

Zelko, A. 2016. Kapacitetna preveritev dveh križišč v Ivančni Gorici.
Dipl. nal. Ljubljana, UL FGG, Visokošolski strokovni študijski program Operativno gradbeništvo.

PRILOGE:

PRILOGA A: 15 MINUTNE OBREMENITVE

15 minutne obremenitve

Šifra križišča: K1

Šifra priključka: A

Ime križišča: IVANČNA GORICA 1

Ime priključka: glavna cesta - proti mestu

Tip križišča: ABCD

Naslov štetja: Ivančna Gorica_diploma

Datum štetja: 19.3.2015

Številka štetja: 1

Časovni interval: od 14:00 do 16:00

URA	<i>Levo</i>						<i>Naravnost</i>						<i>Desno</i>					
	O	T	B	V	S	EOV	O	T	B	V	S	EOV	O	T	B	V	S	EOV
14:00	23	0	0	0	23	23	38	2	0	0	40	42	9	0	0	0	9	9
14:15	21	1	0	0	22	23	67	1	0	0	68	69	27	0	0	0	27	27
14:30	20	2	1	0	23	26	61	2	1	0	64	67	23	0	0	0	23	23
14:45	31	1	0	0	32	33	47	2	0	0	49	51	15	0	0	0	15	15
15:00	30	1	0	0	31	32	56	1	0	0	57	58	18	0	0	0	18	18
15:15	38	0	0	0	38	38	75	1	0	1	77	81	25	0	0	0	25	25
15:30	27	0	0	0	27	27	75	0	0	0	75	75	32	0	0	0	32	32
15:45	34	0	1	0	35	36	85	2	1	0	88	91	37	0	1	0	38	39
Vsota	224	5	2	0	231	238	504	11	2	1	518	534	186	0	1	0	187	188

15 minutne obremenitve

Šifra križišča: K1

Šifra priključka: B

Ime križišča: IVANČNA GORICA 1

Ime priključka: stranska cesta

Tip križišča: ABCD

Naslov štetja: Ivančna Gorica_diploma

Datum štetja: 19.3.2015

Številka štetja: 1

Časovni interval: od 14:00 do 16:00

URA	<u>Levo</u>							<u>Naravnost</u>							<u>Desno</u>						
	O	T	B	V	S	EOV		O	T	B	V	S	EOV		O	T	B	V	S	EOV	
14:00	0	0	1	0	1	2		1	0	0	0	1	1		17	0	0	0	17	17	
14:15	1	0	1	0	2	3		2	0	0	0	2	2		31	0	1	0	32	33	
14:30	3	0	1	0	4	5		2	0	0	0	2	2		8	1	2	0	11	14	
14:45	1	0	0	0	1	1		2	0	0	0	2	2		15	0	0	0	15	15	
15:00	1	0	1	0	2	3		3	0	0	0	3	3		19	0	0	0	19	19	
15:15	3	0	0	0	3	3		1	0	0	0	1	1		25	0	0	1	26	29	
15:30	3	0	0	0	3	3		2	0	0	0	2	2		24	1	0	0	25	26	
15:45	0	0	0	0	0	0		1	0	0	0	1	1		25	0	1	0	26	27	
Vsota	12	0	4	0	16	20		14	0	0	0	14	14		164	2	4	1	171	180	

15 minutne obremenitve

Šifra križišča: K1

Šifra priključka: C

Ime križišča: IVANČNA GORICA 1

Ime priključka: glavna cesta - ven iz mesta

Tip križišča: ABCD

Naslov štetja: Ivančna Gorica_diploma

Datum štetja: 19.3.2015

Številka štetja: 1

Časovni interval: od 14:00 do 16:00

URA	<u>Levo</u>						<u>Naravnost</u>						<u>Desno</u>					
	O	T	B	V	S	EOV	O	T	B	V	S	EOV	O	T	B	V	S	EOV
14:00	13	0	0	0	13	13	84	0	0	1	85	88	2	0	0	0	2	2
14:15	11	0	0	0	11	11	82	1	0	0	83	84	3	0	1	0	4	5
14:30	8	0	0	0	8	8	55	3	0	0	58	61	2	0	0	0	2	2
14:45	5	0	0	0	5	5	59	0	1	0	60	61	2	0	0	0	2	2
15:00	15	0	0	0	15	15	92	1	0	0	93	94	2	0	0	0	2	2
15:15	11	0	0	0	11	11	92	2	1	1	96	102	3	0	0	0	3	3
15:30	11	0	0	0	11	11	70	0	0	1	71	74	1	0	0	0	1	1
15:45	8	0	0	0	8	8	69	1	0	0	70	71	6	0	0	0	6	6
Vsota	82	0	0	0	82	82	603	8	2	3	616	634	21	0	1	0	22	23

15 minutne obremenitve

Šifra križišča: K1

Šifra priključka: D

Ime križišča: IVANČNA GORICA 1

Ime priključka: stranska cesta

Tip križišča: ABCD

Naslov štetja: Ivančna Gorica_diploma

Datum štetja: 19.3.2015

Številka štetja: 1

Časovni interval: od 14:00 do 16:00

URA	<u>Levo</u>						<u>Naravnost</u>						<u>Desno</u>					
	O	T	B	V	S	EOV	O	T	B	V	S	EOV	O	T	B	V	S	EOV
14:00	10	0	0	0	10	10	6	0	0	0	6	6	5	0	0	0	5	5
14:15	14	0	0	0	14	14	4	0	0	0	4	4	12	0	0	0	12	12
14:30	15	0	0	0	15	15	5	0	0	0	5	5	11	0	0	0	11	11
14:45	13	0	0	0	13	13	3	0	0	0	3	3	9	0	0	0	9	9
15:00	16	0	0	0	16	16	5	0	0	0	5	5	13	0	0	0	13	13
15:15	18	0	0	0	18	18	2	0	0	0	2	2	8	0	0	0	8	8
15:30	17	0	0	0	17	17	3	0	0	0	3	3	14	0	0	0	14	14
15:45	18	0	0	0	18	18	6	0	0	0	6	6	10	0	1	0	11	12
Vsota	121	0	0	0	121	121	34	0	0	0	34	34	82	0	1	0	83	84

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15 minutne obremenitve

Šifra križišča: K2

Šifra priključka: A

Ime križišča: IVANČNA GORICA 2

Ime priključka: glavna cesta

Tip križišča: ABCD

Naslov štetja: Ivančna Gorica_diploma

Datum štetja: 19.3.2015

Številka štetja: 1

Časovni interval: od 14:00 do 16:00

URA	<u>Levo</u>						<u>Naravnost</u>						<u>Desno</u>					
	O	T	B	V	S	EOV	O	T	B	V	S	EOV	O	T	B	V	S	EOV
14:00	12	0	0	0	12	12	31	1	0	0	32	33	41	0	0	1	42	45
14:15	15	0	0	0	15	15	15	2	0	0	17	19	42	1	0	0	43	44
14:30	12	0	0	0	12	12	14	1	0	0	15	16	18	1	0	0	19	20
14:45	17	0	0	0	17	17	14	0	0	0	14	14	27	0	0	0	27	27
15:00	15	0	1	0	16	17	22	2	0	0	24	26	53	1	0	0	54	55
15:15	18	0	0	0	18	18	15	1	0	0	16	17	27	0	0	0	27	27
15:30	16	0	0	0	16	16	18	0	0	0	18	18	33	0	0	0	33	33
15:45	19	0	0	0	19	19	15	0	0	0	15	15	32	0	0	0	32	32
Vsota	124	0	1	0	125	126	144	7	0	0	151	158	273	3	0	1	277	283

15 minutne obremenitve

Šifra križišča: K2

Šifra priključka: B

Ime križišča: IVANČNA GORICA 2

Ime priključka: stranska cesta

Tip križišča: ABCD

Naslov štetja: Ivančna Gorica_diploma

Datum štetja: 19.3.2015

Številka štetja: 1

Časovni interval: od 14:00 do 16:00

URA	<u>Levo</u>						<u>Naravnost</u>						<u>Desno</u>					
	O	T	B	V	S	EOV	O	T	B	V	S	EOV	O	T	B	V	S	EOV
14:00	9	0	0	0	9	9	30	0	0	0	30	30	21	0	0	0	21	21
14:15	12	0	1	0	13	14	29	0	1	0	30	31	19	0	1	0	20	21
14:30	10	0	0	0	10	10	30	0	0	0	30	30	11	0	1	0	12	13
14:45	6	0	0	0	6	6	25	0	1	0	26	27	16	0	0	0	16	16
15:00	13	0	0	0	13	13	38	1	0	0	39	40	25	0	0	0	25	25
15:15	5	1	0	0	6	7	45	2	2	1	50	57	22	0	0	0	22	22
15:30	11	0	0	0	11	11	27	0	0	0	27	27	16	0	0	0	16	16
15:45	12	0	0	0	12	12	39	0	0	0	39	39	11	0	0	0	11	11
Vsota	78	1	1	0	80	82	263	3	4	1	271	281	141	0	2	0	143	145

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15 minutne obremenitve

Šifra križišča: K2

Šifra priključka: C

Ime križišča: IVANČNA GORICA 2

Ime priključka: glavna cesta

Tip križišča: ABCD

Naslov štetja: Ivančna Gorica_diploma

Datum štetja: 19.3.2015

Številka štetja: 1

Časovni interval: od 14:00 do 16:00

URA	<u>Levo</u>						<u>Naravnost</u>						<u>Desno</u>					
	O	T	B	V	S	EOV	O	T	B	V	S	EOV	O	T	B	V	S	EOV
14:00	38	0	0	0	38	38	18	0	0	0	18	18	12	0	1	0	13	14
14:15	24	1	0	0	25	26	21	0	0	0	21	21	13	0	0	0	13	13
14:30	16	1	0	0	17	18	11	3	0	1	15	21	9	0	0	0	9	9
14:45	16	0	0	0	16	16	15	0	0	0	15	15	15	0	0	0	15	15
15:00	22	0	0	0	22	22	19	1	0	0	20	21	22	0	0	0	22	22
15:15	27	0	0	0	27	27	17	0	0	0	17	17	6	0	0	0	6	6
15:30	18	0	0	0	18	18	8	1	0	0	9	10	9	0	0	0	9	9
15:45	15	1	0	0	16	17	16	0	0	0	16	16	9	3	0	0	12	15
Vsota	176	3	0	0	179	182	125	5	0	1	131	139	95	3	1	0	99	103

15 minutne obremenitve

Šifra križišča: K2

Šifra priključka: D

Ime križišča: IVANČNA GORICA 2

Ime priključka: stranska cesta

Tip križišča: ABCD

Naslov štetja: Ivančna Gorica_diploma

Datum štetja: 19.3.2015

Številka štetja: 1

Časovni interval: od 14:00 do 16:00

URA	<u>Levo</u>						<u>Naravnost</u>						<u>Desno</u>					
	O	T	B	V	S	EOV	O	T	B	V	S	EOV	O	T	B	V	S	EOV
14:00	5	0	0	0	5	5	30	1	2	0	33	36	8	2	0	0	10	12
14:15	9	0	0	0	9	9	43	2	1	0	46	49	21	0	0	0	21	21
14:30	8	1	0	0	9	10	33	0	1	0	34	35	30	1	0	0	31	32
14:45	5	2	0	0	7	9	30	0	0	0	30	30	31	0	0	0	31	31
15:00	3	1	0	0	4	5	44	0	1	0	45	46	25	0	0	0	25	25
15:15	4	0	0	1	5	8	48	0	0	0	48	48	28	1	0	0	29	30
15:30	7	0	0	0	7	7	53	0	0	0	53	53	35	0	0	0	35	35
15:45	4	2	0	0	6	8	54	0	1	0	55	56	27	0	0	0	27	27
Vsota	45	6	0	1	52	61	335	3	6	0	344	353	205	4	0	0	209	213

PRILOGA B: IZRAČUN FAKTORJA URNE KONICE

Faktor urne konice (PHF)	
Šifra križišča: K1	
Ime križišča: IVANČNA GORICA 1	
Tip križišča: ABCD	
Naslov štetja: Ivančna Gorica_diploma	Datum štetja: 19.3.2015
Številka štetja: 1	Ura konice: od 15:00 do 16:00
Vrsta vozil: EO V	
Križišče:	0,94
Priključek A :	0,83
Dovoz:	
Desno	0,73
Levo	0,88
Naravnost	0,84
Priključek B :	0,90
Dovoz:	
Desno	0,88
Levo	0,75
Naravnost	0,58
Priključek C :	0,86
Dovoz:	
Desno	0,50
Levo	0,75
Naravnost	0,84
Priključek D :	0,92
Dovoz:	
Desno	0,84
Levo	0,96
Naravnost	0,67

Faktor urne konice (PHF)

Šifra križišča: K2

Ime križišča: IVANČNA GORICA 2

Tip križišča: ABCD

Naslov štetja: Ivančna Gorica_diploma

Datum štetja: 19.3.2015

Številka štetja: 1

Ura konice: od 15:00 do 16:00

Vrsta vozil: EO V

Križišče:	0,88
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Priključek A :	0,75
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Dovoz:

Desno	0,67
Levo	0,92
Naravnost	0,73

Priključek B :	0,82
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Dovoz:

Desno	0,74
Levo	0,83
Naravnost	0,72

Priključek C :	0,77
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Dovoz:

Desno	0,59
Levo	0,78
Naravnost	0,76

Priključek D :	0,91
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Dovoz:

Desno	0,84
Levo	0,86
Naravnost	0,91

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PRILOGA C: ANALIZA ZAVIJALCEV PO STRUKTURI PROMETA

Analiza zavijalcev

Šifra križišča: K1

Ime križišča: IVANČNA GORICA 1

Tip križišča: ABCD

Naslov štetja: Ivančna Gorica_diploma

Datum štetja: 19.3.2015

Številka štetja: 1

Časovni interval: od 14:00 do 16:00

Vrsta vozil: EOv

Priljuček \ Dovoz	Levo	Naravnost	Desno	Skupaj
A	238 11%	534 25%	188 9%	960 45%
B	20 1%	14 1%	180 8%	214 10%
C	82 4%	634 29%	23 1%	739 34%
D	121 6%	34 2%	84 4%	239 11%
Skupaj	461 21%	1215 56%	475 22%	2151 100%

Analiza zavijalcev

Šifra križišča: K2

Ime križišča: IVANČNA GORICA 2

Tip križišča: ABCD

Naslov štetja: Ivančna Gorica_diploma

Datum štetja: 19.3.2015

Številka štetja: 1

Časovni interval: od 14:00 do 16:00

Vrsta vozil: EOv

Dovoz Priljuček	Levo	Naravnost	Desno	Skupaj
A	126 6%	158 7%	283 13%	567 27%
B	82 4%	281 13%	145 7%	508 24%
C	182 9%	139 7%	103 5%	424 20%
D	61 3%	353 17%	213 10%	627 29%
Skupaj	451 21%	930 44%	744 35%	2124 100%

PRILOGA D: IZRAČUNANI PARAMETRI KAPACITETNE ANALIZE

Priloga D. 1: Izračunani parametri simulacije s programom Synchro – Varianta 0

SimTraffic Simulation Summary

Baseline

18.6.2015

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	3:00	3:00	3:00	3:00	3:00	3:00	3:00
End Time	3:45	3:45	3:45	3:45	3:45	3:45	3:45
Total Time (min)	45	45	45	45	45	45	45
Time Recorded (min)	30	30	30	30	30	30	30
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intvls	1	1	1	1	1	1	1
Vehs Entered	1134	1148	1222	1161	1131	1108	1182
Vehs Exited	1132	1141	1216	1142	1128	1089	1161
Starting Vehs	41	44	44	38	57	35	36
Ending Vehs	43	51	50	57	60	54	57
Denied Entry Before	0	1	0	0	0	0	0
Denied Entry After	0	0	0	1	0	0	0
Travel Distance (km)	491	493	531	503	484	480	503
Travel Time (hr)	22.7	19.0	31.4	23.4	19.5	20.3	22.4
Total Delay (hr)	10.3	6.5	17.9	10.7	7.2	8.1	9.6
Total Stops	890	882	1256	1026	950	930	927
Fuel Used (l)	63.9	61.4	74.9	66.3	61.5	60.9	65.7

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	3:00	3:00	3:00	3:00
End Time	3:45	3:45	3:45	3:45
Total Time (min)	45	45	45	45
Time Recorded (min)	30	30	30	30
# of Intervals	2	2	2	2
# of Recorded Intvls	1	1	1	1
Vehs Entered	1193	1191	1132	1158
Vehs Exited	1174	1193	1104	1148
Starting Vehs	42	59	32	38
Ending Vehs	61	57	60	52
Denied Entry Before	1	0	0	0
Denied Entry After	1	1	0	0
Travel Distance (km)	518	525	486	501
Travel Time (hr)	23.2	30.1	22.1	23.4
Total Delay (hr)	10.0	16.8	9.8	10.7
Total Stops	1057	1230	997	1015
Fuel Used (l)	67.2	72.9	63.8	65.8

Interval #0 Information Seeding

Start Time	3:00
End Time	3:15
Total Time (min)	15
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

SimTraffic Simulation Summary

Baseline

18.6.2015

Interval #1 Information Recording

Start Time	3:15						
End Time	3:45						
Total Time (min)	30						
Volumes adjusted by PHF, Growth Factors.							
Run Number	1	10	2	3	4	5	6
Vehs Entered	1134	1148	1222	1161	1131	1108	1182
Vehs Exited	1132	1141	1216	1142	1128	1089	1161
Starting Vehs	41	44	44	38	57	35	36
Ending Vehs	43	51	50	57	60	54	57
Denied Entry Before	0	1	0	0	0	0	0
Denied Entry After	0	0	0	1	0	0	0
Travel Distance (km)	491	493	531	503	484	480	503
Travel Time (hr)	22.7	19.0	31.4	23.4	19.5	20.3	22.4
Total Delay (hr)	10.3	6.5	17.9	10.7	7.2	8.1	9.6
Total Stops	890	882	1256	1026	950	930	927
Fuel Used (l)	63.9	61.4	74.9	66.3	61.5	60.9	65.7

Interval #1 Information Recording

Start Time	3:15			
End Time	3:45			
Total Time (min)	30			
Volumes adjusted by PHF, Growth Factors.				
Run Number	7	8	9	Avg
Vehs Entered	1193	1191	1132	1158
Vehs Exited	1174	1193	1104	1148
Starting Vehs	42	59	32	38
Ending Vehs	61	57	60	52
Denied Entry Before	1	0	0	0
Denied Entry After	1	1	0	0
Travel Distance (km)	518	525	486	501
Travel Time (hr)	23.2	30.1	22.1	23.4
Total Delay (hr)	10.0	16.8	9.8	10.7
Total Stops	1057	1230	997	1015
Fuel Used (l)	67.2	72.9	63.8	65.8

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SimTraffic Performance Report

Baseline

18.6.2015

1: Ljubljanska cesta & Cesta 2. grupe odredov Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.0	0.2	1.2	0.6	0.2	1.1	0.4
Delay / Veh (s)	4.0	3.2	2.1	5.4	2.8	2.0	35.9	33.7	31.1	32.3	35.3	28.2
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.1	0.6	0.2	1.0	0.4
St Del/Veh (s)	1.1	0.4	0.5	2.6	0.6	0.9	33.4	29.6	29.9	29.7	30.9	26.8
Total Stops	10	0	8	21	2	4	17	116	70	26	115	53
Travel Dist (km)	6.8	9.0	18.1	12.8	10.6	10.7	2.1	15.4	8.7	5.1	22.3	10.2
Travel Time (hr)	0.2	0.3	0.6	0.4	0.3	0.3	0.2	1.5	0.8	0.4	1.6	0.7
Avg Speed (kph)	31	35	32	33	39	36	9	10	10	14	14	15
Vehicles Entered	40	53	106	52	42	42	17	130	69	26	114	52
Vehicles Exited	40	53	106	51	42	43	17	130	69	26	112	52
Hourly Exit Rate	80	106	212	102	84	86	34	260	138	52	224	104
Input Volume	76	104	219	108	84	88	33	259	139	52	226	100
%of Volume	105	102	97	94	100	98	103	100	99	100	99	104
Occupancy (veh)	0	1	1	1	1	1	0	3	2	1	3	1

1: Ljubljanska cesta & Cesta 2. grupe odredov Performance by movement

Movement	All
Total Delay (hr)	4.0
Delay / Veh (s)	19.5
Stop Delay (hr)	3.5
St Del/Veh (s)	16.8
Total Stops	442
Travel Dist (km)	131.7
Travel Time (hr)	7.3
Avg Speed (kph)	18
Vehicles Entered	743
Vehicles Exited	741
Hourly Exit Rate	1482
Input Volume	1488
%of Volume	100
Occupancy (veh)	15

SimTraffic Performance Report

Baseline

18.6.2015

2: Sokolska ulica & Cesta 2. grupe odredov Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.1	0.1	0.3	0.7	0.3	0.5	0.2	0.4	0.1	0.1	0.5	0.0
Delay / Veh (s)	30.5	51.7	21.0	80.1	79.6	61.9	10.5	7.6	7.4	11.7	7.6	5.4
Stop Delay (hr)	0.1	0.1	0.3	0.7	0.3	0.5	0.2	0.3	0.1	0.1	0.3	0.0
St Del/Veh (s)	28.3	49.1	19.9	81.3	81.0	64.2	8.5	5.4	6.6	7.9	4.6	3.5
Total Stops	6	6	42	28	10	24	34	24	9	20	37	2
Travel Dist (km)	1.0	1.0	8.7	1.9	0.7	1.7	2.9	7.3	2.8	3.9	26.0	1.7
Travel Time (hr)	0.1	0.1	0.6	0.8	0.3	0.6	0.3	0.5	0.3	0.2	1.1	0.1
Avg Speed (kph)	11	9	14	3	3	3	14	20	19	19	24	24
Vehicles Entered	6	6	58	33	12	28	74	185	72	32	224	14
Vehicles Exited	7	6	58	33	12	29	74	185	72	30	222	14
Hourly Exit Rate	14	12	116	66	24	58	148	370	144	60	444	28
Input Volume	12	12	115	72	24	56	151	371	156	60	471	24
%of Volume	117	100	101	92	100	104	98	100	92	100	94	117
Occupancy (veh)	0	0	1	2	1	1	0	1	0	0	2	0

2: Sokolska ulica & Cesta 2. grupe odredov Performance by movement

Movement	All
Total Delay (hr)	3.3
Delay / Veh (s)	16.0
Stop Delay (hr)	2.9
St Del/Veh (s)	14.1
Total Stops	242
Travel Dist (km)	59.6
Travel Time (hr)	5.0
Avg Speed (kph)	13
Vehicles Entered	744
Vehicles Exited	742
Hourly Exit Rate	1484
Input Volume	1524
%of Volume	97
Occupancy (veh)	9

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SimTraffic Performance Report

Baseline

18.6.2015

Total Zone Performance

Total Delay (hr)	7.3
Delay / Veh (s)	497.7
Stop Delay (hr)	6.4
St Del/Veh (s)	433.5
Total Stops	684
Travel Dist (km)	191.3
Travel Time (hr)	12.3
Avg Speed (kph)	16
Vehicles Entered	706
Vehicles Exited	50
Hourly Exit Rate	100
Input Volume	3012
%of Volume	3
Occupancy (veh)	23

Queuing and Blocking Report

Baseline

18.6.2015

Intersection: 1: Ljubljanska cesta & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	19.2	24.8	99.8	104.5
Average Queue (m)	7.0	9.1	52.4	49.3
95th Queue (m)	17.5	21.2	108.2	99.8
Link Distance (m)	169.7	250.8	109.8	194.7
Upstream Blk Time (%)			4	
Queuing Penalty (veh)			16	
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Sokolska ulica & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	49.1	61.4	32.5	94.1
Average Queue (m)	20.3	33.7	19.9	24.7
95th Queue (m)	45.4	63.9	36.1	69.7
Link Distance (m)	150.0	58.4	29.0	109.8
Upstream Blk Time (%)		11	6	0
Queuing Penalty (veh)		0	35	2
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 54

Priloga D. 2: Izračunani parametri simulacije s programom Synchro – Varianta 1

SimTraffic Simulation Summary

Baseline

20.7.2015

Summary of All Intervals

Run Number	1	2	3	4	Avg
Start Time	3:00	3:00	3:00	3:00	3:00
End Time	3:45	3:45	3:45	3:45	3:45
Total Time (min)	45	45	45	45	45
Time Recorded (min)	30	30	30	30	30
# of Intervals	2	2	2	2	2
# of Recorded Intvl	1	1	1	1	1
Vehs Entered	1134	1222	1161	1132	1159
Vehs Exited	1134	1219	1136	1119	1154
Starting Vehs	44	47	39	56	44
Ending Vehs	44	50	64	69	55
Denied Entry Before	0	0	0	1	0
Denied Entry After	0	0	1	0	0
Travel Distance (km)	525	570	540	520	539
Travel Time (hr)	24.2	35.7	34.0	27.2	30.3
Total Delay (hr)	11.1	21.4	20.5	14.1	16.8
Total Stops	1410	1938	1906	1483	1685
Fuel Used (l)	67.8	81.5	77.6	70.1	74.2

Interval #0 Information Seeding

Start Time	3:00
End Time	3:15
Total Time (min)	15
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	3:15				
End Time	3:45				
Total Time (min)	30				
Volumes adjusted by PHF, Growth Factors.					
Run Number	1	2	3	4	Avg
Vehs Entered	1134	1222	1161	1132	1159
Vehs Exited	1134	1219	1136	1119	1154
Starting Vehs	44	47	39	56	44
Ending Vehs	44	50	64	69	55
Denied Entry Before	0	0	0	1	0
Denied Entry After	0	0	1	0	0
Travel Distance (km)	525	570	540	520	539
Travel Time (hr)	24.2	35.7	34.0	27.2	30.3
Total Delay (hr)	11.1	21.4	20.5	14.1	16.8
Total Stops	1410	1938	1906	1483	1685
Fuel Used (l)	67.8	81.5	77.6	70.1	74.2

SimTraffic Performance Report

Baseline

20.7.2015

1: Ljubljanska cesta & Cesta 2. grupe odredov Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.7	0.3	0.2	0.6	0.2
Delay / Veh (s)	16.7	16.9	12.2	21.9	18.4	14.8	26.3	19.1	15.4	25.0	21.2	17.3
Stop Delay (hr)	0.1	0.2	0.3	0.3	0.2	0.1	0.1	0.5	0.2	0.2	0.5	0.2
St Del/Veh (s)	12.7	11.7	9.2	18.3	13.8	12.3	20.7	12.8	11.2	20.9	16.1	14.2
Travel Dist (km)	7.0	9.5	17.6	12.7	11.2	10.8	2.3	16.4	8.5	5.3	21.2	10.2
Travel Time (hr)	0.4	0.5	0.9	0.6	0.5	0.5	0.2	1.1	0.5	0.3	1.1	0.5
Avg Speed (kph)	19	20	21	21	24	24	12	15	16	17	19	19
Vehicles Entered	42	56	104	50	45	43	18	139	68	27	108	52
Vehicles Exited	41	56	102	50	44	44	18	138	68	26	108	52
Hourly Exit Rate	82	112	204	100	88	88	36	276	136	52	216	104
Input Volume	76	104	219	108	84	88	33	259	139	52	226	100
% of Volume	108	108	93	93	105	100	109	107	98	100	96	104
Occupancy (veh)	1	1	2	1	1	1	0	2	1	1	2	1

1: Ljubljanska cesta & Cesta 2. grupe odredov Performance by movement

Movement	All
Total Delay (hr)	3.7
Delay / Veh (s)	18.0
Stop Delay (hr)	2.8
St Del/Veh (s)	13.5
Travel Dist (km)	132.9
Travel Time (hr)	7.1
Avg Speed (kph)	19
Vehicles Entered	752
Vehicles Exited	747
Hourly Exit Rate	1494
Input Volume	1488
% of Volume	100
Occupancy (veh)	14

SimTraffic Performance Report

Baseline

20.7.2015

2: Sokolska ulica & Cesta 2. grupe odredov Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.1	0.0	0.1	0.2	0.1	0.1	0.6	2.1	0.7	0.2	1.0	0.1
Delay / Veh (s)	23.8	17.9	9.4	23.3	23.5	12.4	29.2	40.2	33.0	21.7	16.4	11.8
Stop Delay (hr)	0.0	0.0	0.1	0.2	0.1	0.1	0.6	1.9	0.6	0.1	0.7	0.0
St Del/Veh (s)	21.8	15.4	8.6	22.0	22.4	11.9	26.8	36.7	31.6	16.6	11.5	8.6
Travel Dist (km)	1.1	1.0	7.9	2.0	0.6	1.8	3.0	7.5	2.8	3.8	24.5	2.0
Travel Time (hr)	0.1	0.1	0.4	0.3	0.1	0.2	0.7	2.3	0.8	0.3	1.6	0.1
Avg Speed (kph)	13	16	20	7	7	10	7	9	9	13	16	18
Vehicles Entered	7	7	52	34	10	31	74	192	72	31	213	16
Vehicles Exited	8	7	54	34	10	31	74	191	72	30	213	16
Hourly Exit Rate	16	14	108	68	20	62	148	382	144	60	426	32
Input Volume	12	12	115	72	24	56	151	371	156	60	471	24
%of Volume	133	117	94	94	83	111	98	103	92	100	90	133
Occupancy (veh)	0	0	1	1	0	0	1	2	1	1	3	0

2: Sokolska ulica & Cesta 2. grupe odredov Performance by movement

Movement	All
Total Delay (hr)	5.2
Delay / Veh (s)	25.4
Stop Delay (hr)	4.6
St Del/Veh (s)	22.2
Travel Dist (km)	58.1
Travel Time (hr)	6.8
Avg Speed (kph)	13
Vehicles Entered	739
Vehicles Exited	740
Hourly Exit Rate	1480
Input Volume	1524
%of Volume	97
Occupancy (veh)	9

Total Zone Performance

Total Delay (hr)	9.0
Delay / Veh (s)	596.8
Stop Delay (hr)	7.4
St Del/Veh (s)	491.3
Travel Dist (km)	191.0
Travel Time (hr)	13.9
Avg Speed (kph)	16
Vehicles Entered	702
Vehicles Exited	52
Hourly Exit Rate	104
Input Volume	3012
%of Volume	3
Occupancy (veh)	23

Queuing and Blocking Report
Baseline

20.7.2015

Intersection: 1: Ljubljanska cesta & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	69.8	65.2	77.4	76.5
Average Queue (m)	34.4	30.0	41.4	37.1
95th Queue (m)	60.1	60.7	73.2	73.9
Link Distance (m)	169.7	250.8	109.8	194.7
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Sokolska ulica & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	28.1	48.5	38.8	100.3
Average Queue (m)	15.5	19.8	32.3	48.0
95th Queue (m)	27.9	39.6	37.1	92.2
Link Distance (m)	150.0	58.4	29.0	109.8
Upstream Blk Time (%)		0	36	1
Queuing Penalty (veh)		0	219	7
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 226

Priloga D. 3: Izračunani parametri simulacije s programom Synchro – Varianta 2

SimTraffic Simulation Summary

Baseline

18.6.2015

Summary of All Intervals

Run Number	1	2	3	4	Avg
Start Time	3:00	3:00	3:00	3:00	3:00
End Time	3:45	3:45	3:45	3:45	3:45
Total Time (min)	45	45	45	45	45
Time Recorded (min)	30	30	30	30	30
# of Intervals	2	2	2	2	2
# of Recorded Intvs	1	1	1	1	1
Vehs Entered	1134	1222	1161	1132	1159
Vehs Exited	1133	1227	1151	1134	1161
Starting Vehs	42	46	38	58	41
Ending Vehs	43	41	48	56	42
Denied Entry Before	0	0	0	1	0
Denied Entry After	0	0	1	0	0
Travel Distance (km)	531	578	550	528	547
Travel Time (hr)	18.0	21.0	20.2	18.6	19.5
Total Delay (hr)	4.8	6.5	6.4	5.4	5.8
Total Stops	623	912	787	662	746
Fuel Used (l)	63.7	70.4	67.4	64.1	66.4

Interval #0 Information Seeding

Start Time	3:00
End Time	3:15
Total Time (min)	15
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	3:15				
End Time	3:45				
Total Time (min)	30				
Volumes adjusted by PHF, Growth Factors.					
Run Number	1	2	3	4	Avg
Vehs Entered	1134	1222	1161	1132	1159
Vehs Exited	1133	1227	1151	1134	1161
Starting Vehs	42	46	38	58	41
Ending Vehs	43	41	48	56	42
Denied Entry Before	0	0	0	1	0
Denied Entry After	0	0	1	0	0
Travel Distance (km)	531	578	550	528	547
Travel Time (hr)	18.0	21.0	20.2	18.6	19.5
Total Delay (hr)	4.8	6.5	6.4	5.4	5.8
Total Stops	623	912	787	662	746
Fuel Used (l)	63.7	70.4	67.4	64.1	66.4

SimTraffic Performance Report

Baseline

18.6.2015

1: Ljubljanska cesta & Cesta 2. grupe odredov Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.2	0.1	0.0	0.2	0.1
Delay / Veh (s)	7.5	8.8	7.6	5.4	6.1	5.7	4.9	5.4	4.9	5.8	7.8	6.2
Stop Delay (hr)	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
St Del/Veh (s)	3.9	4.1	3.6	1.9	1.6	2.1	0.9	0.8	1.0	2.1	3.2	2.4
Travel Dist (km)	7.0	9.5	17.4	12.3	10.9	10.5	2.4	17.6	9.2	5.0	19.9	9.6
Travel Time (hr)	0.3	0.4	0.7	0.4	0.3	0.3	0.1	0.6	0.3	0.2	0.7	0.3
Avg Speed (kph)	27	26	27	34	34	33	27	27	27	30	29	30
Vehicles Entered	42	56	104	50	45	43	18	140	69	27	108	52
Vehicles Exited	42	56	103	50	44	44	18	140	69	27	108	52
Hourly Exit Rate	84	112	206	100	88	88	36	280	138	54	216	104
Input Volume	76	104	219	108	84	88	33	259	139	52	226	100
% of Volume	111	108	94	93	105	100	109	108	99	104	96	104
Occupancy (veh)	1	1	1	1	1	1	0	1	1	0	1	1

1: Ljubljanska cesta & Cesta 2. grupe odredov Performance by movement

Movement	All
Total Delay (hr)	1.4
Delay / Veh (s)	6.5
Stop Delay (hr)	0.5
St Del/Veh (s)	2.3
Travel Dist (km)	131.2
Travel Time (hr)	4.6
Avg Speed (kph)	29
Vehicles Entered	754
Vehicles Exited	753
Hourly Exit Rate	1506
Input Volume	1488
% of Volume	101
Occupancy (veh)	9

SimTraffic Performance Report

Baseline

18.6.2015

2: Sokolska ulica & Cesta 2. grupe odredov Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.3	0.1	0.1	0.8	0.0
Delay / Veh (s)	4.7	6.3	9.1	3.8	3.8	3.4	4.3	6.3	5.8	12.0	13.0	10.6
Stop Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.5	0.0
St Del/Veh (s)	2.5	3.1	6.8	2.7	2.5	2.2	2.4	3.9	4.0	7.9	8.8	6.6
Travel Dist (km)	1.1	1.0	7.5	1.8	0.5	1.6	2.1	5.3	2.0	4.1	26.7	2.2
Travel Time (hr)	0.0	0.0	0.4	0.1	0.0	0.1	0.1	0.5	0.2	0.2	1.4	0.1
Avg Speed (kph)	26	26	21	17	18	18	19	18	19	20	19	21
Vehicles Entered	7	7	52	34	10	31	74	192	72	32	214	16
Vehicles Exited	8	6	53	34	10	31	74	192	72	30	216	16
Hourly Exit Rate	16	12	106	68	20	62	148	384	144	60	432	32
Input Volume	12	12	115	72	24	56	151	371	156	60	471	24
%of Volume	133	100	92	94	83	111	98	104	92	100	92	133
Occupancy (veh)	0	0	1	0	0	0	0	1	0	0	3	0

2: Sokolska ulica & Cesta 2. grupe odredov Performance by movement

Movement	All
Total Delay (hr)	1.7
Delay / Veh (s)	8.2
Stop Delay (hr)	1.1
St Del/Veh (s)	5.4
Travel Dist (km)	55.9
Travel Time (hr)	3.2
Avg Speed (kph)	19
Vehicles Entered	741
Vehicles Exited	742
Hourly Exit Rate	1484
Input Volume	1524
%of Volume	97
Occupancy (veh)	6

Total Zone Performance

Total Delay (hr)	3.1
Delay / Veh (s)	207.5
Stop Delay (hr)	1.6
St Del/Veh (s)	109.0
Travel Dist (km)	187.1
Travel Time (hr)	7.8
Avg Speed (kph)	25
Vehicles Entered	702
Vehicles Exited	53
Hourly Exit Rate	106
Input Volume	3012
%of Volume	4
Occupancy (veh)	15

Queuing and Blocking Report
Baseline

18.6.2015

Intersection: 1: Ljubljanska cesta & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	45.0	26.7	21.9	45.1
Average Queue (m)	16.7	11.4	10.1	14.0
95th Queue (m)	36.3	23.2	20.6	44.3
Link Distance (m)	168.3	243.8	100.7	183.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Sokolska ulica & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	33.5	27.0	20.9	90.0
Average Queue (m)	11.9	9.6	14.4	26.9
95th Queue (m)	26.3	21.6	23.4	68.1
Link Distance (m)	141.5	52.0	17.1	100.7
Upstream Blk Time (%)			2	2
Queuing Penalty (veh)			13	10
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 23

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Priloga D. 4: Izračunani parametri simulacije s programom Synchro – Varianta 3

Queuing and Blocking Report

Baseline

21.7.2015

Intersection: 1: Ljubljanska cesta & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	ULTR	LTR
Maximum Queue (m)	45.2	28.8	46.0	56.6
Average Queue (m)	20.2	11.3	15.1	20.4
95th Queue (m)	42.7	24.7	39.8	45.0
Link Distance (m)	168.2	243.8	103.9	183.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Ploščad osvobodilne fronte & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	R	LTR	LTR
Maximum Queue (m)	48.2	33.9	32.0	108.2
Average Queue (m)	19.3	14.3	20.1	33.9
95th Queue (m)	43.0	26.2	33.5	98.6
Link Distance (m)	149.6	59.2	24.2	103.9
Upstream Blk Time (%)			7	3
Queuing Penalty (veh)			44	19
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 63

Queuing and Blocking Report
 Baseline

21.7.2015

Intersection: 1: Ljubljanska cesta & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	ULTR	LTR
Maximum Queue (m)	45.2	28.8	46.0	56.6
Average Queue (m)	20.2	11.3	15.1	20.4
95th Queue (m)	42.7	24.7	39.8	45.0
Link Distance (m)	168.2	243.8	103.9	183.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Ploščad osvobodilne fronte & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	R	LTR	LTR
Maximum Queue (m)	48.2	33.9	32.0	108.2
Average Queue (m)	19.3	14.3	20.1	33.9
95th Queue (m)	43.0	26.2	33.5	98.6
Link Distance (m)	149.6	59.2	24.2	103.9
Upstream Blk Time (%)			7	3
Queuing Penalty (veh)			44	19
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 63

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SimTraffic Simulation Summary

Baseline

20.7.2015

Summary of All Intervals

Run Number	1	2	3	4	resitev1	Avg
Start Time	3:00	3:00	3:00	3:00	3:00	3:00
End Time	3:45	3:45	3:45	3:45	3:45	3:45
Total Time (min)	45	45	45	45	45	45
Time Recorded (min)	30	30	30	30	30	30
# of Intervals	2	2	2	2	2	2
# of Recorded Intvs	1	1	1	1	1	1
Vehs Entered	1198	1149	1126	1099	1201	1154
Vehs Exited	1178	1144	1105	1091	1190	1141
Starting Vehs	41	51	39	48	47	43
Ending Vehs	61	56	60	56	58	58
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	1	1	0	0	1	0
Travel Distance (km)	573	539	528	517	575	547
Travel Time (hr)	24.3	19.9	18.8	18.7	23.5	21.1
Total Delay (hr)	9.7	6.1	5.3	5.5	8.9	7.1
Total Stops	1242	778	777	733	973	900
Fuel Used (l)	70.0	63.5	62.5	61.2	69.6	65.4

Interval #0 Information Seeding

Start Time	3:00
End Time	3:15
Total Time (min)	15
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	3:15					
End Time	3:45					
Total Time (min)	30					
Volumes adjusted by PHF, Growth Factors.						
Run Number	1	2	3	4	resitev1	Avg
Vehs Entered	1198	1149	1126	1099	1201	1154
Vehs Exited	1178	1144	1105	1091	1190	1141
Starting Vehs	41	51	39	48	47	43
Ending Vehs	61	56	60	56	58	58
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	1	1	0	0	1	0
Travel Distance (km)	573	539	528	517	575	547
Travel Time (hr)	24.3	19.9	18.8	18.7	23.5	21.1
Total Delay (hr)	9.7	6.1	5.3	5.5	8.9	7.1
Total Stops	1242	778	777	733	973	900
Fuel Used (l)	70.0	63.5	62.5	61.2	69.6	65.4

SimTraffic Performance Report

Baseline

20.7.2015

1: Ljubljanska cesta & Cesta 2. grupe odredov Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Total Delay (hr)	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.2	0.1	0.0	0.2
Delay / Veh (s)	8.7	9.5	8.6	5.4	6.1	5.7	6.2	6.5	6.7	6.6	6.9	7.4
Stop Delay (hr)	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
St Del/Veh (s)	4.9	4.8	4.6	2.1	1.5	2.1	1.8	2.0	1.8	2.4	3.3	2.7
Travel Dist (km)	6.5	8.6	17.7	13.3	9.1	9.9	5.1	2.1	14.1	8.4	3.9	21.4
Travel Time (hr)	0.3	0.3	0.7	0.4	0.3	0.3	0.2	0.1	0.5	0.3	0.1	0.7
Avg Speed (kph)	25	25	26	34	34	33	26	25	26	25	29	29
Vehicles Entered	39	51	106	54	37	41	43	18	125	70	21	116
Vehicles Exited	39	50	105	55	37	42	43	18	125	70	21	116
Hourly Exit Rate	78	100	210	110	74	84	86	36	250	140	42	232
Input Volume	76	104	219	108	84	88	75	33	266	139	52	226
%of Volume	103	96	96	102	88	95	115	109	94	101	81	103
Occupancy (veh)	1	1	1	1	1	1	0	0	1	1	0	1

1: Ljubljanska cesta & Cesta 2. grupe odredov Performance by movement

Movement	SBR	All
Total Delay (hr)	0.1	1.5
Delay / Veh (s)	6.3	7.1
Stop Delay (hr)	0.0	0.6
St Del/Veh (s)	2.7	2.9
Travel Dist (km)	9.1	129.2
Travel Time (hr)	0.3	4.6
Avg Speed (kph)	29	28
Vehicles Entered	49	770
Vehicles Exited	49	770
Hourly Exit Rate	98	1540
Input Volume	100	1570
%of Volume	98	98
Occupancy (veh)	1	9

2: Ploščad osvobodilne fronte & Cesta 2. grupe odredov Performance by movement

Movement	EBL	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Total Delay (hr)	0.1	0.1	0.4	0.1	0.5	0.2	0.3	0.1	0.1	0.7	0.0	2.5
Delay / Veh (s)	37.5	53.9	22.3	47.2	25.7	9.1	6.0	4.5	13.9	9.0	6.8	11.5
Stop Delay (hr)	0.1	0.1	0.4	0.1	0.5	0.2	0.2	0.1	0.1	0.4	0.0	2.1
St Del/Veh (s)	36.0	52.9	22.0	46.0	25.1	7.5	4.0	3.9	9.7	5.5	4.8	9.3
Travel Dist (km)	0.9	0.9	8.9	0.5	4.2	2.6	6.3	2.4	4.3	37.0	1.9	69.8
Travel Time (hr)	0.1	0.1	0.7	0.1	0.7	0.3	0.4	0.2	0.2	1.6	0.1	4.5
Avg Speed (kph)	10	8	13	4	7	12	20	20	18	23	23	17
Vehicles Entered	6	6	61	9	70	75	185	70	31	274	14	801
Vehicles Exited	6	7	59	9	70	75	185	70	30	271	13	795
Hourly Exit Rate	12	14	118	18	140	150	370	140	60	542	26	1590
Input Volume	12	12	115	24	138	151	371	156	60	546	24	1609
%of Volume	100	117	103	75	101	99	100	90	100	99	108	99
Occupancy (veh)	0	0	1	0	1	0	1	0	0	3	0	8

SimTraffic Performance Report

Baseline

20.7.2015

Total Zone Performance

Total Delay (hr)	4.1
Delay / Veh (s)	261.3
Stop Delay (hr)	2.7
St Del/Veh (s)	172.4
Travel Dist (km)	199.0
Travel Time (hr)	9.2
Avg Speed (kph)	23
Vehicles Entered	706
Vehicles Exited	52
Hourly Exit Rate	104
Input Volume	3179
%of Volume	3
Occupancy (veh)	18

Queuing and Blocking Report
 Baseline

20.7.2015

Intersection: 1: Ljubljanska cesta & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	ULTR	LTR
Maximum Queue (m)	43.6	24.4	35.6	34.2
Average Queue (m)	19.4	11.3	15.2	15.8
95th Queue (m)	36.9	22.8	42.6	31.6
Link Distance (m)	168.2	243.8	103.9	183.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Ploščad osvobodilne fronte & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	TR	LTR	LTR
Maximum Queue (m)	56.9	56.9	29.4	111.0
Average Queue (m)	20.8	21.3	19.8	32.2
95th Queue (m)	49.7	51.3	32.2	96.2
Link Distance (m)	145.4	59.2	24.2	103.9
Upstream Blk Time (%)		5	7	1
Queuing Penalty (veh)		0	40	9
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 49

Priloga D. 5: Izračunani parametri simulacije s programom Synchro – Varianta 4

Queuing and Blocking Report

Baseline

21.7.2015

Intersection: 1: Ljubljanska cesta & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	ULTR	LTR
Maximum Queue (m)	45.2	28.8	46.0	56.6
Average Queue (m)	20.2	11.3	15.1	20.4
95th Queue (m)	42.7	24.7	39.8	45.0
Link Distance (m)	168.2	243.8	103.9	183.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Ploščad osvobodilne fronte & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	R	LTR	LTR
Maximum Queue (m)	48.2	33.9	32.0	108.2
Average Queue (m)	19.3	14.3	20.1	33.9
95th Queue (m)	43.0	26.2	33.5	98.6
Link Distance (m)	149.6	59.2	24.2	103.9
Upstream Blk Time (%)			7	3
Queuing Penalty (veh)			44	19
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 63

Priloga D. 6: Izračunani parametri simulacije s programom Synchro – Varianta 5

Queuing and Blocking Report

Baseline

21.7.2015

Intersection: 1: Ljubljanska cesta & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	85.9	65.5	17.9	20.2
Average Queue (m)	42.1	28.1	4.2	6.1
95th Queue (m)	82.4	55.4	14.1	17.2
Link Distance (m)	179.0	252.9	119.4	188.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Sokolska ulica & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	41.4	53.8	30.4	95.5
Average Queue (m)	18.9	25.1	16.7	21.5
95th Queue (m)	36.7	51.8	31.6	68.1
Link Distance (m)	151.7	61.3	27.6	119.4
Upstream Blk Time (%)		4	4	1
Queuing Penalty (veh)		0	24	3
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 27

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SimTraffic Simulation Summary

Baseline

21.7.2015

Summary of All Intervals

Run Number	1	2	3	4	resitev3	Avg
Start Time	3:00	3:00	3:00	3:00	3:00	3:00
End Time	3:45	3:45	3:45	3:45	3:45	3:45
Total Time (min)	45	45	45	45	45	45
Time Recorded (min)	30	30	30	30	30	30
# of Intervals	2	2	2	2	2	2
# of Recorded Intvs	1	1	1	1	1	1
Vehs Entered	1134	1222	1161	1131	1165	1163
Vehs Exited	1135	1224	1149	1129	1154	1156
Starting Vehs	42	44	37	59	46	45
Ending Vehs	41	42	49	61	57	49
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	1	0	4	0
Travel Distance (km)	526	571	544	522	542	541
Travel Time (hr)	19.8	22.9	21.6	20.0	21.6	21.2
Total Delay (hr)	6.4	8.4	7.8	6.7	7.9	7.4
Total Stops	823	956	925	838	960	898
Fuel Used (l)	62.4	69.1	65.6	62.3	65.6	65.0

Interval #0 Information Seeding

Start Time	3:00
End Time	3:15
Total Time (min)	15
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	3:15					
End Time	3:45					
Total Time (min)	30					
Volumes adjusted by PHF, Growth Factors.						
Run Number	1	2	3	4	resitev3	Avg
Vehs Entered	1134	1222	1161	1131	1165	1163
Vehs Exited	1135	1224	1149	1129	1154	1156
Starting Vehs	42	44	37	59	46	45
Ending Vehs	41	42	49	61	57	49
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	1	0	4	0
Travel Distance (km)	526	571	544	522	542	541
Travel Time (hr)	19.8	22.9	21.6	20.0	21.6	21.2
Total Delay (hr)	6.4	8.4	7.8	6.7	7.9	7.4
Total Stops	823	956	925	838	960	898
Fuel Used (l)	62.4	69.1	65.6	62.3	65.6	65.0

SimTraffic Performance Report

Baseline

21.7.2015

1: Ljubljanska cesta & Cesta 2. grupe odredov Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.3	0.4	0.7	0.3	0.3	0.2	0.0	0.1	0.0	0.0	0.1	0.0
Delay / Veh (s)	25.6	28.9	23.6	21.0	21.3	15.8	4.4	2.1	1.7	4.4	2.4	1.5
Stop Delay (hr)	0.3	0.4	0.6	0.3	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0
St Del/Veh (s)	22.6	24.4	22.0	18.0	16.9	14.5	1.3	0.1	0.1	1.9	0.5	0.5
Travel Dist (km)	7.6	9.5	18.8	13.2	11.0	11.8	2.4	17.2	9.2	5.0	20.7	9.6
Travel Time (hr)	0.5	0.7	1.2	0.6	0.5	0.5	0.1	0.4	0.3	0.2	0.6	0.3
Avg Speed (kph)	15	15	16	21	22	23	29	38	33	32	38	34
Vehicles Entered	43	54	105	52	44	46	18	136	69	27	109	51
Vehicles Exited	43	53	103	52	43	46	18	136	69	26	109	51
Hourly Exit Rate	86	106	206	104	86	92	36	272	138	52	218	102
Input Volume	76	104	219	108	84	88	33	259	139	52	226	100
% of Volume	113	102	94	96	102	105	109	105	99	100	96	102
Occupancy (veh)	1	1	2	1	1	1	0	1	1	0	1	1

1: Ljubljanska cesta & Cesta 2. grupe odredov Performance by movement

Movement	All
Total Delay (hr)	2.4
Delay / Veh (s)	11.7
Stop Delay (hr)	2.0
St Del/Veh (s)	9.4
Travel Dist (km)	136.2
Travel Time (hr)	5.8
Avg Speed (kph)	24
Vehicles Entered	754
Vehicles Exited	749
Hourly Exit Rate	1498
Input Volume	1488
% of Volume	101
Occupancy (veh)	12

SimTraffic Performance Report

Baseline

21.7.2015

2: Sokolska ulica & Cesta 2. grupe odredov Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.1	0.1	0.3	0.4	0.1	0.2	0.1	0.3	0.1	0.1	0.4	0.0
Delay / Veh (s)	26.5	38.3	17.1	44.1	42.7	28.0	6.5	5.2	5.0	7.1	6.2	3.7
Stop Delay (hr)	0.0	0.1	0.2	0.4	0.1	0.2	0.1	0.2	0.1	0.0	0.2	0.0
St Del/Veh (s)	25.4	37.1	16.7	43.4	42.1	27.8	4.6	3.5	4.2	4.1	4.0	2.5
Travel Dist (km)	1.1	1.0	8.1	2.1	0.6	1.8	2.8	7.2	2.9	3.8	26.0	2.0
Travel Time (hr)	0.1	0.1	0.6	0.5	0.1	0.3	0.2	0.4	0.2	0.2	1.0	0.1
Avg Speed (kph)	12	9	15	4	4	6	16	25	19	24	26	27
Vehicles Entered	7	7	53	35	10	29	73	190	75	30	219	16
Vehicles Exited	7	7	53	35	10	30	73	189	75	29	219	16
Hourly Exit Rate	14	14	106	70	20	60	146	378	150	58	438	32
Input Volume	12	12	115	72	24	56	151	371	156	60	471	24
%of Volume	117	117	92	97	83	107	97	102	96	97	93	133
Occupancy (veh)	0	0	1	1	0	1	0	1	0	0	2	0

2: Sokolska ulica & Cesta 2. grupe odredov Performance by movement

Movement	All
Total Delay (hr)	2.1
Delay / Veh (s)	10.3
Stop Delay (hr)	1.8
St Del/Veh (s)	8.7
Travel Dist (km)	59.3
Travel Time (hr)	3.8
Avg Speed (kph)	17
Vehicles Entered	744
Vehicles Exited	743
Hourly Exit Rate	1486
Input Volume	1524
%of Volume	98
Occupancy (veh)	7

Total Zone Performance

Total Delay (hr)	4.6
Delay / Veh (s)	304.1
Stop Delay (hr)	3.8
St Del/Veh (s)	250.8
Travel Dist (km)	195.6
Travel Time (hr)	9.6
Avg Speed (kph)	21
Vehicles Entered	706
Vehicles Exited	52
Hourly Exit Rate	104
Input Volume	3012
%of Volume	3
Occupancy (veh)	19

Priloga D. 7: Izračunani parametri simulacije s programom Synchro – Varianta 6

SimTraffic Simulation Summary

Baseline

21.7.2015

Summary of All Intervals

Run Number	1	2	3	4	resitev4	Avg
Start Time	3:00	3:00	3:00	3:00	3:00	3:00
End Time	3:45	3:45	3:45	3:45	3:45	3:45
Total Time (min)	45	45	45	45	45	45
Time Recorded (min)	30	30	30	30	30	30
# of Intervals	2	2	2	2	2	2
# of Recorded Intvls	1	1	1	1	1	1
Vehs Entered	1134	1222	1161	1130	1166	1163
Vehs Exited	1136	1221	1148	1131	1156	1159
Starting Vehs	43	43	37	59	46	46
Ending Vehs	41	44	50	58	56	49
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	1	1	3	0
Travel Distance (km)	526	570	543	522	543	541
Travel Time (hr)	19.7	24.9	21.4	19.8	21.5	21.5
Total Delay (hr)	6.4	10.3	7.6	6.5	7.7	7.7
Total Stops	806	972	868	868	951	894
Fuel Used (l)	62.4	70.4	65.5	62.2	65.5	65.2

Interval #0 Information Seeding

Start Time	3:00
End Time	3:15
Total Time (min)	15
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	3:15					
End Time	3:45					
Total Time (min)	30					
Volumes adjusted by PHF, Growth Factors.						
Run Number	1	2	3	4	resitev4	Avg
Vehs Entered	1134	1222	1161	1130	1166	1163
Vehs Exited	1136	1221	1148	1131	1156	1159
Starting Vehs	43	43	37	59	46	46
Ending Vehs	41	44	50	58	56	49
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	1	1	3	0
Travel Distance (km)	526	570	543	522	543	541
Travel Time (hr)	19.7	24.9	21.4	19.8	21.5	21.5
Total Delay (hr)	6.4	10.3	7.6	6.5	7.7	7.7
Total Stops	806	972	868	868	951	894
Fuel Used (l)	62.4	70.4	65.5	62.2	65.5	65.2

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SimTraffic Performance Report

Baseline

21.7.2015

1: Ljubljanska cesta & Cesta 2. grupe odredov Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.4	0.5	0.9	0.3	0.3	0.2	0.0	0.1	0.0	0.0	0.1	0.0
Delay / Veh (s)	34.3	34.1	30.1	22.0	23.4	16.7	4.5	2.3	1.8	4.7	2.5	1.5
Stop Delay (hr)	0.4	0.4	0.8	0.3	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0
St Del/Veh (s)	31.7	29.9	29.0	19.1	19.2	15.5	1.5	0.1	0.1	2.2	0.6	0.5
Travel Dist (km)	7.6	9.5	18.7	13.2	11.0	11.8	2.4	17.2	9.2	5.0	20.7	9.6
Travel Time (hr)	0.6	0.7	1.4	0.6	0.5	0.5	0.1	0.5	0.3	0.2	0.6	0.3
Avg Speed (kph)	13	13	13	21	21	23	29	38	33	31	37	34
Vehicles Entered	43	54	105	52	44	46	18	136	68	27	109	51
Vehicles Exited	42	53	103	52	43	46	18	135	68	26	109	51
Hourly Exit Rate	84	106	206	104	86	92	36	270	136	52	218	102
Input Volume	76	104	219	108	84	88	33	259	139	52	226	100
%of Volume	111	102	94	96	102	105	109	104	98	100	96	102
Occupancy (veh)	1	1	3	1	1	1	0	1	1	0	1	1

1: Ljubljanska cesta & Cesta 2. grupe odredov Performance by movement

Movement	All
Total Delay (hr)	2.9
Delay / Veh (s)	13.8
Stop Delay (hr)	2.4
St Del/Veh (s)	11.6
Travel Dist (km)	136.1
Travel Time (hr)	6.3
Avg Speed (kph)	22
Vehicles Entered	753
Vehicles Exited	746
Hourly Exit Rate	1492
Input Volume	1488
%of Volume	100
Occupancy (veh)	12

SimTraffic Performance Report

Baseline

21.7.2015

2: Sokolska ulica & Cesta 2. grupe odredov Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.1	0.1	0.2	0.4	0.1	0.1	0.1	0.3	0.1	0.1	0.4	0.0
Delay / Veh (s)	30.6	36.9	16.0	44.8	26.3	8.4	6.8	5.3	4.8	8.0	6.7	3.5
Stop Delay (hr)	0.1	0.1	0.2	0.4	0.1	0.1	0.1	0.2	0.1	0.0	0.3	0.0
St Del/Veh (s)	29.3	35.8	15.4	44.0	25.2	7.9	4.9	3.5	4.0	5.2	4.4	2.3
Travel Dist (km)	1.1	1.0	8.1	2.1	0.6	1.8	2.8	7.2	2.9	3.7	25.9	2.0
Travel Time (hr)	0.1	0.1	0.5	0.5	0.1	0.1	0.2	0.4	0.2	0.2	1.0	0.1
Avg Speed (kph)	11	10	15	4	6	13	16	24	19	23	26	27
Vehicles Entered	7	7	53	35	10	29	73	190	75	30	219	16
Vehicles Exited	7	7	53	35	10	30	73	189	75	28	219	16
Hourly Exit Rate	14	14	106	70	20	60	146	378	150	56	438	32
Input Volume	12	12	115	72	24	56	151	371	156	60	471	24
%of Volume	117	117	92	97	83	107	97	102	96	93	93	133
Occupancy (veh)	0	0	1	1	0	0	0	1	0	0	2	0

2: Sokolska ulica & Cesta 2. grupe odredov Performance by movement

Movement	All
Total Delay (hr)	1.9
Delay / Veh (s)	9.4
Stop Delay (hr)	1.6
St Del/Veh (s)	7.8
Travel Dist (km)	59.3
Travel Time (hr)	3.6
Avg Speed (kph)	18
Vehicles Entered	744
Vehicles Exited	742
Hourly Exit Rate	1484
Input Volume	1524
%of Volume	97
Occupancy (veh)	7

Total Zone Performance

Total Delay (hr)	4.8
Delay / Veh (s)	320.9
Stop Delay (hr)	4.0
St Del/Veh (s)	267.6
Travel Dist (km)	195.4
Travel Time (hr)	9.9
Avg Speed (kph)	20
Vehicles Entered	706
Vehicles Exited	52
Hourly Exit Rate	104
Input Volume	3012
%of Volume	3
Occupancy (veh)	19

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Queuing and Blocking Report

Baseline

21.7.2015

Intersection: 1: Ljubljanska cesta & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	97.2	63.7	19.0	21.1
Average Queue (m)	48.8	28.9	4.8	6.5
95th Queue (m)	101.5	55.4	15.8	19.6
Link Distance (m)	179.0	252.9	119.4	188.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Sokolska ulica & Cesta 2. grupe odredov

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	L	TR	LTR	LTR
Maximum Queue (m)	36.6	22.2	40.2	31.2	101.6
Average Queue (m)	18.1	14.2	11.4	17.2	23.7
95th Queue (m)	33.9	23.7	31.5	33.1	71.6
Link Distance (m)	151.7		61.3	27.6	119.4
Upstream Blk Time (%)			0	4	1
Queuing Penalty (veh)			0	25	3
Storage Bay Dist (m)		15.0			
Storage Blk Time (%)		19	6		
Queuing Penalty (veh)		15	4		

Zone Summary

Zone wide Queuing Penalty: 48

Priloga D. 8: Izračunani parametri simulacije s programom Synchro – Varianta 7

SimTraffic Simulation Summary

Baseline

18.2.2016

Summary of All Intervals

Run Number	1	2	3	4	krožno1	Avg
Start Time	3:00	3:00	3:00	3:00	3:00	3:00
End Time	3:45	3:45	3:45	3:45	3:45	3:45
Total Time (min)	45	45	45	45	45	45
Time Recorded (min)	30	30	30	30	30	30
# of Intervals	2	2	2	2	2	2
# of Recorded Intvls	1	1	1	1	1	1
Vehs Entered	1134	1222	1161	1132	1165	1164
Vehs Exited	1133	1229	1150	1131	1153	1159
Starting Vehs	41	46	36	59	46	44
Ending Vehs	42	39	47	60	58	45
Denied Entry Before	0	0	0	1	0	0
Denied Entry After	0	0	1	0	4	0
Travel Distance (km)	529	577	548	526	546	545
Travel Time (hr)	18.4	22.3	20.4	19.6	22.3	20.6
Total Delay (hr)	5.2	7.9	6.7	6.4	8.7	7.0
Total Stops	625	782	807	681	728	722
Fuel Used (l)	63.4	71.0	67.0	64.3	68.3	66.8

Interval #0 Information Seeding

Start Time	3:00
End Time	3:15
Total Time (min)	15
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	3:15					
End Time	3:45					
Total Time (min)	30					
Volumes adjusted by PHF, Growth Factors.						
Run Number	1	2	3	4	krožno1	Avg
Vehs Entered	1134	1222	1161	1132	1165	1164
Vehs Exited	1133	1229	1150	1131	1153	1159
Starting Vehs	41	46	36	59	46	44
Ending Vehs	42	39	47	60	58	45
Denied Entry Before	0	0	0	1	0	0
Denied Entry After	0	0	1	0	4	0
Travel Distance (km)	529	577	548	526	546	545
Travel Time (hr)	18.4	22.3	20.4	19.6	22.3	20.6
Total Delay (hr)	5.2	7.9	6.7	6.4	8.7	7.0
Total Stops	625	782	807	681	728	722
Fuel Used (l)	63.4	71.0	67.0	64.3	68.3	66.8

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SimTraffic Performance Report

Baseline

18.2.2016

1: Ljubljanska cesta & Cesta 2. grupe odredov Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.2	0.1	0.0	0.2	0.1
Delay / Veh (s)	6.1	7.1	6.6	5.6	5.8	5.0	4.6	5.6	5.0	5.4	6.5	5.2
Stop Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
St Del/Veh (s)	2.5	2.4	2.8	2.0	1.2	1.5	0.9	1.0	0.9	1.9	2.0	1.6
Total Stops	14	13	33	17	10	11	4	20	12	6	18	7
Travel Dist (km)	6.9	8.7	17.0	12.8	10.6	11.4	2.1	14.9	8.0	5.0	20.5	9.6
Travel Time (hr)	0.3	0.3	0.6	0.4	0.3	0.3	0.1	0.5	0.3	0.2	0.7	0.3
Avg Speed (kph)	28	28	27	34	34	34	28	28	28	31	31	31
Vehicles Entered	43	54	105	52	44	46	18	135	69	27	109	51
Vehicles Exited	43	53	104	52	43	47	18	135	68	26	109	51
Hourly Exit Rate	86	106	208	104	86	94	36	270	136	52	218	102
Input Volume	76	104	219	108	84	88	33	259	139	52	226	100
%of Volume	113	102	95	96	102	107	109	104	98	100	96	102
Occupancy (veh)	0	1	1	1	1	1	0	1	1	0	1	1

1: Ljubljanska cesta & Cesta 2. grupe odredov Performance by movement

Movement	All
Total Delay (hr)	1.2
Delay / Veh (s)	5.9
Stop Delay (hr)	0.4
St Del/Veh (s)	1.7
Total Stops	165
Travel Dist (km)	127.4
Travel Time (hr)	4.3
Avg Speed (kph)	30
Vehicles Entered	753
Vehicles Exited	749
Hourly Exit Rate	1498
Input Volume	1488
%of Volume	101
Occupancy (veh)	8

SimTraffic Performance Report

Baseline

18.2.2016

2: Sokolska ulica & Cesta 2. grupe odredov Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.1	0.1	0.2	0.8	0.2	0.5	0.1	0.3	0.1	0.1	0.4	0.0
Delay / Veh (s)	27.3	33.1	15.9	79.0	62.9	56.3	7.0	5.2	5.0	9.4	7.3	5.6
Stop Delay (hr)	0.0	0.1	0.2	0.8	0.2	0.5	0.1	0.2	0.1	0.1	0.3	0.0
St Del/Veh (s)	25.2	30.7	14.9	80.3	63.4	58.4	5.1	3.3	4.2	6.2	4.7	4.0
Total Stops	7	7	38	29	9	25	33	15	9	20	38	3
Travel Dist (km)	1.1	1.0	8.0	2.0	0.6	1.7	2.9	7.4	3.0	4.0	28.3	2.1
Travel Time (hr)	0.1	0.1	0.5	0.8	0.2	0.5	0.2	0.4	0.2	0.2	1.2	0.1
Avg Speed (kph)	13	11	17	3	3	3	15	25	18	22	25	24
Vehicles Entered	7	7	53	35	10	29	73	189	75	30	220	16
Vehicles Exited	7	7	53	35	10	30	73	189	75	29	220	16
Hourly Exit Rate	14	14	106	70	20	60	146	378	150	58	440	32
Input Volume	12	12	115	72	24	56	151	371	156	60	471	24
% of Volume	117	117	92	97	83	107	97	102	96	97	93	133
Occupancy (veh)	0	0	1	2	0	1	0	1	0	0	2	0

2: Sokolska ulica & Cesta 2. grupe odredov Performance by movement

Movement	All
Total Delay (hr)	2.8
Delay / Veh (s)	13.7
Stop Delay (hr)	2.5
St Del/Veh (s)	12.0
Total Stops	233
Travel Dist (km)	62.2
Travel Time (hr)	4.6
Avg Speed (kph)	15
Vehicles Entered	744
Vehicles Exited	744
Hourly Exit Rate	1488
Input Volume	1524
% of Volume	98
Occupancy (veh)	9

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SimTraffic Performance Report

Baseline

18.2.2016

Total Zone Performance

Total Delay (hr)	4.1
Delay / Veh (s)	275.3
Stop Delay (hr)	2.9
St Del/Veh (s)	193.7
Total Stops	398
Travel Dist (km)	189.6
Travel Time (hr)	8.8
Avg Speed (kph)	22
Vehicles Entered	707
Vehicles Exited	52
Hourly Exit Rate	104
Input Volume	3012
%of Volume	3
Occupancy (veh)	17

Queuing and Blocking Report

Baseline

18.2.2016

Intersection: 1: Ljubljanska cesta & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	37.7	25.3	27.4	38.9
Average Queue (m)	14.1	11.2	10.2	9.7
95th Queue (m)	30.4	21.8	25.1	34.3
Link Distance (m)	162.1	243.8	102.3	187.3
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Sokolska ulica & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	40.6	59.3	31.8	96.5
Average Queue (m)	17.8	33.6	17.1	23.3
95th Queue (m)	34.9	63.9	32.6	69.8
Link Distance (m)	150.0	58.4	29.0	102.3
Upstream Blk Time (%)		10	4	1
Queuing Penalty (veh)		0	23	8
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 31

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Priloga D. 9: Izračunani parametri simulacije s programom Synchro – Varianta 0 čez dvajset let

SimTraffic Simulation Summary Baseline

5.8.2015

Summary of All Intervals

Run Number	1	2	3	4	Avg
Start Time	3:00	3:00	3:00	3:00	3:00
End Time	3:45	3:45	3:45	3:45	3:45
Total Time (min)	45	45	45	45	45
Time Recorded (min)	30	30	30	30	30
# of Intervals	2	2	2	2	2
# of Recorded Intvs	1	1	1	1	1
Vehs Entered	1355	1331	1325	1373	1348
Vehs Exited	1263	1237	1264	1266	1255
Starting Vehs	67	60	82	59	65
Ending Vehs	159	154	143	166	152
Denied Entry Before	0	0	1	0	0
Denied Entry After	75	136	74	102	96
Travel Distance (km)	594	582	596	609	595
Travel Time (hr)	89.8	87.3	84.6	68.4	82.5
Total Delay (hr)	75.0	72.7	69.8	53.1	67.6
Total Stops	1696	1386	1583	1822	1625
Fuel Used (l)	127.2	125.2	123.1	111.3	121.7

Interval #0 Information Seeding

Start Time	3:00
End Time	3:15
Total Time (min)	15
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	3:15				
End Time	3:45				
Total Time (min)	30				
Volumes adjusted by PHF, Growth Factors.					
Run Number	1	2	3	4	Avg
Vehs Entered	1355	1331	1325	1373	1348
Vehs Exited	1263	1237	1264	1266	1255
Starting Vehs	67	60	82	59	65
Ending Vehs	159	154	143	166	152
Denied Entry Before	0	0	1	0	0
Denied Entry After	75	136	74	102	96
Travel Distance (km)	594	582	596	609	595
Travel Time (hr)	89.8	87.3	84.6	68.4	82.5
Total Delay (hr)	75.0	72.7	69.8	53.1	67.6
Total Stops	1696	1386	1583	1822	1625
Fuel Used (l)	127.2	125.2	123.1	111.3	121.7

SimTraffic Performance Report

Baseline

5.8.2015

1: Ljubljanska cesta & Cesta 2. grupe odredov Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.1	0.1	0.1	0.1	0.0	0.0	0.5	3.3	1.8	2.1	9.0	4.5
Delay / Veh (s)	4.9	3.7	2.5	6.4	3.3	2.6	102.9	90.0	94.3	331.3	288.9	309.8
Stop Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.5	3.2	1.8	2.1	8.9	4.5
St Del/Veh (s)	1.4	0.6	0.6	3.3	0.7	0.9	101.8	87.3	94.5	330.2	286.5	310.7
Total Stops	15	1	8	36	4	8	18	133	71	16	86	34
Travel Dist (km)	8.2	10.7	22.6	15.4	13.4	13.8	2.1	15.6	8.6	4.5	21.8	10.2
Travel Time (hr)	0.3	0.3	0.7	0.5	0.4	0.4	0.5	3.6	2.0	2.2	9.5	4.8
Avg Speed (kph)	30	34	31	32	39	35	4	4	4	4	3	4
Vehicles Entered	48	63	134	61	54	56	17	136	70	25	118	55
Vehicles Exited	48	62	133	61	53	55	16	129	67	22	106	48
Hourly Exit Rate	96	124	266	122	106	110	32	258	134	44	212	96
Input Volume	92	127	267	131	103	107	40	316	170	63	276	122
%of Volume	104	98	100	93	103	103	80	82	79	70	77	79
Occupancy (veh)	1	1	1	1	1	1	1	7	4	2	12	6

1: Ljubljanska cesta & Cesta 2. grupe odredov Performance by movement

Movement	All
Total Delay (hr)	21.5
Delay / Veh (s)	94.8
Stop Delay (hr)	21.1
St Del/Veh (s)	92.8
Total Stops	430
Travel Dist (km)	147.0
Travel Time (hr)	25.2
Avg Speed (kph)	8
Vehicles Entered	837
Vehicles Exited	800
Hourly Exit Rate	1600
Input Volume	1814
%of Volume	88
Occupancy (veh)	38

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SimTraffic Performance Report

Baseline

5.8.2015

2: Sokolska ulica & Cesta 2. grupe odredov Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.1	0.1	1.1	4.7	1.4	2.4	1.3	3.1	1.7	0.1	0.6	0.0
Delay / Veh (s)	77.3	89.6	52.1	446.7	496.1	374.1	55.8	55.4	68.6	15.5	8.8	5.6
Stop Delay (hr)	0.1	0.1	1.0	4.8	1.4	2.4	1.2	2.9	1.7	0.1	0.4	0.0
St Del/Veh (s)	75.2	86.9	50.9	452.8	502.5	381.0	53.3	51.8	67.0	11.3	5.5	3.8
Total Stops	6	5	68	10	4	6	47	74	25	26	57	2
Travel Dist (km)	0.9	0.7	11.3	2.2	0.6	1.3	3.2	7.9	3.5	4.2	28.9	1.9
Travel Time (hr)	0.2	0.1	1.4	4.8	1.4	2.4	1.4	3.2	1.8	0.3	1.3	0.1
Avg Speed (kph)	6	5	8	1	1	1	10	9	12	16	22	23
Vehicles Entered	6	5	77	39	11	24	82	200	90	34	252	16
Vehicles Exited	6	5	72	36	9	23	82	199	90	34	252	16
Hourly Exit Rate	12	10	144	72	18	46	164	398	180	68	504	32
Input Volume	15	16	140	88	30	68	184	454	190	73	574	30
%of Volume	80	62	103	82	60	68	89	88	95	93	88	107
Occupancy (veh)	0	0	3	4	1	2	1	2	1	1	3	0

2: Sokolska ulica & Cesta 2. grupe odredov Performance by movement

Movement	All
Total Delay (hr)	16.6
Delay / Veh (s)	72.5
Stop Delay (hr)	16.2
St Del/Veh (s)	70.4
Total Stops	330
Travel Dist (km)	66.7
Travel Time (hr)	18.5
Avg Speed (kph)	8
Vehicles Entered	836
Vehicles Exited	824
Hourly Exit Rate	1648
Input Volume	1862
%of Volume	89
Occupancy (veh)	17

SimTraffic Performance Report

Baseline

5.8.2015

Total Zone Performance

Total Delay (hr)	38.2
Delay / Veh (s)	1696.8
Stop Delay (hr)	37.2
St Del/Veh (s)	1655.1
Total Stops	760
Travel Dist (km)	213.7
Travel Time (hr)	43.7
Avg Speed (kph)	8
Vehicles Entered	819
Vehicles Exited	60
Hourly Exit Rate	120
Input Volume	3676
% of Volume	3
Occupancy (veh)	56

Queuing and Blocking Report

Baseline

5.8.2015

Intersection: 1: Ljubljanska cesta & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	21.0	31.1	123.5	203.6
Average Queue (m)	8.8	13.2	108.1	161.7
95th Queue (m)	18.9	26.2	142.1	247.7
Link Distance (m)	169.7	250.8	109.8	194.7
Upstream Blk Time (%)			28	47
Queuing Penalty (veh)			146	0
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Sokolska ulica & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	94.2	64.9	39.1	107.2
Average Queue (m)	35.5	58.9	31.2	31.8
95th Queue (m)	87.5	74.3	38.5	84.9
Link Distance (m)	150.0	58.4	29.0	109.8
Upstream Blk Time (%)	0	73	32	1
Queuing Penalty (veh)	0	0	235	3
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 384

Priloga D. 10: Izračunani parametri simulacije s programom Synchro – Varianta 2 čez dvajset let

SimTraffic Simulation Summary Baseline

5.1.2016

Summary of All Intervals

Run Number	1	2	3	krožno4	planska doba	Avg
Start Time	3:00	3:00	3:00	3:00	3:00	3:00
End Time	3:45	3:45	3:45	3:45	3:45	3:45
Total Time (min)	45	45	45	45	45	45
Time Recorded (min)	30	30	30	30	30	30
# of Intervals	2	2	2	2	2	2
# of Recorded Intvs	1	1	1	1	1	1
Vehs Entered	1429	1466	1399	1471	1418	1438
Vehs Exited	1427	1451	1412	1432	1407	1425
Starting Vehs	63	54	76	62	60	62
Ending Vehs	65	69	63	101	71	72
Denied Entry Before	0	0	1	0	1	0
Denied Entry After	1	1	0	4	0	2
Travel Distance (km)	667	683	662	683	664	672
Travel Time (hr)	27.9	31.8	31.3	36.7	34.0	32.3
Total Delay (hr)	11.2	14.7	14.8	19.5	17.4	15.5
Total Stops	1528	1791	1611	1897	1783	1720
Fuel Used (l)	83.4	87.9	85.1	91.2	87.4	87.0

Interval #0 Information Seeding

Start Time	3:00
End Time	3:15
Total Time (min)	15
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	3:15					
End Time	3:45					
Total Time (min)	30					
Volumes adjusted by PHF, Growth Factors.						
Run Number	1	2	3	krožno4	planska doba	Avg
Vehs Entered	1429	1466	1399	1471	1418	1438
Vehs Exited	1427	1451	1412	1432	1407	1425
Starting Vehs	63	54	76	62	60	62
Ending Vehs	65	69	63	101	71	72
Denied Entry Before	0	0	1	0	1	0
Denied Entry After	1	1	0	4	0	2
Travel Distance (km)	667	683	662	683	664	672
Travel Time (hr)	27.9	31.8	31.3	36.7	34.0	32.3
Total Delay (hr)	11.2	14.7	14.8	19.5	17.4	15.5
Total Stops	1528	1791	1611	1897	1783	1720
Fuel Used (l)	83.4	87.9	85.1	91.2	87.4	87.0

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SimTraffic Performance Report

Baseline

5.1.2016

1: Ljubljanska cesta & Cesta 2. grupe odredov Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.4	0.4	1.0	0.1	0.1	0.1	0.0	0.3	0.1	0.1	0.6	0.3
Delay / Veh (s)	28.7	26.7	26.3	7.1	8.3	7.9	6.3	6.5	6.3	16.8	16.1	15.8
Stop Delay (hr)	0.3	0.4	0.9	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.4	0.2
St Del/Veh (s)	25.8	22.7	23.2	3.4	3.7	4.1	1.6	1.7	1.9	13.2	11.4	12.1
Travel Dist (km)	8.1	10.2	22.6	14.7	12.8	13.3	2.5	19.9	11.2	6.0	25.0	11.8
Travel Time (hr)	0.6	0.7	1.6	0.5	0.4	0.4	0.1	0.8	0.4	0.3	1.2	0.6
Avg Speed (kph)	14	15	15	32	31	31	25	25	25	20	21	21
Vehicles Entered	48	61	135	60	53	55	19	159	85	32	135	65
Vehicles Exited	48	59	133	60	52	55	19	159	85	32	136	64
Hourly Exit Rate	96	118	266	120	104	110	38	318	170	64	272	128
Input Volume	92	127	267	131	103	107	40	316	170	63	276	122
%of Volume	104	93	100	92	101	103	95	101	100	102	99	105
Occupancy (veh)	1	1	3	1	1	1	0	2	1	1	2	1

1: Ljubljanska cesta & Cesta 2. grupe odredov Performance by movement

Movement	All
Total Delay (hr)	3.7
Delay / Veh (s)	14.6
Stop Delay (hr)	2.6
St Del/Veh (s)	10.5
Travel Dist (km)	158.1
Travel Time (hr)	7.6
Avg Speed (kph)	21
Vehicles Entered	907
Vehicles Exited	902
Hourly Exit Rate	1804
Input Volume	1814
%of Volume	99
Occupancy (veh)	15

SimTraffic Performance Report

Baseline

5.1.2016

2: Sokolska ulica & Cesta 2. grupe odredov Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.0	0.0	0.2	0.1	0.0	0.0	0.4	1.0	0.4	0.3	2.1	0.1
Delay / Veh (s)	6.9	9.8	10.5	6.6	4.8	5.9	17.3	16.0	15.3	29.8	27.0	23.2
Stop Delay (hr)	0.0	0.0	0.2	0.1	0.0	0.0	0.4	0.9	0.4	0.3	1.7	0.1
St Del/Veh (s)	4.8	6.9	8.2	5.5	3.6	4.6	15.3	13.4	13.3	26.1	22.7	19.2
Travel Dist (km)	0.9	1.0	10.9	2.3	0.8	1.6	2.6	6.4	2.7	4.8	34.1	2.2
Travel Time (hr)	0.0	0.0	0.5	0.2	0.1	0.1	0.5	1.2	0.5	0.4	2.9	0.2
Avg Speed (kph)	23	21	20	14	16	15	17	16	17	11	12	13
Vehicles Entered	7	7	77	45	16	30	92	230	99	37	277	17
Vehicles Exited	7	7	76	44	15	30	92	230	99	36	274	17
Hourly Exit Rate	14	14	152	88	30	60	184	460	198	72	548	34
Input Volume	15	16	140	88	30	68	184	454	190	73	574	30
%of Volume	93	88	109	100	100	88	100	101	104	99	95	113
Occupancy (veh)	0	0	1	0	0	0	0	1	0	1	6	0

2: Sokolska ulica & Cesta 2. grupe odredov Performance by movement

Movement	All
Total Delay (hr)	4.8
Delay / Veh (s)	18.5
Stop Delay (hr)	4.0
St Del/Veh (s)	15.6
Travel Dist (km)	70.5
Travel Time (hr)	6.6
Avg Speed (kph)	14
Vehicles Entered	934
Vehicles Exited	927
Hourly Exit Rate	1854
Input Volume	1862
%of Volume	100
Occupancy (veh)	10

Total Zone Performance

Total Delay (hr)	8.4
Delay / Veh (s)	416.5
Stop Delay (hr)	6.7
St Del/Veh (s)	329.0
Travel Dist (km)	228.6
Travel Time (hr)	14.2
Avg Speed (kph)	18
Vehicles Entered	874
Vehicles Exited	69
Hourly Exit Rate	138
Input Volume	3676
%of Volume	4
Occupancy (veh)	25

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Queuing and Blocking Report

Baseline

5.1.2016

Intersection: 1: Ljubljanska cesta & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	105.0	34.5	32.4	72.8
Average Queue (m)	46.1	16.2	14.0	32.1
95th Queue (m)	115.5	30.9	27.8	77.8
Link Distance (m)	168.4	243.8	100.7	183.8
Upstream Blk Time (%)	1			
Queuing Penalty (veh)	0			
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Sokolska ulica & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	39.9	28.3	23.6	114.2
Average Queue (m)	16.0	12.2	16.5	59.7
95th Queue (m)	33.8	24.6	22.0	124.1
Link Distance (m)	141.5	52.0	17.1	100.7
Upstream Blk Time (%)			6	9
Queuing Penalty (veh)			43	60
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 103

Priloga D. 11: Izračunani parametri simulacije s programom Synchro Varianta 5 čez dvajset let

SimTraffic Simulation Summary Baseline

7.1.2016

Summary of All Intervals

Run Number	resitev s spremenjeno prometno signalizacijo	planska doba	Avg
Start Time	3:00	3:00	3:00
End Time	3:45	3:45	3:45
Total Time (min)	45	45	45
Time Recorded (min)	30	30	30
# of Intervals	2	2	2
# of Recorded Intvs	1	1	1
Vehs Entered	1376	1408	1383
Vehs Exited	1337	1367	1356
Starting Vehs	67	60	73
Ending Vehs	106	101	100
Denied Entry Before	0	0	1
Denied Entry After	54	59	16
Travel Distance (km)	628	641	636
Travel Time (hr)	57.3	58.5	50.5
Total Delay (hr)	41.4	42.2	34.4
Total Stops	1355	1366	1361
Fuel Used (l)	102.1	104.4	96.2

Interval #0 Information Seeding

Start Time	3:00
End Time	3:15
Total Time (min)	15
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	3:15					
End Time	3:45					
Total Time (min)	30					
Volumes adjusted by PHF, Growth Factors.						
Run Number	resitev s spremenjeno prometno signalizacijo	planska doba				Avg
Vehs Entered	1376	1408	1383	1419	1357	1391
Vehs Exited	1337	1367	1356	1360	1309	1345
Starting Vehs	67	60	73	60	64	62
Ending Vehs	106	101	100	119	112	108
Denied Entry Before	0	0	1	0	1	0
Denied Entry After	54	59	16	56	61	50
Travel Distance (km)	628	641	636	647	621	634
Travel Time (hr)	57.3	58.5	50.5	54.3	72.3	58.6
Total Delay (hr)	41.4	42.2	34.4	37.9	56.6	42.5
Total Stops	1355	1366	1361	1411	1120	1322
Fuel Used (l)	102.1	104.4	96.2	101.4	114.1	103.6

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SimTraffic Performance Report

Baseline

7.1.2016

1: Ljubljanska cesta & Cesta 2. grupe odredov Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	2.6	3.1	6.6	0.7	0.6	0.5	0.0	0.1	0.1	0.0	0.1	0.1
Delay / Veh (s)	214.0	208.5	202.8	44.2	42.6	35.9	5.6	3.3	2.4	5.6	3.4	2.9
Stop Delay (hr)	2.6	3.1	6.7	0.7	0.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0
St Del/Veh (s)	215.3	208.4	205.5	41.6	38.7	34.9	1.8	0.3	0.2	2.6	0.9	1.3
Travel Dist (km)	7.9	9.6	21.1	15.2	13.3	13.8	2.4	19.2	11.0	6.2	25.7	12.1
Travel Time (hr)	2.8	3.3	7.2	1.1	0.9	0.9	0.1	0.5	0.3	0.2	0.7	0.4
Avg Speed (kph)	4	4	4	14	15	15	28	36	32	30	36	32
Vehicles Entered	47	56	124	60	53	55	18	152	82	32	135	65
Vehicles Exited	42	51	111	59	52	55	18	152	82	32	136	64
Hourly Exit Rate	84	102	222	118	104	110	36	304	164	64	272	128
Input Volume	92	127	267	131	103	107	40	316	170	63	276	122
%of Volume	91	80	83	90	101	103	90	96	96	102	99	105
Occupancy (veh)	4	5	10	2	2	2	0	1	1	0	1	1

1: Ljubljanska cesta & Cesta 2. grupe odredov Performance by movement

Movement	All
Total Delay (hr)	14.6
Delay / Veh (s)	60.7
Stop Delay (hr)	14.3
St Del/Veh (s)	59.2
Travel Dist (km)	157.5
Travel Time (hr)	18.5
Avg Speed (kph)	11
Vehicles Entered	879
Vehicles Exited	854
Hourly Exit Rate	1708
Input Volume	1814
%of Volume	94
Occupancy (veh)	28

SimTraffic Performance Report

Baseline

7.1.2016

2: Sokolska ulica & Cesta 2. grupe odredov Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.4	0.6	3.6	6.2	2.3	4.0	0.6	1.2	0.4	0.2	0.8	0.1
Delay / Veh (s)	218.6	353.2	181.6	832.3	1183.5	689.5	22.8	18.7	15.7	20.1	10.6	12.0
Stop Delay (hr)	0.4	0.6	3.7	6.3	2.3	4.0	0.5	1.0	0.4	0.1	0.5	0.0
St Del/Veh (s)	220.3	354.8	183.0	835.3	1186.8	692.8	20.7	16.0	14.7	15.9	7.2	9.8
Travel Dist (km)	1.0	1.0	11.0	1.7	0.5	1.3	3.5	8.7	3.7	4.2	30.7	2.0
Travel Time (hr)	0.4	0.6	4.0	6.3	2.3	4.1	0.7	1.4	0.6	0.3	1.5	0.1
Avg Speed (kph)	3	2	3	1	1	1	11	18	17	14	21	18
Vehicles Entered	7	7	76	29	9	23	92	230	99	33	260	15
Vehicles Exited	6	5	69	25	7	21	92	230	99	32	260	16
Hourly Exit Rate	12	10	138	50	14	42	184	460	198	64	520	32
Input Volume	15	16	140	88	30	68	184	454	190	73	574	30
%of Volume	80	62	99	57	47	62	100	101	104	88	91	107
Occupancy (veh)	1	1	7	5	2	3	1	1	0	1	3	0

2: Sokolska ulica & Cesta 2. grupe odredov Performance by movement

Movement	All
Total Delay (hr)	20.4
Delay / Veh (s)	84.2
Stop Delay (hr)	19.9
St Del/Veh (s)	82.2
Travel Dist (km)	69.2
Travel Time (hr)	22.3
Avg Speed (kph)	6
Vehicles Entered	880
Vehicles Exited	862
Hourly Exit Rate	1724
Input Volume	1862
%of Volume	93
Occupancy (veh)	24

Total Zone Performance

Total Delay (hr)	35.0
Delay / Veh (s)	1447.3
Stop Delay (hr)	34.2
St Del/Veh (s)	1413.3
Travel Dist (km)	226.8
Travel Time (hr)	40.8
Avg Speed (kph)	9
Vehicles Entered	827
Vehicles Exited	65
Hourly Exit Rate	130
Input Volume	3676
%of Volume	4
Occupancy (veh)	52

Queuing and Blocking Report

Baseline

7.1.2016

Intersection: 1: Ljubljanska cesta & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	186.2	102.0	22.2	40.1
Average Queue (m)	143.9	49.1	6.2	10.3
95th Queue (m)	231.5	95.4	18.9	29.1
Link Distance (m)	179.0	252.9	119.4	188.4
Upstream Blk Time (%)	45			
Queuing Penalty (veh)	0			
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Sokolska ulica & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	120.5	68.5	33.4	122.9
Average Queue (m)	74.4	62.3	24.7	42.2
95th Queue (m)	159.9	79.1	36.5	104.4
Link Distance (m)	151.7	61.3	27.6	119.4
Upstream Blk Time (%)	15	85	11	2
Queuing Penalty (veh)	0	0	80	10
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 90

Priloga D. 12: Izračunani parametri simulacije s programom Synchro Varianta 1 čez dvajset let

SimTraffic Simulation Summary Baseline

7.1.2016

Summary of All Intervals

Run Number	1	2	3	4	semafor	Avg
Start Time	3:00	3:00	3:00	3:00	3:00	3:00
End Time	3:45	3:45	3:45	3:45	3:45	3:45
Total Time (min)	45	45	45	45	45	45
Time Recorded (min)	30	30	30	30	30	30
# of Intervals	2	2	2	2	2	2
# of Recorded Intvls	1	1	1	1	1	1
Vehs Entered	1264	1328	1180	1227	1258	1250
Vehs Exited	1235	1260	1149	1162	1218	1206
Starting Vehs	98	88	95	89	96	91
Ending Vehs	127	156	126	154	136	138
Denied Entry Before	1	17	1	3	28	11
Denied Entry After	167	156	219	251	187	196
Travel Distance (km)	577	594	545	563	583	572
Travel Time (hr)	105.8	107.9	120.5	121.9	116.5	114.5
Total Delay (hr)	91.5	93.0	107.0	108.0	102.0	100.3
Total Stops	2068	2476	2423	2167	2707	2372
Fuel Used (l)	140.3	143.7	149.5	153.2	149.6	147.3

Interval #0 Information Seeding

Start Time	3:00
End Time	3:15
Total Time (min)	15
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	3:15					
End Time	3:45					
Total Time (min)	30					
Volumes adjusted by PHF, Growth Factors.						
Run Number	1	2	3	4	semafor	Avg
Vehs Entered	1264	1328	1180	1227	1258	1250
Vehs Exited	1235	1260	1149	1162	1218	1206
Starting Vehs	98	88	95	89	96	91
Ending Vehs	127	156	126	154	136	138
Denied Entry Before	1	17	1	3	28	11
Denied Entry After	167	156	219	251	187	196
Travel Distance (km)	577	594	545	563	583	572
Travel Time (hr)	105.8	107.9	120.5	121.9	116.5	114.5
Total Delay (hr)	91.5	93.0	107.0	108.0	102.0	100.3
Total Stops	2068	2476	2423	2167	2707	2372
Fuel Used (l)	140.3	143.7	149.5	153.2	149.6	147.3

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SimTraffic Performance Report

Baseline

7.1.2016

1: Ljubljanska cesta & Cesta 2. grupe odredov Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.6	0.7	1.5	0.7	0.6	0.5	0.1	0.6	0.3	0.6	2.2	1.0
Delay / Veh (s)	46.2	44.8	40.4	39.4	39.1	31.1	25.2	19.1	15.5	69.5	58.7	56.3
Stop Delay (hr)	0.5	0.6	1.3	0.6	0.5	0.4	0.1	0.4	0.2	0.5	1.8	0.9
St Del/Veh (s)	39.2	37.0	35.1	34.6	33.2	27.6	20.0	13.0	11.4	61.2	49.6	49.6
Travel Dist (km)	8.2	10.3	22.8	15.1	13.2	13.7	1.9	14.0	7.5	6.3	26.2	12.4
Travel Time (hr)	0.8	1.0	2.1	1.0	0.9	0.8	0.2	0.9	0.5	0.8	2.8	1.3
Avg Speed (kph)	10	11	11	15	16	17	12	15	16	9	10	10
Vehicles Entered	48	61	135	60	53	55	15	118	60	32	135	65
Vehicles Exited	49	60	133	60	51	54	15	118	60	31	131	62
Hourly Exit Rate	98	120	266	120	102	108	30	236	120	62	262	124
Input Volume	92	127	267	131	103	107	40	316	170	63	276	122
%of Volume	107	94	100	92	99	101	75	75	71	98	95	102
Occupancy (veh)	2	2	4	2	2	2	0	2	1	1	5	3

1: Ljubljanska cesta & Cesta 2. grupe odredov Performance by movement

Movement	All
Total Delay (hr)	9.3
Delay / Veh (s)	40.2
Stop Delay (hr)	7.8
St Del/Veh (s)	33.9
Travel Dist (km)	151.6
Travel Time (hr)	13.1
Avg Speed (kph)	12
Vehicles Entered	837
Vehicles Exited	824
Hourly Exit Rate	1648
Input Volume	1814
%of Volume	91
Occupancy (veh)	26

SimTraffic Performance Report

Baseline

7.1.2016

2: Sokolska ulica & Cesta 2. grupe odredov Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.0	0.0	0.2	0.4	0.1	0.2	2.4	5.1	2.4	0.3	1.8	0.1
Delay / Veh (s)	19.6	23.9	10.9	31.8	23.8	19.0	127.3	114.2	129.3	32.8	24.2	23.3
Stop Delay (hr)	0.0	0.0	0.2	0.4	0.1	0.2	2.4	4.9	2.4	0.3	1.3	0.1
St Del/Veh (s)	17.5	21.0	9.9	30.6	22.8	18.4	125.0	110.5	127.8	26.7	17.8	18.9
Travel Dist (km)	1.0	1.1	11.6	2.6	0.9	1.7	2.8	6.5	2.7	4.4	31.2	2.1
Travel Time (hr)	0.1	0.1	0.6	0.5	0.1	0.2	2.5	5.2	2.5	0.5	2.6	0.2
Avg Speed (kph)	15	14	19	5	7	8	6	7	8	10	12	12
Vehicles Entered	7	7	77	45	16	30	69	161	69	37	273	17
Vehicles Exited	7	7	77	44	15	30	68	160	68	35	270	17
Hourly Exit Rate	14	14	154	88	30	60	136	320	136	70	540	34
Input Volume	15	16	140	88	30	68	184	454	190	73	574	30
%of Volume	93	88	110	100	100	88	74	70	72	96	94	113
Occupancy (veh)	0	0	1	1	0	0	1	2	1	1	5	0

2: Sokolska ulica & Cesta 2. grupe odredov Performance by movement

Movement	All
Total Delay (hr)	13.1
Delay / Veh (s)	59.1
Stop Delay (hr)	12.3
St Del/Veh (s)	55.3
Travel Dist (km)	68.5
Travel Time (hr)	15.0
Avg Speed (kph)	11
Vehicles Entered	808
Vehicles Exited	798
Hourly Exit Rate	1596
Input Volume	1862
%of Volume	86
Occupancy (veh)	13

Total Zone Performance

Total Delay (hr)	22.4
Delay / Veh (s)	1187.2
Stop Delay (hr)	20.1
St Del/Veh (s)	1065.4
Travel Dist (km)	220.2
Travel Time (hr)	28.1
Avg Speed (kph)	11
Vehicles Entered	854
Vehicles Exited	58
Hourly Exit Rate	116
Input Volume	3676
%of Volume	3
Occupancy (veh)	39

Queuing and Blocking Report

Baseline

7.1.2016

Intersection: 1: Ljubljanska cesta & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	133.9	103.6	72.5	159.8
Average Queue (m)	71.7	48.2	35.6	86.7
95th Queue (m)	155.1	100.5	68.9	171.5
Link Distance (m)	169.7	250.8	109.8	194.7
Upstream Blk Time (%)	3			4
Queuing Penalty (veh)	0			0
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Sokolska ulica & Cesta 2. grupe odredov

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	39.8	57.0	39.3	112.2
Average Queue (m)	19.3	26.3	33.0	73.1
95th Queue (m)	36.1	51.3	37.9	126.3
Link Distance (m)	150.0	58.4	29.0	109.8
Upstream Blk Time (%)		1	48	6
Queuing Penalty (veh)		0	348	43
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 390