0	681	1060	1741	4 - 6 Volume	0	0	1129	841	1970
7 - 9 Peak Hour			07:45	07:45	07:45	4 - 6 Peak Hour			16:00	16:00	16:00
7 - 9 Pk Volume	0	0	393	652	1045	4 - 6 Pk Volume	0	0	617	450	1067
Pk Hr Factor	0.000	0.000	0.840	0.937	0.947	Pk Hr Factor	0.000	0.000	0.838	0.922	0.914

Roadway Segment Collision Rate Worksheet

2875 Sebastopol Road

Location: Sebastopol Road

Date of Count: Wednesday, May 18, 2022
Average Daily Traffic (ADT): 13,500

Number of Collisions: 8
Number of Injuries: 5
Number of Fatalities: 0
Start Date: January 1, 2017
End Date: December 31, 2021
Number of Years: 5

Highway Type: Conventional 2 lanes or less
Area: Urban
Design Speed: ≤45

Segment Length: 0.3 miles
Direction: East/West

$$\text{Collision Rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times \text{Days per Year} \times \text{Segment Length} \times \text{Number of Years}}$$

$$\text{Collision Rate} = \frac{8 \times 1{,}000{,}000}{13{,}500 \times 365 \times 0.25 \times 5}$$

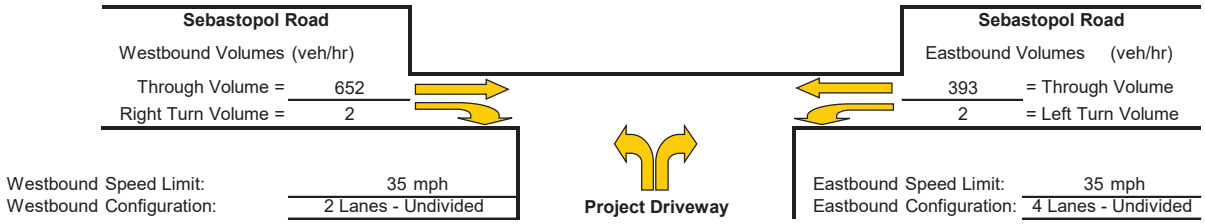
	Collision Rate	Fatality Rate	Injury Rate
Study Segment	**1.30 c/mvm**	**0.0%**	**62.5%**
Statewide Average*	**1.20 c/mvm**	**1.0%**	**39.9%**

Notes
ADT = average daily traffic volume
c/mvm = collisions per million vehicle miles
* 2018 Collision Data on California State Highways, Caltrans

Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: Sebastopol Road/Project Driveway
Study Scenario: Existing Plus Project AM

Direction of Analysis Street: East/West
Cross Street Intersects: From the North



Westbound Speed Limit: 35 mph
Westbound Configuration: 2 Lanes - Undivided

Eastbound Speed Limit: 35 mph
Eastbound Configuration: 4 Lanes - Undivided

Westbound Right Turn Lane Warrants

1. Check for right turn volume criteria

Thresholds not met, continue to next step

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	1035.1
Advancing Volume	Va =	654
If AV<Va then warrant is met		No

Right Turn Lane Warranted: **NO**

Westbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

NOT WARRANTED - Less than 20 vehicles

2. Check advance volume threshold criteria for taper

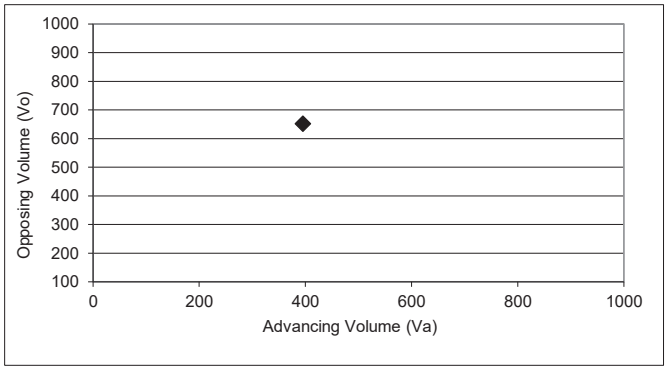
Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	654
If AV<Va then warrant is met		-

Right Turn Taper Warranted: **NO**

Eastbound Left Turn Lane Warrants

Left Turn Volume Threshold	LtVol	14.1 veh/hr
Left Turn Volume	Vl =	2 veh/hr

If Vl>LtVol then warrant is met



◆ Study Intersection

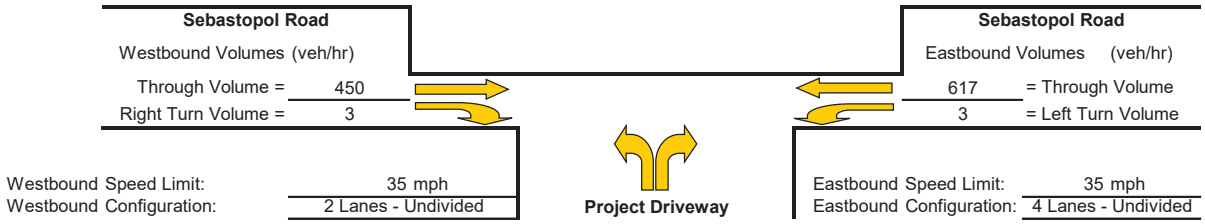
Left Turn Lane Warranted: **NO**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997.
The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: Sebastopol Road/Project Driveway
Study Scenario: Existing Plus Project PM

Direction of Analysis Street: East/West
Cross Street Intersects: From the North



Westbound Speed Limit: 35 mph
Westbound Configuration: 2 Lanes - Undivided

Eastbound Speed Limit: 35 mph
Eastbound Configuration: 4 Lanes - Undivided

Westbound Right Turn Lane Warrants

1. Check for right turn volume criteria

Thresholds not met, continue to next step

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	1027.6
Advancing Volume	Va =	453
If AV<Va then warrant is met		No

Right Turn Lane Warranted: **NO**

Westbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

NOT WARRANTED - Less than 20 vehicles

2. Check advance volume threshold criteria for taper

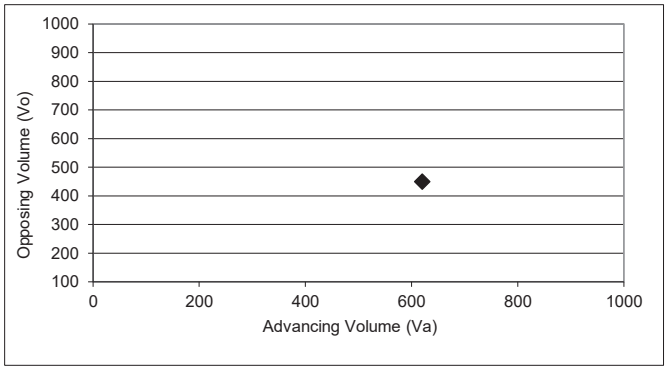
Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	453
If AV<Va then warrant is met		-

Right Turn Taper Warranted: **NO**

Eastbound Left Turn Lane Warrants

Left Turn Volume Threshold	LtVol	18.5 veh/hr
Left Turn Volume	Vl =	3 veh/hr

If Vl>LtVol then warrant is met



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