

# MIDWAY RISING

## Vehicle Miles Traveled Report

PRJ #: 1106734



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Prepared By:



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## EXECUTIVE SUMMARY

This Vehicle Miles Traveled (VMT) analysis has been prepared to evaluate VMT generated by the proposed Midway Rising project in the City of San Diego. This VMT analysis has been conducted in accordance with the requirements stated in the City of San Diego Transportation Study Manual (TSM), dated September 2022 and includes Project Description, VMT Thresholds, Initial VMT Screening, methodology and assumptions, VMT analysis, and VMT results for each land use proposed by the project. The last section provides VMT mitigation measures that the project will implement to address the VMT impacts for the commercial and entertainment land uses.

The Midway Rising project proposes to demolish the existing 16,000-seat San Diego Sports Arena and all commercial buildings on site and construct a mixed-use development within the Midway Pacific-Highway Community Planning Area. The new project includes residential, commercial, and entertainment land uses.

Each land use was analyzed separately for VMT. **Table 1** summarizes VMT analysis results and more details are provided after the table. Land uses with a significant transportation VMT impact were mitigated to the extent feasible, meaning the mitigation measures chosen are “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors” (California Code of Regulations Title 14 §15364), but do not fully mitigate the impact.

**Table 1: VMT Analysis Screening and Results**

Land Use	VMT Screening	Threshold	Analysis Methodology	Exceeds Threshold?	VMT Analysis Result	VMT Mitigation
<b>Residential</b>	Screened out – model still run since project will exceed 2,400 trips	15% below regional VMT per capita	Model run (VMT / Resident)	No	Not Significant	N/A
<b>Commercial</b>	Locally serving commercial screened out only	Zero net increase in VMT	Model run with off-model calculations (VMT Net Change)	Yes	Significant Impact	Mitigated to the extent feasible
<b>Entertainment</b>	Not screened out	Zero net increase in VMT	<i>Employees:</i> Model run (VMT / Employee) <i>Spectators:</i> Off-model calculations (VMT Net Change)	Yes	Significant Impact	Mitigated to the extent feasible

## LAND USE #1: RESIDENTIAL

Although the residential portion of the project is screened out based on the screening criteria, per the TSM, if a project is expected to generate greater than 2,400 daily unadjusted driveway trips the project should be input into the SANDAG Regional Travel Demand Model to analyze the VMT per resident. Additionally, the SANDAG model accounts for interactions between land uses; therefore, the SANDAG Series 14 ABM 2+ model was used to evaluate the VMT per resident. The analysis calculated a VMT per resident of less than 85% of the regional average for the residential portion of the project. Therefore, the **residential land use results in a less than significant transportation VMT impact.**

## LAND USE #2: COMMERCIAL

The commercial component of the project was broken down into locally serving and regionally serving commercial uses. The project proposes 100,000 square feet (sf) of locally serving commercial use, which is screened out of detailed VMT analysis. The remaining 40,000 sf of regionally serving commercial use proposed on the project site was analyzed to quantify the VMT impact. (Due to limitations of the model, the only option to code the regionally serving commercial land use into the model was to input the number of restaurant employees who would serve that land use). The SANDAG Series 14 ABM 2+ model was run with and without the 40,000 sf of regionally serving retail to determine the VMT net change between the two models.

The analysis resulted in **a significant transportation VMT impact for the commercial land use.** As a result, the project will implement a retail shuttle for visitors to run between a stop on Frontier Drive within the project site and the Old Town Transit Center to encourage use of transit for accessing the site. More details regarding the implementation timeline and shuttle headways are provided in [Section 7.1](#) of this report. **The retail shuttle is expected to mitigate the VMT impact for the commercial land use to the extent feasible.**

## LAND USE #3: ENTERTAINMENT

The SANDAG Series 14 ABM 2+ model is a weekday model which includes a land use input option for the number of amusement services employees associated with a project. (Due to limitations of the model, the employees for the Entertainment land use were coded into the model as amusement service employees.) The entertainment land uses proposed for the site are expected to occur on both weekdays and weekends, and the VMT associated with this land use is expected to be driven by the number of spectators rather than the number of employees. Therefore, due to the limitations of the model, off-model calculations were performed to analyze the VMT impacts associated with the entertainment component of the project. Details of the off-model calculation methodology are provided in [Section 5.3](#) and [Section 6.3](#) of this report.

The analysis resulted in **a significant transportation VMT impact for the entertainment land use.** As a result, the project will extend transit subsidy passes to entertainment land use employees to help offset the net increase in trips. More details regarding the implementation timeline and details of the subsidy are provided in [Section 7.2](#) of this report. **The transit subsidy is anticipated to mitigate the VMT impact for the entertainment land use to the extent feasible.**

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# 1 INTRODUCTION

In 2013, Senate Bill (SB) 743 was signed into law by California Governor Jerry Brown with a goal of reducing Greenhouse Gas (GHG) emissions, promoting the development of infill land use projects and multimodal transportation networks, and to promote a diversity of land uses within developments. One significant outcome resulting from this statute is the removal of automobile delay and congestion, commonly known as Level of Service (LOS), as the primary metric for determining significant transportation impacts under the California Environmental Quality Act (CEQA).

The Governor's Office of Planning and Research (OPR) selected Vehicle Miles Traveled (VMT) as the principal measure to replace LOS for determining significant transportation impacts. VMT is a measure of total vehicular travel that accounts for the number of vehicle trips and the length of those trips. OPR selected VMT, in part, because jurisdictions are already familiar with this metric. VMT is already used in CEQA to study other potential impacts such as GHG and air quality and is used in planning for regional Sustainable Communities Strategies (SCS).

# 2 PROJECT DESCRIPTION

The approximately 52.08-acre project site is located within the Midway-Pacific Highway community of the City of San Diego and is bordered by Kurtz Street to the northeast, Sports Arena Boulevard to the southwest, Hancock Street to the northwest, and commercial properties to the southeast, as shown in **Figure 1**.

## 2.1 LAND USES

The project proposes to demolish the existing 16,000-seat San Diego Sports Arena and all commercial buildings on site and construct:

- Residential
  - 4,627 multi-family dwelling units, including:
    - 2,627 market-rate units
    - 2,000 affordable units, including
      - 1,538 units  $\leq$  50% Area Median Income (AMI)
      - 462 units between 50%-80% AMI
- Commercial
  - 140,000 square feet (sf) of community retail and restaurant
  - 60,000 sf retail
  - 80,000 sf restaurant
    - 40,000 sf quality restaurant (regionally serving)
    - 40,000 sf high-turnover sit-down restaurant (locally serving)
- Entertainment
  - A new 16,000-seat Entertainment Center
  - A new 3,500-seat theater space (to be located within the privately-owned parcels area)

Figure 1 – Proposed Conceptual Site Plan



BASEMAP SOURCE: SAFDIE RABINES ARCHITECTS

## 2.2 CONSTRUCTION PHASING

The project will be constructed in two phases:

1. Phase 1 (anticipated to be completed in 2030) includes:
  - Demolition of the site east of proposed Frontier Drive
  - Construction of the new Entertainment Center while the existing arena remains operational
  - Construction of approximately 91,000 sf of commercial (~40,000 sf of retail and ~52,000 sf of restaurant)
  - Construction of the residential and commercial uses east of Frontier Drive, including approximately 10,000 sf of regionally serving restaurant
  - Construction of Frontier Drive
2. Phase 2 Buildout (anticipated to be completed in 2035) includes:
  - Demolition of the existing arena (once the new Entertainment Center is operational)
  - Demolition of the existing land uses west of Frontier Drive
  - Construction of approximately 49,000 sf of commercial (~21,000 sf of retail and ~28,000 sf of restaurant)
  - Construction of commercial and residential uses west of Frontier Drive, including 40,000 sf of regionally serving restaurant
  - Construction of Kemper Street

Table 2 summarizes the difference in land use changes between the two phases.

**Table 2. Proposed Land Use Per Phase**

Land Use		Opening Year (2030) Project Phase 1	Phase 1 to Phase 2 Net Increase	Opening Year (2035) Project Phase 2 Buildout
<b>Entertainment (Spectators)</b>	Entertainment Center	16,000	+0	16,000
	Theater	0	+3,500	3,500
	<b>TOTAL</b>	<b>16,000</b>	<b>+3,500</b>	<b>19,500</b>
<b>Residential (Dwelling Units)</b>	Affordable	479	+1,521	2,000
	Market Rate	386	+2,241	2,627
	<b>TOTAL</b>	<b>875</b>	<b>+3,752</b>	<b>4,627</b>
<b>Commercial (Square Feet)</b>	Retail	38,952	+21,048	60,000
	Restaurant	51,936	+28,064	80,000
	<b>TOTAL</b>	<b>90,888</b>	<b>+49,112</b>	<b>140,000</b>
<b>Parking</b>	Residential	1,535	+3,681	5,216
	Retail	280	+151	431
	Entertainment	781	+1,319	2,100
	<b>TOTAL</b>	<b>2,596</b>	<b>+5,151</b>	<b>7,747</b>

## 2.3 MULTIMODAL PROJECT FEATURES

The following multi-modal improvements are proposed as part of Phase 1 (Year 2030) of the project:

- Construct a Class I multi-use path along the project frontage (south side) on Kurtz Street from the west edge of Block H1 to Greenwood Street.
- Construct a Class I multi-use path along the east side of planned Frontier Drive when this public street is constructed.
- Construct a Class I multi-use path along the project frontage (north side) on Sports Arena Boulevard and a Class IV one-way cycle-track in the westbound direction along the project frontage from Frontier Drive to the east edge of the site.
- Relocate existing local bus stop (ID 13344) to the west side of the Sports Arena Boulevard / East Drive intersection (approximately 200' to the west of the existing stop). Provide a sign, bench, schedule display, route and system map, trash receptacle, concrete bus pad, and shelter.
- Provide event shuttle service between Old Town Transit Center and the entertainment land use for events with greater than 7,500 spectators. Event shuttle will run along Rosecrans Street, Sports Arena Boulevard, Frontier Drive, and Kurtz Street.
- Provide event shuttle service between off-site business park lot just west of the project site and the entertainment land use for events with greater than 10,000 spectators. Event shuttle will run along Sports Arena Boulevard, Frontier Drive, Kurtz Street, and Hancock Street.

The following multi-modal improvements are proposed as part of Phase 2 (Year 2035) of the project:

- Construct a Class I multi-use path along the project frontage (south side) on Kurtz Street from Hancock Street to the west edge of Block H1.
- Construct a Class I multi-use path along the south side of Kurtz Street (east of Greenwood Street) and along the southeast side of Rosecrans Street to provide a connection to the Old Town Transit Center via walking and biking. The multi-use path will be developed in coordination with the City and adjacent property owners; however, improvements are proposed within the City right-of-way, and not within private property.
- Construct a Class I multi-use path along the project frontage (north side) on Sports Arena Boulevard and a Class IV one-way cycle-track in the westbound direction along the project frontage from the west edge of the site to Frontier Drive.
- Construct Class IV one-way cycle-tracks on both sides of the Kemper Street extension within the site.
- Construct a roundabout at the intersection of Hancock Street / Kurtz Street.
- Stripe exclusive bus / right-turn only lanes on:
  - Sports Arena Boulevard between W Point Loma Boulevard and Kemper Street – westbound direction only
  - Sports Arena Boulevard between Kemper Street and Camino Del Rio West – both directions
  - Rosecrans Street between Sports Arena Boulevard and Kemper Street – both directions

The project team will coordinate with MTS, the San Diego Association of Governments (SANDAG), and the City regarding the timeline and design details of implementation for these improvements. Developer is responsible for striping only.



- Construct a new local bus stop (ID not identified by MTS) on the west side of the Sports Arena Boulevard / Kemper Street intersection. Provide a sign, bench, schedule display, route and system map, trash receptacle, concrete bus pad, and shelter.
- Relocate existing bus stop (ID 13345) to the west side of the Sports Arena Boulevard / Frontier Drive intersection (approximately 150' to the east of existing stop) and designate stop as a future RAPID bus stop per the MTS Designing for Transit Manual (February 2018). The RAPID service is anticipated to be implemented by 2035. Provide a sign, bench, schedule display, trash receptacle, concrete bus pad, rapid shelter, and a real-time digital display. Developer to coordinate with MTS for improvements.
- Provide event shuttle service between offsite parking at SeaWorld and the entertainment land use for events with greater than 12,000 spectators. Event shuttle will run along W Mission Bay Drive, Sports Arena Boulevard, Frontier Drive, Kurtz Street and Hancock Street.

### 3 VMT THRESHOLDS

The City of San Diego has adopted the following VMT significance thresholds that are applicable to each land use within the project.

- **Residential:** 15% below regional mean VMT per Resident
- **Commercial (Retail/Restaurant):** Zero net increase in VMT
- **Entertainment (Regional Recreational):** Zero net increase in VMT

Per the City's TSM methodology both VMT metrics (VMT per Resident and net change in VMT) were used to evaluate the VMT impacts of the respective proposed land uses.

## 4 INITIAL VMT SCREENING

A detailed VMT analysis is required for all land development projects, except for those that meet at least one of the criteria defined in the City’s TSM screening criteria. A project that meets at least one of the criteria is considered to have a less than significant VMT impact. Per the City’s TSM, each component of the mixed-use project’s land uses should be evaluated separately against the appropriate screening criteria. **Table 3** lists applicable screening criteria for each of the project land uses.

**Table 3: VMT Analysis Screening and Results**

Land Use	Applicable Screening Criteria (from TSM)	Project Screening
Residential	<p><b>Residential Project Located in a VMT Efficient Area:</b> The project is a residential project located in a VMT efficient area (15% or more below the base year average VMT per Resident).</p>	<p>The residential component of the project is in a VMT efficient area. Therefore, residential land use is <b><u>screened out</u></b>.*</p>
	<p><b>Affordable Housing Project:</b> Affordable housing projects are defined as projects that have access to transit and that meet one of the following criteria: is affordable to persons with a household income equal to or less than 50% of the area median income, housing for senior citizens, housing for transitional foster youth, disabled veterans, or homeless persons. In accordance with the OPR Technical Advisory, deed-restricted affordable housing projects meet the City’s screening criteria and would not require a VMT analysis.</p>	<p>The project includes 1,538 affordable housing units (≤ 50% AMI) out of the total 4,627 multi-family units. Therefore, the 1,538 affordable units are <b><u>screened out</u></b>.*</p>
Commercial	<p><b>Locally Serving Retail Project:</b> Locally Serving Retail is defined in the City of San Diego TSM as retail that is less than 100,000 square feet of total gross floor area and has a market area study that shows a market capture area that is less than three miles and serves a population of roughly 25,000 or less.</p>	<p>Approximately 100,000 square feet of community retail and high-turnover sit-down restaurant land uses of the project are assumed to be locally serving and therefore is screened out of a detailed VMT analysis and can be presumed to have a <b><u>less than significant impact</u></b>.</p> <p>Quality Restaurant land use is not assumed to be locally serving and therefore is <b><u>not screened out</u></b>.</p>
Entertainment	<p>Screening criteria is not applicable to this land use.</p>	<p>Not screened out of VMT analysis.</p>

\* Although the residential portion of the project is screened out based on the screening criteria, per the TSM, if a project is expected to generate greater than 2,400 daily unadjusted driveway trips the project should be input into the SANDAG Regional Travel Demand Model to analyze the VMT per resident. Additionally, the SANDAG model accounts for interactions between land uses; therefore, the model was used to evaluate the VMT per resident.

## 5 METHODOLOGY AND ASSUMPTIONS

Based on the City’s TSM, VMT analysis utilized the latest available regional activity-based demand model (SANDAG Series 14 ABM2+ version 14.3.0—updated and released July 12, 2022), run in-house by Kimley-Horn. Travel demand models are broadly considered to be among the more accurate of available tools to assess VMT; however, model use is not always an ideal fit for project evaluation due to unique characteristics, data available, and planned land uses. Analysis methodology and assumptions for each of the three (3) land uses are described below.

### 5.1 LAND USE #1: RESIDENTIAL

- **Land Use Information:** The 2035 SANDAG Series 14 ABM 2+ model anticipated 9,657 total dwelling units would be added to the Midway-Pacific Highway (MPH) community planning area between 2008 and 2035 based on the Community Plan Update (2018). Within the MGRAs that cover the project site, the model anticipated 1,408 dwelling units by 2035, and 1,606 dwelling units by 2050. The proposed project includes 4,627 total dwelling units.
- **VMT Screening:** The residential component of the project would typically be screened out of performing VMT analysis since it is located in a VMT-efficient area with a Series 14 ABM 2+ 2016 VMT/Resident of 82.9% of the regional average by census tract.
- **Approach:** Since the project is proposing to provide a higher number of dwelling units than projected in the model, and expected to exceed 2,400 trips per day, the model was run with the proposed number of dwelling units for the site. *For the proposed residential land use, the SANDAG ABM model was used to determine VMT impacts based on the City’s VMT guidelines and adopted threshold.*

### 5.2 LAND USE #2: COMMERCIAL

- **Land Use Information:** The site includes 140,000 square feet (sf) of total retail and restaurant space – 100,000 sf will be community/event-supportive commercial and the remaining 40,000 sf will be regionally serving restaurant space. The community/event-supportive commercial space meaning: when an event is occurring, spectators will visit retail/restaurants within the same trip, and when an event is not occurring, the space is a community asset that would be locally serving. The average retail space is estimated to be approximately 5,000 sf of gross floor area, with restaurants varying in size, but no restaurants are expected to be larger than 7,500 sf.
- **VMT Screening:** The commercial component of the project is not screened out for VMT since the total commercial area exceeds the 100,000 sf screening threshold and is not all locally serving commercial land use per the TSM.
- **Approach:** The SANDAG model does not differentiate between high turnover (locally serving) and high quality (regionally serving) restaurants, and the only option to code commercial land use is to input the number of “restaurant” employees. Therefore, to calculate net VMT (regional and citywide), the project analysis compared the VMT model results between the project scenario with all commercial land uses (i.e., 140,000 sf) against a scenario with only regionally serving restaurant space (i.e., 40,000 sf; as the 100,000 sf of community/event-supportive commercial is screened out). The Opening Year (2030) Plus Project Phase 1 scenario only proposes 10,000 sf of regionally serving restaurant land use, so VMT analysis was performed on the Opening Year (2035) Plus Project Phase 2 Buildout scenario, which includes 40,000 sf of regionally serving restaurant land use. *Therefore, the commercial land use VMT analysis was performed for the 40,000 sf of regional serving restaurant land use using a net VMT calculation approach.*

### 5.3 LAND USE #3: ENTERTAINMENT

- **Land Use Information:** Both the existing Sports Arena and proposed Entertainment Center include 16,000 seats. Currently, the typical event size is 7,500 spectators, while full concerts are the maximum event with 10,500 spectators. The proposed Entertainment Center typical attendance will include approximately 14,500 spectators due to the interior layout of the arena for concerts. The proposed Entertainment Center combined with the proposed 3,500-seat theater (to be constructed in 2035; therefore, included in the 2035 and 2050 With Project Scenarios) will be able to hold a maximum event with approximately 19,500 spectators. The number of annual events is anticipated to increase for the proposed project as compared to the existing number of events held at the site.
- **VMT Screening:** The entertainment land use is not screened out of VMT analyses, as the screening criteria is not applicable to this land use.
  - **Approach:** Given that the entertainment land use trips are anticipated to primarily occur Friday-Sunday and the SANDAG Travel Demand Model is a weekday model, the proposed land use type would not be fully represented by land use input options within the SANDAG Travel Demand Model. The only option for coding this land use into the model is to input the number of “amusement” employees. Thus, an alternative method based on available existing spectator travel data was established.
    - The existing vehicle trips and vehicle miles traveled to the Arena were determined using the big data platform Streetlight. Streetlight data provides existing travel data such as trip origins and trip lengths for all days of the week, including weekends. This existing data was annualized based on expected event frequency.
    - The project VMT was then calculated proportionally to the existing travel data based on the increased number of annual events anticipated for the project. The net change in VMT between the existing and proposed entertainment land uses was calculated to quantify the VMT impact of the entertainment land use.

The Governor’s Office of Planning and Research (OPR) has established that a broad range of analysis tools may be acceptable for the purposes of VMT analysis including travel demand, sketch, and spreadsheet models, while other research and data are all acceptable uses to estimate VMT. *Therefore, the entertainment land use VMT was analyzed using off-model calculation methodologies.*

### 5.4 VMT ANALYSIS SCENARIOS AND MODELS

The following scenarios were developed as part of the VMT analysis:

- 2016 Base Year (Existing Conditions)
- Opening Year (2030) Base (No Project)
- Opening Year (2030) Plus Project Phase 1
- Opening Year (2035) Base (No Project)
- Opening Year (2035) Plus Project Buildout
- Horizon Year (2050) Base (No Project)
- Horizon Year (2050) Plus Project Buildout

For the Opening Year (2030), Opening Year (2035), and Horizon Year (2050) scenarios, SANDAG ABM2+ Series 14.3.0 2025 Base, 2035 Base, and 2050 Base (i.e., SANDAG ‘Vision’) scenario models were used, respectively.

**Model assumptions:**

- Land use inputs per the Midway-Pacific Highway Community Plan Update were maintained in the model except for the project MGRAs listed on the following page.
- NAVWAR project is included in the model at different phases in Opening Year (2030), Opening Year (2035), and Horizon Year (2050) model scenarios.
- Separate model runs were conducted for all Opening Year (2035) and Horizon Year (2050) model scenarios.
- For the Opening Year (2030) Plus Project Phase 1 and Opening Year (2030) Base scenarios, VMT results were derived by interpolating 2025 and 2035 model results, as a 2030 SANDAG model scenario was not available.
- The socio-economic characteristics for the proposed household and population were determined based on the characteristics of the traffic analysis zones representing the project in the travel demand model for the respective analysis years.

The SANDAG travel demand model uses Traffic Analysis Zones (TAZs) and Master Geographic Reference Areas (MGRAs) which represent different types of land uses that generate trips throughout the day on a typical weekday. TAZs are geographic areas used for transportation planning and analysis purposes, while MGRAs are a disaggregated geographic area within each TAZ with model detailed information about the different land use components used in the model. The daily travel forecasts including trip generation, distribution and mode of travel are estimated at the level of MGRAs, while the vehicular traffic is assigned to the roadway network at the TAZ level.

The project study area covers the following MGRAs and TAZs (project site breakdown shown on **Figure A in Attachment A**):

MGRAs	TAZs
3025	3346
3032	3382
3035	
3040	

MGRA 3032 includes the privately-owned parcels portion of the site plan which is not currently owned by the City or the Midway Rising development but is part of the Specific Plan and is expected to become part of the development in the future. Therefore, VMT associated with this land use must also be analyzed.

Additionally, a portion of MGRA 3035 extends across Sports Arena Boulevard outside the project boundaries. It was assumed that all housing was planned for the north side of Sports Arena Boulevard. Employee numbers within this MGRA were evaluated on a scenario-by-scenario basis based on the existing land uses on the south side of Sports Arena Boulevard and the number of expected employees for the proposed Project were coded into each of the base models. The model considers several employment types as part of the input data including retail, amusement (for the entertainment land use), professional services, restaurants and bars, health services, building maintenance which are related to the proposed Project.

## 5.5 PROJECT LAND USE INPUTS

To evaluate the project's VMT, land use inputs were updated from baseline to plus project scenarios. To represent the project, adjustments were made to number of households, household income, population, and number of employees that were estimated for the proposed project as stated above and further described below.

### 5.5.1 HOUSEHOLDS

**Table 4** provides a summary of households added to each of the 4 MGRAs to represent the project. For buildings that straddle two different MGRA's, the number of households in the building were coded into the MGRA where the majority of the building is located. Housing units proposed for the site will replace the number of households projected in the SANDAG model.

**Table 5** provides a summary of the number of dwelling units per building and which MGRA the buildings were assumed to be located within.

**Table 4. Proposed Project Dwelling Units per MGRA**

MGRA	Market Rate Units	Affordable Units
3025	1,864	1,643
3032	377	0
3035	0	130
3040	386	227
<b>Total</b>	<b>2,627</b>	<b>2,000</b>

**Table 5. Proposed Project Dwelling Units per Building**

Building	Market Rate Units	Affordable Units	MGRA
A1	419	-	3025
A2	419	-	3025
A3	421	-	3025
B1	-	270	3025
B2	-	227	3040
C1	-	270	3025
C2	316	-	3025
D1	289	-	3025
D2	-	243	3025
E1	-	284	3025
E2	-	227	3025
F	386	-	3040
G	-	241	3025
H1	-	130	3035
H2	-	108	3025
Privately-Owned Parcels	377	-	3032
<b>TOTAL</b>	<b>2,627</b>	<b>2,000</b>	
		<b>4,627</b>	

## 5.5.2 HOUSEHOLD INCOME

The SANDAG model contains household income categories i1 through i10 identified in 2010 dollars. These income thresholds were increased to 2023 dollars using the US Bureau of Labor Statistics [CPI Inflation Calculator](#) to allow modelled income categories to be compared with affordable housing thresholds. **Table 6** summarizes the household income level inputs for the SANDAG model in 2010 and 2023 dollars.

**Table 6. SANDAG Model Household Income Categories**

SANDAG HH Income Category	Household income	
	(2010)	(2023)
<b>i1</b>	< \$15,000	< \$21,000
<b>i2</b>	\$15,000-\$29,999	\$21,000-\$42,000
<b>i3</b>	\$30,000-\$44,999	\$42,000-\$63,000
<b>i4</b>	\$45,000-\$59,999	\$63,000-\$84,000
<b>i5</b>	\$60,000-\$74,999	\$84,000-\$105,000
<b>i6</b>	\$75,000-\$99,999	\$105,000-\$140,000
<b>i7</b>	\$100,000-\$124,999	\$140,000-\$175,000
<b>i8</b>	\$125,000-\$149,999	\$175,000-\$210,000
<b>i9</b>	\$150,000-\$199,999	\$210,000-\$280,000
<b>i10</b>	> \$200,000	> \$280,000

The % AMI levels for the affordable housing on site were converted to annual income levels based on the [San Diego Housing Commission Income and Rent Calculations](#), and the number of households were distributed into SANDAG's 2023 household income levels.

Affordable housing income values fell into SANDAG household income levels i1 through i6, as shown in **Table 7**. The market rate housing income levels were then distributed among income categories i7 through i10 based on the 2050 baseline model distribution of households as shown in **Table 8**.

The household income levels were distributed to the appropriate MGRA based on the location of affordable and market rate housing buildings per the site plan.



**Table 7. Affordable Housing Income Levels**

# Bedrooms	Qualifying Income Levels	# of Units	Annual Income*	SANDAG HH Income Category
1 bedroom	80%	55	\$88,200	i5
1 bedroom	60%	126	\$66,180	i4
1 bedroom	50%	299	\$55,150	i3
1 bedroom	40%	304	\$44,100	i3
1 bedroom	30%	145	\$33,100	i2
1 bedroom	20%**	189	\$22,067	i2
2 bedroom	80%	48	\$99,250	i5
2 bedroom	60%	84	\$74,460	i4
2 bedroom	50%	120	\$62,050	i3
2 bedroom	40%	113	\$49,600	i3
2 bedroom	30%	118	\$37,250	i2
2 bedroom	20%**	5	\$24,833	i2
3 bedroom	80%	52	\$110,250	i6
3 bedroom	60%	98	\$82,680	i4
3 bedroom	50%	79	\$68,900	i4
3 bedroom	40%	83	\$55,100	i3
3 bedroom	30%	83	\$41,350	i2
* Escalated per CPI Inflation Calculator				
** 20% AMI calculated based on straight line interpolation from 30% AMI values.				

**Table 8. Market Rate Housing Income Levels**

SANDAG HH Income Category	SANDAG 2050 Base Model Values		Project Values
	HH	% Distribution	
i7	101	23%	595
i8	91	20%	536
i9	121	27%	713
i10	133	30%	783
<b>TOTAL</b>	<b>446</b>	<b>100%</b>	<b>2,627</b>

### 5.5.3 POPULATION

The project population inputs for the Opening Year (2030), Opening Year (2035), and Horizon Year (2050) scenarios were calculated based on the average persons per household densities by each income categories in the project MGRA's from the SANDAG ABM2+ model (version 14.3.0) using 2025, 2035, and 2050 base model scenarios. The following calculations show the general methodology adopted to derive populations for the model:

$$\text{Population (2035 | 2050 Base)} = \# \text{ Households (2035 | 2050 Base)} \times \text{Household Density}$$

### 5.5.4 EMPLOYMENT

The number of employees for the project proposed land uses were developed based on:

- Retail – ITE trip generation rates per employee
- Restaurant – ITE trip generation rates per employee
- Entertainment Center and event theater – applicant's past experience with similar size event spaces

Although the proposed restaurant will include both quality restaurants and high-turnover restaurants per the ITE Trip Generation Manual, the quality restaurant use does not include a trip generation rate per employee for a full day. Therefore, for the purposes of estimating the number of restaurant employees, all restaurant space was assumed to be high-turnover sit-down restaurant. The ITE trip generation rates per 1,000 square feet (ksf) and per employee for high-turnover sit-down restaurant (Land Use 932) and Shopping Center (820) were used to develop a rate for employees per ksf. **Table 9** summarizes the calculations and resulting number for retail and restaurant employees.

**Table 9. ITE Retail / Restaurant Employee Estimates**

Land Use (Code No.)	Area	Unit	ITE Rates <sup>1</sup>			Estimated # Employees <sup>3</sup>
			Trip Gen Rate / ksf <sup>4</sup>	Trip Gen Rate / Emp	Emp / ksf <sup>2</sup>	
<b>High-Turnover Restaurant (932)</b>	80	ksf	112.18	21.26	5.28	422
<b>Shopping Center (820)</b>	60	ksf	37.75	16.11	2.34	141

Notes:

1. Institute of Transportation Engineers (ITE), 11<sup>th</sup> Edition, 2021
2. Employee / ksf = (Trip Generation Rate / ksf) / (Trip Generation Rate / Employee)
3. Estimated Number of Employees = (Employee / ksf) x Area (ksf)
4. Ksf = 1,000 square feet (sf)

The commercial and entertainment land uses were distributed to the appropriate MGRA based on the location of these uses per the site plan. Based on data from similar size venues managed by the applicant, 885 employees would be present for a typical event at the Entertainment Center and 1,080 employees would be present for a combined full capacity event at both venues.

Model land use inputs are summarized in **Attachment A**.

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### 5.5.5 ROADWAY NETWORK

The following roadway network modifications were analyzed as part of the Local Mobility Analysis (LMA). Figure 1 – Proposed Conceptual Site Plan labels each block within the site.

The roadway network under Opening Year (2030) Plus Project Phase 1 of the project includes the construction (by the project) of:

- Frontier Drive between Sports Arena Boulevard and Kurtz Street, with the exception of the multi-use path on the east side along the privately-owned parcel frontage. During this interim phase, pedestrians and bicyclists will be encouraged to travel through the open space area of the site.
- The intersection of Frontier Drive/Sports Arena Boulevard (southbound approach) and the intersection of Frontier Drive/Kurtz Street.
- Block F and G driveways on Sports Arena Boulevard.
- Block F driveway on Frontier Drive.
- Block H driveways on Kurtz Street.
- Entertainment Center access driveways on Kurtz Street and Sports Arena Boulevard.

The roadway network under Opening Year (2035) Plus Project Phase 2 Buildout includes the roadway network under Plus Project Phase 1 scenario plus the construction (by the project) of:

- Kemper Street between Sports Arena Boulevard and Kurtz Street
- The intersection of Kemper Street/Sports Arena Boulevard and the intersection of Kemper Street/Kurtz Street (southbound approach);
- Roundabout at the intersection of Hancock Street/Kurtz Street;
- Access points on the west side of Frontier Drive and both sides of Kemper Street;
- Entertainment Center operations access driveways on Kurtz Street and Sports Arena Boulevard.
- Multi-use urban paths on Kurtz Street (between Hancock and the east side of the privately-owned parcel and between Greenwood Street and Rosecrans Street) and on Rosecrans Street (between Kurtz Street and Pacific Highway);
- Elimination of eastbound exclusive right turn lane at the intersection of Kurtz Street and Camino del Rio West to accommodate proposed multi-use path
- Conversion of Kurtz Street from one-way to two-way between Hancock Street and Sherman Street
- Bus only lanes on Sports Arena Boulevard – right-most through lane converted to right-turn only pocket and through lane for buses only
- Bus only lanes on Rosecrans Street – right-most through lane converted to right-turn only pocket and through lane for buses only

The SANDAG model roadway network does not include minor roadways. Accordingly, the model does not incorporate the Greenwood Street extension, Kemper Street extension, or Frontier Drive within the site as envisioned in the Midway-Pacific Highway Community Plan. The City and SANDAG agreed during the scoping phase that the exclusion of these minor roadway segments would not be expected to affect VMT results because the area surrounding these segments has a well-developed grid of streets, which provides multiple route options for drivers. This grid system allows vehicles to easily navigate around any single street, minimizing the impact of changes to one part of the network. Additionally, the City and SANDAG agreed during the scoping phase that the conversion of Kurtz Street to two-way and the bus only lanes on Sports Arena Boulevard and Rosecrans Street would

also not be expected to affect VMT because adjacent streets such as Hancock Street and Sherman Street offer alternative routes for vehicles in case of potential congestion due to the proposed modifications. Drivers can use these parallel roads to reach their destinations without significant deviation from their original path.

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### 5.5.6 TRANSIT NETWORK

In the SANDAG 2025 Base model—used for analyzing Opening Year (2030) scenarios—the transit network within proximity to the project site and within the study area includes:

- MTS Green Line (0.75 mile walking distance from NE edge of project site to nearest stop)
- MTS UC San Diego Blue Line (0.75 mile walking distance from NE edge of project to nearest stop)
- MTS Route 35: Old Town Transit Center – Ocean Beach (0.1 mile, or approximately 530 ft, walking distance to SW edge of project site to nearest stop)
- MTS Route 8: Old Town – Balboa Avenue Transit Center (stop located at project frontage)
- MTS Route 9: Pacific Beach via SeaWorld – Old Town via SeaWorld (stop located at project frontage)

Under Opening Year (2035) Plus Project Phase 2, the transit network within proximity to the project includes the transit under Plus Project Phase 1 (2030) plus the implementation of:

- MTS *Rapid* 28: Shelter Island – Old Town Transit Center (0.35, or approximately 1,850 ft, mile walking distance to NE edge of project site to nearest stop)
- MTS *Rapid* 10: La Mesa to Ocean Beach (BRT along Sports Arena Boulevard) (0.75 mile walking distance to NE edge of project site to nearest stop)

## 6 VMT ANALYSIS AND RESULTS

### 6.1 LAND USE #1: RESIDENTIAL LAND USE

The project is located in Census Tract 65 with a SANDAG Series 14 ABM2+ 2016 residential VMT per capita of 15.7 miles, which is 82.9% of the 2016 regional average of 18.9 miles per resident, less than the 85% CEQA significance threshold. However, as stated in the previous sections, a project-specific analysis using the in-house Kimley-Horn model was performed for the residential land use.

**Table 1010** summarizes the VMT per Resident for the proposed project for each scenario. As shown in the table, VMT per Resident for all the project scenarios is below the City’s threshold for residential land uses.

**Table 10. Project VMT Results – Residential Land Use**

Category	2016 Base Year	Opening Year (2030) Base	Opening Year (2030) Plus Project Phase 1	Opening Year (2035) Base	Opening Year (2035) Plus Project Phase 2 Buildout	Horizon Year (2050) Base	Horizon Year (2050) Plus Project Buildout
<b>Project VMT per Resident</b>	-	11.3	11.5	10.8	8.6	9.6	10.6
<b>VMT per Resident Thresholds (85% of Regional Average)</b>				16.1			

For the Opening Year (2030) Plus Project Phase 1 scenario, the project’s VMT per Resident is below the City’s threshold.

For the Opening Year (2035) Plus Project Phase 2 Buildout scenario, the project’s VMT per Resident is below the City’s threshold.

For the Horizon Year (2050) Plus Project Buildout scenario, the project’s VMT per Resident is below the City’s threshold.

Based on the above results, the residential land use results in a **less than significant transportation VMT impact**.

## 6.2 LAND USE #2: COMMERCIAL LAND USE

Per [Section 4](#), 40,000 square feet of the commercial land uses were not screened out for VMT analysis, as they are considered regionally serving. Per [Section 5](#), to evaluate the VMT impacts for these commercial land uses, separate model runs for the Opening Year (2035) Plus Project Phase 2 Buildout and Horizon Year (2050) Plus Project Buildout scenarios were conducted *with and without* the 40,000 square feet of commercial land uses. Per [Section 5](#), the only option to input the 40,000 sf of regionally serving restaurant is to code the number of restaurant employees into the model; the model does not differentiate between regionally-serving and locally-serving retail. The net change in VMT was determined by comparing the VMT results to the San Diego region and City of San Diego.

The net change in VMT for the regionally serving commercial use is expected to be directly proportional to the amount of regionally serving retail included on the site since this use is pulling from regional trips rather than local trips. In the Opening Year (2035) Plus Project Phase 2 Buildout scenario, 40,000 square feet of regionally serving commercial is anticipated to be built, whereas in Opening Year (2030) Plus Project Phase 1 scenario, approximately 100,000 square feet of commercial will be built. Therefore, only the 2035 net change was analyzed, as the 2030 net change would be proportionally lower.

The net change in VMT for the project scenario is summarized in **Table 21**.

**Table 21. Project VMT Results – Commercial Land Use**

Category	Opening Year (2035) Plus Project Phase 2 Buildout	Horizon Year (2050) Plus Project Buildout
<b>Total VMT – With 140,000 SqFt Commercial</b>		
Regional Total VMT	90,829,639	94,084,949
Citywide Total VMT	41,736,405	42,208,331
<b>Total VMT – With 100,000 SqFt Commercial</b>		
Regional Total VMT	90,797,016	94,099,578
Citywide Total VMT	41,701,051	42,201,878
<b>Net Change in VMT (difference between 140,000 SqFt and 100,000 SqFt)</b>		
Regional Net Change in VMT	+32,623	-14,628
Citywide Net Change in VMT	+35,355	+6,453

The difference in the effect of the 40,000 sf of commercial land use between the Opening Year (2035) Plus Project Phase 2 Buildout and the Horizon Year (2050) Plus Project Buildout scenarios are a result of interactions between the household densities, roadway networks, and transit network inputs that vary between the 2035 and 2050 base models.

The net change in VMT shown in **Table 21** would only reflect *the additional trips that are generated by the quality restaurants (i.e., 40,000 sf of regionally serving land use)*. The model has two limitations that were accounted for using post-processing adjustment factors:

1. The model does not account for quality restaurant trips that were already planned by the visitors regardless of the new restaurant.

Adjustment: A 10% reduction in VMT was applied to account for trips that were already planned for a quality restaurant, and now the quality restaurant is located closer to home.

2. While the model is sensitive to internal capture trips between typical mixed-use land uses such as residential and commercial, the model is not sensitive to the directly linked trips between the commercial and entertainment land uses (thereby double counting the VMT between commercial and entertainment land uses). As previously mentioned, the model can only input “amusement” land use employees, and cannot input spectators, number of events, or event sizes. Therefore, it would not assume spectators will travel for an event and a quality (regionally serving) restaurant in the same trip.

Adjustment: A 13% adjustment in VMT to address the internal capture trips between entertainment and regionally serving restaurant uses. The adjustment was based on the 98 events that are anticipated to have over 5,000 attendees throughout the year. Accordingly, there are 98 days out of 365 that would have higher number of attendees and have 50% of commercial trips linked to entertainment trips; therefore, a 13% reduction was applied ( $98/365 \times 0.50$ ). Essentially, this assumes that 50% of trips going to the regionally serving restaurant uses on site are also attendees of the event on these 98 high-attendance event days.

The adjusted net change in VMT for the Opening Year (2035) Plus Project scenario is summarized in **Table 32**.

**Table 32. Adjusted Project VMT Results – Commercial Land Use**

Category	Opening Year (2035) Plus Project Buildout	Horizon Year (2050) Plus Project Buildout
<b>Net Change in VMT (per Table 10)</b>		
Regional Net Change in VMT	+32,623	-14,628
Citywide Net Change in VMT	+35,355	+6,453
<b>Adjusted Net Change in VMT</b>		
Percentage of Linked Trips to Arena	-13%	-13%
Percentage of Trips already planned	-10%	-10%
Regional Net Change in VMT	+24,981	-14,628*
Citywide Net Change in VMT	+27,073	+4,941

Note: \* Regional net change in VMT is negative in 2050 so adjustments were not applied.

Based on the above results, the commercial land use (specifically quality restaurants) results in a **significant transportation VMT impact**.

## 6.3 LAND USE #3: ENTERTAINMENT LAND USE

As mentioned earlier, the VMT related to the entertainment land use was calculated separately using an off-model analysis. VMT estimated for the entertainment land use using off-model analysis was considered as net increase in regional VMT in addition to the total net change observed from the travel demand model as reported in **Table 3**. The off-model VMT analysis for the entertainment land use is discussed in the next section.

The proposed entertainment land use was separately evaluated quantitatively for net change in VMT. The change in VMT for the entertainment land use was estimated using two distinct factors:

- Existing travel behavior at the existing Sports Arena based on the Big Data platform Streetlight, and
- Estimated number of attendees under the Plus Project scenarios.

Streetlight data utilized for this project included trip origins at the Census blockgroup level for 10 event days between 6:00 PM and 10:00 PM at the existing Sports Arena in 2019<sup>1</sup>. The event days consisted of both weekdays and weekends, with data taken during two San Diego Seals games, four San Diego Gulls games, and four concerts with approximate attendance of 10,450 attendees.

Average trip length was calculated using the vehicle trips and travel distances gathered for the trip origins for all 166 events throughout the year. This database was utilized for the probable origins of spectators and average distance traveled for the new events planned for the entertainment land use.

### 6.3.1 EXISTING ARENA VMT

Total existing annual vehicle trips for the existing Sports Arena were calculated using the number of attendees for each type of event throughout the year, average vehicle occupancy factor, and estimated mode share for the Arena trips.

- **Attendees:** Number of total annual attendees at Sports Arena for the year 2023 was obtained using the turnstile attendance data provided by Sports Arena operations division.
- **Vehicle Occupancy:** The average occupancy factor was estimated based on available arena/stadium traffic studies including the Honda Center in Anaheim, Petco Park in San Diego, Snapdragon Stadium in San Diego, Truist Park in Atlanta, and the Georgia Dome in Athens, GA, as well as informational reports by ITE and FHWA.
- **Mode Share:** The mode share percentages for the existing Arena trips were estimated based on regional transit mode share from the SANDAG/SanGIS Regional Data Warehouse, and assume 1% transit trips, 1% transportation network company (TNC) trips and 5% non-motorized trips that are expected to arrive from the nearby commercial uses.

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<sup>1</sup> This dataset is representative of conditions prior to the onset of the effects of COVID-19 including any resulting governmental restrictions and more closely represents normal travel behavior than what is observed using other Big Data sources for post-COVID years.



- Annual Existing VMT: The total number of annual vehicle trips for each event type was multiplied by the average trip distance to Sports Arena determined from the Streetlight data, to estimate the total existing annual VMT attributed to the Sports Arena.

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### 6.3.2 EXISTING ENTERTAINMENT VENUE VMT

SOMA is an existing music venue holding up to 2,300 people with surface parking available. It is located on Sports Arena Blvd adjacent to Sports Arena and hosts about 113 events a year. The total existing annual vehicle trips for the existing SOMA venue were calculated using the number of SOMA events recorded for 2023, venue capacity, vehicle occupancy factor, and estimated mode share. SOMA is of similar size and location to the proposed theater.

- Attendees: Number of total annual attendees at SOMA for the year 2023 was obtained using the number of events in 2023 and a proportion of the spectator capacity.
- Vehicle Occupancy: The average vehicle occupancy factor was assumed to be 2.5 persons per vehicle based on informational reports from ITE and FHWA and references to similar areas/stadiums which found an average occupancy rate of 3.0 for spectators and 1.0 for employees.
- Mode Share: Due to similar accessibility as the Sports Arena, the mode share percentages for SOMA were estimated assuming 1% transit trips, 1% transportation network company (TNC) trips and 5% non-motorized trips that are expected to arrive from the nearby commercial uses.
- Annual Existing VMT: The total number of annual vehicle trips for all SOMA events in 2023 was multiplied by the average trip distance to SOMA determined from the Streetlight data to estimate the total existing annual VMT attributed to SOMA.

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### 6.3.3 ESTIMATED ENTERTAINMENT VMT

Similar to the existing conditions for Sports Arena, total future annual vehicle trips for the entertainment land use (including both Entertainment Center and Theater) were calculated using the number of attendees for each type of event throughout the year, average vehicle occupancy factor and estimated mode share. The average vehicle occupancy factor for the future entertainment land use was kept the same as existing conditions. However, the mode share for the future trips to the entertainment land use was assumed based on future transit availability, number of available parking spaces compared to the increased future attendees, and increased TNC trips in the future. The estimated mode share for the proposed entertainment land use is explained in detail in the Local Mobility Analysis (LMA), and summarized here:

- Attendees: The number of and size of events expected to occur at the entertainment land use was determined by historical attendance data for each type of event and expected increase in number of annual events. These estimates were developed and verified by the project team.
- Vehicle Occupancy: The average occupancy factor was determined from the available arena/stadium traffic studies including the Honda Center in Anaheim, Petco Park in San Diego, Snapdragon Stadium in San Diego, Truist Park in Atlanta, and the Georgia Dome in Athens, GA, as well as informational reports by ITE and FHWA.

- **Mode Share:** Mode share was developed based on vehicle-to-transit conversion potential for the entertainment land use from Streetlight to identify trip origin census tracts that could access the site via a 15-minute transit ride rather than a vehicle trip based on the existing transit network.
- **Future VMT:** The total number of future annual vehicle trips was multiplied by the average trip distance to get the total future annual VMT exclusively for the proposed entertainment land use.

### 6.3.4 NET CHANGE IN ENTERTAINMENT VMT

The change in annual VMT between existing and future entertainment land use operations was calculated to estimate the net increase in annual VMT. The net increase in annual VMT was then divided by the total number of annual events expected in the future to yield a *daily increase in VMT* due to the proposed entertainment land use. Detailed VMT calculation worksheets for the entertainment land use are included in **Attachment B**.

**Table 43** summarizes the net increase in daily VMT calculated using the off-model quantitative VMT analysis.

**Table 43. Project VMT Results – Entertainment Land Use**

Category	Existing	Future
<b>Annual VMT</b>	8,880,880	9,720,025
<b>Total Annual Events</b>	130	166
<b>Annual VMT Net Increase</b>	<b>839,145</b>	
<b>Average Daily VMT Net Increase</b>	<b>2,299</b>	

Note: VMT/Event assumed to be equivalent to VMT/Day

Based on the above results, the entertainment land use results in a **significant transportation VMT impact**.

## 6.4 EMPLOYMENT BASED VMT

All previous sections of this report evaluate the VMT for all the project land uses based on their primary source of VMT generating component:

- Population for residential land use,
- Visitors/customers for commercial land use, and
- Attendees/spectators for entertainment land use.

However, the project also includes employees for each of the non-residential land uses (commercial and entertainment), which can be evaluated using the SANDAG travel demand model. Therefore, as a “reasonableness check”, the project’s VMT per Employee metric was also evaluated using the travel demand model results derived for the non-residential component, and the results were used for VMT mitigation calculations as discussed in the next section. Detailed VMT calculations for the employment based VMT analysis are included in **Attachment B. Table 14** summarizes the VMT per employee.

**Table 54. Project VMT per Employee Results – All Non-Residential Land Use**

Category	2016 Base Year	Opening Year (2030) Base	Opening Year (2030) Plus Project Phase 1	Opening Year (2035) Base	Opening Year (2035) Plus Project Phase 2 Buildout	Horizon Year (2050) Base	Horizon Year (2050) Plus Project Buildout
<b>Project VMT per Employee</b>	-	14.4	14.0	12.5	8.6	11.4	7.2
<b>VMT per Employee Thresholds (85% of Regional Average)</b>				16.7			

## 7 VMT MITIGATION MEASURES

The project has a significant transportation VMT impact based on the VMT analysis for the project's proposed commercial and entertainment land uses. The VMT mitigation measures discussed below are included in the project's Transportation Demand Management (TDM) plan, along with other VMT reducing measures not associated with mitigating the VMT impacts discussed in this report.

### 7.1 COMMERCIAL LAND USE

As shown in Table 11, it is anticipated that the proposed commercial land uses, specifically the 40,000 square feet of regionally serving restaurant will cause a net increase in VMT as compared to the existing commercial land use on the site. The project proposes to implement a daily retail shuttle between Frontier Drive and the Old Town Transit Center for the first 10 years of the project opening Phase 1, which is anticipated to occur in 2030. The shuttle would operate between 12:00 PM and 10:00 PM using one vehicle at 20- or 30-minute headways. This shuttle, in combination with the 10-minute combined bus headways of MTS Routes 8 & 9 for the existing local bus routes, would incentivize visitors to utilize transit to access the project site. The 10-minute combined bus headways of routes 8 and 9 are a result of the alternating arrival times of the two bus routes at the Old Town Transit Center (shown in **Attachment C**). **The retail shuttle is expected to mitigate the VMT impact for the commercial land use to the extent feasible.**

### 7.2 ENTERTAINMENT LAND USE

It is anticipated that the proposed entertainment land uses would cause a net increase in VMT as compared to the existing entertainment land use due to the anticipated increase in number of events per year and attendees per event. Based on the model, the VMT per employee is not the cause of the VMT impact; rather, the VMT impact is caused by attendees as discussed in the off-model calculations. The project proposes to implement an employee transit subsidy (CAPCOA strategy T-09) for the Entertainment Center employees to offset the net increase in VMT for the project. The transit subsidy would be offered to all employees at 50% off the current monthly pass rate for the first 10 years of the project opening Phase 1, which is anticipated to occur in 2030.

**Table 15** summarizes the VMT reduction anticipated for the overall entertainment land use VMT by implementing an employee transit subsidy for the Entertainment Center. As shown in the table, **the measure is anticipated to mitigate the VMT impact for the entertainment land use to the extent feasible.**

**Table 65. Entertainment VMT Mitigation**

Category	Average Daily VMT
Average Daily VMT Net Increase	2,299
Transit Subsidy VMT Reduction	-6,124*
<b>Total Average Daily VMT Change After Mitigation</b>	<b>-3,825</b>

\* Assumes that 50% of the expected 885 entertainment employees for the entertainment center and the theater would take transit.

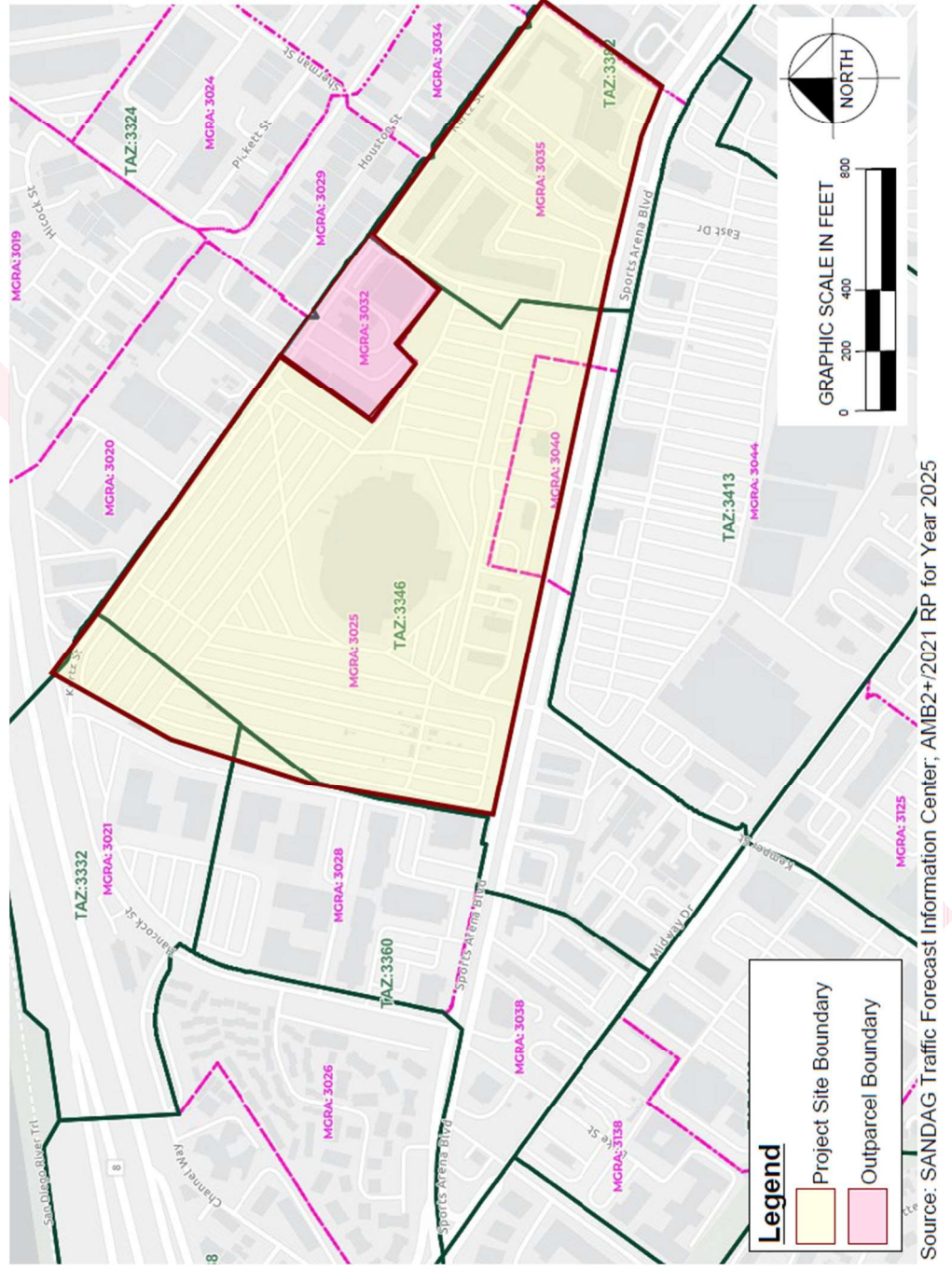
## 8 ATTACHMENTS

**Attachment A: SANDAG Model Data**

**Attachment B: Entertainment Center VMT Calculations**

**Attachment C: MTS Bus Routes 8 and 9 Schedules**

# ATTACHMENT A: SANDAG MODEL DATA



Source: SANDAG Traffic Forecast Information Center, AMB2+2021 RP for Year 2025



## ATTACHMENT B: ENTERTAINMENT VMT CALCULATIONS

### Existing Sports Arena Utilization

<b>TYPICAL PECHANGA ARENA UTILIZATION *</b>						
Pechanga Arena						
	Average	Event Days **		Ave Turnstile Attendance		
		Events/Yr	Weekends	Weekdays	Per Event	Annual
<b>Tenant Events</b>						
San Diego Gulls	35	23	12	4,800	168,275	
San Diego Seals	10	10	0	2,930	29,300	
San Diego Sockers	15	14	1	1,760	26,450	
San Diego Strike Force	7	6	1	955	6,682	
<b>Non-Tenant Events</b>						
Concert - Large	18	10	8	9,026	162,468	
Concert - Small	12	9	3	4,770	57,242	
Family Shows	13	6	3	3,142	40,850	
Ice Shows	14	6	2	3,342	46,792	
Motorsports	3	2	0	7,087	21,261	
Boxing	1	1	0	5,372	5,372	
Other Sports	1	1	0	7,009	7,009	
Other	1	1	0	2,618	2,618	
<b>TOTAL</b>	<b>130</b>	<b>89</b>	<b>30</b>		<b>574,319</b>	
* Assumes stable, post-COVID, operations based on past 10 years of attendance						
** Weekend events are events on Friday, Saturday or Sundays						

### Existing SOMA Utilization

<b>TYPICAL SOMA ESTIMATED UTILIZATION</b>			
SOMA			
Ticketed Events	Events/Year	Average Paid Attendance*	Total Paid Attendance
Ticketed Events	113	2,000	226,000
<b>TOTAL</b>	<b>113</b>	<b>2,000</b>	<b>226,000</b>
* Maximum capacity is 2,800 (2,300 main stage, 500 side stage)			



## Future Entertainment Center Utilization

<b>FUTURE ESTIMATED UTILIZATION *</b>					
San Diego Entertainment Center					
	Events/Yr	Paid Attendance		Turnstile Attendance**	
		Per Event	Annual	Per Event	Annual
<b>Tenant Events</b>					
San Diego Gulls	38	8,500	323,000	8,040	305,520
San Diego Seals	9	6,500	58,500	6,140	55,260
San Diego Sockers*	0	0	0	0	0
San Diego Strike Force*	0	0	0	0	0
<b>Non-Tenant Events</b>					
Concert - Full	25	14,500	362,500	14,470	361,750
Concert - Half	25	7,500	187,500	7,125	178,125
Family Shows	8	3,500	28,000	3,325	26,600
Ice Shows	6	3,000	18,000	2,850	17,100
Motorsports	1	4,000	4,000	3,800	3,800
Boxing	1	8,000	8,000	7,940	7,940
Wrestling	2	4,000	8,000	3,800	7,600
Rodeos	1	3,000	3,000	2,850	2,850
High School Sports	5	1,500	7,500	1,425	7,125
Other Sports	2	4,000	8,000	3,800	7,600
Graduations & Trade Shows	10	0	0	2,030	20,300
Private / Catered Events	25	0	0	280	7,000
<b>TOTAL</b>	<b>158</b>		<b>1,016,000</b>		<b>1,008,570</b>
* The San Diego Sockers and Strike Force will use the Frontway Arena (currently under construction) in Oceanside, CA starting in 2024					
** Turnstile attendance informed by historical comparable arena operations.					
Source: CSL.					

## Future Theater Utilization

<b>Future Estimated Utilization</b>			
Theater			
Ticketed Events	Events/Year	Average Paid Attendance	Total Paid Attendance
<b>Ticketed Events</b>			
Large Shows	20	3,300	66,000
Medium Shows	25	2,600	65,000
Small Shows	25	2,000	50,000
<b>TOTAL</b>	<b>70</b>	<b>7900</b>	<b>181,000</b>

### Existing Sports Arena VMT

<b>Existing Arena</b>	2	<b>- Tway Trip Factor</b>					
<b>VMT Calculations</b>	16.3	<b>- Average Trip Distance from Streelight Data, miles (2019)</b>					
<b>Mode Share</b>							
	<b>Auto%</b>	<b>Transit%</b>	<b>TNC%</b>	<b>Other%</b>	<b>Veh Occ</b>	<b>Annual Vehicle Trips</b>	<b>Annual VMT</b>
<b>Tenant Events</b>							
San Diego Gulls	93%	1%	1%	5%	3.00	109,940	1,790,917
San Diego Seals	93%	1%	1%	5%	3.00	19,143	311,834
San Diego Sockers	93%	1%	1%	5%	3.00	17,281	281,502
San Diego Strike Force	93%	1%	1%	5%	3.00	4,366	71,115
<b>Non-Tenant Events</b>							
Concert - Full	93%	1%	1%	5%	3.00	106,146	1,729,114
Concert - Half	93%	1%	1%	5%	3.00	37,398	609,215
Family Shows	93%	1%	1%	5%	3.00	26,689	434,758
Ice Shows	93%	1%	1%	5%	3.00	30,571	497,998
Motorsports	93%	1%	1%	5%	3.00	13,891	226,277
Boxing	93%	1%	1%	5%	3.00	3,510	57,173
Other Sports	93%	1%	1%	5%	3.00	4,579	74,595
Other	93%	1%	1%	5%	3.00	1,710	27,863
						<b>Annual Existing</b>	<b>6,112,362</b>
						<b>Avg VMT per Event</b>	<b>47,018</b>
						<b>Average Daily VMT</b>	<b>16,746</b>

### Existing SOMA VMT

<b>SOMA</b>	2	<b>- Tway Trip Factor</b>					
<b>VMT Calculations</b>	16.3	<b>- Average Trip Distance from Streelight</b>					
<b>Mode Share</b>							
	<b>Auto%</b>	<b>Transit%</b>	<b>TNC%</b>	<b>Other%</b>	<b>Occ</b>	<b>Annual Vehicle Trips</b>	<b>Annual VMT</b>
Large Shows	93%	1%	1%	5%	2.5	169,952	2,768,518
						<b>Annual Future</b>	<b>2,768,518</b>
						<b>Avg VMT Per Event</b>	<b>24,500</b>
						<b>Avg Daily VMT</b>	<b>7,585</b>

## Entertainment Center VMT

Entertainment Center	2	- Tway Trip Factor						
VMT Calculations	16.3	- Average Trip Distance from Streelight Data, miles (2019)						
		Mode Share						
		Auto%	Transit%	TNC%	Other%	Veh Occ	Annual Vehicle Trips	Annual VMT
Tenant Events								
San Diego Gulls		56%	20%	15%	9%	3.00	144,613	2,355,743
San Diego Seals		71%	5%	15%	9%	3.00	31,682	516,106
San Diego Sockers		71%	5%	15%	9%	3.00	0	0
San Diego Strike Force		71%	5%	15%	9%	3.00	0	0
Non-Tenant Events								
Concert - Full		56%	20%	15%	9%	3.00	171,228	2,789,310
Concert - Half		56%	20%	15%	9%	3.00	84,313	1,373,451
Family Shows		71%	5%	15%	9%	3.00	15,251	248,433
Ice Shows		71%	5%	15%	9%	3.00	9,804	159,707
Motorsports		71%	5%	15%	9%	3.00	2,179	35,490
Boxing		56%	20%	15%	9%	3.00	3,758	61,222
Wrestling		71%	5%	15%	9%	3.00	4,357	70,981
Rodeos		71%	5%	15%	9%	3.00	1,634	26,618
High School Sports		71%	5%	15%	9%	3.00	4,085	66,545
Other Sports		71%	5%	15%	9%	3.00	4,357	70,981
Graduations & Trade Shows		71%	5%	15%	9%	3.00	11,639	189,594
Private / Catered Events		71%	5%	15%	9%	3.00	4,013	65,377
							<b>Annual Future</b>	<b>8,029,558</b>
							<b>Avg VMT Per Event</b>	<b>50,820</b>
							<b>Average Daily VMT</b>	<b>21,999</b>

## Theater VMT

Theater	2	- Tway Trip Factor						
VMT Calculations	16.3	- Average Trip Distance from Streelight						
Category	Mode Share							
	Auto%	Transit%	TNC%	Other%	Occ	Annual Vehicle Trips	Annual VMT	
3 Large Shows	71%	5%	15%	9%	3	37,840	616,414	
3 Medium Shows	71%	5%	15%	9%	3	37,267	607,074	
3 Small Shows	71%	5%	15%	9%	3	28,667	466,980	
							<b>Annual Future</b>	<b>1,690,468</b>
							<b>Avg VMT Per Event</b>	<b>24,150</b>
							<b>Avg Daily VMT</b>	<b>4,631</b>

## Entertainment Employee VMT with Subsidy

ENTERTAINMENT LAND USE EMPLOYEE VMT							
Event List	Events/Year	Employees	Two-Way Trip Factor	Vehicle Occupancy	Annual Vehicle Trips	Average Trip Distance	Total VMT
<b>ENTERTAINMENT CENTER</b>							
San Diego Gulls	38	850	2	1	64,600	15.94	1,029,724
San Diego Seals	9	850	2	1	15,300	15.94	243,882
Concert - Full	25	835	2	1	41,750	15.94	665,495
Concert - Half	25	835	2	1	41,750	15.94	665,495
Family Shows	8	805	2	1	12,880	15.94	205,307
Ice Shows	6	805	2	1	9,660	15.94	153,980
Motorsports	1	805	2	1	1,610	15.94	25,663
Boxing	1	850	2	1	1,700	15.94	27,098
Wrestling	2	805	2	1	3,220	15.94	51,327
Rodeos	1	805	2	1	1,610	15.94	25,663
High School Sports	5	805	2	1	8,050	15.94	128,317
Other Sports	2	805	2	1	3,220	15.94	51,327
Graduations & Trade Shows	10	805	2	1	16,100	15.94	256,634
Private / Catered Events	25	50	2	1	2,500	15.94	39,850
<b>THEATER</b>							
Large Shows	20	125	2	1	5,000	15.94	79,700
Medium Shows	25	125	2	1	6,250	15.94	99,625
Small Shows	25	125	2	1	6,250	15.94	99,625
<b>FULL TIME EMPLOYEES</b>							
	<b>Working days/Yr</b>						
	250	78	2	1	39,000	15.94	621,660
					Annual Employee VMT		4,470,373
					Daily Employee VMT		12,248
					Daily VMT Saved by 50% Transit Usage		6,124

## ATTACHMENT C: MTS BUS ROUTES 8 AND 9 SCHEDULES



