

MEMORANDUM

To: Rob Oglesby, PE – Redland

From: Cassie Slade, PE, PTOE

Date: August 8, 2025

Project: TrailMark at Chatfield Lot 10, Single-Family Development – Littleton, Colorado

Subject: Trip Generation Memo - Updated

The Fox Tuttle Transportation Group has completed a transportation analysis for the proposed development of Lot 10 within the TrailMark at Chatfield neighborhood that proposes to include 27 single-family homes. The project property is located in the northwest corner of Wadsworth Boulevard and Trailmark Parkway as shown in the vicinity map in **Figure 1**. This 7.68± acre parcel is currently vacant and zoned as Corridor Mixed/ Planned Overlay District (CM/PL-O). The adjacent land uses include single-family homes, the KinderCare Learning Center, and a South Metro fire station.

The current zoning permits commercial businesses and multi-family dwelling units. This project proposes to change the zoning to be permitted to include the single-family units. There will be two (2) access points into the new neighborhood, one (1) on Trailmark Parkway (aligned with the fire station driveway) and one (1) on Carr Way. Both accesses are proposed to be full-movement and side-street stop-controlled. Trailmark Parkway



Figure 1. Vicinity Map

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leads to Wadsworth Boulevard, which leads to an interchange with C-470 to the north and Waterton Road to the south.

The purpose of this "trip generation memo" is to determine how many trips would be generated by the proposed project and compare to the current zoning potential.

Multi-Modal Transportation

Trailmark is located in next to several parks, trails, and popular bike routes. Within the neighborhood there are sidewalks along all the streets, marked and signed crosswalks across Trailmark Parkway, and local ponds with open space, parks, and trails. Across Wadsworth Boulevard, there is the Chatfield State Park that is heavily utilized by people biking, running, camping, fishing, boating, paddleboarding, kayaking, and wildlife viewing.

The adjacent roadways have wide shoulders that are utilized as bike lanes and the C-470 trail is located north of E-470. There is a gravel, single-track trail in the neighboring Hildebrand Park and Open Space, which links to the Trailmark trails.

Figure 2 provides a map of the nearby trails, parks, and multi-modal amenities.

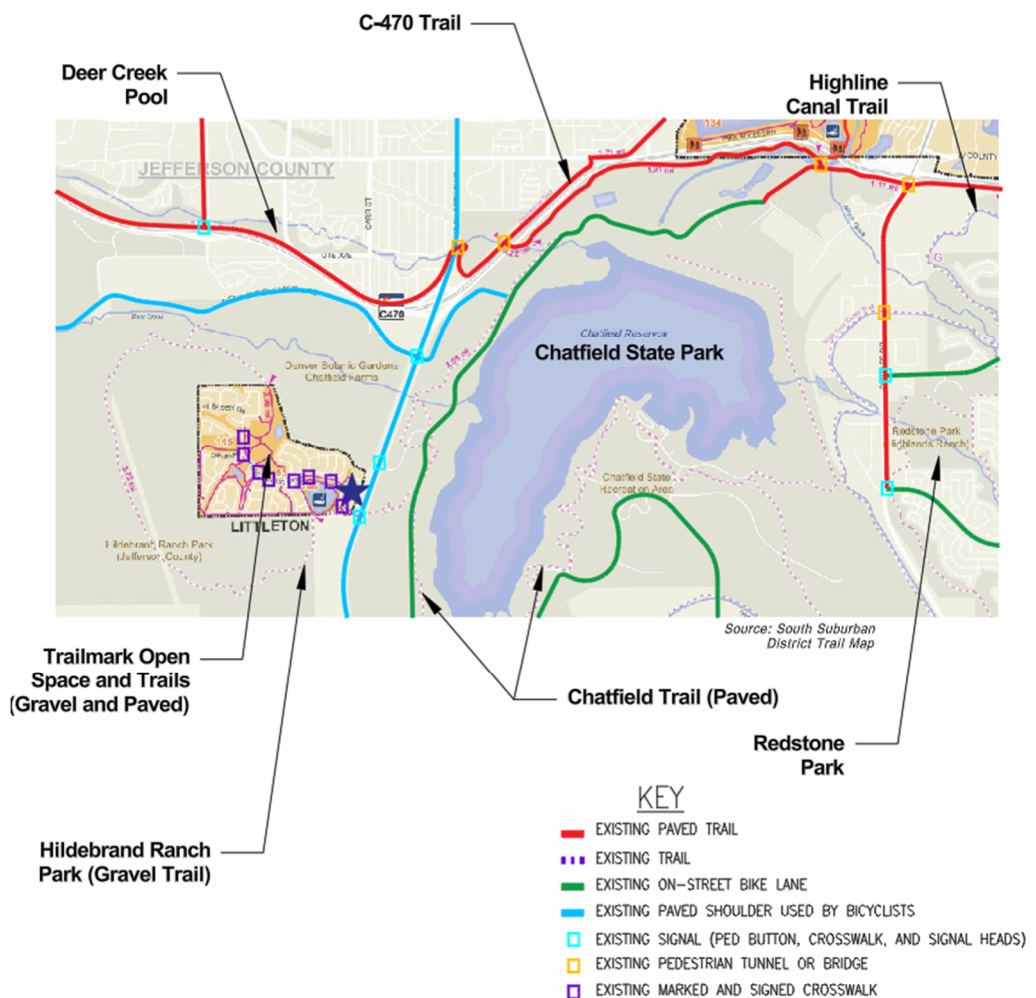


Figure 2. Map of Existing Multi-Modal Amenities

Trip Generation

To estimate the volume of trips associated with the proposed 27 single-family dwelling units, the data contained in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*¹ was applied to the most applicable land use category. The future residents are anticipated to experience new and non-auto trips, which are discussed below:

Primary Trips. These trips are made specifically to visit the site and are considered “new” trips. Primary trips would not have been made if the proposed project did not exist. Therefore, this is the only trip type that increases the total number of trips made on a regional basis.

Non-Auto Trips. Given the proximity to multi-modal facilities and recreational areas, it is anticipated that there will be some non-auto trips that occur externally and internally. For the purpose of this analysis, the vehicular trip volumes were not reduced for multi-modal travel.

Table 1 summarizes the estimated total trips for the current site plan and provides a comparison to the possible land uses per the existing zoning for weekday daily and weekday AM and PM peak period.

¹ *Trip Generation Manual*. 11th Edition. Institute of Transportation Engineers. Washington, DC. 2021.

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Table 1. Trip Generation Estimate and Comparison

Land Use	Size	Unit	Average Daily Trips				AM Peak Hour Trips				PM Peak Hour Trips			
			Rate	Total	In	Out	Rate	Total	In	Out	Rate	Total	In	Out
Proposed Development														
ITE #210. Single-Family Detached Housing	27.0	Dwelling Units	9.43	255	128	127	0.70	19	5	14	0.94	25	16	9
Potential with Existing Zoning (CM/PL-O)														
ITE #215. Single-Family Attached Housing (Duplexes)	53.0	Dwelling Units	7.20	382	191	191	0.48	25	6	19	0.57	30	18	12
ITE #215. Single-Family Attached Housing (Townhomes)	153.0	Dwelling Units	7.20	1,102	551	551	0.48	73	18	55	0.57	87	51	36
ITE #220. Multifamily Housing (Low-Rise)	192.0	Dwelling Units	6.74	1,294	647	647	0.40	77	18	59	0.51	98	62	36
ITE #821. Shopping Plaza (40-150k)	66.9	ksf	67.52	4,517	2,259	2,258	1.73	116	72	44	5.19	347	170	177
Difference (CM/PL-O Land Use Minus Rezone Single-Family)														
ITE #215. Duplexes			127 63 64				6 1 5				5 2 3			
ITE #215. Townhomes			847 423 424				54 13 41				62 35 27			
ITE #220. Multifamily (Low-Rise)			1,039 519 520				58 13 45				73 46 27			
ITE #821. Shopping Plaza			4,262 2,131 2,131				97 67 30				322 154 168			

Source: ITE Trip Generation 11th Edition, 2021.

It was estimated that the proposed single-family homes will generate up to 255 vehicle trips per day (vpd) with up to 19 vehicles per hour (vph) in the AM peak hour and up to 25 vph in the PM peak hour. If the subject property were to be developed with the current zoning, multi-family homes or commercial businesses could be constructed. Based on the acreage and typical density of housing types or commercial space, trips associated with potential development options, and it was determined that the single-family homes will generate less vehicular traffic than townhomes, apartments, and/or commercial businesses.

Trip Distribution and Assignment

The estimated trip volumes were distributed through the two (2) accesses and adjacent intersections based on existing traffic characteristics, land uses, and traffic patterns in the area. The overall assumed distribution percentages are listed below and shown on **Figure 3**:

- 70% to/from north Wadsworth Boulevard towards C-470
- 30% to/from south Wadsworth Boulevard towards Roxborough

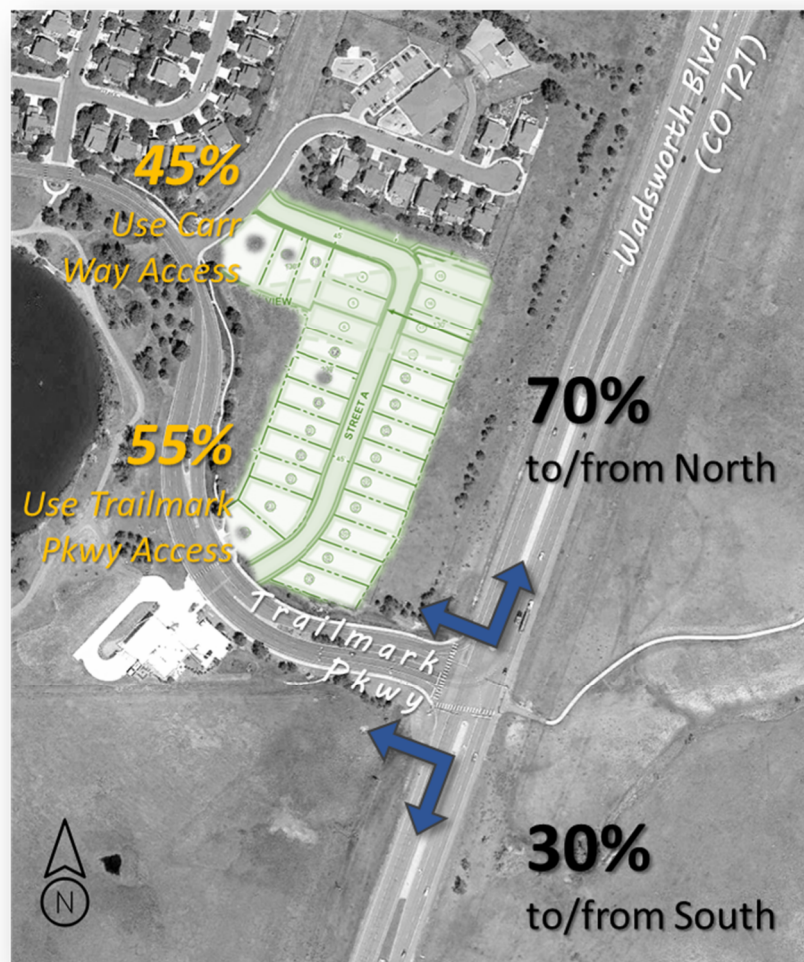


Figure 3. Anticipated Trip Distribution

These percentages are based on existing daily roadway counts from CDOT's database on Wadsworth Boulevard, the daily traffic is split 50/50 per direction at several locations along the arterial. This data indicated that 53% of the AM peak hour traffic headed north and 50% of the PM peak hour traffic.

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There is a large employer to the south (Lockheed) that will likely attract several residents. For conservative purposes, the estimated trip distribution was estimated to be higher to the north than the south and higher than the existing traffic patterns.

Using these distribution assumptions, the projected site traffic from **Table 1** was assigned to the access intersection and two (2) adjacent intersections on the route into/out of the TrailMark at Chatfield neighborhood for the weekday AM and PM peak hours. **Figure 4** summarizes the trip distribution and assignment.

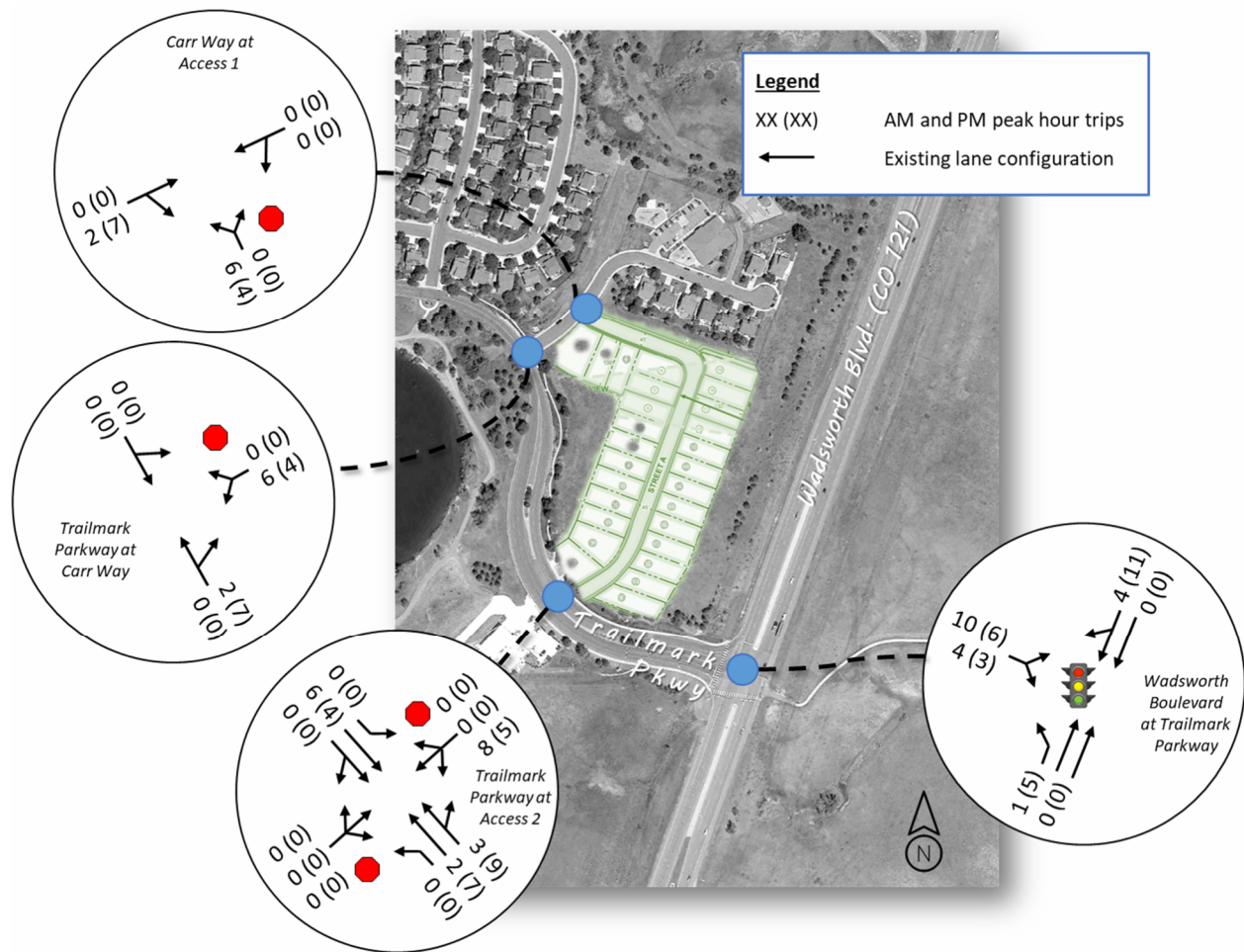


Figure 4. Estimated Trip Assignment

Conclusions

The TrailMark at Chatfield Lot 10 project proposes to rezone and construct 27 single-family homes located in Littleton, CO. Access will be planned to be provided with two (2) full-movement, side-street stop-control accesses. The project is anticipated to generate up to 255 weekday daily trips, up to 19 vph in the AM peak hour, and up to 25 vph in the PM peak hour. Compared to other potential land use types permitted with the current zoning, the proposed single-family homes will generate the least number of vehicular trips. **It is anticipated that the existing roadway network and intersections can accommodate the project trips without the need for additional analysis or mitigation measures.**

Hopefully the contents of this memorandum are helpful. If you have any questions, please give me a call.

Sincerely,

FOX TUTTLE TRANSPORTATION GROUP, LLC



Cassie Slade, P.E., PTOE
Principal

