



ALDRIDGE TRANSPORTATION CONSULTANTS, LLC

Advanced Transportation Planning and Traffic Engineering

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Joshua Rowland, Principal
LAI Design Group
88 Inverness Circle East, Suite J101
Englewood, CO 80112

RE: Trip Generation Letter
Littleton Mixed Use – 2679 West Main St., Littleton CO

Dear Mr. Rowland:

Pursuant to your request, I have determined the trip generation for the weekday, AM and PM peak hours that would be occasioned by the redevelopment of a site located at 2679 West Main in Littleton. Figure 1 shows the site location and surrounding area. The site plan shows one access to Main St., which is a two-lane one-way street. As we understand it, the proposed project is development of 5 apartments, 30,000 square feet of general office, and 1,675 square feet of retail.

The estimated trip generation for the proposed mixed use project is based on rates and values in the **9th Edition of the ITE Trip Generation Manual**. The following Table 1 shows the trip generation during the average weekday and the AM and PM peak hours.

Table 1 – Trip Generation

| Trip Generation Worksheet | | | | | | | | |
|---------------------------|----------------|------|----------|------------|-----------|----------|-----------|-----------|
| ITE CODE | LAND USE | UNIT | QUANTITY | ADT | AM | | PM | |
| | | | | | IN | OUT | IN | OUT |
| 820 | Retail | KSF | 2 | 42.70 | 0.60 | 0.36 | 1.78 | 1.93 |
| | | | | 72 | 1 | 1 | 3 | 3 |
| 220 | Multi-family | DU | 5 | 6.65 | 0.10 | 0.41 | 0.40 | 0.22 |
| | | | | 33 | 1 | 2 | 2 | 1 |
| 710 | General Office | KSF | 30 | 11.03 | 1.37 | 0.19 | 0.25 | 1.24 |
| | | | | 331 | 41 | 6 | 8 | 37 |
| Total Trips | | | | 436 | 43 | 8 | 12 | 42 |



Figure 1 Site Location and Surroundings

According to 2015 traffic count data from the City of Littleton's website, Main Street carries approximately 10,000 ADT. Assuming that the PM peak hour volume is 10 percent of the daily, in the PM peak hour there are 1,000 vehicles per hour on Main St. A Synchro v9 analysis of the access's operating characteristics in the PM peak hour reveals that it will operate at a high level of service B with only a minimal 95th percentile queue of .3 vehicles that would have to wait for an acceptable gap to make a safe exit. The Synchro worksheet is attached for reference.

Based on the findings contained herein, it is my professional opinion that the traffic generated by the Littleton Mixed Use will not have a significant impact on the Main Street traffic flow and that no further analysis or improvements to the adjacent streets and intersections are necessary to maintain an acceptable operating condition and level of service during the peak hours of operation.



Should you have any questions or need additional information please call me at 303-703-9112.
Thank you for the opportunity to be of service.

Respectfully submitted,

Aldridge Transportation Consultants, LLC

John M.W. Aldridge, PE, PTOE, AICP
Principal

Jmwa/me

ATC is professional service firm specializing in traffic engineering and transportation planning. ATC's principal, John M.W. Aldridge, is a Colorado licensed professional engineer and certified professional traffic operations engineer (PTOE). In the past 20 years, ATC has prepared over 1,000 traffic impact studies, designed over 100 traffic signals, and has provided expert witness testimony on engineering design and access issues on multi-million-dollar interchange and highway projects in Kansas and Colorado.





Littleton Mixed Use
3: Main & Access

PM Peak Hour

4/20/2016

| Intersection | | | | | | |
|--------------------------|--------|------|--------|------|------|------|
| Int Delay, s/veh | 0.5 | | | | | |
| | | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Traffic Vol, veh/h | 0 | 0 | 1000 | 12 | 0 | 42 |
| Future Vol, veh/h | 0 | 0 | 1000 | 12 | 0 | 42 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 1087 | 13 | 0 | 46 |
| | | | | | | |
| Major/Minor | Major2 | | Minor2 | | | |
| Conflicting Flow All | | | - | 0 | 1093 | 549 |
| Stage 1 | | | - | - | 1093 | - |
| Stage 2 | | | - | - | 0 | - |
| Critical Hdwy | | | - | - | 7.54 | 6.94 |
| Critical Hdwy Stg 1 | | | - | - | 6.54 | - |
| Critical Hdwy Stg 2 | | | - | - | - | - |
| Follow-up Hdwy | | | - | - | 3.52 | 3.32 |
| Pot Cap-1 Maneuver | | | - | - | 169 | 480 |
| Stage 1 | | | - | - | 229 | - |
| Stage 2 | | | - | - | - | - |
| Platoon blocked, % | | | - | - | | |
| Mov Cap-1 Maneuver | | | - | - | 169 | 480 |
| Mov Cap-2 Maneuver | | | - | - | 169 | - |
| Stage 1 | | | - | - | 229 | - |
| Stage 2 | | | - | - | - | - |
| | | | | | | |
| Approach | WB | | SB | | | |
| HCM Control Delay, s | | | 0 | 13.3 | | |
| HCM LOS | | | | B | | |
| | | | | | | |
| Minor Lane/Major Mvmt | WBT | WBR | SBLn1 | | | |
| Capacity (veh/h) | - | - | 480 | | | |
| HCM Lane V/C Ratio | - | - | 0.095 | | | |
| HCM Control Delay (s) | - | - | 13.3 | | | |
| HCM Lane LOS | - | - | B | | | |
| HCM 95th %tile Q(veh) | - | - | 0.3 | | | |