

Appellant's Exhibit 3

(as referenced in June 30, 2017

*Appellant WPDC Cleveland LLC's Witness and Exhibit List*)

## MEMORANDUM

**DATE:** April 20, 2017

**TO:** Aaron Lange, Attorney  
Schwabe, Williamson & Wyatt, PC

**FROM:** Michael J Read, P.E., Principal, TENW

**SUBJECT:** Comparative Trip Generation and Parking Generation Analysis  
Redmond Origins Appeal – TENW Project No. 3530

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This memorandum documents a comparative trip generation and parking generation analysis of the proposed *Redmond Origins* project, a proposed marijuana retail store with ancillary uses, to historical uses of an existing building in downtown Redmond at 16390 Cleveland Street. The study includes:

- Project description;
- Comparative trip generation estimates of 1) historical warehouse uses, 2) general specialty retail uses using standard ITE rates, and 3) proposed marijuana retail store with ancillary retail space using a combination of ITE rates and locally observed rates; and
- Comparative parking generation estimates of each trip generation scenario noted above.

This evaluation includes parking/pedestrian trip generation counts at four other similar marijuana retail stores in the Puget Sound region; three in Bellevue and one in Lake Forest Park. A descriptive methodology and general observations of these existing retail marijuana stores is provided as an attachment to this study.

### Project Description

The proposed *Redmond Origins* project is located on 16390 Cleveland Street in downtown Redmond, WA, and is located on the northwest quadrant of the Cleveland Street and 164<sup>th</sup> Avenue NE signalized intersection. The existing building “covers the entire parcel area”, and therefore, has no on-site parking, vehicular access, access easements, or standard doorways given its historical uses as warehouse space with rolling doors (see aerial with parcel data as Attachment A). The existing building is approximately 2,799 square feet of floor area in a single story.

Based upon information supplied by Schwabe, Williamson & Wyatt, PC<sup>1</sup>, we understand the proposed project would include a marijuana retail store that comprises 2,799 square feet as well as a separate retail space constructed with 470 square feet in leasable floor area. A mezzanine would be constructed with offices for the marijuana retail store on a second level. Upon completion the combined floor area would increase to approximately 3,269 square-feet of gross floor area (GFA).

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<sup>1</sup> Source: Materials reviewed on email transmittal with summary information and links to include the approved site copy of Origin's Tenant Improvements and Change of Use plans prepared by Morris Architects and approved by City of Redmond on January 25, 2017. City of Redmond Design Review Board packet materials available on the City's website for City permit number LAND-2017-00290, Andorra, prepared by Morris Architects.

## Comparative Trip Generation Analysis

Weekday PM peak hour trip generation estimates for the comparative analysis were first estimated based on trip rates published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 9<sup>th</sup> Edition, 2012. For historical warehouse and typical specialty retail uses, standard ITE rates were applied. For review of the proposed marijuana retail uses, locally observed trip generation rates during the p.m. peak hour were applied to estimate for traffic and parking demand that would be generated by the marijuana retail use as this is a new land use category to the transportation engineering profession and has yet to be reviewed in this context.

As provided in Attachment B, observed trip generation rates ranged from approximately 28.0 vehicle trips to 57.8 vehicle trips per 1,000 square-feet in GFA. Given observed “walk trips” to various sites surveyed, often retail trips involved parking off-site (public or private lots) and, where confirmed, these trips were counted as vehicle trips in a category of off-site parking trips. When considering additional pedestrian trips where the origin of the pedestrian was “unknown”, additional pedestrian trips considered as “vehicle” trips increased observed trip generation rates ranging from 33.8 to 57.8 vehicle trips per 1,000 square-feet in gross floor area. Of the 5 surveys taken by TENW, the observed average trip generation rate of 42.6 trips per 1,000 square-feet in GFA was found using “vehicle trips only”, and 46.6 trips per 1,000 square-feet in GFA using both observed vehicle and pedestrian trips of unknown origin.

These rates are reflective of and fall within the range of published trip generation rates for Fast-Food with Drive-Thru Restaurant land use category as published in ITE (ITE LUC 934), with average rates of 32.65 to 47.30 trips per 1,000 square-feet of GFA during the p.m. peak hour.

A comparative trip generation analysis of warehouse only (historical), specialty retail only (a retail commercial category that covers a wide range of retail, professional service, and other commercial uses), and marijuana retail uses (proposal) PM peak hour trips are summarized in Table 1. As shown, a proposed marijuana retail use has substantially higher vehicle trip generation (by more than a factor of 10) than typical retail uses and a significantly higher trip generation rate (by more than a factor of 100) to warehouse uses. For reference, published average ITE trip generation rates during the PM peak hour for warehouse uses is 0.32 trips per 1,000 square-feet of GFA and 2.71 trips per 1,000 square-feet of GFA for specialty retail uses.

**Table 1: PM Peak Hour Comparative Trip Generation Summary**

Land Use Type	Net New Trips Generated		
	In	Out	Total
Warehouse (2,788 SF – ITE 150)	1	0	1
Specialty Retail (2,788 SF – ITE 826)	3	5	8
Marijuana Retail (2,788 SF + 460 SF Typ. Retail)	61	59	120

Source: Trip Generation Manual, 9<sup>th</sup> Edition, ITE, 2012 and TENW.

As shown in Table 1, the proposed *Redmond Origins* project is estimated to generate approximately 120 new weekday PM peak hour trips (61 entering, 59 exiting), which would trigger both a review of transportation concurrency and traffic operational impacts under City code.

## Comparative Parking Generation Analysis

Peak parking generation rates for the comparative land use scenarios were estimated based on rates published in the Institute of Transportation Engineers (ITE) *Parking Generation*, 4<sup>th</sup> Edition, 2010. For historical warehouse and typical specialty retail uses, standard ITE rates were applied. For review of the proposed marijuana retail uses, parking demand was estimated based on the locally observed trip generation rates during the p.m. peak hour which were likely not reflective of the peak demand of the generator (i.e., highest parking demand). Given their representative trip generation consistency with Fast-Food with Drive-Through Restaurant, published peak parking demand estimates were also noted in the comparative analysis summarized in Table 2. As shown, the project is expected to generate a peak parking demand of between 21 and 27 stalls during the p.m. peak period of adjacent street traffic as compared to an estimated 2 stalls if warehouse uses remained on-site or 8 stalls if all floor area was specialty retail only.

**Table 2: Comparative Peak Parking Demand Summary**

Land Use Type	Peak Parking Demand		
	Rate	Unit	Total <sup>1</sup> Stalls
Warehouse (2,799 SF – ITE 150)	0.51	1,000 SF	2
Specialty Retail (2,799 SF – ITE 826)	2.55	1,000 SF	8
Marijuana Retail (2,799 SF + 460 SF Typ. Retail)	6.60	1,000 SF	19
	2.55	1,000 SF	2
			21
Fast-Food w/ Drive-Thru (2,799 SF + 460 SF Typ. Retail)	8.70	1,000 SF	25
	2.55	1,000 SF	2
			27

Source: Parking Generation, 4<sup>th</sup> Edition, ITE, 2010 and TENW.  
 1 – Park parking demand was rounded up to the nearest stall.

## City Code Requirements

Based upon City of Redmond off-street parking standards (Redmond Municipal Code 20D.130.10 Parking), within the Downtown Old Town (OT) Zone require a minimum of 2.0 stalls per 1,000 square-foot of GFA for general sales or services, including marijuana retail sales is required. As shown in Table 3, the minimum required parking in current City code is estimated at 6 stalls for the existing building (assuming permitted uses are provided inside the structure) and 7 off-street parking stalls under the proposed *Redmond Origins* project (based upon the proposed net increase in gross commercial floor area). Warehouse use in the Downtown OT zone is not permitted, and as such, no parking requirements for such use is listed.

**Table 3 - Comparative Code Parking Requirements**

Parking Component	Minimum Off-Street Parking Requirements <sup>1</sup>	Size	Total Stalls <sup>1</sup>
General Sales/Services – Old Town (Existing Building with Permitted Use)	2.0 stalls/1,000 SF	2,799	6
Marijuana Retail – Old Town (Proposal)	2.0 stalls/1,000 SF	3,258	7

<sup>1</sup> – Round to the highest even stall for parking requirement calculation.

## Conclusions

Based on the evaluation of standard ITE trip generation and parking generation rates as well as observed marijuana retail stores at other representative locations within the Puget Sound region, the proposed *Redmond Origins* project is estimated to generate approximately 120 new weekday PM peak hour trips (61 entering, 59 exiting), which would trigger both a review of transportation concurrency and traffic operational impacts under City code. As noted in the evaluation, proposed marijuana retail use has substantially higher vehicle trip generation (by more than a factor of 10) than typical retail uses and a significantly higher trip generation rate (by more than a factor of 100) in contrast to historical warehouse uses.

Peak demand of parking generation is estimated to range between 21 and 27 stalls during the p.m. peak period of adjacent street traffic. Given that no on-site parking is available to the subject property, parking impacts would occur to both public on-street parking as well as available private parking lots immediately adjacent to the site and the vicinity, resulting in significant impacts. As a comparative, the adjacent Prime Steakhouse private parking lot provides approximately 28 on-site parking stalls. The estimated demand generated by the proposed *Redmond Origins* project at its peak would utilize this entire off-street supply.

Current City parking code would require a minimum of 7 off-street parking stalls be provided, none of which could be constructed on-site.

If you have any questions, please feel free to contact me at (206) 361-7333, ext. 101 or [mikeread@tenw.com](mailto:mikeread@tenw.com).

## ATTACHMENT A *Project Site & Immediate Vicinity*



ATTACHMENT B  
*Local Marijuana Retail Stores*  
*Trip Generation Surveys*

## **Trip Generation Study & Methods**

To evaluate trip generation potential of a new marijuana retail store an initial study was conducted for 1-hour at an existing established retailer in Lake Forest Park/Shoreline on 15<sup>th</sup> Avenue NE. This was selected given its proximity to an arterial street, similar types of density and lack of competing retailers. Using standard transportation engineering practices, all trips entering/leaving site driveways were tabulated every 15-minutes and a trip generation rate established based on King County Assessor site data or local jurisdiction data to determine building/suite size for the retailer use. Based upon this initial survey, a full two-hour survey was conducted during the typical 4:00 p.m. to 6:00 p.m. period and additional sites were identified in East King County that had been established retailers. In total, four separate sites were surveyed including:

The Kushery (865 square-feet)  
19258 15th Ave NE B, Lake Forest Park, WA 98155

Novel Tree (2,400 square-feet)  
1817 130th Ave NE, Suite B, Bellevue, WA 98005

Belmar Bellevue (2,895 square-feet)  
614 116th Ave NE, Bellevue, WA 98005

Green-Theory (2,785 square-feet)  
10697 Main Street Suite 2, Bellevue, WA 98004

As noted in the study, for all surveys in Bellevue, multiple shoppers were observed parking off-site (private and public parking areas) and then walked to the marijuana retailer. These are denoted as Off-Site Parking vehicle trips. Additional pedestrian trips (with unknown origin or destination) were also observed and tabulated. For the purposes of a comparative trip generation analysis, only average rates of "vehicle trips" were applied.

The following summary tables overview each of the trip generation observations collected during the afternoon peak hours of adjacent street traffic. Pass-by data was not obtained nor warranted given the overall intent of the surveys, but it is likely a moderate proportion of these trips were pass-by. Given time limitations, multiple survey days were not possible, however, multiple sites were included to establish a representative sample.

The Kushery, LFP 4/5/2017 (One-Hour Count)

Time	Drive way 1		Drive way 2		Totals	Hour
	enter	exit	enter	exit		
4:30-4:45	2	2	3	1	8	
4:45-5:00	6	4	2	3	15	
5:00-5:15	4	4	4	2	14	
5:15-5:30	1	7	2	3	13	
	13	17	11	9	50	Total

Trips/1,000 SF 57.8

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The Kushery, LFP (4-6-2017) Driveway Counts

		Drive way 1		Drive way 2		Totals	
		enter	exit	enter	exit		
	4:00-4:15	3	4	1	2	10	
	4:15-4:30	2	2	2	0	6	
	4:30-4:45	3	2	2	1	8	Hourly
	4:45-5:00	2	7	2	1	12	36
	5:00-5:15	5	0	0	0	5	31
	5:15-5:30	2	8	1	4	15	40
	5:30-5:45	8	3	3	1	15	47
	5:45-6:00	2	4	3	3	12	47
Total	79	27	30	14	12	83	

NWR

Trips/1,000 SF 54.3

TENW Confidential

Novel Tree, Bellevue (4-11-2017) Driveway Counts

Time	Drive way 1		Off-Site Parking		Peds		Totals	Hourly	Hourly
	enter	exit	enter	exit	enter	exit			
4:00-4:15	12	9	3	2	0	1	27		
4:15-4:30	4	7	1	3	1	1	17	Hourly	Hourly
4:30-4:45	4	5	1	1	0	0	11	Ped + Veh	Veh Only
4:45-5:00	5	4	1	1	1	1	13	68	63
5:00-5:15	14	11	1	0	0	0	26	67	63
5:15-5:30	5	9	0	1	0	0	15	65	63
5:30-5:45	11	10	2	2	1	1	27	81	77
5:45-6:00	2	4	1	0	2	1	10	78	73
Total	57	59	10	10	5	5	146		

Trips/1,000 SF      32.1 Observed Veh-Only  
 Trips/1,000 SF      33.8 Vehicle & Peds

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Green Theory, Bellevue (4-12-2017) Driveway Counts

Time	Drive way 1		Drive way 2		Off-Site Parking		Peds		Totals	Hourly	Hourly
	enter	exit	enter	exit	enter	exit	enter	exit			
4:00-4:15	6	0	0	9	0	0	5	3	23		
4:15-4:30	2	0	1	2	1	1	8	11	26	Hourly	Hourly
4:30-4:45	6	0	0	6	2	1	5	6	26	Ped + Veh	Veh Only
4:45-5:00	6	0	1	3	0	2	7	8	27	102	49
5:00-5:15	11	0	1	6	0	0	4	3	25	104	52
5:15-5:30	6	11	6	1	1	1	9	7	42	120	71
5:30-5:45	5	1	4	8	1	1	6	4	30	124	76
5:45-6:00	5	0	1	4	2	2	3	4	21	118	78
Total	47	12	14	39	7	8	47	46	220		

Trips/1,000 SF      28.0 Observed Veh-Only  
 Trips/1,000 SF      44.5 Vehicle & Peds

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Belmar Bellevue (4-13-2017) Driveway Counts

Time	Drive way 1		Drive way 2		Peds		Totals
	enter	exit	enter	exit	enter	exit	
4:00-4:15	11	1	2	11	2	3	30
4:15-4:30	7	1	3	12	0	1	24
4:30-4:45	5	2	2	10	3	2	24
4:45-5:00	9	3	5	9	1	1	28
5:00-5:15	9	1	0	9	1	1	21
5:15-5:30	6	3	8	11	2	1	31
5:30-5:45	11	1	5	16	2	2	37
5:45-6:00	13	2	5	13	1	0	34
Totals	71	14	30	91	12	11	229

Hourly	Hourly
Ped + Veh	Veh Only
106	93
97	87
104	92
117	106
123	113

Trips/1,000 SF      39.1 Observed Veh-Only  
 Trips/1,000 SF      42.5 Vehicle & Peds

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