

Subject Ecodistrict - Traffic counts report

Date 7 January 2015

Job No/Ref

## 1 Issue

The report includes a short review of traffic counts (traffic flow, vehicles and public transport occupancy) and modal split information for year 2015.

## 2 Data

Traffic counts had been conducted 11<sup>th</sup> of December 2014.

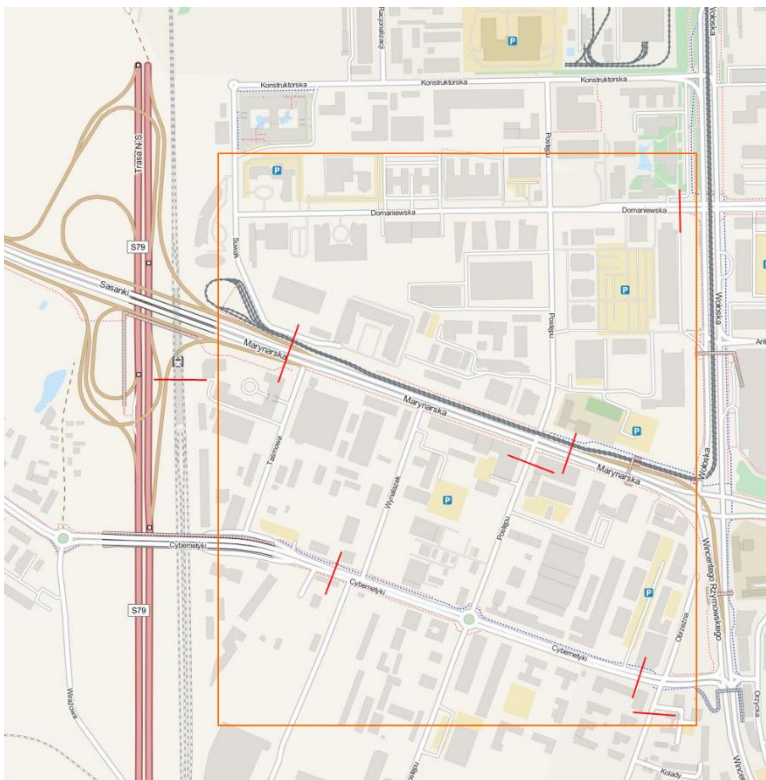
Private vehicles and public transport vehicles had been counted and estimated of their occupancy.

During four hours (6.00-10.00 AM) traffic counts had been conducted on selected cross-sections of the road.

### 2.1 Location

Location of counting cross-section were discussed and based as shown below.

Drawing 1 Analysing area location with counting cross-sections



Source: openstreetmaps.org

## 2.2 Choosing peak hour

As the peak hour had been chosen 8.00-9.00AM.

Selection criterion based on the highest value of the traffic flow on each cross-section.

## 3 Results

All results for the peak hour are presented below. Types of vehicles are listed additionally.

No pedestrian and bicycle data (part of the year is unrepresentative for study).

### 3.1 Vehicle counts

Table 1 Vehicle count results for each cross-section

motorcycle	car	van	truck	multi-truck
Domaniewska (East)				
1	1285	15	1	0
Marynarska (East)				
4	1787	84	39	12
Cybernetyki (West)				
1	1246	64	33	0
Cybernetyki (East)				
0	765	46	14	0
Postepu (South)				
0	598	27	14	2
Obrzeżna (South)				
0	247	18	7	6

### 3.2 Average car occupancy

Table 2 Average car occupancy for each cross-section (person/car)

<b>motorcycle</b>	<b>car</b>	<b>van</b>	<b>truck</b>	<b>multi-truck</b>
Domaniewska (East)				
1,00	1,17	1,20	1,00	0
Marynarska (East)				
1,00	1,15	1,15	1,05	1,00
Cybernetyki (West)				
1,00	1,25	1,51	1,18	0
Cybernetyki (East)				
0	1,23	1,34	1,28	0
Postepu (South)				
0	1,19	1,56	1,00	1,00
Obrzeżna (South)				
0	1,37	1,44	1,14	1,00

Average car occupancy for each of vehicle types is presented below.

One assumption has been made for motorcycles – minimum of the occupancy value has to be 1.

Table 3 Average car occupancy for each vehicle type (person/car)

<b>motorcycle</b>	<b>car</b>	<b>van</b>	<b>truck</b>	<b>multi-truck</b>
1,00	1,23	1,37	1,11	0

Average car occupancy values would be used in modal split calculation.

Subject Ecodistrict - Traffic counts report

Date 7 January 2015

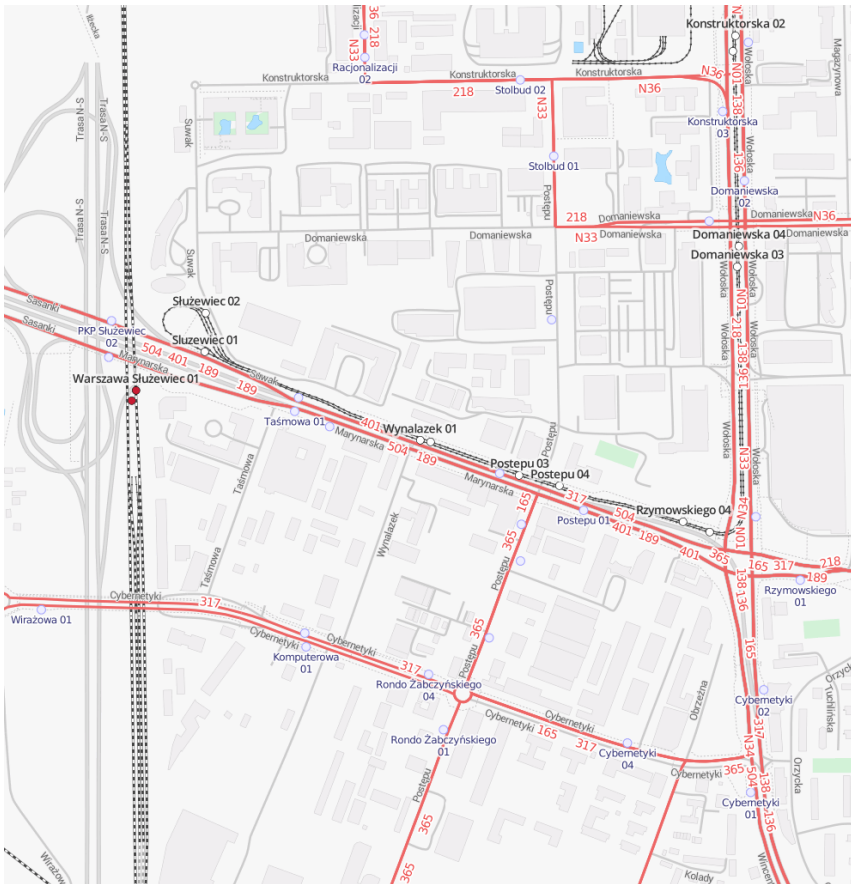
Job No/Ref

### 3.3 Public transport

Public transport service of the analysed region is provided directly by rail connection, bus and tram lines. Main public transport corridors are Wołoska Str. and Marynarska Str.

Public transport service of the analysed region is presented below.

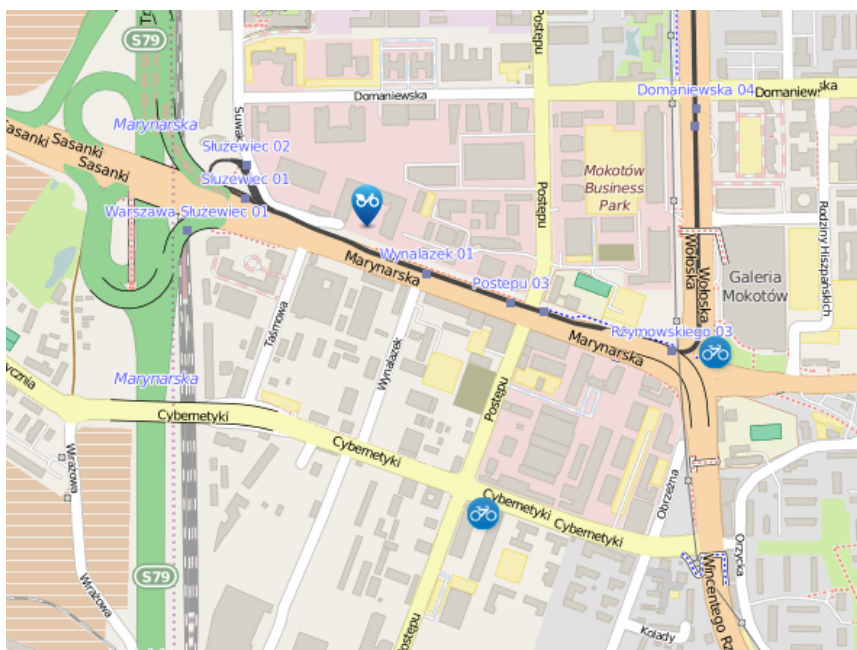
Drawing 2 Public transport offer in the analysis area



Source: [openstreetmaps.org](http://openstreetmaps.org)

There are also three public bike stations, but at the moment of traffic counts they were out of order.

Drawing 3 Public bike stations offer in the analysis area



Source: veturilo.waw.pl

### 3.3.1 Public transport occupancy distribution profile

Occupancy of public transport vehicles was estimated visually (in %/) for chosen peak hour (8.00-9.00).

Tabel 4 Public transport occupancy distribution profile for each cross-section (person/car)

Location (street, entrance direction)	Bus		Tram	
	%	Type*	%	Type*
Cybertyki Str. (West)	36	2		
Cybertyki Str. (East)	31	2		
Domaniewska Str. (East)	35	2/3	72	1/2
Marynarska Str. (West) ( PKP Służewiec)	84	1		
Marynarska/Postępu (West)	45	1/2	24	1/2
Marynarska/Postępu (East)	79	1	46	1/2
Obrzeźna Str.	25	2		

Subject Ecodistrict - Traffic counts report

Date 7 January 2015

Job No/Ref

Tabel 5 Types of public transport vehicles

<b>Types of public transport vehicles</b>		<b>Capacity (person/vehicle)</b>
<b>Bus</b>		
1	Four-door bus, e.g. Solaris 18, Man NG 313	232
2	Three-door bus, e.g. Solaris 12	146
3	Short three-door bus, e.g. Solaris 10	105
<b>Tram</b>		
1	One-space tram, e.g. Pesa Swing	229
2	Two-coach tram, e.g.	272
3	Three-coach tram	408

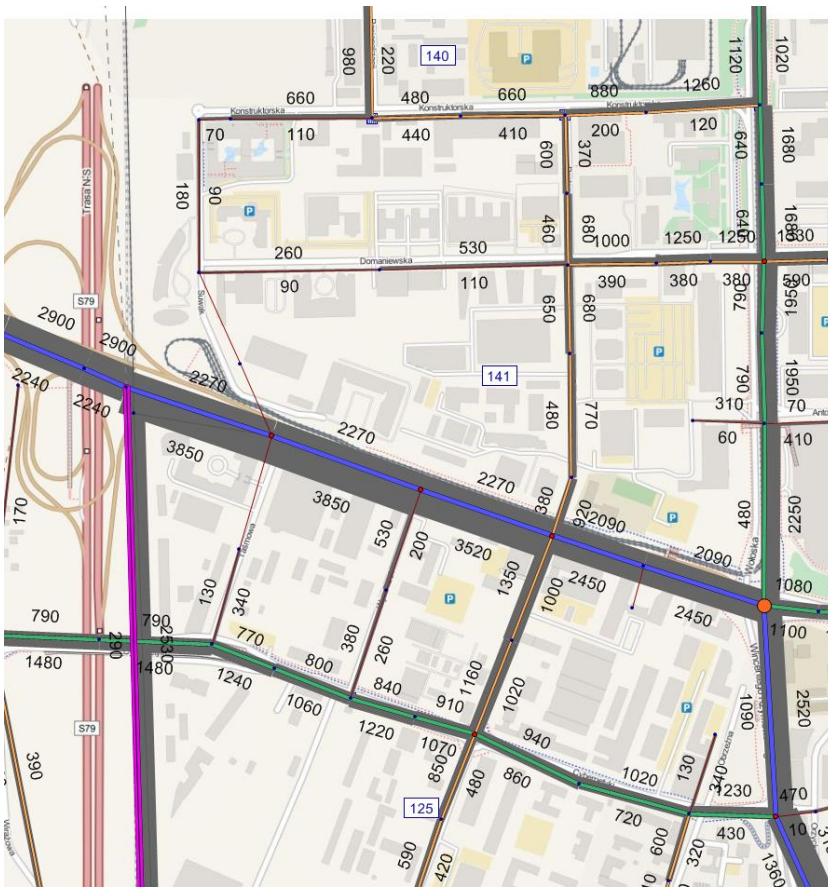
## 4 Visum model

---

Warsaw Visum model for year 2012, has been used for modal split definition.

### 4.1 Calibration

Drawing 4 Volume PrT after calibration



Source: ARUP

## 4.2 Modal split

Modal split (or modal share) is the percentage of travelers using a particular type of transportation or number of trips using said type. Modal split for analysed region includes individual and public transport is presented below. Pedestrians and cyclist are not mentioned in the model.

Table 6 Modal split for each zone in analysed region

	Origin	Destination
<b>Zone 125</b>		
PrT/(PrT+PuT)	0,725	0,550
PuT/(PrT+PuT)	0,275	0,450
<b>Zone 140</b>		

Subject Ecodistrict - Traffic counts report

Date 7 January 2015

Job No/Ref

	<b>Origin</b>	<b>Destination</b>
PrT/(PrT+PuT)	0,682	0,471
PuT/(PrT+PuT)	0,318	0,529
<b>Zone 141</b>		
PrT/(PrT+PuT)	0,729	0,406
PuT/(PrT+PuT)	0,271	0,594

Average modal split for all zones is presented below.

Tabel 7 Average modal split in analysed region

	<b>Origin</b>	<b>Destination</b>
<b>All zones</b>		
PrT/(PrT+PuT)	0,712	0,475
PuT/(PrT+PuT)	0,288	0,525