

**MEMORANDUM**

**To:** Jordan Swisher  
Brue Baukol Capital Partners

**From:** Bill Fox, PE and Emily Kotz, PE

**Date:** January 28, 2020

**Project:** Redtail Ridge

**Subject:** Transportation Demand Management Plan for GDP Submittal

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**1. Overview**

Brue Baukol Capital Partners (BB) and its development partners are proposing to build a mix of office, commercial, and residential buildings on the former StorageTek campus as detailed in the *Nawatny Ridge Traffic and Mobility Study (Study)*, original draft dated September 30, 2019 and revised report anticipated in January 2020 (note that since the completion of the draft *Study* the project is no longer named Nawatny Ridge and will hereon be referred to as Redtail Ridge). This Transportation Demand Management (TDM) Plan was requested by City of Louisville staff as a supplemental submittal to the *Study* to outline possible strategies to reduce Single Occupant Vehicle (SOV) traffic generated by the proposed development.

BB and its development partners are planning the site to support employee and resident use of non-SOV transportation to and from the development. They have expressed interest and financial support of TDM programs that are outlined in the City of Louisville's new *Transportation Master Plan (TMP)*. To this end, we have prepared a non-SOV year 2040 goals for all trips to and from the project. In the coming years TDM programs, incentives and funding details will be implemented to achieve the goals.

The following text discusses possible TDM measures for the City of Louisville's General Development Plan (GDP) submittal and review. The GDP provides a high-level planning review of the proposed development. Future submittals beyond GDP will include additional details on programmed land uses, possible tenants, parking requirements, multimodal access, and Metro District TDM contributions. It is anticipated that the supplemental TDM memo will be revised and resubmitted with additional details at each of the City of Louisville's development review submittals.

## 2. Current and future non-SOV mode share goals

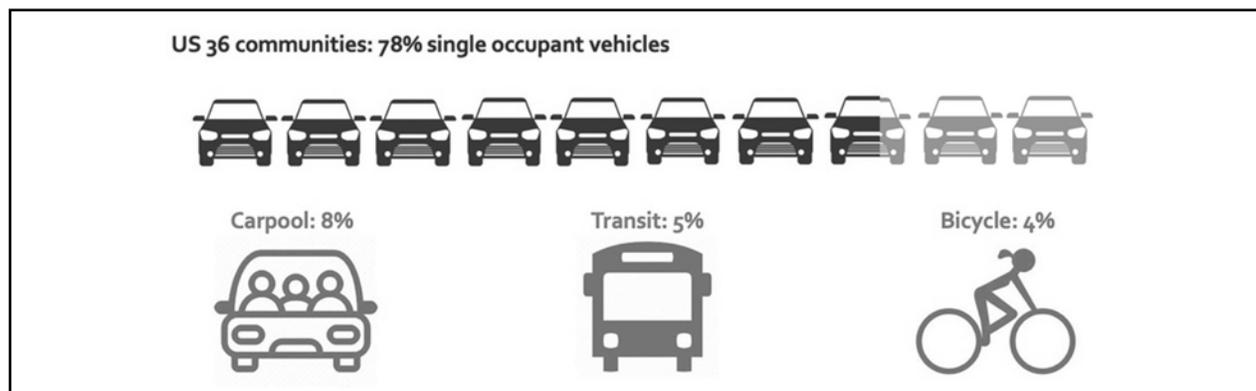
The new *City of Louisville TMP* documented how commuters in Louisville and nearby communities travel to work. This data is based on US Census American Community Survey (<https://www.census.gov/programs-surveys/acs>). This data is commonly used by agencies across the Denver region as a baseline for TDM programs. The current data is shown below as year 2012 to 2016 estimates. Based on this data, approximately 28% of people who work in Louisville travel to work by non-SOV modes.

**Figure 1: Louisville and comparison area commute mode share (from TMP)**

	 Drive Alone	 Carpool	 Transit	 Bike	 Walk	 Work at Home	 Other
City of Louisville	72.3%	4.7%	5.9%	2.3%	1.7%	12.7%	0.5%
City of Boulder	51.3%	4.9%	8.3%	10.3%	11.4%	12.5%	1.2%
Boulder County	65.2%	7.6%	5.0%	4.4%	5.3%	11.3%	1.3%
Denver Region	74.8%	8.5%	4.4%	1.2%	2.5%	7.5%	1.0%

The mode share data shown in Figure 2 below is based on survey data from the *2016 Northwest Metro Region Mobility Report*, final draft dated July 2018, prepared by Commuting Solutions. This data shows the mode share for communities along the US 36 corridor, including the City of Louisville. The current data is shown below as year 2012 to 2016 estimates. Based on this data, approximately 22% of people who work in the US 36 corridor travel to work by non-SOV modes.

**Figure 2: US 36 corridor commute mode shares (from Commuting Solutions)**



Additional trip generation and mode share peer data and study references are provided in the **Appendix**.

## Redtail Ridge Transportation Demand Management Plan

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The mode share goals for the project are broken down by different land use categories to ensure TDM programs are targeted and evaluated based on their direct ability to serve commuters and residents of different types of land uses. For the multifamily housing and general office land uses, the goal of the project is to have 25 percent or more non-SOV trips during the peak periods during the initial phase. These participation levels would be consistent with the current program enrollment in the US 36 corridor and is achievable with the proposed TDM programs that are outlined later in this document. Further, it is anticipated that the non-SOV trip percentages to/from the project site will increase as planned regional mobility studies are implemented.

While the project team has a target goal of 25 percent or more non-SOV trips, for purposes of the trip generation analysis in the *Study*, and based on feedback provided by City staff, a reduced non-SOV percentage was assumed for these and uses. The following non-SOV trips are assumed for Year 2025 (the completion year for the first phase of development).

- The multifamily residential housing units are assumed to have 15 percent non-SOV trips. This accounts for residents who walk, bicycle, carpool, vanpool, use shared ride mobility services and/or use transit.
- The senior and assisted living housing are expected to have five (5) percent non-SOV trips. This accounts for residents who would ride shuttles and for employees/visitors that walk, bicycle, carpool, vanpool, use shared ride mobility services and/or transit.
- The general offices are assumed to have 15 percent non-SOV trips. This accounts for employees/visitors who walk, bicycle, carpool, vanpool, use shared ride mobility services and/or use transit.
  - Note that based on preliminary site plan information for Parcel B, the non-SOV trips are estimated to be five (5) percent for the corporate office user.
- The shopping centers are expected to have ten (10) percent non-SOV trips. This accounts for mostly employees and some patrons who bicycle, carpool, vanpool, use shared ride mobility services and/or use transit.
- The business hotel is expected to have five (5) percent non-SOV trips. This accounts for mostly employees and some travelers who carpool, use shared ride mobility services and/or use transit.

It is assumed that some of the planned regional mobility plans for this area will be constructed/implemented by the time this project is built-out and that these projects will further reduce the non-SOV trips for the project and background trips to the study area (such as Northwest Rail, NAMS BRT corridors, complete streets in the 88th Street, Dillon Road, and 96th Street corridor). As a result, the following non-SOV trip increases for the year 2030 and after are outlined below. Similar to the initial phase, the goal of the project is to have an even greater percentage of non-SOV trips than what is assumed below.

- The senior and assisted living housing are expected to remain at the same levels.
- The general offices and residential uses are expected to have an additional five (5) percent or greater non-SOV trip increase. For purposes of the trip generation analysis, the non-SOV trip percentage was increased to 20 percent for general offices and the multifamily residential.
- The shopping centers are expected to remain at the same levels.
- The business hotel is expected to remain at the same level.

### **3. TDM Program Overview**

TDM is an all-encompassing term for activities that help people use the transportation system more efficiently, while reducing traffic congestion, vehicle emissions and fuel consumption. TDM activities help get the most out of transportation infrastructure and services by making lower-cost, higher-efficiency transportation options easier to use and more readily available. TDM activities include such options as eliminating or shortening trips, changing the mode of travel, or changing the time of day a trip is made, as well as actions that increase transportation system efficiency through carpooling, vanpooling, transit, bicycling and walking. TDM strategies also include employer-based programs such as alternative work schedules, which could shift demand away from peak travel times, and telework, which could reduce the need for trips entirely. There are local transportation management solution organizations that coordinate funding and service efforts that the Metro District should consider partnering with to help facilitate and encourage non-SOV travel. Program summaries are outlined below.

#### **Walking Trips**

Walking trips are key part of the non-SOV mode share goals. The walking trips would likely occur between neighborhood homes, parks and schools. New walking trips will be made on the Complete Street sidewalk and trail network. The forecasted typical walk trip will be less than 1/4 mile or 5-minute walk from a home/work to a destination. It is likely that

most of the walking trips will be single or multi-purpose trips within the site context. In the future, walking to shared ride mobility and transit services is also likely to increase. This is commonly referred to as the “first and last mile” of a shared ride or transit trips.

### **Cycling Trip**

Cycling trips will increase in the future as the Complete Street and trail network is completed. The future cycling trips will be made by people of all ages and cycling abilities. They will be connecting between neighborhood homes, parks, schools, commercial uses, major entertainment destinations and transit on and off site. Most of the new cycling trips would be a result of new people making a choice to cycle because of the protected cycle network and underpasses. That network is focused on removing conflicts with motor vehicles and providing safe access from neighborhoods to destinations in the adjacent area. The cycling trips will be approximately 4 to 6 miles and up to a 20-minute ride.

### **Carpool, Vanpool and Shared Ride Trips**

Large and small employers will have access to programs that match people to carpool programs and on-demand rideshares. The commute carpools and shared rides are typically less than 30 miles.

### **Transit Trips**

In the future, “High Capacity Transit” services will be available within a 10-minute walk or bike ride as outlined in the City of Louisville and Boulder County Transportation Master Plans. These transit services will be accessible via a 10-minute walk or bike ride using the Complete Streets and underpasses. Local transit shuttles to High Capacity Transit stations will also be provided by partnership with the City of Louisville and private business using the operating models being piloted at the 61<sup>st</sup> and Pena Station (<https://www.fulenwider.com/autonomous-shuttle-launches-in-denver.html>) and the Lone Tree Link (<http://www.lonetreelink.com>).

### **Parking Management**

Implementing new shared parking programs and organizing parking districts are important planning tools that will be utilized in the future TDM updates to this memo to achieve the TDM goals as the area develops. This effort will take advantage of planning tools to manage future parking supplies.

### **Telecommute/Work From Home**

Commuting trips that do not occur during peak travel hours as a result of people who telecommute or work from their residence for part or the entire day are included in the non-SOV goals.

#### **4. TDM Program Tools**

Listed below are the TDM programs, tools and funding sources that should be used to achieve the project non-SOV mode share goals. They are provided at this time as possible tools given where the project stands in the GDP process. Future submittals can provide additional information when additional details on land uses, tenants and funding is known. It is recommended that the Metro District partner with a local expert in transportation management solutions to help facilitate these programs.

The TDM programs are organized based on programs that can be supported/funded by the Metro District versus programs that can be supported/funded by the vertical developers. Note that all vertical developers in the project will be required to submit a customized TDM for their building identifying what programs will be implemented to meet the non-SOV goals of the project. Periodic surveys will be conducted to evaluate the TDM program effectiveness and adjustments will be made, if needed, to reach the project non-SOV goals.

##### ***Metro District Supported Programs***

- Shuttles to High Capacity Transit: The Metro District should provide operating funds for shuttle service that connects to the Flatiron Flyer BRT station and downtown Louisville. The shuttle service could be operated with an on-demand app and/or fixed route.
- Employee EcoPasses: RTD EcoPasses should be made available to all on-site employees. The Metro District will work with the employers to provide the passes to employees free of charge or substantially discounted. Consider also including the Guaranteed Ride Home Program as an optional benefit that can be added to the EcoPasses. The Metro District should provide a portion of the funding support for this program.
- TDM Coordinator: The Metro District should hire a coordinator or work with a local transportation management organization to manage the transportation needs, barriers, incentives, programs, etc. This staff member or support organization should provide employees with important travel information including transit maps and schedules, bicycle maps, local and regional marketing campaigns, and information on the commute benefits provided to employees and residents. They should assist the Metro District in working toward the project's non-SOV mode share goals. In addition, the TDM coordinator would be responsible for coordinating the following programs/tools:
  - TDM Plan evaluation: provide periodic surveys of employee and resident travel behavior to evaluate the TDM Plan. The survey is designed to collect anonymous travel information and takes less than 10 minutes to complete.

- Employee Carpools and Vanpools: work with vertical developer/employers to implement this program on-site.
- Walk and Bike Month: actively encourage employees and residents to register and participate in Bike to Work Day (June) and Winter Bike to Work Day (January).
- Orientation packets: prepare electronic orientation packets to employers and residents that will include non-SOV program information and incentives. This information will be located on the district website.
- Bicycle Access: Bicycle access to the site should be provided via Complete Streets and multi-use trails as shown on the GDP submittal maps.

### ***Vertical Developer Supported Programs***

- Flexible work schedules and telecommuting: work with employers to encourage this program. This program will also be supported by the TDM Coordinator.
- Bicycle Parking: Future site plans should include outdoor short-term bicycle parking at a ratio of 1 per 4,000 square feet of commercial use and 0.2 spaces per residential dwelling unit. Long-term bicycle parking inside buildings or in covered parking areas should be provided at a rate of at least one secure area per project that is over 75,000 square feet of commercial or residential space. The long-term parking should be a bicycle room with limited access or a caged secure area within a parking area protected from the weather. The secure long-term bicycle parking area should include space for 0.25 bicycle per dwelling unit or per 5,000 square feet of floor area. Bike tool/repair spaces should be provided near the long-term bike parking.
- On-Site bicycle Commuter Amenities: Commercial projects over 100,000 square feet should include showers and changing facilities for employees within the building. Future submittals should include detailed designs and access.
- Carshare: Office and multifamily residential projects over 100,000 square feet should allocate parking spaces for carshare programs. The utilization of this service should be monitored to determine the appropriate number of spaces to allocate for carshare.