

Traffic Impact Study

Signal doesn't look to be warranted in 2026. Only 50% of the right turn volume counts for the Minor approach volume.

The study has been updated to only include 50% of the minor street right-turning vehicles. See below for additional comment responses.

QuikTrip 4283

Aurora, Colorado

Prepared for:

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Signal Warrant Calculations

2026 Total AM

| Mainline Traffic Volumes (Total of Both Approaches) | |
|--|--------------|
| 241 | EBL |
| 402 | EBT |
| 226 | EBR |
| 59 | WBL |
| 144 | WBT |
| 60 | WBR |
| 1132 | Total |

| Minor Street Approach (Northbound Approach) | |
|--|--------------|
| 222 | NBL |
| 1 | NBT |
| 56 | NBR |
| 279 | Total |

| Minor Street Approach (Southbound Approach) | |
|--|--------------|
| 14 | SBL |
| 1 | SBT |
| 57 | SBR |
| 72 | Total |

| % of Traffic Applied in an Hour | 100% | 90% |
|----------------------------------|------|------|
| Major - Total of Both Approaches | 1132 | 1019 |
| Minor - High Volume Approach | 279 | 251 |

Aurora only counts
50% of the right turn
movement should be
28

Minor street
right-turns have
been updated.

2026 Total PM

| Mainline Traffic Volumes (Total of Both Approaches) | |
|--|--------------|
| 62 | EBL |
| 165 | EBT |
| 187 | EBR |
| 47 | WBL |
| 470 | WBT |
| 16 | WBR |
| 947 | Total |

| Minor Street Approach (Northbound Approach) | |
|--|--------------|
| 192 | NBL |
| 1 | NBT |
| 51 | NBR |
| 244 | Total |

| Minor Street Approach (Southbound Approach) | |
|--|--------------|
| 59 | SBL |
| 1 | SBT |
| 235 | SBR |
| 295 | Total |

| % of Traffic Applied in an Hour | 100% | 90% |
|----------------------------------|------|-----|
| Major - Total of Both Approaches | 947 | 852 |
| Minor - High Volume Approach | 295 | 266 |

219 26

178 118

219

197

Provide note that states where the 90% came from. From the counts it looks close in the AM and Mid day peak.

Clarification has been provided in the signal warrant analysis regarding the 90% factor used here. As mentioned within the text of the report previously, the 1st and 2nd peak hours used in the analysis are based on the 2026 AM and PM Total volumes, while the 3rd and 4th peak hours assume a 90% factor of the AM and PM peak hour volumes, respectively. This is based on the assumption that for an hour before/after the peak hours listed--for example, if AM commuter peak hour is 7:00-8:00 AM, the following hour 2026 horizon year 8:00-9:00 AM hour is assumed to have 90% of the traffic volume that occurred during the morning peak hour, with the same process followed in the afternoon peak period. A signal is still warranted based on the updated analysis with only including 50% of the right-turn minor street volume.