

Date:	July 23, 2024
To:	Colin Cortes, AICP, City of Woodburn
	Jenna Bogert, PE, DKS Associates
From:	Joe Bessman, PE
Project Reference No.:	1584
Project Name:	Woodburn US Market



The purpose of this memorandum is to provide a formal response to review comments received from the City of Woodburn (through their on-call review consultant) dated July 19, 2024, which identify Jenna Bogert as the engineer of record.

Comment #1: Traffic Counts Dates. The City’s consultant transportation reviewers commented that traffic counts in the original study were from 2019, and that in February 2024 the reviewer requested that a new study be provided, which was provided to DKS in July 2024 (report is dated April 4, 2023).

Response: None of the traffic counts within the current or prior application were from 2019. To ensure that the consultant reviewer has access to the correct files and that those files are included in the record the relevant materials are provided below for the US Market application:

- June 23, 2023 Transportation Impact Analysis. This report was provided to the City directly, but it is my understanding that without a complete land use application the report was not uploaded to the file. Key revisions within this report include modification of the OR 214 access to right-in only (removing the right-turn out), as well as minor modifications to the site plan. This report was prepared using morning and evening traffic counts that were collected on April 4, 2023.
- August 13, 2021 Transportation Impact Analysis. This report was part of the prior submittal that was not approved by the City of Woodburn due to concerns with compatibility, along with other expressed reservations related to traffic safety (specifically due to the right-turn out onto OR 214 and potential weaving). This report utilized traffic counts that were collected on June 30, 2021. The revised 2023 report includes a comparison to these counts.
- The TIA for “Project Basie” (Amazon) included traffic counts from May 25, 2021. These were also reviewed to ensure that the traffic patterns within the revised TIA were consistent with these historical traffic counts.

There are no traffic counts collected in 2019 within the subject report (or the prior application). References to 2019 on page 11 of the TIA refer to the preparation of seasonal adjustment factors from ODOT’s lagging publication of data, noting the impacts that COVID had on nearby Automated Traffic Recorder Stations. In comparison of the 2021 and 2023 counts (see Page 10 of the June TIA) we note that the weekday evening peak hour volumes changed very little within this two-year period. Accordingly, traffic counts and data within this study are based on 2023 data and validated with the historical counts from 2021.

Comment #2: Pass-by Rates. It was questioned where the 76% and 75% pass-by rates cited in the June 2023 TIA were derived from, as data within ITE’s *Trip Generation Handbook, 3rd Edition* cites lower pass-by trip rates.

Response: The ITE *Trip Generation Handbook, 3rd Edition* (which was a companion manual to ITE’s *Trip Generation, 10th Edition*) is obsolete. This manual was updated with more current pass-by data specific to convenience markets with fuel centers as part of the posted February 6, 2018 errata. This supplement states that the pass-by rates within the *Trip Generation Handbook* should be removed and replaced with this updated information (see Figure 1).

**INSTITUTE OF TRANSPORTATION ENGINEERS
PUBLICATIONS ERRATA
Trip Generation Handbook, Third Edition, September 2017
© 2017 Institute of Transportation Engineers ISBN-10: 1-933452-91-9 ISBN-13: 978-1-933452-90-6
RP-28D**

Posted: 2/06/18

The following six tables summarized in Revised Table E.1 below have been updated (E.15, E.16, E.35, E.36) or added (E.39, E.40) to reflect changes in land use descriptions published in the *Trip Generation Manual, 10th Edition* published in September 2017. Tables E.37 and E.38 have been removed, as there is no longer pass-by data for land use code 945. Figures E.11, E.12, E.13, E.18, and E.19 should also be removed from the *Trip Generation Handbook, Third Edition*, as these figures are no longer current.

Revised Table E.1 Land Uses and Time Periods with Pass-By Data

Land Use Code and Title	Time Period	Revised Table	Figure
853 Convenience Market with Gasoline Pumps	Weekday, AM Peak Period	E.15	—
	Weekday, PM Peak Period	E.16	—
944 Gasoline/Service Station	Weekday, AM Peak Period	E.35	—
	Weekday, PM Peak Period	E.36	—
960 Super Convenience Market/Gas Station	Weekday, AM Peak Period	E.39	—
	Weekday, PM Peak Period	E.40	—

Figure 1. ITE Posting on the removal and replacement of pass-by trip rates related to fuel centers.
Source: *Trip Generation Handbook Errata 2-6-18*.

Following this publication, the release of ITE’s *Trip Generation Manual, 11th Edition* provided a new dataset of pass-by information within its Appendices that includes and further revises the supplemental information released in Errata 2-6-18. The release of the *Trip Generation Manual, 11th Edition* (the current Trip Generation manual) combined many of the separate fuel center and convenience store land use classifications (ITE 853: Convenience Market with Gasoline Pumps, ITE 945: Gasoline/Service Station with Convenience Market, and ITE 960: Super Convenience Market/Gas Station) into a single land use category with subcategories. The revised pass-by data was prepared to correlate to this new combined classification (ITE 945: Convenience Store/Gas Station), aggregating data from the prior subcategories, while maintaining a distinction between sites based on the general number of Vehicle Fueling Positions (VFPs), which are defined below:

Vehicle Fueling Position—is defined by the number of vehicles that can be fueled simultaneously at a service station. For example, if a service station has two fuel dispensing pumps with hoses on each side of each pump, where only one vehicle can be fueled at a time on each side, the number of vehicle fueling positions is four. (Source: ITE Trip Generation Manual 11th Edition, Chapter 4: Definition of Terms)

This manual cites the following pass-by rates for ITE 945: Convenience Store/Gas Station):

- Sites with 2 to 8 vehicle fueling positions: 60% AM, 56% PM
- Sites with 9 to 20 vehicle fueling positions: 76% AM, 75% PM

As the proposed fuel center contains 12 vehicle fueling positions, the cited rates applied within the traffic study match those in the current edition of the ITE Trip Generation Manual. *The specific pass-by rate tables from the appendices are included as an attachment.*

NEXT STEPS

Thank you for the opportunity to provide this clarifying information in response to comments received on this application. If you have any additional questions or need additional information to complete this review I can be reached at (503) 997-4473 or via email at joe@transightconsulting.com.

Attachments:

- ITE 11th Edition Pass-by Tables, ITE 945: Convenience Store/Gas Station

Vehicle Pass-By Rates by Land Use

Source: ITE Trip Generation Manual , 11th Edition

Land Use Code	945									
Land Use	Convenience Store/Gas Station									
Setting	General Urban/Suburban									
Time Period	Weekday AM Peak Period									
# Data Sites	16 Sites with between 2 and 8 VFP					28 Sites with between 9 and 20 VFP				
Average Pass-By Rate	60% for Sites with between 2 and 8 VFP					76% for Sites with between 9 and 20 VFP				
Pass-By Characteristics for Individual Sites										
GFA (000)	VFP	State or Province	Survey Year	# Interviews	Pass-By Trip (%)	Non-Pass-By Trips			Adj Street Peak Hour Volume	Source
						Primary (%)	Diverted (%)	Total (%)		
2	8	Maryland	1992	46	87	13	0	13	2235	25
2.1	6	Maryland	1992	26	58	23	19	42	2080	25
2.1	6	Maryland	1992	26	58	23	19	42	2080	25
2.2	8	Maryland	1992	31	47	34	19	53	1785	25
2.2	< 8	Indiana	1993	79	56	6	38	44	635	2
2.2	8	Maryland	1992	35	78	9	13	22	7080	25
2.3	6	Maryland	1992	37	32	41	27	68	2080	25
2.3	< 8	Kentucky	1993	58	64	5	31	36	1255	2
2.3	6	Maryland	1992	37	32	41	27	68	2080	25
2.4	< 8	Kentucky	1993	—	48	17	35	52	1210	2
2.6	< 8	Kentucky	1993	—	72	15	13	28	940	2
2.8	< 8	Kentucky	1993	—	54	11	35	46	1240	2
3	< 8	Indiana	1993	62	74	10	16	26	790	2
3.6	< 8	Kentucky	1993	49	67	4	29	33	1985	2
3.7	< 8	Kentucky	1993	49	66	16	18	34	990	2
4.694	12	Maryland	2000	—	72	—	—	28	2440	30
4.694	12	Maryland	2000	—	78	—	—	22	1561	30
4.694	12	Maryland	2000	—	79	—	—	21	2764	30
4.848	12	Virginia	2000	—	55	—	—	45	1398	30
5.06	12	Pennsylvania	2000	—	84	—	—	16	3219	30
5.242	12	Virginia	2000	—	74	—	—	26	1160	30
5.242	12	Virginia	2000	—	71	—	—	29	548	30
5.488	12	Delaware	2000	—	80	—	—	20	—	30
5.5	12	Pennsylvania	2000	—	85	—	—	15	2975	30
4.2	< 8	Kentucky	1993	47	62	19	19	38	1705	2
4.694	16	Maryland	2000	—	90	—	—	10	2278	30
4.694	16	Delaware	2000	—	74	—	—	26	2185	30
4.694	16	Delaware	2000	—	58	—	—	42	962	30
4.694	16	Delaware	2000	—	84	—	—	16	2956	30
4.694	16	New Jersey	2000	—	79	—	—	21	1859	30
4.694	20	Delaware	2000	—	84	—	—	16	3864	30
4.848	16	Virginia	2000	—	68	—	—	32	2106	30
4.848	16	Virginia	2000	—	85	—	—	15	2676	30
4.848	16	Virginia	2000	—	75	—	—	25	3244	30
4.848	16	Virginia	2000	—	71	—	—	29	1663	30
4.993	16	Pennsylvania	2000	—	75	—	—	25	1991	30
5.094	16	New Jersey	2000	—	86	—	—	14	1260	30
5.5	16	Pennsylvania	2000	—	82	—	—	18	1570	30
5.543	16	Pennsylvania	2000	—	84	—	—	16	1933	30
5.565	16	Pennsylvania	2000	—	77	—	—	23	2262	30
5.565	16	Pennsylvania	2000	—	68	—	—	32	2854	30
5.565	16	New Jersey	2000	—	58	—	—	42	1253	30
5.565	16	New Jersey	2000	—	79	—	—	21	1928	30
5.565	16	New Jersey	2000	---	84	---	---	16	1953	30

Vehicle Pass-By Rates by Land Use

Source: ITE Trip Generation Manual , 11th Edition

Land Use Code	945									
Land Use	Convenience Store/Gas Station									
Setting	General Urban/Suburban									
Time Period	Weekday PM Peak Period									
# Data Sites	12 Sites with between 2 and 8 VFP					28 Sites with between 9 and 20 VFP				
Average Pass-By Rate	56% for Sites with between 2 and 8 VFP					75% for Sites with between 9 and 20 VFP				
Pass-By Characteristics for Individual Sites										
GFA (000)	VFP	State or Province	Survey Year	# Interviews	Pass-By Trip (%)	Non-Pass-By Trips			Adj Street Peak Hour Volume	Source
						Primary (%)	Diverted (%)	Total (%)		
2.1	8	Maryland	1992	31	52	13	35	48	1785	25
2.1	6	Maryland	1992	30	53	20	27	47	1060	25
2.2	< 8	Indiana	1993	115	48	16	36	52	820	2
2.3	< 8	Kentucky	1993	67	57	16	27	43	1954	2
2.3	6	Maryland	1992	55	40	11	49	60	2760	25
2.4	< 8	Kentucky	1993	—	58	13	29	42	2655	2
2.6	< 8	Kentucky	1993	68	67	15	18	33	950	2
2.8	< 8	Kentucky	1993	—	62	11	27	38	2875	2
3	< 8	Indiana	1993	80	65	15	20	35	1165	2
3.6	< 8	Kentucky	1993	60	56	17	27	44	2505	2
3.7	< 8	Kentucky	1993	70	61	16	23	39	2175	2
4.2	< 8	Kentucky	1993	61	58	26	16	42	2300	2
4.694	12	Maryland	2000	—	78	—	—	22	3549	30
4.694	12	Maryland	2000	—	67	—	—	33	2272	30
4.694	12	Maryland	2000	—	66	—	—	34	3514	30
4.848	12	Virginia	2000	—	71	—	—	29	2350	30
5.06	12	Pennsylvania	2000	—	91	—	—	9	4181	30
5.242	12	Virginia	2000	—	70	—	—	30	2445	30
5.242	12	Virginia	2000	—	56	—	—	44	950	30
5.488	12	Delaware	2000	—	73	—	—	27	—	30
5.5	12	Pennsylvania	2000	—	84	—	—	16	4025	30
4.694	16	Maryland	2000	—	89	—	—	11	2755	30
4.694	16	Delaware	2000	—	73	—	—	27	1858	30
4.694	16	Delaware	2000	—	59	—	—	41	1344	30
4.694	16	Delaware	2000	—	72	—	—	28	3434	30
4.694	16	New Jersey	2000	—	81	—	—	19	1734	30
4.694	20	Delaware	2000	—	76	—	—	24	1616	30
4.848	16	Virginia	2000	—	67	—	—	33	2,954	30
4.848	16	Virginia	2000	—	78	—	—	22	3086	30
4.848	16	Virginia	2000	—	83	—	—	17	4143	30
4.848	16	Virginia	2000	—	73	—	—	27	2534	30
4.993	16	Pennsylvania	2000	—	72	—	—	28	2917	30
5.094	16	New Jersey	2000	—	86	—	—	14	1730	30
5.5	16	Pennsylvania	2000	—	90	—	—	10	2616	30
5.543	16	Pennsylvania	2000	—	87	—	—	13	2363	30
5.565	16	Pennsylvania	2000	—	81	—	—	19	2770	30
5.565	16	Pennsylvania	2000	—	76	—	—	24	3362	30
5.565	16	New Jersey	2000	—	61	—	—	39	1713	30
5.565	16	New Jersey	2000	—	86	—	—	14	1721	30
5.565	16	New Jersey	2000	---	81	---	---	19	2227	30