

MEMORANDUM

DATE: October 20, 2017

TO: Larry Martin
Davis Wright Tremaine LLP

FROM: Cutis Chin, P.E.
TENW

SUBJECT: 2017 Updated RTC Traffic Counts
Redmond Town Center
TENW Project No. 5559

This memorandum documents a comparison of the entitled p.m. peak hour trips associated with the Redmond Town Center (RTC) development and the actual trips generated by the RTC site based on current traffic counts. The RTC site is located in downtown Redmond between Leary Way, Bear Creek Parkway, and NE 76th Street. This memo is an update to the previous trip generation analysis for the RTC site completed in 2001.

Approved Trip Generation

The approved master plan for the RTC site includes a cumulative p.m. peak hour trip generation of 3,336 driveway trips (2,367 net new trips + 969 pass-by trips). As a condition of the approved master plan, the RTC development was required by the City of Redmond to mitigate the off-site impacts associated with these trips.

In addition to the p.m. peak hour trips associated with the approved master plan, 281 p.m. peak hour trips from the RTC West site (located west of Leary Way) were transferred to the RTC site in December 1998.

Current Traffic Counts

To determine the actual number of p.m. peak hour trips generated by the existing RTC site, a trip generation study was conducted in September 2017 (see **Attachment A**). The study was conducted in accordance with industry standards established by the Institute of Transportation Engineers (ITE). Data was collected for three consecutive weekdays (September 19 - 21, 2017) between the hours of 4:00 p.m. and 6:00 p.m. at all entrances providing access to the RTC site.

At the time of the study, the RTC development included the following land uses:

- 614,488 square feet of retail space
- 687,453 square feet of office space
- 308,000 square feet of hotel space

The results of the trip generation study show that during the weekday p.m. peak hour, the existing RTC site currently generates 2,445 p.m. peak hour driveway trips.

Current Vacancy and Future Developments

Vacancy rate information for the retail and mixed-use portion of RTC was provided by the property manager. At the time the study was conducted, vacant retail space included the former 35,000 SF REI. Excluding the former REI building, the current vacancy rate for the remainder of the development falls within the typical range of vacancy for similar development types and thus did not require any adjustment in the observed traffic counts.

To account for the existing vacancy in the former REI building, trip generation attributable to the vacant former REI space was estimated based on methodology documented in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 10th edition for Land Use Code (LUC) 820 (Shopping Center).

Additionally, trips associated with the currently under construction Archer Hotel (160 room hotel) and the future planned Redmond Town Center Apartments (mixed-use) project were accounted for in our trip generation analysis. **Table 1** summarizes the estimated trips associated with the current retail vacancy and future development currently under construction or planned.

Table 1
Trip Generation
Current Vacancy and Next Phase of Development

| Development | Size | Weekday PM Peak Hour Trips |
|--|--------------------------------|----------------------------|
| Vacant Retail Space | 35,000 SF | 250 |
| Archer Hotel (currently under construction) | 160 Rooms | 82 |
| RTC Apartments (future planned project) | 286 Units + 9,100 SF Retail | 148 |
| TOTAL | | 480 |

Summary

Table 2 compares the entitled RTC trip generation (including the transfer of trips from RTC West) to the current traffic counts with additional trips to account for current vacancy and future development on the RTC site.

Table 2
PM Peak Hour Trip Summary

| | Weekday PM Peak Hour Trips |
|--|----------------------------|
| Entitled Trip Generation | 3,336 |
| Trips Transferred from RCT West (1998) | 281 |
| Subtotal Entitled Trips: | 3,617 |
| Current RTC 2017 PM Peak Hour Traffic Counts | 2,445 |
| Trips Associated with Current Vacancy and New Developments | 480 |
| Subtotal Current RTC Trips + Future Development Trips: | 2,925 |
| Remaining Entitled PM Peak Hour Trips | 692 |

As shown in **Table 2**, the RTC site is estimated to be generate 692 trips less than what it is approved for.

If you have any questions regarding the information presented in this memo, please call me at 425-250-5003 or chin@tenw.com.

cc: Jeff Haynie, P.E, TENW Principal

ATTACHMENT A

2017 Redmond Town Center Trip Generation Study
September 19, 2017 to September 21, 2017

Redmond Town Center Trip Generation Summary (Existing)

Three-Day Average of Tuesday 9/19, Wednesday 9/20, and Thursday 9/21/17

**Weekday PM Peak Hour
Trip Generation**

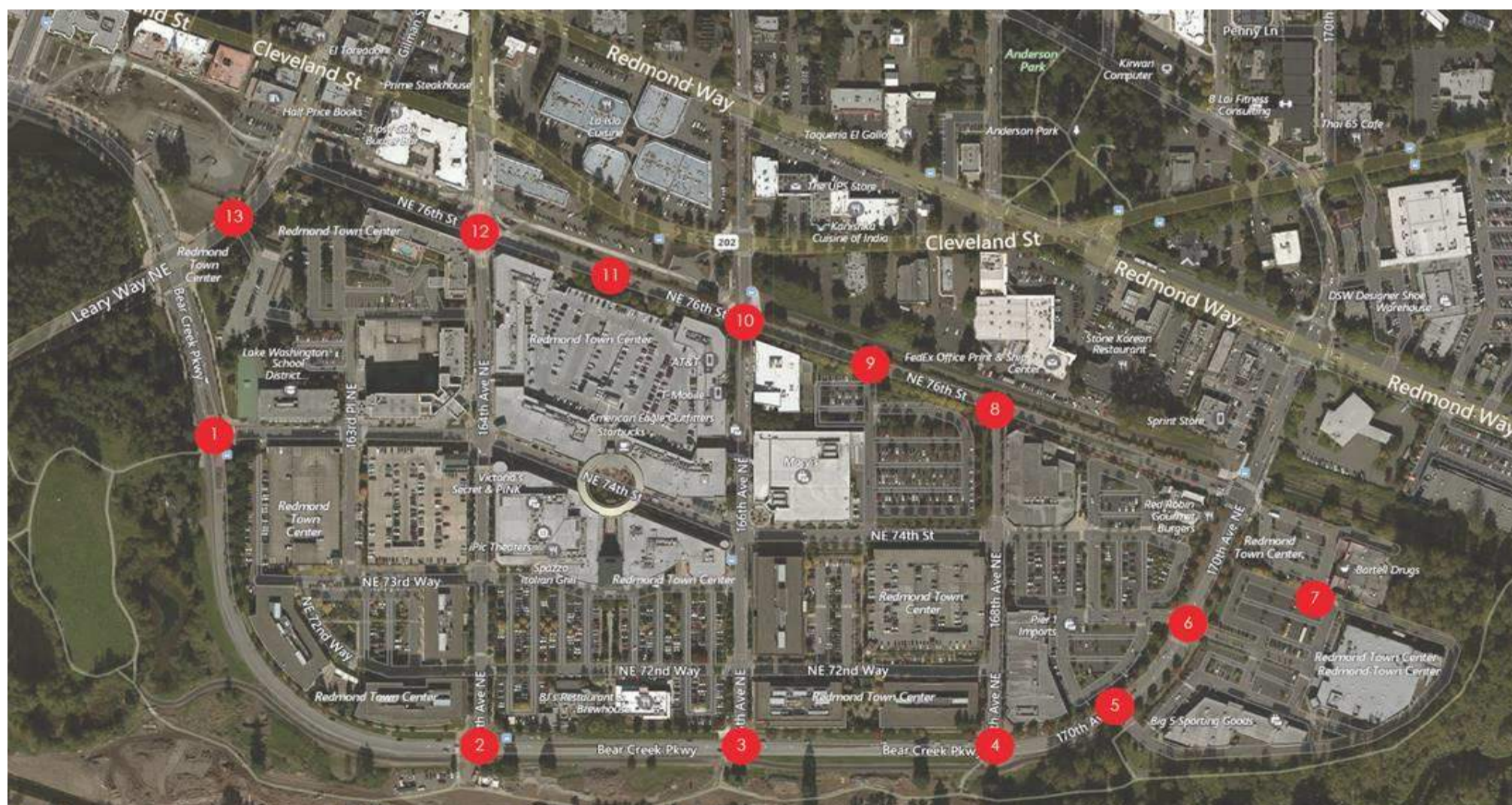
| Day | In | Out | Total |
|--------------------------------|--------------|--------------|--------------|
| Tuesday - September 19, 2017 | 985 | 1,420 | 2,405 |
| Wednesday - September 20, 2017 | 1,045 | 1,367 | 2,412 |
| Thursday - September 21, 2017 | 1,031 | 1,486 | 2,517 |
| 3-Day Average | 1,021 | 1,424 | 2,445 |

Redmond Town Center
Existing Weekday PM Peak Hour Trip Generation
Tuesday - September 19, 2017

| Interval Begin | 1 Bear Creek Pkwy / NE 74th St | | 2 164th Ave NE / Bear Creek Pkwy | | 3 166th Ave NE / Bear Creek Pkwy | | 4 168th Ave NE / Bear Creek Pkwy | | 5 170th Ave NE / World Market Dwy | | 6 170th Ave NE / 24-Hour Fitness Dwy | |
|----------------|--------------------------------------|-----|--|-----|--|-----|--|-----|---|-----|--|-----|
| | In | Out | In | Out | In | Out | In | Out | In | Out | In | Out |
| 4:00 PM | 40 | 59 | 13 | 29 | 15 | 35 | 5 | 16 | 4 | 2 | 40 | 36 |
| 4:15 PM | 30 | 56 | 19 | 32 | 27 | 19 | 9 | 21 | 16 | 0 | 56 | 40 |
| 4:30 PM | 32 | 68 | 27 | 25 | 24 | 23 | 4 | 18 | 16 | 1 | 29 | 33 |
| 4:45 PM | 23 | 47 | 22 | 18 | 39 | 18 | 14 | 24 | 15 | 2 | 41 | 38 |
| 5:00 PM | 37 | 58 | 20 | 24 | 31 | 34 | 9 | 46 | 15 | 2 | 55 | 31 |
| 5:15 PM | 30 | 61 | 38 | 21 | 28 | 35 | 1 | 33 | 14 | 3 | 29 | 39 |
| 5:30 PM | 30 | 47 | 34 | 29 | 26 | 34 | 11 | 30 | 26 | 1 | 28 | 47 |
| 5:45 PM | 33 | 40 | 14 | 21 | 22 | 26 | 8 | 33 | 9 | 5 | 49 | 50 |
| Peak Hour | 130 | 206 | 106 | 95 | 107 | 129 | 29 | 142 | 64 | 11 | 161 | 167 |
| | 336 | | 201 | | 236 | | 171 | | 75 | | 328 | |

| Interval Begin | 7 Between Bartell's and 24-Hour Fitness | | 8 168th Ave NE / NE 76th St | | 9 RTC Dwy / NE 76th St | | 10 166th Ave NE / NE 76th St | | 11 RTC Garage / NE 76th St | |
|----------------|---|-----|-----------------------------------|-----|------------------------------|-----|------------------------------------|-----|----------------------------------|-----|
| | In | Out | In | Out | In | Out | In | Out | In | Out |
| 4:00 PM | 7 | 11 | 8 | 7 | 6 | 6 | 21 | 25 | 15 | 39 |
| 4:15 PM | 11 | 14 | 8 | 12 | 5 | 5 | 21 | 28 | 31 | 21 |
| 4:30 PM | 7 | 11 | 3 | 19 | 4 | 2 | 21 | 34 | 23 | 21 |
| 4:45 PM | 5 | 17 | 7 | 14 | 6 | 8 | 21 | 29 | 27 | 28 |
| 5:00 PM | 8 | 12 | 8 | 19 | 4 | 2 | 16 | 41 | 31 | 56 |
| 5:15 PM | 12 | 13 | 6 | 20 | 4 | 3 | 25 | 38 | 26 | 34 |
| 5:30 PM | 11 | 30 | 6 | 23 | 4 | 5 | 26 | 40 | 25 | 46 |
| 5:45 PM | 9 | 18 | 9 | 22 | 2 | 0 | 19 | 37 | 26 | 20 |
| Peak Hour | 40 | 73 | 29 | 84 | 14 | 10 | 86 | 156 | 108 | 156 |
| | 113 | | 113 | | 24 | | 242 | | 264 | |

| Interval Begin | 12 164th Ave NE / NE 76th St | | 13 Leary Way NE / Saturday Market Dwy | | Total Trips | | | Hourly Totals | |
|----------------|------------------------------------|-----|---|-----|-------------|-------|-------|--------------------------------|-------------------|
| | In | Out | In | Out | In | Out | Total | | |
| 4:00 PM | 19 | 41 | 1 | 9 | 194 | 315 | 509 | | |
| 4:15 PM | 29 | 39 | 4 | 8 | 266 | 295 | 561 | | |
| 4:30 PM | 22 | 47 | 1 | 12 | 213 | 314 | 527 | | |
| 4:45 PM | 24 | 47 | 2 | 3 | 246 | 293 | 539 | 2,136 | 4:00 pm - 5:00 pm |
| 5:00 PM | 26 | 47 | 1 | 5 | 261 | 377 | 638 | 2,265 | 4:15 pm - 5:15 pm |
| 5:15 PM | 25 | 43 | 0 | 2 | 238 | 345 | 583 | 2,287 | 4:30 pm - 5:30 pm |
| 5:30 PM | 23 | 51 | 1 | 2 | 251 | 385 | 636 | 2,396 | 4:45 pm - 5:45 pm |
| 5:45 PM | 34 | 35 | 1 | 6 | 235 | 313 | 548 | 2,405 | 5:00 pm - 6:00 pm |
| Peak Hour | 108 | 176 | 3 | 15 | 985 | 1,420 | 2,405 | Peak Hour is 5:00 pm - 6:00 pm | |
| | 284 | | 18 | | | | | | |

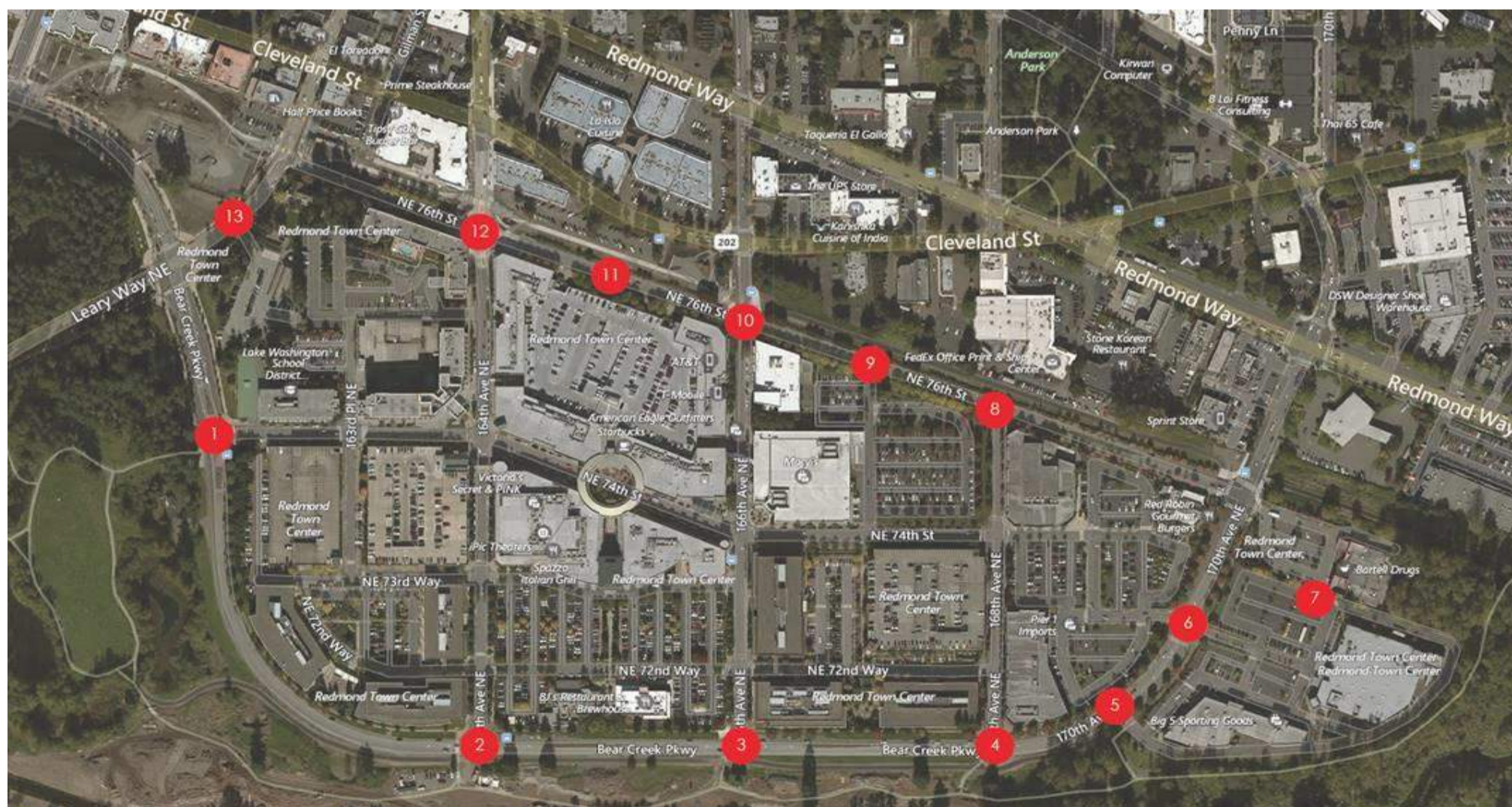


Redmond Town Center
Existing Weekday PM Peak Hour Trip Generation
Wednesday - September 20, 2017

| Interval Begin | 1 Bear Creek Pkwy / NE 74th St | | 2 164th Ave NE / Bear Creek Pkwy | | 3 166th Ave NE / Bear Creek Pkwy | | 4 168th Ave NE / Bear Creek Pkwy | | 5 170th Ave NE / World Market Dwy | | 6 170th Ave NE / 24-Hour Fitness Dwy | |
|----------------|--------------------------------------|-----|--|-----|--|-----|--|-----|---|-----|--|-----|
| | In | Out | In | Out | In | Out | In | Out | In | Out | In | Out |
| 4:00 PM | 42 | 65 | 20 | 41 | 32 | 35 | 5 | 23 | 4 | 3 | 35 | 44 |
| 4:15 PM | 30 | 48 | 22 | 30 | 34 | 31 | 3 | 21 | 6 | 3 | 57 | 30 |
| 4:30 PM | 30 | 67 | 17 | 28 | 24 | 25 | 6 | 22 | 8 | 3 | 44 | 43 |
| 4:45 PM | 33 | 54 | 29 | 22 | 29 | 31 | 4 | 32 | 9 | 2 | 66 | 30 |
| 5:00 PM | 30 | 78 | 12 | 18 | 36 | 34 | 14 | 37 | 17 | 8 | 53 | 30 |
| 5:15 PM | 23 | 39 | 34 | 17 | 23 | 39 | 4 | 26 | 24 | 4 | 42 | 44 |
| 5:30 PM | 39 | 41 | 45 | 23 | 35 | 37 | 6 | 30 | 15 | 4 | 41 | 30 |
| 5:45 PM | 39 | 40 | 30 | 19 | 33 | 34 | 9 | 33 | 8 | 1 | 47 | 35 |
| Peak Hour | 125 | 212 | 120 | 80 | 123 | 141 | 28 | 125 | 65 | 18 | 202 | 134 |
| | 337 | | 200 | | 264 | | 153 | | 83 | | 336 | |

| Interval Begin | 7 Between Bartell's and 24-Hour Fitness | | 8 168th Ave NE / NE 76th St | | 9 RTC Dwy / NE 76th St | | 10 166th Ave NE / NE 76th St | | 11 RTC Garage / NE 76th St | |
|----------------|---|-----|-----------------------------------|-----|------------------------------|-----|------------------------------------|-----|----------------------------------|-----|
| | In | Out | In | Out | In | Out | In | Out | In | Out |
| 4:00 PM | 3 | 3 | 5 | 11 | 4 | 6 | 32 | 29 | 11 | 34 |
| 4:15 PM | 8 | 8 | 4 | 16 | 6 | 8 | 30 | 29 | 26 | 23 |
| 4:30 PM | 10 | 9 | 6 | 15 | 3 | 1 | 29 | 38 | 20 | 30 |
| 4:45 PM | 8 | 5 | 5 | 14 | 3 | 13 | 23 | 33 | 25 | 21 |
| 5:00 PM | 3 | 15 | 3 | 23 | 5 | 3 | 30 | 37 | 21 | 56 |
| 5:15 PM | 9 | 12 | 8 | 11 | 4 | 6 | 21 | 42 | 28 | 30 |
| 5:30 PM | 11 | 16 | 9 | 16 | 6 | 9 | 18 | 34 | 29 | 36 |
| 5:45 PM | 7 | 13 | 5 | 22 | 1 | 4 | 27 | 36 | 28 | 36 |
| Peak Hour | 31 | 48 | 25 | 64 | 18 | 31 | 92 | 146 | 103 | 143 |
| | 79 | | 89 | | 49 | | 238 | | 246 | |

| Interval Begin | 12 164th Ave NE / NE 76th St | | 13 Leary Way NE / Saturday Market Dwy | | Total Trips | | | Hourly Totals | | | |
|----------------|------------------------------------|-----|---|-----|-------------|-------|-------|--------------------------------|-------------------|-------|-------------------|
| | In | Out | In | Out | In | Out | Total | | | | |
| 4:00 PM | 18 | 42 | 5 | 14 | 216 | 350 | 566 | 2,245 | 4:00 pm - 5:00 pm | | |
| 4:15 PM | 21 | 31 | 5 | 5 | 252 | 283 | 535 | | | | |
| 4:30 PM | 22 | 40 | 4 | 17 | 223 | 338 | 561 | | | | |
| 4:45 PM | 30 | 43 | 5 | 14 | 269 | 314 | 583 | | | | |
| 5:00 PM | 22 | 45 | 0 | 11 | 246 | 395 | 641 | | | 2,320 | 4:15 pm - 5:15 pm |
| 5:15 PM | 25 | 51 | 0 | 4 | 245 | 325 | 570 | | | 2,355 | 4:30 pm - 5:30 pm |
| 5:30 PM | 30 | 52 | 1 | 5 | 285 | 333 | 618 | | | 2,412 | 4:45 pm - 5:45 pm |
| 5:45 PM | 26 | 31 | 2 | 2 | 262 | 306 | 568 | | | 2,397 | 5:00 pm - 6:00 pm |
| Peak Hour | 107 | 191 | 6 | 34 | 1,045 | 1,367 | 2,412 | Peak Hour is 4:45 pm - 5:45 pm | | | |
| | 298 | | 40 | | | | | | | | |



Redmond Town Center
Existing Weekday PM Peak Hour Trip Generation
Thursday - September 21, 2017

| Interval Begin | 1 Bear Creek Pkwy / NE 74th St | | 2 164th Ave NE / Bear Creek Pkwy | | 3 166th Ave NE / Bear Creek Pkwy | | 4 168th Ave NE / Bear Creek Pkwy | | 5 170th Ave NE / World Market Dwy | | 6 170th Ave NE / 24-Hour Fitness Dwy | |
|----------------|--------------------------------------|-----|--|-----|--|-----|--|-----|---|-----|--|-----|
| | In | Out | In | Out | In | Out | In | Out | In | Out | In | Out |
| 4:00 PM | 44 | 60 | 21 | 33 | 35 | 40 | 5 | 26 | 10 | 5 | 43 | 34 |
| 4:15 PM | 40 | 49 | 9 | 28 | 24 | 34 | 2 | 22 | 14 | 3 | 44 | 37 |
| 4:30 PM | 30 | 44 | 24 | 20 | 26 | 38 | 10 | 21 | 10 | 5 | 49 | 38 |
| 4:45 PM | 30 | 61 | 15 | 24 | 36 | 34 | 11 | 31 | 15 | 1 | 33 | 18 |
| 5:00 PM | 34 | 71 | 37 | 30 | 26 | 43 | 6 | 41 | 18 | 7 | 36 | 48 |
| 5:15 PM | 34 | 59 | 31 | 20 | 45 | 32 | 3 | 48 | 25 | 3 | 28 | 30 |
| 5:30 PM | 28 | 43 | 25 | 19 | 28 | 36 | 8 | 33 | 17 | 3 | 27 | 53 |
| 5:45 PM | 38 | 28 | 31 | 8 | 34 | 26 | 14 | 19 | 11 | 3 | 39 | 48 |
| Peak Hour | 126 | 234 | 108 | 93 | 135 | 145 | 28 | 153 | 75 | 14 | 124 | 149 |
| | 360 | | 201 | | 280 | | 181 | | 89 | | 273 | |

| Interval Begin | 7 Between Bartell's and 24-Hour Fitness | | 8 168th Ave NE / NE 76th St | | 9 RTC Dwy / NE 76th St | | 10 166th Ave NE / NE 76th St | | 11 RTC Garage / NE 76th St | |
|----------------|---|-----|-----------------------------------|-----|------------------------------|-----|------------------------------------|-----|----------------------------------|-----|
| | In | Out | In | Out | In | Out | In | Out | In | Out |
| 4:00 PM | 6 | 7 | 7 | 14 | 3 | 8 | 27 | 34 | 29 | 24 |
| 4:15 PM | 10 | 12 | 10 | 10 | 5 | 13 | 27 | 34 | 23 | 25 |
| 4:30 PM | 9 | 8 | 7 | 22 | 6 | 10 | 16 | 34 | 29 | 19 |
| 4:45 PM | 5 | 10 | 12 | 24 | 5 | 8 | 31 | 30 | 36 | 33 |
| 5:00 PM | 9 | 17 | 11 | 23 | 7 | 4 | 28 | 39 | 19 | 46 |
| 5:15 PM | 12 | 12 | 13 | 24 | 5 | 4 | 26 | 48 | 21 | 47 |
| 5:30 PM | 9 | 10 | 16 | 13 | 6 | 7 | 24 | 55 | 22 | 33 |
| 5:45 PM | 12 | 17 | 9 | 24 | 4 | 8 | 28 | 27 | 25 | 35 |
| Peak Hour | 35 | 49 | 52 | 84 | 23 | 23 | 109 | 172 | 98 | 159 |
| | 84 | | 136 | | 46 | | 281 | | 257 | |

| Interval Begin | 12 164th Ave NE / NE 76th St | | 13 Leary Way NE / Saturday Market Dwy | | Total Trips | | | Hourly Totals | |
|----------------|------------------------------------|-----|---|-----|-------------|-------|-------|--------------------------------|-------------------|
| | In | Out | In | Out | In | Out | Total | | |
| 4:00 PM | 25 | 37 | 4 | 10 | 259 | 332 | 591 | 2,303 | 4:00 pm - 5:00 pm |
| 4:15 PM | 29 | 39 | 2 | 7 | 239 | 313 | 552 | | |
| 4:30 PM | 34 | 54 | 1 | 10 | 251 | 323 | 574 | | |
| 4:45 PM | 34 | 36 | 2 | 11 | 265 | 321 | 586 | | |
| 5:00 PM | 27 | 59 | 1 | 9 | 259 | 437 | 696 | | |
| 5:15 PM | 30 | 52 | 0 | 2 | 273 | 381 | 654 | | |
| 5:30 PM | 23 | 38 | 1 | 4 | 234 | 347 | 581 | | |
| 5:45 PM | 21 | 45 | 0 | 3 | 266 | 291 | 557 | | |
| Peak Hour | 114 | 185 | 4 | 26 | 1,031 | 1,486 | 2,517 | Peak Hour is 4:45 pm - 5:45 pm | |
| | 299 | | 30 | | | | | | |

