



APPENDIX E

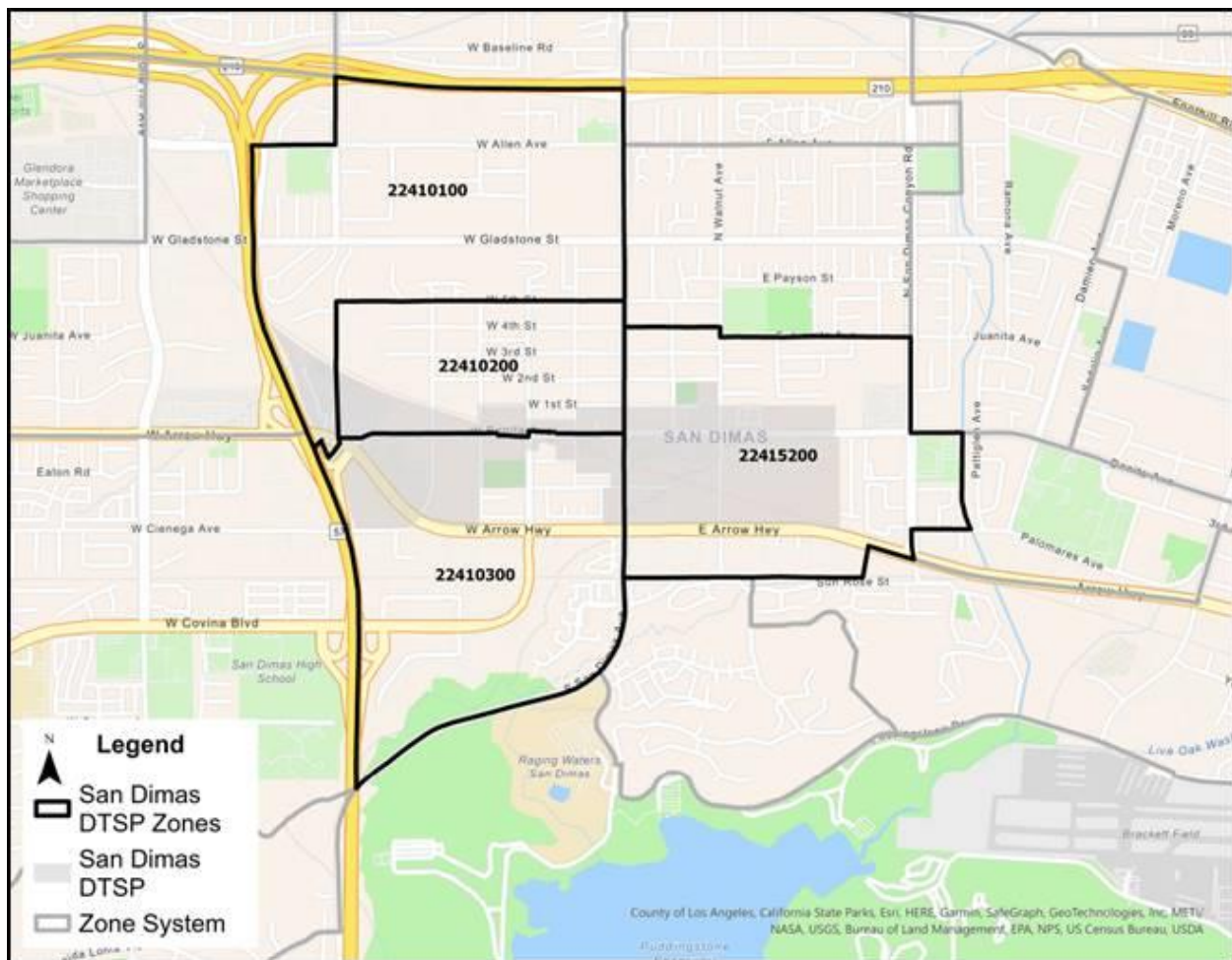
Transportation

Results

The table below presents the results of the Vehicle Miles Travelled (VMT) Analysis of the San Dimas Downtown Secondary Plan (DTSP).

TAZ	Population + Employment		Total VMT		Total VMT per Capita	
	2045 Base	2045 Base with DTSP	2045 Base	2045 Base with DTSP	2045 Base	2045 Base with DTSP
22410100	3,082	4,015	86,773	111,554	28.2	27.8
22410200	2,999	4,348	94,375	127,049	31.5	29.2
22410300	5,100	8,623	152,760	237,097	30.0	27.5
22415200	5,296	7,624	162,255	215,695	30.6	28.3
Total	16,477	24,610	496,164	691,395	30.1	28.1

This table contains the total population and employment, the total VMT, and total VMT per capita by two scenarios: '2045 Base' and '2045 Base with DTSP' and by traffic area zone (TAZ). The '2045 Base' scenario refers to the 2045 horizon year scenario with planned infrastructure changes produced by the modelling team at Southern California Association of Governments (SCAG) and serves as a basis for this VMT analysis. The '2045 Base with DTSP' scenario is the same as the '2045 Base' scenario, but also includes the San Dimas DTSP build out. Between the two scenarios, there are no major roadway network changes. The four TAZs, outlined and labelled in black, are shown in the following map in addition to the new San Dimas LRT station:



The map shows the San Dimas DTSP area in gray overlaid on the four zones; please note that the DTSP doesn't cover the four zones fully. Outside of the DTSP area, 2045 population and employment within each of the four zones are kept the same. Within the DTSP area, 2045 population and employment targets were provided by Interwest and incorporated to produce the 'Population + Employment' columns in the table.

The total VMT for each zone consists of all trips starting and all trips ending at the corresponding zone and using a vehicular mode (e.g. driving a vehicle, taxi). Trips that start and end within the same corresponding zone are only counted once to avoid double-counting. The following bullet list describes examples of these trip types.

1. Examples of trips starting at the corresponding zone would be an employee working in zone 22410300 and returning home or a resident living in 22410100 and travelling from their home to do shopping.
2. An example of a trip ending at the corresponding zone would be an employee living in Claremont and going to zone 22415200 for work.

3. An example of a trip starting and ending at the same corresponding zone would be a person travelling from zone 22410200 to the same zone for lunch.

The total VMT per capita is the total VMT over the total population and employment.

Method

The method used to produce the VMT results involves sampling trips. Downtown San Dimas is planning to transform into a transit-oriented development in conjunction with the L Line extension; sampling trips from the four TAZs described in the Results section would not be appropriate as the 2045 Base doesn't include the San Dimas DTSP build out. Instead zones within a half-mile radius of transit stations with similar land use characteristics to San Dimas with the DTSP in place are sampled for trips. These peer transit stations are Arcadia, Monrovia, and Allen stations.

For residents living in the San Dimas DTSP, a trip rate is calculated of residents who live in zones within a half-mile of the peer transit stations which is applied to the residents residing in the DTSP for each of the four TAZs. This produces a trip target for each of the four zones which is the number of trips to be sampled from the peer transit stations' zones.

Non-residents of the DTSP area will also be making trips to the DTSP for work and/or discretionary purposes like shopping. With regard to employment, a peer transit station rate is calculated where residents live and work within the same zone. This is applied to the DTSP employment; the remaining employment serves as a trip target for non-resident work trips to and from the DTSP. For non-resident discretionary trips, a non-resident discretionary trip rate is calculated from the peer transit stations' zones and applied to total population and employment of San Dimas DTSP; the resulting trip targets are sampled from the peer transit stations' zones.

To calculate VMT for the 2045 Base scenario, the VMT of each trip made with a vehicle and coming from and going to the four zones are combined by zone using the SCAG model outputs. VMT for the 2045 Base scenario with DTSP includes the VMT of the new trips being generated to and from the four zones due to the DTSP.

Discussion

The results show that the inclusion of the DTSP slightly reduces total VMT per capital. Sampling trips of the peer transit stations acts as a proxy for the new DTSP population and employment to take more sustainable modes like transit and active transportation to make their trip in lieu of vehicle-based modes. Mode share for vehicle-based trips of the 2045 Base is 66% whereas it is 57% for trips made to and from the DTSP.