EXHIBIT E

REVISED

TRANSPORTATION TECHNICAL REPORT

REDMOND CITY CENTER

PREPARED FOR:

COSMOS DEVELOPMENT COMPANY

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DECEMBER 15, 2015

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1. INTRODUCTION

This report presents detailed transportation impact analysis prepared for the proposed Redmond City Center project located in Redmond, Washington. It documents the expected increase in site-generated trips and evaluates the impact to the local transportation system. This report also includes information related to parking, transit, safety, and site access operations. The scope of work and analysis approach for this project was based on the City of Redmond *Traffic Impact Analysis Outline*[1] and was coordinated with the City of Redmond staff. A Phase 1 analysis and parking analysis have already been completed. The information provided in this report represents Phase 2 of the City's requirements.

1.1. Project Description

The proposed project is located at 16135 NE 85th Street, which is bounded by NE 85th Street to the north, King County Fire Station #11 to the west, a commercial building to the east, and King County Metro's Redmond Transit Center and Edge Skate Park to the south. The site was formerly operated as a United States Post Office. Figure 1 shows the site vicinity and adjacent street system; the selected study intersections are also shown for reference.

The proposed project would remove the existing vacant United States Post Office building and related elements on the site and construct two buildings in a phased approach. Phase 1 would construct parking and retail podium covering the entire site, and a residential tower on the north half of the site. Phase 2 would construct a residential and office building on the south half of the site. Parking for the development would all be constructed during the first phase. The project would have one main vehicle access point on NE 85th Street. Truck access would also occur at this location. The program for each phase is shown in Table 1. Phase 1 of the project is scheduled to be complete and occupied in 2018, and Phase 2 is scheduled for 2020.

Table 1. Redmond City Center – Proposed Development Phases

Type of Use	Phase 1	Phase 2	Total Development
Residential (Multi-family)	169 units	80 units	249 units
Supermarket	21,820 sf[1]	0 sf	21,820 sf
Retail	0 sf	2,485 sf	2,485 sf
Office	0 sf	100,830 sf[2]	100,830 sf[2]
Parking	362 spaces[3]	0 spaces	362 spaces[3]

Source: Jackson-Main Architects, September 2015.

1. *Square feet = sf.*
2. *Office square footage is based on total gross square footage of 100,830 sf, (net square footage is 83,130 sf).*
3. *Includes 27 tandem spaces: total capacity for 389 vehicles.*

There will be three parking levels within a parking garage—two below grade and one at grade. All parking would be accessed from NE 85th Street. The project would have 362 parking spaces, including 27 tandem spaces for a total capacity of 389 vehicles. The site plan is shown on Figure 2.

[1] City of Redmond, Application Requirements for Master Planned Development, Part 4: Requirements for Traffic Study, March 2013.

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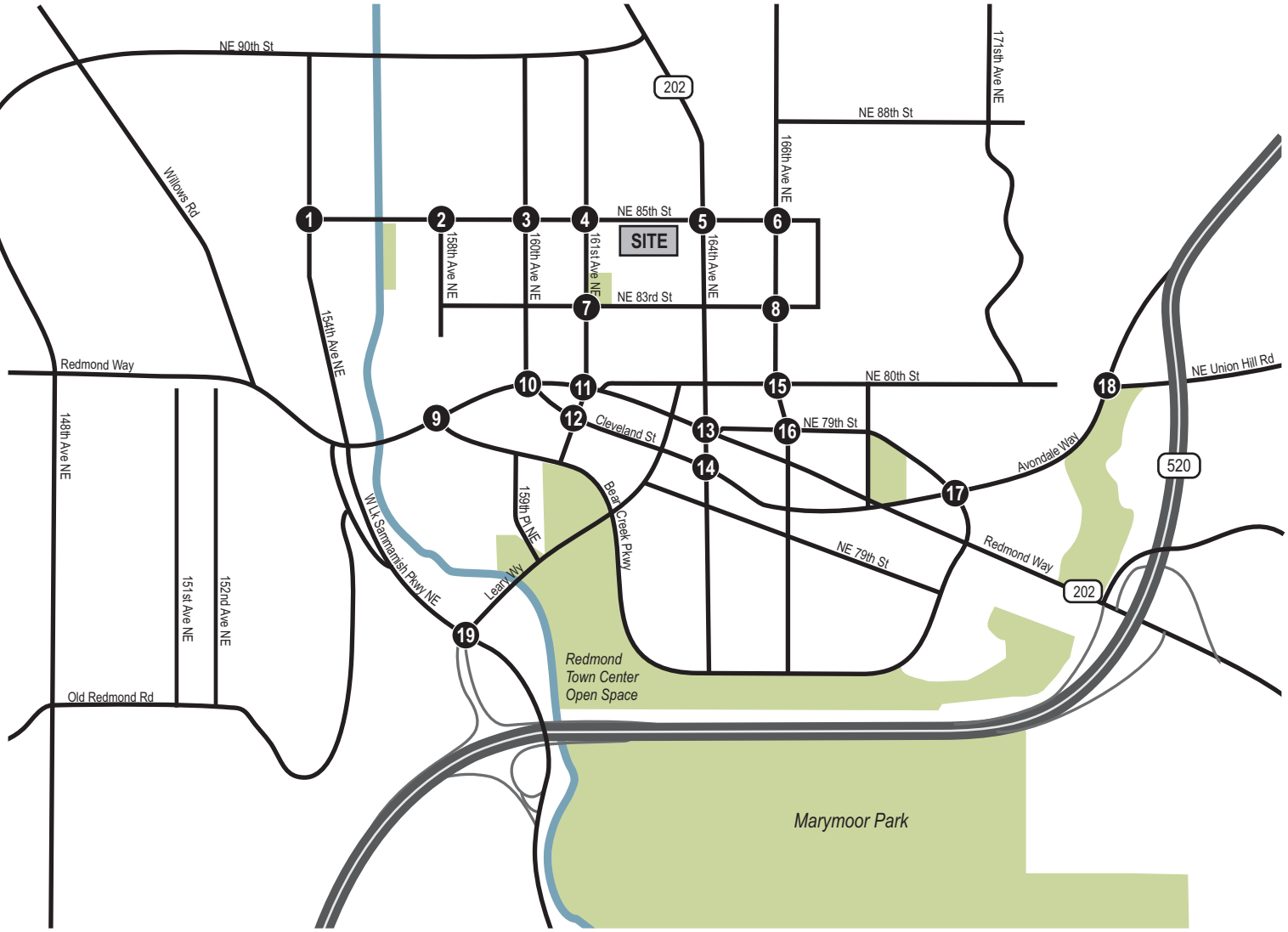

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Figure 1
Vicinity Map and
Study Area Intersections

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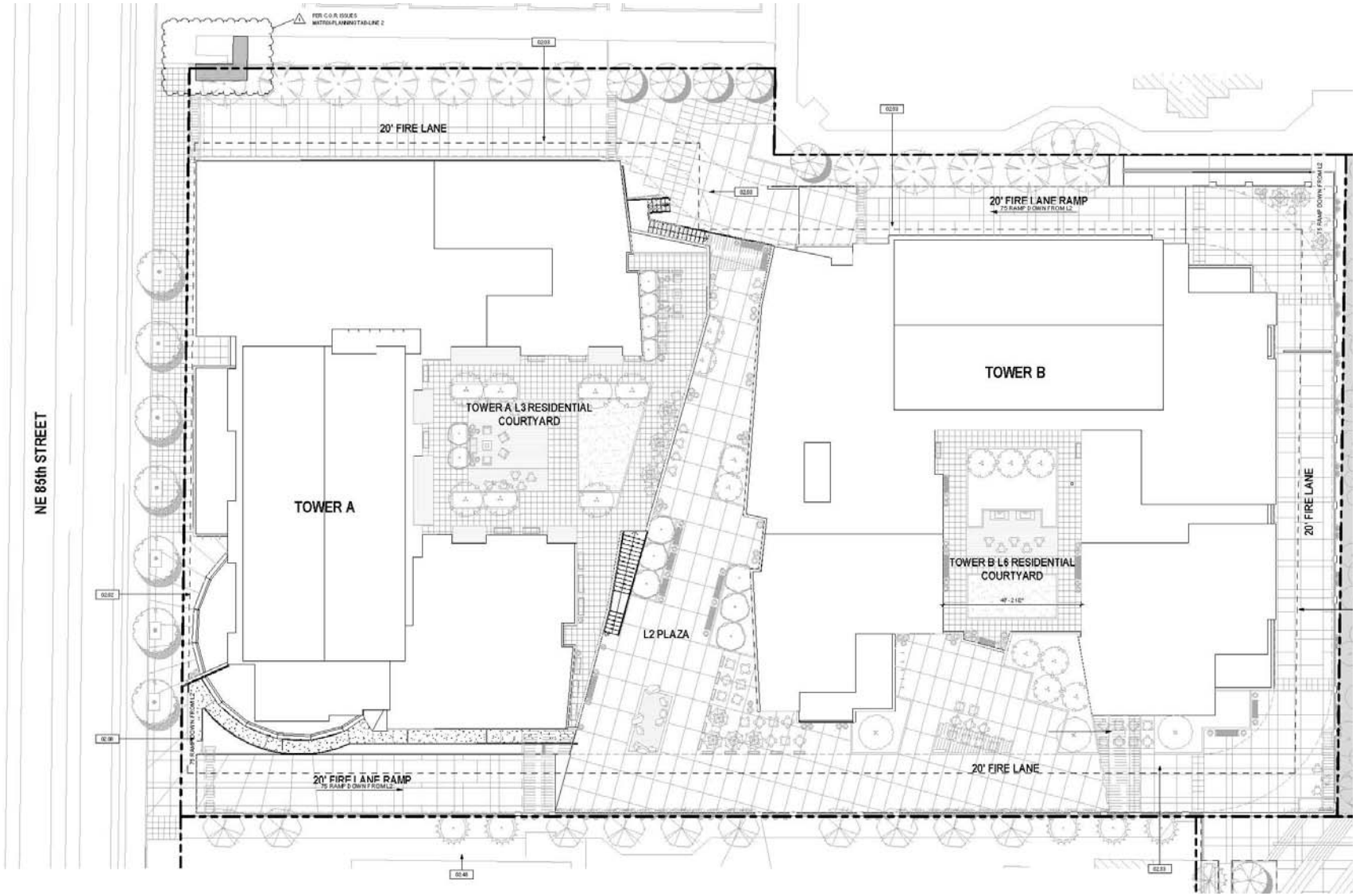

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Figure 2

Site Plan

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The project would replace an existing building that previously operated as the City of Redmond's US Post Office Branch. The facility was closed and relocated in July 2012. The facility has a 12,910 square foot building and associated parking and other specialized-use spaces on the site. The existing two vehicle access driveways are on NE 85th Street.

1.2. Study Area and Methodology

The study area for the project was coordinated with City of Redmond staff. The City defines the study area for a project based on potential project-related impacts to key intersections. Per the City's guidelines, the study area should include signalized intersections impacted by 20 or more PM peak hour project-related trips as well as unsignalized intersections identified by staff.

The study area was determined using information previously submitted to the City in a memorandum: *Redmond City Center Trip Generation, Distribution, and Assignment, and Recommended Scope for Transportation Impact Analysis.*[2] The original trip generation estimates reflected mode of travel reductions that the applicant will be required to meet as part of the City-granted parking supply reduction from code requirements. The mode of travel reductions were documented in the memorandum, *Redmond City Center – Alternative Minimum Parking Requirement.*[3] The applicant will implement a Transportation Management Plan (TMP) to reduce the office vehicle trips to no more than 70% of all office trips. Although the parking supply reduction has already been approved, City staff requested that this traffic analysis reflect a condition without the office trip reductions. These conservatively high trip estimates using City of Redmond-requested assumptions were used to determine the study area and evaluate traffic operational impacts. Those assumptions are documented later in Section 3.2. The resulting study area, listed in Table 2, includes 19 intersections and the site access driveway.

Table 2. Study Area Intersections

Int. ID[a]	Name	Int. ID	Name
1	NE 85th Street / 154th Avenue NE	11	Redmond Way / 161st Avenue NE
2	NE 85th Street / 158th Ave NE	12	Cleveland Street / 161st Avenue NE
3	NE 85th Street / 160th Avenue NE	13	Redmond Way / 164th Avenue NE
4	NE 85th Street / 161st Avenue NE	14	Cleveland Street (SR 202) / 164th Avenue NE
5	NE 85th Street / 164th Avenue NE (SR 202)	15	NE 80th Street / 166th Avenue NE
6	NE 85th Street / 166th Avenue NE	16	NE 79th Street / 166th Avenue NE
7	NE 83rd Street / 161st Avenue NE	17	Avondale Way / NE 79th Street
8	NE 83rd Street / 166th Avenue NE	18	Avondale Way / Union Hill Road (partially signalized)
9	Redmond Way / Bear Creek Parkway	19	W Lake Sammamish Pkwy NE / SR 520 / Leary Way NE
10	Redmond Way / 160th Avenue NE / Cleveland Street		NE 85th Street / Site Access Driveway

Source: Heffron Transportation, October 2015.

a. Intersection identification number corresponds to study intersections on map figures.

[2] Heffron Transportation, Inc., October 1, 2015.
[3] Heffron Transportation, Inc., September 30, 2015.

The trip generation for the proposed project was determined using national data from the Institute of Transportation Engineers (ITE), Puget Sound Regional Council (PSRC), and the City's modeling efforts. The City of Redmond traffic counts were used, and complimented with additional traffic counts commissioned for this project. Traffic operations analysis (level of service) was performed using a Synchro 8.0 model obtained from the City of Redmond, and upgraded to Synchro 9.0.

The City of Redmond has planned improvements in the Downtown area that are scheduled to be complete prior to or just after the completion of the proposed Redmond City Center project. These planned transportation improvements were assumed to be in place for the future analyses in this report. The City's future conditions model was augmented to include the study intersections that were not originally included. Traffic volumes in the City's model were updated to reflect new count data and forecast conditions.

2. BACKGROUND CONDITIONS

This section describes the existing roadway network, traffic volumes, traffic operations at the study intersections, parking conditions, safety, and transit and pedestrian facilities in the site vicinity. It also describes how these conditions may change in the future without the proposed project. The Redmond City Center project is scheduled to be completed in year 2020, which is the future horizon year for all analyses.

2.1. Roadway Network

The project site is shown on Figure 1. Roadways near the site are described below with classifications referenced from the City of Redmond's *Area Classification Map*.[4]

NE 85th Street is an east-west minor arterial. This two lane roadway, with a center two-way left-turn lane begins at 154th Avenue NE, continues east and then south as 167th Avenue NE. This roadway has sidewalks, curbs, and gutters on both sides of the street. On-street parking spaces are located on both sides of the roadway along with bike lanes. The posted speed limit is 30 mph.

164th Avenue NE (SR 202) is a north-south two-lane minor arterial between Cleveland Street and NE 90th Street, and a principal arterial north of NE 90th Street. Near the site it has two travel lanes with a center two-way left-turn lane, curb, gutters, and sidewalks and bike lanes on both sides of the street. The posted speed limit is 30 mph. North of about NE 90th Street, this roadway has two lanes, bike lanes on both sides, and curb, gutter and sidewalk along the east side of the street, with a posted speed limit of 40 mph.

161st Avenue NE is a north-south collector arterial that connects between NE 90th Street and Bear Creek Parkway. This is a two-lane roadway has a center two-way left-turn lane or auxiliary lanes provided for its entirety, along with bike lanes. On-street parking is provided intermittently on both sides of the street. Curb, gutter and sidewalks are also provided. The posted speed limit is 30 mph.

The City of Redmond's planned transportation improvements are listed on its *2016-2021 Transportation Improvement Program*[5]. Major projects in the study area include:

- **Redmond Way and Cleveland Street Couplet Conversion** (160th Avenue NE to 170th Avenue NE) - Convert Redmond Way from 160th Ave NE to Avondale Way to one through lane in each direction and center turn lane. Convert Cleveland Street to one through lane in each direction. A realignment of the streets at eastern and western ends will improve traffic flow and include gateway treatments. Pedestrian improvements will be constructed on Redmond Way. A BAT lane will be completed from the Bear Creek Bridge near SR 520 to 168th Avenue with a queue jump at Avondale Way. (City Project ID. C53)

- **Cleveland Street East** (164th Avenue NE to Avondale Way) – Enhance pedestrian facilities and modify signals to complete buildout of Cleveland Street per the Downtown East West Corridor Study. (City Project ID. B43)

Other projects are also planned in the Downtown area to construct, repair, or enhance pedestrian facilities, and repair bridge decks. However, no other projects are listed that would change future

[4] City of Redmond website: (www.redmond.gov/common/pages), viewed October 13, 2015.
[5] City of Redmond, posted as Scheduled Adoption October 20, 2015.

transportation operations and/or travel patterns in the area. Therefore, besides the listed projects, existing geometries were assumed for future analyses.

2.2. Traffic Volumes

PM peak hour traffic volumes from the City of Redmond data base were used as available for the study area intersection analyses. These 2013 traffic volumes were inflated using a 2% annual growth rate to represent 2015 traffic volumes. New traffic counts were commissioned at three intersections, two near the site along NE 85th Street at161st Avenue NE and 164th Avenue NE, and at NE 79th Street/166th Avenue NE. Adjustments were made to balance the new counts with the inflated counts to represent existing 2015 PM peak hour traffic volumes. These are shown on Figure 3. Also shown on this figure are the City of Redmond's most current (year 2014) average annual daily traffic volumes at available locations.

Forecast 2020 peak hour traffic volumes were estimated by applying a 2% annual growth rate to the existing traffic volumes and adding project traffic from known proposed development projects. The city of Redmond provided information about the projects (referred to "pipeline projects") that could increase traffic volumes in the study area. The following pipeline projects were included:

- Redmond Triangle – six story mixed use at Redmond Way/166th Avenue NE
- Station House Lofts – 195 residential units/mixed use at NE 79th Street/166th Avenue NE
- Heron Flats and Lofts – 95 residential and 5 live work units – Bear Creek Parkway/159th PL NE

The 2% annual growth rate was applied to account for traffic volumes associated with other smaller pipeline projects in the area that could impact the study intersections.

In addition, since the existing use on the site is currently not in operation, trips estimated to be generated by the existing facility were also assigned to the roadway network for the background conditions. This was completed since the existing land use could become active and usable and generate trips to the roadway system. (Details on the trip generation for the Post Office are provided in the *Trip Generation* section of this report). This provides for a true without-project condition since the traffic counts were conducted when the site was vacant. Figure 4 shows the future (2020) without-project PM peak hour traffic volumes at the study intersections.

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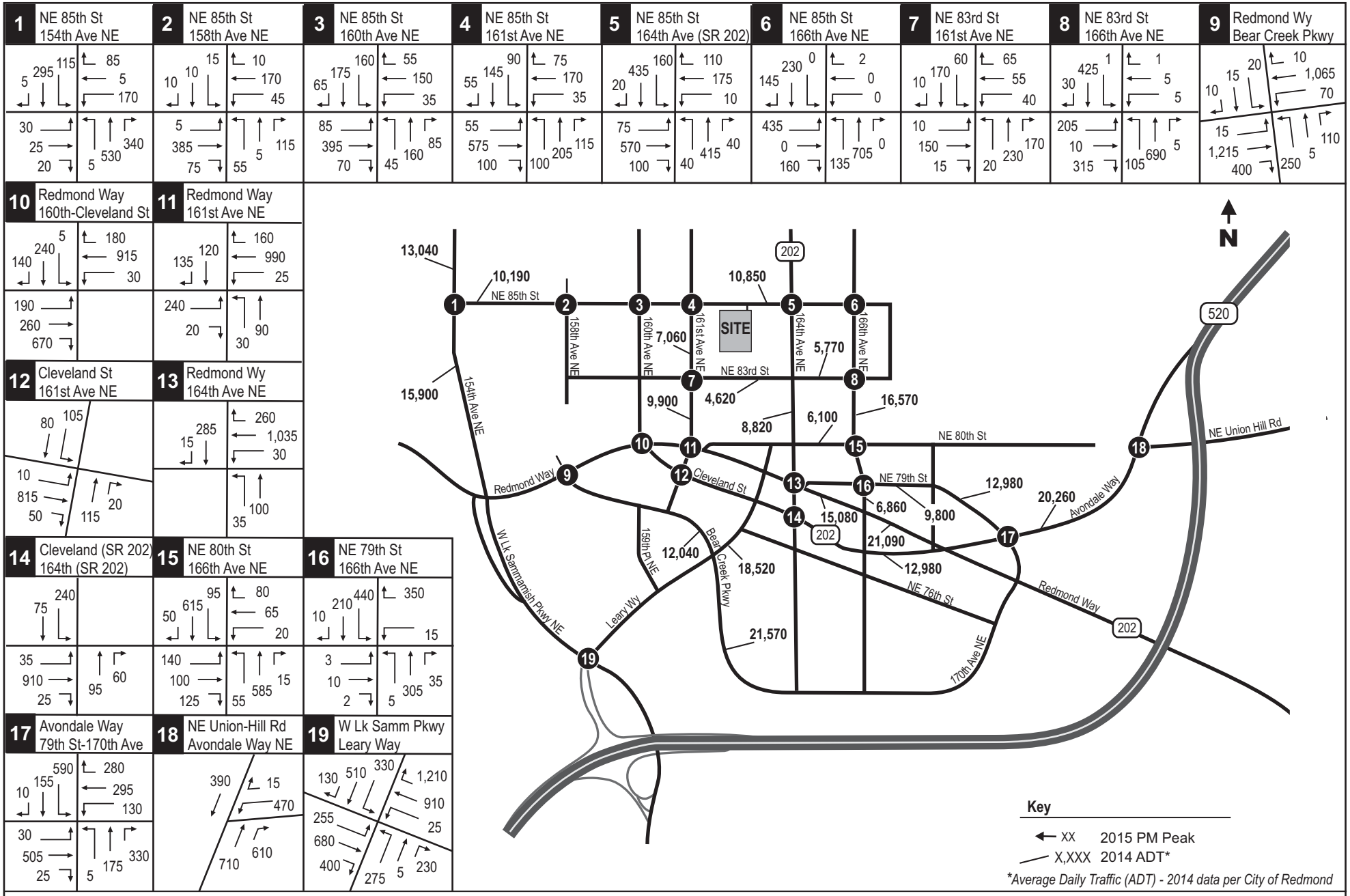

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Figure 3
Existing Traffic Volumes
Average Daily and PM Peak Hour

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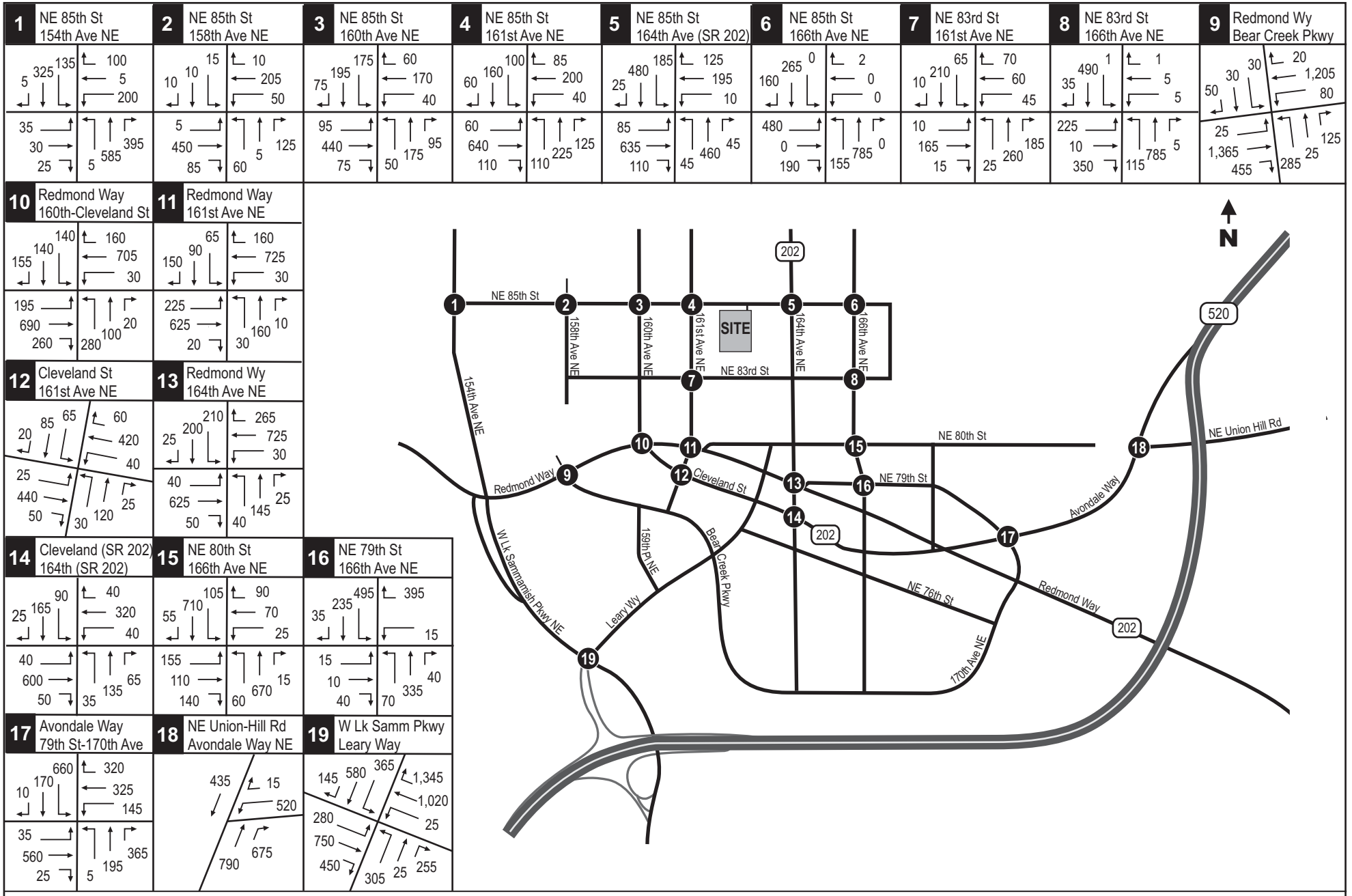

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Figure 4
Forecast (2020) Without Project Traffic Volumes
PM Peak Hour

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2.3. Traffic Operations

Level of service (LOS) is a qualitative measure used to characterize traffic operating conditions. Six letter designations, "A" through "F," are used to define level of service. LOS A is the best and represents good traffic operations with little or no delay to motorists. LOS F is the worst and indicates poor traffic operations with long delays. Intersections that operate at LOS D or better are considered acceptable by the City of Redmond.[6] Project-related intersection delay that causes an intersection to operate at LOS E or F, or increases delay at an intersection that is projected to operate at LOS E or F without the project, may be considered a significant adverse impact. Appendix A includes level of service thresholds and definitions for signalized and unsignalized intersections per the *Highway Capacity Manual 2010 (HCM 2010).*[7]

All level of service calculations were performed using the *Synchro 9.0* traffic operations analysis software. Two network models were used—one created by the City of Redmond for existing conditions and one created for future conditions by the City of Redmond for the downtown area that was augmented to reflect the entire study area. The future model includes the planned improvement to remove the one-way couplet along Redmond Way and Cleveland Street through downtown. In addition, due to the limitations of the HCM 2010 methodology with some of the signal phasing used by the City, levels of service results are reported using the Synchro 9.0 methodology. The City of Redmond plans to update the signal timings in the downtown area, and these models reflect preliminary timing plans.

Table 3 summarizes levels of service determined for the existing and future 2020 without-project conditions. This table shows that during the PM peak hour, most intersections operate and will continue to operate at LOS D or better without the proposed project, except at two locations: NE 79th Street/166th Avenue NE and W Lake Sammamish Parkway/SR 520/Leary Way NE. Based on a traffic analysis completed for the Redmond Triangle project at 16450 NE Redmond Way[8] a traffic signal at the NE 79th Street/166th Avenue NE intersection is not yet warranted. However, in that report it was suggested that left-turns (and through movements) be restricted on NE 79th Street, while maintaining left turns from 166th Avenue NE. With this change, under the 2020 without-project condition the eastbound approach is estimated to operate at LOS B and the westbound approach at LOS C. At this time there are no planned improvements for the W Lake Sammamish Parkway/SR 520/Leary Way NE intersection.

The site access driveway location is also shown in Table 3. Under the existing condition, the northbound approach is not operational. Under the without-project condition it was assumed the Post Office was reopened with this driveway operating with inbound-only/right-out only movements. The level of service results for all approaches, including the southbound approach driveway from the Village Square center. This center has two driveways along NE 85th Street; the other driveway is located to the west.

6 City of Redmond, *Requirements for Traffic Study*, March 2013.
7 Transportation Research Board, 2010.
8 *Redmond Triangle 16450 NE Redmond Way Phase 2: Traffic Impact Study*, Transportation Solutions, Inc. June 2015.

Table 3. Level of Service Summary – Existing and Future (2020) Without-Project Conditions

ID	Intersection	PM Peak Hour Conditions			
		Existing (2015)		Without-Project (2020)	
		LOS [1]	Delay [2]	LOS	Delay
1	NE 85th Street / 154th Avenue NE	C	21.5	C	28.2
2	NE 85th Street / 158th Ave NE	A	8.1	A	8.3
3	NE 85th Street / 160th Avenue NE	C	20.5	C	21.7
4	NE 85th Street / 161st Avenue NE	B	18.2	B	19.3
5	NE 85th Street / 164th Avenue NE (SR 202)	C	28.5	C	34.7
6	NE 85th Street / 166th Avenue NE	C	21.1	C	23.3
7	NE 83rd Street / 161st Avenue NE	B	13.9	B	14.8
8	NE 83rd Street / 166th Avenue NE	B	14.6	B	16.6
9	Redmond Way / Bear Creek Parkway	B	17.5	C	20.7
10	Redmond Way / 160th Avenue NE / Cleveland Street	B	14.7	D	41.3
11	Redmond Way / 161st Avenue NE	C	23.9	B	19.0
12	Cleveland Street / 161st Avenue NE	C	30.0	B	18.3
13	Redmond Way / 164th Avenue NE	B	12.5	C	27.5
14	Cleveland Street (SR 202) / 164th Avenue NE	B	13.3	C	20.7
15	NE 80th Street / 166th Avenue NE	B	13.8	B	15.5
16	NE 79th Street / 166th Avenue NE [3]				
	- Eastbound Approach	F	74.4	F (B)[4]	>200 (10.2)[4]
	- Westbound Approach	F	80.0	F (C)[4]	>200 (20.4)[4]
17	Avondale Way / NE 79th Street	D	38.7	D	37.6
18	Avondale Way / Union Hill Road	B	17.5	C	22.3
19	W Lake Sammamish Pkwy / SR 520 / Leary Way NE	E	59.5	F	84.6
	NE 85th Street / Site Dwy / Village Square Dwy [5]				
	- Eastbound Approach	A	7.7	A	7.9
	- Westbound Approach	A	0.0	B	10.1
	- Northbound Approach	NA	--	C	16.0
	- Southbound Approach	C	19.1	D	30.0

Source: Heffron Transportation, Inc., October 2015.

1. *Level of service.*
2. *Average seconds of delay per vehicle.*
3. *Unsignalized intersection (stop controlled on eastbound and westbound approaches.)*
4. *Level of service shown for existing configuration (and possible re-configuration with eastbound and westbound approaches restricted to right-turn only movements.)*
5. *Unsignalized location (northbound and southbound approaches operate like stop controlled). Northbound approach is currently not in use; however, evaluated in future condition as Post Office resumed operations.*

2.4. Traffic Safety

The City of Redmond requested select intersections and the roadway segment along the site frontage on NE 85th Street be evaluated based on collision data. The intersections listed in Table 4 include a summary of the available data obtained from the City of Redmond. This information was assessed to determine if there are any traffic safety conditions that could impact or be impacted by the proposed project. Table 4 summarizes collision data for the most recent three-year period between March 1, 2012 and March 1, 2015.

Table 4. Historical Collision Summary - Study Area Locations

		Collision Type								
ID	**Intersections**	Rear-End	Side-Swipe	Right Turn	Left Turn	Right Angle	Ped/Cycle	Other [a]	Total in 3 Years	Average /MEV[b]
10	Redmond Way / 160th Ave NE / Cleveland St	2	13	2	0	2	0	1	20	0.66
13	Redmond Way / 164th Avenue NE	4	1	1	4	5	0	1	16	0.80
12	Cleveland Street / 161st Avenue NE	4	2	0	2	2	0	0	10	0.85
16	NE 79th Street / 166th Avenue NE	2	0	1	0	4	0	3	10	0.73
8	NE 83rd Street / 166th Avenue NE	2	1	0	1	2	3	0	9	0.37
4	NE 85th Street / 161st Avenue NE	5	0	0	0	2	0	1	8	0.34
3	NE 85th Street / 160th Avenue NE	1	0	0	1	2	3	1	8	0.31
15	NE 80th Street / 166th Avenue NE	0	1	0	2	3	1	1	8	0.29
14	Cleveland Street (SR 202) / 164th Avenue NE	1	3	1	0	0	0	1	6	0.29
	Roadway Segment	Rear-End	Side-Swipe	Right Turn	Left Turn	Right Angle	Ped/Cycle	Other	Total in 3 Years	Average /Year
	NE 85th Street (161st Ave NE to 163rd Ct NE)	3	0	0	2	2	0	0	7	2.33

Source: City of Redmond, October 2015. Data from March 1, 2012 through March 1, 2015.

a. Other collision types include vehicle hit an object or a parked car, and improper movement.

b. Average collisions at an intersection in million entering vehicles (MEV).

c. Average collision along a roadway segment in million vehicles miles (MVM).

In addition, the City of Redmond evaluates intersections every year and documents the top ten collision-rated intersections within the City (regardless of rate).[9] The intersections are reviewed for number of collisions, collisions per million entering vehicles, collision type, and a possible solution to an identified issue is listed. The following study intersections (accident rate noted) are listed on the *City of Redmond High Accident Location Ranking (Signalized Intersections)*[10] for year 2014:

- Redmond Way/164th Ave NE – 0.77 accidents/million entering vehicles (MEV)
- Redmond Way/160th Ave NE/Cleveland Street – 0.74 accidents/MEV
- Redmond Way/161st Ave NE – 0.66 accidents/MEV
- Redmond Way/Bear Creek Parkway – 0.55 accidents/MEV

9 City of Redmond, *High Accident Location Reduction Analysis for 2014*, July 30, 2015.
10 City of Redmond, (January 1, 2014 to December 31, 2014), July 30, 2015.

The City also reports any intersection with a rate of 1.0 accidents/MEV or higher. None of the study intersections reported an accident rate of 1.0 or higher. The Redmond Way/160th Avenue NE/Cleveland Street intersection did have 65% of its collisions listed in three years as side-swipe occurrences. However, this intersection and the others listed above will be revised due to the proposed removal of the one-way couplet along both Redmond Way and Cleveland Street. This change will likely alleviate some of the sideswipe occurrences at the Redmond Way/160th Avenue NE/Cleveland Street intersection.

The roadway segment in front of the site along NE 85th Street (between 161st Avenue NE and 163rd Avenue NE) was also reviewed for collision activity. This segment has had seven reported collision in the same three years, which is an average of 2.3 collisions per year. The data provided do not suggest that improvements would be needed at any of the study area intersections. No fatalities were reported during the three-year period evaluated.

2.5. Parking

The site is currently not operational and the on-site parking areas are not accessible to the public. On-street parking along both sides of NE 85th Street is restricted to 2-hour limits on weekdays from 9:00 A.M. to 5:00 P.M.

2.6. Transit

Transit service in the City of Redmond is provided by King County Metro and Sound Transit. The site is adjacent to the Redmond Transit Center, which is served by many routes offering All Day-Frequent, All Day, and Peak Only service. The All Day-Frequent service is provided by the Rapid Ride B Line (Redmond-Overlake-Bellevue) with 10-15 minute headways on weekdays and 30-60 minute headways on weekends and two other routes servicing Kirkland, Overlake, Factoria, and Seattle. The other All Day routes have 30-60 minute headways and service Education Hill, Grasslawn, Factoria, Novelty Hill Road, Kirkland, Rose Hill, Bothell, Avondale Road, Overlake, Idylwood, Bellevue, Woodinville, Renton, SeaTac, and Auburn. Peak Only routes increase service during the commuter peak periods between 6:00 to 9:00 A.M. and 3:00 to 6:00 P.M. with connections to major destinations in Issaquah, Seattle, Duvall, Bellevue, Ridgecrest, Northgate, Overlake, Bothell, Totem Lake, SE Redmond, Sammamish, University of Washington, and Greenlake.

Several of the routes described above operate along NE 85th Street adjacent to the site. The nearest stops are located about one block west of the site.

2.7. Non-Motorized Transportation

Sidewalks are located along most city streets in the vicinity. Bike lanes and sharrows are provided along some roadways as well. A sharrow is a symbol pavement marking (depicting a bicycle and chevron arrows) carefully placed to guide bicyclists to the best place to ride on the road, avoid car doors and remind drivers to share the road with cyclists. Unlike bicycle lanes, sharrows do not designate a particular part of the street for the exclusive use of bicyclists. Bike lanes are located on both sides of NE 85th Street, which includes the site frontage.

3. PROJECT IMPACTS

This section of the report describes the conditions that would exist with the proposed Redmond City Center project built and occupied. The proposed project would remove the existing (vacant) United States Post Office building and related elements and construct two buildings with a mix of office, residential and retail land uses. The net change in project trips associated with the project were added to the future 2020 without-project traffic volumes to determine the impact the proposed project would have on vicinity traffic operations. Potential impacts to other transportation facilities were also evaluated. The following describes the methodology used to determine the proposed Redmond City Center impacts.

3.1. Roadway Network and Site Access

The proposed project would retain the existing curb-cut locations with the east driveway as the main vehicle access to the parking garage, and truck and emergency access. The western driveway would serve as an emergency access driveway only. There would be a fire lane around the entire perimeter of the site. It should be noted, the existing site operated with the westbound driveway as outbound only and the eastern driveway as inbound-only/right-turn out only. The proposed project's eastern driveway would operate as a full access driveway. No other changes to vehicle access or adjacent roadways are proposed.

3.2. Trip Generation

As previously described in the Methodology section, trip generation estimates derived for this analysis reflect conservatively high estimates of the number of employees and customers who would drive to the site. This presents a worst-case condition for potential traffic impacts. Actual project trips are expected to be lower since on-site parking will be constrained, and the project applicant will implement a Transportation Management Plan to reduce vehicular trips. The analysis below reflects assumptions requested by City staff.

3.2.1. Proposed Project Trips

The number of trips generated by the Redmond City Center project was determined using the recommended methodology in the Institute of Transportation Engineers (ITE) current *Trip Generation Handbook.*[11] ITE recognizes that development projects located in dense urban environments generate fewer trips than those in suburban settings. The new *Handbook* states:

> *Most data presented in the Trip Generation Manual data volumes are vehicle-based and have been collected at low-density, single-use, suburban developments with little or no transit service, limited bicycle access, and little or no convenient pedestrian access. These sites are called **baseline** sites because they are the starting points for vehicle trip generation estimation.*
>
> *The analysis needs to adjust baseline vehicle trip generation estimates to correctly estimate trip generation for a site*
> - *Surrounded by compact urban development;*
> - *Consisting of a mix of complementary land uses;*
> - *Served by public transit;*

[11] Institute of Transportation Engineers, 3rd Edition, August 2014.

- *That attracts walking and bicycling trips;*
- *That prices on-site parking; and*
- *In an area with high vehicle occupancy as a result of an area-wide transportation demand management program or preferential treatment for ridesharing.*

Most of the special attributes listed above apply to the project, and the project will commit to implementing a Transportation Management Plan to reduce on-site parking demand. Therefore, the following approach recommended in the *Trip Generation Handbook* was used to estimate trips for each mode of travel:

1. Estimate the baseline vehicle trips using data from the *Trip Generation Manual.*[12]

2. Convert the baseline vehicle trips to baseline person trips using baseline mode shares and vehicle occupancy rates for each land use (note, baseline vehicle occupancy rates are those inherent in the ITE rates).

3. Determine the appropriate mode of travel and vehicle occupancy for the subject site based on its characteristics and context.

4. Calculate person trips by mode of travel using the local mode of travel factors for the site.

5. Convert the person trips by vehicle into adjusted vehicle trips using the local vehicle occupancy rates for the site.

Baseline Trip Generation Factors

Table 5 summarizes the baseline trip generation rates, equations and average vehicle occupancy (AVO) factors used to estimate the proposed project's person trips, as requested by City of Redmond transportation staff.

[12] Institute of Transportation Engineers [ITE], 9th Edition, 2012.

Table 5. Basline Trip Generation Rates, Equations and AVO Assumptions

Land Use (ITE Land Use Code)	ITE Baseline Trip Generation Equation or Rate [a]	Baseline Average Vehicle Occupancy (AVO)
Office (710) – A location where affairs of businesses, commercial or industrial organizations or professional persons or firms are conducted.		
Daily	Ln(T) = 0.76Ln(X) + 3.68	1.10 [b]
AM Peak Hour	Ln(T) = 0.80Ln(X) + 1.57	1.10 [b]
PM Peak Hour	T=1.12(X) + 78.45	1.10 [b]
Shopping Center Retail (820) – Uses such as neighborhood centers, community centers, regional centers and super regional centers. These can be comprised of a composite of many types of uses such as traditional retail stores, restaurants, banks, post offices, health clubs, and others. Because of the small size of the proposed retail, average rates were used.		
Daily	42.70 trips/1,000 sfgla	1.20 [c]
AM Peak Hour	0.96 trips/1,000 sfgla	1.20 [c]
PM Peak Hour	Ln(T) = 0.67Ln(X) + 3.31	1.20 [c]
Supermarket (850) – Freestanding retail stores selling a complete assortment of food, food preparation and wrapping materials, and household cleaning items. May also contain the following products and services: ATMs, automobile supplies, bakeries, books and magazines, dry cleaning floral, greeting cards, limited-services banks, photo centers, pharmacies, and video rental services.		
Daily	102.24 trips/1,000 sfgla	1.20 [c]
AM Peak Hour	3.40 trips/1,000 sfgla	1.20 [c]
PM Peak Hour	9.48 trips/1,000 sfgla	1.20 [c]
Apartment (220) – Rental dwelling units located within the same building with at least three other dwelling units, for example, quadraplexes and all type of apartment buildings. Low rise, mid-rise and high-rises are included.		
Daily	T = 6.06(X) + 12.56	1.20 [d]
AM Peak Hour	T = 0.49(X) = 3.73	1.20 [d]
PM Peak Hour	T = 0.55(X) + 17.65	1.20 [d]

a. Source: Institute of Transportation Engineers (ITE) Trip Generation, 9th Edition, 2012.
T = trips during time period, X = size of use in 1,000 square feet of gross floor area for office uses. "Ln" = Natural logarithm; "sfgla" = square feet of gross leasable area.

b. No AVO data are provided in Trip Generation for General Office (Land Use Code 710); assumed rate is from ITE's AVO rate for Single-Tenant Office Building (Land Use Code 715).

c. No vehicle occupancy data are available for Shopping Center (LUC 820) or Supermarket (LUC 850) in Trip Generation; however, ITE data available for other retail uses indicate occupancy rates range from 1.17 (for a hardware store) to 1.46 (for a discount store). For this analysis, an AVO rate of 1.2 persons-per-vehicle was assumed for both uses.

d. AVO rates for suburban apartments surveyed for ITE is estimated to be 1.20 persons per vehicle.

Baseline (Gross) Vehicle Trips for Proposed Project

The rates above were used to determine the baseline (gross) vehicle project trips, assuming no adjustments for mode of travel. Results are summarized in Table 6. The cumulative trips generated by all the land uses is estimated at about 5,290 vehicle trips per day, with 395 trips during the AM peak hour and 603 trips during the PM peak hour.

Table 6. Baseline (Gross) Vehicle Trips Generated by the Proposed Project

Land Use	Assumed Size	Daily Vehicle Trips	AM Peak Hour Vehicle Trips			PM Peak Hour Vehicle Trips		
			In	Out	Total	In	Out	Total
Office	100,830 sf	1,320	170	23	193	32	159	191
Retail	2,485 sf	110	1	1	2	24	26	50
Supermarket	21,820 sf	2,230	46	28	74	106	101	207
Apartment	249 units	1,630	25	101	126	101	54	155
Total		5,290	242	153	395	263	340	603

Source: Heffron Transportation, Inc. September 2015. Estimated using Institute of Transportation Engineers (ITE) Trip Generation, 9th Edition, 2012.

Person Trips and Internal Trips

The estimated person trips generated by the Redmond City Center project are summarized in Table 7. In addition to trips to and from a site, the total number of trips generated by a mixed-use development includes "internal trips," or trips made between different uses on the site. For example, a trip that an office worker makes at lunchtime to a local retail shop is calculated in the trip generation estimates for both the office and the retail uses. Chapter 6 of the *Trip Generation Handbook*[13] is devoted to estimating trip generation for multi-use developments, and provides a methodology to estimate the number of internal trips that can be expected for specific mixes of uses. This method is based on the types and sizes of various land uses. The more balanced the mix of uses, the higher the percentage of internal trips. Developments with a predominance of one type of use (e.g., mostly office, or mostly residential) typically have lower percentages of internal trips.

ITE's methodology to determine internal trips has four steps:

1. Determine the number of person trips expected to be generated by each land use as if each was on a separate site.
2. Determine the number of internal trips based on internal capture rates presented in the *Trip Generation Handbook*.
3. Balance the number of internal trips to and from all land uses at the site.
4. Total the resulting number of internal trips and calculate the percentage of internal trips.

As appropriate, the internal trips were calculated using the procedure presented in the National Cooperative Highway Research Program (NCHRP) Report 684: *Internal Trip Capture Estimation for Mixed Use Developments*[14] as presented in the *Trip Generation.*

Internal trips among the uses are estimated to account for about 23% of the daily trips, 8% of the AM peak hour trips, and 22% of the PM peak hour trips. The total number of person trips that would be external to this site is estimated at about 4,800 per day, with about 420 person trips in the AM peak hour and about 550 person trips in the PM peak hour.

[13] Institute of Transportation Engineers, 3rd Edition, August 2014.
[14] Bochner, B., Hooper, B. Sperry, and R. Dunphy. Washington, DC: Transportation Research Board, 2011.

Table 7. Total Person Trips Generated by Redmond City Center

Person Trip Summary	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Office (LU 710)	100,830 sf	1,450	187	25	212	36	174	210
Retail (LU 820)	2,485 sf	130	1	1	2	29	31	60
Supermarket (LU 850)	21,820 sf	2,680	55	34	89	127	121	248
Apartment (220)	249 units	1,960	30	121	151	121	65	186
Total All Person Trips		6,220	273	181	454	312	392	704
Internal Trips		1,420	18	18	36	78	78	156
% Internal Trips		**22.8%**		**7.9%**			**22.2%**	
Total External Person Trips		4,800	255	163	418	234	314	548

Source: Heffron Transportation, Inc. October 2015. Trips estimated using procedures in the ITE Trip Generation Handbook, August, 2014.

Mode of Travel and Local Vehicle Occupancy

After the number of person trips was estimated, they were separated by mode of travel based on the mode-split percentages appropriate for each type of use in the area using City of Redmond 2010 travel survey data and modeling information provided by City staff.[15] The City provided residential and non-residential mode-of-travel assumptions from the City's model. The resulting person trips made by vehicle were converted to vehicle trips using the locally-derived vehicle occupancy rate. These assumptions are described below for each land use type.

Office

A parking analysis[16] was also completed for this project which provided detailed information on mode share estimates for future employees. The project was granted a parking supply reduction from the City's code requirements based on a Transportation Management Plan (TMP) that the applicant will implement to reduce the office vehicle mode split for the office use by 30%. Daytime parking spaces would be shared with the other land uses on the site, which would reduce the available parking and encourage other modes of transportation for office users. This trip reduction is achievable given the elements proposed in the TMP, that the Redmond Transit Center is located adjacent to the site, and that the site will have limited parking available. The site will also provide bicycle storage, lockers, and showers for employees. However, as requested by the City of Redmond, the non-residential mode splits identified with their traffic models were applied to the office component. The assumed rates are shown in Table 8. The specific details on the parking analysis are provided later in this report.

[15] Mode split information provided for residential and non-residential land uses via email from Min Luo, City of Redmond, October 16, 2015.

[16] *Redmond City Center Analysis to Support Alternative Minimum Parking Requirement*, Heffron Transportation, Inc. June 22, 2015, and *Redmond City Center – Alternative Minimum Parking Requirement, Response to City Comments*, Heffron Transportation, Inc., August 19, 2015, updated September 30, 2015.

Table 8. Mode of Travel for Non-Residential Travelers

Mode of Travel	% of Employees
Walk or Bicycle	3%
Transit	6%
Drive Alone (SOV)	68%
Carpool	21%
Vanpool	2%
Total	100%

Note: Based on proposed parking supply, on-site bicycle facilities, and convenient public transportation availability.

For the office use, separate AVO rates were assumed for the different vehicle classifications that were derived from other office uses in the northwest. The following AVO rates were assumed for the office use:

- Drive alone: AVO = 1.0 person per vehicle
- Carpool: AVO = 2.05 persons per vehicle
- Vanpool: AVO = 5.83 persons per vehicle

The cumulative AVO rate for these modes would be 1.10 persons per vehicle, which is just a little higher than the local AVO rate of 1.07 persons per vehicle derived from the PSRC data for this area.

Supermarket

The supermarket use that would occupy the commercial space is expected to attract some customers from neighborhood residents and employers, including the uses within the building. However, to be conservative, it was assumed that 91% of the associated external retail trips, including those by customers or employees, would be made in private vehicles, as shown in Table 8. There are no data regarding local AVO rates for retail uses; therefore, the baseline rate described above (1.20 for retail) was applied.

Retail

Uses that would occupy the other commercial space are expected to attract the majority of customers from neighborhood residents and employers. As previously discussed, some of the trips would be internal trips generated by the site's employees. In addition, many of the retail customers are assumed to walk from other locations in the neighborhood. However, to be conservative, the City of Redmond requested the non-residential mode split also be applied to the retail trips including those by customers or employees, would drive to the site. There are no data regarding the AVO rate for local retail, therefore the baseline rate (1.20) described above was applied.

Residential

City of Redmond mode-of-travel data for the residential component of the site was applied, which includes 91% by vehicle, 6% walk or bike, and 3% by transit. A local AVO rate derived from 'Journey-to-Work' survey results from the year *2010 Census* compiled by the PSRC was applied to the residential trips expected to be made in private vehicles. From these surveys, results for residents living in Transportation Analysis Zone (TAZ) 516 indicate an AVO rate of 1.04 persons per vehicle.

Table 9 summarizes the AVO rates and mode-split percentage assumptions that were applied to the person trips for each land use. Table 10 summarizes person trips by mode of travel for the Redmond City Center project.

Table 9. Mode Split & Average Vehicle Occupancy for Local Neighborhood

Land Use Type	Local AVO Rate for Area	Mode of Travel		
		Walk & Bike	Transit Trips	Vehicle Trips
Office	Varies [a]	3%	6%	91%[b]
Retail	1.20	3%	6%	91%
Supermarket	1.20	3%	6%	91%
Residential	1.04	6%	3%	91%

Source: Heffron Transportation, Inc., and City of Redmond, October 2015.

a. Local AVO rate assumes 1.0 persons per vehicle for drive alone, 2.05 persons per vehicle for carpools, and 5.83 persons per vehicle for vanpools.

b. Assumes 68% single-occupant vehicle, 21% carpool, and 2% vanpool.

Table 10. **Person Trips** by Mode of Travel

Project Component and Type of Trip by Mode	% of Trips	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
General Office (LU 710)								
Walk or Bicycle Trips	3%	40	5	1	6	1	5	6
Transit Trips	6%	70	11	1	12	2	9	11
Person Trips by SOV	68%	810	121	12	133	20	108	128
Person Trips in Carpools	21%	250	37	4	41	6	33	39
Person Trips in Vanpools	2%	20	4	0	4	1	3	4
Total	100%	1,190	178	18	196	30	158	188
Retail (LU 820)								
Walk or Bicycle Trips	3%	0	0	0	0	1	1	2
Transit Trips	6%	5	0	0	0	2	1	3
Person Trips by Vehicle	91%	65	0	0	0	23	25	48
Total	100%	70	0	0	0	26	27	53
Supermarket (LU 850)								
Walk or Bicycle Trips	3%	60	1	1	2	3	3	6
Transit Trips	6%	120	3	1	4	6	5	11
Person Trips by Vehicle	91%	1,900	44	25	69	92	75	167
Total	100%	2,080	48	27	75	101	83	184
Apartment (LU 220)								
Walk or Bicycle Trips	6%	90	2	7	9	5	2	7
Transit Trips	3%	40	1	3	4	2	2	4
Person Trips by Vehicle	91%	1,330	26	108	134	70	42	112
Total	100%	1,460	29	118	147	77	46	123
Total Person Trips								
Walk or Bicycle Trips		190	8	9	17	10	11	21
Transit Trips		235	15	5	20	12	17	29
Person Trips by Vehicle		4,375	232	149	381	212	286	498
Total		4,800	255	163	418	234	314	548

Source: Heffron Transportation, Inc., October 2015.

Vehicle Trips for Proposed Project

Vehicle project trips were determined by applying the local AVO rates to the person trips by vehicle generated by each land use. The total vehicle trips for the Redmond City Center project are summarized in Table 11. The cumulative trips generated by all the land uses is estimated at about 3,830 vehicle trips per day, with 339 trips during the AM peak hour and 434 trips during the PM peak hour.

Table 11. Vehicle Trips Generated by the Proposed Redmond City Center Project

Land Use	Assumed Size	Daily Vehicle Trips	AM Peak Hour Vehicle Trips			PM Peak Hour Vehicle Trips		
			In	Out	Total	In	Out	Total
Office	100,830 sf	930	140	14	154	23	125	148
Retail	2,485 sf	50	0	0	0	19	21	40
Supermarket	21,820 sf	1,580	37	20	57	77	62	139
Apartment	249 units	1,270	25	103	128	67	40	107
Total		3,830	202	137	339	186	248	434

Source: Heffron Transportation, Inc. October 2015. Estimated using procedures in the ITE Trip Generation Handbook, 2014.

It is expected that some of the customers to the commercial uses, particularly the grocery store, could stop by the site on the way home from work. To account for this, trips for these uses were separated into two different types of trips described below:

- **Pass-by Trips** are already on the roadway network on the way to another destination. For example, a trip to a retail store made during a trip home from work would be considered a pass-by trip. These trips are assumed to come directly from the streets adjacent to the site.
- **New (Primary) Trips** are single-purpose trips generated by the retail facilities. New trips are generally assumed to begin and end at home, although some new trips could originate at work or other locations.

National data described in the *Trip Generation Handbook – An ITE Proposed Recommended Practice*[17] was used to define the percentage of these trip types for the supermarket and retail land uses proposed for the site. Table 12 shows the breakdown of the trip components for these uses.

17 Institute of Transportation Engineers, 3rd Edition, August 2014.

Table 12. **Vehicle Retail Trips** by Trip Component

Project Component and Type of Trip by Mode	% of Trips	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
Retail (LU 820)								
Primary Trips	66%	30	0	0	0	12	14	26
Pass-by Trips	34%	20	0	0	0	7	7	14
Total	100%	50	0	0	0	19	21	40
Supermarket (LU 850)								
Primary Trips	64%	1,010	27	10	37	52	37	89
Pass-by Trips	36%	570	10	10	20	25	25	50
Total	100%	1,580	37	20	57	77	62	139
Total Trips								
Primary Trips		1,040	27	10	37	64	51	115
Pass-by Trips		590	10	10	20	32	32	64
Total		1,630	37	20	57	96	83	179

Source: Heffron Transportation, Inc., October 2015. Estimated using procedures in the ITE Trip Generation Handbook, 2014; Pass-by rates from Supermarket LUC 850 - (Table F.13) and Shopping Center LUC 820 – (Table F.9).

3.2.2. Existing Site Trips

The proposed project would replace an existing building that previously operated as the City of Redmond's US Post Office branch. The facility was closed and relocated in July 2012. Any recent traffic counts would not include the traffic associated with this facility; however, another permitted use could occupy the space if the proposed project does not replace it. The City of Redmond allows credit to be taken for an existing land use. Therefore, the trips associated with this facility were estimated and used to determine the net trips associated with the proposed Redmond City Center.

Information in ITE's *Trip Generation* for US Post Office (Land Use Code 732) was used for the existing use. The facility has a 12,910-sf building and associated parking spaces on the site. The City of Redmond non-residential mode-of-travel data were also applied to the existing use with 91% assumed to occur by vehicle, 6% by transit, and 3% by walk/bicycle. A local AVO rate of 1.07 was applied, based on the PSRC data described previously.

Table 13 summarizes the estimated vehicle trips that could be generated by the existing use if it were still in operation. As shown, it is estimated to have generated 1,190 vehicle trips per day with 91 during the AM peak hour and 123 during the PM peak hour. As previously described, these trips were added to the year 2020-without-project traffic volumes shown on Figure 4.

Table 13. Estimated Vehicle Trips Generated by Former US Post Office on Site

Land Use	Assumed Size	Daily Vehicle Trips	AM Peak Hour Vehicle Trips			PM Peak Hour Vehicle Trips		
			In	Out	Total	In	Out	Total
US Post Office	12,910 sf	1,190	47	44	91	63	60	123

Source: Heffron Transportation, Inc. October 2015.

3.2.3. Net Change in Vehicle Trips

The net change in vehicle trips is summarized in Table 14. As shown, the proposed project is anticipated to generate about 2,640 net new vehicle trips per day at the site, with 248 net new vehicle trips in the AM peak hour and 311 net new vehicle trips in the PM peak hour. Of these, there would be about 2,050 new primary trips, with 228 during the AM peak hour and 247 during the PM peak hour.

Table 14. **Net Change in Trips** by Trip Component

Project Component and Type of Trip by Mode	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
		In	Out	Total	In	Out	Total
Proposed Project							
Primary Trips	3,240	192	127	319	154	216	370
Pass-by Trips	590	10	10	20	32	32	64
Total	3,830	202	137	339	186	248	434
Existing Use							
Primary Trips	-1,190	-47	-44	-91	-63	-60	-123
Total Net Trips							
Primary Trips	**2,050**	**145**	**83**	**228**	**91**	**156**	**247**
Pass-by Trips	590	10	10	20	32	32	64
Total	**2,640**	**155**	**93**	**248**	**123**	**188**	**311**

Source: Heffron Transportation, Inc., October 2015. Estimated using procedures in the ITE Trip Generation Handbook, 2014; Pass-by rates from Supermarket LUC 850 - (Table F.13) and Shopping Center LUC 820 – (Table F.9).

3.3. Trip Distribution and Assignment

The proposed project trips are expected to have typical residential and employee commute patterns during the peak hours. The major corridors in the area include SR 202, SR 520, SR 908 and Avondale Road and are those most used by commuters during the peak hours. Based on the City's most current (2013) PM peak hour traffic data and the land uses in the area, trip distribution patterns were estimated for the residential and office/retail uses. The patterns are summarized in Table 15.

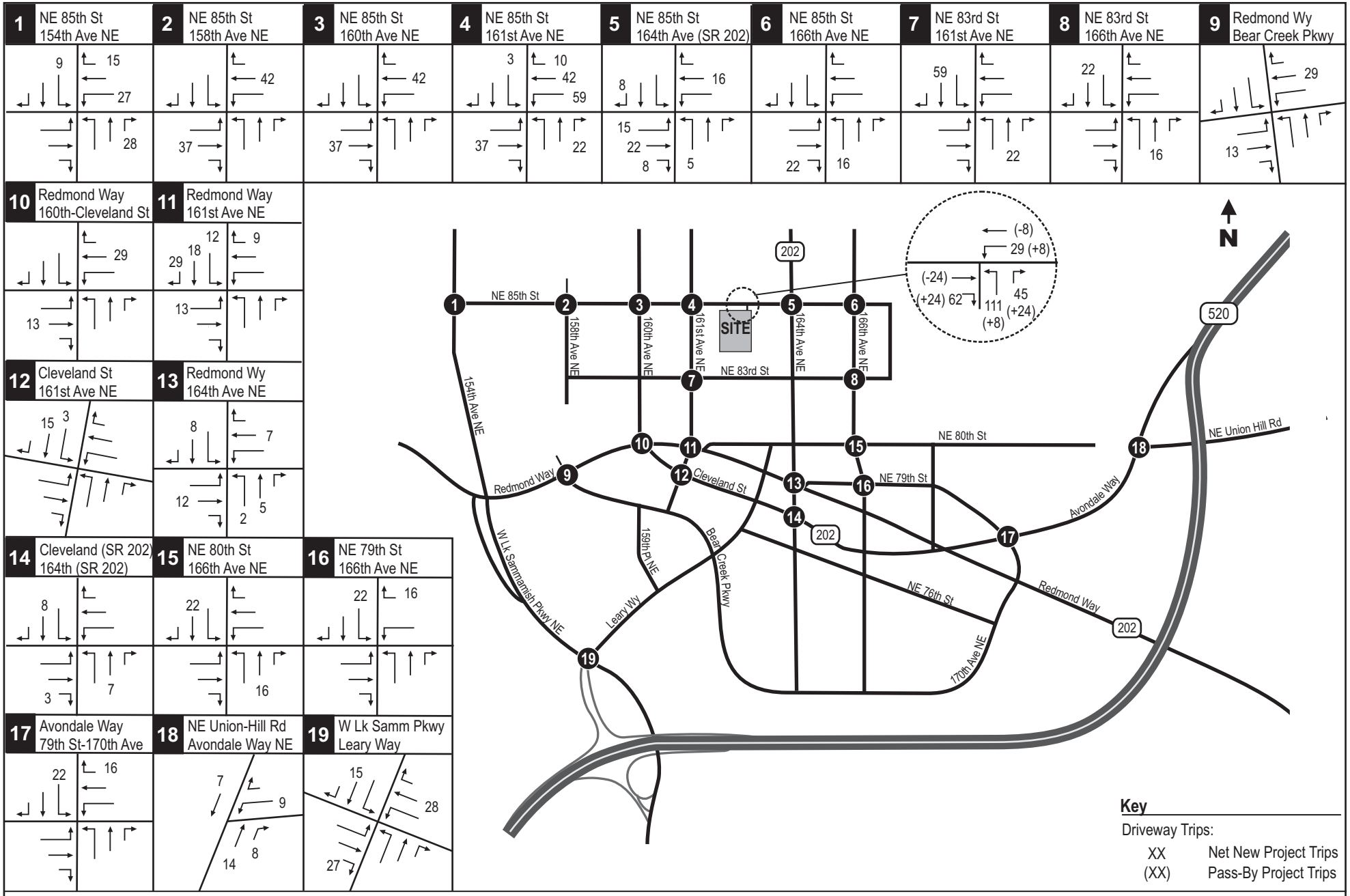
Table 15. Trip Distribution Patterns for Redmond City Center – PM Peak Hour

Origin/Destination or Route	Trip Percentages	
	Residential	Office/Commercial
Trips to/from SR 520		
Via SR 520 / West Lake Sammamish Parkway Exit	35%	25%
West of Site		
SR 908 to I-405	15%	20%
North of Site		
SR 202 (Redmond-Woodinville Road NE)	10%	15%
Avondale Road	5%	10%
East of Site		
SR 202 Redmond-Fall City Road	5%	10%
Local Traffic		
South of Redmond Way (including Redmond Town Center)	10%	5%
Southeast Redmond area	10%	5%
North of Redmond Way / Northwest of the site	10%	10%
	100%	100%

Source: Heffron Transportation, Inc. September 2015. Based on review of City's traffic counts and surrounding land uses.

The net new primary PM peak hour project trips were assigned to the roadway network based on these patterns, as shown on Figure 5. This information was also reviewed by City staff in October 2015. These trips were added to the 2020-without-project traffic volumes to estimate future with-project traffic volumes as shown on Figure 6.

EXHIBIT E



REDMOND CITY CENTER

Figure 5
Net New Project Trips
PM Peak Hour

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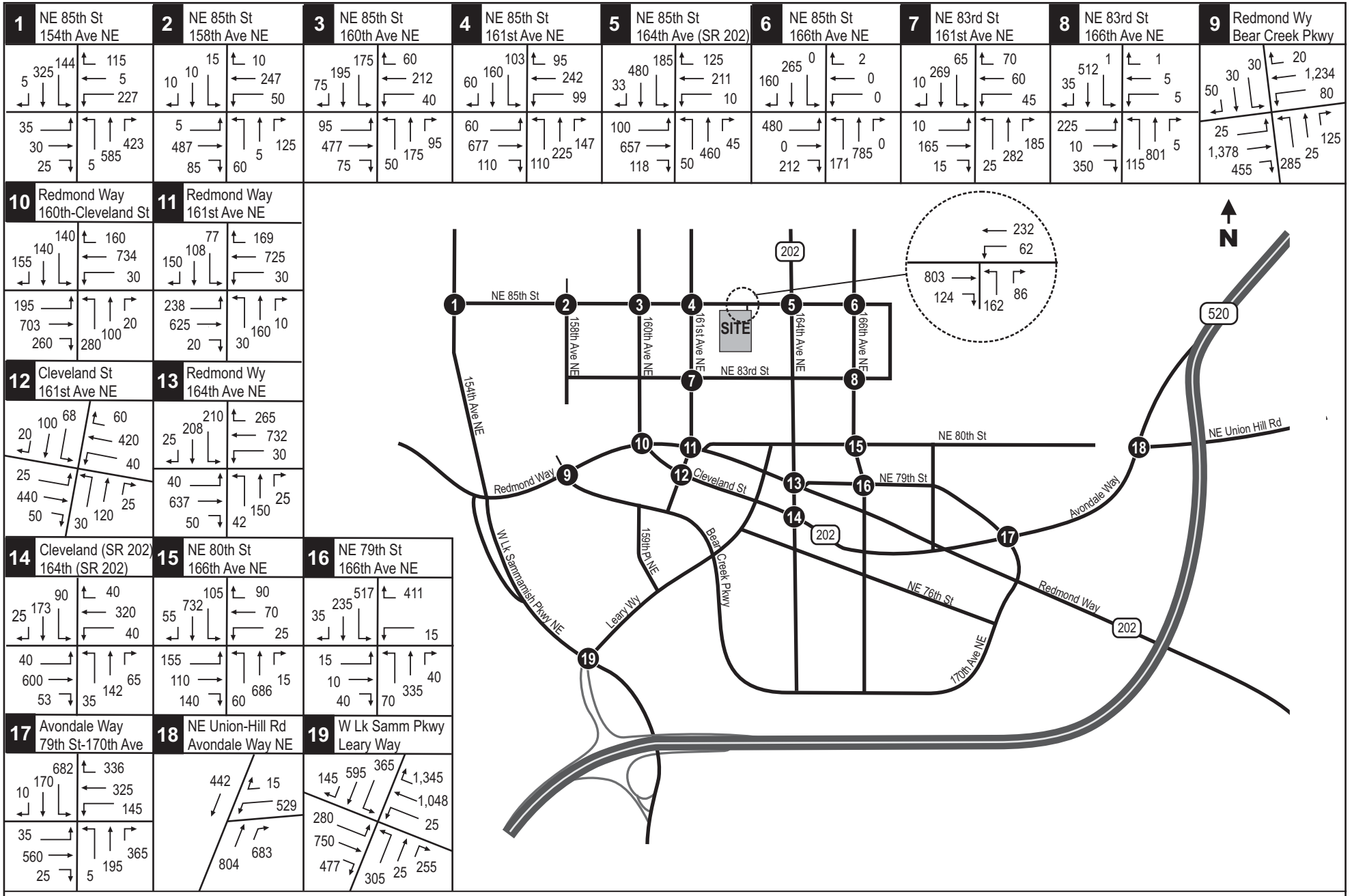
11.17.15

EXHIBIT E



REDMOND CITY CENTER

Figure 6
Forecast (2020) With Project Traffic Volumes
PM Peak Hour

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11.17.15

3.4. Traffic Operations

Levels of service for study area intersections were calculated using the 2020 with-project traffic volumes and the methodologies described earlier in this report. Table 16 shows the results of the analysis for the PM peak hour. Levels of service for 2020 without-project conditions are shown for comparison.

Table 16. Level of Service Summary – Future (2020) Conditions

		PM Peak Hour Conditions			
		Without-Project (2020)		With-Project (2020)	
ID	Intersection	LOS [1]	Delay [2]	LOS	Delay
1	NE 85th Street / 154th Avenue NE	C	28.2	C	29.7
2	NE 85th Street / 158th Ave NE	A	8.3	A	8.7
3	NE 85th Street / 160th Avenue NE	C	21.7	C	22.9
4	NE 85th Street / 161st Avenue NE	B	19.3	B	20.0
5	NE 85th Street / 164th Avenue NE (SR 202)	C	34.7	D	37.3
6	NE 85th Street / 166th Avenue NE	C	23.3	C	22.9
7	NE 83rd Street / 161st Avenue NE	B	14.8	B	15.2
8	NE 83rd Street / 166th Avenue NE	B	16.6	B	17.3
9	Redmond Way / Bear Creek Parkway	C	20.7	C	20.9
10	Redmond Way / 160th Avenue NE / Cleveland Street	D	41.3	D	41.1
11	Redmond Way / 161st Avenue NE	B	19.0	B	19.4
12	Cleveland Street / 161st Avenue NE	B	18.3	B	18.4
13	Redmond Way / 164th Avenue NE	C	27.5	C	28.7
14	Cleveland Street (SR 202) / 164th Avenue NE	C	20.7	C	21.6
15	NE 80th Street / 166th Avenue NE	B	15.5	B	18.3
16	NE 79th Street / 166th Avenue NE [3]				
	- Eastbound Approach	F (B)[4]	>200 (10.2)[4]	F (B)[4]	>200 (11.0)[4]
	- Westbound Approach	F (C)[4]	>200 (20.4)[4]	F (C)[4]	>200 (21.5)[4]
17	Avondale Way / NE 79th Street	D	37.6	D	38.0
18	Avondale Way / Union Hill Road	C	22.3	C	23.4
19	W Lake Sammamish Pkwy / SR 520 / Leary Way NE	F	84.6	F	84.5
	NE 85th Street / Site Dwy / Village Square Dwy [5]				
	- Eastbound Approach	A	7.9	A	7.8
	- Westbound Approach	B	10.1	B	10.8
	- Northbound Approach	C	16.0	F	>200.0
	- Southbound Approach	D	30.0	E	41.0

Source: Heffron Transportation, Inc., November 2015.

1. *Level of service.*
2. *Average seconds of delay per vehicle.*
3. *Unsignalized intersection (stop controlled on eastbound and westbound approaches.)*
4. *Level of service shown for existing configuration (and possible re-configuration with eastbound and westbound approaches restricted to right-turn only movements.)*
5 *Unsignalized location. Without-project conditions estimated as if Post Office were still in operation for northbound approach (inbound only/right-out only). Proposed site driveway evaluated without turn restrictions.*

As shown above, the project would not change the level of service at any of the study area intersections during the PM peak hour. One signalized intersections is expected to operate at LOS F in the future without or with the proposed Redmond City Center project: W Lake Sammamish Parkway/SR 520/Leary Way NE. The proposed project is estimated to add a total of 43 through trips and 27 right-turning trips at this location, and is shown to not have an impact on the operations. The unsignalized NE 79th Street/166th Avenue NE intersection currently operates at LOS F for the eastbound and westbound approaches, and is estimated to continue in the future without or with the proposed project. The westbound left-turn and eastbound left/through movements are the critical movements operating poorly at this location. The proposed project is estimated to add 22 south-to-east left-turns and 16 west-to-north right turns. As mentioned earlier, as part of the Redmond Triangle traffic analysis, suggested mitigation at this location included restricting the eastbound and westbound approaches to right-turns only. If these restrictions were installed, the approaches would operate at LOS C or better with the proposed project complete. Three of the study intersections are shown with slightly decreased delay times under the with-project conditions. This can occur when traffic is added to non-critical movements that have lower delay, which decreases the average delay for the intersection.

3.5. Site Access

As shown on Figure 5, vehicle access to the Redmond City Center would be from a site driveway on the east side of the site on NE 85th Street, which would provide access to parking, and a secondary emergency access. During the PM peak hour, traffic exiting the site driveway is estimated to operate at LOS F. Several potential remedies were evaluated to improve egress operations. One option would widen the driveway to provide two exit lanes, which would allow right-turning vehicles to bypass vehicles waiting to turn left and reduce overall delay at the driveway. However, widening was not possible due to the width constraints and need to retain a pedestrian walkway east of the site. Another option is to prohibit left turns during the peak egress periods. This would improve driveway operations, but would require vehicles to loop the block on the grid of streets. In consultation between the project's design team and City staff, it was determined that the option to prohibit left turns during peak periods should be pursued. The potential operational impact of the trips looping the block is presented in Section 3.6 below.

The truck loading area would be located adjacent and just west of the main driveway to the parking garage. It is recommended that truck loading occur outside of the PM peak hour to reduce potential for additional delay within the site access area. The proponent has agreed to allow truck operations between the hours of 11:00 P.M. and 6:00 A.M. only. In addition, the frontage improvements, including landscaping, need to maintain adequate sight visibility for drivers, pedestrians, and bicyclists.

The eastern Village Square driveway located across from the site driveway on NE 85th Street is estimated to degrade from LOS D to LOS E with the proposed project. However, it should be noted, traffic volumes on this driveway are very low and drivers do have the option to use the western Village Square driveway on NE 85th Street.

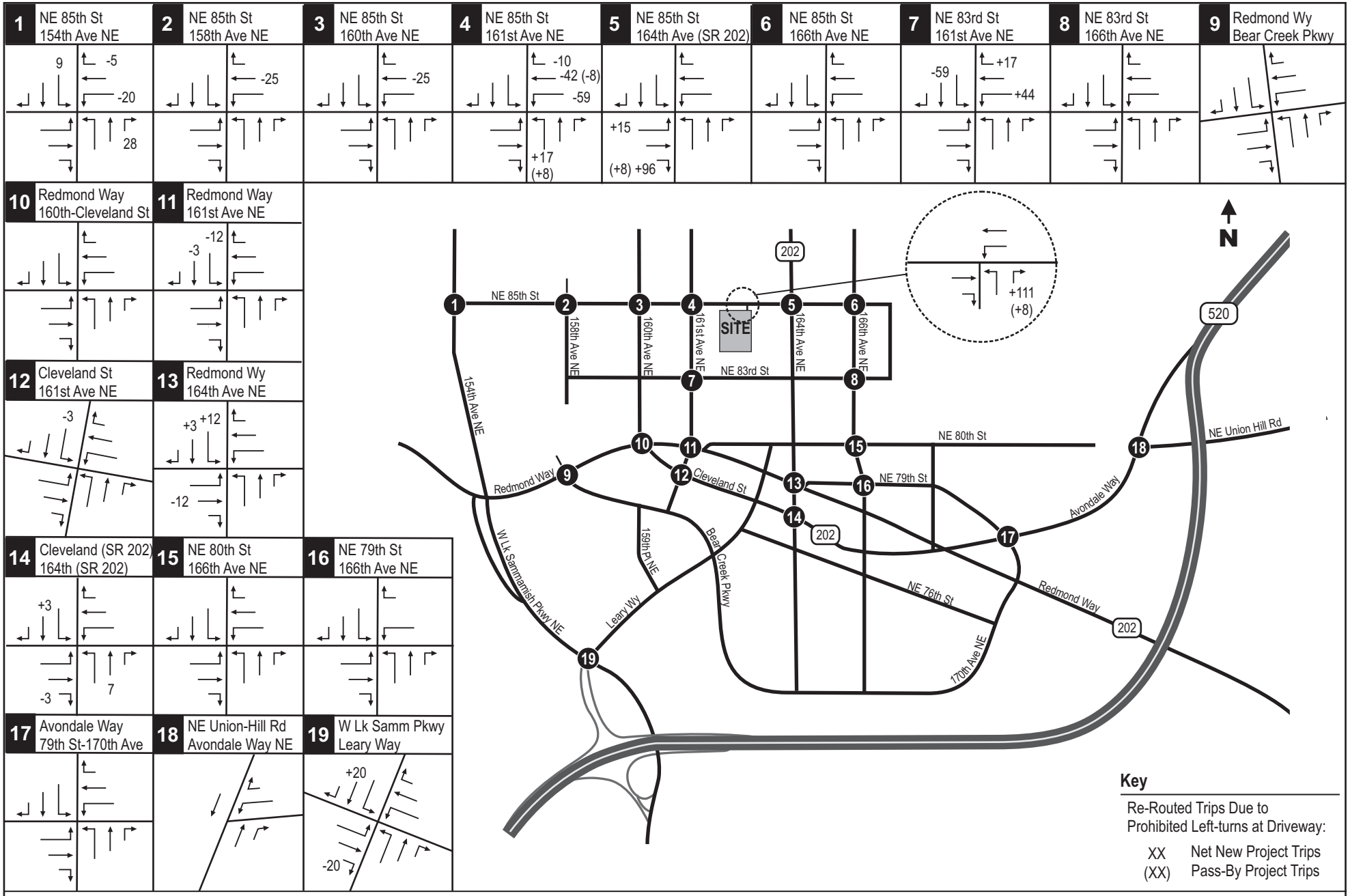
3.6. Impact of Site Access Restrictions

3.6.1. Traffic Operations at Off-Site Intersections

As previously described, the proponent would restrict traffic exiting the site driveways to right turns only during the peak periods. During these periods, left turn out of the site driveway would need to loop the block on the grid of streets to travel west of the site. An analysis was completed to estimate how these additional right turns would affect the nearby intersections. Re-routed project trips are shown on Figure 7.

Level of service analyses were completed for the PM peak hour condition, and are summarized in Table 17. These are compared to the results without the left turn restrictions. As shown, none of the study intersections would experience a significant difference in delay due to the revised vehicle routes. Trips would be more dispersed among the City roadway network as drivers continue to find the most convenient routes. Some additional intersections could be impacted that are not currently on the list below; however, the project trips would be through- and right-turning trips, which would be non-critical movements to the operational conditions. The intersections where significant left-turn movements would be added (compared to the analysis with full driveway operations) were already part of the study area and are included in the table.

EXHIBIT E



REDMOND CITY CENTER

Figure 7
Re-Routed New Project Trips Per Mitigated Site Access
PM Peak Hour

heffron transportation, inc.

12.14.15

Table 17. Level of Service Comparisons – Future With-Project (2020) PM Peak Hour

ID	Intersection	PM Peak Hour Conditions			
		Full Access Driveway		Restricted Driveway	
		LOS [1]	Delay [2]	LOS	Delay
1	NE 85th Street / 154th Avenue NE	C	29.7	C	28.7
2	NE 85th Street / 158th Ave NE	A	8.7	A	8.7
3	NE 85th Street / 160th Avenue NE	C	22.9	C	23.1
4	NE 85th Street / 161st Avenue NE	B	20.0	B	19.5
5	NE 85th Street / 164th Avenue NE (SR 202)	D	37.3	D	36.2
6	NE 85th Street / 166th Avenue NE	C	22.9	C	22.9
7	NE 83rd Street / 161st Avenue NE	B	15.2	B	18.5
8	NE 83rd Street / 166th Avenue NE	B	17.3	B	19.7
9	Redmond Way / Bear Creek Parkway	C	20.9	C	20.9
10	Redmond Way / 160th Avenue NE / Cleveland Street	D	41.1	D	41.4
11	Redmond Way / 161st Avenue NE	B	19.4	B	19.6
12	Cleveland Street / 161st Avenue NE	B	18.4	B	18.3
13	Redmond Way / 164th Avenue NE	C	28.7	C	30.1
14	Cleveland Street (SR 202) / 164th Avenue NE	C	21.6	C	21.3
15	NE 80th Street / 166th Avenue NE	B	18.3	B	18.3
16	NE 79th Street / 166th Avenue NE [3]				
	- Eastbound Approach	F (B)[4]	>200 (11.0)[4]	F (B)[4]	>200 (11.0)[4]
	- Westbound Approach	F (C)[4]	>200 (21.5)[4]	F (C)[4]	>200 (21.5)[4]
17	Avondale Way / NE 79th Street	D	38.0	D	38.0
18	Avondale Way / Union Hill Road	C	23.4	C	23.4
19	W Lake Sammamish Pkwy / SR 520 / Leary Way NE	F	84.5	F	85.0
	NE 85th Street / Site Dwy / Village Square Dwy [5]				
	- Eastbound Approach	A	7.8	A	7.8
	- Westbound Approach	B	10.8	B	10.8
	- Northbound Approach	F	>200.0	F	54.1
	- Southbound Approach	E	41.0	E	41.0

Source: Heffron Transportation, Inc., December 2015.

1. *Level of service.*
2. *Average seconds of delay per vehicle.*
3. *Unsignalized intersection (stop controlled on eastbound and westbound approaches.)*
4. *Level of service shown for existing configuration (and possible re-configuration with eastbound and westbound approaches restricted to right-turn only movements.)*
5. *Unsignalized location. Proposed site driveway comparison with and without left-turns out of the site driveway.*

3.6.2. Intersection Queue Analysis

Per the City's request, a queuing analysis was performed for the study intersections. This was completed to identify if vehicle queues are expected to exceed the auxiliary turn lane storage lengths at the

study intersections. This evaluation was completed using Trafficware's SimTraffic model with an average of five simulations. The results, summarized in Table 18, reflect the 95th-percentile queue lengths (in feet), which represent the queues that would be exceeded 5% of less of the time during the peak hour. The analysis compares the without-project conditions to the with-project conditions with the proposed driveway turn restrictions. Both reflect year 2020 conditions.

Due to the variability in signal operations, and changes to the volumes on different approaches of the intersections, the model predicts that some vehicle queues would increase and some would decrease due to the proposed project. The highlights in the table represent the scenario where the proposed project increases the queue length by more than 20 feet (one vehicle) AND the queue is forecast to exceed the storage length for the turn movement. It should be noted, some of these intersections will have improved signal timings with the conversion of the one-way couplet to two-way operations so queuing conditions could improve compared to what is shown. In addition, some locations are modeled with a set storage length; however, the left-turns extend into a two-way left-turn lane or into the main travel lane, so additional capacity beyond what is shown is available at these locations. These are shown with an asterisk (*) for the highlighted locations.

Table 18. Estimated 95th Percentile Queue Length – Future PM Peak Hour Conditions

ID	Intersection	Lane Storage Length (feet)[1]	95th-Percentile Queue Length (feet)	
			Without-Project	With-Project[2]
1	NE 85th Street / 154th Avenue NE			
	- Westbound Left-turn	600	93	90
	- Westbound Right-turn	200	71	66
	- Northbound Left-turn	200	64	96
	- Southbound Left-turn*	150	176	186
2	NE 85th Street / 158th Ave NE			
	- Eastbound Left-turn	150	9	10
	- Westbound Left-turn	70	57	70
	- Northbound Right-turn	125	175	177
	- Southbound Right-turn	75	30	29
3	NE 85th Street / 160th Avenue NE			
	- Eastbound Left-turn	150	168	134
	- Westbound Left-turn	165	57	85
	- Northbound Left-turn	120	105	93
	- Southbound Left-turn	120	172	175
4	NE 85th Street / 161st Avenue NE			
	- Eastbound Left-turn	170	131	83
	- Eastbound Right-turn	200	155	245
	- Westbound Left-turn	100	128	153
	- Northbound Left-turn	210	146	134
	- Northbound Right-turn	160	229	226
	- Southbound Left-turn	160	217	141
5	NE 85th Street / 164th Avenue NE (SR 202)			
	- Eastbound Left-turn*	250	223	256
	- Eastbound Right-turn	150	226	201
	- Westbound Left-turn	200	114	71
	- Northbound Left-turn	250	59	64
	- Southbound Left-turn	240	130	123
6	NE 85th Street / 166th Avenue NE			
	- Northbound Left-turn	250	230	176
	- Southbound Right-turn	300	185	124
7	NE 83rd Street / 161st Avenue NE			
	- Northbound Left-turn	150	46	25
	- Southbound Left-turn	150	126	73
8	NE 83rd Street / 166th Avenue NE			
	- Eastbound Left-turn	75	136	124
	- Westbound Left-turn	50	29	46
	- Northbound Left-turn	220	94	96
	- Southbound Left-turn	100	9	9
9	Redmond Way / Bear Creek Parkway			
	- Eastbound Left-turn	85	79	49
	- Eastbound Right-turn	160	246	203
	- Westbound Left-turn	150	84	62
	- Northbound Left-turn	175	232	140
	- Southbound Left-turn	75	105	127

10	Redmond Way / 160th Avenue NE / Cleveland Street	220	304	238
	- Eastbound Left-turn	75	62	61
	- Westbound Left-turn	150	218	171
	- Northbound Left-turn	200	264	279
	- Southbound Left-turn	40	87	67
	- Southbound Right-turn			
11	Redmond Way / 161st Avenue NE			
	- Eastbound Left-turn	150	211	166
	- Westbound Left-turn	125	51	42
	- Northbound Left-turn	75	53	40
12	Cleveland Street / 161st Avenue NE			
	- Southbound Left-turn	75	97	82
13	Redmond Way / 164th Avenue NE			
	- Westbound Left-turn	150	154	185
	- Westbound Right-turn	130	169	149
	- Northbound Left-turn	70	76	55
	- Southbound Left-turn	150	213	168
14	Cleveland Street (SR 202) / 164th Avenue NE			
	- Northbound Left-turn	80	66	108
	- Southbound Left-turn	100	123	91
15	NE 80th Street / 166th Avenue NE			
	- Eastbound Left-turn	100	134	102
	- Westbound Left-turn	100	81	116
	- Northbound Left-turn	90	117	118
	- Southbound Left-turn	220	156	97
16	NE 79th Street / 166th Avenue NE [3]			
	- Westbound Right -turn	90	130	135
	- Southbound Left-turn	130	130	123
17	Avondale Way / NE 79th Street			
	- Eastbound Left-turn	200	53	29
	- Westbound Left-turn	200	215	157
	- Westbound Right-turn	150	214	181
	- Southbound Left-turn*	250	322	344
18	Avondale Way / Union Hill Road			
	- Westbound Right-turn	100	14	10
19	W Lake Sammamish Pkwy / SR 520 / Leary Way NE	175	281	229
	- Eastbound Right-turn	200	267	260
	- Westbound Left-turn	150	195	156
	- Westbound Right-turn	200	88	44
	- Northbound Left-turn	275	305	303
	- Northbound Right-turn	175	205	200
	- Southbound Left-turn			

Source: Heffron Transportation, Inc., December 2015.

1. *Lengths per City of Redmond.*
2. *With-project includes right-turn outbound only from driveway.*
3. *Unsignalized intersection (stop controlled on eastbound and westbound approaches.)*

* *Indicates an increase in queue length greater than 20 feet (one vehicle) or more AND exceeds the storage length.*

3.6.3. Site Driveway Level of Service and Queues

The on-site driveway queues are expected to be shorter with outbound left-turns prohibited during the peak hours. The northbound approach is still expected to operate at LOS F during the PM peak hour, but with less delay. The 95-percentile queue is estimated at about seven vehicles (compared to about 20 vehicles without restrictions).

An estimate of AM peak hour conditions at the site driveway was completed based on the same methodology as was used for the PM peak hour condition. During the AM peak hour, the northbound approach is expected to operate at LOS B with a 95th-percentile queue of about one vehicle.

3.7. Safety

The collision data provided for the study area do not indicate any traffic safety conditions. The project is reducing the everyday operational curb-cuts from two to one, and the driveway will be full access. With the estimated LOS F operations at the site driveway, it is recognized that potential conflicts could occur, but would not be any different than what currently exists along this roadway. The project is not expected to adversely affect safety in the study area.

3.8. Parking Impacts

The City of Redmond accepted the parking supply reduction for the project as outlined in the *Redmond City Center – Alternative Minimum Parking Requirement.*[18] The parking study was performed in accordance with *City of Redmond Land Use Code* Section 21.40.010.D.2 and the *Redmond Zoning Code* section 21.10.080-Town Square Zone[19] which requires 1.00 space per multi-family unit plus 0.25 spaces per unit for guest parking. Based on the code, the residential component would require a total of 312 spaces (249 spaces for residents plus 63 guest spaces). The code also identifies the need for 2 parking spaces per 1,000 sf of retail space (21,820 sf) and office space (100,830. sf), which would add another 246 spaces, for a total of 558 spaces. As stated in the parking study; the project will implement a Transportation Management Plan (TMP) to reduce the office parking demand by 30% and the tandem spaces will be reserved for specific residents or fleet-type office users only. It should be noted, all of the parking will be constructed with the Phase 1 of the development, but the parking evaluation was for the entire full build out of the site after Phase 2 is complete.

3.8.1. Parking Supply

The proposed Redmond City Center would provide 362 total parking spaces (335 non-reserved shared spaces, plus 27 reserved tandem spaces), for a total supply capacity for 389 vehicles in three parking levels. All of the parking spaces except for the tandem spaces will be shared among all the land uses.

3.8.2. Parking Demand

As mentioned a parking demand evaluation was completed which used information from the Institute of Transportation Engineers' [ITE] *Parking Generation,*[20] King County's *Right-Size Parking Model*, and a study published in the ITE Journal: *Assessing Multi-family Residential Parking Demand and Transit*

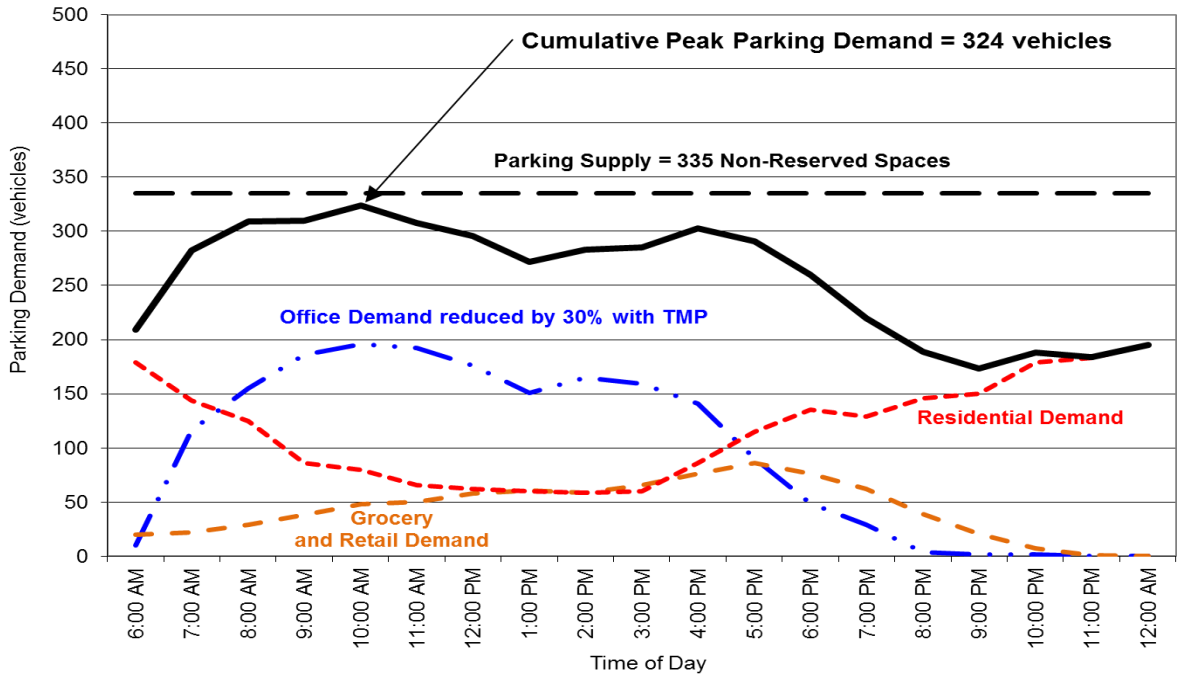
[18] Response to City Comments Update, Heffron Transportation, September 30, 2015.
[19] Redmond Zoning Code Table 21.10.080C.
[20] ITE, 4th Edition, 2010.

Service.[21] The data indicate the peak demand for multi-family residential uses typically occurs overnight during the hours between 12:00 and 4:00 A.M., with demand declining after 5:00 A.M. This is the opposite of the office and retail land uses, when their peak demand occurs during the midday.

The site's parking supply includes 27 tandem parking spaces that can accommodate 54 vehicles. Such spaces require common vehicle ownership so that the outside vehicle in the space can be moved to release the inside vehicle. These spaces would not be available to share between the office and retail users or with other residents. These spaces must be reserved, and are assumed to accommodate the demand associated with 27 residential units (11% of the total units) that would each have a parking rate of 2.0 vehicles per unit. The parking demand rate for the remaining 222 residential units was derived to be 0.88 vehicles per unit. The combined demand at these rates equates to 1.0 vehicles per unit determined using the ITE Journal study and King County's *Right-Size Parking Tool*. The rates used for the analysis therefore assume that 11% of the units have 2.0 vehicles each, 78% would have 1.0 vehicle each, and 11% would have no vehicles. These metrics are not unreasonable for this site with good transit service, bicycle facilities, and are proximate to many shopping and entertainment destinations.

Based on the parking demand analysis for the site; parking demand for the office component would need to be decreased by 30% through a Transportation Management Plan (TMP) compared to an average office. Programs could be implemented that encourage office employees to commute via transit, which is conveniently located at the adjacent transit center, or via walk and bike modes of travel. Figure 8 below shows the cumulative parking demand assuming implementation of a TMP for office employees. This shows that the proposed shared parking supply would accommodate the expected parking demand, and a small number of spaces (11 spaces) would be available during the peak time at 10:00 A.M. It is recommended that these excess spaces be provided to buffer the retail and/or visitor spaces, which tend to be more discretionary and fluctuate by day. These spaces represent a 15% to 18% buffer on the retail and visitor demand.

Figure 8. Cumulative Parking Demand for Full Build – Shared Uses Only



[21] D. Rowe, Dr. C.C. Bae, Q. Shen, ITE Journal, December 2010.

3.9. Transit

The project is estimated to generate an increase of about 155 transit trips per day, with approximately 20 trips during the AM and PM peak hours using the City of Redmond data. However, it is expected that more transit usage than this will be used by the employees, visitors, and residents at the site. The project will implement a TMP to encourage transit, bike and walk trips, and with the Redmond Transit Center located adjacent to the site, this is a reasonable assumption. The additional transit users associated with the proposed project would not adversely affect transit in the site vicinity and would be considered a positive attribute to the roadway network.

3.10. Non-Motorized Facilities

The project would improve the frontage along NE 85th Street with new landscaping and driveway enhancements, ensuring adequate sight lines are maintained between drivers, pedestrians, and bicyclists. The proposed garages will provide space for bicycle parking spaces.

3.11. Transportation Concurrency

The City of Redmond requires new development to apply for a Certificate of Concurrency. The application for this submittal has been prepared according to the City of Redmond guidelines using the appropriate land uses and mobility unit rates supplied by the City of Redmond. The Concurrency Application for the Redmond City Center is included in Appendix B. If any elements change, the Concurrency Application would be revised.

4. MITIGATION

4.1. Traffic Impact Fees

The City of Redmond has adopted Transportation Impact Fees through the *Redmond Municipal Code*[22] 3.10.100 which were updated and effective January 1, 2015. The Redmond City Center fee based on the current rate schedule is estimated at $2,281,400 and is summarized in Table 19 for the Downtown zone.

Table 19. Traffic Impact Fee Estimate

Land Use	# Units/SF [a]	Rate [b]	Impact Fee
Proposed Multi-Family	249 units	$3,111.85/unit	$774,850
Proposed Office	100,830 sf	$12.66/sf	$1,276,510
Proposed Supermarket	21,820 sf[b]	$30.62/sf	$668,130
Proposed Retail	2,485 sf	$11.98/sf	$29,770
(Removed Post Office)	(12,910 sf) [c]	($36.24/sf)	($467,860)
Total Fee			**$2,281,400**

a. Square feet

b. City of Redmond Municipal Code. Rates are effective January 1, 2015.

c. This value represents the building square footage only as a conservative estimate. The actual usable square footage of the specialized areas may also apply.

Depending on the timing of the development's schedule; these fees could change, as they would be recalculated by the City with the most current fees. The fees can be estimated prior to building permit issuance. If the project program changes, the fees will need to be updated to reflect the most current program.

4.2. Off-Site Mitigation

Based on the analysis, no off-site improvements are needed as a result of the proposed Redmond City Center project. However, if the City determines the need to restrict left-turns and through movements from the eastbound and westbound approaches at the NE 79th Street/166th Avenue NE intersection, then a pro-rata share for all pipeline projects in the area could be applied. The Redmond City Center project would add 38 project trips to this location, which would represent 2.2% of the estimated 2020 PM peak hour traffic volumes (without the restrictions).

4.3. On-Site Mitigation

It is recommended that left turns from the site driveway be prohibited during peak egress periods (7:00 to 9:00 A.M. and 4:00 to 6:00 P.M.). Signs stating this restriction should be posted at the site driveway. It is also recommended that truck loading occur outside of the PM peak hour to reduce potential for additional delay within the site access area. The proponent will allow truck loading between 11:00 P.M. and 6:00 A.M. only. Finally, the frontage improvements, including landscaping, need to maintain adequate sight visibility for drivers, pedestrians, and bicyclists.

[22] City of Redmond, passed September 15, 2015.

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Heffron Transportation, Inc., *Redmond City Center – Alternative Minimum Parking Requirement, Response to City Comments,* August 19, 2015, updated September 30, 2015.

Heffron Transportation, Inc., *Trip Generation, Distribution, and Assignment, and Recommended Scope for Transportation Impact Analysis*, October 1, 2015.

Transportation Research Board, Bochner, B., Hooper, B. Sperry, and R. Dunphy, *National Cooperative Highway Research Program (NCHRP) Report 684: Internal Trip Capture Estimation for Mixed Use Developments*, Washington DC., 2011

Transportation Research Board, *Highway Capacity Manual*, 2010.

Transportation Solutions, Inc., *Redmond Triangle 16450 NE Redmond Way Phase 2: Traffic Impact Study*, June 2015.

APPENDIX A

LEVEL OF SERVICE DEFINITIONS

Levels of service (LOS) are qualitative descriptions of traffic operating conditions. These levels of service are designated with letters ranging from LOS A, which is indicative of good operating conditions with little or no delay, to LOS F, which is indicative of stop-and-go conditions with frequent and lengthy delays. Levels of service for this analysis were developed using procedures presented in the *Highway Capacity Manual* (Transportation Research Board, 2010).

Level of service for signalized intersections is defined in terms of delay. Delay can be a cause of driver discomfort, frustration, inefficient fuel consumption, and lost travel time. Specifically, level of service criteria are stated in terms of the average delay per vehicle in seconds. Delay is a complex measure and is dependent on a number of variables including: the quality of progression, cycle length, green ratio, and a volume-to-capacity ratio for the lane group or approach in question. Table B-1 shows the level of service criteria for signalized intersections from the *Highway Capacity Manual.*

Table B-1. Level of Service Criteria

Level of Service	Average Delay Per Vehicle	General Description
A	Less than 10.0 Seconds	Free flow
B	10.1 to 20.0 seconds	Stable flow (slight delays)
C	20.1 to 35.0 seconds	Stable flow (acceptable delays)
D	35.1 to 55.0 seconds	Approaching unstable flow (tolerable delay—occasionally wait through more than one signal cycle before proceeding.
E	55.1 to 80.0 seconds	Unstable flow (approaching intolerable delay)
F	Greater than 80.0 seconds	Forced flow (jammed)

Source: Transportation Research Board, Highway Capacity Manual, 2010.

For unsignalized two-way-stop-controlled, all-way-stop-controlled, and roundabout intersections, level of service is based on the average delay per vehicle. The level of service for a two-way, stop-controlled intersection is determined by the computed or measured control delay and is defined for each minor movement. Delay is related to the availability of gaps in the main street's traffic flow, and the ability of a driver to enter or pass through those gaps. The delay at an all-way, stop-sign (AWSC) controlled intersection is based on saturation headways, departure headways, and service times. Delay at roundabouts is based on entry flow rates and flow rate capacity. Table B-2 shows the level of service criteria for unsignalized intersections from the *Highway Capacity Manual*.

Table B-2. Level of Service Criteria for Unsignalized Intersections

Level of Service	Average Delay (seconds per vehicle)
A	Less than 10.0
B	10.1 to 15.0
C	15.1 to 25.0
D	25.1 to 35.0
E	35.1 to 50.0
F	Greater than 50.0

Source: Transportation Research Board, Highway Capacity Manual, 2010. .

APPENDIX B

REDMOND CITY CENTER CONCURRENCY APPLICATION

EXHIBIT E

CITY OF REDMOND TRANSPORTATION CONCURRENCY APPLICATION

This application provides the City of Redmond with the information needed to issue a certificate of concurrency for a development. Please complete the entire form and return it to the Redmond Engineering Services Division. After agreement is reached on the mobility unit demand for a development based on the land use type, size of development and table on the back of this application, the City will, if necessary, determine if enough mobility unit supply is available to issue a certificate of concurrency. If determining the mobility unit demand for a development requires an independent calculation a fee for the review will be required, payable at the City Hall Permit Center.

1. Applicant name and address: COSMOS DEVELOPMENT COMPANY
   11747 NE FIRST ST, SUITE 300
   BELLEVUE, WA 98005
2. Property location:
   a. Property address: 16135 NE 85th ST, REDMOND, WA
   b. Development name: REDMOND CITY CENTER
   c. Assessor's Parcel Number(s): 022505-9142
3. Type of development permit to be requested: LU ENTITLEMENT

	Land Use Type (ITE Land Use Code)	Development Units	Mobility Unit Rate (see table on back)	Mobility Unit Demand	Notes
Proposed	RESIDENTIAL (LUC 220)	249 UNITS	1.39	346	DOWNTOWN
	OFFICE (LUC 710)	100,830 SF	5.66	571	
	SUPERMARKET (LUC 850)	21,822 SF	13.68	299	
	RETAIL (LUC 820)	2,484 SF	6.34	16	
			Total Proposed:	1,232	
Existing	POST OFFICE (LUC 732)	12,910 SF	16.19	209	DOWNTOWN
			Total Existing:	209	
Net New Mobility Unit Demand (Total Proposed minus Total Existing)				1,023	

Signature of Applicant: _____ Date: 9-23-15

For Official Use Only:

Mobility Unit Demand calculation reviewed: _____ (Initials) _____ (Date)

Concurrency certificate required: ☐ Yes ☐ No Mobility Units available: ☐ Yes ☐ No

Application number: _____