



S.1 NASLOVNA STRAN NAČRTA

PODATKI O GRADNJI

naziv gradnje	Kapacitetna analiza cestnega priključka na R3-645/1188 (Litijska cesta) in priključka na LC 213011 (Cesto II. grupe odredov) v sklopu OPPN 141 Ob cesti
kratek opis gradnje	Na območju je predvidena izgradnja 36-ih novih stanovanjskih enot, ki se bodo prometno priključevali na Litijsko cesto in Cesto II. grupe odredov
vrste gradnje	<input checked="" type="checkbox"/> novogradnja – novozgrajen objekt <input type="checkbox"/> novogradnja – prizidava <input type="checkbox"/> rekonstrukcija <input type="checkbox"/> sprememba namembnosti <input type="checkbox"/> odstranitev celotnega objekta <input type="checkbox"/> legalizacija <input type="checkbox"/> manjša rekonstrukcija


PODATKI O PROJEKTNi DOKUMENTACIJI

vrsta dokumentacije	Strokovna podlaga OPPN
številka projekta	UP 18-013

PODATKI O NAČRTU

strokovno področje načrta	9 Načrt s področja prometnega inženirstva
naziv načrta	9/1 Kapacitetna analiza
številka načrta	232/24-P
datum izdelave	Marec 2025
datum spremembe	

PODATKI O PROJEKTANTU NAČRTA

projektant načrta (naziv družbe)	IB-KOM d.o.o.
naslov	Drofenikova ulica 16, 3230 Šentjur
odgovorna oseba projektanta načrta	Jernej Kobe, univ.dipl.inž.grad.
podpis odgovorne osebe projektanta načrta	

IB-KOM
Inženirski biro Kobe Mlaker d.o.o.

PODATKI O IZDELOVALCU NAČRTA

ime in priimek pooblaščenega arhitekta, pooblaščenega inženirja	Jernej Kobe, univ.dipl.inž.grad.
identifikacijska številka	P-0012
podpis pooblaščenega arhitekta, pooblaščenega inženirja	

JERNEJ KOBE
univ.dipl.inž.grad.
IZS PI P-0012

1188 213011		000.0201	S.1	
----------------	--	----------	-----	--



S.2 PODATKI O PROJEKTANTIH

UDELEŽENI STROKOVNJAKI PRI PROJEKTIRANJU

POOBlašČeni inženirji s področja prometnega inženirstva

Ime in priimek, strokovna izobrazba,
identifikacijska številka

Jernej Kobe, univ.dipl.inž.grad., IZS P-0012

navedba gradiv, ki so jih izdelali

9/1 Kapacitetna analiza

SEZNAM OSTALIH SODELAVCEV

Ime in priimek, strokovna izobrazba

Pavel Mlaker, univ. dipl. inž. grad., IZS P-0011

1188 213011		000.0201	S.2	
------------------------	--	-----------------	------------	--



S.3.2 VSEBINA ELABORATA

KAZALO VSEBINE ELABORATA

S.1 NASLOVNA STRAN NAČRTA.....	1
S.2 PODATKI O PROJEKTANTIH.....	1
S.3.2 VSEBINA ELABORATA.....	1
S.4 PROJEKTNA NALOGA	1
T.1.1 PROMETNA ŠTUDIJA.....	1
1 UVOD.....	1
2 OPIS OBSTOJEČEGA STANJA.....	2
3 PROJEKTNE OSNOVE	3
4 PODATKI O PROMETU	4
4.1 Avtomatski števci prometa na državnih cestah	4
4.1.1 Rast prometa.....	5
4.2 Ročno štetje prometa.....	5
4.2.1 Opazovanje odvijanja prometa	7
4.3 Analiza prometnih podatkov.....	8
4.4 Generacija in distribucija prometa.....	9
4.5 Distribucija prometa	10
5 KAPACITETNA ANALIZA	11
5.1 Uporabljeno orodje in metodologija.....	12
5.2 Rezultati analize z orodjem Synchro in SimTraffic	13
5.2.1 OBSTOJEČE STANJE.....	14
5.2.2 POLNA POZIDAVA OPPN 141 OB CESTI (varianta V1)	16
6 ZAKLJUČEK.....	20
P PRILOGE.....	1
PRILOGE P1.....	1
PRILOGE P2.....	1

KAZALO PRILOG

ŠT.	NASLOV PRILOGE
P1	Analiza števnihi podatkov prometa
P2	Analiza s programskim orodjem Synchro in SimTraffic

1188 213011		000.0201	S.3.2	
------------------------	--	-----------------	--------------	--

S.4 PROJEKTNA NALOGA

Predmet naloge je kapacitetna analiza priključevanja območja OPPN 141 Ob cesti na obstoječo cestno mrežo. Na severnem delu se območje priključuje na Litijško cesto (regionalna cesta R3-645/1188), na jugu pa na Cesta II. grupe odredov (lokalna cesta LC 213011). V sklopu OPPN 141 Ob cesti je predvidena pozidava območja s 36-imi stanovanjskimi enotami.

1188 213011		000.0201	S.4	
------------------------	--	-----------------	------------	--

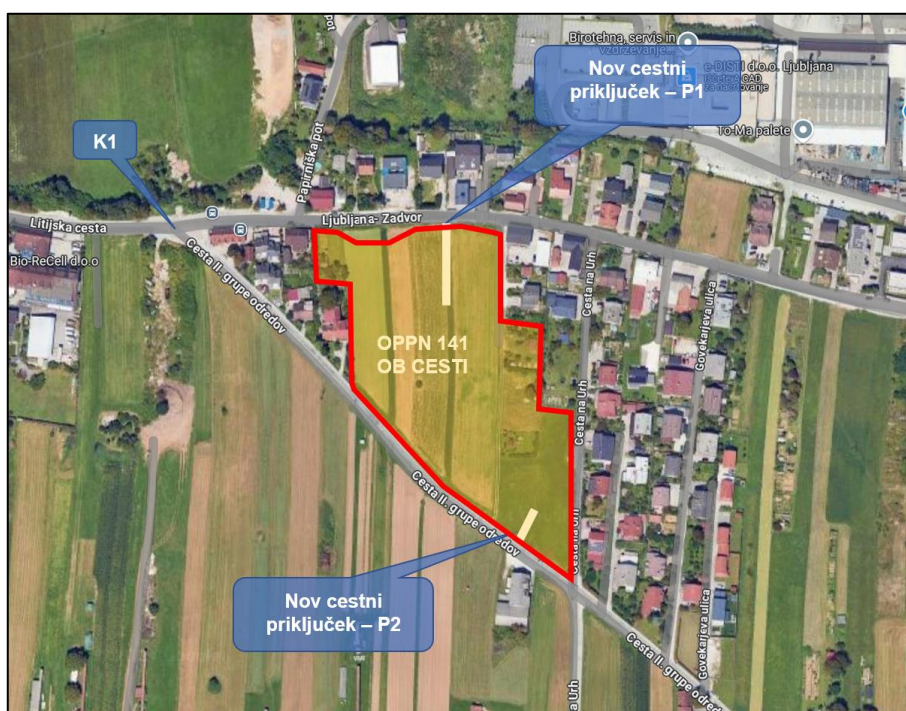
T.1.1 PROMETNA ŠTUDIJA

1 UVOD

Predmet naloge je kapacitetna analiza priključevanja območja OPPN 141 Ob cesti na obstoječo cestno mrežo. Območje urejanja z OPPN 141 se nahaja ob Litijski cesti v Ljubljani. Na severu se območje priključuje na regionalno cesto R3-645/1188 Ljubljana (Litijska cesta) - Zadvor, na jugu pa na lokalno cesto LC 213011 (Cesto II. grupe odredov).



Slika 1: makro lokacija obravnavanega priključka



Slika 2: mikro lokacija obravnavanega priključka

1188 213011		000.0201	T.1.1	
----------------	--	----------	-------	--

2 OPIS OBSTOJEČEGA STANJA

Severni cestni priključek P1 se priključuje na državno cesto R3-645/1188 v km cca 0+980. Državna cesta je na mestu priključevanja urejena kot dvosmerna asfaltna cesta s širino voznih pasov 2 x 3,00 m ter robnimi pasovi širine 0,25 m. Cestni odsek se nahaja v naselju, kjer je s splošnim predpisom hitrost vozil omejena na 50km/h. Površine za pešce in kolesarje vzdolž ceste niso urejene. Delno je urejena cestna razsvetljava.



Slika 3: pogled na območje priključevanja P1 – gledano v smeri stacionaže



Slika 4: pogled na območje priključevanja P1 – gledano v nasprotni smeri stacionaže

Južni priključek P2 se priključuje na lokalno cesto LC 213011 (Cesto II. grupe odredov) na levi strani v smeri stacionaže v km cca 0+290. Cestni odsek se nahaja v naselju, kjer je s splošnim predpisom hitrost vozil omejena na 50km/h. Na območju priključevanja je lokalna cesta urejena kot asfaltna cesta širine 5,30m, brez sredinske ločilne črte. Na levi strani v smeri stacionaže je urejen deniveliran hodnik za pešce širine 1,50 m. Na desni strani je urejena cestna razsvetljava.



Slika 5: pogled na območje priključevanja P2 – gledano v smeri stacionaže



Slika 6: pogled na območje priključevanja P2 – gledano v nasprotni smeri stacionaže

1188 213011		000.0201	T.1.1	
------------------------	--	-----------------	--------------	--

3 PROJEKTNE OSNOVE

V sklopu izdelave kapacitetne analize, so bili upoštevani sledeči podatki in naslednja relevantna dokumentacija:

- Aktualne prometne obremenitve v križiščih (štetje prometa z video zajemom podatkov).
- Prometne obremenitve pridobljene iz bližnjega avtomatskega števca prometa na državni cesti.
- OPPN 141 Ob cesti – del; številka naloge UP 18-013, izdelal Šabec Kalan Šabec arhitekti, januar 2025

Pri izdelavi prometne študije z idejno rešitvijo je bila upoštevana naslednja zakonodaja:

- Gradbeni zakon (Ur. l. RS št. 61/2017 z dopolnitvami).
- Zakon o cestah (Ur.l. RS št. 109/10).
- Pravilnik o projektiranju cest (Ur.l. RS št. 91/05 z dopolnitvami).
- Pravilnik o cestnih priključkih na javne ceste (Ur.l. RS št. 86/09 z dopolnitvami).
- Pravilnik o podrobnejši vsebini dokumentacije in obrazcih povezanih z graditvijo objektov (Ur. l. RS št. 36/2018, 51/2018).
- Klasifikacijski načrt za projektno dokumentacijo, NA0012-R4.0, izdal DRSI, Ljubljana februar 2019.

1188 213011		000.0201	T.1.1	
------------------------	--	-----------------	--------------	--

4 PODATKI O PROMETU

4.1 Avtomatski števec prometa na državnih cestah

Za potrebe določitve prometne rasti na obravnavanem območju in ustreznosti števnih podatkov ročnega štetja v križišču K1, smo analizirali bližnji števec prometa št. 692 Zadvor. Avtomatski števec št. 692 se nahaja na istem cestnem odseku kot križišče K1, cca 500 m vzhodnjeje.



Slika 7: analiziran avtomatski števec na obravnavanem območju

Za potrebe določitve prometne rasti na območju obravnavanega priključka je bila, skladno z zakonodajo s področja dimenzioniranja cestnih priključkov, izdelana analiza razpoložljivih prometnih podatkov na omenjenem števcu za zadnja leta.

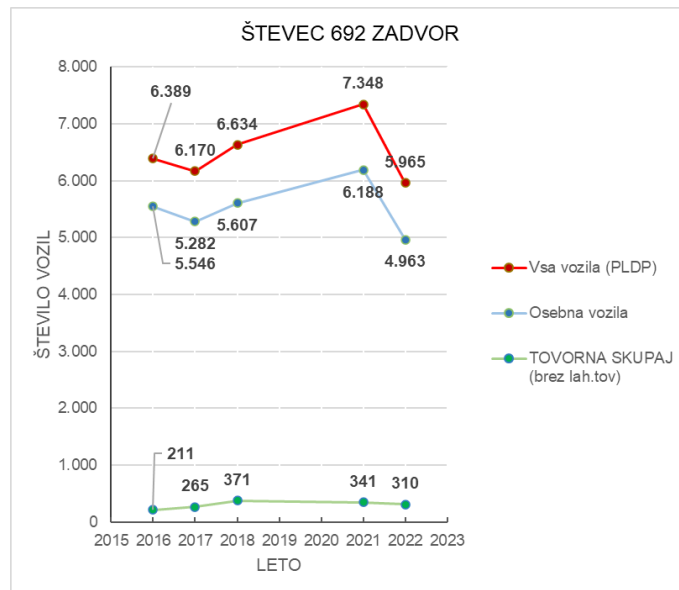
Tabela 1: podatki o prometnih obremenitvah na števcu 692 ZADVOR

Leto	Vsa vozila (PLDP)	Motorji	Osebnna vozila	Avtobusi	Lah. tov. < 3,5t	Sr. tov. 3,5-7t	Tež. tov. nad 7t	Tov. s prik.	Vlačilci	TOVORNA SKUPAJ (brez lah.tov)
2016	6.389	55	5.546	70	507	72	61	15	63	211
2017	6.170	52	5.282	72	499	75	93	19	78	265
2018	6.634	52	5.607	73	531	100	133	24	114	371
2021	7.348	81	6.188	70	668	76	163	22	80	341
2022	5.965	70	4.963	40	582	61	134	27	88	310

Leto 2020 ni merodajno zaradi epidemije Koronavirusa. V letih 2019 in 2023 pa na avtomatskem števcu ni bilo izvedeno štetje prometa preko celega leta. Navedena leta so bila izvzeta iz analize.

V preteklih letih je na cestnem odseku v povprečju zabeleženih cca 6.500 vozil/dan. Na podlagi analize števnih podatkov je razvidno, da promet nekoliko niha, v splošnem pa od leta 2016 ni zaznati bistvene rasti prometa.

1188 213011		000.0201	T.1.1	
----------------	--	----------	-------	--



Slika 8: grafični prikaz nihanja prometnih obremenitev na analiziranem avtomatskem števcu

Tabela 2: analiza faktorjev rasti prometa na analiziranem avtomatskem števcu:

Faktorji rasti – PLDP vsa vozila			Faktorji rasti – PLDP tovorna vozila		
ŠTEVEC 692 ZADVOR			ŠTEVEC 692 ZADVOR		
LETO	PLDP- vs vozila	Letna rast - vs vozila	LETO	PLDP- tov. vozila	Letna rast - tov. voz.
2016	6.389		2016	211	
2017	6.170	0,966	2017	265	1,256
2018	6.634	1,075	2018	371	1,400
2021	7.348	1,108	2021	341	0,919
2022	5.965	0,812	2022	310	0,909
	povprečni faktor rasti:	0,990		povprečni faktor rasti:	1,121

4.1.1 Rast prometa

Na podlagi analize prometnih podatkov na bližnjem avtomatskem števcu je razvidno, da v preteklih letih ni zaznani bistvene rasti prometa. V letu 2021 je promet sicer nekoliko narasel, v letu 2022 pa zopet precej upadel.

Za potrebe kapacitetne analize obravnavanega območja v planski dobi, smo na podlagi preteklih let ocenili, da bo promet sicer naraščal, vendar počasi. **Prometno rast smo ocenili z 0,5 % letno.** V planski dobi 20 let to predstavlja povečanje prometa za 11%.

4.2 Ročno štetje prometa

Dne 15.10.2024 (torek) smo izvedli 16 urno štetje prometa v križišču K1. Štetje je bilo izvedeno za potrebe določitve prometnih tokov na območju novih priključkov.

Štetje prometa je bilo izvedeno z video zajemom odvijanja prometa na terenu, in sicer med 6:00 in 22:00. Zajete so bile štiri kategorije vozil (osebna, avtobusi, tovorna, težka tovorna vozila) v

1188 213011		000.0201	T.1.1	
----------------	--	----------	-------	--

The aerial map shows the proposed road layout for OPPN 141 OB CESTI. The central area is highlighted in yellow and labeled 'OPPN 141 OB CESTI'. The map includes several callouts and labels:

- K1**: A blue callout pointing to the intersection of Litijska cesta and Cesta II. grupe odsekov.
- Nov cestni priključek – P1**: A blue callout pointing to the intersection of Cesta II. grupe odsekov and Cesta na Urh.
- Nov cestni priključek – P2**: A blue callout pointing to the intersection of Cesta II. grupe odsekov and Cesta na Urh.
- Labels on the map**:
 - Top left**: Litijska cesta, Bio-ReCell d.o.o.
 - Top center**: Ljubljana: Zadvor, Papirniška pot.
 - Top right**: Brotnja servis in posrednik, e-BIS I d.o.o. Ljubljana, VoMa pelote.
 - Center**: Cesta II. grupe odsekov, Cesta na Urh, Cesta na Urh, Cesta na Urh.
 - Bottom right**: Cesta na Urh, Cesta na Urh, Cesta na Urh.

Diagram prometnih obremenitev

Sifra križišča: K1
Ime križišča: Litijška-Cesta II.grupe
Tip križišča: ABD

Nadvoj štetja: OPPN 141 Ob cesti Datum štetja: 15.10.2024
Številka štetja: I Časovni interval: od 6:00 do 22:00

Vrsta vozil: O, B, T, V

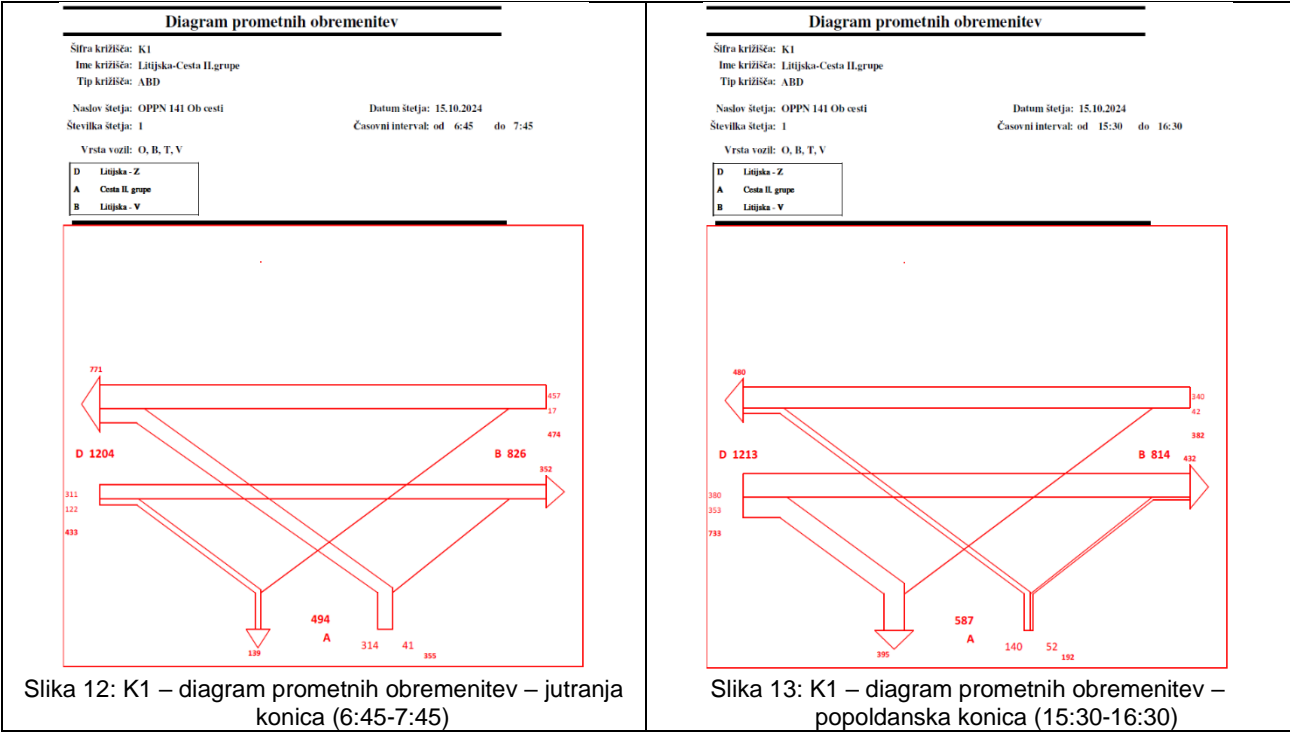
D Litijška - Z
A Cesta II. grupe
B Litijška - V

Analiza zavijalcev po strukturi prometa

Sifra križišča: K1
Ime križišča: Litijška-Cesta II.grupe
Tip križišča: ABD

Nadvoj štetja: OPPN 141 Ob cesti Datum štetja: 15.10.2024
Številka štetja: I Časovni interval: od 6:00 do 22:00

Priključek	Dovoz	Levo	% levo	Naravnost	% naravnost	Desno	% desno	Skupaj	% skupaj
A	osebni	2499	77%	0	0%	597	18%	3096	95%
	tovorni	118	4%	0	0%	10	0%	128	4%
	avtobus	1	0%	0	0%	2	0%	3	0%
	vlačilec	13	0%	0	0%	4	0%	17	1%
	tav / Skupaj	132	5%	0	0%	16	3%	148	5%
Skupaj		2631	81%	0	0%	613	19%	3244	100%
B	osebni	409	9%	3710	85%	0	0%	4119	94%
	tovorni	7	0%	150	3%	0	0%	157	4%
	avtobus	5	0%	34	1%	0	0%	39	1%
	vlačilec	3	0%	48	1%	0	0%	51	1%
	tav / Skupaj	15	4%	232	6%	0	0%	247	6%
Skupaj		424	10%	3942	90%	0	0%	4366	100%
C	osebni	0	0%	0	0%	0	0%	0	0%
	tovorni	0	0%	0	0%	0	0%	0	0%
	avtobus	0	0%	0	0%	0	0%	0	0%
	vlačilec	0	0%	0	0%	0	0%	0	0%
	tav / Skupaj	0	0%	0	0%	0	0%	0	0%
Skupaj		0	0%	0	0%	0	0%	0	0%
D	osebni	0	0%	3679	55%	2639	39%	6318	94%
	tovorni	0	0%	153	2%	127	2%	280	4%
	avtobus	0	0%	36	1%	0	0%	36	1%
	vlačilec	0	0%	49	1%	12	0%	61	1%
	tav / Skupaj	0	0%	238	6%	139	5%	377	6%
Skupaj		0	0%	3917	59%	2778	41%	6695	100%



Detaljnější analiza števnih podatkov je prikazana v prilogah.

4.2.1 Opazovanje odvijanja prometa

Na podlagi opazovanja odvijanja prometa v križišču K1 ugotavljamo, da so prometne razmere pri obstoječem stanju slabe. Zaradi velike količine prometa v vseh smereh in geometrijsko neustrezno urejenega in nepreglednega križišča, se vozila z južnega kraka (LC213011) v jutranji konici težko vključujejo na R3-645/1188 (Litijska cesta). Na južnem kraku nastajajo daljše kolone in zamude vozil.



1188 213011		000.0201	T.1.1	
----------------	--	----------	-------	--

Za preveritev ustreznosti števnih podatkov na dan štetja (torek 15.10.2024) smo analizirali dnevni promet na bližnjem avtomatskem števcu št. 692 Zadvor v preteklih letih. Primerjali smo prometne obremenitve v letu 2021 in 2022 v podobnem časovnem obdobju leta; to je torek 12.10.2021 in torek 11.10.2022.



Glede na to, da je bilo zabeleženega toliko več prometa, lahko ocenimo, da se števni podatki na dan štetja lahko uporabijo za kapacitetno analizo in smo s tem na varni strani.

4.4 Generacija in distribucija prometa

Generacija prometa zaradi novih dejavnosti v prostoru je bila ocenjena na podlagi zasnove posredovane s strani naročnika. Ocena je bila narejena s pomočjo podatkov iz priročnika »Trip Generation Manual 9th edition«, ki je uveljavljen v našem prostoru.

Generacija novega prometa je v splošnem sestavljena iz treh sklopov prometnih obremenitev:

a) nov promet, ki ga generira nova vrsta rabe

Nov promet predstavlja celoten promet, ki ga generirajo nove vrste rabe v prostoru in je odvisen od vrste rabe in njene površine oz. števila stanovanj, števila zaposlenih, itd.

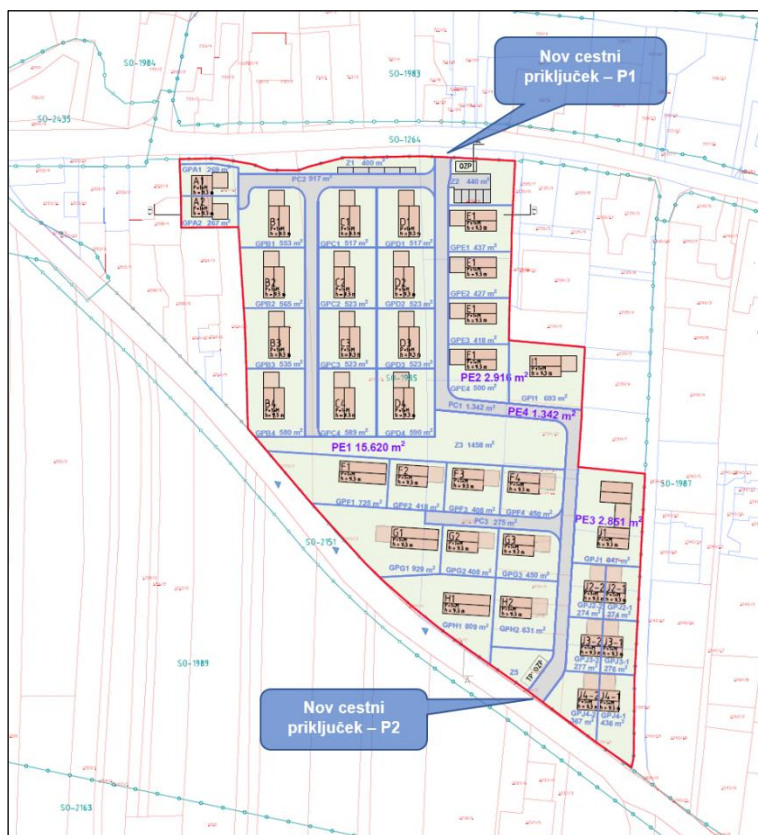
b) notranji promet (»internal trips«)

Zaradi velike raznolikosti novo predvidenih dejavnosti in velikosti nove cone, uporabljena metodologija predvideva delež notranjih potovanj (potovanja, ki se vršijo znotraj obravnavanega območja). Notranji promet predstavlja združevanje več aktivnosti v okviru enega potovanja in v splošnem to pomeni redukcijo generacije prometa novega prometa na glavni prometni smeri.

c) mimobežni promet (»pass-by trips«)

Mimobežni promet predstavlja obstoječi promet z izvorom in ciljem izven obravnavanega območja, ki ga pritegnejo nove cone. Ta potovanja dejansko ne povečujejo količine prometa na obstoječi cestni mreži, saj bi se zgodila tudi brez izgradnje novih vsebin.

Na podlagi podatkov pridobljenih s strani naročnika je na obravnavanem območju načrtovana izgradnja 36 stanovanjskih enot. Na spodnji sliki je prikazana idejna rešitev nameravane pozidave posredovana s strani naročnika.



Slika 18: Predvidena nova pozidava

1188 213011		000.0201	T.1.1	
----------------	--	----------	-------	--

V tabelah v nadaljevanju so prikazani deleži posamezne vrste rabe prostora ter izračuni števila potovanj glede na vrsto rabe s pomočjo Trip Generation Manual publikacije.

Tabela 3: upoštevana vrsta rabe prostora

raba površin	ITE šifra	dejavnosti [ITE]	ŠTEVILO ENOT
Samostojna hiša	210	Single Family Homes	36

Tabela 4: tabela s prikazom metodologije izračuna generacije novih potovanj

ITE koda	Dejavnost (ITE)	Dejavnost (slo)	Enota vnosa (ANG)	Enota vnosa (SLO)	ITE koeficienti za generacijo potovanj								Vrednost vnosa
					Dan	JK	PK	Tranzit	JK (In)	JK (Out)	PK (In)	PK (Out)	
210	Single Family Homes	Samostojna hiša	DU	št. hiš	9,52	0,75	1,00	0%	25%	75%	63%	37%	36

DU = število enot (npr. število bivalnih enot)

Tabela 5: tabela s prikazom metodologije izračuna generacije novih potovanj

ITE koda	Dejavnost (ITE)	Dejavnost (slo)	Enota vnosa (ANG)	Enota vnosa (SLO)	Vrednost vnosa	Nova potovanja			Distribucija novih potovanj					
						Dan	JK	PK	JK (In)	JK (Out)	JK (Tran.)	PK (In)	PK (Out)	PK (Tran.)
210	Single Family Homes	Samostojna hiša	DU	št. hiš	36	333	26	35	7	20	0	22	13	0

DU = število enot (npr. število bivalnih enot)

Tabela 6: tabela generiranih potovanj v jutranji in popoldanski konici (povzetek)

GENERIRAN DNEVNI PROMET			JUTRANJA KONICA			POPOLDANSKA KONICA		
Nova potovanja			Distribucija novih potovanj					
Dnevna	JK	PK	JK vhodna	JK izhodna	JK Tranzit	PK vhodna	PK izhodna	PK Tranzit
333	26	35	7	20	0	22	13	0

4.5 Distribucija prometa

Za potrebe določitve prometnih obremenitev na novih cestnih priključkih, je bila ocenjena distribucija potovanj iz in v območje OPPN 141, in sicer v smereh ter deležih, kot je prikazano na spodnji sliki. Glede na to, da se interna cesta (OS A) v večjem delu ureja kot enosmerna cesta v smeri sever-jug bo ves promet na območje uvažal preko priključka P1 (severni priključek), izvažal pa bo v razmerju kot je prikazano na sliki (30% sever, 70% jug).



Slika 19: Grafični prikaz distribucije novih potovanj (ocena)

1188 213011		000.0201	T.1.1	
----------------	--	----------	-------	--

5 KAPACITETNA ANALIZA

Kapacitetna analiza novih cestnih priključkov je bila narejena na podlagi podatkov ročnega štetja prometa v križišču K1 dne 15.10.2024 in podatkov o prometnih obremenitvah z bližnjega avtomatskega števca. Analiza je bila narejena za izhodiščno leto (privzeto leto 2028) in za plansko obdobje 20 let.

Kapacitetna analiza je bila narejena za sledeče scenarije:

- **OBST – obstoječe stanje**
 - OBST_JK_2024 (jutranja konica; leto 2024)
 - OBST_JK_2028 (jutranja konica; leto 2028)
 - OBST_PK_2024 (popoldanska konica; leto 2024)
- **V1 – dva nova cestna priključka – nekanalizirana T- priključka**
 - V1_JK_2028 (jutranja konica; leto 2028)
 - V1_JK_2048 (jutranja konica; leto 2048)
 - V1_PK_2028 (popoldanska konica; leto 2028)
 - V1_PK_2048 (popoldanska konica; leto 2048)

Analize končnega stanja so bile narejene za obe prometni konici; jutranja konica (6:45 – 7:45) in popoldanska konica (15:30 – 16:30). Upoštevane so bile dejanske prometne obremenitve osebnih vozil in tovornih vozil. V analizah so bili upoštevani dejanski faktorji konične ure (PHF), pridobljeni na podlagi štetja prometa.

Na podlagi analize števnih podatkov, se je jutranja konica izkazala kot merodajnejša. Na južnem kraku križišča K1 je v jutranji konici veliko levih zavijalcev (315 vozil/h), ki se težko vključujejo v glavno prometno smer, to je na R3-645/1188.



Slika 20: prometne obremenitve v K1 – JK 2024

1188 213011		000.0201	T.1.1	
----------------	--	----------	-------	--

5.1 Uporabljeno orodje in metodologija

Za kapacitetno analizo obravnavanega križišča smo uporabili programsko orodje Synchro s pripadajočim modulom SimTraffic, ki je skladno z metodologijo HCM 2000 (Highway Capacity Manual), ki jo predpisuje Pravilnik o projektiranju cest (Uradni list RS 91/2005). Merodajna prometna obremenitev je izražena kot število vozil na uro. V prometnih obremenitvah so upoštevana tudi tovorna vozila, ki izhajajo iz analize prometnih podatkov z avtomatskega števca prometa ter kontrolnega štetja prometa na terenu.

Za analizo prepustnosti in/ali dimenzioniranje križišč so pomembni sledeči parametri, oziroma izračuni, ki so predstavljeni v nadaljevanju:

- predvidene prometne obremenitve za izračun voz/h,
- čakalni časi oziroma zamude (določajo nivo uslug (NU)),
- število vozil v koloni in s tem zaježitvena dolžina v posamezni smeri,

Uporabljen prometni model je zajemal križišče K1 in oba načrtovana cestna priključka.

Za uspešnost delovanja križišča sta pomembna predvsem dva kriterija, in sicer kriterij prometnih obremenitev (kapaciteta), ki je izražen preko stopnje nasičenosti $X = v/c$ in kriterij čakalnih časov, ki je izražen preko zamud. Merilo so t.i. Nivoji uslug (NU) v posameznih smereh.

Na nesemaforiziranih križiščih sta kapaciteta in čakalni časi na vozni pasovih neprednostnih priključkov odvisni od tega, koliko zadostnih časovnih razmakov med vozili na prednostnih smereh lahko izkoristijo vozila iz neprednostnih smeri, da izvršijo želen prometni manever vključevanja ali prečkanja prometnega toka. Dopustne vrednosti čakalnih časov so izražene preko nivoja uslug (NU), ki ne sme presegati vrednosti »E« (povezovalne, zbirne in dostopne ceste). V primeru NU »F« (čakalni časi v nesemaforiziranem križišču so večji od 50 sek, v semaforiziranih in krožnih križiščih pa večji od 80 sek) je skladno z zakonodajo potrebno izvesti ustrezne ukrepe za povečanje uspešnosti in/ali kapacitete križišča (razširitev, semaforizacija, idr.) že pred iztekom planske dobe. V spodnji tabeli so prikazane vrednosti nivoja uslug (NU), ki so po metodi HCM izraženi preko čakalnih časov.

	Zamude na vozilo v sekunda
Nivo uslug	Semaforizirano in krožno križišče
A	$s \leq 10$
B	$10 < s \leq 20$
C	$20 < s \leq 35$
D	$35 < s \leq 55$
E	$55 < s \leq 80$
F	$s > 80$

	Zamude na vozilo v sekunda
Nivo uslug	Nesemaforizirano križišče
A	$s \leq 10$
B	$10 < s \leq 15$
C	$15 < s \leq 25$
D	$25 < s \leq 35$
E	$35 < s \leq 50$
F	$s > 50$

1188 213011		000.0201	T.1.1	
------------------------	--	-----------------	--------------	--

5.2 Rezultati analize z orodjem Synchro in SimTraffic

Za razumevanje rezultatov kapacitetne analize z uporabljenimi programsko opremo, je potrebno poznavanje vsaj sledečih izrazov oziroma parametrov:

1: Int (<u>identifikacijska številka križišča</u>):	Numerična enolična oznaka križišča v programu Synchro in Simtraffic.
Volume (vph) (prometne obremenitve):	Število vozil na uro za posamezno smer v križišču.
Pedestrians (prometne obremenitve pešcev):	Število pešcev na posameznem kraku.
Peak Hour Factor (<u>faktor konične ure</u>):	Faktor konične ure nam pove časovno razporeditev prometa znotraj konične ure
Growth Factor (<u>faktor rasti prometa</u>):	Upoštevan faktor rasti v planski dobi v programski opremi.
Sign Control (vodenje prometa):	Definira vodenje prometa na posameznem kraku (križišče s prednostno cesto=yield, stop znak=stop, glavna prometna smer=free).
Control Type (<u>prometna ureditev v križišču; nesemaforizirano križišče, semaforizirano križišče (polno prometno odvisno, prometno neodvisno...., krožišče....)</u>):	Rezultati analize so v največji meri odvisni od prometne ureditve križišča.
Delay / Veh (s) : (<u>povprečna zamuda</u>):	Povprečna zamuda vozil v križišču je definirana kot razlika med povprečnim in optimalnim prevoznim časom križišča.
Maximum Queue [m] (<u>maksimalna dolžina kolone</u>):	Vrednost predstavlja najdaljše kolone v posamezni smeri, ki nastanejo v analiziranem obdobju.
Average Queue [m] (<u>povprečna dolžina kolon</u>):	Povprečna dolžina kolon v analiziranem obdobju (npr. v konični uri).
Length 95th Queue [m] (<u>95. percentil dolžine kolon</u>):	95. percentil dolžine kolon na posameznih krakih križišča. To pomeni, da se v rezultatih ne upošteva maksimalnih 5% dolžin kolon
Lane LOS (<u>nivo uslug na kraku</u>):	Nivo uslug (od A do F) predstavlja kvalitativno oceno razmer na cesti in se izračuna po metodi HCM.
Volume to Capacity (v/c) (<u>volumen/kapaciteta</u>):	Razmerje med prometnimi obremenitvami v križišču in računsko kapaciteto križišča.
	Nivo uslug (od A do F) predstavlja kvalitativno oceno razmer na cesti in se izračuna po metodi HCM.
Cycle Length (<u>dolžina cikla semaforiziranega križišča</u>):	
EB – (east bound) <u>zahodni krak</u>	
WB – (west bound) <u>vzhodni krak</u>	
NB – (north bound) <u>južni krak</u>	
SB – (south bound) <u>severni krak</u>	

V nadaljevanju je prikazan povzetek rezultatov kapacitetne analize za jutranjo, kritičnejšo konico v letu 2028 in 2048 za varianto V1, ki predvideva polno pozidavo območja OPPN 141. Prikazani in interpretirani so ključni parametri, s katerimi ugotavljamo uspešnost križišča/priključka. Detajlnejši rezultati so razvidni v prilogah.

1188 213011		000.0201	T.1.1	
------------------------	--	-----------------	--------------	--



5.2.1 OBSTOJEČE STANJE

JUTRANJA KONICA (leto 2024)



Slika 21: prometne obremenitve – JUTRANJA KONICA 2024 (OBST)

Tabela 7: zamude vozil v K1 – JK 2024 (OBST)

SimTraffic Performance Report								
OPPN 141								
OBST_JK_2024								
JUTRANJA KONICA (6:45-7:45)								
3: Int Performance by movement								
Movement	EBT	EBR	WBL	WBT	NBL	NBT	NBR	All
Total Delay (hr)	0.2	0.0	0.0	0.1	6.2	0.0	0.8	7.3
Delay / Veh (s)	2.0	1.1	6.5	1.0	69.7	0.0	53.0	20.5
Total Stops	2	0	5	6	357	0	99	469
Travel Dist (km)	28.7	13.7	1.9	78.1	94.9	0.5	15.7	233.5
Travel Time (hr)	0.9	0.5	0.1	1.7	8.3	0.0	1.1	12.7
Avg Speed (kph)	32	28	30	46	11	50	14	19
Fuel Used (l)	4.8	1.8	0.1	5.7	11.5	0.0	1.7	25.7
HC Emissions (g)	25	4	0	33	36	0	1	101
CO Emissions (g)	824	195	3	662	907	6	82	2680
NOx Emissions (g)	88	20	0	95	93	0	7	303
Vehicles Entered	298	143	11	461	325	3	53	1294
Vehicles Exited	297	142	11	461	317	3	53	1284
Hourly Exit Rate	297	142	11	461	317	3	53	1284
Input Volume	311	122	17	466	314	2	41	1273
% of Volume	95	116	65	99	101	150	129	101

Tabela 8: dolžine kolon v K1 – JK 2024 (OBST)

Intersection: 3: Int				
Movement	EB	WB	NB	NB
Directions Served	TR	LT	L	R
Maximum Queue (m)	9.4	21.0	144.5	22.5
Average Queue (m)	0.8	2.7	80.8	17.5
95th Queue (m)	5.0	13.2	144.8	31.8
Link Distance (m)	96.0	155.8	281.0	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)			15.0	
Storage Blk Time (%)			82	1
Queuing Penalty (veh)			33	3

Rezultati kapacitetne analiza kažejo, da so pri obstoječem stanju, v jutranji konici mejne vrednosti prekoračene; povprečne zamude vozil znašajo na južnem kraku 70 sekund (NU=F), povprečne dolžine kolone vozil pa so dolge 80 m

1188 213011		000.0201	T.1.1	
----------------	--	----------	-------	--

JUTRANJA KONICA (leto 2028)


Slika 22: prometne obremenitve – JUTRANJA KONICA 2028 (OBST)

Tabela 9: zamude vozil v K1 – JK 2028 (OBST)

SimTraffic Performance Report								
OPPN 141								
OBST_JK_2028								
JUTRANJA KONICA (6:45-7:45)								
3: Int Performance by movement								
Movement	EBT	EBR	WBL	WBT	NBL	NBT	NBR	All
Total Delay (hr)	0.2	0.0	0.0	0.1	13.6	0.0	1.9	15.9
Delay / Veh (s)	1.8	1.1	6.9	0.8	146.7	35.1	145.4	43.8
Total Stops	2	0	5	5	481	3	104	600
Travel Dist (km)	28.8	13.7	1.7	80.1	98.8	0.5	14.4	238.0
Travel Time (hr)	0.9	0.5	0.1	1.7	15.8	0.0	2.2	21.3
Avg Speed (kph)	32	28	29	46	6	12	6	11
Fuel Used (l)	4.9	1.8	0.1	5.8	18.0	0.1	2.6	33.2
HC Emissions (g)	24	5	0	35	51	0	1	116
CO Emissions (g)	818	199	3	688	1141	3	84	2936
NOx Emissions (g)	84	20	0	98	109	0	7	318
Vehicles Entered	298	143	10	471	339	3	49	1313
Vehicles Exited	298	142	10	470	331	3	46	1300
Hourly Exit Rate	298	142	10	470	331	3	46	1300
Input Volume	317	124	17	475	320	2	42	1297
% of Volume	94	115	59	99	103	150	110	100

Tabela 10: dolžine kolon v K1 – JK 2028 (OBST)

Intersection: 3: Int				
Movement	EB	WB	NB	NB
Directions Served	TR	LT	L	R
Maximum Queue (m)	6.6	20.9	281.0	22.5
Average Queue (m)	0.4	2.5	157.4	15.3
95th Queue (m)	3.2	12.2	274.6	32.0
Link Distance (m)	96.0	155.8	281.0	
Upstream Blk Time (%)			1	
Queueing Penalty (veh)			2	
Storage Bay Dist (m)			15.0	
Storage Blk Time (%)			90	1
Queueing Penalty (veh)			38	2

Na podlagi kapacitetne analize je ugotovljeno, da se bodo v izhodiščnem letu 2028 zamude vozil na južnem kraku križišča K1 povečale na 145 sek ($NU=F$). Povprečne dolžine kolon bodo v jutranji konici znašale 160 m.

1188 213011		000.0201	T.1.1	
------------------------	--	-----------------	--------------	--

5.2.2 POLNA POZIDAVA OPPN 141 OB CESTI (varianta V1)

JUTRANJA KONICA (leto 2028)



Slika 23: prometne obremenitve – JUTRANJA KONICA 2028 (V1)

Tabela 11: zamude vozil na priključku P1 – JK 2028 (V1)

SimTraffic Performance Report						
OPPN 141						
V1_JK_2028						
JUTRANJA KONICA (6:45-7:45)						
1: Int Performance by movement						
Movement	EBT	EBR	WBT	NBL	NBR	All
Total Delay (hr)	0.1	0.0	0.1	0.0	0.0	0.2
Delay / Veh (s)	0.6	0.2	0.6	6.3	4.5	0.7
Total Stops	0	0	0	6	3	9
Travel Dist (km)	63.5	2.2	30.5	0.3	0.1	96.7
Travel Time (hr)	1.4	0.1	1.0	0.0	0.0	2.5
Avg Speed (kph)	46	37	32	14	15	40
Fuel Used (l)	5.5	0.2	7.4	0.0	0.0	13.1
HC Emissions (g)	29	0	25	0	0	54
CO Emissions (g)	713	15	1206	3	1	1938
NOx Emissions (g)	89	1	99	0	0	190
Vehicles Entered	370	13	489	6	3	881
Vehicles Exited	369	13	492	6	3	883
Hourly Exit Rate	369	13	492	6	3	883
Input Volume	355	10	474	5	1	846
% of Volume	104	130	104	120	300	104

Tabela 12: zamude vozil na priključku P2 – JK 2028 (V1)

2: Int Performance by movement				
Movement	SET	NWT	SWR	All
Total Delay (hr)	0.0	0.4	0.2	0.7
Delay / Veh (s)	0.2	4.1	26.6	4.4
Total Stops	0	68	29	97
Travel Dist (km)	34.4	15.8	2.3	52.5
Travel Time (hr)	0.8	1.0	0.3	2.1
Avg Speed (kph)	42	16	8	25
Fuel Used (l)	3.7	3.8	0.5	8.0
HC Emissions (g)	12	13	1	26
CO Emissions (g)	456	488	36	980
NOx Emissions (g)	41	51	3	95
Vehicles Entered	123	383	29	535
Vehicles Exited	125	384	29	538
Hourly Exit Rate	125	384	29	538
Input Volume	147	352	23	523
% of Volume	85	109	126	103

1188 213011		000.0201	T.1.1	
----------------	--	----------	-------	--



Tabela 13: zamude vozil v K1 – JK 2028 (V1)

3: Int Performance by movement								
Movement	EBT	EBR	WBL	WBT	NBL	NBT	NBR	All
Total Delay (hr)	0.1	0.0	0.0	0.1	22.1	0.4	3.0	25.8
Delay / Veh (s)	1.3	0.6	3.8	1.1	234.5	82.2	203.2	69.0
Total Stops	0	0	4	4	652	24	154	838
Travel Dist (km)	31.1	10.0	2.2	84.0	100.5	2.6	15.8	246.3
Travel Time (hr)	1.0	0.4	0.1	1.9	24.3	0.4	3.4	31.4
Avg Speed (kph)	34	29	35	46	4	6	5	8
Fuel Used (l)	5.6	1.3	0.1	6.3	25.7	0.5	3.7	43.3
HC Emissions (g)	27	3	0	33	43	0	1	107
CO Emissions (g)	945	142	7	687	1082	17	104	2983
NOx Emissions (g)	96	13	1	97	94	2	9	311
Vehicles Entered	322	103	13	498	343	17	53	1349
Vehicles Exited	323	104	13	498	335	17	54	1344
Hourly Exit Rate	323	104	13	498	335	17	54	1344
Input Volume	317	124	17	471	320	15	42	1306
% of Volume	102	84	76	106	105	113	129	103

Tabela 14: dolžine kolon v K1 ter na P1 in P2 – JK 2028

Queuing and Blocking Report		V1_JK_2028			
OPPN 141		JUTRANJA KONICA (6:45-7:45)			
Intersection: 1: Int					
Movement	NB				
Directions Served	LR				
Maximum Queue (m)	9.1				
Average Queue (m)	2.1				
95th Queue (m)	8.5				
Link Distance (m)	49.6				
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)					
Storage Blk Time (%)					
Queuing Penalty (veh)					
Intersection: 2: Int					
Movement	NW	SW			
Directions Served	TR	LR			
Maximum Queue (m)	45.2	15.2			
Average Queue (m)	10.8	5.7			
95th Queue (m)	38.7	13.6			
Link Distance (m)	40.7	81.0			
Upstream Blk Time (%)	2				
Queuing Penalty (veh)	0				
Storage Bay Dist (m)					
Storage Blk Time (%)					
Queuing Penalty (veh)					
Intersection: 3: Int					
Movement	WB	NB	NB		
Directions Served	LT	L	R		
Maximum Queue (m)	22.9	286.4	22.5		
Average Queue (m)	2.1	228.3	16.6		
95th Queue (m)	11.5	320.5	32.6		
Link Distance (m)	155.8	281.0			
Upstream Blk Time (%)		14			
Queuing Penalty (veh)		52			
Storage Bay Dist (m)		15.0			
Storage Blk Time (%)		96	1		
Queuing Penalty (veh)		40	3		

Na podlagi kapacitetne analize je ugotovljeno, da v izhodiščnem letu 2028 promet na novih cestnih priključkih ne bo oviran in se bo odvijal nemoteno. Nekoliko večje zamude je pričakovati na priključnem kraku priključka P2 (27 sekund oziroma $NU=D$). Zamude so posledica oteženega vključevanja v glavno prometno smer (GPS), kar je posledica daljših zamud in kolon na južnem kraku v križišču K1, kjer je pričakovati zamude dolge 235 sek, in povprečne dolžine kolon 230 m (maksimalne 285 m).

1188 213011		000.0201	T.1.1	
----------------	--	----------	-------	--



JUTRANJA KONICA (leto 2048)



Slika 24: prometne obremenitve – JUTRANJA KONICA 2048

Tabela 15: zamude vozil na priključku P1 – JK 2048

SimTraffic Performance Report							
V1_JK_2048							
JUTRANJA KONICA (6:45-7:45)							
1: Int Performance by movement							
Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Total Delay (hr)	0.1	0.0	0.0	0.1	0.0	0.0	0.2
Delay / Veh (s)	0.7	0.4	1.4	0.8	6.5	2.4	0.8
Total Stops	0	0	0	0	3	2	5
Travel Dist (km)	64.6	1.7	0.1	34.3	0.1	0.1	100.8
Travel Time (hr)	1.4	0.0	0.0	1.2	0.0	0.0	2.7
Avg Speed (kph)	45	37	25	31	14	18	39
Fuel Used (l)	5.5	0.1	0.0	8.1	0.0	0.0	13.8
HC Emissions (g)	23	0	0	33	0	0	56
CO Emissions (g)	609	17	1	1343	1	1	1973
NOx Emissions (g)	73	1	0	125	0	0	200
Vehicles Entered	373	10	1	552	3	2	941
Vehicles Exited	375	10	1	550	3	2	941
Hourly Exit Rate	375	10	1	550	3	2	941
Input Volume	393	11	1	524	6	1	936
% of Volume	95	91	100	105	50	200	101
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

Tabela 16: zamude vozil na priključku P2 – JK 2048

2: Int Performance by movement					
Movement	SET	NWT	SWL	SWR	All
Total Delay (hr)	0.0	45.4	0.3	9.8	55.5
Delay / Veh (s)	0.3	524.0	1681.4	399.9	
Total Stops	0	87	0	18	105
Travel Dist (km)	45.9	12.8	0.0	1.7	60.5
Travel Time (hr)	1.1	45.8	0.3	9.9	57.1
Avg Speed (kph)	43	3	0	0	4
Fuel Used (l)	5.1	40.5	0.3	8.7	54.5
HC Emissions (g)	23	22	0	0	46
CO Emissions (g)	730	809	4	120	1662
NOx Emissions (g)	71	30	0	2	103
Vehicles Entered	165	314	1	26	506
Vehicles Exited	167	311	0	16	494
Hourly Exit Rate	167	311	0	16	494
Input Volume	164	390	1	26	581
% of Volume	102	80	0	62	85
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	85	0	8	93

1188 213011		000.0201	T.1.1	
----------------	--	----------	-------	--



Tabela 17: zamude vozil v K1 – JK 2048

3: Int Performance by movement								
Movement	EBT	EBR	WBL	WBT	NBL	NBT	NBR	All
Total Delay (hr)	0.2	0.0	0.0	0.2	32.3	0.8	4.8	38.4
Delay / Veh (s)	1.8	1.1	7.3	1.6	441.9	187.4	400.4	101.6
Total Stops	0	2	12	15	530	31	116	706
Travel Dist (km)	32.4	13.1	3.6	92.0	77.5	2.5	12.9	234.0
Travel Time (hr)	1.0	0.5	0.1	2.1	34.0	0.9	5.1	43.7
Avg Speed (kph)	32	28	29	44	2	3	3	6
Fuel Used (l)	5.5	1.8	0.2	6.9	32.8	0.9	5.1	53.1
HC Emissions (g)	20	6	0	44	58	0	1	129
CO Emissions (g)	790	213	8	856	1232	18	99	3216
NOx Emissions (g)	76	23	1	126	95	2	9	331
Vehicles Entered	337	135	20	545	263	18	46	1364
Vehicles Exited	336	137	21	544	263	15	41	1357
Hourly Exit Rate	336	137	21	544	263	15	41	1357
Input Volume	351	138	19	521	355	17	46	1447
% of Volume	96	99	111	104	74	88	89	94

Tabela 18: dolžine kolon v K1 ter na P1 in P2 – JK 2048

Queuing and Blocking Report		V1_JK_2048			
OPPN 141		JUTRANJA KONICA (6:45-7:45)			
Intersection: 1: Int					
Movement	NB				
Directions Served	LR				
Maximum Queue (m)	9.1				
Average Queue (m)	1.5				
95th Queue (m)	7.1				
Link Distance (m)	49.6				
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)					
Storage Blk Time (%)					
Queuing Penalty (veh)					
Intersection: 2: Int					
Movement	NW	SW			
Directions Served	TR	LR			
Maximum Queue (m)	59.9	85.6			
Average Queue (m)	43.6	54.1			
95th Queue (m)	64.4	103.8			
Link Distance (m)	40.7	81.0			
Upstream Blk Time (%)	79	43			
Queuing Penalty (veh)	0	0			
Storage Bay Dist (m)					
Storage Blk Time (%)					
Queuing Penalty (veh)					
Intersection: 3: Int					
Movement	EB	WB	NB		
Directions Served	TR	LT	L		
Maximum Queue (m)	6.8	53.3	286.9		
Average Queue (m)	0.5	7.1	282.7		
95th Queue (m)	3.2	26.2	294.0		
Link Distance (m)	96.0	155.8	281.0		
Upstream Blk Time (%)	63				
Queuing Penalty (veh)	262				
Storage Bay Dist (m)	15.0				
Storage Blk Time (%)	97				
Queuing Penalty (veh)	45				

V planski dobi 20 let (leto 2048) je na podlagi kapacitetne analize, na priključku P2 mogoče pričakovati oteženo vključevanje na Cesto II. grupe odredov (LC 213011), kar je posledica daljših kolon na južnem kraku v križišču K1. Na južnem kraku v K1 je pričakovati povprečne zamude v dolžini 440 sek, ter povprečne dolžine kolon 280 m, kar je praktično do načrtovanega priključka P2. Priključek P1 s stališča kapacitete ni problematičen in ima še precej rezerve.

1188 213011		000.0201	T.1.1	
----------------	--	----------	-------	--

6 ZAKLJUČEK

Predmet naloge je bila kapacitetna analiza dveh novo načrtovanih cestnih priključkov na obstoječe cestno omrežje, ki priključujeta novo pozidavo, predvideno z OPPN 141 Ob cesti. Z OPPN 141 je predvidena pozidava 36-ih stanovanjskih hiš na območju med regionalno cesto R3-645/1188 in lokalno cesto LC 213011. Območje se na severu priključuje na regionalno cesto preko novo načrtovanega priključka P1, na jugu pa na lokalno cesto LC 213011 preko priključka P2. Kapacitetna analiza je bila izdelana na podlagi dejanskih prometnih obremenitev v križišču R3-645/1188 in LC 213011 (K1), analize prometnih podatkov z bližnjega avtomatskega števca ter generacije in distribucije prometa zaradi nove pozidave. Analiza je bila narejena za izhodiščno leto (privzeto leto 2028) ter za plansko dobo 20 let, in sicer za jutranjo konično uro (6:45 – 7:45) ter popoldansko konično uro (15:30-16:30). Za plansko obdobje je bila upoštevana rast prometa 0,5% letno. Severni priključek P1 je bil analiziran kot poln cestni priključek brez dodatnih zavijalnih pasov na krakih. Južni priključek P2 pa je bil analiziran kot le izvozni priključek (interna cesta, ki povezuje regionalno cesto in lokalno cesto na jugu, je načrtovana kot enosmerna cesta sever-jug).

Na podlagi kapacitetne analize ugotavljamo, da na novem cestnem priključku P1 na državno cesto R3-645/1188, ne bo prihajalo do večjih zamud in da bo imel s stališča kapacitete v planski dobi (2048) še precej rezerve.

Na priključku P2 (južni priključek na lokalno cesto LC213011) je pričakovati oteženo vključevanje na lokalno cesto, kar je posledica daljših kolon na južnem kraku križišča K1 (Litijska – Cesta II. Grupe odredov).

Obstoječe križišče K1 je geometrijsko neustrezno in slabo pregledno. Zaradi velikih prometnih obremenitev tako na GPS kot SPS se vozila s priključenega kraka (predvsem levi zavijalci) težko vključujejo na Litijsko cesto. Že pri obstoječem stanju na južnem kraku nastajajo daljše kolone in zamude, ki presegajo mejne vrednosti ($NU=F$). V bodoče bo potrebno križišče K1 rekonstruirati na način, da bo sposobno servisirati prometne potrebe (ureditev krožišča, semaforiziranega križišča,...). Urejanje križišča K1 presega okvir predmetne naloge. **Na podlagi kapacitetne analize namreč ugotavljamo, da bo vpliv novih cestnih priključkov na obstoječo cestno mrežo zanemarljiv. Cestna priključka se uredita kot skupinska priključka, brez dodatnih pasov na katerem koli kraku. Priključek P1 se uredi kot poln skupinski priključek, P2 pa le kot enosmerni priključek brez možnosti uvažanja z lokalne ceste. Priključka je potrebno načrtovati skladno z zakonodajo s področja načrtovanja cest in cestnih priključkov na javne ceste.**

1188 213011		000.0201	T.1.1	
------------------------	--	-----------------	--------------	--



P PRILOGE

SEZNAM PRILOG

ŠT.	NASLOV PRILOGE
P1	Analiza števnihi podatkovi prometa
P2	Analiza s programskim orodjem Synchro in SimTraffic

1188 213011		000.0201	P	
------------------------	--	-----------------	----------	--



PRILOGE P1

1188 213011		000.0201	P	
------------------------	--	-----------------	----------	--

Diagram prometnih obremenitev

Šifra križišča: K1

Ime križišča: Litjiska-Cesta II.grupe

Tip križišča: ABD

Naslov štetja: OPPN 141 Ob cesti

Številka štetja: 1

Datum štetja: 15.10.2024

Časovni interval: od 6:45 do 7:45

Vrsta vozil: O, B, T, V

D	Litjiska - Z
A	Cesta II. grupe
B	Litjiska - V

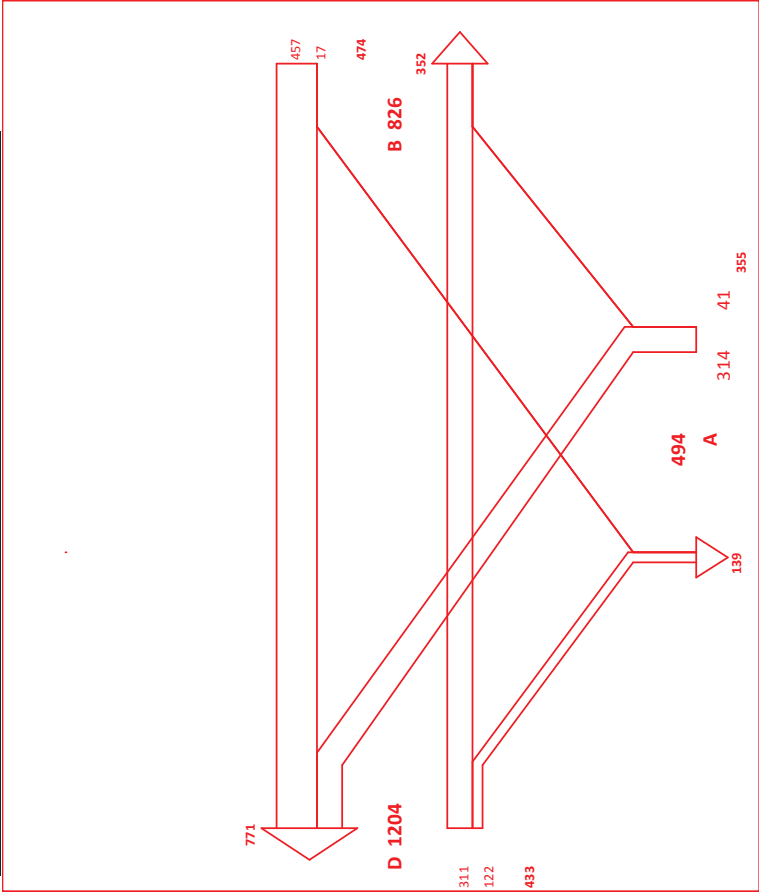


Diagram prometnih obremenitev

Šifra križišča: K1

Ime križišča: Litjiska-Cesta II.grupe

Tip križišča: ABD

Naslov štetja: OPPN 141 Ob cesti

Številka štetja: 1

Datum štetja: 15.10.2024

Časovni interval: od 6:00 do 22:00

Vrsta vozil: O, B, T, V

D	Litjiska - Z
A	Cesta II. grupe
B	Litjiska - V

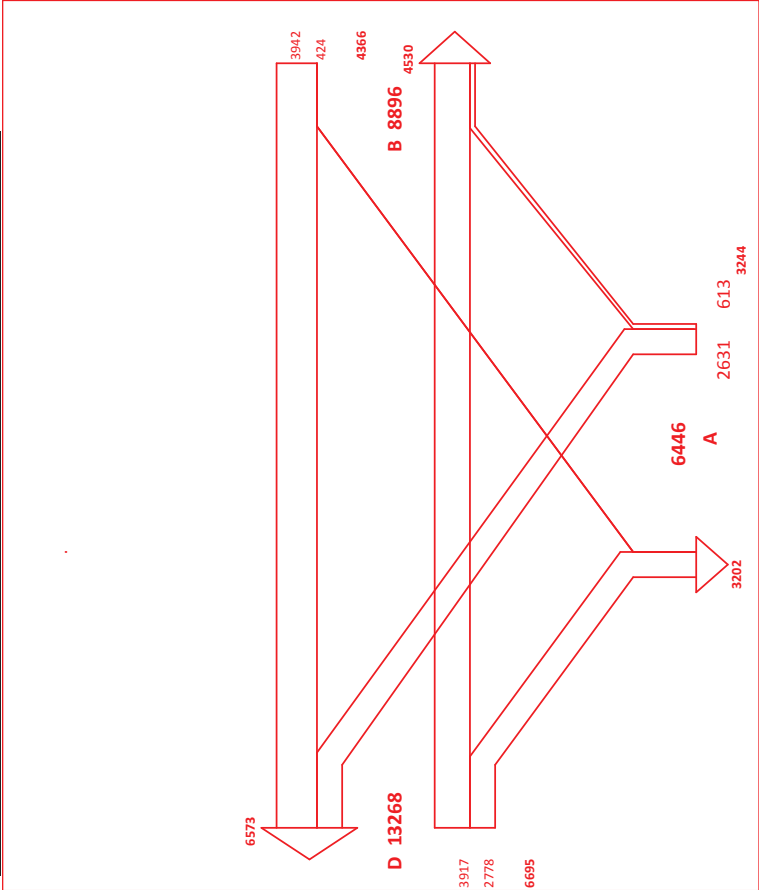


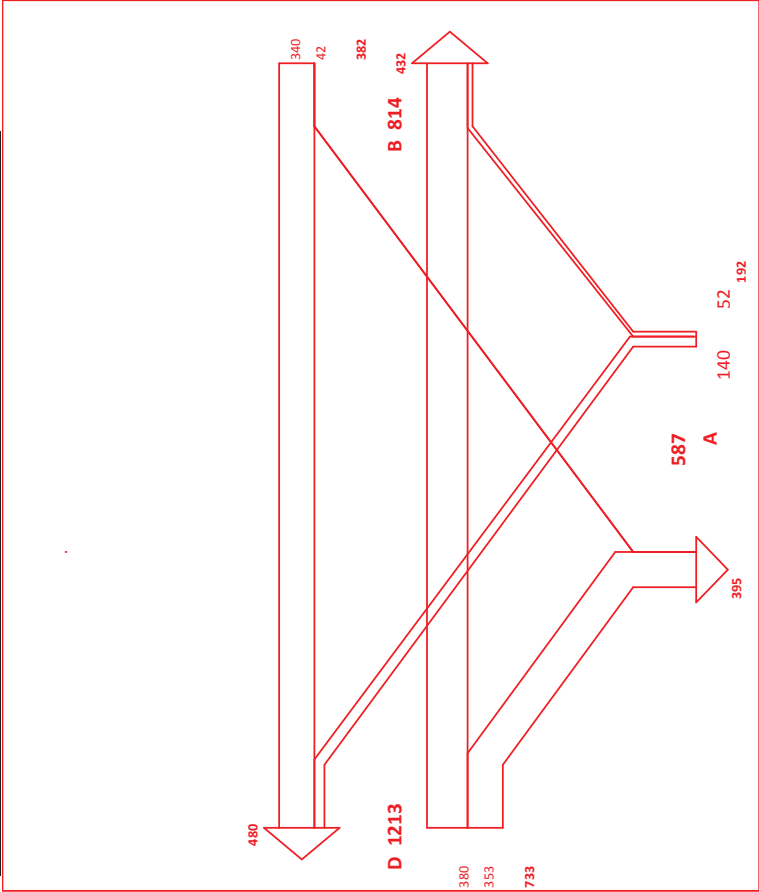
Diagram prometnih obremenitev

Šifra križišča: K1
Ime križišča: Litijska-Cesta II-grupe
Tip križišča: ABD

Naslov štetja: OPPN 141 Ob cesti
Številka štetja: 1
Datum štetja: 15.10.2024
Časovni interval: od 15:30 do 16:30

Vrsta vozil: O, B, T, V

D	Litijska - Z
A	Cesta II. grupe
B	Litijska - V



Faktor urne konice (PHF)

Šifra križišča: K1
Ime križišča: Litijska-Cesta II-grupe
Tip križišča: ABD
Naslov štetja: OPPN 141 Ob cesti
Številka štetja: 1
Datum štetja: 15.10.2024
Ura konice: od 6:45 do 7:45

Vrsta vozil: O, B, T, V

Križišče: 0,96

Priključek A : 0,91
Dovoz:

Desno 0,68
Levo 0,85

Priključek B : 0,95
Dovoz:

Levo 0,71
Naravnost 0,95

Priključek D : 0,89
Dovoz:

Desno 0,71
Naravnost 0,79

Faktor urne konice (PHF)			
Šifra križišča: K1			
Ime križišča: Litjska-Cesta II.grupe			
Tip križišča: ABD			
Datum štetja: 15.10.2024		do 16:30	
Ura konice: od 15:30			
Naslov štetja: OPPN 141 Ob cesti			
Številka štetja: 1			
Vrsta vozil: O, B, T, V			

Analiza zavijalcev po strukturi prometa

Šifra križišča: K1		Datum štetja: 15.10.2024	
Ime križišča: Litjska-Cesta II.grupe		Časovni interval: od 6:00 do 22:00	
Tip križišča: ABD			
Naslov štetja: OPPN 141 Ob cesti			
Številka štetja: 1			

Dovoz		Levo	% levo	Naravnost	% naravnost	Desno	% desno	Skupaj	% skupaj
Priljuček									
A	osebni	2499	77%	0	0%	597	18%	3096	95%
	tovorni	118	4%	0	0%	10	0%	128	4%
	avtobus	1	0%	0	0%	2	0%	3	0%
	vlačilec	13	0%	0	0%	4	0%	17	1%
	tav / Skupaj	132	5%	0	0%	16	3%	148	5%
B	Skupaj	2631	81%	0	0%	613	19%	3244	100%
	osebni	409	9%	3710	85%	0	0%	4119	94%
	tovorni	7	0%	150	3%	0	0%	157	4%
	avtobus	5	0%	34	1%	0	0%	39	1%
	vlačilec	3	0%	48	1%	0	0%	51	1%
tav / Skupaj	15	4%	232	6%	0	0%	247	6%	
C	Skupaj	424	10%	3942	90%	0	0%	4366	100%
	osebni	0	0%	0	0%	0	0%	0	0%
	tovorni	0	0%	0	0%	0	0%	0	0%
	avtobus	0	0%	0	0%	0	0%	0	0%
	vlačilec	0	0%	0	0%	0	0%	0	0%
tav / Skupaj	0	0%	0	0%	0	0%	0	0%	
D	Skupaj	0	0%	0	0%	0	0%	0	0%
	osebni	0	0%	3679	55%	2639	39%	6318	94%
	tovorni	0	0%	153	2%	127	2%	280	4%
	avtobus	0	0%	36	1%	0	0%	36	1%
	vlačilec	0	0%	49	1%	12	0%	61	1%
tav / Skupaj	0	0%	238	6%	139	5%	377	6%	
Skupaj		0	0%	3917	59%	2778	41%	6695	100%

Analiza zavijalcev po strukturi prometa

Šifra križišča: K1
Ime križišča: Litijska-Cesta II-grupe
Tip križišča: ABD

Naslov štetja: OPPN 141 Ob cesti
Datum štetja: 15.10.2024
Številka štetja: 1
Časovni interval: od 6:45 do 7:45

Priključek	Dovoz	Levo	% levo	Naravnost	% naravnost	Desno	% desno	Skupaj	% skupaj
A	osebni	312	88%	0	0%	39	11%	351	99%
	tovorni	2	1%	0	0%	1	0%	3	1%
	avtobus	0	0%	0	0%	1	0%	1	0%
	vlačilec	0	0%	0	0%	0	0%	0	0%
	tav / Skupaj	2	1%	0	0%	2	5%	4	1%
Skupaj		314	88%	0	0%	41	12%	355	100%
B	osebni	14	3%	426	90%	0	0%	440	93%
	tovorni	3	1%	21	4%	0	0%	24	5%
	avtobus	0	0%	3	1%	0	0%	3	1%
	vlačilec	0	0%	7	1%	0	0%	7	1%
	tav / Skupaj	3	18%	31	7%	0	0%	34	7%
Skupaj		17	4%	457	96%	0	0%	474	100%
C	osebni	0	0%	0	0%	0	0%	0	0%
	tovorni	0	0%	0	0%	0	0%	0	0%
	avtobus	0	0%	0	0%	0	0%	0	0%
	vlačilec	0	0%	0	0%	0	0%	0	0%
	tav / Skupaj	0	0%	0	0%	0	0%	0	0%
Skupaj		0	0%	0	0%	0	0%	0	0%
D	osebni	0	0%	290	67%	112	26%	402	93%
	tovorni	0	0%	18	4%	9	2%	27	6%
	avtobus	0	0%	3	1%	0	0%	3	1%
	vlačilec	0	0%	0	0%	1	0%	1	0%
	tav / Skupaj	0	0%	21	7%	10	8%	31	7%
Skupaj		0	0%	311	72%	122	28%	433	100%

Analiza zavijalcev po strukturi prometa

Šifra križišča: K1
Ime križišča: Litijska-Cesta II-grupe
Tip križišča: ABD

Naslov štetja: OPPN 141 Ob cesti
Datum štetja: 15.10.2024
Številka štetja: 1
Časovni interval: od 15:30 do 16:30

Priključek	Dovoz	Levo	% levo	Naravnost	% naravnost	Desno	% desno	Skupaj	% skupaj
A	osebni	135	70%	0	0%	52	27%	187	97%
	tovorni	5	3%	0	0%	0	0%	5	3%
	avtobus	0	0%	0	0%	0	0%	0	0%
	vlačilec	0	0%	0	0%	0	0%	0	0%
	tav / Skupaj	5	4%	0	0%	0	0%	5	3%
Skupaj		140	73%	0	0%	52	27%	192	100%
B	osebni	42	11%	324	85%	0	0%	366	96%
	tovorni	0	0%	12	3%	0	0%	12	3%
	avtobus	0	0%	2	1%	0	0%	2	1%
	vlačilec	0	0%	2	1%	0	0%	2	1%
	tav / Skupaj	0	0%	16	5%	0	0%	16	4%
Skupaj		42	11%	340	89%	0	0%	382	100%
C	osebni	0	0%	0	0%	0	0%	0	0%
	tovorni	0	0%	0	0%	0	0%	0	0%
	avtobus	0	0%	0	0%	0	0%	0	0%
	vlačilec	0	0%	0	0%	0	0%	0	0%
	tav / Skupaj	0	0%	0	0%	0	0%	0	0%
Skupaj		0	0%	0	0%	0	0%	0	0%
D	osebni	0	0%	370	50%	349	48%	719	98%
	tovorni	0	0%	6	1%	3	0%	9	1%
	avtobus	0	0%	3	0%	0	0%	3	0%
	vlačilec	0	0%	1	0%	1	0%	2	0%
	tav / Skupaj	0	0%	10	3%	4	1%	14	2%
Skupaj		0	0%	380	52%	353	48%	733	100%

15 minutne obremenitve

Šifra križišča: K1
Ime križišča: Litijška-Cesta II.grupe
Tip križišča: ABD

Šifra priključka: A
Ime priključka: Cesta II. grupe

Naslov štetja: OPPN 141 Ob cesti
Številka štetja: 1

Datum štetja: 15.10.2024
Časovni interval: od 6:00 do 22:00

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
6:00	57	0	0	0	57	57	0	0	0	0	0	0	4	0	0	0	4	4
6:15	84	1	0	0	85	86	0	0	0	0	0	0	8	0	0	0	8	8
6:30	68	0	0	0	68	68	0	0	0	0	0	0	7	0	0	0	7	7
6:45	69	1	0	0	70	71	0	0	0	0	0	0	14	1	0	0	15	16
7:00	92	0	0	0	92	92	0	0	0	0	0	0	6	0	0	0	6	6
7:15	66	0	0	0	66	66	0	0	0	0	0	0	14	0	0	0	14	14
7:30	85	1	0	0	86	87	0	0	0	0	0	0	5	0	1	0	6	7
7:45	80	5	0	1	86	94	0	0	0	0	0	0	12	1	1	0	14	16
8:00	55	5	0	0	60	65	0	0	0	0	0	0	13	0	0	0	13	13
8:15	59	3	0	0	62	65	0	0	0	0	0	0	9	1	0	0	10	11
8:30	50	2	0	0	52	54	0	0	0	0	0	0	5	0	0	1	6	9
8:45	40	5	0	1	46	54	0	0	0	0	0	0	8	0	0	0	8	8
9:00	35	4	0	0	39	43	0	0	0	0	0	0	6	0	0	0	6	6
9:15	25	5	0	1	31	39	0	0	0	0	0	0	10	0	0	1	11	14
9:30	34	5	1	0	40	46	0	0	0	0	0	0	5	0	0	0	5	5
9:45	28	2	0	0	30	32	0	0	0	0	0	0	13	2	0	0	15	17
10:00	35	0	0	1	36	39	0	0	0	0	0	0	4	0	0	1	5	8
10:15	27	6	0	0	33	39	0	0	0	0	0	0	11	0	0	0	11	11
10:30	41	5	0	0	46	51	0	0	0	0	0	0	10	0	0	0	10	10
10:45	38	5	0	0	43	48	0	0	0	0	0	0	6	0	0	0	6	6
11:00	29	2	0	1	32	37	0	0	0	0	0	0	11	0	0	0	11	11
11:15	25	2	0	1	28	33	0	0	0	0	0	0	7	0	0	0	7	7
11:30	33	4	0	0	37	41	0	0	0	0	0	0	8	0	0	0	8	8
11:45	30	3	0	1	34	40	0	0	0	0	0	0	9	1	0	0	10	11
12:00	19	5	0	1	25	33	0	0	0	0	0	0	11	1	0	0	12	13
12:15	31	5	0	1	37	45	0	0	0	0	0	0	8	0	0	0	8	8
12:30	46	4	0	0	50	54	0	0	0	0	0	0	9	0	0	0	9	9
12:45	35	3	0	0	38	41	0	0	0	0	0	0	9	0	0	0	9	9

15 minutne obremenitve

Šifra križišča: K1
Ime križišča: Litijška-Cesta II.grupe
Tip križišča: ABD

Šifra priključka: A
Ime priključka: Cesta II. grupe

Naslov štetja: OPPN 141 Ob cesti
Številka štetja: 1

Datum štetja: 15.10.2024
Časovni interval: od 6:00 do 22:00

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
13:00	34	3	0	2	39	47	0	0	0	0	0	0	9	0	0	0	9	9
13:15	36	4	0	0	40	44	0	0	0	0	0	0	14	0	0	0	14	14
13:30	47	5	0	0	52	57	0	0	0	0	0	0	16	0	0	0	16	16
13:45	33	3	0	0	36	39	0	0	0	0	0	0	9	0	0	0	9	9
14:00	43	3	0	0	46	49	0	0	0	0	0	0	14	0	0	0	14	14
14:15	30	4	0	0	34	38	0	0	0	0	0	0	7	0	0	0	7	7
14:30	35	2	0	1	38	43	0	0	0	0	0	0	12	0	0	0	12	12
14:45	34	3	0	0	37	40	0	0	0	0	0	0	8	1	0	0	9	10
15:00	48	0	0	0	48	48	0	0	0	0	0	0	12	0	0	0	12	12
15:15	28	0	0	0	28	28	0	0	0	0	0	0	9	1	0	0	10	11
15:30	41	1	0	0	42	43	0	0	0	0	0	0	13	0	0	0	13	13
15:45	31	1	0	0	32	33	0	0	0	0	0	0	14	0	0	0	14	14
16:00	27	2	0	0	29	31	0	0	0	0	0	0	14	0	0	0	14	14
16:15	36	1	0	0	37	38	0	0	0	0	0	0	11	0	0	0	11	11
16:30	36	0	0	1	37	40	0	0	0	0	0	0	17	0	0	0	17	17
16:45	44	2	0	0	46	48	0	0	0	0	0	0	14	0	0	1	15	18
17:00	41	1	0	0	42	43	0	0	0	0	0	0	9	0	0	0	9	9
17:15	46	0	0	0	46	46	0	0	0	0	0	0	16	0	0	0	16	16
17:30	50	0	0	0	50	50	0	0	0	0	0	0	18	0	0	0	18	18
17:45	38	0	0	0	38	38	0	0	0	0	0	0	18	0	0	0	18	18
18:00	60	0	0	0	60	60	0	0	0	0	0	0	14	0	0	0	14	14
18:15	47	0	0	0	47	47	0	0	0	0	0	0	15	0	0	0	15	15
18:30	51	0	0	0	51	51	0	0	0	0	0	0	14	0	0	0	14	14
18:45	42	0	0	0	42	42	0	0	0	0	0	0	10	0	0	0	10	10
19:00	47	0	0	0	47	47	0	0	0	0	0	0	9	0	0	0	9	9
19:15	36	0	0	0	36	36	0	0	0	0	0	0	4	1	0	0	5	6
19:30	26	0	0	0	26	26	0	0	0	0	0	0	2	0	0	0	2	2
19:45	13	0	0	0	13	13	0	0	0	0	0	0	8	0	0	0	8	8

15 minutne obremenitve

Šifra križišča: K1
Ime križišča: Litjska-Cesta II.grupe
Tip križišča: ABD

Šifra priključka: A
Ime priključka: Cesta II. grupe

Naslov štetja: OPPN 141 Ob cesti
Številka štetja: 1

Datum štetja: 15.10.2024
Časovni interval: od 6:00 do 22:00

URA	<u>Levo</u>				<u>Naravnost</u>				<u>Desno</u>			
	O	T	B	V	S	EOV	O	T	B	V	S	EOV
20:00	19	0	0	0	19	19	0	0	0	0	0	4
20:15	16	0	0	0	16	16	0	0	0	0	0	4
20:30	19	0	0	0	19	19	0	0	0	0	0	2
20:45	11	0	0	0	11	11	0	0	0	0	0	3
21:00	16	0	0	0	16	16	0	0	0	0	0	5
21:15	14	0	0	0	14	14	0	0	0	0	0	3
21:30	5	0	0	0	5	5	0	0	0	0	0	0
21:45	3	0	0	0	3	3	0	0	0	0	0	4
Vsota	2499	118	1	13	2631	2783	0	0	0	0	0	635

15 minutne obremenitve

Šifra križišča: K1
Ime križišča: Litjska-Cesta II.grupe
Tip križišča: ABD

Šifra priključka: B
Ime priključka: Litjska - V

Naslov štetja: OPPN 141 Ob cesti
Številka štetja: 1

Datum štetja: 15.10.2024
Časovni interval: od 6:00 do 22:00

URA	<u>Levo</u>				<u>Naravnost</u>				<u>Desno</u>			
	O	T	B	V	S	EOV	O	T	B	V	S	EOV
6:00	2	0	0	0	2	2	62	0	1	2	65	71
6:15	4	1	0	0	5	6	104	2	0	0	106	108
6:30	6	0	0	0	6	6	146	1	1	2	150	157
6:45	3	0	0	0	3	3	116	2	1	1	120	126
7:00	3	1	0	0	4	5	106	3	1	0	110	114
7:15	3	1	0	0	4	5	100	7	1	0	108	116
7:30	5	1	0	0	6	7	104	9	0	6	119	143
7:45	9	0	0	0	9	9	92	2	1	0	95	98
8:00	3	0	0	0	3	3	61	1	0	1	63	67
8:15	8	0	0	0	8	8	60	2	1	4	67	80
8:30	3	0	0	0	3	3	59	1	0	1	61	65
8:45	3	0	0	1	4	7	35	2	1	0	38	41
9:00	5	0	0	0	5	5	35	3	1	2	41	50
9:15	9	0	0	0	9	9	46	7	1	1	55	66
9:30	6	0	0	0	6	6	51	4	0	0	55	59
9:45	8	0	0	0	8	8	51	4	0	4	59	73
10:00	4	0	0	0	4	4	53	1	1	1	56	61
10:15	5	0	1	0	6	7	44	2	0	0	46	48
10:30	4	0	0	1	5	8	73	4	1	2	80	90
10:45	4	0	0	0	4	4	51	4	0	1	56	63
11:00	7	1	1	0	9	11	61	9	0	0	70	79
11:15	8	0	0	0	8	8	51	1	1	1	54	59
11:30	6	0	0	0	6	6	54	2	0	1	57	62
11:45	1	1	0	0	2	3	60	3	0	1	64	70
12:00	12	0	1	0	13	14	45	4	1	0	50	55
12:15	3	0	0	0	3	3	52	2	0	2	56	63
12:30	6	0	0	0	6	6	55	3	0	0	58	61
12:45	5	0	0	0	5	5	49	4	1	2	56	66

15 minutne obremenitve

Šifra križišča: K1
Ime križišča: Litjska-Cesta II.grupe
Tip križišča: ABD

Šifra priključka: B
Ime priključka: Litjska - V

Naslov štetja: OPPN 141 Ob cesti
Številka štetja: 1
Datum štetja: 15.10.2024
Časovni interval: od 6:00 do 22:00

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
13:00	5	0	0	0	5	5	64	2	0	2	68	75	0	0	0	0	0	0
13:15	7	0	0	0	7	7	41	2	1	0	44	47	0	0	0	0	0	0
13:30	8	0	1	0	9	10	61	3	0	2	66	74	0	0	0	0	0	0
13:45	2	0	1	0	3	4	71	2	0	2	75	82	0	0	0	0	0	0
14:00	6	0	0	0	6	6	74	7	1	0	82	90	0	0	0	0	0	0
14:15	12	0	0	0	12	12	52	3	0	1	56	62	0	0	0	0	0	0
14:30	10	0	0	0	10	10	60	7	1	1	69	80	0	0	0	0	0	0
14:45	13	0	0	0	13	13	57	8	0	0	65	73	0	0	0	0	0	0
15:00	16	0	0	0	16	16	140	4	0	0	144	148	0	0	0	0	0	0
15:15	6	0	0	0	6	6	52	2	1	1	56	62	0	0	0	0	0	0
15:30	3	0	0	0	3	3	84	3	0	1	88	94	0	0	0	0	0	0
15:45	12	0	0	0	12	12	69	4	1	1	75	83	0	0	0	0	0	0
16:00	13	0	0	0	13	13	94	3	1	0	98	102	0	0	0	0	0	0
16:15	14	0	0	0	14	14	77	2	0	0	79	81	0	0	0	0	0	0
16:30	10	0	0	0	10	10	69	1	1	0	71	73	0	0	0	0	0	0
16:45	14	0	0	0	14	14	67	1	0	0	68	69	0	0	0	0	0	0
17:00	6	1	0	0	7	8	59	0	1	0	60	61	0	0	0	0	0	0
17:15	8	0	0	1	9	12	60	0	0	0	60	60	0	0	0	0	0	0
17:30	10	0	0	0	10	10	64	0	1	0	65	66	0	0	0	0	0	0
17:45	6	0	0	0	6	6	42	1	1	2	46	53	0	0	0	0	0	0
18:00	9	0	0	0	9	9	52	3	0	0	55	58	0	0	0	0	0	0
18:15	11	0	0	0	11	11	46	1	2	0	49	52	0	0	0	0	0	0
18:30	6	0	0	0	6	6	47	0	0	0	47	47	0	0	0	0	0	0
18:45	2	0	0	0	2	2	43	1	1	0	45	47	0	0	0	0	0	0
19:00	9	0	0	0	9	9	36	0	0	0	36	36	0	0	0	0	0	0
19:15	12	0	0	0	12	12	39	1	1	0	41	43	0	0	0	0	0	0
19:30	15	0	0	0	15	15	35	0	1	0	36	37	0	0	0	0	0	0
19:45	4	0	0	0	4	4	29	0	0	0	29	29	0	0	0	0	0	0

15 minutne obremenitve

Šifra križišča: K1
Ime križišča: Litjska-Cesta II.grupe
Tip križišča: ABD

Šifra priključka: B
Ime priključka: Litjska - V

Naslov štetja: OPPN 141 Ob cesti
Številka štetja: 1
Datum štetja: 15.10.2024
Časovni interval: od 6:00 do 22:00

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
20:00	3	0	0	0	3	3	17	0	1	0	18	19	0	0	0	0	0	0
20:15	1	0	0	0	1	1	35	0	0	0	35	35	0	0	0	0	0	0
20:30	2	0	0	0	2	2	20	0	1	0	21	22	0	0	0	0	0	0
20:45	3	0	0	0	3	3	20	0	0	0	20	20	0	0	0	0	0	0
21:00	1	0	0	0	1	1	17	0	1	0	18	19	0	0	0	0	0	0
21:15	1	0	0	0	1	1	12	0	0	0	12	12	0	0	0	0	0	0
21:30	1	0	0	0	1	1	10	0	1	0	11	12	0	0	0	0	0	0
21:45	3	0	0	0	3	3	19	0	0	0	19	19	0	0	0	0	0	0
Vsota	409	7	5	3	424	444	3710	150	34	48	3942	4246	0	0	0	0	0	0

15 minutne obremenitve

Šifra križišča: K1
Ime križišča: Litjska-Cesta II.grupe
Tip križišča: ABD

Šifra priključka: D
Ime priključka: Litjska - Z

Naslov štetja: OPPN 141 Ob cesti
Številka štetja: 1
Datum štetja: 15.10.2024
Časovni interval: od 6:00 do 22:00

URA	Levo						Naravnost						Desno					
	O	T	B	V	S	EOV	O	T	B	V	S	EOV	O	T	B	V	S	EOV
6:00	0	0	0	0	0	0	28	2	1	0	31	34	9	0	0	0	9	9
6:15	0	0	0	0	0	0	31	1	1	0	33	35	13	0	0	0	13	13
6:30	0	0	0	0	0	0	72	0	0	0	72	72	17	1	0	0	18	19
6:45	0	0	0	0	0	0	94	4	1	0	99	104	23	0	0	0	23	23
7:00	0	0	0	0	0	0	69	6	1	0	76	83	25	1	0	0	26	27
7:15	0	0	0	0	0	0	58	2	1	0	61	64	37	5	0	1	43	51
7:30	0	0	0	0	0	0	69	6	0	0	75	81	27	3	0	0	30	33
7:45	0	0	0	0	0	0	84	4	1	0	89	94	24	4	0	0	28	32
8:00	0	0	0	0	0	0	94	2	0	4	100	112	19	3	0	0	22	25
8:15	0	0	0	0	0	0	51	2	1	3	57	68	19	5	0	1	25	33
8:30	0	0	0	0	0	0	45	5	0	2	52	62	30	5	0	1	36	44
8:45	0	0	0	0	0	0	49	2	1	0	52	55	23	6	0	1	30	39
9:00	0	0	0	0	0	0	45	4	2	2	53	64	29	2	0	0	31	33
9:15	0	0	0	0	0	0	37	8	0	2	47	60	25	3	0	0	28	31
9:30	0	0	0	0	0	0	43	6	1	2	52	64	27	1	0	1	29	33
9:45	0	0	0	0	0	0	53	2	0	4	59	71	33	6	0	0	39	45
10:00	0	0	0	0	0	0	44	2	1	1	48	54	28	4	0	0	32	36
10:15	0	0	0	0	0	0	47	4	0	2	53	62	38	2	0	1	41	46
10:30	0	0	0	0	0	0	50	4	0	0	54	58	28	6	0	1	35	44
10:45	0	0	0	0	0	0	62	7	0	2	71	83	28	1	0	0	29	30
11:00	0	0	0	0	0	0	50	2	1	1	54	60	38	1	0	1	40	44
11:15	0	0	0	0	0	0	47	0	0	1	48	51	44	4	0	0	48	52
11:30	0	0	0	0	0	0	48	7	0	1	56	66	55	3	0	0	58	61
11:45	0	0	0	0	0	0	63	2	1	1	67	73	32	7	0	0	39	46
12:00	0	0	0	0	0	0	54	2	0	1	57	62	41	6	0	0	47	53
12:15	0	0	0	0	0	0	60	4	0	2	66	75	43	1	0	0	44	45
12:30	0	0	0	0	0	0	52	4	1	2	59	69	42	2	0	1	45	50
12:45	0	0	0	0	0	0	58	1	0	0	59	60	35	5	0	0	40	45

15 minutne obremenitve

Šifra križišča: K1
Ime križišča: Litjska-Cesta II.grupe
Tip križišča: ABD

Šifra priključka: D
Ime priključka: Litjska - Z

Naslov štetja: OPPN 141 Ob cesti
Številka štetja: 1
Datum štetja: 15.10.2024
Časovni interval: od 6:00 do 22:00

URA	Levo						Naravnost						Desno					
	O	T	B	V	S	EOV	O	T	B	V	S	EOV	O	T	B	V	S	EOV
13:00	0	0	0	0	0	0	44	2	1	1	48	54	46	5	0	0	51	56
13:15	0	0	0	0	0	0	64	4	0	1	69	76	63	4	0	0	67	71
13:30	0	0	0	0	0	0	72	4	0	2	78	87	49	4	0	0	53	57
13:45	0	0	0	0	0	0	64	3	1	1	69	76	41	3	0	0	44	47
14:00	0	0	0	0	0	0	61	4	0	2	67	76	41	4	0	0	45	49
14:15	0	0	0	0	0	0	67	7	1	0	75	83	68	5	0	0	73	78
14:30	0	0	0	0	0	0	77	7	1	2	87	100	60	3	0	0	63	66
14:45	0	0	0	0	0	0	82	2	0	0	84	86	74	2	0	0	76	78
15:00	0	0	0	0	0	0	69	4	0	2	75	84	63	2	0	0	65	67
15:15	0	0	0	0	0	0	110	7	1	0	118	126	72	2	0	1	75	80
15:30	0	0	0	0	0	0	92	3	1	0	96	100	96	0	0	0	96	96
15:45	0	0	0	0	0	0	93	0	0	0	93	93	80	1	0	1	82	86
16:00	0	0	0	0	0	0	81	1	1	0	83	85	74	0	0	0	74	74
16:15	0	0	0	0	0	0	104	2	1	1	108	114	99	2	0	0	101	103
16:30	0	0	0	0	0	0	90	0	0	1	91	94	88	1	0	0	89	90
16:45	0	0	0	0	0	0	87	2	1	0	90	93	58	0	0	0	58	58
17:00	0	0	0	0	0	0	73	0	0	0	73	73	56	0	0	0	56	56
17:15	0	0	0	0	0	0	63	0	1	0	64	65	62	0	0	0	62	62
17:30	0	0	0	0	0	0	54	0	1	0	55	56	48	0	0	0	48	48
17:45	0	0	0	0	0	0	58	1	1	2	62	69	47	1	0	0	48	49
18:00	0	0	0	0	0	0	61	1	0	1	63	67	58	0	0	1	59	62
18:15	0	0	0	0	0	0	66	2	1	0	69	72	45	0	0	0	45	45
18:30	0	0	0	0	0	0	53	0	0	0	53	53	38	1	0	0	39	40
18:45	0	0	0	0	0	0	51	0	1	0	52	53	43	0	0	0	43	43
19:00	0	0	0	0	0	0	34	1	1	0	36	38	43	0	0	0	43	43
19:15	0	0	0	0	0	0	41	0	1	0	42	43	44	0	0	0	44	44
19:30	0	0	0	0	0	0	39	0	0	0	39	39	29	0	0	0	29	29
19:45	0	0	0	0	0	0	40	0	1	0	41	42	31	0	0	0	31	31

15 minutne obremenitve

Šifra križišča: K1
Ime križišča: Litjska-Cesta II.grupe
Tip križišča: ABD

Šifra priključka: D
Ime priključka: Litjska - Z

Naslov štetja: OPPN 141 Ob cesti
Številka štetja: 1

Datum štetja: 15.10.2024
Časovni interval: od 6:00 do 22:00

URA	<u>Levo</u>				<u>Naravnost</u>				<u>Desno</u>			
	O	T	B	V	S	EOV	O	T	B	V	S	EOV
20:00	0	0	0	0	0	0	32	0	0	0	32	32
20:15	0	0	0	0	0	0	37	0	1	0	38	39
20:30	0	0	0	0	0	0	41	0	0	0	41	41
20:45	0	0	0	0	0	0	39	0	1	0	40	41
21:00	0	0	0	0	0	0	29	0	0	0	29	29
21:15	0	0	0	0	0	0	19	0	1	0	20	21
21:30	0	0	0	0	0	0	22	1	0	0	23	24
21:45	0	0	0	0	0	0	13	0	1	0	14	15
Vsota	0	0	0	0	0	0	3679	153	36	49	3917	4229
							2639	127	0	12	2778	2935

PRILOGE P2

1188 213011		000.0201	P	
------------------------	--	-----------------	----------	--



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	352	0	0	474	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ft						
Flt Protected						
Satd. Flow (prot)	1705	0	0	1722	1773	0
Flt Permitted						
Satd. Flow (perm)	1705	0	0	1722	1773	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	174.2			68.5	58.0	
Travel Time (s)	12.5			4.9	4.2	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.75	0.75
Heavy Vehicles (%)	4%	0%	0%	3%	0%	0%
Adj. Flow (vph)	414	0	0	558	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	414	0	0	558	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	15		25		25	15
Sign Control	Free		Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 28.3%	ICU Level of Service A					
Analysis Period (min) 15						
Description: P1						



Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Volume (vph)	0	139	355	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ft						
Flt Protected						
Satd. Flow (prot)	0	1689	1722	0	1773	0
Flt Permitted						
Satd. Flow (perm)	0	1689	1722	0	1773	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		295.6	50.3		89.2	
Travel Time (s)		21.3	3.6		6.4	
Peak Hour Factor	0.75	0.85	0.85	0.75	0.80	0.80
Heavy Vehicles (%)	0%	5%	3%	0%	0%	0%
Adj. Flow (vph)	0	164	418	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	164	418	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15		25	15
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 22.0%	ICU Level of Service A					
Analysis Period (min) 15						
Description: P2						

Summary of All Intervals







Start Time	6:30
End Time	7:45
Total Time (min)	75
Time Recorded (min)	60
# of Intervals	2
# of Recorded Intvl's	1
Vehs Entered	1302
Vehs Exited	1290
Starting Vehs	16
Ending Vehs	28
Denied Entry Before	0
Denied Entry After	0
Travel Distance (km)	505
Travel Time (hr)	19.5
Total Delay (hr)	7.8
Total Stops	469
Fuel Used (l)	60.4

Interval #0 Information Seeding

Start Time	6:30
End Time	6:45
Total Time (min)	15
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	6:45
End Time	7:45
Total Time (min)	60
Volumes adjusted by Growth Factors.	
Vehs Entered	1302
Vehs Exited	1290
Starting Vehs	16
Ending Vehs	28
Denied Entry Before	0
Denied Entry After	0
Travel Distance (km)	505
Travel Time (hr)	19.5
Total Delay (hr)	7.8
Total Stops	469
Fuel Used (l)	60.4

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	311	122	17	457	314	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0	0.0	0.0	0.0	0.0	15.0
Storage Lanes	0	0	0	0	1	1
Taper Length (m)	7.5	7.5	7.5	7.5	7.5	7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.959					0.850
Flt Protected			0.998	0.950		
Satd. Flow (prot)	1661	0	0	1689	1620	1507
Flt Permitted			0.998	0.950		
Satd. Flow (perm)	1661	0	0	1689	1620	1507
Link Speed (k/h)	50		50	50	50	
Link Distance (m)	105.9		174.2	295.6		
Travel Time (s)	7.6		12.5	21.3		
Peak Hour Factor	0.79	0.71	0.71	0.95	0.85	0.68
Heavy Vehicles (%)	3%	1%	0%	5%	4%	0%
Adj. Flow (vph)	394	172	24	481	369	60
Shared Lane Traffic (%)						
Lane Group Flow (vph)	566	0	0	505	369	60
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0		0.0	3.0		
Link Offset(m)	0.0		0.0	0.0		
Crosswalk Width(m)	4.8		4.8	4.8		
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		15	25	25	15	
Sign Control	Free		Free	Stop		

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	61.9%
ICU Level of Service	B
Analysis Period (min)	15
Description:	K1

1.: Int Performance by movement

Movement	EBT	WBT	All
Total Delay (hr)	0.1	0.1	0.1
Delay / Veh (s)	0.6	0.6	0.6
Total Stops	0	0	0
Travel Dist (km)	60.4	29.0	89.3
Travel Time (hr)	1.3	1.0	2.3
Avg Speed (kph)	45	32	40
Fuel Used (l)	5.5	7.0	12.5
HC Emissions (g)	28	34	62
CO Emissions (g)	725	1338	2062
NOx Emissions (g)	85	121	205
Vehicles Entered	354	466	820
Vehicles Exited	353	465	818
Hourly Exit Rate	353	465	818
Input Volume	357	474	831
% of Volume	99	98	98
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

2.: Int Performance by movement

Movement	SET	NWT	All
Total Delay (hr)	0.0	0.1	0.1
Delay / Veh (s)	0.3	0.6	0.5
Total Stops	0	0	0
Travel Dist (km)	44.4	15.6	60.0
Travel Time (hr)	1.1	0.6	1.7
Avg Speed (kph)	42	28	37
Fuel Used (l)	4.8	4.2	9.0
HC Emissions (g)	20	16	36
CO Emissions (g)	655	628	1284
NOx Emissions (g)	62	64	126
Vehicles Entered	157	376	533
Vehicles Exited	158	377	535
Hourly Exit Rate	158	377	535
Input Volume	145	355	500
% of Volume	109	106	107
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

3: Int Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBT	NBR	All
Total Delay (hr)	0.2	0.0	0.0	0.1	6.2	0.0	0.8	7.3
Delay / Veh (s)	2.0	1.1	6.5	1.0	69.7	0.0	53.0	20.5
Total Stops	2	0	5	6	357	0	99	469
Travel Dist (km)	28.7	13.7	1.9	78.1	94.9	0.5	15.7	233.5
Travel Time (hr)	0.9	0.5	0.1	1.7	8.3	0.0	1.1	12.7
Avg Speed (kph)	32	28	30	46	11	50	14	19
Fuel Used (l)	4.8	1.8	0.1	5.7	11.5	0.0	1.7	25.7
HC Emissions (g)	25	4	0	33	36	0	1	101
CO Emissions (g)	824	195	3	662	907	6	82	2680
NOx Emissions (g)	88	20	0	95	93	0	7	303
Vehicles Entered	298	143	11	461	325	3	53	1294
Vehicles Exited	297	142	11	461	317	3	53	1284
Hourly Exit Rate	297	142	11	461	317	3	53	1284
Input Volume	311	122	17	466	314	2	41	1273
% of Volume	95	116	65	99	101	150	129	101
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

Total Network Performance

Total Delay (hr)	7.8
Delay / Veh (s)	21.5
Total Stops	469
Travel Dist (km)	504.9
Travel Time (hr)	19.5
Avg Speed (kph)	26
Fuel Used (l)	60.4
HC Emissions (g)	267
CO Emissions (g)	8050
NOx Emissions (g)	847
Vehicles Entered	1302
Vehicles Exited	1290
Hourly Exit Rate	1290
Input Volume	3866
% of Volume	33
Denied Entry Before	0
Denied Entry After	0

OPPN 141

Intersection: 1: Int

Movement				
Directions Served				
Maximum Queue (m)				
Average Queue (m)				
95th Queue (m)				
Link Distance (m)				
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				
Intersection: 2: Int				
Movement				
Directions Served				
Maximum Queue (m)				
Average Queue (m)				
95th Queue (m)				
Link Distance (m)				
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				
Intersection: 3: Int				
Movement				
Directions Served	EB	WB	NB	NB
	TR	LT	L	R
Maximum Queue (m)	9.4	21.0	144.5	22.5
Average Queue (m)	0.8	2.7	80.8	17.5
95th Queue (m)	5.0	13.2	144.8	31.8
Link Distance (m)	96.0	155.8	281.0	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				15.0
Storage Blk Time (%)			82	1
Queuing Penalty (veh)			33	3
Network Summary				
Network wide Queuing Penalty: 37				

→



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↔	↔	↔	↔	↔
Volume (vph)	352	0	0	474	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ft						
Ft Protected						
Satd. Flow (prot)	1705	0	0	1722	1773	0
Ft Permitted						
Satd. Flow (perm)	1705	0	0	1722	1773	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	174.2			68.5	58.0	
Travel Time (s)	12.5			4.9	4.2	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.75	0.75
Growth Factor	102%	102%	102%	102%	102%	102%
Heavy Vehicles (%)	4%	0%	0%	3%	0%	0%
Adj. Flow (vph)	422	0	0	569	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	422	0	0	569	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		15	25	25	15	
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	28.8%
Analysis Period (min)	15
Description:	P1



Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations		4	1		1	
Volume (vph)	0	139	355	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	1689	1722	0	1773	0
Flt Permitted						
Satd. Flow (perm)	0	1689	1722	0	1773	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		295.6	50.3		89.2	
Travel Time (s)		21.3	3.6		6.4	
Peak Hour Factor	0.75	0.85	0.85	0.75	0.80	0.80
Growth Factor	102%	102%	102%	102%	102%	102%
Heavy Vehicles (%)	0%	5%	3%	0%	0%	0%
Adj. Flow (vph)	0	167	426	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	167	426	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Right	Right
Median Width(m)		0.0	0.0		3.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25	15	25	15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	22.4%
Analysis Period (min)	15
Description:	P2



Lane Group	EBT	EBR	WBT	WBL	NBT	NBR
Lane Configurations	1		4		1	
Volume (vph)	311	122	17	457	314	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		0.0	0.0	0.0	0.0	15.0
Storage Lanes		0	0		1	1
Taper Length (m)		7.5	7.5		7.5	7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1661	0	0	1689	1620	1507
Flt Permitted						
Satd. Flow (perm)	1661	0	0	1689	1620	1507
Link Speed (k/h)		50		50		50
Link Distance (m)		105.9		174.2		295.6
Travel Time (s)		7.6		12.5		21.3
Peak Hour Factor	0.79	0.71	0.71	0.95	0.85	0.68
Growth Factor	102%	102%	102%	102%	102%	102%
Heavy Vehicles (%)	3%	1%	0%	5%	4%	0%
Adj. Flow (vph)	402	175	24	491	377	62
Shared Lane Traffic (%)						
Lane Group Flow (vph)	577	0	0	515	377	62
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)		0.0		0.0	3.0	
Link Offset(m)		0.0		0.0	0.0	
Crosswalk Width(m)		4.8		4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		15		25	25	15
Sign Control		Free		Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	63.0%
Analysis Period (min)	15
Description:	K1

Summary of All Intervals

Start Time	6:30
End Time	7:45
Total Time (min)	75
Time Recorded (min)	60
# of Intervals	2
# of Recorded Intvl's	1
Vehs Entered	1321
Vehs Exited	1308
Starting Vehs	17
Ending Vehs	30
Denied Entry Before	0
Denied Entry After	0
Travel Distance (km)	511
Travel Time (hr)	28.2
Total Delay (hr)	16.3
Total Stops	602
Fuel Used (l)	68.1

Interval #0 Information Seeding

Start Time	6:30
End Time	6:45
Total Time (min)	15
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	6:45
End Time	7:45
Total Time (min)	60
Volumes adjusted by Growth Factors.	
Vehs Entered	1321
Vehs Exited	1308
Starting Vehs	17
Ending Vehs	30
Denied Entry Before	0
Denied Entry After	0
Travel Distance (km)	511
Travel Time (hr)	28.2
Total Delay (hr)	16.3
Total Stops	602
Fuel Used (l)	68.1

1: Int Performance by movement

Movement	EBT	WBT	All
Total Delay (hr)	0.1	0.1	0.1
Delay / Veh (s)	0.6	0.7	0.7
Total Stops	0	0	0
Travel Dist (km)	59.3	29.7	89.0
Travel Time (hr)	1.3	1.0	2.3
Avg Speed (kph)	46	32	40
Fuel Used (l)	5.3	7.2	12.5
HC Emissions (g)	23	36	58
CO Emissions (g)	607	1364	1971
NOx Emissions (g)	70	127	197
Vehicles Entered	347	478	825
Vehicles Exited	346	477	823
Hourly Exit Rate	346	477	823
Input Volume	363	483	846
% of Volume	95	99	97
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

2: Int Performance by movement

Movement	SET	NWT	All
Total Delay (hr)	0.0	0.1	0.1
Delay / Veh (s)	0.3	0.8	0.6
Total Stops	0	2	2
Travel Dist (km)	44.1	16.0	60.1
Travel Time (hr)	1.1	0.6	1.7
Avg Speed (kph)	42	27	37
Fuel Used (l)	4.7	4.2	9.0
HC Emissions (g)	22	18	40
CO Emissions (g)	681	668	1349
NOx Emissions (g)	67	69	136
Vehicles Entered	157	386	543
Vehicles Exited	158	387	545
Hourly Exit Rate	158	387	545
Input Volume	147	362	509
% of Volume	107	107	107
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

3: Int Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBT	NBR	All
Total Delay (hr)	0.2	0.0	0.0	0.1	13.6	0.0	1.9	15.9
Delay / Veh (s)	1.8	1.1	6.9	0.8	146.7	35.1	145.4	43.8
Total Stops	2	0	5	5	481	3	104	600
Travel Dist (km)	28.8	13.7	1.7	80.1	98.8	0.5	14.4	238.0
Travel Time (hr)	0.9	0.5	0.1	1.7	15.8	0.0	2.2	21.3
Avg Speed (kph)	32	28	29	46	6	12	6	11
Fuel Used (l)	4.9	1.8	0.1	5.8	18.0	0.1	2.6	33.2
HC Emissions (g)	24	5	0	35	51	0	1	116
CO Emissions (g)	818	199	3	688	1141	3	84	2936
NOx Emissions (g)	84	20	0	98	109	0	7	318
Vehicles Entered	298	143	10	471	339	3	49	1313
Vehicles Exited	298	142	10	470	331	3	46	1300
Hourly Exit Rate	298	142	10	470	331	3	46	1300
Input Volume	317	124	17	475	320	2	42	1297
% of Volume	94	115	59	99	103	150	110	100
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

Total Network Performance

Total Delay (hr)	16.3
Delay / Veh (s)	44.7
Total Stops	602
Travel Dist (km)	511.4
Travel Time (hr)	28.2
Avg Speed (kph)	18
Fuel Used (l)	68.1
HC Emissions (g)	287
CO Emissions (g)	8378
NOx Emissions (g)	872
Vehicles Entered	1321
Vehicles Exited	1308
Hourly Exit Rate	1308
Input Volume	3939
% of Volume	33
Denied Entry Before	0
Denied Entry After	0

Intersection: 1: Int

Movement
Directions Served
Maximum Queue (m)
Average Queue (m)
95th Queue (m)
Link Distance (m)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (m)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 2: Int

Movement	NW
Directions Served	TR
Maximum Queue (m)	14.9
Average Queue (m)	0.5
95th Queue (m)	4.9
Link Distance (m)	40.7
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Int

Movement	EB	WB	NB	NB
Directions Served	TR	LT	L	R
Maximum Queue (m)	6.6	20.9	281.0	22.5
Average Queue (m)	0.4	2.5	157.4	15.3
95th Queue (m)	3.2	12.2	274.6	32.0
Link Distance (m)	96.0	155.8	281.0	
Upstream Blk Time (%)			1	
Queuing Penalty (veh)			2	
Storage Bay Dist (m)				15.0
Storage Blk Time (%)			90	1
Queuing Penalty (veh)			38	2

Network Summary

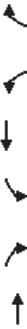
Network wide Queuing Penalty: 43



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	431	0	0	384	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ft						
Flt Protected						
Satd. Flow (prot)	1705	0	0	1722	1773	0
Flt Permitted						
Satd. Flow (perm)	1705	0	0	1722	1773	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	174.2			68.5	58.0	
Travel Time (s)	12.5			4.9	4.2	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.92	0.92
Heavy Vehicles (%)	4%	0%	0%	3%	0%	0%
Adj. Flow (vph)	507	0	0	452	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	507	0	0	452	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	15	15	25	25	25	15
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 26.0%	ICU Level of Service A					
Analysis Period (min) 15						
Description: P1						



Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Volume (vph)	0	386	187	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ft						
Flt Protected						
Satd. Flow (prot)	0	1689	1722	0	1773	0
Flt Permitted						
Satd. Flow (perm)	0	1689	1722	0	1773	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		295.6	50.3		89.2	
Travel Time (s)		21.3	3.6		6.4	
Peak Hour Factor	0.75	0.85	0.85	0.75	0.85	0.85
Heavy Vehicles (%)	0%	5%	3%	0%	0%	0%
Adj. Flow (vph)	0	454	220	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	454	220	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25	25	15	25	15	15
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 23.6%	ICU Level of Service A					
Analysis Period (min) 15						
Description: P2						



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	380	353	42	340	140	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0	0.0	0.0	0.0	0.0	15.0
Storage Lanes	0	0	0	0	1	1
Taper Length (m)	7.5	7.5	7.5	7.5	7.5	7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.935					0.850
Flt Protected			0.994	0.950		
Satd. Flow (prot)	1625	0	0	1689	1620	1507
Flt Permitted			0.994	0.950		
Satd. Flow (perm)	1625	0	0	1689	1620	1507
Link Speed (k/h)	50			50	50	
Link Distance (m)	105.9			174.2	295.6	
Travel Time (s)	7.6			12.5	21.3	
Peak Hour Factor	0.87	0.88	0.75	0.87	0.83	0.93
Heavy Vehicles (%)	3%	1%	0%	5%	4%	0%
Adj. Flow (vph)	437	401	56	391	169	56
Shared Lane Traffic (%)						
Lane Group Flow (vph)	838	0	0	447	169	56
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		15	25		25	15
Sign Control	Free		Free	Stop		Stop

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	67.5%
ICU Level of Service	C
Analysis Period (min)	15
Description:	K1

Summary of All Intervals

Start Time	3:15
End Time	4:30
Total Time (min)	75
Time Recorded (min)	60
# of Intervals	2
# of Recorded Intvl's	1
Vehs Entered	1304
Vehs Exited	1304
Starting Vehs	10
Ending Vehs	10
Denied Entry Before	0
Denied Entry After	0
Travel Distance (km)	515
Travel Time (hr)	14.5
Total Delay (hr)	2.4
Total Stops	265
Fuel Used (l)	55.5

Interval #0 Information Seeding

Start Time	3:15
End Time	3:30
Total Time (min)	15
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	3:30
End Time	4:30
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Vehs Entered	1304
Vehs Exited	1304
Starting Vehs	10
Ending Vehs	10
Denied Entry Before	0
Denied Entry After	0
Travel Distance (km)	515
Travel Time (hr)	14.5
Total Delay (hr)	2.4
Total Stops	265
Fuel Used (l)	55.5

1.: Int Performance by movement

Movement	EBT	WBT	All
Total Delay (hr)	0.1	0.0	0.2
Delay / Veh (s)	1.1	0.5	0.8
Total Stops	0	0	0
Travel Dist (km)	70.4	23.6	94.0
Travel Time (hr)	1.6	0.8	2.4
Avg Speed (kph)	44	32	40
Fuel Used (l)	7.2	5.6	12.8
HC Emissions (g)	28	20	49
CO Emissions (g)	909	980	1889
NOx Emissions (g)	93	79	172
Vehicles Entered	414	379	793
Vehicles Exited	412	379	791
Hourly Exit Rate	412	379	791
Input Volume	438	384	822
% of Volume	94	99	96
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

2.: Int Performance by movement

Movement	SET	NWT	All
Total Delay (hr)	0.1	0.0	0.1
Delay / Veh (s)	0.8	0.5	0.7
Total Stops	0	0	0
Travel Dist (km)	116.5	7.7	124.2
Travel Time (hr)	2.8	0.3	3.1
Avg Speed (kph)	41	28	40
Fuel Used (l)	12.5	2.1	14.6
HC Emissions (g)	72	8	80
CO Emissions (g)	2003	333	2336
NOx Emissions (g)	210	32	243
Vehicles Entered	417	186	603
Vehicles Exited	417	187	604
Hourly Exit Rate	417	187	604
Input Volume	410	187	597
% of Volume	102	100	101
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

3: Int Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Total Delay (hr)	0.4	0.2	0.1	0.2	0.9	0.1	1.9
Delay / Veh (s)	3.9	2.3	11.1	2.2	24.1	7.6	5.5
Total Stops	0	6	31	26	134	68	265
Travel Dist (km)	33.4	34.7	7.2	58.5	38.8	17.1	189.5
Travel Time (hr)	1.3	1.4	0.3	1.4	1.7	0.5	6.7
Avg Speed (kph)	28	26	25	42	22	33	29
Fuel Used (l)	4.8	4.2	0.5	4.1	3.3	1.3	18.2
HC Emissions (g)	17	10	0	18	12	2	60
CO Emissions (g)	559	362	19	373	297	84	1694
NOx Emissions (g)	66	46	2	52	33	6	205
Vehicles Entered	345	360	42	343	134	58	1282
Vehicles Exited	348	360	42	343	132	58	1283
Hourly Exit Rate	348	360	42	343	132	58	1283
Input Volume	380	353	42	347	140	52	1314
% of Volume	92	102	100	99	94	112	98
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

Total Network Performance

Total Delay (hr)	2.4
Delay / Veh (s)	6.5
Total Stops	265
Travel Dist (km)	514.9
Travel Time (hr)	14.5
Avg Speed (kph)	36
Fuel Used (l)	55.5
HC Emissions (g)	228
CO Emissions (g)	7119
NOx Emissions (g)	744
Vehicles Entered	1304
Vehicles Exited	1304
Hourly Exit Rate	1304
Input Volume	4030
% of Volume	32
Denied Entry Before	0
Denied Entry After	0

Intersection: 1: Int

Movement				
Directions Served				
Maximum Queue (m)				
Average Queue (m)				
95th Queue (m)				
Link Distance (m)				
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				
Intersection: 2: Int				
Movement				
Directions Served				
Maximum Queue (m)				
Average Queue (m)				
95th Queue (m)				
Link Distance (m)				
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				
Intersection: 3: Int				
Movement				
Directions Served	EB	WB	NB	NB
	TR	LT	L	R
Maximum Queue (m)	13.9	52.6	55.1	22.5
Average Queue (m)	1.3	11.4	19.8	10.5
95th Queue (m)	6.7	31.6	41.2	21.5
Link Distance (m)	96.0	155.8	281.0	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				15.0
Storage Blk Time (%)			20	0
Queuing Penalty (veh)			10	1
Network Summary				
Network wide Queuing Penalty: 11				

1: Int



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↔	↔	↔	↔	↔
Volume (vph)	348	10	1	465	5	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ft	0.996				0.983	
Ft Protected					0.958	
Satd. Flow (prot)	1700	0	0	1722	1670	0
Ft Permitted					0.958	
Satd. Flow (perm)	1700	0	0	1722	1670	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	174.2			68.5	58.0	
Travel Time (s)	12.5			4.9	4.2	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.75	0.75
Growth Factor	102%	102%	102%	102%	102%	102%
Heavy Vehicles (%)	4%	0%	0%	3%	0%	0%
Adj. Flow (vph)	418	12	1	558	7	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	430	0	0	559	8	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		15	25	25	15	
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	35.8%
Analysis Period (min)	15
Description:	P1



Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Volume (vph)	0	135	345	0	1	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.869	
Flt Protected					0.998	
Satd. Flow (prot)	0	1689	1722	0	1538	0
Flt Permitted					0.998	
Satd. Flow (perm)	0	1689	1722	0	1538	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		295.6	50.3		89.2	
Travel Time (s)		21.3	3.6		6.4	
Peak Hour Factor	0.75	0.85	0.85	0.75	0.80	0.80
Growth Factor	102%	102%	102%	102%	102%	102%
Heavy Vehicles (%)	0%	5%	3%	0%	0%	0%
Adj. Flow (vph)	0	162	414	0	1	29
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	162	414	0	30	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25	15	
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	28.5%
Analysis Period (min)	15
Description:	P2
ICU Level of Service A	

Summary of All Intervals

Start Time	6:30
End Time	7:45
Total Time (min)	75
Time Recorded (min)	60
# of Intervals	2
# of Recorded Intvl's	1
Vehs Entered	1360
Vehs Exited	1359
Starting Vehs	31
Ending Vehs	32
Denied Entry Before	0
Denied Entry After	2
Travel Distance (km)	525
Travel Time (hr)	39.0
Total Delay (hr)	26.8
Total Stops	944
Fuel Used (l)	78.5

Interval #0 Information Seeding

Start Time	6:30
End Time	6:45
Total Time (min)	15
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	6:45
End Time	7:45
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Vehs Entered	1360
Vehs Exited	1359
Starting Vehs	31
Ending Vehs	32
Denied Entry Before	0
Denied Entry After	2
Travel Distance (km)	525
Travel Time (hr)	39.0
Total Delay (hr)	26.8
Total Stops	944
Fuel Used (l)	78.5

1.: Int Performance by movement

Movement	EBT	EBR	WBT	NBL	NBR	All
Total Delay (hr)	0.1	0.0	0.1	0.0	0.0	0.2
Delay / Veh (s)	0.6	0.2	0.6	6.3	4.5	0.7
Total Stops	0	0	0	6	3	9
Travel Dist (km)	63.5	2.2	30.5	0.3	0.1	96.7
Travel Time (hr)	1.4	0.1	1.0	0.0	0.0	2.5
Avg Speed (kph)	46	37	32	14	15	40
Fuel Used (l)	5.5	0.2	7.4	0.0	0.0	13.1
HC Emissions (g)	29	0	25	0	0	54
CO Emissions (g)	713	15	1206	3	1	1938
NOx Emissions (g)	89	1	99	0	0	190
Vehicles Entered	370	13	489	6	3	881
Vehicles Exited	369	13	492	6	3	883
Hourly Exit Rate	369	13	492	6	3	883
Input Volume	355	10	474	5	1	846
% of Volume	104	130	104	120	300	104
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0

2.: Int Performance by movement

Movement	SET	NWT	SWR	All
Total Delay (hr)	0.0	0.4	0.2	0.7
Delay / Veh (s)	0.2	4.1	26.6	4.4
Total Stops	0	68	29	97
Travel Dist (km)	34.4	15.8	2.3	52.5
Travel Time (hr)	0.8	1.0	0.3	2.1
Avg Speed (kph)	42	16	8	25
Fuel Used (l)	3.7	3.8	0.5	8.0
HC Emissions (g)	12	13	1	26
CO Emissions (g)	456	488	36	980
NOx Emissions (g)	41	51	3	95
Vehicles Entered	123	383	29	535
Vehicles Exited	125	384	29	538
Hourly Exit Rate	125	384	29	538
Input Volume	147	352	23	523
% of Volume	85	109	126	103
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

3: Int Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBT	NBR	All
Total Delay (hr)	0.1	0.0	0.0	0.1	22.1	0.4	3.0	25.8
Delay / Veh (s)	1.3	0.6	3.8	1.1	234.5	82.2	203.2	69.0
Total Stops	0	0	4	4	652	24	154	838
Travel Dist (km)	31.1	10.0	2.2	84.0	100.5	2.6	15.8	246.3
Travel Time (hr)	1.0	0.4	0.1	1.9	24.3	0.4	3.4	31.4
Avg Speed (kph)	34	29	35	46	4	6	5	8
Fuel Used (l)	5.6	1.3	0.1	6.3	25.7	0.5	3.7	43.3
HC Emissions (g)	27	3	0	33	43	0	1	107
CO Emissions (g)	945	142	7	687	1082	17	104	2983
NOx Emissions (g)	96	13	1	97	94	2	9	311
Vehicles Entered	322	103	13	498	343	17	53	1349
Vehicles Exited	323	104	13	498	335	17	54	1344
Hourly Exit Rate	323	104	13	498	335	17	54	1344
Input Volume	317	124	17	471	320	15	42	1306
% of Volume	102	84	76	106	105	113	129	103
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	2	0	0	2

Total Network Performance

Total Delay (hr)	26.8
Delay / Veh (s)	71.1
Total Stops	944
Travel Dist (km)	525.0
Travel Time (hr)	39.0
Avg Speed (kph)	14
Fuel Used (l)	78.5
HC Emissions (g)	252
CO Emissions (g)	7997
NOx Emissions (g)	802
Vehicles Entered	1360
Vehicles Exited	1359
Hourly Exit Rate	1359
Input Volume	3967
% of Volume	34
Denied Entry Before	0
Denied Entry After	2

Intersection: 1: Int

Movement	NB
Directions Served	LR
Maximum Queue (m)	9.1
Average Queue (m)	2.1
95th Queue (m)	8.5
Link Distance (m)	49.6
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Int

Movement	NW	SW
Directions Served	TR	LR
Maximum Queue (m)	45.2	15.2
Average Queue (m)	10.8	5.7
95th Queue (m)	38.7	13.6
Link Distance (m)	40.7	81.0
Upstream Blk Time (%)	2	
Queuing Penalty (veh)	0	
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Int

Movement	WB	NB	NB
Directions Served	LT	L	R
Maximum Queue (m)	22.9	286.4	22.5
Average Queue (m)	2.1	228.3	16.6
95th Queue (m)	11.5	320.5	32.6
Link Distance (m)	155.8	281.0	
Upstream Blk Time (%)		14	
Queuing Penalty (veh)		52	
Storage Bay Dist (m)		15.0	
Storage Blk Time (%)		96	1
Queuing Penalty (veh)		40	3

Network Summary

Network wide Queuing Penalty: 96



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	348	10	1	464	5	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ft	0.996				0.973	
Ft Protected					0.962	
Satd. Flow (prot)	1700	0	0	1722	1660	0
Ft Permitted					0.962	
Satd. Flow (perm)	1700	0	0	1722	1660	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	174.2			68.5	58.0	
Travel Time (s)	12.5			4.9	4.2	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.75	0.75
Growth Factor	113%	113%	113%	113%	113%	113%
Heavy Vehicles (%)	4%	0%	0%	3%	0%	0%
Adj. Flow (vph)	463	13	1	617	8	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	476	0	0	618	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 38.5%

Analysis Period (min) 15

Description: P1

Lanes, Volumes, Timings

2: Int

V1_JK_2048
JUTRANJA KONICA (6:45-7:45)



Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Volume (vph)	0	134	345	0	1	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.869	
Flt Protected					0.998	
Satd. Flow (prot)	0	1689	1722	0	1538	0
Flt Permitted					0.998	
Satd. Flow (perm)	0	1689	1722	0	1538	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		295.6	50.3		89.2	
Travel Time (s)		21.3	3.6		6.4	
Peak Hour Factor	0.75	0.85	0.85	0.75	0.80	0.80
Growth Factor	113%	113%	113%	113%	113%	113%
Heavy Vehicles (%)	0%	5%	3%	0%	0%	0%
Adj. Flow (vph)	0	178	459	0	1	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	178	459	0	33	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25	15	
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	30.5%
Analysis Period (min)	15
Description:	P2

Lanes, Volumes, Timings

3: Int

V1_JK_2048
JUTRANJA KONICA (6:45-7:45)



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	311	122	17	457	314	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		0.0	0.0		0.0	15.0
Storage Lanes		0	0		1	1
Taper Length (m)		7.5	7.5		7.5	7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.959					0.850
Flt Protected			0.998	0.950		
Satd. Flow (prot)	1661	0	0	1689	1620	1507
Flt Permitted			0.998	0.950		
Satd. Flow (perm)	1661	0	0	1689	1620	1507
Link Speed (k/h)	50			50	50	
Link Distance (m)	105.9			174.2	295.6	
Travel Time (s)	7.6			12.5	21.3	
Peak Hour Factor	0.79	0.71	0.71	0.95	0.85	0.68
Growth Factor	113%	113%	113%	113%	113%	113%
Heavy Vehicles (%)	3%	1%	0%	5%	4%	0%
Adj. Flow (vph)	445	194	27	544	417	68
Shared Lane Traffic (%)						
Lane Group Flow (vph)	639	0	0	571	417	68
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)		0.0		0.0	3.0	
Link Offset(m)		0.0		0.0	0.0	
Crosswalk Width(m)		4.8		4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		15	25	25	25	15
Sign Control		Free		Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	69.0%
Analysis Period (min)	15
Description:	K1

Summary of All Intervals

Start Time	6:30
End Time	7:45
Total Time (min)	75
Time Recorded (min)	60
# of Intervals	2
# of Recorded Intvl's	1
Vehs Entered	1396
Vehs Exited	1376
Starting Vehs	41
Ending Vehs	61
Denied Entry Before	0
Denied Entry After	99
Travel Distance (km)	524
Travel Time (hr)	106.4
Total Delay (hr)	94.3
Total Stops	816
Fuel Used (l)	134.7

Interval #0 Information Seeding	
Start Time	6:30
End Time	6:45
Total Time (min)	15
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording	
Start Time	6:45
End Time	7:45
Total Time (min)	60
Volumes adjusted by Growth Factors.	
Vehs Entered	1396
Vehs Exited	1376
Starting Vehs	41
Ending Vehs	61
Denied Entry Before	0
Denied Entry After	99
Travel Distance (km)	524
Travel Time (hr)	106.4
Total Delay (hr)	94.3
Total Stops	816
Fuel Used (l)	134.7

1: Int Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Total Delay (hr)	0.1	0.0	0.0	0.1	0.0	0.0	0.2
Delay / Veh (s)	0.7	0.4	1.4	0.8	6.5	2.4	0.8
Total Stops	0	0	0	0	3	2	5
Travel Dist (km)	64.6	1.7	0.1	34.3	0.1	0.1	100.8
Travel Time (hr)	1.4	0.0	0.0	1.2	0.0	0.0	2.7
Avg Speed (kph)	45	37	25	31	14	18	39
Fuel Used (l)	5.5	0.1	0.0	8.1	0.0	0.0	13.8
HC Emissions (g)	23	0	0	33	0	0	56
CO Emissions (g)	609	17	1	1343	1	1	1973
NOx Emissions (g)	73	1	0	125	0	0	200
Vehicles Entered	373	10	1	552	3	2	941
Vehicles Exited	375	10	1	550	3	2	941
Hourly Exit Rate	375	10	1	550	3	2	941
Input Volume	393	11	1	524	6	1	936
% of Volume	95	91	100	105	50	200	101
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

2: Int Performance by movement

Movement	SET	NWT	SWL	SWR	All
Total Delay (hr)	0.0	45.4	0.3	9.8	55.5
Delay / Veh (s)	0.3	524.0	1681.4	399.9	
Total Stops	0	87	0	18	105
Travel Dist (km)	45.9	12.8	0.0	1.7	60.5
Travel Time (hr)	1.1	45.8	0.3	9.9	57.1
Avg Speed (kph)	43	3	0	0	4
Fuel Used (l)	5.1	40.5	0.3	8.7	54.5
HC Emissions (g)	23	22	0	0	46
CO Emissions (g)	730	809	4	120	1662
NOx Emissions (g)	71	30	0	2	103
Vehicles Entered	165	314	1	26	506
Vehicles Exited	167	311	0	16	494
Hourly Exit Rate	167	311	0	16	494
Input Volume	164	390	1	26	581
% of Volume	102	80	0	62	85
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	85	0	8	93

3: Int Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBT	NBR	ALL
Total Delay (hr)	0.2	0.0	0.0	0.2	32.3	0.8	4.8	38.4
Delay / Veh (s)	1.8	1.1	7.3	1.6	441.9	187.4	400.4	101.6
Total Stops	0	2	12	15	530	31	116	706
Travel Dist (km)	32.4	13.1	3.6	92.0	77.5	2.5	12.9	234.0
Travel Time (hr)	1.0	0.5	0.1	2.1	34.0	0.9	5.1	43.7
Avg Speed (kph)	32	28	29	44	2	3	3	6
Fuel Used (l)	5.5	1.8	0.2	6.9	32.8	0.9	5.1	53.1
HC Emissions (g)	20	6	0	44	58	0	1	129
CO Emissions (g)	790	213	8	856	1232	18	99	3216
NOx Emissions (g)	76	23	1	126	95	2	9	331
Vehicles Entered	337	135	20	545	263	18	46	1364
Vehicles Exited	336	137	21	544	263	15	41	1357
Hourly Exit Rate	336	137	21	544	263	15	41	1357
Input Volume	351	138	19	521	355	17	46	1447
% of Volume	96	99	111	104	74	88	89	94
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	6	0	6

Total Network Performance

Total Delay (hr)	94.3
Delay / Veh (s)	245.0
Total Stops	816
Travel Dist (km)	524.5
Travel Time (hr)	106.4
Avg Speed (kph)	9
Fuel Used (l)	134.7
HC Emissions (g)	292
CO Emissions (g)	8755
NOx Emissions (g)	828
Vehicles Entered	1396
Vehicles Exited	1376
Hourly Exit Rate	1376
Input Volume	4393
% of Volume	31
Denied Entry Before	0
Denied Entry After	99

Intersection: 1: Int

Movement	NB
Directions Served	LR
Maximum Queue (m)	9.1
Average Queue (m)	1.5
95th Queue (m)	7.1
Link Distance (m)	49.6
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Int

Movement	NW	SW
Directions Served	TR	LR
Maximum Queue (m)	59.9	85.6
Average Queue (m)	43.6	54.1
95th Queue (m)	64.4	103.8
Link Distance (m)	40.7	81.0
Upstream Blk Time (%)	79	43
Queuing Penalty (veh)	0	0
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Int

Movement	EB	WB	NB	NB
Directions Served	TR	LT	L	R
Maximum Queue (m)	6.8	53.3	286.9	22.5
Average Queue (m)	0.5	7.1	282.7	14.6
95th Queue (m)	3.2	26.2	294.0	31.7
Link Distance (m)	96.0	155.8	281.0	
Upstream Blk Time (%)			63	
Queuing Penalty (veh)			262	
Storage Bay Dist (m)				15.0
Storage Blk Time (%)			97	1
Queuing Penalty (veh)			45	4

Network Summary

Network wide Queuing Penalty: 311

Lanes, Volumes, Timings



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	421	20	2	376	6	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.994				0.983	
Flt Protected					0.958	
Satd. Flow (prot)	1698	0	0	1722	1670	0
Flt Permitted					0.958	
Satd. Flow (perm)	1698	0	0	1722	1670	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	174.2			68.5	58.0	
Travel Time (s)	12.5			4.9	4.2	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.92	0.92
Growth Factor	102%	102%	102%	102%	102%	102%
Heavy Vehicles (%)	4%	0%	0%	3%	0%	0%
Adj. Flow (vph)	505	24	2	451	7	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	529	0	0	453	8	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)				4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		15	25	25	15	
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	33.8%
Analysis Period (min)	15
Description:	P1

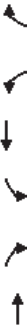
Lanes, Volumes, Timings



Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Volume (vph)	0	386	187	0	2	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.883	
Flt Protected					0.993	
Satd. Flow (prot)	0	1689	1722	0	1555	0
Flt Permitted					0.993	
Satd. Flow (perm)	0	1689	1722	0	1555	0
Link Speed (k/h)		50			50	
Link Distance (m)		295.6			89.2	
Travel Time (s)		21.3			3.6	
Peak Hour Factor	0.75	0.85	0.85	0.75	0.85	0.85
Growth Factor	102%	102%	102%	102%	102%	102%
Heavy Vehicles (%)	0%	5%	3%	0%	0%	0%
Adj. Flow (vph)	0	463	224	0	2	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	463	224	0	15	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		25		15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	30.7%
Analysis Period (min)	15
Description:	P2

Lanes, Volumes, Timings



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	380	353	42	340	140	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0	0.0	0.0	0.0	0.0	15.0
Storage Lanes	0	0	0	0	1	1
Taper Length (m)	7.5	7.5	7.5	7.5	7.5	7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.935					0.850
Flt Protected			0.994	0.950		
Satd. Flow (prot)	1625	0	0	1689	1620	1507
Flt Permitted			0.994	0.950		
Satd. Flow (perm)	1625	0	0	1689	1620	1507
Link Speed (k/h)	50			50	50	
Link Distance (m)	105.9			174.2	295.6	
Travel Time (s)	7.6			12.5	21.3	
Peak Hour Factor	0.87	0.88	0.75	0.87	0.83	0.93
Growth Factor	102%	102%	102%	102%	102%	102%
Heavy Vehicles (%)	3%	1%	0%	5%	4%	0%
Adj. Flow (vph)	446	409	57	399	172	57
Shared Lane Traffic (%)						
Lane Group Flow (vph)	855	0	0	456	172	57
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		15	25	25	25	15
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	68.7%
Analysis Period (min)	15
Description:	K1

SimTraffic Simulation Summary

Summary of All Intervals

Start Time	3:15
End Time	4:30
Total Time (min)	75
Time Recorded (min)	60
# of Intervals	2
# of Recorded Intvls	1
Vehs Entered	1380
Vehs Exited	1380
Starting Vehs	10
Ending Vehs	10
Denied Entry Before	0
Denied Entry After	0
Travel Distance (km)	542
Travel Time (hr)	15.9
Total Delay (hr)	3.1
Total Stops	327
Fuel Used (l)	59.7

Interval #0 Information Seeding

Start Time	3:15
End Time	3:30
Total Time (min)	15
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	3:30
End Time	4:30
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Vehs Entered	1380
Vehs Exited	1380
Starting Vehs	10
Ending Vehs	10
Denied Entry Before	0
Denied Entry After	0
Travel Distance (km)	542
Travel Time (hr)	15.9
Total Delay (hr)	3.1
Total Stops	327
Fuel Used (l)	59.7

1.: Int Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Total Delay (hr)	0.2	0.0	0.0	0.1	0.0	0.0	0.2
Delay / Veh (s)	1.3	1.0	1.3	0.5	8.9	3.1	1.0
Total Stops	0	0	0	0	5	2	7
Travel Dist (km)	75.8	3.3	0.1	25.3	0.2	0.1	104.7
Travel Time (hr)	1.7	0.1	0.0	0.8	0.0	0.0	2.7
Avg Speed (kph)	44	38	25	32	12	17	40
Fuel Used (l)	8.0	0.3	0.0	6.1	0.0	0.0	14.4
HC Emissions (g)	28	1	0	22	0	0	50
CO Emissions (g)	911	34	1	1032	3	1	1982
NOx Emissions (g)	96	2	0	85	0	0	184
Vehicles Entered	437	19	1	405	5	2	869
Vehicles Exited	436	18	1	406	5	2	868
Hourly Exit Rate	436	18	1	406	5	2	868
Input Volume	429	20	2	384	6	1	842
% of Volume	102	90	50	106	83	200	103
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

2.: Int Performance by movement

Movement	SET	NWT	SWR	All
Total Delay (hr)	0.1	0.0	0.0	0.1
Delay / Veh (s)	0.6	0.2	2.5	0.5
Total Stops	0	0	13	13
Travel Dist (km)	107.6	8.7	1.1	117.4
Travel Time (hr)	2.6	0.3	0.0	3.0
Avg Speed (kph)	41	29	22	40
Fuel Used (l)	11.4	2.4	0.1	13.9
HC Emissions (g)	53	13	0	66
CO Emissions (g)	1593	461	16	2070
NOx Emissions (g)	164	45	1	211
Vehicles Entered	384	209	13	606
Vehicles Exited	385	210	13	608
Hourly Exit Rate	385	210	13	608
Input Volume	419	191	11	623
% of Volume	92	110	118	98
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

3.: Int Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBT	NBR	All
Total Delay (hr)	0.5	0.2	0.1	0.3	1.3	0.0	0.3	2.6
Delay / Veh (s)	4.4	2.6	8.4	2.4	29.3	0.4	16.6	7.0
Total Stops	0	4	34	33	161	0	75	307
Travel Dist (km)	38.6	31.4	7.9	62.6	47.6	1.1	16.3	205.5
Travel Time (hr)	1.5	1.3	0.3	1.5	2.3	0.0	0.6	7.7
Avg Speed (kph)	27	25	28	41	20	48	26	28
Fuel Used (l)	5.6	3.8	0.5	4.5	4.3	0.1	1.3	20.2
HC Emissions (g)	21	12	1	22	23	0	2	80
CO Emissions (g)	664	371	23	473	568	7	70	2176
NOx Emissions (g)	80	47	2	64	59	1	6	257
Vehicles Entered	399	326	46	372	161	7	55	1366
Vehicles Exited	400	326	46	372	159	7	55	1365
Hourly Exit Rate	400	326	46	372	159	7	55	1365
Input Volume	388	360	43	352	143	6	53	1345
% of Volume	103	91	107	106	111	117	104	101
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

Total Network Performance

Total Delay (hr)	3.1
Delay / Veh (s)	8.1
Total Stops	327
Travel Dist (km)	542.3
Travel Time (hr)	15.9
Avg Speed (kph)	35
Fuel Used (l)	59.7
HC Emissions (g)	253
CO Emissions (g)	7914
NOx Emissions (g)	822
Vehicles Entered	1380
Vehicles Exited	1380
Hourly Exit Rate	1380
Input Volume	4148
% of Volume	33
Denied Entry Before	0
Denied Entry After	0

Intersection: 1: Int

Movement	NB
Directions Served	LR
Maximum Queue (m)	9.1
Average Queue (m)	1.8
95th Queue (m)	7.7
Link Distance (m)	49.6
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Int

Movement	SW
Directions Served	LR
Maximum Queue (m)	8.9
Average Queue (m)	3.2
95th Queue (m)	10.2
Link Distance (m)	81.0
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Int

Movement	EB	WB	NB	LB	R
Directions Served	TR	LT	L		R
Maximum Queue (m)	6.8	40.1	96.1	22.5	
Average Queue (m)	0.9	15.6	26.9	10.1	
95th Queue (m)	4.5	33.1	57.5	23.3	
Link Distance (m)	96.0	155.8	281.0		
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				15.0	
Storage Blk Time (%)				32	0
Queuing Penalty (veh)				17	1

Network Summary

Network wide Queuing Penalty: 18



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	➡	➡	➡	➡	➡	➡
Volume (vph)	421	20	2	376	6	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.994				0.970	
Frt Protected					0.963	
Satd. Flow (prot)	1698	0	0	1722	1656	0
Frt Permitted					0.963	
Satd. Flow (perm)	1698	0	0	1722	1656	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	174.2			68.5	58.0	
Travel Time (s)	12.5			4.9	4.2	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%
Heavy Vehicles (%)	4%	0%	0%	3%	0%	0%
Adj. Flow (vph)	560	27	3	500	7	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	587	0	0	503	9	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	36.4%
Analysis Period (min)	15
Description:	P1



Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Volume (vph)	0	386	187	0	2	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.887	
Flt Protected					0.992	
Satd. Flow (prot)	0	1689	1722	0	1560	0
Flt Permitted					0.992	
Satd. Flow (perm)	0	1689	1722	0	1560	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		295.6	50.3		89.2	
Travel Time (s)		21.3	3.6		6.4	
Peak Hour Factor	0.75	0.85	0.85	0.75	0.85	0.85
Growth Factor	113%	113%	113%	113%	113%	113%
Heavy Vehicles (%)	0%	5%	3%	0%	0%	0%
Adj. Flow (vph)	0	513	249	0	3	15
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	513	249	0	18	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25	15	
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	33.0%
Analysis Period (min)	15
Description:	P2
ICU Level of Service A	

Summary of All Intervals

Start Time	3:15
End Time	4:30
Total Time (min)	75
Time Recorded (min)	60
# of Intervals	2
# of Recorded Intvl's	1
Vehs Entered	1581
Vehs Exited	1567
Starting Vehs	17
Ending Vehs	31
Denied Entry Before	0
Denied Entry After	0
Travel Distance (km)	617
Travel Time (hr)	25.6
Total Delay (hr)	11.1
Total Stops	514
Fuel Used (l)	74.5

Interval #0 Information Seeding

Start Time	3:15
End Time	3:30
Total Time (min)	15
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	3:30
End Time	4:30
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Vehs Entered	1581
Vehs Exited	1567
Starting Vehs	17
Ending Vehs	31
Denied Entry Before	0
Denied Entry After	0
Travel Distance (km)	617
Travel Time (hr)	25.6
Total Delay (hr)	11.1
Total Stops	514
Fuel Used (l)	74.5

1.: Int Performance by movement

Movement	EBT	EBR	WBT	NBL	NBR	All
Total Delay (hr)	0.2	0.0	0.1	0.0	0.0	0.3
Delay / Veh (s)	1.5	0.9	0.6	6.3	2.6	1.1
Total Stops	0	0	0	4	1	5
Travel Dist (km)	88.7	3.8	29.0	0.2	0.1	121.7
Travel Time (hr)	2.1	0.1	1.0	0.0	0.0	3.1
Avg Speed (kph)	43	36	32	14	19	39
Fuel Used (l)	9.5	0.3	6.9	0.0	0.0	16.8
HC Emissions (g)	38	1	23	0	0	61
CO Emissions (g)	1194	46	1122	2	1	2365
NOx Emissions (g)	127	3	92	0	0	221
Vehicles Entered	513	22	466	4	1	1006
Vehicles Exited	515	22	466	4	1	1008
Hourly Exit Rate	515	22	466	4	1	1008
Input Volume	476	23	425	7	2	935
% of Volume	108	96	110	57	50	108
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0

2.: Int Performance by movement

Movement	SET	NWT	SWR	All
Total Delay (hr)	0.1	0.0	0.0	0.2
Delay / Veh (s)	1.0	0.4	3.0	0.8
Total Stops	0	0	9	9
Travel Dist (km)	127.5	9.3	0.7	137.5
Travel Time (hr)	3.1	0.3	0.0	3.5
Avg Speed (kph)	41	28	22	40
Fuel Used (l)	13.5	2.5	0.1	16.1
HC Emissions (g)	89	11	0	100
CO Emissions (g)	2341	435	10	2786
NOx Emissions (g)	259	41	1	301
Vehicles Entered	457	225	9	691
Vehicles Exited	458	224	9	691
Hourly Exit Rate	458	224	9	691
Input Volume	464	211	12	689
% of Volume	99	106	75	100
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

3: Int Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBT	NBR	All
Total Delay (hr)	0.6	0.4	0.4	1.1	5.8	0.0	2.2	10.4
Delay / Veh (s)	4.7	3.5	21.6	9.4	139.5	1.3	114.0	24.3
Total Stops	0	10	54	111	192	0	133	500
Travel Dist (km)	44.5	36.6	10.1	70.6	45.0	0.6	21.7	229.2
Travel Time (hr)	1.8	1.6	0.6	2.5	6.8	0.0	2.8	16.1
Avg Speed (kph)	27	24	17	28	7	45	8	14
Fuel Used (l)	6.3	4.4	0.8	5.8	7.9	0.0	3.4	28.6
HC Emissions (g)	19	13	1	25	21	0	2	80
CO Emissions (g)	637	384	29	540	530	5	127	2251
NOx Emissions (g)	76	52	3	71	49	0	9	260
Vehicles Entered	462	381	59	420	154	4	75	1555
Vehicles Exited	461	381	59	426	145	4	67	1543
Hourly Exit Rate	461	381	59	426	145	4	67	1543
Input Volume	429	399	47	391	158	6	59	1489
% of Volume	107	95	126	109	92	67	114	104
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

Total Network Performance

Total Delay (hr)	11.1
Delay / Veh (s)	25.3
Total Stops	514
Travel Dist (km)	616.9
Travel Time (hr)	25.6
Avg Speed (kph)	24
Fuel Used (l)	74.5
HC Emissions (g)	305
CO Emissions (g)	9320
NOx Emissions (g)	978
Vehicles Entered	1581
Vehicles Exited	1567
Hourly Exit Rate	1567
Input Volume	4596
% of Volume	34
Denied Entry Before	0
Denied Entry After	0

Intersection: 1: Int

Movement	NB
Directions Served	LR
Maximum Queue (m)	9.1
Average Queue (m)	1.2
95th Queue (m)	6.2
Link Distance (m)	49.6
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Int

Movement	SW
Directions Served	LR
Maximum Queue (m)	8.9
Average Queue (m)	2.8
95th Queue (m)	9.5
Link Distance (m)	81.0
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Int

Movement	EB	WB	NB	NB
Directions Served	TR	LT	L	R
Maximum Queue (m)	15.0	85.2	174.6	22.5
Average Queue (m)	2.4	34.0	82.1	15.9
95th Queue (m)	9.0	77.7	163.7	31.5
Link Distance (m)	96.0	155.8	281.0	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				15.0
Storage Blk Time (%)			77	2
Queuing Penalty (veh)			46	4

Network Summary

Network wide Queuing Penalty: 49
