



November 11, 2020

Brianna Medema  
City of Aurora  
Traffic Engineering  
15151 E. Alameda Parkway, Suite 5200  
Aurora, CO 80012

Re: **Judi's House / JAG Institute (#1431304) – Traffic Letter  
Aurora, Colorado**

Dear Brianna:

## **INTRODUCTION**

Judi's House / JAG Institute, a bereavement counseling and support facility for grieving children and their families, is proposed to be developed on a vacant site at the northeast corner of 25<sup>th</sup> Avenue & Fulton Street within Aurora, Colorado. Per notes from a pre-application meeting held on January 23, 2020, a traffic letter is being required. This traffic letter includes a description of the proposed project, trip generation characteristics for the current proposal, anticipated trip distribution and a site circulation plan.

## **PROJECT DESCRIPTION**

The proposed Judi's House / JAG Institute development will include a two-story, 26,117 square foot counseling facility. The lower level will provide counseling and activity rooms, kitchen and dining areas for group dinners and office areas. The second level will primarily include office space for support and research. General operations include staff (research and outreach) working during the day (8 AM to 5 PM more or less). Families, volunteers and counselors arrive around 5:30 PM and are available until approximately 8:00 PM to serve clients. Due to the staggering shifts, parking can be shared between the two operations.

The existing Judi's House location at 1741 N Gaylord Street in Denver provides approximately 50 parking spaces between three surface parking areas, which adequately accommodates their staff and guests. The current proposed site at 25<sup>th</sup> Avenue & Galena Street will provide 50 off-street vehicular parking spaces for staff and visitors, which should be adequate for the proposed use. The site proposes two vehicular accesses to Galena Street north of 25<sup>th</sup> Avenue. The property for the development is approximately 1.67 acres and vacant. The project site for the proposed development is bound by a drainage conveyance ditch to the north and existing roadways on the other three sides; Galena Street to the east, 25<sup>th</sup> Avenue to the south, and Fulton Street to the west. A vicinity map

is included as **Exhibit 1** and the current site plan is included as **Exhibit 2** at the end of this document.

The site lies within the OA-MS (original Aurora Main Street) zone and is surrounded by a mix of commercial and residential uses. Residential uses are located to the north (Stapleton) and south. A recent aerial is included as **Exhibit 3**.

## TRIP GENERATION

The proposed Judi's House / JAG Institute project will accommodate a 26,117 square foot building. The *Trip Generation Manual, 10<sup>th</sup> Edition* published by the Institute of Transportation Engineers (ITE) was used to determine the number of trips generated by the proposed land use. The purpose of the Trip Generation Manual (TGM) is to compile and quantify empirical trip generation rates for specific land uses within the US, UK and Canada. Generally, the Trip Generation Manual is the industry standard accepted reference for estimating trip generation.

Though there is no specific land use category within the TGM for a counseling facility, the proposed use is most closely represented within land use category 720 "Medical-Dental Office Building" within the TGM. According to the TGM, "a medical-dental office building is a facility that provides diagnosis and outpatient care on a routine basis but is unable to provide prolonged in-house medical and surgical care." This very closely matches the proposed use. However, the proposed facility may operate a little different than a typical medical office building in that it will provide more general office space for support and research, dining facilities for group dinners, and children's play areas (including a possible dress-up and puppet theater room). Dining and kitchen facilities will comprise approximately 2,800 SF and will function more as an ancillary use to the overall facility, likely not a contributor to generating trips for the facility. Therefore, this was excluded from the trip generation calculation. The upper level is anticipated to operate more like a general office building, which is approximately 11,460 SF of the overall building. General Office Building is land use category 710 within the TGM.

The trip generation, which is shown in the table below, is based on the building size and fitted curve equations provided in the TGM, but average rate was used for land use category 710 due to its size.

**Table 1 - Project Trip Generation**

Land Use	ITE Code	Size	Unit	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Medical Office Building	720	11.9	KSF	370	27	7	34	12	30	42
General Office Building	710	11.5	KSF	112	11	2	13	2	11	13
<b>TOTAL</b>	-	-		482	38	9	47	14	41	55

KSF = 1,000 square feet

As shown in the table above, the project is estimated will generate 47 AM peak hour trips, 55 PM peak hour trips and 482 average daily trips (ADT).

## **Trip Types**

Nearly all developments are made up of the following six trip types: new (destination) trips, pass-by trips, diverted trips, shared (internal) trips, multi-modal (non-vehicular) trips, and transit-oriented trips. To better understand the trip types available for land access and how they relate to this project, a description of each specific type follows.

**New (Destination) Trips** – These types of trips occur to access a specific land use such as a new retail development or a new residential subdivision. These types of trips will travel to and from the new site and a single other destination such as home or work. This is the only trip type that will result in a net increase in the total amount of traffic within the study area. The reason primarily is that these trips represent planned trips to a specific destination that never took trips to that part of the City prior to the development being constructed and occupied. This project will develop new trips.

**Pass-by Trips** – These trips represent vehicles which currently use adjacent roadways providing primary access to new land uses or projects. These trips, however, have an ultimate destination other than the project in question. They should be viewed as drop-in customers who stop in on their way home from work. A good example is a quick stop at the grocery store to pick up an ingredient for dinner on the way home from work or at a latte stand to grab a coffee on the way to work. This can make this trip pre-determined, but the stop is still on the way by. Another example would be on payday, where an individual generally drives by their bank every day without stopping, except on payday. On that day, this driver would drive into the bank, perform the prerequisite banking and then continue home. In this example, the trip started from work with a destination of home, however on the way, the driver stopped at the grocery store/latte stand and/or bank directly adjacent to their path. Pass-by trips are most always associated with commercial/retail types of developments. Pass-by trips are unlikely to occur for this project at the site due to the use and the fact that its accesses are directly from Galena Street, a low-volume roadway. Therefore, no pass-by trips are anticipated.

**Diverted (Linked) Trips** - Diverted trips are like pass-by trips, but diverted trips occur from roadways that do not provide direct access to the site. Instead, one or more streets must be utilized to get to and from the site. For this project, diverted trips are unlikely to occur due to the type of use and were not accounted for within this analysis.

**Shared (Internal) Trips** - Internal trips are the portion of trips generated by a mixed-use development that both begin and end within the development. When estimating trip generation for a development with several uses, each use will generate its own trips. If those trips occur between two of the onsite uses without using the external roadway system, it is considered a shared or internal trip. This trip type reduces the number of new trips generated on the public road system and is most commonly used for commercial or mix-use developments. Determining these trip types is more difficult to quantify and without specific guidance are usually determined by engineering judgment on a project by project basis. For this project, the counseling facility is the only use on site so no internal trips could occur between this and another use.

**Multi-Modal (Non-Vehicular) Trips** - These are non-vehicular trips to and from the site, mostly comprised of pedestrian and bicycle trips. Generally, they are local trips from the surrounding neighborhood or adjacent businesses. If a development is in an area with a high amount of bicycle and pedestrian activity, such as a downtown setting or college

campus, a reduction of vehicular trips would be anticipated. During field observations, very few pedestrian or bicycles were witnessed in this area. While multi-modal trips could occur by clients, volunteers and staff, the amount is not anticipated to be significant.

**Transit Trip** - The Denver Metro area is served by Regional Transportation District (RTD) with public bus and light rail. The nearest bus routes to the site run along Montview Boulevard and Colfax Avenue with stops at Florence Street/Galena Street, three blocks and seven blocks away respectively. The nearest light rail station is 2 miles away at the Central Park Station along the A-line. Similar to multi-modal trips, transit trips are not anticipated to make up a significant portion of the overall trips for the site.

Based on the various trip types depicted above and the nature of the proposed project, no trip reduction was applied to the trip generation estimates.

## TRIP DISTRIBUTION

As shown on the site plan, the site will be accessed by Galena Street immediately north of 25<sup>th</sup> Avenue, which connects to Peoria Street to the east and Fulton and Dayton Streets to the west. Fulton Street provides a north-south connection to arterials north and south of the site, Montview and MLK Jr Boulevards. The project is expected to draw locally and regionally using Montview Boulevard, I-70, I-225 and Colfax Avenue. Havana Street provides the most direct route to I-70. I-70 is likely to be used by many areas north, west and east of the site (Broomfield, Westminster, Arvada, Golden, Lakewood, etc). I-225 is likely to be utilized by areas south of the site (Centennial, Parker, Littleton, etc.). Montview Boulevard provides an east-west connection to Denver. The project traffic is anticipated to distribute as follows, which is based on population in the Denver-Metro area and likely routes from each population center.

- Fulton Street north of the site – 30%
- Fulton Street south / Montview Boulevard west of the site – 15%
- 25<sup>th</sup> Avenue east of the site – 55%

These trip distribution percentages are illustrated in **Exhibit 4**.

## SITE CIRCULATION

The site will be accessed from Galena Street at two locations. The surface parking is divided into two main sections, a northern portion and a southern portion. The southern portion is a dead-end 90° parking area with 21 spaces. The northern portion is also 90° parking with a driveway on each end. The two driveways will provide the access to different portions of the surface lot, but either driveway can be utilized to access the parking. Circulation within the site will be typical of a surface parking lot with two-way drive aisles and perpendicular spaces. A site circulation plan is shown in **Exhibit 5**.

**CONCLUSIONS/RECOMMENDATIONS**

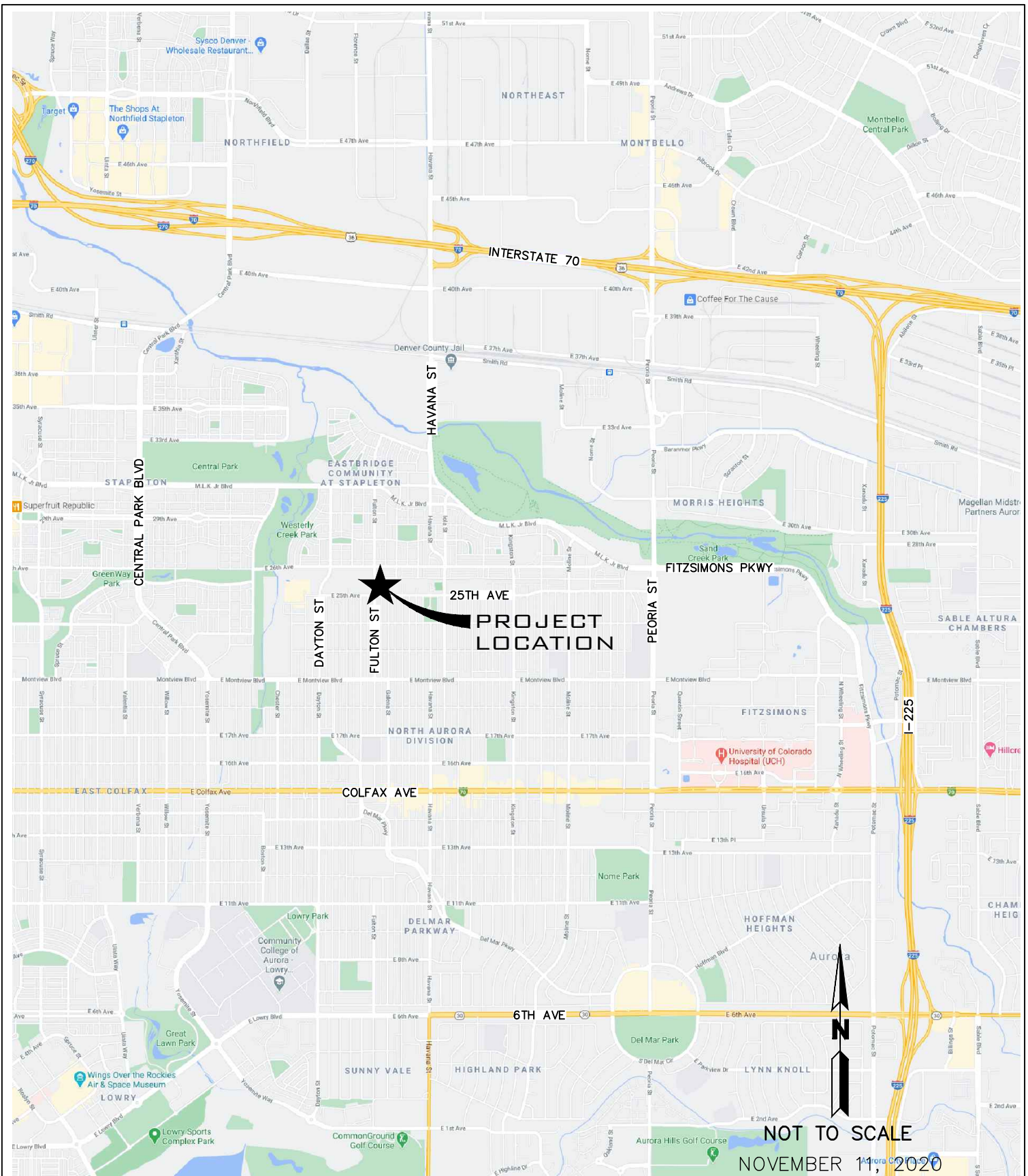
It is anticipated that this project will generate approximately 47 AM peak hour vehicular trips, 55 PM peak hour vehicular trips and 482 ADT, which should be below any threshold to require a traffic impact study for this project. A site circulation plan is provided in the attached exhibits, which shows two-way drive aisles for the surface parking lot with perpendicular spaces.

Should you have any questions regarding this document or the information contained herein, please do not hesitate to contact me at 303-653-9200 or via email at [craig@civtrans.com](mailto:craig@civtrans.com).

Sincerely,

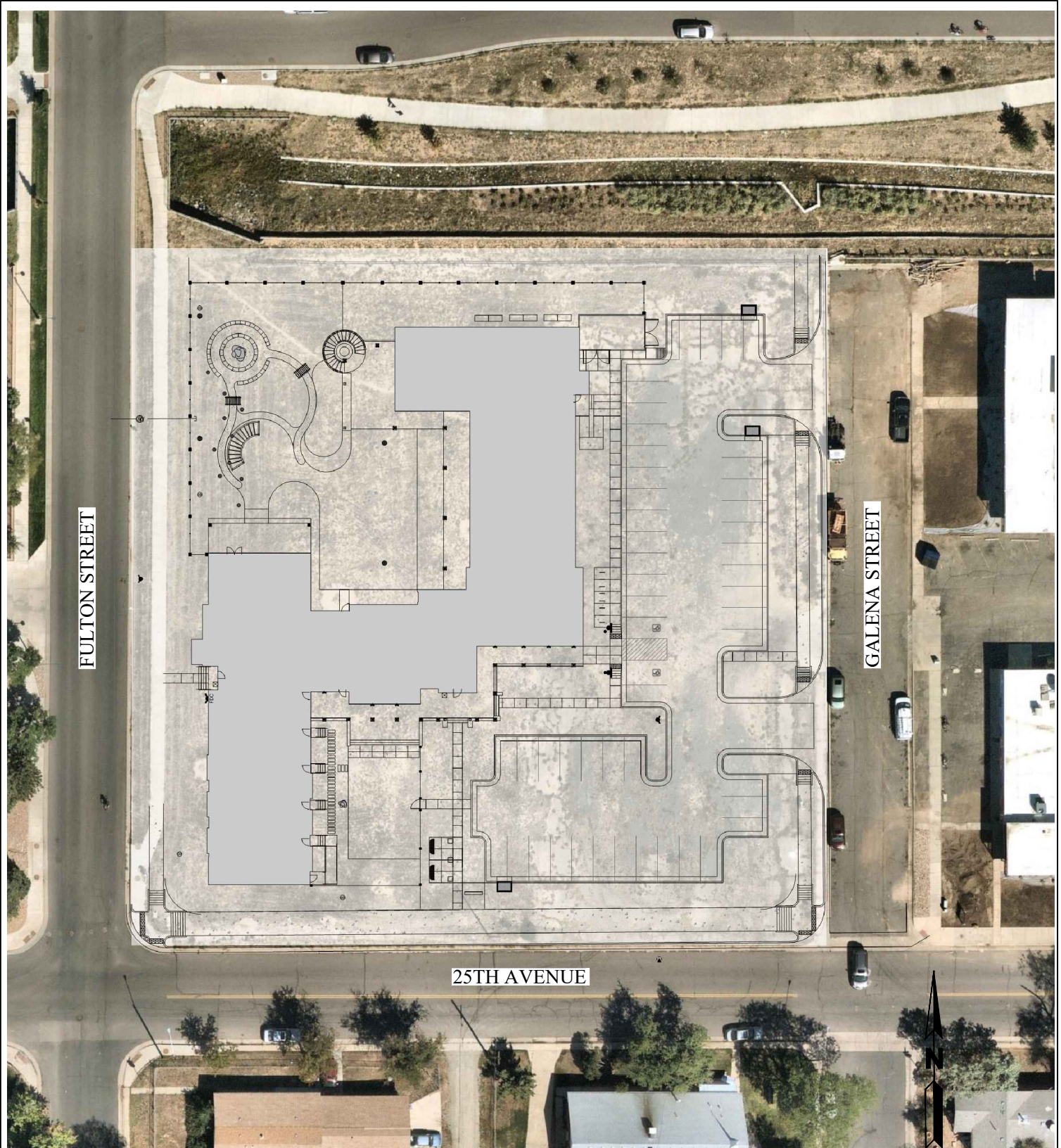


Craig A. MacPhee, P.E.



**EXHIBIT 1**  
**VICINITY MAP**





NOT TO SCALE  
NOVEMBER 11, 2020

**EXHIBIT 2**  
**CURRENT SITE PLAN**

**CivTRANS**  
**Engineering Inc.**  
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**EXHIBIT 3**

**SITE AERIAL**

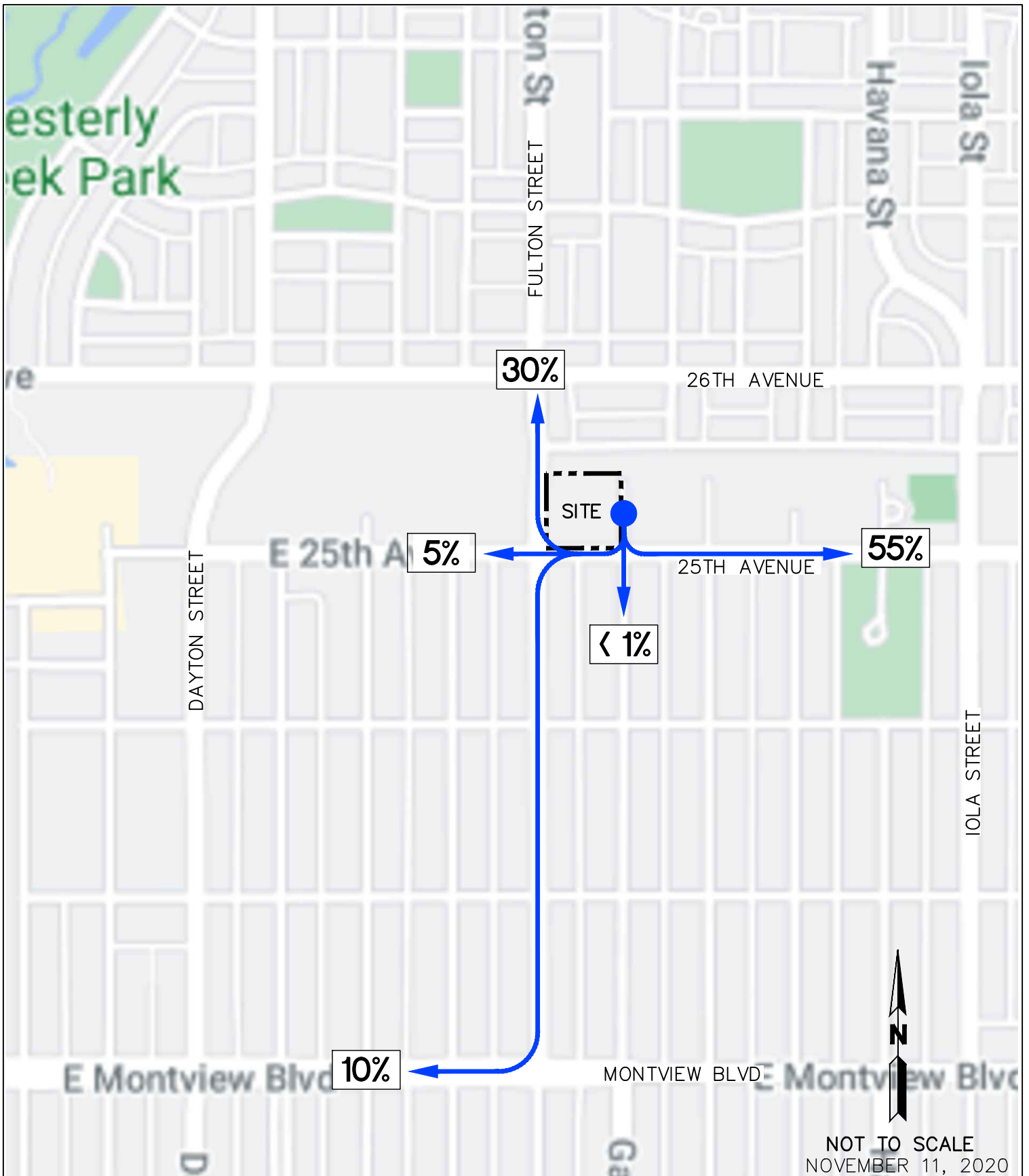


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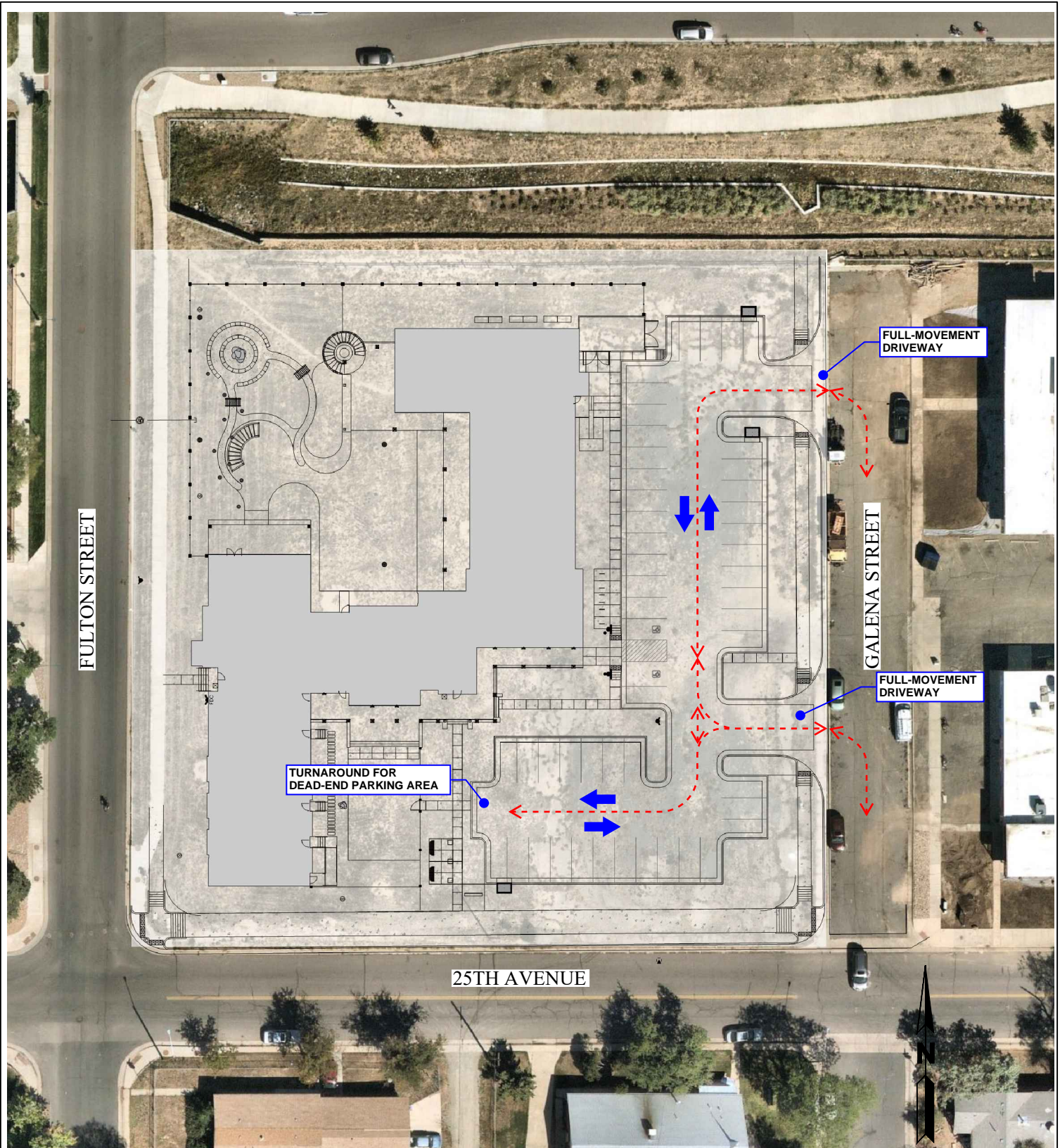
**EXHIBIT 4**

TRIP DISTRIBUTION

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## EXHIBIT 5

### SITE CIRCULATION PLAN

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