

Table 1 – Total Construction-Related Fuel Consumption

Duke Warehouse at Perry Street and Barrett Boulevard

Fuel	Consumption	
Diesel		
On-Road Construction Trips ¹	17,930	Gallons
Off-Road Construction Equipment ²	27,552	Gallons
Diesel Total	45,481	Gallons
Gasoline		
On-Road Construction Trips ¹	17,832	Gallons
Off-Road Construction Equipment ³	-	Gallons
Gasoline Total	17,832	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

Duke Warehouse at Perry Street and Barrett Boulevard

Trip Type	Trips	Trip length	Vehicle Miles Traveled (VMT)	Fuel Efficiency	Annual Fuel Usage ¹	
	(trips)	(miles)	(miles)	(mpg)	(Fuel)	(gallon)
Worker ^{2,3}	30,960	14.7	455,112	24.9	Gasoline	17,832
Vendor ⁴	11,780	6.9	81,282	7.8	Diesel	10,838
Hauling ⁵	2,238	20	44,760	6.3	Diesel	7,092

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

Duke Warehouse at Perry Street and Barrett Boulevard

Fuel Type	Energy Consumption	Units	Natural Gas	Units
Electricity				
Building ¹	391,656	kWh/year	301,049	kBTU/yr
Water ²	373,779	kWh/year		
Total Electricity	765,435	kWh/year		
Mobile³				
Gasoline	69,025	gallons/year		
Diesel	55,024	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.
3. Mobile source fuel use based on annual vehicle miles traveled (VMT) from CalEEMod output for operational year 2020 and fleet-average fuel consumption in gallons per mile from EMFAC2014 web based data in Riverside County.