# Table 1 – Total Construction-Related Fuel Consumption

## **Haun and Holland Mixed Use Center**

Fuel	Fuel Consumption		
Diesel			
On-Road Construction Trips <sup>1</sup>	187,424	Gallons	
Off-Road Construction Equipment <sup>2</sup>	318,588	Gallons	
Diesel Total	506,011	Gallons	
Gasoline		<del>-</del>	
On-Road Construction Trips <sup>1</sup>	213,660	Gallons	
Off-Road Construction Equipment <sup>3</sup>	-	Gallons	
Gasoline Total	213,660	Gallons	

#### Notes:

- 1. On-road mobile source fuel use based on vehicle miles traveled (VMT) from CalEEMod for construction in 2019 and fleet-average fuel consumption in gallons per mile from EMFAC2014 web based data for Riverside County. See Table 2 for calculation details.
- 2. Off-road mobile source fuel usage based on a fuel usage rate of 0.05 gallons of diesel per horsepower (HP)-hour, based on SCAQMD CEQA Air Quality Handbook, Table A9-3E.
- 3. All emissions from off-road construction equipment were assumed to be diesel.

# Table 2 – On-Road Construction Trip Estimates

### **Haun and Holland Mixed Use Center**

Trip Type	Trips	Trip length	Vehicle Miles Traveled (VMT)	Fuel Efficiency	Annual Fuel Usage <sup>1</sup>	
	(trips)	(miles)	(miles)	(mpg)	(Fuel)	(gallon)
Worker <sup>2,3</sup>	370,951	14.7	5,452,980	24.9	Gasoline	213,660
Vendor <sup>4</sup>	146,972	6.9	1,014,107	7.8	Diesel	135,216
Hauling <sup>5</sup>	16,475	20	329,500	6.3	Diesel	52,207

#### Notes:

- 1. On-road mobile source fuel use based on vehicle miles traveled (VMT) from CalEEMod output (See Air Quality/GHG Memo) for all years of construction and fleet-average fuel consumption in gallons per mile from EMFAC2014 web based data for 2019 in Riverside County to ensure a conservative analysis.
- 2. Worker trips were assumed to be 100% gasoline powered vehicles.
- 3. Per CalEEMod, worker Trips were assumed to be 50% LDA, 25% LDT1, and 25% LDT2.
- 4. Vendor trips were assumed to be 50% MHDT and 50% HHDT, split evenly between the MHDT and HHDT construction categories.
- 5. Per CalEEMod, hauling trips were assumed to be 100% HHDT.

## Table 3 – Annual Energy Consumption from Operation

### **Haun and Holland Mixed Use Center**

Fuel Type	Energy Consumption	Units	Natural Gas	Units
Electricity				
Building <sup>1</sup>	4,555,885	kWh/year	5,741,157	kBTU/yr
Water <sup>2</sup>	809,879	kWh/year		
Total Electricity	5,365,764	kWh/year		
Mobile <sup>3</sup>				
Gasoline	922,531	gallons/year		
Diesel	432,762	gallons/year		

### Notes:

- 1. Building electricity use from CalEEMod output (See Air Quality/GHG Memo).
- 2. Calculated based on the Project's annual water consumption using CalEEMod SCAQMD energy intensity of 0.0111 kWhr per gallon for supply, distribution, and treatment of water and .013021 kWhr per gallon for supply, distribution, and treatment of water and wastewater treatment. Indoor water use will be reduced by 20% per CalGreen building code.
- 3. Mobile source fuel use based on annual vehicle miles traveled (VMT) from CalEEMod output for operational year 2022 and fleet-average fuel consumption in gallons per mile from EMFAC2014 web based data in Riverside County.