

Traffic Memorandum

To: **Town of Frisco**

1 Main Street
Frisco, CO 80443

From: McDowell Engineering

Kari J. McDowell Schroeder, PE, PTOE

Date: April 2, 2019

Re: **Utopia Tire and Proposed Rocky Mountain Moto Rental**

Trip Generation Analysis

720 Ten Mile Drive
Frisco, Colorado

Purpose: As part of the Planning application for Rocky Mountain Moto Rental, it has been requested that the current and proposed uses at the property be examined to determine if the addition of a motorcycle rental business in the same building as Utopia Tire will increase traffic at the property and impact the adjacent street network. Traffic counts for this project were not requested or conducted.

McDowell Engineering prepared a trip generation analysis based upon existing and proposed land uses.

Current Uses: Utopia Tire current operates in the existing 7,600sf commercial building as a tire sales and automotive service business. The property is accessed from Ten Mile Drive. Ten Mile Drive is a two lane north/south road that is part of a network of roadways that access service commercial and residential properties east of Summit Blvd (SH9) in Frisco, Colorado.

The current business, Utopia Tire, experiences large fluctuations in business between the “winter” (November to March) and “summer” (April to October) seasons. Sales in the summer are generally 50% less than winter sales. November and December sales are between \$200k and \$300k per month. February through September generally only average \$100k to \$150k in sales. This drop in sales directly correlates to a decrease in vehicle trips to the property during the summer.

Proposed Uses: The applicant desires to operate a seasonal motorcycle rental business, Rocky Mountain Moto Rental (RMMR), in the existing Utopia Tire building at 720 Ten Mile Drive. RMMR will offer rental of street legal motorcycles. As stated in the Planning application, RMMR will start with 6-7 units for rent and will not go beyond 20 units without seeking a separate business location.

This business would generally operate from May to October, with exact dates varying annually depending on weather. However, an early start of tire busy season, would equate to an early end of motorcycle rentals. This easily demonstrates that as traffic and parking increase for the tire business, it extinguishes for the proposed motorcycle rental business.

It is our opinion that the potential increase in traffic caused by RMMR is directly offset by the decrease in traffic at Utopia Tire during the summer season.

Trip Generation Analysis: The trip generation rates for the tire store's winter peak operations were taken from land use #848 (Tire Store) of the Institute of Transportation Engineers' *Trip Generation Manual*. Off peak seasonal rates for the tire store were scaled based upon the decrease in observed sales.

The proposed motorcycle rental operations are not covered by a standard land use in the Trip Generation Manual. Therefore, conservative trip generation rate calculations were made for this land use. It was assumed that all 20 motorcycles were rented in a day. One-quarter of the patrons would arrive via car to pick up their motorcycles in the morning peak hour by car. No carpool reductions were used. The same patrons would leave the facility during the same morning peak hour on their rented motorcycles. The opposite operation would occur during the evening peak hour. One-quarter of renters would return their motorcycles during the evening peak hour and leave in their cars.

The motorcycle rental rates are conservative, as many people will rent the motorcycles for multiple days and not return to the rental facility every day. Most renters will prefer to ride with a group and likely carpool to the facility. Not all motorcycles are likely to be rented out on a single day.

Based upon this analysis, the proposed off-peak operations are still anticipated to have less traffic than the winter peak operations. Refer to **Table 1**.

Parking: The existing 28 parking spaces on the property will be shared during the summer month operations. For convenience of both business' customers, parking spaces will be designated for RMMR customers.

Conclusion: The addition of the proposed motorcycle rental business to the existing commercial building located at 720 Ten Mile Drive is expected to have no impact to the existing public street system. The seasonal fluctuation in Utopia Tire's sales and related vehicle trips, allows for the small increase in trips to the property, by Rocky Mountain Moto Rental, during summer months to be absorbed into the existing background conditions.

Please call if you would like any additional information or have any questions regarding this matter.

Sincerely,
McDowell Engineering, LLC



Kari J. McDowell, PE, PTOE
Traffic Engineer

Attachments:
Table 1 – Project Trip Generation Table



PROJECT NUMBER: M1414
 PREPARED BY: KJS
 DATE: April 2, 2019
 REVISED:

Table 1 - Project Trip Generation
 for
Utopia Tire / Proposed Rocky Mountain Moto Rental
Estimated Project-Generated Traffic¹

ITE Code	Units	AM Peak Hour	PM Peak Hour	Avg. Weekday	Average Weekday	Morning Peak Hour		Evening Peak Hour					
					Trips (vpd)	% Trips	Trips	% Trips	Trips	% Trips	Trips		
Existing Land Use (Winter Peak)													
#848 Tire Store ²	7.6 kSF	3.73	3.87	28.52	217	52%	15	48%	14	45%	14	55%	17
Existing Land Use (Winter Peak) Subtotal					217		15		14		14		17
Proposed Land Use (Off Peak Season)													
#848 Tire Store (50% Operations/Traffic) ³	7.6 kSF	1.87	1.935	14.26	108	52%	8	48%	7	45%	7	55%	9
RMMR - Customers in Personal Cars ⁴	20 units	0.25	0.25	2	40	100%	5	0%	0	0%	0	100%	5
RMMR - Customers on Rented Motorcycles ⁵	20 units	0.25	0.25	2	40	0%	0	100%	5	100%	5	0%	0
Proposed Land Use (Off Peak Season) Subtotal					188		13		12		12		14
Proposed New Trips					-29		-2		-2		-2		-3

¹ Values obtained from *Trip Generation, 10th Edition*, Institute of Transportation Engineers, 2018.

² ITE Land Use Code #848, Tire Store includes tire installation and repair, as well as other automotive maintenance or repair services and customer assistance.

³ Rates were scaled based upon sales difference between winter peak season and off-season.

⁴ Assumes all 20 motorcycles are rented in a day. Assumes 25% of customers arrive in the morning peak hour and leave in the evening peak hour. Does not include a carpool factor.

⁵ Assumes all 20 motorcycles are rented in a day. Assumes 25% of customers leave on motorcycles in the morning peak hour and return in the evening peak hour.