

DPD

Director's Rule 5-2009

Applicant: City of Seattle Department of Planning and Development	Page 1 of 16	Supersedes: DR 4-99
	Publication: 2/16/09	Effective: 4/13/09
Subject: Transportation Concurrency Project Review System	Code and Section Reference: SMC 23.52	
	Type of Rule: Code Interpretation	
	Ordinance Authority: SMC 3.06.040	
Index: Land Use Code Technical	Approved	Date
	(signature on file) Diane M. Sugimura, Director, DPD	4/10/09

Section 1 Introduction

The Washington State Growth Management Act, Revised Code of Washington, Section 36.70A.070, requires counties and cities to include transportation level of service (LOS) standards in their Comprehensive Plans and to enact an ordinance implementing these LOS standards. Seattle's Comprehensive Plan, adopted on July 25, 1994, includes the LOS standards for the City, and City Ordinance #117383, creating a new Land Use Code Chapter 23.52, *Transportation Concurrency Project Review System*, effective on April 3, 1995, was adopted to implement those standards.

This Director's Rule amplifies the Land Use Code regulations in Chapter 23.52 to assist in administration of the ordinance and updates level of service screenline data based on 2008 traffic counts (see Attachment C).

Section 2 Transportation Concurrency and Comprehensive Plan LOS Policies

Transportation concurrency can be defined as either: a) having adequate facilities and services, as measured by LOS standards for arterials and transit routes adopted in the comprehensive plan, available when the impacts of development occur; or b) ensuring that commitments are in place to complete the facilities and services within six years.

Transportation LOS standards indicate the acceptable balance between the demand for use of the arterial and transit systems and the capacity of the transportation system. Total capacity is based not only on the facilities currently in existence, but also on known future projects. LOS standards are one method of measuring the impacts of growth and change on the transportation system, and providing predictability for both the public and private sectors regarding current and anticipated operating characteristics of the transportation system.

The transportation concurrency project review system implements Seattle's adopted Comprehensive Plan Policies T65 and T66.

Transportation Element Policy T65 - Arterial Level-of-Service: Define arterial level-of-service (LOS) to be the ratio of measured traffic volumes to calculated roadway capacity at designated screenlines, each of which encompasses one or more arterials (Attachment A). Measure peak hour directional traffic volumes on the arterials crossing each screenline to calculate the screenline LOS. To judge the performance of the arterial system, compare the calculated LOS for each screenline with the LOS standard for that screenline (Attachment B).

Transportation Element Policy T66 - Transit Level-of-Service: Define transit level-of-service (LOS) to be the ratio of measured traffic volumes to calculated roadway capacity at designated screenlines, each of which encompasses one or more arterials, on some of which transit operates (Attachment A). Measure peak hour directional traffic volumes on the arterials crossing each screenline to calculate the screenline LOS. To judge the performance of the transit system, compare the calculated LOS for each screenline with the LOS standard for that screenline (Attachment B).

A screenline is an imaginary line drawn across several arterials at a particular place. The v/c ratio is the ratio of the sum of peak hour volumes on arterials crossing a screenline to the sum of the peak hour capacities of the arterials crossing the screenline.

Section 3 Transportation Concurrency Project Review System

Seattle's Land Use Code Chapter 23.52, *Transportation Concurrency Project Review System*, provides the regulatory authority to conduct transportation concurrency review for all projects that are subject to SEPA environmental review. From the Comprehensive Plan, Chapter 23.52 contains the City's screenline map (Attachment A) and Transportation Concurrency LOS standards (Attachment B) for the screenlines. Before a development project is approved, Transportation Concurrency LOS standards must be met like any other Land Use Code development standard. Chapter 23.52 also includes the basis for project approval, denial or development of remedial strategies to avoid denial.

Transportation concurrency review for a proposed project will be integrated into the Master Use Permit (MUP) review process. Transportation concurrency review will be conducted early in the MUP process. Future renewal or revision of an approved MUP would require a new transportation concurrency project review.

To keep the Transportation Concurrency Project Review System up to date, the City will conduct annual traffic counts along all screenlines. These counts will be taken during the p.m. peak hour, in each direction, along each arterial encompassed by a screenline. The counts will be summed for each screenline in each direction, and this information will be updated and revised annually. These annual traffic counts will be used by applicants and the Department of Planning and Development (DPD) to conduct transportation concurrency project review (Attachment C: *Level of Service - 2008*).

This annual traffic count will ensure the cumulative transportation impacts of small developments are taken into account, even if they are categorically exempt from SEPA, and therefore exempt from Seattle's Transportation Concurrency Project Review System. Once a small, exempt development project is completed, the traffic it generates will be captured in the City's annual traffic counts. Thus the decision whether adequate transportation facilities exist to support future new development will be based on an accounting of all existing development, including small projects that were not subject to the Transportation Concurrency Project Review System.

Transportation Concurrency Project Review Submittal Requirements: The following information shall be required of an applicant to conduct transportation concurrency project review:

1. Site location;
2. Proposed use and densities, including number of dwelling units, and square footage of non-residential development by type of use; and
3. Trip generation and distribution.

Determine Trip Generation and Distribution for Proposed Project: Applicants proposing projects subject to transportation concurrency project review are required to prepare and submit trip generation and distribution information associated with their respective projects.

Trip generation is based on the proposed uses and densities, including the number of dwelling units and square footage of non-residential uses. In calculating the number of trips generated by a development, the applicant will use the standard trip generation rates provided in the Institute of Transportation Engineers (ITE) Trip Generation Manual. Alternately, an applicant may submit a calculation of alternative trip generation volumes for the proposed development. DPD will review and evaluate the alternate calculations and methodology used to determine whether such calculations can be used rather than the ITE Trip Generation Manual standard trip generation rates.

Distribution of a proposed development's trips to the street network will be based on trip distribution tables generated from the City's traffic forecasting model. Following the Trip Distribution Origin and Destination Map are two tables for each of the four categories of land use (Residential, Retail, General Office, and Manufacturing/Industrial). One table shows the distribution of trips by land use type exiting (outbound from) the project site and traveling to other areas in the city and region during the p.m. peak hour; the other table shows the

distribution of trips by land use type entering (inbound to) the project site from other areas of the city and region during the p.m. peak hour (Attachment D: *Trip Distribution Origin and Destination Areas Map* and *Trip Distribution Tables by Land Use Type*). The trips between the project site and other areas of the city and region will then be assigned by DPD or by the applicant to the arterial network using the most likely routes to minimize travel time and distance.

Determine Applicable Screenlines: DPD will determine the proposed project's applicable screenlines. The applicable screenlines used for transportation concurrency review will be those screenlines (up to four) that have the highest number of directional trips assigned to them from the proposed project.

Calculate Volume-to-Capacity (v/c) Ratio for Applicable Screenlines: A proposed project's trip generation and distribution will provide estimates of the additional number of trips crossing each applicable screenline by the proposed project. These new trips will be added to the volume (based on the last adopted count) for the screenline, and the v/c ratio will be recalculated as follows:

$$\frac{\text{Volume} + \text{Proposed Project's Trips}}{\text{Capacity}}$$

Once the project's trips are determined, the proposed uses, densities, number of dwelling units and/or square footage associated with the subject proposal cannot be changed without recalculation of trip generation.

Transportation Concurrency Decision:

- If the new v/c ratio is lower than or equal to the LOS standard for the screenline, the proposed project will be approved.
- If the new v/c ratio is greater than the LOS standard for the screenline, the proposed project will either be denied or will be allowed to propose alternative solutions (see next section).

Failure To Meet Transportation Concurrency LOS Standards: When a project fails to meet the transportation concurrency requirement, an applicant may suggest remedial strategies (mitigation & options to receive approval of a project that would otherwise be denied) to achieve transportation concurrency. DPD will review these remedial strategies and decide whether they are adequate to approve the proposed project.

Section 23.52.006, Effect of Not Meeting Transportation Concurrency LOS Standards, reads:

If a proposed use or development does not meet the LOS standards at one or more applicable screenline(s), the proposed use or development may be approved if the Director concludes that an improvement(s) will be completed and/or a strategy(ies) will be implemented that will result in the proposed use or development meeting the LOS standard(s) at all applicable screenline(s) at the time of development, or that a financial commitment is in place to complete the improvement(s) and/or implement the

strategy(ies) within six (6) years. Eligible improvements or strategies may be funded by the City, by other government agencies, by the applicant, or by another person or entity.

Section 4.0 Definitions

For the purposes of this Director's Rule, the following terms are defined.

- **"Applicable Screenlines"** are those screenlines (up to 4) affected by a proposed project that DPD designates are to be reviewed as part of the Transportation Concurrency Project Review System.
- **"P. M. Peak Hour"** is the one-hour period between 4 p.m. and 6 p.m. that has the highest traffic volume for a given screenline.
- **"Remedial Strategies"** are possible options or project mitigation that, when put into place, would allow a proposed project to be approved under the Transportation Concurrency Project Review System.
- **"Screenline"** is an imaginary line drawn across several arterials at a particular place where the volume-to-capacity ratio (v/c) is calculated.
- **"Time of Development"** is the date when the building permit is issued for the project.
- **"Transportation Concurrency"** is either: a) having available adequate facilities and services, as measured by LOS standards for arterials and transit routes adopted in the comprehensive plan, when the impacts of development occur, or b) ensuring that commitments are in place to complete the facilities and services within six years.
- **"Trip Distribution"** is the determination of the geographic locations where trips generated by a project originate and terminate. For this Transportation Concurrency Project Review system, distribution is estimated by the City forecasting model.
- **"Trip Generation"** is the estimation of the number of trips that arrive and depart from a proposed project. For the purposes of the Transportation Concurrency Project Review system, estimation of the number of automobile and truck trips, out of the total number of person trips, is required for the trip generation step.
- **"Volume"** is the number of vehicles using a street over a certain period of time. In the case of transportation concurrency review, volume refers to the sum of p.m. peak hour volumes of the arterials crossing the screenline.
- **"Volume-to-Capacity Ratio (v/c)"** is the ratio of the sum of p.m. peak hour volumes on arterials crossing a screenline to the sum of the p.m. peak hour capacities of the arterials crossing the screenline.

Attachment C**Level-of-Service (LOS) - 2008**

Screenline	Location	Direction	2008 PM Capacity	2008 PM Traffic Count	2008 PM V/C Ratio	LOS Standard	2008 PM Reserve Traffic Capacity
1.11	North City limit - 3rd Av NW to Aurora Av N	NB	4760	3441	0.72	1.2	2271
		SB	4760	2402	0.50	1.2	3310
1.12	North City limit - Meridian Av N to 15th Av NE	NB	5260	3031	0.58	1.2	3281
		SB	4800	1699	0.35	1.2	4061
1.13	North City limit - 30th Av NE to Lake City Wy NE	NB	2480	2076	0.84	1.2	900
		SB	2480	1508	0.61	1.2	1468
2	Magnolia	EB	4300	611	0.14	1	3689
		WB	4300	1141	0.27	1	3159
3.11	Duwamish River - W Seattle Fwy and Spokane St	EB	4950	3281	0.66	1.2	2659
		WB	4950	5712	1.15	1.2	228
3.12	Duwamish River - 1st Av S and 16th Av S	NB	6800	3422	0.50	1.2	4738
		SB	6800	5375	0.79	1.2	2785
4.11	South City limit - M L King Jr Wy to Rainier Av S	NB	6000	2351	0.39	1	3649
		SB	6000	2465	0.41	1	3535
4.12	South City limit - Marine Dr SW to Meyers Wy S	NB	8940	3445	0.39	1	5495
		SB	8940	4170	0.47	1	4770
4.13	South City limit - SR 99 to Airport Wy S	NB	11800	3179	0.27	1	8621
		SB	11800	3788	0.32	1	8012
5.11	Ship Canal Ballard Bridge	NB	2800	2994	1.07	1.2	366
		SB	2800	1965	0.70	1.2	1395
5.12	Ship Canal Fremont Bridge	NB	1600	1757	1.10	1.2	163
		SB	1600	1229	0.77	1.2	691
5.13	Ship Canal Aurora Av N	NB	5100	4472	0.88	1.2	1648
		SB	5100	3756	0.74	1.2	2364
5.16	Ship Canal University and Montlake Bridges	NB	4030	3833	0.95	1.2	1003
		SB	4070	3571	0.88	1.2	1313
6.11	South of NW 80th St -	NB	6200	2606	0.42	1	3594

	Seaview Av NW to 15th Av NW	SB	6200	1744	0.28	1	4456
6.12	South of N(W) 80th St -	NB	4200	1763	0.42	1	2437
	8th Av NW to Greenwood Av N	SB	4200	1232	0.29	1	2968
6.13	South of N(E) 80th St -	NB	5900	2650	0.45	1	3250
	Linden Av N to 1st Av NE	SB	5900	2259	0.38	1	3641
6.14	South of NE 80th St -	NB	5880	3614	0.61	1	2266
	5th Av NE to 15th Av NE	SB	5080	2257	0.44	1	2823
6.15	South of NE 80th St	NB	5700	2797	0.49	1	2903
	20th Av NE to Sand Point Wy NE	SB	4860	1782	0.37	1	3078
7.11	West of Aurora Av -	EB	5430	2899	0.53	1	2531
	Fremont Pl N to N 65th St	WB	5430	3516	0.65	1	1914
7.12	West of Aurora Av -	EB	8380	3575	0.43	1	4805
	N 80th St to N 145th St	WB	8380	4299	0.51	1	4081
8	South of Lake Union	EB	6000	4509	0.75	1.2	2691
		WB	3600	3020	0.84	1.2	1300
9.11	South of Spokane St -	NB	11100	3921	0.35	1	7179
	Beach Dr SW to W Marginal Wy SW	SB	11100	5700	0.51	1	5400
9.12	South of Spokane St -	NB	9600	5138	0.54	1	4462
	E Marginal Wy S to Airport Wy S	SB	9600	6194	0.65	1	3406
9.13	South of Spokane St -	NB	6340	3464	0.55	1	2876
	15th Av S to Rainier Av S	SB	6340	3767	0.59	1	2573
10.11	South of S Jackson St -	NB	12900	7586	0.59	1	5314
	Alaskan Wy S to 4th Av S	SB	12980	8671	0.67	1	4309
10.12	South of S Jackson St -	NB	7400	3355	0.45	1	4045
	12th Av S to Lakeside Av S	SB	7400	4366	0.59	1	3034
12.12	East of CBD	EB	13300	8266	0.62	1.2	7694
		WB	11736	6491	0.55	1.2	7592
13.11	East of I-5	EB	5160	2996	0.58	1	2164
	NE Northgate Wy to NE 145th St	WB	5160	3252	0.63	1	1908
13.12	East of I-5	EB	5180	2281	0.44	1	2899
	NE 65th St to NE 80th St	WB	5180	1874	0.36	1	3306
13.13	East of I-5	EB	6650	3690	0.55	1	2960
	NE Pacific St to NE Ravenna Blvd	WB	7250	4417	0.61	1	2833

Retail Trip Distribution

PM Inbound Trips

Origin Areas	Project Area (Destinations)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	0.145	0.078	0.048	0.034	0.021	0.017	0.017	0.012	0.005	0.006	0.004	0.004	0.004	0.003	0.004	0.003
2	0.065	0.090	0.036	0.021	0.020	0.017	0.010	0.008	0.003	0.006	0.003	0.004	0.004	0.004	0.003	0.004
3	0.099	0.126	0.217	0.054	0.050	0.070	0.026	0.022	0.011	0.016	0.011	0.010	0.009	0.007	0.010	0.008
4	0.082	0.053	0.065	0.167	0.077	0.037	0.074	0.054	0.015	0.016	0.010	0.011	0.013	0.012	0.009	0.009
5	0.030	0.039	0.033	0.045	0.111	0.049	0.021	0.027	0.011	0.017	0.009	0.009	0.008	0.007	0.009	0.007
6	0.066	0.088	0.122	0.074	0.135	0.298	0.039	0.036	0.019	0.055	0.021	0.028	0.020	0.017	0.021	0.023
7	0.026	0.015	0.017	0.043	0.020	0.012	0.217	0.052	0.016	0.010	0.009	0.008	0.010	0.009	0.007	0.006
8	0.048	0.043	0.038	0.081	0.074	0.038	0.124	0.237	0.088	0.047	0.042	0.032	0.034	0.030	0.031	0.023
9	0.107	0.114	0.107	0.164	0.153	0.118	0.173	0.284	0.564	0.251	0.363	0.197	0.149	0.144	0.160	0.125
10	0.056	0.069	0.067	0.066	0.101	0.105	0.066	0.101	0.134	0.342	0.165	0.166	0.063	0.057	0.130	0.085
11	0.017	0.018	0.017	0.023	0.022	0.020	0.025	0.024	0.037	0.032	0.169	0.088	0.071	0.069	0.107	0.065
12	0.012	0.013	0.011	0.014	0.016	0.016	0.015	0.015	0.022	0.043	0.077	0.179	0.034	0.030	0.146	0.080
13	0.002	0.002	0.002	0.003	0.002	0.002	0.003	0.003	0.004	0.003	0.005	0.006	0.175	0.040	0.011	0.007
14	0.008	0.008	0.006	0.011	0.009	0.008	0.013	0.010	0.008	0.009	0.013	0.019	0.128	0.223	0.032	0.029
15	0.013	0.013	0.011	0.017	0.015	0.013	0.019	0.013	0.007	0.014	0.015	0.034	0.049	0.056	0.092	0.064
16	0.006	0.006	0.006	0.007	0.007	0.007	0.008	0.006	0.006	0.011	0.012	0.036	0.021	0.022	0.093	0.151
17	0.086	0.088	0.068	0.039	0.033	0.033	0.022	0.013	0.005	0.013	0.005	0.010	0.011	0.009	0.005	0.010
18	0.008	0.009	0.009	0.005	0.004	0.005	0.003	0.002	0.000	0.002	0.000	0.001	0.002	0.001	0.001	0.002
19	0.030	0.032	0.037	0.026	0.026	0.031	0.020	0.013	0.005	0.018	0.006	0.016	0.015	0.012	0.008	0.017
20	0.050	0.053	0.046	0.057	0.059	0.064	0.052	0.035	0.019	0.051	0.033	0.076	0.064	0.055	0.048	0.083
21	0.042	0.041	0.037	0.049	0.044	0.041	0.054	0.037	0.021	0.039	0.027	0.067	0.119	0.192	0.075	0.198
22	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

The above table lists distribution factors to be used as multipliers to determine the number of trips between origin and destination areas for a proposed project based on its land use. To determine the number of p.m. inbound trips for a proposed project:

1. Locate the project area for the proposed project using the map in Attachment D; then
2. Multiply the total number of trips generated by a proposed project by the distribution factors above for each destination area listed in the project area column in the table.

Residential Trip Distribution
PM Outbound Trips

Destination Areas	Project Area (Origins)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	0.271	0.137	0.072	0.057	0.029	0.020	0.020	0.014	0.005	0.006	0.004	0.003	0.003	0.002	0.003	0.002
2	0.096	0.136	0.042	0.019	0.022	0.017	0.005	0.006	0.003	0.004	0.003	0.002	0.002	0.001	0.002	0.002
3	0.160	0.210	0.340	0.094	0.072	0.100	0.031	0.025	0.012	0.017	0.011	0.010	0.006	0.006	0.010	0.007
4	0.105	0.062	0.087	0.311	0.102	0.038	0.094	0.065	0.016	0.014	0.010	0.008	0.008	0.007	0.008	0.006
5	0.033	0.052	0.041	0.070	0.186	0.070	0.020	0.032	0.012	0.019	0.010	0.008	0.006	0.005	0.008	0.006
6	0.050	0.084	0.131	0.056	0.160	0.427	0.021	0.029	0.017	0.048	0.019	0.019	0.010	0.009	0.018	0.014
7	0.027	0.013	0.019	0.060	0.021	0.010	0.379	0.070	0.018	0.009	0.010	0.007	0.007	0.006	0.006	0.004
8	0.046	0.043	0.038	0.111	0.091	0.038	0.174	0.339	0.103	0.054	0.046	0.033	0.032	0.030	0.031	0.022
9	0.049	0.065	0.058	0.094	0.113	0.076	0.134	0.234	0.552	0.236	0.339	0.172	0.129	0.126	0.150	0.107
10	0.041	0.062	0.054	0.056	0.113	0.111	0.055	0.107	0.149	0.445	0.184	0.211	0.054	0.049	0.133	0.099
11	0.006	0.008	0.007	0.009	0.013	0.011	0.011	0.016	0.035	0.028	0.179	0.094	0.068	0.070	0.114	0.070
12	0.005	0.007	0.006	0.006	0.010	0.010	0.008	0.011	0.024	0.049	0.091	0.261	0.033	0.031	0.172	0.119
13	0.001	0.001	0.001	0.001	0.002	0.001	0.002	0.003	0.004	0.002	0.007	0.007	0.341	0.069	0.013	0.009
14	0.002	0.002	0.002	0.004	0.004	0.003	0.004	0.006	0.008	0.005	0.014	0.016	0.198	0.388	0.034	0.025
15	0.002	0.002	0.002	0.003	0.003	0.003	0.003	0.003	0.004	0.005	0.011	0.023	0.023	0.032	0.085	0.055
16	0.002	0.002	0.002	0.002	0.003	0.003	0.002	0.003	0.005	0.008	0.013	0.043	0.015	0.018	0.117	0.277
17	0.068	0.073	0.053	0.012	0.015	0.017	0.005	0.005	0.003	0.005	0.003	0.003	0.002	0.002	0.003	0.003
18	0.002	0.003	0.003	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19	0.008	0.010	0.015	0.005	0.008	0.010	0.003	0.003	0.003	0.007	0.003	0.006	0.003	0.003	0.005	0.005
20	0.010	0.013	0.011	0.012	0.017	0.019	0.009	0.010	0.013	0.023	0.026	0.047	0.018	0.017	0.038	0.040
21	0.016	0.016	0.016	0.017	0.017	0.016	0.018	0.016	0.014	0.016	0.019	0.028	0.043	0.129	0.049	0.127
22	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

The above table lists distribution factors to be used as multipliers to determine the number of trips between origin and destination areas for a proposed project based on its land use. To determine the number of p.m. outbound trips for a proposed project:

1. Locate the project area for the proposed project using the map in Attachment D; then
2. Multiply the total number of trips generated by a proposed project by the distribution factors above for each destination area listed in the project area column in the table.

Manufacturing/Industrial Trip Distribution																
PM Inbound Trips																
Project Area (Destinations)																
Origin Areas	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	0.034	0.020	0.011	0.013	0.007	0.005	0.008	0.004	0.003	0.003	0.002	0.001	0.001	0.002	0.002	0.001
2	0.017	0.023	0.013	0.007	0.007	0.006	0.004	0.003	0.003	0.003	0.002	0.001	0.001	0.001	0.002	0.001
3	0.026	0.023	0.053	0.021	0.015	0.019	0.011	0.006	0.005	0.005	0.003	0.002	0.002	0.002	0.003	0.001
4	0.028	0.018	0.020	0.079	0.030	0.015	0.040	0.021	0.012	0.009	0.008	0.004	0.006	0.006	0.007	0.002
5	0.030	0.032	0.034	0.065	0.160	0.061	0.031	0.035	0.018	0.023	0.009	0.006	0.005	0.006	0.006	0.002
6	0.035	0.039	0.066	0.043	0.093	0.218	0.028	0.025	0.022	0.035	0.012	0.010	0.008	0.008	0.011	0.004
7	0.002	0.001	0.001	0.004	0.002	0.001	0.020	0.003	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.000
8	0.043	0.033	0.036	0.113	0.083	0.038	0.226	0.308	0.083	0.059	0.027	0.018	0.021	0.020	0.019	0.006
9	0.041	0.044	0.035	0.066	0.047	0.042	0.076	0.063	0.114	0.063	0.066	0.037	0.047	0.050	0.061	0.018
10	0.019	0.021	0.020	0.028	0.035	0.037	0.032	0.037	0.055	0.122	0.030	0.036	0.015	0.016	0.021	0.009
11	0.003	0.003	0.002	0.006	0.004	0.003	0.008	0.004	0.008	0.004	0.016	0.006	0.010	0.008	0.014	0.002
12	0.009	0.010	0.010	0.014	0.014	0.014	0.017	0.018	0.031	0.048	0.049	0.114	0.021	0.018	0.025	0.018
13	0.003	0.003	0.003	0.005	0.005	0.004	0.008	0.009	0.012	0.008	0.019	0.010	0.322	0.063	0.013	0.004
14	0.004	0.005	0.004	0.007	0.005	0.005	0.009	0.008	0.012	0.007	0.019	0.008	0.050	0.083	0.019	0.005
15	0.013	0.014	0.011	0.019	0.014	0.014	0.020	0.015	0.026	0.021	0.041	0.035	0.031	0.032	0.054	0.022
16	0.026	0.028	0.031	0.037	0.048	0.047	0.052	0.065	0.103	0.143	0.206	0.348	0.117	0.111	0.224	0.610
17	0.357	0.344	0.285	0.140	0.141	0.136	0.098	0.074	0.078	0.076	0.048	0.035	0.026	0.037	0.049	0.016
18	0.098	0.106	0.113	0.055	0.058	0.063	0.038	0.038	0.036	0.037	0.025	0.016	0.012	0.016	0.022	0.007
19	0.063	0.068	0.102	0.052	0.050	0.067	0.041	0.036	0.042	0.045	0.031	0.025	0.020	0.026	0.033	0.012
20	0.057	0.063	0.057	0.083	0.072	0.082	0.081	0.071	0.107	0.106	0.097	0.094	0.059	0.070	0.087	0.041
21	0.083	0.091	0.083	0.131	0.105	0.110	0.142	0.143	0.208	0.168	0.265	0.181	0.217	0.414	0.311	0.215
22	0.009	0.010	0.009	0.014	0.008	0.012	0.011	0.014	0.021	0.014	0.024	0.013	0.008	0.012	0.017	0.005

The above table lists distribution factors to be used as multipliers to determine the number of trips between origin and destination areas for a proposed project based on its land use. To determine the number of p.m. inbound trips for a proposed project:

1. Locate the project area for the proposed project using the map in Attachment D; then
2. Multiply the total number of trips generated by a proposed project by the distribution factors above for each origin area listed in the project area column in the table.

Manufacturing/Industrial Trip Distribution
PM Outbound Trips

Destination Areas	Project Area (Origins)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	0.046	0.035	0.023	0.032	0.022	0.019	0.025	0.014	0.019	0.011	0.008	0.007	0.006	0.006	0.006	0.004
2	0.015	0.020	0.012	0.009	0.009	0.009	0.007	0.005	0.006	0.005	0.003	0.003	0.002	0.002	0.002	0.002
3	0.016	0.017	0.030	0.012	0.013	0.018	0.009	0.009	0.008	0.008	0.005	0.005	0.003	0.003	0.004	0.003
4	0.046	0.036	0.029	0.089	0.050	0.039	0.063	0.034	0.047	0.023	0.018	0.014	0.013	0.012	0.013	0.008
5	0.028	0.027	0.028	0.047	0.077	0.047	0.030	0.025	0.035	0.024	0.014	0.013	0.011	0.009	0.010	0.007
6	0.035	0.035	0.050	0.041	0.062	0.110	0.030	0.029	0.030	0.036	0.019	0.020	0.013	0.012	0.014	0.010
7	0.002	0.001	0.001	0.004	0.002	0.001	0.011	0.002	0.004	0.001	0.001	0.001	0.001	0.001	0.001	0.001
8	0.034	0.025	0.026	0.062	0.051	0.030	0.090	0.077	0.130	0.045	0.028	0.022	0.025	0.019	0.017	0.011
9	0.020	0.013	0.018	0.024	0.022	0.015	0.029	0.061	0.039	0.037	0.029	0.023	0.029	0.019	0.014	0.011
10	0.015	0.015	0.017	0.020	0.026	0.030	0.022	0.045	0.028	0.075	0.023	0.033	0.016	0.013	0.014	0.012
11	0.001	0.001	0.001	0.002	0.001	0.001	0.002	0.003	0.002	0.002	0.006	0.003	0.005	0.003	0.003	0.001
12	0.008	0.008	0.009	0.011	0.012	0.014	0.014	0.029	0.017	0.033	0.038	0.073	0.021	0.016	0.019	0.022
13	0.005	0.005	0.004	0.008	0.008	0.006	0.011	0.013	0.012	0.011	0.021	0.013	0.137	0.038	0.018	0.010
14	0.008	0.008	0.007	0.014	0.013	0.011	0.018	0.024	0.019	0.018	0.036	0.021	0.066	0.078	0.038	0.018
15	0.005	0.004	0.005	0.006	0.005	0.004	0.007	0.008	0.006	0.008	0.014	0.012	0.018	0.013	0.016	0.011
16	0.036	0.038	0.038	0.052	0.058	0.062	0.068	0.103	0.078	0.116	0.162	0.221	0.121	0.122	0.172	0.350
17	0.306	0.313	0.278	0.187	0.179	0.178	0.158	0.100	0.128	0.110	0.072	0.067	0.055	0.053	0.059	0.040
18	0.130	0.145	0.148	0.088	0.091	0.094	0.076	0.042	0.063	0.055	0.037	0.037	0.030	0.029	0.032	0.023
19	0.084	0.091	0.116	0.071	0.076	0.091	0.064	0.061	0.061	0.069	0.047	0.049	0.037	0.035	0.039	0.030
20	0.066	0.068	0.068	0.089	0.093	0.100	0.100	0.115	0.101	0.124	0.121	0.132	0.098	0.094	0.102	0.088
21	0.085	0.087	0.084	0.122	0.121	0.112	0.156	0.175	0.159	0.175	0.279	0.221	0.283	0.411	0.392	0.329
22	0.009	0.009	0.008	0.009	0.008	0.009	0.009	0.025	0.010	0.013	0.018	0.010	0.009	0.012	0.013	0.008

The above table lists distribution factors to be used as multipliers to determine the number of trips between origin and destination areas for a proposed project based on its land use. To determine the number of p.m. inbound trips for a proposed project:

1. Locate the project area for the proposed project using the map in Attachment D; then
2. Multiply the total number of trips generated by a proposed project by the distribution factors above for each origin area listed in the project area column in the table.

General Office Trip Distribution

PM Inbound Trips

Project Area (Destinations)

Origin Areas	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	0.065	0.037	0.016	0.017	0.009	0.006	0.010	0.006	0.003	0.002	0.002	0.001	0.001	0.001	0.002	0.001
2	0.100	0.146	0.056	0.028	0.034	0.023	0.014	0.014	0.008	0.008	0.005	0.004	0.002	0.002	0.004	0.002
3	0.232	0.220	0.396	0.161	0.119	0.146	0.075	0.052	0.029	0.031	0.017	0.014	0.009	0.008	0.014	0.007
4	0.087	0.045	0.053	0.269	0.094	0.033	0.116	0.071	0.023	0.016	0.011	0.007	0.006	0.006	0.011	0.004
5	0.029	0.032	0.027	0.059	0.154	0.056	0.026	0.037	0.016	0.018	0.008	0.007	0.004	0.003	0.006	0.003
6	0.047	0.058	0.078	0.051	0.132	0.303	0.029	0.035	0.025	0.040	0.016	0.015	0.008	0.008	0.014	0.007
7	0.014	0.007	0.008	0.036	0.012	0.006	0.258	0.043	0.012	0.006	0.005	0.004	0.003	0.003	0.004	0.002
8	0.020	0.015	0.014	0.050	0.039	0.017	0.101	0.163	0.043	0.025	0.015	0.011	0.010	0.008	0.010	0.005
9	0.024	0.026	0.020	0.037	0.038	0.030	0.057	0.098	0.189	0.071	0.075	0.054	0.032	0.032	0.051	0.023
10	0.048	0.055	0.051	0.063	0.118	0.120	0.081	0.151	0.214	0.440	0.117	0.185	0.038	0.033	0.060	0.047
11	0.007	0.008	0.007	0.010	0.011	0.010	0.014	0.016	0.030	0.020	0.090	0.044	0.027	0.024	0.045	0.018
12	0.004	0.005	0.004	0.005	0.008	0.007	0.008	0.013	0.022	0.031	0.046	0.128	0.014	0.011	0.027	0.027
13	0.002	0.002	0.002	0.004	0.004	0.003	0.007	0.010	0.013	0.007	0.027	0.014	0.424	0.085	0.020	0.008
14	0.004	0.004	0.003	0.007	0.007	0.005	0.011	0.014	0.021	0.010	0.041	0.020	0.132	0.247	0.047	0.016
15	0.003	0.003	0.003	0.004	0.004	0.004	0.005	0.006	0.010	0.009	0.026	0.032	0.014	0.015	0.052	0.029
16	0.004	0.005	0.005	0.006	0.009	0.008	0.009	0.015	0.024	0.026	0.059	0.105	0.026	0.024	0.094	0.284
17	0.167	0.170	0.105	0.048	0.055	0.051	0.032	0.030	0.027	0.024	0.020	0.015	0.009	0.011	0.023	0.009
18	0.045	0.050	0.043	0.020	0.024	0.025	0.012	0.018	0.015	0.013	0.012	0.008	0.003	0.004	0.009	0.004
19	0.026	0.029	0.040	0.016	0.019	0.027	0.012	0.015	0.014	0.016	0.012	0.011	0.006	0.007	0.014	0.007
20	0.025	0.028	0.024	0.031	0.037	0.044	0.034	0.048	0.063	0.060	0.073	0.086	0.031	0.031	0.058	0.044
21	0.046	0.052	0.044	0.073	0.070	0.072	0.088	0.136	0.188	0.123	0.303	0.224	0.200	0.434	0.426	0.452
22	0.002	0.002	0.002	0.004	0.002	0.004	0.002	0.008	0.012	0.005	0.019	0.010	0.002	0.003	0.010	0.003

The above table lists distribution factors to be used as multipliers to determine the number of trips between origin and destination areas for a proposed project based on its land use. To determine the number of p.m. inbound trips for a proposed project:

1. Locate the project area for the proposed project using the map in Attachment D; then
2. Multiply the total number of trips generated by a proposed project by the distribution factors above for each origin area listed in the project area column in the table.

General Office Trip Distribution
PM Outbound Trips

Destination Areas	Project Area (Origins)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	0.063	0.041	0.020	0.028	0.018	0.015	0.020	0.014	0.011	0.008	0.007	0.006	0.004	0.004	0.007	0.004
2	0.081	0.104	0.051	0.031	0.035	0.027	0.018	0.019	0.015	0.013	0.009	0.008	0.004	0.005	0.007	0.004
3	0.180	0.158	0.313	0.126	0.108	0.134	0.070	0.057	0.051	0.045	0.031	0.026	0.014	0.014	0.024	0.014
4	0.092	0.062	0.056	0.227	0.100	0.057	0.122	0.085	0.051	0.031	0.027	0.020	0.014	0.015	0.023	0.012
5	0.026	0.027	0.025	0.050	0.116	0.047	0.026	0.036	0.021	0.021	0.011	0.010	0.006	0.006	0.008	0.005
6	0.044	0.050	0.068	0.051	0.103	0.205	0.034	0.038	0.035	0.044	0.022	0.023	0.011	0.011	0.017	0.012
7	0.013	0.008	0.008	0.030	0.014	0.008	0.175	0.037	0.014	0.008	0.008	0.006	0.005	0.005	0.007	0.003
8	0.015	0.011	0.011	0.034	0.028	0.012	0.065	0.108	0.036	0.020	0.012	0.010	0.008	0.006	0.007	0.004
9	0.011	0.009	0.010	0.015	0.017	0.011	0.024	0.044	0.077	0.033	0.026	0.022	0.016	0.012	0.009	0.009
10	0.038	0.039	0.041	0.049	0.086	0.087	0.060	0.107	0.154	0.317	0.076	0.131	0.032	0.026	0.035	0.036
11	0.003	0.003	0.003	0.004	0.004	0.003	0.005	0.007	0.011	0.009	0.029	0.017	0.012	0.008	0.008	0.006
12	0.004	0.004	0.004	0.005	0.006	0.006	0.007	0.010	0.018	0.023	0.029	0.081	0.011	0.008	0.013	0.018
13	0.004	0.005	0.003	0.007	0.007	0.006	0.011	0.013	0.017	0.011	0.029	0.018	0.329	0.063	0.023	0.012
14	0.009	0.010	0.007	0.016	0.014	0.013	0.022	0.025	0.036	0.021	0.060	0.034	0.127	0.184	0.068	0.029
15	0.002	0.001	0.002	0.002	0.002	0.002	0.003	0.004	0.005	0.006	0.012	0.020	0.008	0.006	0.013	0.015
16	0.005	0.005	0.005	0.007	0.009	0.009	0.010	0.015	0.021	0.024	0.043	0.075	0.024	0.020	0.042	0.170
17	0.201	0.213	0.148	0.092	0.093	0.094	0.074	0.063	0.055	0.050	0.040	0.035	0.020	0.023	0.038	0.022
18	0.069	0.080	0.069	0.039	0.043	0.045	0.030	0.031	0.023	0.024	0.020	0.017	0.009	0.010	0.018	0.010
19	0.039	0.046	0.055	0.029	0.033	0.043	0.025	0.027	0.027	0.028	0.022	0.022	0.011	0.013	0.021	0.014
20	0.032	0.039	0.032	0.045	0.051	0.059	0.052	0.064	0.078	0.076	0.087	0.102	0.046	0.047	0.073	0.063
21	0.067	0.081	0.066	0.110	0.111	0.111	0.144	0.188	0.228	0.182	0.384	0.307	0.288	0.509	0.530	0.532
22	0.003	0.004	0.003	0.004	0.003	0.005	0.003	0.008	0.015	0.007	0.018	0.010	0.003	0.004	0.009	0.005

The above table lists distribution factors to be used as multipliers to determine the number of trips between origin and destination areas for a proposed project based on its land use. To determine the number of p.m. outbound trips for a proposed project::

1. Locate the project area for the proposed project using the map in Attachment D; then
2. Multiply the total number of trips generated by a proposed project by the distribution factors above for each destination area listed in the project area column in the table.

<p>The above table lists distribution factors to be used as multipliers to determine the number of trips between origin and destination areas for a proposed project based on its land use. To determine the number of p.m. inbound trips for a proposed project:</p> <ol style="list-style-type: none"> 1. Locate the project area for the proposed project using the map in Attachment D; then 2. Multiply the total number of trips generated by a proposed project by the distribution factors above for each origin area listed in the project area column in the table. 	
---	--

Retail Trip Distribution																	
PM Outbound Trips																	
		Project Area (Origins)															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Destination Areas																	
1	0.307	0.208	0.112	0.126	0.079	0.069	0.091	0.065	0.055	0.041	0.033	0.027	0.013	0.015	0.037	0.018	
2	0.089	0.132	0.067	0.033	0.041	0.031	0.019	0.021	0.017	0.017	0.010	0.009	0.004	0.004	0.009	0.005	
3	0.109	0.109	0.236	0.084	0.073	0.091	0.047	0.039	0.033	0.034	0.019	0.017	0.007	0.007	0.016	0.010	
4	0.097	0.067	0.076	0.295	0.127	0.064	0.157	0.111	0.062	0.043	0.032	0.024	0.013	0.014	0.031	0.015	
5	0.028	0.033	0.033	0.060	0.158	0.063	0.032	0.047	0.028	0.033	0.014	0.013	0.006	0.006	0.011	0.007	
6	0.043	0.055	0.086	0.053	0.130	0.282	0.036	0.045	0.041	0.064	0.026	0.027	0.010	0.010	0.021	0.015	
7	0.011	0.007	0.008	0.030	0.013	0.007	0.201	0.041	0.015	0.010	0.008	0.006	0.004	0.004	0.007	0.004	
8	0.015	0.012	0.014	0.039	0.034	0.015	0.081	0.143	0.047	0.031	0.016	0.013	0.009	0.007	0.009	0.006	
9	0.009	0.009	0.010	0.015	0.018	0.013	0.025	0.052	0.102	0.049	0.037	0.031	0.015	0.012	0.014	0.013	
10	0.013	0.015	0.018	0.019	0.037	0.039	0.025	0.050	0.077	0.184	0.040	0.069	0.013	0.010	0.018	0.021	
11	0.002	0.002	0.002	0.002	0.003	0.003	0.004	0.005	0.010	0.009	0.029	0.017	0.009	0.007	0.009	0.007	
12	0.004	0.005	0.005	0.006	0.009	0.009	0.010	0.016	0.030	0.047	0.054	0.158	0.015	0.012	0.026	0.039	
13	0.003	0.004	0.003	0.006	0.007	0.006	0.011	0.015	0.021	0.014	0.037	0.023	0.389	0.077	0.030	0.016	
14	0.011	0.015	0.012	0.023	0.023	0.021	0.036	0.046	0.075	0.046	0.128	0.072	0.254	0.421	0.154	0.067	
15	0.001	0.001	0.002	0.002	0.003	0.002	0.003	0.004	0.007	0.008	0.017	0.024	0.008	0.008	0.023	0.023	
16	0.002	0.003	0.003	0.004	0.006	0.005	0.006	0.010	0.016	0.020	0.034	0.061	0.014	0.013	0.039	0.169	
17	0.102	0.118	0.089	0.044	0.050	0.051	0.036	0.034	0.033	0.033	0.024	0.020	0.009	0.011	0.025	0.014	
18	0.058	0.076	0.073	0.035	0.042	0.046	0.027	0.033	0.029	0.032	0.024	0.019	0.007	0.009	0.022	0.012	
19	0.044	0.058	0.083	0.034	0.044	0.061	0.031	0.038	0.041	0.049	0.034	0.034	0.013	0.015	0.035	0.023	
20	0.022	0.029	0.028	0.033	0.042	0.052	0.042	0.058	0.079	0.088	0.089	0.109	0.035	0.036	0.075	0.070	
21	0.029	0.039	0.037	0.055	0.059	0.062	0.077	0.116	0.162	0.137	0.267	0.213	0.152	0.299	0.377	0.440	
22	0.002	0.003	0.003	0.005	0.003	0.005	0.003	0.011	0.020	0.010	0.027	0.015	0.003	0.004	0.013	0.006	
The above table lists distribution factors to be used as multipliers to determine the number of trips between origin and destination areas for a proposed project based on its land use. To determine the number of p.m. outbound trips for a proposed project:																	
1. Locate the project area for the proposed project using the map in Attachment D; then																	
2. Multiply the total number of trips generated by a proposed project by the distribution factors above for each destination area listed in the project area column in the table.																	

