APÉNDICE A

AFLUENCIA DE VEHÍCULOS

INTERSECTION DATA SUMMARY

Intersection: PR-2 & PR-464
Date: Tuesday, 5 February 2008
Start Time: 12:00 A.M.

PEAK HOUR (A.M.)	PR-464						PR-2						TOTAL
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	15 MIN
6:45 AM	11	0	17	0	0	0	0	212	24	21	386	0	671
7:00 AM	10	0	14	0	0	0	1	235	26	24	459	0	769
7:15 AM	12	0	18	0	0	0	1	234	26	21	400	0	712
7:30 AM	17	0	25	0	0	0	1	248	28	19	350	0	688
PEAK HOUR VOLUME (A.M.)	**40**	**0**	**56**	**0**	**0**	**0**	**4**	**940**	**104**	**96**	**1836**	**0**	
PEAK HOUR FACTOR (A.M.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	

PEAK HOUR (P.M.)	PR-464						PR-2						TOTAL
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	15 MIN
2:30 PM	16	0	25	0	0	0	1	356	40	13	243	0	694
2:45 PM	14	0	22	0	0	0	0	359	40	17	320	0	772
3:00 PM	10	0	15	0	0	0	1	333	37	14	265	0	675
3:15 PM	13	0	19	0	0	0	0	391	43	14	261	0	741
PEAK HOUR VOLUME (P.M.)	**56**	**0**	**88**	**0**	**0**	**0**	**0**	**1436**	**160**	**68**	**1280**	**0**	
PEAK HOUR FACTOR (P.M.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	

24 HOUR VOLUME	PR-464						PR-2					
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	753	**0**	**1145**	**0**	**0**	**0**	**101**	**17419**	**1937**	**976**	**18196**	**0**

FIGURA 8

Intersection: PR-2 & PR-464
Date: Tuesday, 5 February 2008
Start Time: 12:00 A.M.

Time Period	PR-464						PR-2						Total	Total
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	15 min	60 min
12:00 AM	2	0	2	0	0	0	0	28	3	1	23	0	59	
12:15 AM	0	0	0	0	0	0	0	25	3	1	23	0	52	
12:30 AM	2	0	2	0	0	0	0	27	3	1	16	0	51	
12:45 AM	0	0	1	0	0	0	0	18	2	1	18	0	40	202
1:00 AM	2	0	3	0	0	0	0	13	1	1	12	0	32	175
1:15 AM	0	0	0	0	0	0	0	16	2	1	11	0	30	153
1:30 AM	0	0	1	0	0	0	0	22	2	1	22	0	48	150
1:45 AM	0	0	1	0	0	0	0	30	3	1	19	0	54	164
2:00 AM	0	0	1	0	0	0	0	27	3	1	11	0	43	175
2:15 AM	2	0	2	0	0	0	0	33	4	1	23	0	65	210
2:30 AM	0	0	0	0	0	0	0	31	3	1	17	0	52	214
2:45 AM	2	0	4	0	0	0	0	31	3	2	34	0	76	236
3:00 AM	0	0	0	0	0	0	0	29	3	1	26	0	59	252
3:15 AM	0	0	0	0	0	0	0	45	5	1	24	0	75	262
3:30 AM	0	0	1	0	0	0	3	32	4	1	26	0	67	277
3:45 AM	4	0	6	0	0	0	2	52	6	2	38	0	110	311
4:00 AM	1	0	1	0	0	0	0	52	6	3	47	0	110	362
4:15 AM	3	0	5	0	0	0	2	67	7	3	53	0	140	427
4:30 AM	4	0	7	0	0	0	5	47	5	4	82	0	154	514
4:45 AM	5	0	8	0	0	0	2	76	8	6	113	0	218	622
5:00 AM	7	0	11	0	0	0	2	76	8	10	180	0	294	806
5:15 AM	7	0	10	0	0	0	2	104	12	12	220	0	367	1033
5:30 AM	5	0	7	0	0	0	1	131	15	9	177	0	345	1224
5:45 AM	6	0	10	0	0	0	3	173	19	12	217	0	440	1446
6:00 AM	7	0	11	0	0	0	2	171	19	13	243	0	466	1618
6:15 AM	7	0	11	0	0	0	0	213	24	15	286	0	556	1807
6:30 AM	13	0	19	0	0	0	5	196	22	18	341	0	614	2076
6:45 AM	11	0	17	0	0	0	0	212	24	21	386	0	671	2307
7:00 AM	10	0	14	0	0	0	1	235	26	24	459	0	769	2610
7:15 AM	12	0	18	0	0	0	1	234	26	21	400	0	712	2766
7:30 AM	17	0	25	0	0	0	1	248	28	19	350	0	688	2840
7:45 AM	12	0	18	0	0	0	0	256	28	18	337	0	669	2838
8:00 AM	12	0	18	0	0	0	1	222	25	21	387	0	686	2755
8:15 AM	12	0	18	0	0	0	1	230	26	19	348	0	654	2697
8:30 AM	10	0	16	0	0	0	0	209	23	15	290	0	563	2572
8:45 AM	11	0	17	0	0	0	0	229	25	15	280	0	577	2480
9:00 AM	10	0	16	0	0	0	3	243	27	15	273	0	587	2381
9:15 AM	11	0	17	0	0	0	1	244	27	14	260	0	574	2301
9:30 AM	8	0	11	0	0	0	0	196	22	13	252	0	502	2240
9:45 AM	10	0	16	0	0	0	1	243	27	16	299	0	612	2275
10:00 AM	7	0	11	0	0	0	1	246	27	13	247	0	552	2240
10:15 AM	10	0	16	0	0	0	0	254	28	14	254	0	576	2242
10:30 AM	10	0	16	0	0	0	0	232	26	12	221	0	517	2257
10:45 AM	7	0	11	0	0	0	1	243	27	14	269	0	572	2217
11:00 AM	9	0	14	0	0	0	0	259	29	13	243	0	567	2232
11:15 AM	10	0	16	0	0	0	0	310	34	15	274	0	659	2315
11:30 AM	10	0	16	0	0	0	1	288	32	14	259	0	620	2418
11:45 AM	9	0	14	0	0	0	0	322	36	13	241	0	635	2481

Peak Hour

12:00 PM	14	0	20	0	0	0	1	293	33	14	264	0	639	2553
12:15 PM	13	0	20	0	0	0	1	266	30	14	254	0	598	2492
12:30 PM	13	0	19	0	0	0	0	263	29	16	291	0	631	2503
12:45 PM	10	0	16	0	0	0	1	283	31	15	288	0	644	2512
1:00 PM	11	0	17	0	0	0	0	293	33	15	290	0	659	2532
1:15 PM	10	0	16	0	0	0	1	268	30	16	291	0	632	2566
1:30 PM	12	0	18	0	0	0	0	269	30	16	293	0	638	2573
1:45 PM	12	0	18	0	0	0	0	336	37	15	274	0	692	2621
2:00 PM	15	0	22	0	0	0	1	300	33	15	274	0	660	2622
2:15 PM	13	0	19	0	0	0	0	364	40	13	244	0	693	2683
2:30 PM	16	0	25	0	0	0	1	356	40	13	243	0	694	2739
2:45 PM	14	0	22	0	0	0	0	359	40	17	320	0	772	2819
3:00 PM	10	0	15	0	0	0	1	333	37	14	265	0	675	2834
3:15 PM	13	0	19	0	0	0	0	391	43	14	261	0	741	2882
3:30 PM	11	0	16	0	0	0	0	333	37	15	274	0	686	2874
3:45 PM	14	0	20	0	0	0	0	353	39	16	291	0	733	2835
4:00 PM	14	0	21	0	0	0	0	328	36	13	237	0	649	2809
4:15 PM	12	0	17	0	0	0	5	374	42	13	246	0	709	2777
4:30 PM	16	0	25	0	0	0	0	329	37	16	294	0	717	2808
4:45 PM	15	0	23	0	0	0	1	391	43	13	252	0	738	2813
5:00 PM	10	0	14	0	0	0	3	282	31	16	298	0	654	2818
5:15 PM	12	0	19	0	0	0	0	266	30	15	286	0	628	2737
5:30 PM	13	0	19	0	0	0	5	239	27	13	241	0	557	2577
5:45 PM	11	0	17	0	0	0	0	254	28	14	256	0	580	2419
6:00 PM	8	0	12	0	0	0	3	221	25	14	258	0	541	2306
6:15 PM	9	0	13	0	0	0	3	221	25	12	233	0	516	2194
6:30 PM	11	0	17	0	0	0	2	218	24	13	235	0	520	2157
6:45 PM	11	0	17	0	0	0	0	225	25	12	222	0	512	2089
7:00 PM	12	0	17	0	0	0	5	180	20	9	171	0	414	1962
7:15 PM	10	0	16	0	0	0	1	151	17	10	179	0	384	1830
7:30 PM	11	0	17	0	0	0	5	142	16	8	154	0	353	1663
7:45 PM	7	0	11	0	0	0	2	133	15	8	158	0	334	1485
8:00 PM	9	0	14	0	0	0	3	147	16	7	135	0	331	1402
8:15 PM	8	0	12	0	0	0	3	113	13	8	141	0	298	1316
8:30 PM	7	0	10	0	0	0	2	122	14	8	141	0	304	1267
8:45 PM	8	0	12	0	0	0	3	135	15	7	135	0	315	1248
9:00 PM	5	0	7	0	0	0	2	128	14	7	130	0	293	1210
9:15 PM	6	0	10	0	0	0	0	113	13	6	120	0	268	1180
9:30 PM	6	0	8	0	0	0	0	103	11	5	102	0	235	1111
9:45 PM	6	0	9	0	0	0	1	88	10	5	102	0	221	1017
10:00 PM	3	0	5	0	0	0	3	103	11	5	86	0	216	940
10:15 PM	3	0	5	0	0	0	0	104	12	4	79	0	207	879
10:30 PM	3	0	4	0	0	0	0	77	9	4	68	0	165	809
10:45 PM	2	0	2	0	0	0	0	54	6	3	52	0	119	707
11:00 PM	1	0	2	0	0	0	0	54	6	3	49	0	115	606
11:15 PM	2	0	4	0	0	0	0	67	7	2	30	0	112	511
11:30 PM	2	0	2	0	0	0	0	41	5	2	35	0	87	433
11:45 PM	2	0	3	0	0	0	0	36	4	1	23	0	69	383
TOTAL	**753**	**0**	**1145**	**0**	**0**	**0**	**101**	**17419**	**1937**	**976**	**18196**	**0**		

Peak Hour

INTERSECTION DATA SUMMARY

Intersection: PR-464 & Camino Vecinal
Date: Tuesday, 5 February 2008
Start Time: 12:00 A.M.

PEAK HOUR (A.M.)	Camino Vecinal			PR-464						Camino Vecinal			TOTAL
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	15 MIN
7:00 AM	0	2	0	1	0	23	27	2	1	0	3	41	100
7:15 AM	0	0	1	2	0	28	32	7	1	1	3	50	125
7:30 AM	0	0	0	2	0	39	28	2	1	0	2	37	111
7:45 AM	0	0	0	2	1	28	41	4	2	0	2	37	117
PEAK HOUR VOLUME (A.M.)	**0**	**0**	**4**	**8**	**0**	**112**	**128**	**28**	**4**	**4**	**12**	**200**	
PEAK HOUR FACTOR (A.M.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	

PEAK HOUR (P.M.)	Camino Vecinal			PR-464						Camino Vecinal			TOTAL
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	15 MIN
2:00 PM	0	0	0	2	0	35	39	3	0	0	3	41	123
2:15 PM	0	0	0	2	0	30	57	5	1	0	3	43	141
2:30 PM	0	0	0	2	0	38	41	4	1	0	2	39	127
2:45 PM	1	0	1	2	1	34	35	3	1	1	4	59	142
PEAK HOUR VOLUME (P.M.)	**4**	**0**	**4**	**8**	**4**	**136**	**140**	**12**	**4**	**4**	**16**	**236**	
PEAK HOUR FACTOR (P.M.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	

24 HOUR VOLUME	Camino Vecinal			PR-464						Camino Vecinal		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	25	**32**	**20**	**87**	**20**	**1674**	**2195**	**210**	**52**	**7**	**147**	**2378**

FIGURA 10

Intersection: PR-464 & Camino Vecinal
Date: Tuesday, 5 February 2008
Start Time: 12:00 A.M.

Time Period	Camino Vecinal			PR-464						Camino Vecinal			Total	Total
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	15 min	60 min
12:00 AM	0	0	0	0	0	4	2	0	0	0	0	3	9	
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	
12:30 AM	0	0	0	0	0	4	2	0	0	0	0	2	8	
12:45 AM	0	0	0	0	0	1	1	0	0	0	0	0	2	20
1:00 AM	1	0	1	0	0	5	4	0	0	0	0	0	11	22
1:15 AM	0	0	0	0	0	0	4	0	0	0	0	0	4	25
1:30 AM	0	0	1	0	0	1	2	0	0	0	0	0	4	21
1:45 AM	0	0	0	0	0	1	2	0	0	0	0	0	3	22
2:00 AM	1	0	0	0	0	1	4	0	0	0	0	2	8	19
2:15 AM	0	0	0	0	0	4	3	0	0	0	0	2	9	24
2:30 AM	1	0	0	0	0	0	0	0	0	0	0	1	2	22
2:45 AM	0	0	1	0	0	6	0	0	0	0	0	2	9	28
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	20
3:15 AM	0	0	0	0	0	0	1	0	0	0	0	2	3	14
3:30 AM	0	0	0	0	0	1	1	0	0	0	0	4	6	18
3:45 AM	1	0	1	1	0	9	5	0	0	0	0	0	17	26
4:00 AM	0	2	0	0	1	2	1	0	0	0	0	1	7	33
4:15 AM	0	0	0	0	0	2	4	0	0	0	0	1	7	37
4:30 AM	0	0	0	0	0	1	3	0	0	0	0	5	9	40
4:45 AM	0	0	1	0	0	3	1	0	0	0	0	5	10	33
5:00 AM	0	0	0	0	0	8	6	1	0	0	0	5	20	46
5:15 AM	1	2	0	0	1	7	5	0	0	0	0	2	18	57
5:30 AM	1	3	0	1	0	11	10	1	0	0	1	11	39	87
5:45 AM	0	0	0	1	1	15	5	0	0	0	1	19	42	119
6:00 AM	1	0	1	1	0	17	16	1	0	0	1	10	48	147
6:15 AM	0	2	0	1	0	17	22	2	0	0	1	23	68	197
6:30 AM	0	0	0	2	1	30	28	2	1	0	1	21	86	244
6:45 AM	2	0	0	1	1	26	22	2	0	0	2	34	90	292
7:00 AM	0	2	0	1	0	23	27	2	1	0	3	41	100	344
7:15 AM	0	0	1	2	0	28	32	7	1	1	3	50	125	401
7:30 AM	0	0	0	2	0	39	28	2	1	0	2	37	111	426
7:45 AM	0	0	0	2	1	28	41	4	2	0	2	37	117	453
8:00 AM	0	0	2	2	1	28	26	2	1	0	2	27	91	444
8:15 AM	2	0	0	2	0	28	19	2	0	0	1	19	73	392
8:30 AM	2	2	0	1	0	24	24	2	1	0	2	29	87	368
8:45 AM	0	3	2	1	0	26	31	7	1	0	2	25	98	349
9:00 AM	0	0	0	1	1	15	26	2	1	0	2	25	73	331
9:15 AM	0	0	0	1	0	17	23	4	2	0	1	23	71	329
9:30 AM	2	0	0	1	0	18	28	2	1	0	2	32	86	328
9:45 AM	0	0	2	1	0	24	32	6	1	0	3	45	114	344
10:00 AM	0	3	0	1	0	17	35	3	1	0	2	38	100	371
10:15 AM	2	0	2	1	0	24	39	3	2	0	2	38	113	413
10:30 AM	0	2	0	1	1	24	31	3	1	0	3	47	113	440
10:45 AM	0	0	0	1	0	17	42	7	1	0	3	43	114	440
11:00 AM	0	0	0	1	0	22	26	6	2	0	2	37	96	436
11:15 AM	0	0	0	1	0	15	39	3	1	0	2	37	98	421
11:30 AM	3	1	0	1	0	24	44	4	1	0	2	34	114	422
11:45 AM	0	1	0	1	1	19	48	5	1	1	4	58	139	447

Peak Hour

12:00 PM	0	0	0	2	0	32	40	5	2	0	3	43	127	478
12:15 PM	0	1	0	2	0	31	32	3	1	0	2	39	111	491
12:30 PM	0	0	0	2	0	30	31	3	1	0	3	43	113	490
12:45 PM	1	0	0	1	0	24	25	2	1	0	2	28	84	435
1:00 PM	0	0	0	1	0	26	29	5	1	0	3	43	108	416
1:15 PM	0	0	0	1	1	24	36	3	0	0	3	42	110	415
1:30 PM	1	0	1	2	0	28	45	4	1	0	3	41	126	428
1:45 PM	0	0	0	2	0	28	29	3	1	0	2	39	104	448
2:00 PM	0	0	0	2	0	35	39	3	0	0	3	41	123	463
2:15 PM	0	0	0	2	0	30	57	5	1	0	3	43	141	494
2:30 PM	0	0	0	2	0	38	41	4	1	0	2	39	127	495
2:45 PM	1	0	1	2	1	34	35	3	1	1	4	59	142	533
3:00 PM	0	0	1	1	0	24	32	3	0	1	3	54	119	529
3:15 PM	0	0	0	2	0	30	41	4	1	0	3	45	126	514
3:30 PM	0	1	0	1	0	25	43	5	0	1	3	51	130	517
3:45 PM	0	0	0	1	0	23	42	4	1	1	3	50	125	500
4:00 PM	0	1	0	2	0	33	49	4	1	0	2	39	131	512
4:15 PM	0	0	0	1	0	27	41	4	1	0	3	43	120	506
4:30 PM	0	0	0	2	0	39	40	1	0	1	3	51	137	513
4:45 PM	0	0	0	2	0	36	46	5	1	0	3	48	141	529
5:00 PM	0	0	0	1	0	23	37	3	1	0	3	42	110	508
5:15 PM	0	1	0	2	0	29	34	3	1	0	2	40	112	500
5:30 PM	0	0	0	1	0	21	44	5	1	0	2	29	103	466
5:45 PM	0	0	0	1	1	17	41	4	0	0	3	45	112	437
6:00 PM	0	0	0	1	1	19	38	1	1	0	2	39	102	429
6:15 PM	0	1	0	1	0	21	37	3	1	0	3	45	112	429
6:30 PM	0	1	0	1	0	26	27	2	0	0	3	41	101	427
6:45 PM	0	0	0	1	1	26	38	3	0	0	3	42	114	429
7:00 PM	1	0	0	1	0	18	26	2	1	0	2	32	83	410
7:15 PM	0	1	1	1	1	24	25	2	1	0	2	27	85	383
7:30 PM	0	0	0	1	0	26	20	1	0	0	1	11	60	342
7:45 PM	0	0	0	1	1	17	27	2	1	0	1	17	67	295
8:00 PM	0	0	0	1	1	22	26	2	0	0	2	25	79	291
8:15 PM	0	0	0	1	0	19	23	2	1	0	1	9	56	262
8:30 PM	1	0	0	1	0	16	33	3	1	0	1	11	67	269
8:45 PM	0	1	1	1	1	19	27	1	1	0	2	27	81	283
9:00 PM	0	1	0	1	0	11	29	3	0	0	1	21	67	271
9:15 PM	0	0	0	1	1	15	26	2	1	0	1	16	63	278
9:30 PM	0	0	0	1	0	13	14	1	0	0	1	22	52	263
9:45 PM	0	0	0	1	0	14	12	1	0	0	1	18	47	229
10:00 PM	0	0	0	0	0	8	7	1	0	0	0	5	21	183
10:15 PM	0	0	0	0	0	8	11	1	0	0	0	6	26	146
10:30 PM	0	0	0	0	0	7	5	0	0	0	1	16	29	123
10:45 PM	0	0	0	0	0	4	7	1	0	0	1	12	25	101
11:00 PM	0	0	0	0	0	3	7	1	0	0	0	8	19	99
11:15 PM	0	0	0	0	0	6	4	0	0	0	0	5	15	88
11:30 PM	0	0	0	0	0	4	1	1	0	0	0	5	11	70
11:45 PM	0	0	0	0	0	5	1	1	0	0	0	3	10	55
TOTAL	**25**	**32**	**20**	**87**	**20**	**1674**	**2195**	**210**	**52**	**7**	**147**	**2378**		

Peak Hour

INTERSECTION DATA SUMMARY

Intersection: PR-464 & Calle 3
Date: Tuesday, 5 February 2008
Start Time: 12:00 A.M.

PEAK HOUR (A.M.)	Calle 3						PR-464						TOTAL
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	15 MIN
11:00 AM	0	0	0	2	0	4	1	27	0	0	25	5	64
11:15 AM	2	0	0	5	0	11	2	38	2	1	30	2	93
11:30 AM	0	0	0	2	0	6	2	47	2	0	19	1	79
11:45 AM	1	1	2	3	0	8	3	48	0	0	40	2	108
PEAK HOUR VOLUME (A.M.)	**4**	**4**	**8**	**12**	**0**	**32**	**12**	**192**	**0**	**0**	**160**	**8**	
PEAK HOUR FACTOR (A.M.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	

PEAK HOUR (P.M.)	Calle 3						PR-464						TOTAL
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	15 MIN
4:00 PM	0	1	0	6	0	14	3	48	0	1	40	2	115
4:15 PM	2	0	0	3	0	8	2	42	0	0	44	4	105
4:30 PM	0	0	1	7	0	15	2	36	1	0	43	2	107
4:45 PM	1	0	1	2	0	6	3	48	0	0	48	3	112
PEAK HOUR VOLUME (P.M.)	**0**	**4**	**0**	**24**	**0**	**56**	**12**	**192**	**0**	**4**	**160**	**8**	
PEAK HOUR FACTOR (P.M.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	

24 HOUR VOLUME	Calle 3						PR-464					
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	37	**41**	**28**	**256**	**0**	**595**	**108**	**2156**	**41**	**50**	**2131**	**141**

FIGURA 12

Intersection: PR-464 & Calle 3
Date: Tuesday, 5 February 2008
Start Time: 12:00 A.M.

Time Period	Calle 3						PR-464						Total	Total
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	15 min	60 min
12:00 AM	0	0	0	0	0	0	0	2	0	0	4	0	6	
12:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	
12:30 AM	0	0	0	1	0	1	0	1	0	0	3	0	6	
12:45 AM	0	0	0	1	0	1	0	0	0	0	2	0	4	17
1:00 AM	0	0	0	1	0	3	0	3	0	0	1	0	8	19
1:15 AM	0	0	0	0	0	0	0	4	0	0	3	0	7	25
1:30 AM	0	0	0	0	0	1	0	2	0	0	2	0	5	24
1:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	2	22
2:00 AM	1	1	0	0	0	0	0	4	0	1	4	0	11	25
2:15 AM	0	0	0	0	0	0	0	3	0	0	3	0	6	24
2:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	20
2:45 AM	0	1	0	0	0	0	0	0	0	0	2	0	3	21
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	10
3:15 AM	0	0	0	0	0	0	0	1	0	0	2	0	3	7
3:30 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	8
3:45 AM	0	0	0	0	0	0	0	6	0	1	5	0	12	17
4:00 AM	0	0	0	1	0	1	0	0	2	0	1	0	5	22
4:15 AM	0	0	0	0	0	0	0	4	1	0	1	0	6	25
4:30 AM	0	0	0	0	0	0	0	3	0	0	4	0	7	30
4:45 AM	0	0	0	0	0	1	0	1	0	0	2	0	4	22
5:00 AM	0	0	0	1	0	1	0	6	2	0	8	0	18	35
5:15 AM	0	0	0	0	0	0	0	6	1	0	9	0	16	45
5:30 AM	1	0	0	0	0	0	1	11	0	0	15	1	29	67
5:45 AM	0	0	0	0	0	1	0	6	1	0	12	2	22	85
6:00 AM	0	0	0	1	0	3	1	17	0	1	15	1	39	106
6:15 AM	0	0	0	3	0	6	1	21	2	0	19	1	53	143
6:30 AM	2	0	0	2	0	6	2	29	2	1	32	4	80	194
6:45 AM	0	1	2	3	0	6	1	19	1	2	20	1	56	228
7:00 AM	0	1	0	2	0	4	1	28	0	2	28	1	67	256
7:15 AM	1	1	0	5	0	13	2	31	1	0	36	2	92	295
7:30 AM	1	0	1	6	0	14	1	24	0	0	29	2	78	293
7:45 AM	0	2	0	2	0	6	2	44	1	1	22	1	81	318
8:00 AM	1	0	0	3	0	7	1	26	0	2	29	5	74	325
8:15 AM	0	0	0	2	0	5	1	19	0	1	23	1	52	285
8:30 AM	0	0	0	2	0	4	1	25	2	1	24	4	63	270
8:45 AM	0	0	0	2	0	4	2	32	0	0	34	2	76	265
9:00 AM	0	0	0	4	0	10	1	25	2	1	19	1	63	254
9:15 AM	2	0	0	1	0	1	1	25	0	1	26	1	58	260
9:30 AM	0	0	0	2	0	4	2	29	1	0	26	1	65	262
9:45 AM	0	0	2	2	0	4	2	32	0	1	32	2	77	263
10:00 AM	0	0	0	1	0	2	2	38	0	0	27	1	71	271
10:15 AM	2	0	1	1	0	1	2	41	0	1	30	2	81	294
10:30 AM	0	1	0	2	0	4	2	32	0	1	33	2	77	306
10:45 AM	0	0	1	4	0	8	2	42	1	0	33	4	95	324
11:00 AM	0	0	0	2	0	4	1	27	0	0	25	5	64	317
11:15 AM	2	0	0	5	0	11	2	38	2	1	30	2	93	329
11:30 AM	0	0	0	2	0	6	2	47	2	0	19	1	79	331
11:45 AM	1	1	2	3	0	8	3	48	0	0	40	2	108	344

Peak Hour

12:00 PM	0	0	0	5	0	11	2	39	0	1	44	2	104	384
12:15 PM	1	0	0	4	0	8	2	32	0	1	41	4	93	384
12:30 PM	2	0	1	1	0	3	2	32	0	0	35	2	78	383
12:45 PM	2	0	0	3	0	7	1	25	1	0	34	4	77	352
1:00 PM	1	0	2	3	0	6	1	27	0	0	34	2	76	324
1:15 PM	0	0	0	2	0	6	2	38	1	2	21	1	73	304
1:30 PM	0	0	0	5	0	13	2	45	2	1	25	1	94	320
1:45 PM	1	1	2	3	0	7	1	27	1	0	36	2	81	324
2:00 PM	0	0	0	3	0	8	2	40	0	0	50	3	106	354
2:15 PM	0	0	0	4	0	10	3	59	1	1	27	1	106	387
2:30 PM	0	2	0	8	0	18	2	38	2	0	33	2	105	398
2:45 PM	1	0	1	8	0	18	2	30	1	0	47	2	110	427
3:00 PM	0	0	0	5	0	13	2	30	0	1	36	5	92	413
3:15 PM	0	2	0	4	0	10	2	42	0	0	41	2	103	410
3:30 PM	1	0	0	8	0	20	2	40	0	0	29	2	102	407
3:45 PM	0	0	2	7	0	16	2	38	0	0	42	2	109	406
4:00 PM	0	1	0	6	0	14	3	48	0	1	40	2	115	429
4:15 PM	2	0	0	3	0	8	2	42	0	0	44	4	105	431
4:30 PM	0	0	1	7	0	15	2	36	1	0	43	2	107	436
4:45 PM	1	0	1	2	0	6	3	48	0	0	48	3	112	439
5:00 PM	0	0	0	5	0	11	2	36	0	2	44	2	102	426
5:15 PM	2	0	0	5	0	11	2	33	2	0	42	4	101	422
5:30 PM	0	2	0	7	0	15	2	42	0	0	28	1	97	412
5:45 PM	0	0	1	7	0	15	2	38	0	1	28	1	93	393
6:00 PM	0	0	0	4	0	9	2	38	1	2	38	2	96	387
6:15 PM	0	1	2	4	0	8	2	35	0	0	37	2	91	377
6:30 PM	0	0	0	5	0	13	1	25	0	1	32	2	79	359
6:45 PM	0	0	0	6	0	14	2	36	0	0	33	2	93	359
7:00 PM	2	0	1	3	0	7	1	25	0	2	25	1	67	330
7:15 PM	0	0	0	3	0	8	1	25	0	0	33	2	72	311
7:30 PM	2	1	0	1	0	3	1	21	2	2	19	5	57	289
7:45 PM	0	0	0	6	0	14	1	24	1	1	21	1	69	265
8:00 PM	0	0	2	6	0	14	1	21	0	2	23	1	70	268
8:15 PM	1	0	0	4	0	10	1	22	0	0	24	1	63	259
8:30 PM	0	22	1	2	0	4	2	34	0	0	21	4	90	292
8:45 PM	1	0	1	4	0	10	1	25	0	2	21	1	66	289
9:00 PM	0	0	0	5	0	11	1	27	1	2	27	1	75	294
9:15 PM	0	0	0	2	0	4	1	27	0	0	28	1	63	294
9:30 PM	0	0	0	4	0	9	1	11	0	1	26	1	53	257
9:45 PM	1	0	0	2	0	4	1	11	0	1	24	1	45	236
10:00 PM	0	0	1	1	0	3	0	6	0	0	11	1	23	184
10:15 PM	1	0	0	2	0	6	1	10	0	0	13	1	34	155
10:30 PM	0	0	0	1	0	3	0	4	0	1	10	1	20	122
10:45 PM	1	0	0	2	0	6	0	6	0	1	10	1	27	104
11:00 PM	0	0	0	1	0	3	0	7	0	0	7	0	18	99
11:15 PM	0	0	0	2	0	4	0	2	0	2	5	0	15	80
11:30 PM	0	0	0	4	0	8	0	3	0	0	10	1	26	86
11:45 PM	0	0	0	0	0	0	0	1	0	0	4	0	5	64
TOTAL	**37**	**41**	**28**	**256**	**0**	**595**	**108**	**2156**	**41**	**50**	**2131**	**141**		

Peak Hour

APÉNDICE B

ANÁLISIS DE NECESIDAD DE SEMÁFOROS

PLC Traffic Consulting
Engineers And Planners
PR-149 & PR-510
Figura 8a

Signal Warrants - Summary

Major Street Approaches

Eastbound: **PR-2 Acceso Oeste**
Number of Lanes: **2**
Approach Speed: **0**
Total Approach Volume: **19,457**

Westbound: **PR-2 Acceso Este**
Number of Lanes: **2**
Approach Speed: **0**
Total Approach Volume: **19,172**

Minor Street Approaches

Northbound: **PR-464 Acceso Sur**
Number of Lanes: **1**

Total Approach Volume: **1,898**

Southbound: **Camino Vecinal**
Number of Lanes: **1**

Total Approach Volume: **0**

Warrant Summary (Urban values apply.)

Warrant 1 - Eight Hour Vehicular Volumes ..... Satisfied

Warrant 1A - Minimum Vehicular Volume ..... Not Satisfied
Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic ..... Satisfied
Required volumes reached for 15 hours, 8 are needed

Warrant 1 A&B - Combination of Warrants ..... Not Satisfied
Required volumes reached for 4 hours, 8 are needed

Warrant 2 - Four Hour Volumes ..... Satisfied
Number of hours (14) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour ..... Satisfied

Warrant 3A - Peak Hour Delay ..... Not Satisfied
Total approach volumes and delays on minor street do not exceed minimums for any hour.

Warrant 3B - Peak Hour Volumes ..... Satisfied
Volumes exceed minimums for at least one hour.

Warrant 4 - Pedestrian Volumes ..... Not Evaluated

Warrant 5 - School Crossing ..... Not Evaluated

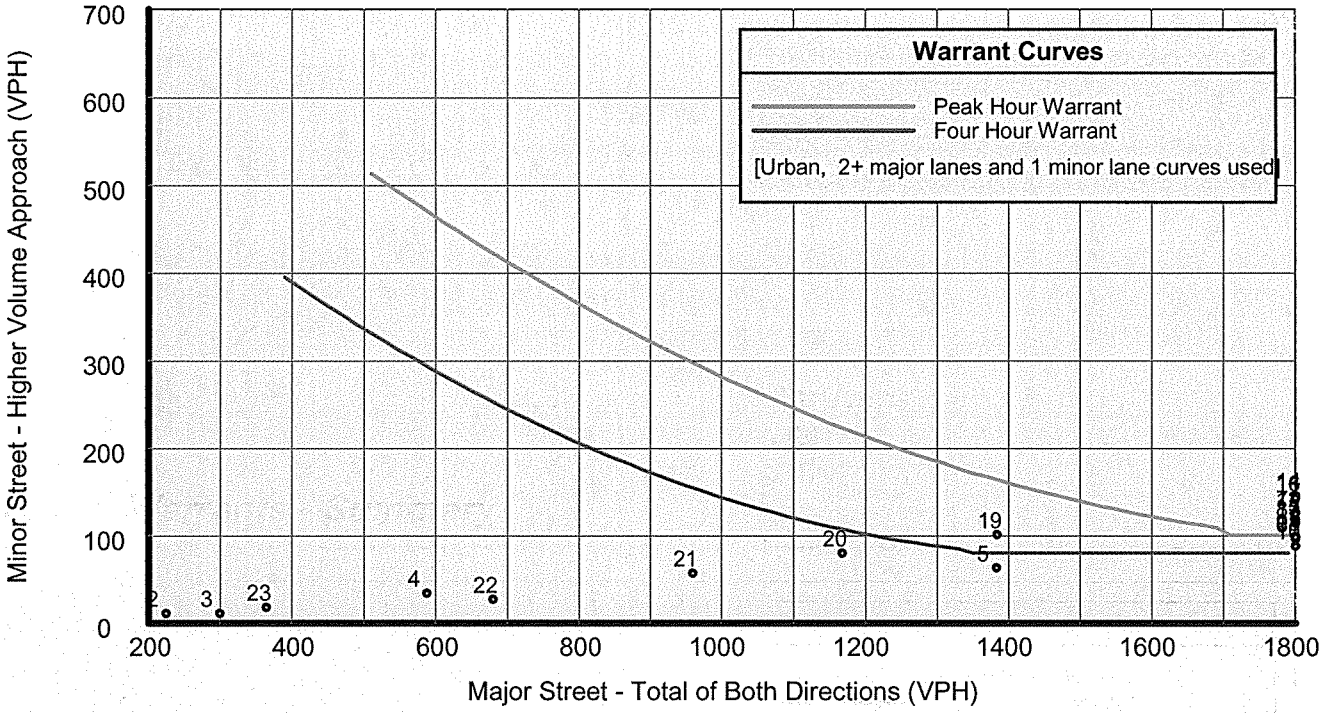
Warrant 6 - Coordinated Signal System ..... Not Evaluated

Warrant 7 - Crash Experience ..... Not Evaluated

Warrant 8 - Roadway Network ..... Not Evaluated

PLC Traffic Consulting
Engineers And Planners
PR-149 & PR-510
Figura 8a

Signal Warrants - Summary



Analysis of 8-Hour Volume Warrants:

Hour	Major	Higher Minor		War-1A			War-1B			War-1A&B		
Begin	Total	Vol	Dir	Major Crit	Minor Crit	Meets?	Major Crit	Minor Crit	Meets?	Major Crit	Minor Crit	Meets?
00:00	193	9	NB	600-No	150-No	---	900-No	75-No	---	720-No	120-No	---
01:00	157	7	NB	600-No	150-No	---	900-No	75-No	---	720-No	120-No	---
02:00	225	11	NB	600-No	150-No	---	900-No	75-No	---	720-No	120-No	---
03:00	300	11	NB	600-No	150-No	---	900-No	75-No	---	720-No	120-No	---
04:00	588	34	NB	600-No	150-No	---	900-No	75-No	---	720-No	120-No	---
05:00	1,383	63	NB	600-Yes	150-No	Major	900-Yes	75-No	Major	720-Yes	120-No	Major
06:00	2,211	96	NB	600-Yes	150-No	Major	900-Yes	75-Yes	Both	720-Yes	120-No	Major
07:00	2,712	126	NB	600-Yes	150-No	Major	900-Yes	75-Yes	Both	720-Yes	120-Yes	Both
08:00	2,366	114	NB	600-Yes	150-No	Major	900-Yes	75-Yes	Both	720-Yes	120-No	Major
09:00	2,176	99	NB	600-Yes	150-No	Major	900-Yes	75-Yes	Both	720-Yes	120-No	Major
10:00	2,129	88	NB	600-Yes	150-No	Major	900-Yes	75-Yes	Both	720-Yes	120-No	Major
11:00	2,383	98	NB	600-Yes	150-No	Major	900-Yes	75-Yes	Both	720-Yes	120-No	Major
12:00	2,387	125	NB	600-Yes	150-No	Major	900-Yes	75-Yes	Both	720-Yes	120-Yes	Both
13:00	2,507	114	NB	600-Yes	150-No	Major	900-Yes	75-Yes	Both	720-Yes	120-No	Major
14:00	2,673	146	NB	600-Yes	150-No	Major	900-Yes	75-Yes	Both	720-Yes	120-Yes	Both
15:00	2,717	118	NB	600-Yes	150-No	Major	900-Yes	75-Yes	Both	720-Yes	120-No	Major
16:00	2,670	143	NB	600-Yes	150-No	Major	900-Yes	75-Yes	Both	720-Yes	120-Yes	Both
17:00	2,304	115	NB	600-Yes	150-No	Major	900-Yes	75-Yes	Both	720-Yes	120-No	Major
18:00	1,991	98	NB	600-Yes	150-No	Major	900-Yes	75-Yes	Both	720-Yes	120-No	Major
19:00	1,384	101	NB	600-Yes	150-No	Major	900-Yes	75-Yes	Both	720-Yes	120-No	Major
20:00	1,168	80	NB	600-Yes	150-No	Major	900-Yes	75-Yes	Both	720-Yes	120-No	Major
21:00	960	57	NB	600-Yes	150-No	Major	900-Yes	75-No	Major	720-Yes	120-No	Major
22:00	680	27	NB	600-Yes	150-No	Major	900-No	75-No	---	720-No	120-No	---
23:00	365	18	NB	600-No	150-No	---	900-No	75-No	---	720-No	120-No	---

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APÉNDICE C

ANÁLISIS DE CAPACIDAD

SIDRA INTERSECTION

Output Tables

INTERSECCIÓN CARRETERA PR-2 & CARRETERA PR-464

EXISTENTE (AM) FIGURA 18

Run Information

```
* Basic Parameters:
  Intersection Type: Unsignalised - Two-Way Stop Control
  Driving on the right-hand side of the road
  Input data specified in US units
  Model Defaults: US HCM (US)
  Peak Flow Period (for performance): 15 minutes
  Unit time (for volumes): 60 minutes.
  Delay definition: Control delay
                    Geometric delay included
  HCM Delay Model option selected
  HCM Queue Model option selected
  Level of Service based on: Delay (HCM method)
  Queue definition: Back of queue, 95th Percentile
```

Table B.1 - Movement Definitions and Flow Rates (Origin-Destination)

```
INTERSECCI N CARRETERA PR-2   CARRETERA PR-464
EXISTENTE (AM)
Intersection ID: 3
Stop Sign Controlled Intersection
```

From Approach	To Approach	Mov ID	Turn	Flow Rate LV	Flow Rate HV	Flow Scale	Peak Flow Factor
West: ACCESO OESTE PR-2							
	South	2R	Right	104	0	1.00	1.00
	East	2T	Thru	940	0	1.00	1.00
	North	5L	Left	4	0	1.00	1.00
South: ACCESO SUR (PR-464)							
	West	3L	Left	40	0	1.00	1.00
	East	8R	Right	56	0	1.00	1.00
	North	8T	Thru	1	0	1.00	1.00
East: ACCESO ESTE							
	West	6T	Thru	1836	0	1.00	1.00
	South	1L	Left	96	0	1.00	1.00
	North	6R	Right	1	0	1.00	1.00
North: ACCESO NORTE							
	West	4R	Right	1	0	1.00	1.00
	South	4T	Thru	1	0	1.00	1.00

```
          East         7L   Left      1     0    1.00     1.00
-------------------------------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table B.2A - Flow Rates (Separate Light and Heavy Vehicles)

```
INTERSECCI N CARRETERA PR-2   CARRETERA PR-464
EXISTENTE (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

-----------------------------------------------
  Mov          Left        Through       Right
  ID        ---------     ---------     ---------
             LV    HV      LV    HV      LV    HV
-----------------------------------------------
Demand flows in veh/hour as used by the program
West: ACCESO OESTE PR-2
   5L L       4     0       0     0       0     0
   2T T       0     0     940     0       0     0
   2R R       0     0       0     0     104     0
-----------------------------------------------
South: ACCESO SUR (PR-464)
   3L L      40     0       0     0       0     0
   8T T       0     0       1     0       0     0
   8R R       0     0       0     0      56     0
-----------------------------------------------
East: ACCESO ESTE
   1L L      96     0       0     0       0     0
   6T T       0     0    1836     0       0     0
   6R R       0     0       0     0       1     0
-----------------------------------------------
North: ACCESO NORTE
   7L L       1     0       0     0       0     0
   4T T       0     0       1     0       0     0
   4R R       0     0       0     0       1     0
-----------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table B.2B - Flow Rates (Total Vehicles and Percent Heavy)

```
INTERSECCI N CARRETERA PR-2   CARRETERA PR-464
EXISTENTE (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

-------------------------------------------------
  Mov          Left        Through       Right
  ID        ----------    ----------    ----------
           Total  %HV    Total  %HV    Total  %HV
-------------------------------------------------
Demand flows in veh/hour as used by the program
West: ACCESO OESTE PR-2
```

```
   5L L        4   0.0        0   0.0        0   0.0
   2T T        0   0.0      940   0.0        0   0.0
   2R R        0   0.0        0   0.0      104   0.0
-------------------------------------------------
South: ACCESO SUR (PR-464)
   3L L       40   0.0        0   0.0        0   0.0
   8T T        0   0.0        1   0.0        0   0.0
   8R R        0   0.0        0   0.0       56   0.0
-------------------------------------------------
East: ACCESO ESTE
   1L L       96   0.0        0   0.0        0   0.0
   6T T        0   0.0     1836   0.0        0   0.0
   6R R        0   0.0        0   0.0        1   0.0
-------------------------------------------------
North: ACCESO NORTE
   7L L        1   0.0        0   0.0        0   0.0
   4T T        0   0.0        1   0.0        0   0.0
   4R R        0   0.0        0   0.0        1   0.0
-------------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table S.2 - Movement Capacity Parameters

```
INTERSECCI N CARRETERA PR-2   CARRETERA PR-464
EXISTENTE (AM)
Intersection ID: 3
Stop Sign Controlled Intersection
```

Mov ID	Demand Flow (veh/h)	HV (%)	Opposing Movement Flow (veh/h)	HV (%)	Adjust. Flow (pcu/h)	Total Cap. (veh /h)	Prac. Deg. Satn xp	Prac. Spare Cap. (%)	Lane Util (%)	Deg. Satn x
West: ACCESO OESTE PR-2										
5L L	4	0.0	1879	0.0	1879	188	0.80	3660	100	0.021
2T T	940	0.0	0			3800	0.80	223	100	0.247
2R R	104	0.0	97	0.0	97	2999<	0.80	2207	100	0.035
South: ACCESO SUR (PR-464)										
3L L	40	0.0	2929+	0.0	2929	40	0.80	-20	100	1.000*
8T T	1	0.0	2930+	0.0	2930	1	0.80	-20	100	1.000*
8R R	56	0.0	0			56	0.80	-20	100	1.000*
East: ACCESO ESTE										
1L L	96	0.0	1087	0.0	1087	551	0.80	359	100	0.174
6T T	1836	0.0	0			3799	0.80	66	100	0.483
6R R	1	0.0	1	0.0	1	2	0.80	60	100	0.500
North: ACCESO NORTE										
7L L	1	0.0	2934+	0.0	2934	5	0.80	300	100	0.200
4T T	1	0.0	3021+	0.0	3021	5	0.80	300	100	0.200
4R R	1	0.0	0			5	0.80	300	100	0.200

\+ Percentage of exiting flow included in total opposing flow

Table S.3 - Intersection Parameters

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

Intersection Level of Service	=	NA
Worst movement Level of Service	=	F
Average intersection delay (s/pers)	=	6.5
Largest average movement delay (s)	=	332.3
Largest back of queue, 95% (ft)	=	1938
Performance Index	=	68.34
Degree of saturation (highest)	=	1.000
Practical Spare Capacity (lowest)	=	-20 %
Effective intersection capacity, (veh/h)	=	3081
Total vehicle flow (veh/h)	=	3081
Total person flow (pers/h)	=	3697
Total vehicle delay (veh-h/h)	=	5.59
Total person delay (pers-h/h)	=	6.71
Total effective vehicle stops (veh/h)	=	221
Total effective person stops (pers/h)	=	265
Total vehicle travel (veh-mi/h)	=	1168.1
Total cost ($/h)	=	520.48
Total fuel (gal/h)	=	40.0
Total CO2 (kg/h)	=	378.87

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections. See Table S.15 or Movement Displays for individual movement LOS values.

Table S.5 - Movement Performance

Mov ID		Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue 95% Back (vehs)	(ft)	Perf. Index	Aver. Speed (mph)
West: ACCESO OESTE PR-2										
5L	L	0.03	0.04	27.6	0.89	0.97	0.1	2	0.12	22.0
2T	T	0.00	0.00	0.0	0.00	0.00	0.0	0	8.92	40.0
2R	R	0.26	0.31	9.0	0.13	0.63	0.2	4	1.66	31.3
South: ACCESO SUR (PR-464)										
3L	L	1.90	2.28	171.3	1.00	1.49	77.5	1938	15.33	6.5
8T	T	0.05	0.06	171.3	1.00	1.48	77.5	1938	0.38	6.5
8R	R	2.67	3.20	171.3	1.00	0.00	77.5	1938	20.99	6.5
East: ACCESO ESTE										
1L	L	0.40	0.48	15.0	0.70	0.91	0.8	21	2.05	27.7
6T	T	0.00	0.00	0.0	0.01	0.00	2.5	61	18.20	39.9
6R	R	0.00	0.00	8.9	0.01	0.68	2.5	61	0.02	31.6
North: ACCESO NORTE										
7L	L	0.09	0.11	332.3	0.99	1.09	1.1	28	0.23	3.7
4T	T	0.09	0.11	332.3	0.99	1.09	1.1	28	0.23	3.7
4R	R	0.09	0.11	332.3	0.99	0.01	1.1	28	0.22	3.7

Table S.6 - Intersection Performance

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

Total Flow (veh/h)	Deg. Satn x	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue (ft)	Perf. Index	Aver. Speed (mph)
West: ACCESO OESTE PR-2									
1048	0.247	0.29	0.35	1.0	0.02	0.07	4	10.69	38.8
South: ACCESO SUR (PR-464)									
97	1.000	4.62	5.54	171.3	1.00	0.63	1938	36.70	6.5
East: ACCESO ESTE									
1933	0.500	0.40	0.48	0.8	0.04	0.05	61	20.27	39.1
North: ACCESO NORTE									
3	0.200	0.28	0.33	332.3	0.99	0.73	28	0.68	3.7
ALL VEHICLES:									
3081	1.000	5.59	6.71	6.5	0.06	0.07	1938	68.34	33.4
INTERSECTION (persons):									
3697	1.000		6.71	6.5	0.06	0.07		68.34	33.4

Queue values in this table are 95% back of queue (feet).

Table S.7 - Lane Performance

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

Lane No.	Dem Flow (veh /h)	Cap (veh /h)	Deg. Satn x	Aver. Delay (sec)	Eff. Stop Rate	Queue 95% Back (vehs)	Queue 95% Back (ft)	Lane Length (ft)
West: ACCESO OESTE PR-2								
1 L	4	188	0.021	27.6	0.97	0.1	2.1	230.0T
2 T	470	1900	0.247	0.0	0.00	0.0	0.0	1600.0
3 T	470	1900	0.247	0.0	0.00	0.0	0.0	1600.0
4 R	104	2999	0.035	9.0	0.63	0.2	4.4	230.0T
South: ACCESO SUR (PR-464)								
1 LTR	97	97	1.000	171.3	0.63	77.5	1938.3	1600.0
East: ACCESO ESTE								
1 L	96	551	0.174	15.0	0.91	0.8	21.0	230.0T
2 T	918	1900	0.483	0.0	0.00	0.0	0.0	1600.0
3 TR	919	1901	0.483	0.0	0.00	2.5	61.4	1600.0
North: ACCESO NORTE								
1 LTR	3	14	0.220	332.3	0.73	1.1	28.4	1600.0

T Short lane due to specification of Turn Slot

Table S.8 - Lane Flow and Capacity Information

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

Lane No.	Dem Flow (veh/h) Lef	Thru	Rig	Tot	Min Cap (veh /h)	Tot Cap (veh /h)	Deg. Satn x	Lane Util %
West: ACCESO OESTE PR-2								
1 L	4	0	0	4	4	188	0.021	100
2 T	0	470	0	470	470	1900	0.247	100
3 T	0	470	0	470	470	1900	0.247	100
4 R	0	0	104	104	60	2999<	0.035	100
South: ACCESO SUR (PR-464)								
1 LTR	40	1	56	97	97	97	1.000	100
East: ACCESO ESTE								
1 L	96	0	0	96	60	551	0.174	100
2 T	0	918	0	918	60	1900	0.483	100
3 TR	0	918	1	919	60	1901	0.483	100
North: ACCESO NORTE								
1 LTR	1	1	1	3	3	14	0.220	100

< Reduced capacity flow due to a short lane effect

The capacity value for priority and continuous movements is obtained by adjusting the basic saturation flow for heavy vehicle and turning vehicle effects. Saturation flow scale applies if specified.

Table S.10 - Movement Capacity and Performance Summary

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

Mov ID	Mov Typ	Dem Flow (veh /h)	Total Cap. (veh /h)	Lane Util (%)	Deg. Satn x	Aver. Delay (sec)	Eff. Stop Rate	95% Back of Queue (veh)	Perf. Index
West: ACCESO OESTE PR-2									
5L	L	4	188	100	0.021	27.6	0.97	0.1	0.12
2T	T	940	3800	100	0.247	0.0	0.00	0.0	8.92
2R	R	104	2999<	100	0.035	9.0	0.63	0.2	1.66
South: ACCESO SUR (PR-464)									
3L	L	40	40	100	1.000*	171.3	1.49	77.5	15.33
8T	T	1	1	100	1.000*	171.3	1.48	77.5	0.38
8R	R	56	56	100	1.000*	171.3	0.00	77.5	20.99

East: ACCESO ESTE								
1L	L	96	551	100	0.174	15.0	0.91	0.8	2.05
6T	T	1836	3799	100	0.483	0.0	0.00	2.5	18.20
6R	R	1	2	100	0.500	8.9	0.68	2.5	0.02
North: ACCESO NORTE								
7L	L	1	5	100	0.200	332.3	1.09	1.1	0.23
4T	T	1	5	100	0.200	332.3	1.09	1.1	0.23
4R	R	1	5	100	0.200	332.3	0.01	1.1	0.22

< Reduced capacity due to a short lane effect

* Maximum degree of saturation

Table S.12A - Fuel Consumption, Emissions and Cost (TOTAL)

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

Mov ID		Fuel Total gal/h	Cost Total $/h	HC Total kg/h	CO Total kg/h	NOX Total kg/h	CO2 Total kg/h
West: ACCESO OESTE PR-2							
5L	L	0.1	1.05	0.001	0.07	0.002	0.8
2T	T	10.9	136.44	0.140	2.74	0.199	103.5
2R	R	2.0	21.33	0.033	1.63	0.047	18.6
		13.0	158.81	0.174	4.44	0.249	122.9
South: ACCESO SUR (PR-464)							
3L	L	1.5	28.62	0.028	0.78	0.023	13.8
8T	T	0.0	0.72	0.001	0.02	0.001	0.3
8R	R	2.0	39.91	0.039	1.06	0.032	19.2
		3.5	69.25	0.068	1.86	0.056	33.3
East: ACCESO ESTE							
1L	L	1.9	21.49	0.032	1.59	0.045	18.1
6T	T	21.4	267.10	0.274	5.48	0.392	202.9
6R	R	0.0	0.20	0.000	0.02	0.000	0.2
		23.4	288.80	0.307	7.09	0.438	221.1
North: ACCESO NORTE							
7L	L	0.1	1.20	0.001	0.02	0.001	0.5
4T	T	0.1	1.21	0.001	0.02	0.001	0.5
4R	R	0.1	1.20	0.001	0.02	0.001	0.5
		0.2	3.61	0.003	0.06	0.002	1.5
INTERSECTION:		40.0	520.48	0.552	13.45	0.744	378.9

PARAMETERS USED IN COST CALCULATIONS

Pump price of fuel ($/US gal)	=	2.400
Fuel resource cost factor	=	0.70
Ratio of running cost to fuel cost	=	3.0
Average income ($/h)	=	19.00
Time value factor	=	0.40
Light vehicle mass (1000 lb)	=	3.1

```
Heavy vehicle mass (1000 lb)              =      24.0
Light vehicle idle fuel rate (US gal/h)   =     0.360
Heavy vehicle idle fuel rate (US gal/h)   =     0.530
```

Table S.12B - Fuel Consumption, Emissions and Cost (RATE)

```
INTERSECCI N CARRETERA PR-2   CARRETERA PR-464
EXISTENTE (AM)
Intersection ID: 3
Stop Sign Controlled Intersection
```

Mov ID		Fuel Eff. mpg	Cost Rate $/mi	HC Rate g/km	CO Rate g/km	NOX Rate g/km	CO2 Rate g/km
West: ACCESO OESTE PR-2							
5L	L	17.7	0.43	0.609	28.06	0.803	332.9
2T	T	32.6	0.24	0.243	4.77	0.347	180.3
2R	R	19.9	0.34	0.520	25.94	0.752	295.6
		30.6	0.25	0.272	6.94	0.389	192.3
South: ACCESO SUR (PR-464)							
3L	L	10.4	1.17	1.150	31.92	0.951	566.9
8T	T	10.4	1.17	1.152	32.12	0.949	566.4
8R	R	10.4	1.18	1.150	31.39	0.939	565.6
		10.4	1.18	1.150	31.62	0.944	566.1
East: ACCESO ESTE							
1L	L	18.9	0.37	0.557	27.39	0.784	311.2
6T	T	32.5	0.24	0.245	4.89	0.350	181.0
6R	R	20.0	0.34	0.515	25.71	0.747	293.6
		31.4	0.24	0.260	6.01	0.371	187.4
North: ACCESO NORTE							
7L	L	7.2	1.98	1.739	35.14	1.088	816.9
4T	T	7.3	1.97	1.725	34.95	1.080	810.5
4R	R	7.2	1.98	1.741	35.08	1.087	817.3
		7.2	1.98	1.735	35.06	1.085	814.8
INTERSECTION:		29.2	0.28	0.293	7.16	0.396	201.5

Table S.14 - Summary of Input and Output Data

```
INTERSECCI N CARRETERA PR-2   CARRETERA PR-464
EXISTENTE (AM)
Intersection ID: 3
Stop Sign Controlled Intersection
```

Lane No.	Demand Flow (veh/h) L	T	R	Tot	%HV	Adj. Basic Satf.	Eff Grn (secs) 1st	2nd	Deg Sat x	Aver. Delay (sec)	Longest Queue (ft)	Shrt Lane (ft)

West: ACCESO OESTE PR-2										
1 L	4			4	0		0.021	27.6	2	230
2 T		470		470	0		0.247	0.0	0	1600
3 T		470		470	0		0.247	0.0	0	1600
4 R			104	104	0		0.035	9.0	4	230
	4	940	104	1048	0		0.247	1.0	4	
South: ACCESO SUR (PR-464)										
1 LTR	40	1	56	97	0		1.000	171.3	1938	1600
	40	1	56	97	0		1.000	171.3	1938	
East: ACCESO ESTE										
1 L	96			96	0		0.174	15.0	21	230
2 T		918		918	0		0.483	0.0	0	1600
3 TR		918	1	919	0		0.483	0.0	61	1600
	96	1836	1	1933	0		0.483	0.8	61	
North: ACCESO NORTE										
1 LTR	1	1	1	3	0		0.220	332.3	28	1600
	1	1	1	3	0		0.220	332.3	28	

ALL VEHICLES	Total Flow	% HV	Max X	Aver. Delay	Max Queue
	3081	0	1.000	6.5	1938

Peak flow period = 15 minutes.

Queue values in this table are 95% back of queue (feet).

Note: Basic Saturation Flows are not adjusted at roundabouts or sign-controlled intersections and apply only to continuous lanes.

Table S.15 - Capacity and Level of Service

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

Mov ID	Mov Typ	Total Flow (veh /h)	Total Cap. (veh /h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	(ft)
West: ACCESO OESTE PR-2								
5L	L	4	188	0.021	27.6	D	0.1	2
2T	T	940	3800	0.247	0.0	A	0.0	0
2R	R	104	2999<	0.035	9.0	A	0.2	4
South: ACCESO SUR (PR-464)								
3L	L	40	40	1.000*	171.3	F	77.5	1938
8T	T	1	1	1.000*	171.3	F	77.5	1938
8R	R	56	56	1.000*	171.3	F	77.5	1938
East: ACCESO ESTE								
1L	L	96	551	0.174	15.0	C	0.8	21
6T	T	1836	3799	0.483	0.0	A	2.5	61
6R	R	1	2	0.500	8.9	A	2.5	61
North: ACCESO NORTE								
7L	L	1	5	0.200	332.3	F	1.1	28
4T	T	1	5	0.200	332.3	F	1.1	28

4R	R	1	5	0.200	332.3	F	1.1	28
ALL VEHICLES:		3081		1.000	6.5	NA	77.5	1938

Level of Service calculations are based on
average control delay including geometric delay (HCM criteria),
independent of the current delay definition used.
For the criteria, refer to the "Level of Service" topic in the
SIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

< Reduced capacity due to a short lane effect
* Maximum v/c ratio, or critical green periods
" Movement Level of service has been determined using adjacent lane v/c ratio rather than short lane v/c ratio (v/c=1.0)

Table D.0 - Geometric Delay Data

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

From Approach	To Approach	Turn	Negn Radius (ft)	Negn Speed (mph)	Negn Dist. (ft)	Appr. Dist. (ft)	Downstream Distance (ft)	User Spec?
West: ACCESO OESTE PR-2								
	South	Right	32.8	12.5	51.5	1600	387	No
	East	Thru	S	40.0	35.0	1600	403	No
	North	Left	28.2	11.8	44.3	1600	381	No
South: ACCESO SUR (PR-464)								
	West	Left	43.8	14.0	68.8	1600	399	No
	East	Right	32.8	12.5	51.5	1600	387	No
	North	Thru	S	12.4	81.0	1600	416	No
East: ACCESO ESTE								
	West	Thru	S	40.0	35.0	1600	403	No
	South	Left	29.3	12.0	46.1	1600	383	No
	North	Right	32.8	12.5	51.5	1600	387	No
North: ACCESO NORTE								
	West	Right	32.8	12.5	51.5	1600	387	No
	South	Thru	S	12.4	81.0	1600	416	No
	East	Left	35.5	12.9	55.7	1600	390	No

Downstream distance is distance travelled from the stopline until exit cruise speed is reached (includes negotiation distance). Acceleration distance is weighted for light and heavy vehicles. The same distance applies for both stopped and unstopped vehicles.

Table D.1 - Lane Delays

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464

EXISTENTE (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Stop-line Delay 1st d1	2nd d2	Total dSL	Acc. Dec. dn	Queuing Total dq	MvUp dqm	Stopd (Idle) di	Geom dig	Control dic
West: ACCESO OESTE PR-2										
1 L	0.021	18.6	0.0	18.6	3.5	15.2	0.0	15.2	9.0	27.6
2 T	0.247	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3 T	0.247	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4 R	0.035	0.1	0.0	0.1	0.5	0.0	0.0	0.0	8.9	9.0
South: ACCESO SUR (PR-464)										
1 LTR	1.000	37.1	129.2	166.3	2.2	164.2	4.1	160.1	5.0	171.3
East: ACCESO ESTE										
1 L	0.174	6.1	0.0	6.1	2.8	3.3	0.0	3.3	9.0	15.0
2 T	0.483	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3 TR	0.483	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
North: ACCESO NORTE										
1 LTR	0.220	264.2	63.2	327.3	2.1	325.3	1.2	324.1	5.0	332.3

dn is average stop-start delay for all vehicles queued and unqueued

Table D.2 - Lane Stops

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	-- Effective Stop Rate -- he1	he2	Geom. hig	Overall h	Prop. Queued pq	Queue Move-up Rate hqm
West: ACCESO OESTE PR-2							
1 L	0.021	0.89	0.00	0.08	0.97	0.887	0.00
2 T	0.247	0.00	0.00	0.00	0.00	0.000	0.00
3 T	0.247	0.00	0.00	0.00	0.00	0.000	0.00
4 R	0.035	0.04	0.00	0.60	0.63	0.130	0.00
South: ACCESO SUR (PR-464)							
1 LTR	1.000	0.42	0.21	0.00	0.63	1.000	2.54
East: ACCESO ESTE							
1 L	0.174	0.70	0.00	0.21	0.91	0.704	0.00
2 T	0.483	0.00	0.00	0.00	0.00	0.000	0.00
3 TR	0.483	0.00	0.00	0.00	0.00	0.011	0.00
North: ACCESO NORTE							
1 LTR	0.220	0.66	0.06	0.01	0.73	0.993	0.47

hig is the average value for all movements in a shared lane
hqm is average queue move-up rate for all vehicles queued and unqueued

Table D.3A - Lane Queues (veh)

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Ovrfl. Queue No	Average (veh) Nb1	Nb2	Nb	Percentile (veh) 70%	85%	90%	95%	98%	Queue Stor. Ratio
West: ACCESO OESTE PR-2											
1 L	0.021	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.01
2 T	0.247	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
3 T	0.247	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
4 R	0.035	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.02
South: ACCESO SUR (PR-464)											
1 LTR	1.000	26.0	12.0	18.9	30.8	37.5	49.8	59.0	77.5	92.9	1.21
East: ACCESO ESTE											
1 L	0.174	0.0	0.3	0.0	0.3	0.5	0.6	0.7	0.8	1.0	0.09
2 T	0.483	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
3 TR	0.483	0.0	0.8	0.0	0.8	1.4	1.8	2.0	2.5	2.8	0.04
North: ACCESO NORTE											
1 LTR	0.220	0.5	0.3	0.1	0.4	0.7	0.8	0.9	1.1	1.3	0.02

Values printed in this table are back of queue (vehicles).

Table D.3B - Lane Queues (feet)

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Ovrfl. Queue No	Average (feet) Nb1	Nb2	Nb	Percentile (feet) 70%	85%	90%	95%	98%	Queue Stor. Ratio
West: ACCESO OESTE PR-2											
1 L	0.021	0.0	0.7	0.0	0.7	1.3	1.5	1.7	2.1	2.5	0.01
2 T	0.247	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
3 T	0.247	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
4 R	0.035	0.0	1.4	0.0	1.4	2.6	3.1	3.6	4.4	5.1	0.02
South: ACCESO SUR (PR-464)											
1 LTR	1.000	650.1	299.1	471.7	770.8	936.3	1244.6	1475.9	1938.3	2323.7	1.21
East: ACCESO ESTE											
1 L	0.174	0.0	6.6	0.0	6.6	12.4	15.1	17.1	21.0	24.4	0.09
2 T	0.483	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
3 TR	0.483	0.0	19.6	0.0	19.6	36.0	43.8	49.7	61.4	71.2	0.04
North: ACCESO NORTE											
1 LTR	0.220	11.8	7.0	1.9	9.0	16.7	20.3	23.0	28.4	32.9	0.02

Values printed in this table are back of queue (feet).

Table D.4 - Movement Speeds (mph) and Geometric Delay

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

Mov ID	App. Speeds Cruise	App. Speeds Negn	Exit Speeds Negn	Exit Speeds Cruise	Queue Move-up 1st Grn	Queue Move-up 2nd Grn	Av. Section Spd Running	Av. Section Spd Overall	Geom Delay (sec)
West: ACCESO OESTE PR-2									
5L L	40.0	11.8	11.8	40.0			29.2	22.0	9.0
2T T	40.0	40.0	40.0	40.0			40.0	40.0	0.0
2R R	40.0	12.5	12.5	40.0			31.3	31.3	8.9
South: ACCESO SUR (PR-464)									
3L L	40.0	0.0	14.0	40.0	5.7		24.7	6.5	5.0
8T T	40.0	0.0	12.4	40.0	5.6		24.4	6.5	5.0
8R R	40.0	0.0	12.5	40.0	0.0		30.0	6.5	5.0
East: ACCESO ESTE									
1L L	40.0	12.0	12.0	40.0			29.7	27.7	9.0
6T T	40.0	40.0	40.0	40.0			39.9	39.9	0.0
6R R	40.0	12.5	12.5	40.0			31.6	31.6	8.9
North: ACCESO NORTE									
7L L	40.0	0.0	12.9	40.0	5.7		28.9	3.7	5.0
4T T	40.0	0.0	12.4	40.0	5.5		28.4	3.7	5.0
4R R	40.0	0.0	12.5	40.0	0.0		30.0	3.7	5.0

"Running Speed" is the average speed excluding stopped periods.

Table D.6 - Gap Acceptance Parameters

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

Mov ID	Mov Type	Opng Flow (pcu/h)	Critical Gap Hdwy (s)	Critical Gap Dist (ft)	Foll-up Headway (s)	Entry HV Equiv
West: ACCESO OESTE PR-2						
5L L	Normal	1879	4.10	236.9	2.20	2.00
2R R	Normal	97	2.00	35.2	1.00	2.00
South: ACCESO SUR (PR-464)						
3L L	Normal	2929+	7.50	419.0	3.50	2.00
8T T	Normal	2930+	6.50	363.1	4.00	2.00
East: ACCESO ESTE						
1L L	Normal	1087	4.10	218.5	2.20	2.00

6R	R	Normal	1	2.00	36.5	1.00	2.00
North: ACCESO NORTE							
7L	L	Normal	2934+	7.50	423.5	3.50	2.00
4T	T	Normal	3021+	6.50	360.1	4.00	2.00

Values in this table are adjusted for heavy vehicles in the entry stream.
+ Percentage of exiting flow included in total opposing flow

SIDRA SOLUTIONS

Site: New Site - 1
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Processed Mar 14, 2008 08:21:40AM

A1460, PLC, Large Office
Produced by SIDRA Intersection 3.2.0.1455
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SIDRA INTERSECTION

Output Tables

INTERSECCIÓN CARRETERA PR-464 & CAMINO VECINAL

EXISTENTE (AM) FIGURA 19

Run Information

```
* Basic Parameters:
  Intersection Type: Unsignalised - Two-Way Stop Control
  Driving on the right-hand side of the road
  Input data specified in US units
  Model Defaults: US HCM (US)
  Peak Flow Period (for performance): 15 minutes
  Unit time (for volumes): 60 minutes.
  Delay definition: Control delay
                    Geometric delay included
  HCM Delay Model option selected
  HCM Queue Model option selected
  Level of Service based on: Delay (HCM method)
  Queue definition: Back of queue, 95th Percentile
```

Table B.1 - Movement Definitions and Flow Rates (Origin-Destination)

```
INTERSECCI N CARRETERA PR-464   CAMINO VECINAL
EXISTENTE (AM)
Intersection ID: 2
Stop Sign Controlled Intersection
```

From Approach	To Approach	Mov ID	Turn	Flow Rate LV	Flow Rate HV	Flow Scale	Peak Flow Factor
West: ACCESO OESTE (PR-464)							
	South	2R	Right	4	0	1.00	1.00
	East	2T	Thru	28	0	1.00	1.00
	North	5L	Left	128	0	1.00	1.00
South: ACCESO SUR (CAMINO VECINAL)							
	West	3L	Left	1	0	1.00	1.00
	East	8R	Right	4	0	1.00	1.00
	North	8T	Thru	1	0	1.00	1.00
East: ACCESO ESTE (CAMINO VECINAL)							
	West	6T	Thru	12	0	1.00	1.00
	South	1L	Left	4	0	1.00	1.00
	North	6R	Right	200	0	1.00	1.00
North: ACCESO NORTE(PR-464)							
	West	4R	Right	112	0	1.00	1.00
	South	4T	Thru	1	0	1.00	1.00

```
          East         7L   Left      8     0    1.00     1.00
-------------------------------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table B.2A - Flow Rates (Separate Light and Heavy Vehicles)

```
INTERSECCI N CARRETERA PR-464   CAMINO VECINAL
EXISTENTE (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

-----------------------------------------------
  Mov          Left       Through       Right
  ID        ---------    ---------    ---------
             LV    HV     LV    HV     LV    HV
-----------------------------------------------
Demand flows in veh/hour as used by the program
West: ACCESO OESTE (PR-464)
   5L L     128     0      0     0      0     0
   2T T       0     0     28     0      0     0
   2R R       0     0      0     0      4     0
-----------------------------------------------
South: ACCESO SUR  (CAMINO VECINAL)
   3L L       1     0      0     0      0     0
   8T T       0     0      1     0      0     0
   8R R       0     0      0     0      4     0
-----------------------------------------------
East: ACCESO ESTE (CAMINO VECINAL)
   1L L       4     0      0     0      0     0
   6T T       0     0     12     0      0     0
   6R R       0     0      0     0    200     0
-----------------------------------------------
North: ACCESO NORTE(PR-464)
   7L L       8     0      0     0      0     0
   4T T       0     0      1     0      0     0
   4R R       0     0      0     0    112     0
-----------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table B.2B - Flow Rates (Total Vehicles and Percent Heavy)

```
INTERSECCI N CARRETERA PR-464   CAMINO VECINAL
EXISTENTE (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

-------------------------------------------------
  Mov          Left        Through        Right
  ID        ----------    ----------    ----------
           Total  %HV    Total  %HV    Total  %HV
-------------------------------------------------
Demand flows in veh/hour as used by the program
West: ACCESO OESTE (PR-464)
```

```
   5L L      128   0.0       0   0.0       0   0.0
   2T T        0   0.0      28   0.0       0   0.0
   2R R        0   0.0       0   0.0       4   0.0
------------------------------------------------
South: ACCESO SUR  (CAMINO VECINAL)
   3L L        1   0.0       0   0.0       0   0.0
   8T T        0   0.0       1   0.0       0   0.0
   8R R        0   0.0       0   0.0       4   0.0
------------------------------------------------
East: ACCESO ESTE (CAMINO VECINAL)
   1L L        4   0.0       0   0.0       0   0.0
   6T T        0   0.0      12   0.0       0   0.0
   6R R        0   0.0       0   0.0     200   0.0
------------------------------------------------
North: ACCESO NORTE(PR-464)
   7L L        8   0.0       0   0.0       0   0.0
   4T T        0   0.0       1   0.0       0   0.0
   4R R        0   0.0       0   0.0     112   0.0
------------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table S.2 - Movement Capacity Parameters

```
INTERSECCI N CARRETERA PR-464   CAMINO VECINAL
EXISTENTE (AM)
Intersection ID: 2
Stop Sign Controlled Intersection
```

Mov ID	Demand Flow (veh/h)	HV (%)	Opposing Movement Flow (veh/h)	HV (%)	Adjust. Flow (pcu/h)	Total Cap. (veh /h)	Prac. Deg. Satn xp	Prac. Spare Cap. (%)	Lane Util (%)	Deg. Satn x
West: ACCESO OESTE (PR-464)										
5L L	128	0.0	271+	0.0	271	564	0.80	253	100	0.227
2T T	28	0.0	62+	0.0	62	123	0.80	251	100	0.228*
2R R	4	0.0	1	0.0	1	18	0.80	260	100	0.222
South: ACCESO SUR (CAMINO VECINAL)										
3L L	1	0.0	113	0.0	113	272	0.80	****	100	0.004
8T T	1	0.0	0			272	0.80	****	100	0.004
8R R	4	0.0	0			1088	0.80	****	100	0.004
East: ACCESO ESTE (CAMINO VECINAL)										
1L L	4	0.0	44+	0.0	44	53	0.80	960	100	0.075
6T T	12	0.0	116+	0.0	116	160	0.80	967	100	0.075
6R R	200	0.0	1	0.0	1	2660	0.80	964	100	0.075
North: ACCESO NORTE(PR-464)										
7L L	8	0.0	5	0.0	5	106	0.80	960	100	0.075
4T T	1	0.0	1	0.0	1	13	0.80	940	100	0.077
4R R	112	0.0	0			1486	0.80	961	100	0.075

\+ Percentage of exiting flow included in total opposing flow

Table S.3 - Intersection Parameters

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Intersection Level of Service	=	NA
Worst movement Level of Service	=	B
Average intersection delay (s/pers)	=	8.6
Largest average movement delay (s)	=	11.6
Largest back of queue, 95% (ft)	=	36
Performance Index	=	9.19
Degree of saturation (highest)	=	0.228
Practical Spare Capacity (lowest)	=	251 %
Effective intersection capacity, (veh/h)	=	2210
Total vehicle flow (veh/h)	=	503
Total person flow (pers/h)	=	604
Total vehicle delay (veh-h/h)	=	1.21
Total person delay (pers-h/h)	=	1.45
Total effective vehicle stops (veh/h)	=	452
Total effective person stops (pers/h)	=	543
Total vehicle travel (veh-mi/h)	=	188.9
Total cost ($/h)	=	109.98
Total fuel (gal/h)	=	9.9
Total CO2 (kg/h)	=	94.07

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections. See Table S.15 or Movement Displays for individual movement LOS values.

Table S.5 - Movement Performance

Mov ID		Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest 95% Back (vehs)	Queue (ft)	Perf. Index	Aver. Speed (mph)
West: ACCESO OESTE (PR-464)										
5L	L	0.41	0.50	11.6	0.10	0.98	1.4	36	2.67	26.4
2T	T	0.09	0.11	11.6	0.10	0.95	1.4	36	0.58	26.5
2R	R	0.01	0.02	11.6	0.10	0.90	1.4	36	0.08	26.3
South: ACCESO SUR (CAMINO VECINAL)										
3L	L	0.00	0.00	9.5	0.32	0.60	0.0	1	0.02	30.6
8T	T	0.00	0.00	0.3	0.32	0.00	0.0	1	0.01	37.0
8R	R	0.01	0.01	9.2	0.32	0.47	0.0	1	0.06	30.7
East: ACCESO ESTE (CAMINO VECINAL)										
1L	L	0.01	0.01	6.4	0.00	1.00	0.5	12	0.07	29.2
6T	T	0.02	0.03	6.4	0.00	1.00	0.5	12	0.21	29.4
6R	R	0.35	0.42	6.4	0.00	1.00	0.5	12	3.48	29.2
North: ACCESO NORTE(PR-464)										
7L	L	0.02	0.02	9.1	0.04	0.69	0.4	11	0.13	31.4
4T	T	0.00	0.00	0.0	0.04	0.00	0.4	11	0.01	39.5
4R	R	0.28	0.33	8.9	0.04	0.66	0.4	11	1.86	31.5

Table S.6 - Intersection Performance

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Total Flow (veh/h)	Deg. Satn x	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue (ft)	Perf. Index	Aver. Speed (mph)
West: ACCESO OESTE (PR-464)									
160	0.228	0.52	0.62	11.6	0.10	0.97	36	3.33	26.4
South: ACCESO SUR (CAMINO VECINAL)									
6	0.004	0.01	0.02	7.8	0.32	0.41	1	0.09	31.6
East: ACCESO ESTE (CAMINO VECINAL)									
216	0.075	0.38	0.46	6.4	0.00	1.00	12	3.76	29.2
North: ACCESO NORTE(PR-464)									
121	0.077	0.30	0.36	8.9	0.04	0.65	11	2.01	31.6
ALL VEHICLES:									
503	0.228	1.21	1.45	8.6	0.05	0.90	36	9.19	28.8
INTERSECTION (persons):									
604	0.228		1.45	8.6	0.05	0.90		9.19	28.8

Queue values in this table are 95% back of queue (feet).

Table S.7 - Lane Performance

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Dem Flow (veh /h)	Cap (veh /h)	Deg. Satn x	Aver. Delay (sec)	Eff. Stop Rate	Queue 95% Back (vehs)	Queue 95% Back (ft)	Lane Length (ft)
West: ACCESO OESTE (PR-464)								
1 LTR	160	704	0.227	11.6	0.97	1.4	35.8	1600.0
South: ACCESO SUR (CAMINO VECINAL)								
1 LTR	6	1632	0.004	7.8	0.41	0.0	0.5	1600.0
East: ACCESO ESTE (CAMINO VECINAL)								
1 LTR	216	2873	0.075	6.4	1.00	0.5	12.2	1600.0
North: ACCESO NORTE(PR-464)								
1 LTR	121	1605	0.075	8.9	0.65	0.4	10.8	1600.0

Table S.8 - Lane Flow and Capacity Information

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Dem Flow (veh/h) Lef	Thru	Rig	Tot	Min Cap (veh /h)	Tot Cap (veh /h)	Deg. Satn x	Lane Util %
West: ACCESO OESTE (PR-464)								
1 LTR	128	28	4	160	60	704	0.227	100
South: ACCESO SUR (CAMINO VECINAL)								
1 LTR	1	1	4	6	6	1632	0.004	100
East: ACCESO ESTE (CAMINO VECINAL)								
1 LTR	4	12	200	216	60	2873	0.075	100
North: ACCESO NORTE(PR-464)								
1 LTR	8	1	112	121	121	1605	0.075	100

The capacity value for priority and continuous movements is obtained by adjusting the basic saturation flow for heavy vehicle and turning vehicle effects. Saturation flow scale applies if specified.

Table S.10 - Movement Capacity and Performance Summary

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Mov ID	Mov Typ	Dem Flow (veh /h)	Total Cap. (veh /h)	Lane Util (%)	Deg. Satn x	Aver. Delay (sec)	Eff. Stop Rate	95% Back of Queue (veh)	Perf. Index
West: ACCESO OESTE (PR-464)									
5L	L	128	564	100	0.227	11.6	0.98	1.4	2.67
2T	T	28	123	100	0.228*	11.6	0.95	1.4	0.58
2R	R	4	18	100	0.222	11.6	0.90	1.4	0.08
South: ACCESO SUR (CAMINO VECINAL)									
3L	L	1	272	100	0.004	9.5	0.60	0.0	0.02
8T	T	1	272	100	0.004	0.3	0.00	0.0	0.01
8R	R	4	1088	100	0.004	9.2	0.47	0.0	0.06
East: ACCESO ESTE (CAMINO VECINAL)									
1L	L	4	53	100	0.075	6.4	1.00	0.5	0.07
6T	T	12	160	100	0.075	6.4	1.00	0.5	0.21
6R	R	200	2660	100	0.075	6.4	1.00	0.5	3.48
North: ACCESO NORTE(PR-464)									
7L	L	8	106	100	0.075	9.1	0.69	0.4	0.13
4T	T	1	13	100	0.077	0.0	0.00	0.4	0.01
4R	R	112	1486	100	0.075	8.9	0.66	0.4	1.86

* Maximum degree of saturation

Table S.12A - Fuel Consumption, Emissions and Cost (TOTAL)

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Mov ID	Fuel Total gal/h	Cost Total $/h	HC Total kg/h	CO Total kg/h	NOX Total kg/h	CO2 Total kg/h
West: ACCESO OESTE (PR-464)						
5L L	2.6	29.74	0.045	2.18	0.062	24.7
2T T	0.6	6.47	0.010	0.47	0.013	5.4
2R R	0.1	0.93	0.001	0.07	0.002	0.8
	3.3	37.14	0.056	2.72	0.077	30.9
South: ACCESO SUR (CAMINO VECINAL)						
3L L	0.0	0.21	0.000	0.02	0.000	0.2
8T T	0.0	0.17	0.000	0.01	0.000	0.1
8R R	0.1	0.83	0.001	0.06	0.002	0.7
	0.1	1.21	0.002	0.09	0.003	1.0
East: ACCESO ESTE (CAMINO VECINAL)						
1L L	0.1	0.87	0.001	0.07	0.002	0.8
6T T	0.2	2.59	0.004	0.20	0.006	2.2
6R R	4.0	43.58	0.067	3.35	0.096	37.7
	4.3	47.03	0.072	3.62	0.103	40.7
North: ACCESO NORTE(PR-464)						
7L L	0.2	1.64	0.003	0.13	0.004	1.4
4T T	0.0	0.15	0.000	0.00	0.000	0.1
4R R	2.1	22.81	0.035	1.75	0.051	20.0
	2.3	24.60	0.038	1.88	0.055	21.5
INTERSECTION:	9.9	109.98	0.167	8.30	0.238	94.1

PARAMETERS USED IN COST CALCULATIONS

Pump price of fuel ($/US gal)	=	2.400
Fuel resource cost factor	=	0.70
Ratio of running cost to fuel cost	=	3.0
Average income ($/h)	=	19.00
Time value factor	=	0.40
Light vehicle mass (1000 lb)	=	3.1
Heavy vehicle mass (1000 lb)	=	24.0
Light vehicle idle fuel rate (US gal/h)	=	0.360
Heavy vehicle idle fuel rate (US gal/h)	=	0.530

Table S.12B - Fuel Consumption, Emissions and Cost (RATE)

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Mov ID		Fuel Eff. mpg	Cost Rate $/mi	HC Rate g/km	CO Rate g/km	NOX Rate g/km	CO2 Rate g/km
West: ACCESO OESTE (PR-464)							
5L	L	18.3	0.39	0.579	28.30	0.801	320.7
2T	T	18.4	0.38	0.571	27.90	0.797	319.1
2R	R	18.4	0.39	0.570	27.77	0.794	318.8
		18.4	0.39	0.577	28.21	0.800	320.4
South: ACCESO SUR (CAMINO VECINAL)							
3L	L	19.3	0.35	0.544	27.44	0.779	304.2
8T	T	26.8	0.27	0.336	11.90	0.486	219.6
8R	R	19.7	0.34	0.527	26.31	0.761	298.6
		20.5	0.33	0.498	24.08	0.717	286.3
East: ACCESO ESTE (CAMINO VECINAL)							
1L	L	18.8	0.36	0.562	28.30	0.797	313.2
6T	T	18.9	0.36	0.553	27.78	0.793	311.2
6R	R	18.9	0.36	0.552	27.65	0.790	310.9
		18.9	0.36	0.552	27.67	0.790	311.0
North: ACCESO NORTE(PR-464)							
7L	L	19.6	0.34	0.535	26.98	0.770	300.3
4T	T	31.6	0.24	0.256	5.76	0.367	185.8
4R	R	20.0	0.34	0.517	25.77	0.749	294.2
		20.0	0.34	0.516	25.68	0.747	293.7
INTERSECTION:		19.0	0.36	0.551	27.32	0.782	309.5

Table S.14 - Summary of Input and Output Data

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Demand Flow (veh/h) L	T	R	Tot	%HV	Adj. Basic Satf.	Eff Grn (secs) 1st	2nd	Deg Sat x	Aver. Delay (sec)	Longest Queue (ft)	Shrt Lane (ft)
West: ACCESO OESTE (PR-464)												
1 LTR	128	28	4	160	0				0.227	11.6	36	1600
	128	28	4	160	0				0.227	11.6	36	
South: ACCESO SUR (CAMINO VECINAL)												
1 LTR	1	1	4	6	0				0.004	7.8	1	1600
	1	1	4	6	0				0.004	7.8	1	
East: ACCESO ESTE (CAMINO VECINAL)												
1 LTR	4	12	200	216	0				0.075	6.4	12	1600
	4	12	200	216	0				0.075	6.4	12	

North: ACCESO NORTE(PR-464)										
1 LTR	8	1	112	121	0		0.075	8.9	11	1600
	8	1	112	121	0		0.075	8.9	11	

ALL VEHICLES	Total Flow	% HV	Max X	Aver. Delay	Max Queue
	503	0	0.228	8.6	36

Peak flow period = 15 minutes.

Queue values in this table are 95% back of queue (feet).

Note: Basic Saturation Flows are not adjusted at roundabouts or sign-controlled intersections and apply only to continuous lanes.

Table S.15 - Capacity and Level of Service

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Mov ID	Mov Typ	Total Flow (veh /h)	Total Cap. (veh /h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	(ft)
West: ACCESO OESTE (PR-464)								
5L	L	128	564	0.227	11.6	B	1.4	36
2T	T	28	123	0.228*	11.6	B	1.4	36
2R	R	4	18	0.222	11.6	B	1.4	36
South: ACCESO SUR (CAMINO VECINAL)								
3L	L	1	272	0.004	9.5	A	0.0	1
8T	T	1	272	0.004	0.3	A	0.0	1
8R	R	4	1088	0.004	9.2	A	0.0	1
East: ACCESO ESTE (CAMINO VECINAL)								
1L	L	4	53	0.075	6.4	A	0.5	12
6T	T	12	160	0.075	6.4	A	0.5	12
6R	R	200	2660	0.075	6.4	A	0.5	12
North: ACCESO NORTE(PR-464)								
7L	L	8	106	0.075	9.1	A	0.4	11
4T	T	1	13	0.077	0.0	A	0.4	11
4R	R	112	1486	0.075	8.9	A	0.4	11
ALL VEHICLES:		503		0.228	8.6	NA	1.4	36

Level of Service calculations are based on
average control delay including geometric delay (HCM criteria),
independent of the current delay definition used.
For the criteria, refer to the "Level of Service" topic in the
SIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

* Maximum v/c ratio, or critical green periods
" Movement Level of service has been determined using adjacent lane v/c ratio rather than short lane v/c ratio (v/c=1.0)

Table D.0 - Geometric Delay Data

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

From Approach	To Approach	Turn	Negn Radius (ft)	Negn Speed (mph)	Negn Dist. (ft)	Appr. Dist. (ft)	Downstream (ft)	Distance User Spec?
West: ACCESO OESTE (PR-464)								
	South	Right	32.8	12.5	51.5	1600	387	No
	East	Thru	S	12.4	35.0	1600	374	No
	North	Left	23.0	10.9	36.1	1600	375	No
South: ACCESO SUR (CAMINO VECINAL)								
	West	Left	19.8	10.3	32.8	1600	374	No
	East	Right	32.8	12.5	51.5	1600	387	No
	North	Thru	S	40.0	35.0	1600	403	No
East: ACCESO ESTE (CAMINO VECINAL)								
	West	Thru	S	12.4	35.0	1600	374	No
	South	Left	17.6	9.9	32.8	1600	377	No
	North	Right	32.8	12.5	51.5	1600	387	No
North: ACCESO NORTE(PR-464)								
	West	Right	32.8	12.5	51.5	1600	387	No
	South	Thru	S	40.0	35.0	1600	403	No
	East	Left	21.1	10.6	33.1	1600	373	No

Downstream distance is distance travelled from the stopline until exit cruise speed is reached (includes negotiation distance). Acceleration distance is weighted for light and heavy vehicles. The same distance applies for both stopped and unstopped vehicles.

Table D.1 - Lane Delays

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Stop-line Delay 1st d1	2nd d2	Total dSL	Acc. Dec. dn	Queuing Total dq	MvUp dqm	Stopd (Idle) di	Geom dig	Control dic
West: ACCESO OESTE (PR-464)										
1 LTR	0.227	5.1	1.5	6.6	0.2	6.4	0.0	6.4	5.0	11.6
South: ACCESO SUR (CAMINO VECINAL)										
1 LTR	0.004	0.3	0.0	0.3	1.5	0.0	0.0	0.0	7.5	7.8
East: ACCESO ESTE (CAMINO VECINAL)										
1 LTR	0.075	1.3	0.1	1.4	0.0	1.3	0.0	1.3	5.0	6.4
North: ACCESO NORTE(PR-464)										
1 LTR	0.075	0.0	0.0	0.0	0.2	0.0	0.0	0.0	8.9	8.9

dn is average stop-start delay for all vehicles queued and unqueued

Table D.2 - Lane Stops

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	-- Effective Stop Rate -- he1	he2	Geom. hig	Overall h	Prop. Queued pq	Queue Move-up Rate hqm
West: ACCESO OESTE (PR-464)							
1 LTR	0.227	0.07	0.00	0.90	0.97	0.101	0.00
South: ACCESO SUR (CAMINO VECINAL)							
1 LTR	0.004	0.02	0.00	0.40	0.41	0.317	0.00
East: ACCESO ESTE (CAMINO VECINAL)							
1 LTR	0.075	0.00	0.00	1.00	1.00	0.003	0.00
North: ACCESO NORTE(PR-464)							
1 LTR	0.075	0.00	0.00	0.65	0.65	0.044	0.00

hig is the average value for all movements in a shared lane
hqm is average queue move-up rate for all vehicles queued and unqueued

Table D.3A - Lane Queues (veh)

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Ovrfl. Queue No	Average (veh) Nb1	Nb2	Nb	Percentile (veh) 70%	85%	90%	95%	98%	Queue Stor. Ratio
West: ACCESO OESTE (PR-464)											
1 LTR	0.227	0.0	0.5	0.0	0.5	0.8	1.0	1.2	1.4	1.7	0.02
South: ACCESO SUR (CAMINO VECINAL)											
1 LTR	0.004	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
East: ACCESO ESTE (CAMINO VECINAL)											
1 LTR	0.075	0.0	0.2	0.0	0.2	0.3	0.3	0.4	0.5	0.6	0.01
North: ACCESO NORTE(PR-464)											
1 LTR	0.075	0.0	0.1	0.0	0.1	0.3	0.3	0.4	0.4	0.5	0.01

Values printed in this table are back of queue (vehicles).

Table D.3B - Lane Queues (feet)

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Ovrfl. Queue No	Average (feet) Nb1	Nb2	Nb	Percentile (feet) 70%	85%	90%	95%	98%	Queue Stor. Ratio
West: ACCESO OESTE (PR-464)											
1 LTR	0.227	0.0	11.3	0.0	11.3	21.1	25.6	29.0	35.8	41.5	0.02
South: ACCESO SUR (CAMINO VECINAL)											
1 LTR	0.004	0.0	0.2	0.0	0.2	0.3	0.4	0.4	0.5	0.6	0.00
East: ACCESO ESTE (CAMINO VECINAL)											
1 LTR	0.075	0.0	3.8	0.0	3.8	7.2	8.7	9.9	12.2	14.1	0.01
North: ACCESO NORTE(PR-464)											
1 LTR	0.075	0.0	3.4	0.0	3.4	6.4	7.8	8.8	10.8	12.5	0.01

Values printed in this table are back of queue (feet).

Table D.4 - Movement Speeds (mph) and Geometric Delay

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Mov ID	App. Speeds Cruise	Negn	Exit Speeds Negn	Cruise	Queue Move-up 1st Grn	2nd Grn	Av. Section Spd Running	Overall	Geom Delay (sec)
West: ACCESO OESTE (PR-464)									
5L L	40.0	0.0	10.9	40.0			30.1	26.4	5.0
2T T	40.0	0.0	12.4	40.0			30.3	26.5	5.0
2R R	40.0	0.0	12.5	40.0			30.0	26.3	5.0
South: ACCESO SUR (CAMINO VECINAL)									
3L L	40.0	10.3	10.3	40.0			30.6	30.6	9.2
8T T	40.0	40.0	40.0	40.0			37.0	37.0	0.0
8R R	40.0	12.5	12.5	40.0			30.7	30.7	8.9
East: ACCESO ESTE (CAMINO VECINAL)									
1L L	40.0	0.0	9.9	40.0			30.1	29.2	5.0
6T T	40.0	0.0	12.4	40.0			30.3	29.4	5.0
6R R	40.0	0.0	12.5	40.0			30.0	29.2	5.0
North: ACCESO NORTE(PR-464)									
7L L	40.0	10.6	10.6	40.0			31.4	31.4	9.1
4T T	40.0	40.0	40.0	40.0			39.5	39.5	0.0
4R R	40.0	12.5	12.5	40.0			31.5	31.5	8.9

"Running Speed" is the average speed excluding stopped periods.

Table D.6 - Gap Acceptance Parameters

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Mov ID	Mov Type	Opng Flow (pcu/h)	Critical Gap Hdwy (s)	Critical Gap Dist (ft)	Foll-up Headway (s)	Entry HV Equiv
West: ACCESO OESTE (PR-464)						
5L L	Normal	271+	7.50	139.0	3.50	2.00
2T T	Normal	62+	6.50	122.3	4.00	2.00
2R R	Normal	1	2.00	117.3	1.00	2.00
South: ACCESO SUR (CAMINO VECINAL)						
3L L	Normal	113	4.10	76.8	2.20	2.00
East: ACCESO ESTE (CAMINO VECINAL)						
1L L	Normal	44+	7.50	145.9	3.50	2.00
6T T	Normal	116+	6.50	122.3	4.00	2.00
6R R	Normal	1	2.00	117.3	1.00	2.00
North: ACCESO NORTE(PR-464)						
7L L	Normal	5	4.10	108.4	2.20	2.00
4T T	Normal	1	6.50	381.3	4.00	2.00

Values in this table are adjusted for heavy vehicles in the entry stream.
\+ Percentage of exiting flow included in total opposing flow

SIDRA SOLUTIONS

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SIDRA INTERSECTION

Output Tables

INTERSECCION CARRETERA PR-464 & CALLE 3

EXISTENTE (AM) FIGURA 20

Run Information

```
* Basic Parameters:
  Intersection Type: Unsignalised - Two-Way Stop Control
  Driving on the right-hand side of the road
  Input data specified in US units
  Model Defaults: US HCM (US)
  Peak Flow Period (for performance): 15 minutes
  Unit time (for volumes): 60 minutes.
  Delay definition: Control delay
                    Geometric delay included
  HCM Delay Model option selected
  HCM Queue Model option selected
  Level of Service based on: Delay (HCM method)
  Queue definition: Back of queue, 95th Percentile
```

Table B.1 - Movement Definitions and Flow Rates (Origin-Destination)

```
INTERSECCION CARRETERA PR-464   CALLE 3
EXISTENTE (AM)
Intersection ID: 0
Stop Sign Controlled Intersection
```

From Approach	To Approach	Mov ID	Turn	Flow Rate LV	Flow Rate HV	Flow Scale	Peak Flow Factor
West: ACCESO OESTE (PR-464)							
	East	2T	Thru	192	0	1.00	1.00
	North	5L	Left	12	0	1.00	1.00
East: ACCESO ESTE							
	West	6T	Thru	160	0	1.00	1.00
	North	6R	Right	8	0	1.00	1.00
North: ACCESO NORTE (CALLE 3)							
	West	4R	Right	32	0	1.00	1.00
	East	7L	Left	12	0	1.00	1.00

```
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table B.2A - Flow Rates (Separate Light and Heavy Vehicles)

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID	Left		Through		Right	
	LV	HV	LV	HV	LV	HV
Demand flows in veh/hour as used by the program						
West: ACCESO OESTE (PR-464)						
5L L	12	0	0	0	0	0
2T T	0	0	192	0	0	0
East: ACCESO ESTE						
6T T	0	0	160	0	0	0
6R R	0	0	0	0	8	0
North: ACCESO NORTE (CALLE 3)						
7L L	12	0	0	0	0	0
4R R	0	0	0	0	32	0

Unit Time for Volumes = 60 minutes
Peak Flow Period = 15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor

Table B.2B - Flow Rates (Total Vehicles and Percent Heavy)

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID	Left		Through		Right	
	Total	%HV	Total	%HV	Total	%HV
Demand flows in veh/hour as used by the program						
West: ACCESO OESTE (PR-464)						
5L L	12	0.0	0	0.0	0	0.0
2T T	0	0.0	192	0.0	0	0.0
East: ACCESO ESTE						
6T T	0	0.0	160	0.0	0	0.0
6R R	0	0.0	0	0.0	8	0.0
North: ACCESO NORTE (CALLE 3)						
7L L	12	0.0	0	0.0	0	0.0
4R R	0	0.0	0	0.0	32	0.0

Unit Time for Volumes = 60 minutes
Peak Flow Period = 15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor

Table S.2 - Movement Capacity Parameters

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID	Demand Flow (veh/h)	HV (%)	Opposing Movement Flow (veh/h)	HV (%)	Adjust. Flow (pcu/h)	Total Cap. (veh /h)	Prac. Deg. Satn xp	Prac. Spare Cap. (%)	Lane Util (%)	Deg. Satn x
West: ACCESO OESTE (PR-464)										
5L L	12	0.0	168	0.0	168	110	0.80	633	100	0.109
2T T	192	0.0	0			1752	0.80	630	100	0.110*
East: ACCESO ESTE										
6T T	160	0.0	0			1794	0.80	797	100	0.089
6R R	8	0.0	0			90	0.80	800	100	0.089
North: ACCESO NORTE (CALLE 3)										
7L L	12	0.0	368+	0.0	368	392	0.80	2513	100	0.031
4R R	32	0.0	160	0.0	160	1045	0.80	2513	100	0.031

\+ Percentage of exiting flow included in total opposing flow

Table S.3 - Intersection Parameters

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Intersection Level of Service	=	NA
Worst movement Level of Service	=	A
Average intersection delay (s/pers)	=	1.5
Largest average movement delay (s)	=	9.7
Largest back of queue, 95% (ft)	=	20
Performance Index	=	4.70
Degree of saturation (highest)	=	0.110
Practical Spare Capacity (lowest)	=	630 %
Effective intersection capacity, (veh/h)	=	3796
Total vehicle flow (veh/h)	=	416
Total person flow (pers/h)	=	499
Total vehicle delay (veh-h/h)	=	0.18
Total person delay (pers-h/h)	=	0.21
Total effective vehicle stops (veh/h)	=	51
Total effective person stops (pers/h)	=	61
Total vehicle travel (veh-mi/h)	=	157.6
Total cost ($/h)	=	68.45
Total fuel (gal/h)	=	5.8
Total CO2 (kg/h)	=	54.99

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections. See Table S.15 or Movement Displays for individual movement LOS values.

Table S.5 - Movement Performance

Mov ID		Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue 95% Back (vehs)	Longest Queue 95% Back (ft)	Perf. Index	Aver. Speed (mph)
West: ACCESO OESTE (PR-464)										
5L	L	0.03	0.04	9.7	0.30	0.66	0.8	20	0.20	30.7
2T	T	0.03	0.04	0.6	0.30	0.00	0.8	20	2.09	37.1
East: ACCESO ESTE										
6T	T	0.00	0.00	0.0	0.00	0.00	0.0	0	1.52	40.0
6R	R	0.02	0.02	8.9	0.00	0.69	0.0	0	0.13	31.7
North: ACCESO NORTE (CALLE 3)										
7L	L	0.03	0.03	7.6	0.28	0.93	0.2	4	0.21	28.8
4R	R	0.07	0.08	7.6	0.28	0.82	0.2	4	0.55	28.8

Table S.6 - Intersection Performance

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Total Flow (veh/h)	Deg. Satn x	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue (ft)	Perf. Index	Aver. Speed (mph)
West: ACCESO OESTE (PR-464)									
204	0.110	0.06	0.08	1.1	0.30	0.04	20	2.30	36.7
East: ACCESO ESTE									
168	0.089	0.02	0.02	0.4	0.00	0.03	0	1.64	39.5
North: ACCESO NORTE (CALLE 3)									
44	0.031	0.09	0.11	7.6	0.28	0.85	4	0.76	28.8
ALL VEHICLES:									
416	0.110	0.18	0.21	1.5	0.17	0.12	20	4.70	36.7
INTERSECTION (persons):									
499	0.110		0.21	1.5	0.17	0.12		4.70	36.7

Queue values in this table are 95% back of queue (feet).

Table S.7 - Lane Performance

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Lane No.	Dem Flow (veh /h)	Cap (veh /h)	Deg. Satn x	Aver. Delay (sec)	Eff. Stop Rate	Queue 95% Back (vehs)	Queue 95% Back (ft)	Lane Length (ft)
West: ACCESO OESTE (PR-464)								
1 LT	204	1862	0.110	1.1	0.04	0.8	20.2	1600.0
East: ACCESO ESTE								
1 TR	168	1884	0.089	0.4	0.03	0.0	0.0	1600.0
North: ACCESO NORTE (CALLE 3)								
1 LR	44	1437	0.031	7.6	0.85	0.2	4.1	1600.0

Table S.8 - Lane Flow and Capacity Information

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Lane No.	Dem Flow (veh/h) Lef	Thru	Rig	Tot	Min Cap (veh /h)	Tot Cap (veh /h)	Deg. Satn x	Lane Util %
West: ACCESO OESTE (PR-464)								
1 LT	12	192	0	204	204	1862	0.110	100
East: ACCESO ESTE								
1 TR	0	160	8	168	168	1884	0.089	100
North: ACCESO NORTE (CALLE 3)								
1 LR	12	0	32	44	44	1437	0.031	100

The capacity value for priority and continuous movements is obtained by adjusting the basic saturation flow for heavy vehicle and turning vehicle effects. Saturation flow scale applies if specified.

Table S.10 - Movement Capacity and Performance Summary

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID	Mov Typ	Dem Flow (veh	Total Cap. (veh	Lane Util	Deg. Satn	Aver. Delay	Eff. Stop Rate	95% Back of Queue	Perf. Index

	/h)	/h)	(%)	x	(sec)		(veh)	
West: ACCESO OESTE (PR-464)								
5L L	12	110	100	0.109	9.7	0.66	0.8	0.20
2T T	192	1752	100	0.110*	0.6	0.00	0.8	2.09
East: ACCESO ESTE								
6T T	160	1794	100	0.089	0.0	0.00	0.0	1.52
6R R	8	90	100	0.089	8.9	0.69	0.0	0.13
North: ACCESO NORTE (CALLE 3)								
7L L	12	392	100	0.031	7.6	0.93	0.2	0.21
4R R	32	1045	100	0.031	7.6	0.82	0.2	0.55

* Maximum degree of saturation

Table S.12A - Fuel Consumption, Emissions and Cost (TOTAL)

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID	Fuel Total gal/h	Cost Total $/h	HC Total kg/h	CO Total kg/h	NOX Total kg/h	CO2 Total kg/h
West: ACCESO OESTE (PR-464)						
5L L	0.2	2.50	0.004	0.20	0.006	2.2
2T T	2.7	31.44	0.039	1.34	0.056	25.5
	2.9	33.94	0.043	1.54	0.061	27.6
East: ACCESO ESTE						
6T T	1.9	23.22	0.024	0.47	0.034	17.6
6R R	0.2	1.62	0.002	0.12	0.004	1.4
	2.0	24.85	0.026	0.59	0.038	19.0
North: ACCESO NORTE (CALLE 3)						
7L L	0.2	2.63	0.004	0.20	0.006	2.3
4R R	0.6	7.04	0.011	0.54	0.015	6.0
	0.9	9.67	0.015	0.74	0.021	8.3
INTERSECTION:	5.8	68.45	0.084	2.87	0.120	55.0

PARAMETERS USED IN COST CALCULATIONS

Pump price of fuel ($/US gal)	=	2.400
Fuel resource cost factor	=	0.70
Ratio of running cost to fuel cost	=	3.0
Average income ($/h)	=	19.00
Time value factor	=	0.40
Light vehicle mass (1000 lb)	=	3.1
Heavy vehicle mass (1000 lb)	=	24.0
Light vehicle idle fuel rate (US gal/h)	=	0.360
Heavy vehicle idle fuel rate (US gal/h)	=	0.530

Table S.12B - Fuel Consumption, Emissions and Cost (RATE)

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID		Fuel Eff. mpg	Cost Rate $/mi	HC Rate g/km	CO Rate g/km	NOX Rate g/km	CO2 Rate g/km
West: ACCESO OESTE (PR-464)							
5L	L	19.4	0.35	0.539	27.15	0.774	302.6
2T	T	27.1	0.27	0.330	11.44	0.477	217.1
		26.5	0.27	0.342	12.35	0.494	222.0
East: ACCESO ESTE							
6T	T	32.6	0.24	0.243	4.77	0.347	180.3
6R	R	20.0	0.34	0.515	25.68	0.747	293.5
		31.7	0.24	0.256	5.76	0.366	185.7
North: ACCESO NORTE (CALLE 3)							
7L	L	18.7	0.36	0.562	28.20	0.797	313.9
4R	R	18.9	0.36	0.554	27.67	0.790	311.9
		18.8	0.36	0.557	27.81	0.792	312.5
INTERSECTION:		27.1	0.27	0.330	11.31	0.474	216.8

Table S.14 - Summary of Input and Output Data

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Lane No.	Demand Flow (veh/h) L	T	R	Tot	%HV	Adj. Basic Satf.	Eff Grn (secs) 1st	2nd	Deg Sat x	Aver. Delay (sec)	Longest Queue (ft)	Shrt Lane (ft)
West: ACCESO OESTE (PR-464)												
1 LT	12	192		204	0				0.110	1.1	20	1600
	12	192	0	204	0				0.110	1.1	20	
East: ACCESO ESTE												
1 TR		160	8	168	0				0.089	0.4	0	1600
	0	160	8	168	0				0.089	0.4		
North: ACCESO NORTE (CALLE 3)												
1 LR	12		32	44	0				0.031	7.6	4	1600
	12	0	32	44	0				0.031	7.6	4	

ALL VEHICLES	Total Flow	% HV	Max X	Aver. Delay	Max Queue
	416	0	0.110	1.5	20

```
================================================================================
Peak flow period = 15 minutes.

Queue values in this table are 95% back of queue (feet).

Note: Basic Saturation Flows are not adjusted at roundabouts or sign-
      controlled intersections and apply only to continuous lanes.
```

Table S.15 - Capacity and Level of Service

```
INTERSECCION CARRETERA PR-464   CALLE 3
EXISTENTE (AM)
Intersection ID: 0
Stop Sign Controlled Intersection
```

Mov ID	Mov Typ	Total Flow (veh /h)	Total Cap. (veh /h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	(ft)
West: ACCESO OESTE (PR-464)								
5L	L	12	110	0.109	9.7	A	0.8	20
2T	T	192	1752	0.110*	0.6	A	0.8	20
East: ACCESO ESTE								
6T	T	160	1794	0.089	0.0	A	0.0	0
6R	R	8	90	0.089	8.9	A	0.0	0
North: ACCESO NORTE (CALLE 3)								
7L	L	12	392	0.031	7.6	A	0.2	4
4R	R	32	1045	0.031	7.6	A	0.2	4
ALL VEHICLES:		416		0.110	1.5	NA	0.8	20

```
     Level of Service calculations are based on
     average control delay including geometric delay (HCM criteria),
     independent of the current delay definition used.
     For the criteria, refer to the "Level of Service" topic in the
     SIDRA Output Guide or the Output section of the on-line help.

 NA  Not Applicable - Intersection Level of Service is not calculated at
     two-way stop control or give-way/yield controlled intersections.

  *  Maximum v/c ratio, or critical green periods
```

Table D.0 - Geometric Delay Data

```
INTERSECCION CARRETERA PR-464   CALLE 3
EXISTENTE (AM)
Intersection ID: 0
Stop Sign Controlled Intersection
```

From Approach	To Approach	Turn	Negn Radius (ft)	Negn Speed (mph)	Negn Dist. (ft)	Appr. Dist. (ft)	Downstream (ft)	Distance User Spec?
West: ACCESO OESTE (PR-464)								

	East	Thru	S	40.0	35.0	1600	403	No
	North	Left	23.0	10.9	36.1	1600	375	No
East: ACCESO ESTE								
	West	Thru	S	40.0	35.0	1600	403	No
	North	Right	32.8	12.5	51.5	1600	387	No
North: ACCESO NORTE (CALLE 3)								
	West	Right	32.8	12.5	51.5	1600	387	No
	East	Left	23.0	10.9	36.1	1600	375	No

Downstream distance is distance travelled from the stopline until exit cruise speed is reached (includes negotiation distance). Acceleration distance is weighted for light and heavy vehicles. The same distance applies for both stopped and unstopped vehicles.

Table D.1 - Lane Delays

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

		Delay (seconds/veh)								
	Deg.	Stop-line Delay			Acc.	Queuing		Stopd		
Lane	Satn	1st	2nd	Total	Dec.	Total	MvUp	(Idle)	Geom	Control
No.	x	d1	d2	dSL	dn	dq	dqm	di	dig	dic
West: ACCESO OESTE (PR-464)										
1 LT	0.110	0.6	0.0	0.6	2.5	0.0	0.0	0.0	0.5	1.1
East: ACCESO ESTE										
1 TR	0.089	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4
North: ACCESO NORTE (CALLE 3)										
1 LR	0.031	2.5	0.1	2.6	0.6	2.0	0.0	2.0	5.0	7.6

dn is average stop-start delay for all vehicles queued and unqueued

Table D.2 - Lane Stops

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

		-- Effective Stop Rate --					Queue
	Deg.			Geom.	Overall	Prop.	Move-up
Lane	Satn					Queued	Rate
No.	x	he1	he2	hig	h	pq	hqm
West: ACCESO OESTE (PR-464)							
1 LT	0.110	0.01	0.00	0.03	0.04	0.296	0.00
East: ACCESO ESTE							
1 TR	0.089	0.00	0.00	0.03	0.03	0.000	0.00

```
-------------------------------------------------------
 North: ACCESO NORTE (CALLE 3)
 1 LR  0.031  0.12  0.00  0.72   0.85    0.278   0.00
-------------------------------------------------------
  hig is the average value for all movements in a shared lane
  hqm is average queue move-up rate for all vehicles queued and unqueued
```

Table D.3A - Lane Queues (veh)

```
INTERSECCION CARRETERA PR-464   CALLE 3
EXISTENTE (AM)
Intersection ID: 0
Stop Sign Controlled Intersection
```

Lane No.	Deg. Satn x	Ovrfl. Queue No	Average (veh) Nb1	Nb2	Nb	Percentile (veh) 70%	85%	90%	95%	98%	Queue Stor. Ratio
West: ACCESO OESTE (PR-464)											
1 LT	0.110	0.0	0.3	0.0	0.3	0.5	0.6	0.7	0.8	0.9	0.01
East: ACCESO ESTE											
1 TR	0.089	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
North: ACCESO NORTE (CALLE 3)											
1 LR	0.031	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.00

Values printed in this table are back of queue (vehicles).

Table D.3B - Lane Queues (feet)

```
INTERSECCION CARRETERA PR-464   CALLE 3
EXISTENTE (AM)
Intersection ID: 0
Stop Sign Controlled Intersection
```

Lane No.	Deg. Satn x	Ovrfl. Queue No	Average (feet) Nb1	Nb2	Nb	Percentile (feet) 70%	85%	90%	95%	98%	Queue Stor. Ratio
West: ACCESO OESTE (PR-464)											
1 LT	0.110	0.0	6.4	0.0	6.4	12.0	14.5	16.4	20.2	23.4	0.01
East: ACCESO ESTE											
1 TR	0.089	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
North: ACCESO NORTE (CALLE 3)											
1 LR	0.031	0.0	1.3	0.0	1.3	2.5	3.0	3.4	4.1	4.8	0.00

Values printed in this table are back of queue (feet).

Table D.4 - Movement Speeds (mph) and Geometric Delay

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID	App. Speeds Cruise	App. Speeds Negn	Exit Speeds Negn	Exit Speeds Cruise	Queue Move-up 1st Grn	Queue Move-up 2nd Grn	Av. Section Spd Running	Av. Section Spd Overall	Geom Delay (sec)
West: ACCESO OESTE (PR-464)									
5L L	40.0	10.9	10.9	40.0			30.7	30.7	9.1
2T T	40.0	40.0	40.0	40.0			37.1	37.1	0.0
East: ACCESO ESTE									
6T T	40.0	40.0	40.0	40.0			40.0	40.0	0.0
6R R	40.0	12.5	12.5	40.0			31.7	31.7	8.9
North: ACCESO NORTE (CALLE 3)									
7L L	40.0	0.0	10.9	40.0			30.1	28.8	5.0
4R R	40.0	0.0	12.5	40.0			30.0	28.8	5.0

"Running Speed" is the average speed excluding stopped periods.

Table D.6 - Gap Acceptance Parameters

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID	Mov Type	Opng Flow (pcu/h)	Critical Gap Hdwy (s)	Critical Gap Dist (ft)	Foll-up Headway (s)	Entry HV Equiv
West: ACCESO OESTE (PR-464)						
5L L	Normal	168	4.10	232.7	2.20	2.00
East: ACCESO ESTE						
No opposed movements on this approach						
North: ACCESO NORTE (CALLE 3)						
7L L	Normal	368+	7.50	423.2	3.50	2.00
4R R	Normal	160	2.00	117.3	1.00	2.00

Values in this table are adjusted for heavy vehicles in the entry stream.
+ Percentage of exiting flow included in total opposing flow

SIDRA SOLUTIONS

Site: New Site - 1
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Processed Mar 10, 2008 01:38:11PM

A1460, PLC, Large Office
Produced by SIDRA Intersection 3.2.0.1455
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SIDRA INTERSECTION

Output Tables

INTERSECCIÓN CARRETERA PR-2 & CARRETERA PR-464

EXISTENTE (PM) FIGURA 21

Run Information

```
* Basic Parameters:
  Intersection Type: Unsignalised - Two-Way Stop Control
  Driving on the right-hand side of the road
  Input data specified in US units
  Model Defaults: US HCM (US)
  Peak Flow Period (for performance): 15 minutes
  Unit time (for volumes): 60 minutes.
  Delay definition: Control delay
                    Geometric delay included
  HCM Delay Model option selected
  HCM Queue Model option selected
  Level of Service based on: Delay (HCM method)
  Queue definition: Back of queue, 95th Percentile
```

Table B.1 - Movement Definitions and Flow Rates (Origin-Destination)

```
INTERSECCI N CARRETERA PR-2   CARRETERA PR-464
EXISTENTE (PM)
Intersection ID: 3
Stop Sign Controlled Intersection
```

From Approach	To Approach	Mov ID	Turn	Flow Rate LV	Flow Rate HV	Flow Scale	Peak Flow Factor
West: ACCESO OESTE (PR-2)							
	South	2R	Right	160	0	1.00	1.00
	East	2T	Thru	1436	0	1.00	1.00
	North	5L	Left	1	0	1.00	1.00
South: ACCESO SUR (PR-464)							
	West	3L	Left	56	0	1.00	1.00
	East	8R	Right	88	0	1.00	1.00
	North	8T	Thru	1	0	1.00	1.00
East: ACCESO ESTE							
	West	6T	Thru	1280	0	1.00	1.00
	South	1L	Left	68	0	1.00	1.00
	North	6R	Right	1	0	1.00	1.00
North: ACCESO NORTE							
	West	4R	Right	1	0	1.00	1.00
	South	4T	Thru	1	0	1.00	1.00

```
          East         7L   Left      1     0    1.00     1.00
-------------------------------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table B.2A - Flow Rates (Separate Light and Heavy Vehicles)

```
INTERSECCI N CARRETERA PR-2   CARRETERA PR-464
EXISTENTE (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

-----------------------------------------------
  Mov          Left        Through       Right
  ID        ---------     ---------    ---------
             LV    HV      LV    HV     LV    HV
-----------------------------------------------
Demand flows in veh/hour as used by the program
West: ACCESO OESTE (PR-2)
   5L L       1     0       0     0      0     0
   2T T       0     0    1436     0      0     0
   2R R       0     0       0     0    160     0
-----------------------------------------------
South: ACCESO SUR (PR-464)
   3L L      56     0       0     0      0     0
   8T T       0     0       1     0      0     0
   8R R       0     0       0     0     88     0
-----------------------------------------------
East: ACCESO ESTE
   1L L      68     0       0     0      0     0
   6T T       0     0    1280     0      0     0
   6R R       0     0       0     0      1     0
-----------------------------------------------
North: ACCESO NORTE
   7L L       1     0       0     0      0     0
   4T T       0     0       1     0      0     0
   4R R       0     0       0     0      1     0
-----------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table B.2B - Flow Rates (Total Vehicles and Percent Heavy)

```
INTERSECCI N CARRETERA PR-2   CARRETERA PR-464
EXISTENTE (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

-------------------------------------------------
  Mov          Left        Through       Right
  ID        ----------    ----------    ----------
           Total  %HV    Total  %HV    Total  %HV
-------------------------------------------------
Demand flows in veh/hour as used by the program
West: ACCESO OESTE (PR-2)
```

```
   5L L        1   0.0        0   0.0        0   0.0
   2T T        0   0.0     1436   0.0        0   0.0
   2R R        0   0.0        0   0.0      160   0.0
-------------------------------------------------
South: ACCESO SUR (PR-464)
   3L L       56   0.0        0   0.0        0   0.0
   8T T        0   0.0        1   0.0        0   0.0
   8R R        0   0.0        0   0.0       88   0.0
-------------------------------------------------
East: ACCESO ESTE
   1L L       68   0.0        0   0.0        0   0.0
   6T T        0   0.0     1280   0.0        0   0.0
   6R R        0   0.0        0   0.0        1   0.0
-------------------------------------------------
North: ACCESO NORTE
   7L L        1   0.0        0   0.0        0   0.0
   4T T        0   0.0        1   0.0        0   0.0
   4R R        0   0.0        0   0.0        1   0.0
-------------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table S.2 - Movement Capacity Parameters

```
INTERSECCI N CARRETERA PR-2   CARRETERA PR-464
EXISTENTE (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

-------------------------------------------------------------------------------
 Mov                  Opposing Movement  Total Prac. Prac.  Lane  Deg.
 ID      Demand                Adjust.   Cap. Deg.  Spare  Util  Satn
         Flow     HV   Flow  HV  Flow    (veh  Satn  Cap.
         (veh/h)  (%) (veh/h) (%) (pcu/h) /h)   xp    (%)   (%)    x
-------------------------------------------------------------------------------
West: ACCESO OESTE (PR-2)
  5L L       1    0.0  1339   0.0   1339    404  0.80  ****   100  0.002
  2T T    1436    0.0     0                3800  0.80   112   100  0.378
  2R R     160    0.0    69   0.0     69   3006< 0.80  1403   100  0.053
-------------------------------------------------------------------------------
South: ACCESO SUR (PR-464)
  3L L      56    0.0  2866+  0.0   2866     56  0.80   -20   100  1.000*
  8T T       1    0.0  2867+  0.0   2867      1  0.80   -20   100  1.000*
  8R R      88    0.0     0                 88  0.80   -20   100  1.000*
-------------------------------------------------------------------------------
East: ACCESO ESTE
  1L L      68    0.0  1655   0.0   1655    262  0.80   208   100  0.260
  6T T    1280    0.0     0                3798  0.80   137   100  0.337
  6R R       1    0.0     1   0.0      1      3  0.80   140   100  0.333
-------------------------------------------------------------------------------
North: ACCESO NORTE
  7L L       1    0.0  2875+  0.0   2875      5  0.80   300   100  0.200
  4T T       1    0.0  3002+  0.0   3002      5  0.80   300   100  0.200
  4R R       1    0.0     0                  5  0.80   300   100  0.200
-------------------------------------------------------------------------------
  +  Percentage of exiting flow included in total opposing flow
```

Table S.3 - Intersection Parameters

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Intersection Level of Service	=	NA
Worst movement Level of Service	=	F
Average intersection delay (s/pers)	=	7.7
Largest average movement delay (s)	=	303.3
Largest back of queue, 95% (ft)	=	2722
Performance Index	=	82.09
Degree of saturation (highest)	=	1.000
Practical Spare Capacity (lowest)	=	-20 %
Effective intersection capacity, (veh/h)	=	3094
Total vehicle flow (veh/h)	=	3094
Total person flow (pers/h)	=	3713
Total vehicle delay (veh-h/h)	=	6.59
Total person delay (pers-h/h)	=	7.90
Total effective vehicle stops (veh/h)	=	261
Total effective person stops (pers/h)	=	313
Total vehicle travel (veh-mi/h)	=	1172.8
Total cost ($/h)	=	536.14
Total fuel (gal/h)	=	41.0
Total CO2 (kg/h)	=	388.28

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections. See Table S.15 or Movement Displays for individual movement LOS values.

Table S.5 - Movement Performance

Mov ID		Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue 95% Back (vehs)	(ft)	Perf. Index	Aver. Speed (mph)
West: ACCESO OESTE (PR-2)										
5L	L	0.00	0.01	16.8	0.75	0.75	0.0	0	0.02	26.7
2T	T	0.00	0.00	0.0	0.00	0.00	0.0	0	13.62	40.0
2R	R	0.40	0.48	9.0	0.11	0.64	0.3	7	2.56	31.3
South: ACCESO SUR (PR-464)										
3L	L	2.11	2.53	135.5	1.00	1.54	108.9	2722	19.92	7.8
8T	T	0.04	0.05	135.5	1.00	1.53	108.9	2722	0.36	7.8
8R	R	3.31	3.98	135.5	1.00	0.00	108.9	2722	30.54	7.8
East: ACCESO ESTE										
1L	L	0.47	0.56	24.8	0.88	0.99	1.2	30	1.85	23.1
6T	T	0.00	0.00	0.0	0.00	0.00	1.4	36	12.59	40.0
6R	R	0.00	0.00	8.9	0.01	0.68	1.4	36	0.02	31.6
North: ACCESO NORTE										
7L	L	0.08	0.10	303.3	0.99	1.07	1.0	25	0.21	4.0
4T	T	0.08	0.10	303.3	0.99	1.07	1.0	25	0.21	4.0
4R	R	0.08	0.10	303.3	0.99	0.01	1.0	25	0.20	4.0

Table S.6 - Intersection Performance

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Total Flow (veh/h)	Deg. Satn x	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue (ft)	Perf. Index	Aver. Speed (mph)
West: ACCESO OESTE (PR-2)									
1597	0.378	0.40	0.48	0.9	0.01	0.06	7	16.20	38.9
South: ACCESO SUR (PR-464)									
145	1.000	5.46	6.55	135.5	1.00	0.60	2722	50.82	7.8
East: ACCESO ESTE									
1349	0.337	0.47	0.57	1.3	0.05	0.05	36	14.46	38.5
North: ACCESO NORTE									
3	0.200	0.25	0.30	303.3	0.99	0.72	25	0.61	4.0
ALL VEHICLES:									
3094	1.000	6.59	7.90	7.7	0.07	0.08	2722	82.09	32.5
INTERSECTION (persons):									
3713	1.000		7.90	7.7	0.07	0.08		82.09	32.5

Queue values in this table are 95% back of queue (feet).

Table S.7 - Lane Performance

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Lane No.	Dem Flow (veh /h)	Cap (veh /h)	Deg. Satn x	Aver. Delay (sec)	Eff. Stop Rate	Queue 95% Back (vehs)	Queue 95% Back (ft)	Lane Length (ft)
West: ACCESO OESTE (PR-2)								
1 L	1	404	0.002	16.8	0.75	0.0	0.3	230.0T
2 T	718	1900	0.378	0.0	0.00	0.0	0.0	1600.0
3 T	718	1900	0.378	0.0	0.00	0.0	0.0	1600.0
4 R	160	3006	0.053	9.0	0.64	0.3	6.7	230.0T
South: ACCESO SUR (PR-464)								
1 LTR	145	145	1.000	135.5	0.60	108.9	2722.5	1600.0
East: ACCESO ESTE								
1 L	68	262	0.259	24.8	0.99	1.2	29.6	230.0T
2 T	640	1900	0.337	0.0	0.00	0.0	0.0	1600.0
3 TR	641	1901	0.337	0.0	0.00	1.4	35.5	1600.0
North: ACCESO NORTE								
1 LTR	3	15	0.203	303.3	0.72	1.0	25.2	1600.0

T Short lane due to specification of Turn Slot

Table S.8 - Lane Flow and Capacity Information

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Lane No.	Dem Flow (veh/h) Lef	Thru	Rig	Tot	Min Cap (veh /h)	Tot Cap (veh /h)	Deg. Satn x	Lane Util %
West: ACCESO OESTE (PR-2)								
1 L	1	0	0	1	1	404	0.002	100
2 T	0	718	0	718	718	1900	0.378	100
3 T	0	718	0	718	718	1900	0.378	100
4 R	0	0	160	160	60	3006<	0.053	100
South: ACCESO SUR (PR-464)								
1 LTR	56	1	88	145	145	145	1.000	100
East: ACCESO ESTE								
1 L	68	0	0	68	60	262	0.259	100
2 T	0	640	0	640	60	1900	0.337	100
3 TR	0	640	1	641	60	1901	0.337	100
North: ACCESO NORTE								
1 LTR	1	1	1	3	3	15	0.203	100

< Reduced capacity flow due to a short lane effect

The capacity value for priority and continuous movements is obtained by adjusting the basic saturation flow for heavy vehicle and turning vehicle effects. Saturation flow scale applies if specified.

Table S.10 - Movement Capacity and Performance Summary

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Mov ID	Mov Typ	Dem Flow (veh /h)	Total Cap. (veh /h)	Lane Util (%)	Deg. Satn x	Aver. Delay (sec)	Eff. Stop Rate	95% Back of Queue (veh)	Perf. Index
West: ACCESO OESTE (PR-2)									
5L	L	1	404	100	0.002	16.8	0.75	0.0	0.02
2T	T	1436	3800	100	0.378	0.0	0.00	0.0	13.62
2R	R	160	3006<	100	0.053	9.0	0.64	0.3	2.56
South: ACCESO SUR (PR-464)									
3L	L	56	56	100	1.000*	135.5	1.54	108.9	19.92
8T	T	1	1	100	1.000*	135.5	1.53	108.9	0.36
8R	R	88	88	100	1.000*	135.5	0.00	108.9	30.54

East: ACCESO ESTE								
1L L	68	262	100	0.260	24.8	0.99	1.2	1.85
6T T	1280	3798	100	0.337	0.0	0.00	1.4	12.59
6R R	1	3	100	0.333	8.9	0.68	1.4	0.02
North: ACCESO NORTE								
7L L	1	5	100	0.200	303.3	1.07	1.0	0.21
4T T	1	5	100	0.200	303.3	1.07	1.0	0.21
4R R	1	5	100	0.200	303.3	0.01	1.0	0.20

< Reduced capacity due to a short lane effect

* Maximum degree of saturation

Table S.12A - Fuel Consumption, Emissions and Cost (TOTAL)

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Mov ID	Fuel Total gal/h	Cost Total $/h	HC Total kg/h	CO Total kg/h	NOX Total kg/h	CO2 Total kg/h
West: ACCESO OESTE (PR-2)						
5L L	0.0	0.23	0.000	0.02	0.000	0.2
2T T	16.7	208.43	0.213	4.18	0.305	158.1
2R R	3.0	32.75	0.050	2.51	0.073	28.6
	19.8	241.41	0.264	6.71	0.378	186.9
South: ACCESO SUR (PR-464)						
3L L	1.8	33.99	0.035	1.06	0.031	17.5
8T T	0.0	0.61	0.001	0.02	0.001	0.3
8R R	2.9	53.15	0.054	1.63	0.048	27.2
	4.7	87.74	0.090	2.71	0.080	44.9
East: ACCESO ESTE						
1L L	1.4	17.29	0.025	1.15	0.033	13.5
6T T	14.9	186.14	0.191	3.81	0.273	141.4
6R R	0.0	0.20	0.000	0.02	0.000	0.2
	16.4	203.64	0.216	4.97	0.306	155.0
North: ACCESO NORTE						
7L L	0.0	1.11	0.001	0.02	0.001	0.5
4T T	0.0	1.12	0.001	0.02	0.001	0.5
4R R	0.0	1.11	0.001	0.02	0.001	0.5
	0.1	3.35	0.003	0.06	0.002	1.4
INTERSECTION:	41.0	536.14	0.572	14.46	0.766	388.3

PARAMETERS USED IN COST CALCULATIONS

Pump price of fuel ($/US gal)	=	2.400
Fuel resource cost factor	=	0.70
Ratio of running cost to fuel cost	=	3.0
Average income ($/h)	=	19.00
Time value factor	=	0.40
Light vehicle mass (1000 lb)	=	3.1

Heavy vehicle mass (1000 lb)	=	24.0
Light vehicle idle fuel rate (US gal/h)	=	0.360
Heavy vehicle idle fuel rate (US gal/h)	=	0.530

Table S.12B - Fuel Consumption, Emissions and Cost (RATE)

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Mov ID	Fuel Eff. mpg	Cost Rate $/mi	HC Rate g/km	CO Rate g/km	NOX Rate g/km	CO2 Rate g/km
West: ACCESO OESTE (PR-2)						
5L L	18.7	0.38	0.566	27.59	0.789	314.8
2T T	32.6	0.24	0.243	4.77	0.347	180.3
2R R	19.9	0.34	0.519	25.90	0.751	295.2
	30.7	0.25	0.271	6.89	0.388	191.8
South: ACCESO SUR (PR-464)						
3L L	11.5	1.00	1.020	31.21	0.920	511.8
8T T	11.5	1.00	1.023	31.40	0.918	511.7
8R R	11.5	1.00	1.018	30.57	0.906	509.6
	11.5	1.00	1.019	30.82	0.912	510.4
East: ACCESO ESTE						
1L L	17.9	0.42	0.598	27.98	0.801	328.4
6T T	32.5	0.24	0.244	4.87	0.349	180.9
6R R	20.0	0.34	0.515	25.70	0.747	293.6
	31.2	0.25	0.262	6.04	0.372	188.3
North: ACCESO NORTE						
7L L	7.6	1.84	1.632	34.43	1.061	771.3
4T T	7.7	1.82	1.619	34.25	1.053	765.5
4R R	7.6	1.84	1.634	34.42	1.060	771.8
	7.6	1.83	1.628	34.37	1.058	769.5
INTERSECTION:	28.6	0.28	0.303	7.66	0.406	205.7

Table S.14 - Summary of Input and Output Data

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Lane No.	Demand Flow (veh/h) L	T	R	Tot	%HV	Adj. Basic Satf.	Eff Grn (secs) 1st	2nd	Deg Sat x	Aver. Delay (sec)	Longest Queue (ft)	Shrt Lane (ft)

West: ACCESO OESTE (PR-2)										
1 L	1			1	0		0.002	16.8	0	230
2 T		718		718	0		0.378	0.0	0	1600
3 T		718		718	0		0.378	0.0	0	1600
4 R			160	160	0		0.053	9.0	7	230
	1	1436	160	1597	0		0.378	0.9	7	
South: ACCESO SUR (PR-464)										
1 LTR	56	1	88	145	0		1.000	135.5	2722	1600
	56	1	88	145	0		1.000	135.5	2722	
East: ACCESO ESTE										
1 L	68			68	0		0.259	24.8	30	230
2 T		640		640	0		0.337	0.0	0	1600
3 TR		640	1	641	0		0.337	0.0	36	1600
	68	1280	1	1349	0		0.337	1.3	36	
North: ACCESO NORTE										
1 LTR	1	1	1	3	0		0.203	303.3	25	1600
	1	1	1	3	0		0.203	303.3	25	

ALL VEHICLES	Total Flow	% HV	Max X	Aver. Delay	Max Queue
	3094	0	1.000	7.7	2722

Peak flow period = 15 minutes.

Queue values in this table are 95% back of queue (feet).

Note: Basic Saturation Flows are not adjusted at roundabouts or sign-controlled intersections and apply only to continuous lanes.

Table S.15 - Capacity and Level of Service

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Mov ID	Mov Typ	Total Flow (veh /h)	Total Cap. (veh /h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	(ft)
West: ACCESO OESTE (PR-2)								
5L	L	1	404	0.002	16.8	C	0.0	0
2T	T	1436	3800	0.378	0.0	A	0.0	0
2R	R	160	3006<	0.053	9.0	A	0.3	7
South: ACCESO SUR (PR-464)								
3L	L	56	56	1.000*	135.5	F	108.9	2722
8T	T	1	1	1.000*	135.5	F	108.9	2722
8R	R	88	88	1.000*	135.5	F	108.9	2722
East: ACCESO ESTE								
1L	L	68	262	0.260	24.8	C	1.2	30
6T	T	1280	3798	0.337	0.0	A	1.4	36
6R	R	1	3	0.333	8.9	A	1.4	36
North: ACCESO NORTE								
7L	L	1	5	0.200	303.3	F	1.0	25
4T	T	1	5	0.200	303.3	F	1.0	25

4R	R		1	5	0.200	303.3	F	1.0	25
ALL VEHICLES:		3094			1.000	7.7	NA	108.9	2722

Level of Service calculations are based on
average control delay including geometric delay (HCM criteria),
independent of the current delay definition used.
For the criteria, refer to the "Level of Service" topic in the
SIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

< Reduced capacity due to a short lane effect
* Maximum v/c ratio, or critical green periods
" Movement Level of service has been determined using adjacent lane v/c ratio rather than short lane v/c ratio (v/c=1.0)

Table D.0 - Geometric Delay Data

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

From Approach	To Approach	Turn	Negn Radius (ft)	Negn Speed (mph)	Negn Dist. (ft)	Appr. Dist. (ft)	Downstream Distance (ft)	User Spec?
West: ACCESO OESTE (PR-2)								
	South	Right	32.8	12.5	51.5	1600	387	No
	East	Thru	S	40.0	35.0	1600	403	No
	North	Left	28.2	11.8	44.3	1600	381	No
South: ACCESO SUR (PR-464)								
	West	Left	43.8	14.0	68.8	1600	399	No
	East	Right	32.8	12.5	51.5	1600	387	No
	North	Thru	S	12.4	81.0	1600	416	No
East: ACCESO ESTE								
	West	Thru	S	40.0	35.0	1600	403	No
	South	Left	29.3	12.0	46.1	1600	383	No
	North	Right	32.8	12.5	51.5	1600	387	No
North: ACCESO NORTE								
	West	Right	32.8	12.5	51.5	1600	387	No
	South	Thru	S	12.4	81.0	1600	416	No
	East	Left	35.5	12.9	55.7	1600	390	No

Downstream distance is distance travelled from the stopline until exit cruise speed is reached (includes negotiation distance). Acceleration distance is weighted for light and heavy vehicles. The same distance applies for both stopped and unstopped vehicles.

Table D.1 - Lane Delays

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464

EXISTENTE (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Stop-line Delay 1st d1	2nd d2	Total dSL	Acc. Dec. dn	Queuing Total dq	MvUp dqm	Stopd (Idle) di	Geom dig	Control dic
West: ACCESO OESTE (PR-2)										
1 L	0.002	7.8	0.0	7.8	2.9	4.9	0.0	4.9	9.0	16.8
2 T	0.378	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3 T	0.378	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4 R	0.053	0.0	0.0	0.0	0.4	0.0	0.0	0.0	8.9	9.0
South: ACCESO SUR (PR-464)										
1 LTR	1.000	24.8	105.7	130.5	2.2	128.4	4.2	124.2	5.0	135.5
East: ACCESO ESTE										
1 L	0.259	14.5	1.4	15.8	3.5	12.4	0.5	11.9	9.0	24.8
2 T	0.337	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3 TR	0.337	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
North: ACCESO NORTE										
1 LTR	0.203	244.1	54.2	298.3	2.1	296.2	0.9	295.2	5.0	303.3

dn is average stop-start delay for all vehicles queued and unqueued

Table D.2 - Lane Stops

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Effective Stop Rate he1	he2	Geom. hig	Overall h	Prop. Queued pq	Queue Move-up Rate hqm
West: ACCESO OESTE (PR-2)							
1 L	0.002	0.58	0.00	0.17	0.75	0.754	0.00
2 T	0.378	0.00	0.00	0.00	0.00	0.000	0.00
3 T	0.378	0.00	0.00	0.00	0.00	0.000	0.00
4 R	0.053	0.03	0.00	0.61	0.64	0.107	0.00
South: ACCESO SUR (PR-464)							
1 LTR	1.000	0.39	0.21	0.00	0.60	1.000	2.75
East: ACCESO ESTE							
1 L	0.259	0.88	0.03	0.09	0.99	0.876	0.10
2 T	0.337	0.00	0.00	0.00	0.00	0.000	0.00
3 TR	0.337	0.00	0.00	0.00	0.00	0.009	0.00
North: ACCESO NORTE							
1 LTR	0.203	0.66	0.05	0.01	0.72	0.992	0.37

hig is the average value for all movements in a shared lane
hqm is average queue move-up rate for all vehicles queued and unqueued

Table D.3A - Lane Queues (veh)

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Ovrfl. Queue No	Average (veh) Nb1	Nb2	Nb	Percentile (veh) 70%	85%	90%	95%	98%	Queue Stor. Ratio
West: ACCESO OESTE (PR-2)											
1 L	0.002	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
2 T	0.378	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
3 T	0.378	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
4 R	0.053	0.0	0.1	0.0	0.1	0.2	0.2	0.2	0.3	0.3	0.03
South: ACCESO SUR (PR-464)											
1 LTR	1.000	34.6	16.1	27.4	43.5	52.3	69.7	82.8	108.9	130.7	1.70
East: ACCESO ESTE											
1 L	0.259	0.0	0.4	0.0	0.4	0.7	0.8	1.0	1.2	1.4	0.13
2 T	0.337	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
3 TR	0.337	0.0	0.4	0.0	0.4	0.8	1.0	1.2	1.4	1.6	0.02
North: ACCESO NORTE											
1 LTR	0.203	0.4	0.3	0.1	0.3	0.6	0.7	0.8	1.0	1.2	0.02

Values printed in this table are back of queue (vehicles).

Table D.3B - Lane Queues (feet)

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Ovrfl. Queue No	Average (feet) Nb1	Nb2	Nb	Percentile (feet) 70%	85%	90%	95%	98%	Queue Stor. Ratio
West: ACCESO OESTE (PR-2)											
1 L	0.002	0.0	0.1	0.0	0.1	0.2	0.2	0.2	0.3	0.3	0.00
2 T	0.378	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
3 T	0.378	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
4 R	0.053	0.0	2.1	0.0	2.1	4.0	4.8	5.5	6.7	7.8	0.03
South: ACCESO SUR (PR-464)											
1 LTR	1.000	865.6	403.3	684.4	1087.7	1308.5	1743.6	2069.9	2722.5	3266.3	1.70
East: ACCESO ESTE											
1 L	0.259	1.1	8.8	0.6	9.3	17.5	21.2	24.0	29.6	34.3	0.13
2 T	0.337	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
3 TR	0.337	0.0	11.2	0.0	11.2	20.9	25.4	28.8	35.5	41.1	0.02
North: ACCESO NORTE											
1 LTR	0.203	9.1	6.5	1.4	7.9	14.9	18.0	20.4	25.2	29.2	0.02

Values printed in this table are back of queue (feet).

Table D.4 - Movement Speeds (mph) and Geometric Delay

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Mov ID	App. Speeds Cruise	App. Speeds Negn	Exit Speeds Negn	Exit Speeds Cruise	Queue Move-up 1st Grn	Queue Move-up 2nd Grn	Av. Section Spd Running	Av. Section Spd Overall	Geom Delay (sec)
West: ACCESO OESTE (PR-2)									
5L L	40.0	11.8	11.8	40.0			29.5	26.7	9.0
2T T	40.0	40.0	40.0	40.0			40.0	40.0	0.0
2R R	40.0	12.5	12.5	40.0			31.3	31.3	8.9
South: ACCESO SUR (PR-464)									
3L L	40.0	0.0	14.0	40.0	5.7		24.3	7.8	5.0
8T T	40.0	0.0	12.4	40.0	5.6		24.0	7.8	5.0
8R R	40.0	0.0	12.5	40.0	0.0		30.0	7.8	5.0
East: ACCESO ESTE									
1L L	40.0	12.0	12.0	40.0	7.6		28.9	23.1	9.0
6T T	40.0	40.0	40.0	40.0			40.0	40.0	0.0
6R R	40.0	12.5	12.5	40.0			31.6	31.6	8.9
North: ACCESO NORTE									
7L L	40.0	0.0	12.9	40.0	5.7		29.1	4.0	5.0
4T T	40.0	0.0	12.4	40.0	5.5		28.6	4.0	5.0
4R R	40.0	0.0	12.5	40.0	0.0		30.0	4.0	5.0

"Running Speed" is the average speed excluding stopped periods.

Table D.6 - Gap Acceptance Parameters

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
EXISTENTE (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Mov ID	Mov Type	Opng Flow (pcu/h)	Critical Gap Hdwy (s)	Critical Gap Dist (ft)	Foll-up Headway (s)	Entry HV Equiv
West: ACCESO OESTE (PR-2)						
5L L	Normal	1339	4.10	233.6	2.20	2.00
2R R	Normal	69	2.00	35.2	1.00	2.00
South: ACCESO SUR (PR-464)						
3L L	Normal	2866+	7.50	416.3	3.50	2.00
8T T	Normal	2867+	6.50	360.7	4.00	2.00
East: ACCESO ESTE						
1L L	Normal	1655	4.10	219.0	2.20	2.00

6R	R	Normal	1	2.00	36.5	1.00	2.00
North: ACCESO NORTE							
7L	L	Normal	2875+	7.50	423.2	3.50	2.00
4T	T	Normal	3002+	6.50	356.5	4.00	2.00

Values in this table are adjusted for heavy vehicles in the entry stream.
\+ Percentage of exiting flow included in total opposing flow

SIDRA SOLUTIONS

Site: New Site - 1
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Processed Mar 14, 2008 08:24:09AM

A1460, PLC, Large Office
Produced by SIDRA Intersection 3.2.0.1455
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SIDRA INTERSECTION

Output Tables

INTERSECCIÓN CARRETERA PR-464 & CAMINO VECINAL

EXISTENTE (PM) FIGURA 22

Run Information

```
* Basic Parameters:
  Intersection Type: Unsignalised - Two-Way Stop Control
  Driving on the right-hand side of the road
  Input data specified in US units
  Model Defaults: US HCM (US)
  Peak Flow Period (for performance): 15 minutes
  Unit time (for volumes): 60 minutes.
  Delay definition: Control delay
                    Geometric delay included
  HCM Delay Model option selected
  HCM Queue Model option selected
  Level of Service based on: Delay (HCM method)
  Queue definition: Back of queue, 95th Percentile
```

Table B.1 - Movement Definitions and Flow Rates (Origin-Destination)

```
INTERSECCI N CARRETERA PR-464   CAMINO VECINAL
EXISTENTE (PM)
Intersection ID: 2
Stop Sign Controlled Intersection
```

From Approach	To Approach	Mov ID	Turn	Flow Rate LV	Flow Rate HV	Flow Scale	Peak Flow Factor
West: ACCESO OESTE (PR-464)							
	South	2R	Right	4	0	1.00	1.00
	East	2T	Thru	12	0	1.00	1.00
	North	5L	Left	140	0	1.00	1.00
South: ACCESO SUR (CAMINO VECINAL)							
	West	3L	Left	4	0	1.00	1.00
	East	8R	Right	4	0	1.00	1.00
	North	8T	Thru	1	0	1.00	1.00
East: ACCESO ESTE (CAMINO VECINAL)							
	West	6T	Thru	16	0	1.00	1.00
	South	1L	Left	4	0	1.00	1.00
	North	6R	Right	236	0	1.00	1.00
North: ACCESO NORTE(PR-464)							
	West	4R	Right	136	0	1.00	1.00
	South	4T	Thru	4	0	1.00	1.00

```
          East         7L   Left      8     0    1.00     1.00
-------------------------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table B.2A - Flow Rates (Separate Light and Heavy Vehicles)

```
INTERSECCI N CARRETERA PR-464   CAMINO VECINAL
EXISTENTE (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

-----------------------------------------------
  Mov          Left       Through       Right
  ID        ---------    ---------    ---------
             LV    HV     LV    HV     LV    HV
-----------------------------------------------
Demand flows in veh/hour as used by the program
West: ACCESO OESTE (PR-464)
   5L L     140     0      0     0      0     0
   2T T       0     0     12     0      0     0
   2R R       0     0      0     0      4     0
-----------------------------------------------
South: ACCESO SUR  (CAMINO VECINAL)
   3L L       4     0      0     0      0     0
   8T T       0     0      1     0      0     0
   8R R       0     0      0     0      4     0
-----------------------------------------------
East: ACCESO ESTE (CAMINO VECINAL)
   1L L       4     0      0     0      0     0
   6T T       0     0     16     0      0     0
   6R R       0     0      0     0    236     0
-----------------------------------------------
North: ACCESO NORTE(PR-464)
   7L L       8     0      0     0      0     0
   4T T       0     0      4     0      0     0
   4R R       0     0      0     0    136     0
-----------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table B.2B - Flow Rates (Total Vehicles and Percent Heavy)

```
INTERSECCI N CARRETERA PR-464   CAMINO VECINAL
EXISTENTE (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

-----------------------------------------------
  Mov          Left       Through       Right
  ID        ----------    ----------    ----------
            Total  %HV    Total  %HV    Total  %HV
-----------------------------------------------
Demand flows in veh/hour as used by the program
West: ACCESO OESTE (PR-464)
```

5L L	140	0.0	0	0.0	0	0.0
2T T	0	0.0	12	0.0	0	0.0
2R R	0	0.0	0	0.0	4	0.0
South: ACCESO SUR (CAMINO VECINAL)						
3L L	4	0.0	0	0.0	0	0.0
8T T	0	0.0	1	0.0	0	0.0
8R R	0	0.0	0	0.0	4	0.0
East: ACCESO ESTE (CAMINO VECINAL)						
1L L	4	0.0	0	0.0	0	0.0
6T T	0	0.0	16	0.0	0	0.0
6R R	0	0.0	0	0.0	236	0.0
North: ACCESO NORTE(PR-464)						
7L L	8	0.0	0	0.0	0	0.0
4T T	0	0.0	4	0.0	0	0.0
4R R	0	0.0	0	0.0	136	0.0

Unit Time for Volumes = 60 minutes
Peak Flow Period = 15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor

Table S.2 - Movement Capacity Parameters

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Mov ID	Demand Flow (veh/h)	HV (%)	Opposing Movement Flow (veh/h)	HV (%)	Adjust. Flow (pcu/h)	Total Cap. (veh /h)	Prac. Deg. Satn xp	Prac. Spare Cap. (%)	Lane Util (%)	Deg. Satn x
West: ACCESO OESTE (PR-464)										
5L L	140	0.0	329+	0.0	329	567	0.80	224	100	0.247
2T T	12	0.0	77+	0.0	77	49	0.80	227	100	0.245
2R R	4	0.0	4	0.0	4	16	0.80	220	100	0.250*
South: ACCESO SUR (CAMINO VECINAL)										
3L L	4	0.0	140	0.0	140	694	0.80	****	100	0.006
8T T	1	0.0	0			173	0.80	****	100	0.006
8R R	4	0.0	0			694	0.80	****	100	0.006
East: ACCESO ESTE (CAMINO VECINAL)										
1L L	4	0.0	31+	0.0	31	44	0.80	780	100	0.091
6T T	16	0.0	143+	0.0	143	176	0.80	780	100	0.091
6R R	236	0.0	1	0.0	1	2595	0.80	780	100	0.091
North: ACCESO NORTE(PR-464)										
7L L	8	0.0	5	0.0	5	85	0.80	750	100	0.094
4T T	4	0.0	1	0.0	1	43	0.80	760	100	0.093
4R R	136	0.0	0			1453	0.80	755	100	0.094

\+ Percentage of exiting flow included in total opposing flow

Table S.3 - Intersection Parameters

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Intersection Level of Service	=	NA
Worst movement Level of Service	=	B
Average intersection delay (s/pers)	=	8.7
Largest average movement delay (s)	=	12.6
Largest back of queue, 95% (ft)	=	39
Performance Index	=	10.39
Degree of saturation (highest)	=	0.250
Practical Spare Capacity (lowest)	=	220 %
Effective intersection capacity, (veh/h)	=	2276
Total vehicle flow (veh/h)	=	569
Total person flow (pers/h)	=	683
Total vehicle delay (veh-h/h)	=	1.38
Total person delay (pers-h/h)	=	1.65
Total effective vehicle stops (veh/h)	=	504
Total effective person stops (pers/h)	=	605
Total vehicle travel (veh-mi/h)	=	213.7
Total cost ($/h)	=	124.05
Total fuel (gal/h)	=	11.2
Total CO2 (kg/h)	=	106.09

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections. See Table S.15 or Movement Displays for individual movement LOS values.

Table S.5 - Movement Performance

Mov ID	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue 95% Back (vehs)	(ft)	Perf. Index	Aver. Speed (mph)
West: ACCESO OESTE (PR-464)									
5L L	0.49	0.59	12.6	0.26	0.97	1.5	39	2.99	26.0
2T T	0.04	0.05	12.6	0.26	0.88	1.5	39	0.25	26.2
2R R	0.01	0.02	12.6	0.26	0.76	1.5	39	0.08	26.0
South: ACCESO SUR (CAMINO VECINAL)									
3L L	0.01	0.01	9.6	0.29	0.62	0.0	1	0.07	30.7
8T T	0.00	0.00	0.4	0.29	0.00	0.0	1	0.01	37.2
8R R	0.01	0.01	9.3	0.29	0.49	0.0	1	0.06	30.8
East: ACCESO ESTE (CAMINO VECINAL)									
1L L	0.01	0.01	6.4	0.00	1.00	0.6	15	0.07	29.2
6T T	0.03	0.03	6.4	0.00	1.00	0.6	15	0.28	29.4
6R R	0.42	0.50	6.4	0.00	1.00	0.6	15	4.12	29.1
North: ACCESO NORTE(PR-464)									
7L L	0.02	0.02	9.1	0.03	0.70	0.6	15	0.14	31.4
4T T	0.00	0.00	0.0	0.03	0.00	0.6	15	0.04	39.7
4R R	0.34	0.40	8.9	0.03	0.66	0.6	15	2.29	31.6

Table S.6 - Intersection Performance

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Total Flow (veh/h)	Deg. Satn x	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue (ft)	Perf. Index	Aver. Speed (mph)
West: ACCESO OESTE (PR-464)									
156	0.250	0.54	0.65	12.6	0.26	0.95	39	3.32	26.0
South: ACCESO SUR (CAMINO VECINAL)									
9	0.006	0.02	0.03	8.5	0.29	0.49	1	0.14	31.3
East: ACCESO ESTE (CAMINO VECINAL)									
256	0.091	0.46	0.55	6.4	0.00	1.00	15	4.47	29.2
North: ACCESO NORTE(PR-464)									
148	0.094	0.36	0.43	8.7	0.03	0.65	15	2.47	31.7
ALL VEHICLES:									
569	0.250	1.38	1.65	8.7	0.09	0.89	39	10.39	28.9
INTERSECTION (persons):									
683	0.250		1.65	8.7	0.09	0.89		10.39	28.9

Queue values in this table are 95% back of queue (feet).

Table S.7 - Lane Performance

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Dem Flow (veh /h)	Cap (veh /h)	Deg. Satn x	Aver. Delay (sec)	Eff. Stop Rate	Queue 95% Back (vehs)	Queue 95% Back (ft)	Lane Length (ft)
West: ACCESO OESTE (PR-464)								
1 LTR	156	632	0.247	12.6	0.95	1.5	38.7	1600.0
South: ACCESO SUR (CAMINO VECINAL)								
1 LTR	9	1560	0.006	8.5	0.49	0.0	0.8	1600.0
East: ACCESO ESTE (CAMINO VECINAL)								
1 LTR	256	2815	0.091	6.4	1.00	0.6	14.7	1600.0
North: ACCESO NORTE(PR-464)								
1 LTR	148	1582	0.094	8.7	0.65	0.6	14.8	1600.0

Table S.8 - Lane Flow and Capacity Information

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Dem Flow (veh/h) Lef	Thru	Rig	Tot	Min Cap (veh /h)	Tot Cap (veh /h)	Deg. Satn x	Lane Util %
West: ACCESO OESTE (PR-464)								
1 LTR	140	12	4	156	60	632	0.247	100
South: ACCESO SUR (CAMINO VECINAL)								
1 LTR	4	1	4	9	9	1560	0.006	100
East: ACCESO ESTE (CAMINO VECINAL)								
1 LTR	4	16	236	256	60	2815	0.091	100
North: ACCESO NORTE(PR-464)								
1 LTR	8	4	136	148	148	1582	0.094	100

The capacity value for priority and continuous movements is obtained by adjusting the basic saturation flow for heavy vehicle and turning vehicle effects. Saturation flow scale applies if specified.

Table S.10 - Movement Capacity and Performance Summary

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Mov ID	Mov Typ	Dem Flow (veh /h)	Total Cap. (veh /h)	Lane Util (%)	Deg. Satn x	Aver. Delay (sec)	Eff. Stop Rate	95% Back of Queue (veh)	Perf. Index
West: ACCESO OESTE (PR-464)									
5L	L	140	567	100	0.247	12.6	0.97	1.5	2.99
2T	T	12	49	100	0.245	12.6	0.88	1.5	0.25
2R	R	4	16	100	0.250*	12.6	0.76	1.5	0.08
South: ACCESO SUR (CAMINO VECINAL)									
3L	L	4	694	100	0.006	9.6	0.62	0.0	0.07
8T	T	1	173	100	0.006	0.4	0.00	0.0	0.01
8R	R	4	694	100	0.006	9.3	0.49	0.0	0.06
East: ACCESO ESTE (CAMINO VECINAL)									
1L	L	4	44	100	0.091	6.4	1.00	0.6	0.07
6T	T	16	176	100	0.091	6.4	1.00	0.6	0.28
6R	R	236	2595	100	0.091	6.4	1.00	0.6	4.12
North: ACCESO NORTE(PR-464)									
7L	L	8	85	100	0.094	9.1	0.70	0.6	0.14
4T	T	4	43	100	0.093	0.0	0.00	0.6	0.04
4R	R	136	1453	100	0.094	8.9	0.66	0.6	2.29

* Maximum degree of saturation

Table S.12A - Fuel Consumption, Emissions and Cost (TOTAL)

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Mov ID	Fuel Total gal/h	Cost Total $/h	HC Total kg/h	CO Total kg/h	NOX Total kg/h	CO2 Total kg/h
West: ACCESO OESTE (PR-464)						
5L L	2.9	32.80	0.049	2.39	0.068	27.1
2T T	0.2	2.79	0.004	0.20	0.006	2.3
2R R	0.1	0.94	0.001	0.07	0.002	0.8
	3.2	36.54	0.055	2.66	0.075	30.2
South: ACCESO SUR (CAMINO VECINAL)						
3L L	0.1	0.83	0.001	0.07	0.002	0.7
8T T	0.0	0.16	0.000	0.01	0.000	0.1
8R R	0.1	0.83	0.001	0.06	0.002	0.7
	0.2	1.83	0.003	0.14	0.004	1.6
East: ACCESO ESTE (CAMINO VECINAL)						
1L L	0.1	0.87	0.001	0.07	0.002	0.8
6T T	0.3	3.45	0.005	0.27	0.008	3.0
6R R	4.7	51.46	0.079	3.95	0.113	44.4
	5.1	55.78	0.086	4.29	0.122	48.2
North: ACCESO NORTE(PR-464)						
7L L	0.2	1.64	0.003	0.13	0.004	1.4
4T T	0.0	0.59	0.001	0.01	0.001	0.4
4R R	2.6	27.68	0.043	2.12	0.062	24.2
	2.8	29.90	0.046	2.26	0.066	26.1
INTERSECTION:	11.2	124.05	0.189	9.34	0.268	106.1

PARAMETERS USED IN COST CALCULATIONS

Pump price of fuel ($/US gal)	=	2.400
Fuel resource cost factor	=	0.70
Ratio of running cost to fuel cost	=	3.0
Average income ($/h)	=	19.00
Time value factor	=	0.40
Light vehicle mass (1000 lb)	=	3.1
Heavy vehicle mass (1000 lb)	=	24.0
Light vehicle idle fuel rate (US gal/h)	=	0.360
Heavy vehicle idle fuel rate (US gal/h)	=	0.530

Table S.12B - Fuel Consumption, Emissions and Cost (RATE)

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Mov ID		Fuel Eff. mpg	Cost Rate $/mi	HC Rate g/km	CO Rate g/km	NOX Rate g/km	CO2 Rate g/km
West: ACCESO OESTE (PR-464)							
5L	L	18.3	0.39	0.581	28.31	0.802	321.8
2T	T	18.4	0.39	0.574	27.91	0.798	320.1
2R	R	18.4	0.39	0.573	27.78	0.795	319.8
		18.3	0.39	0.580	28.27	0.801	321.6
South: ACCESO SUR (CAMINO VECINAL)							
3L	L	19.4	0.35	0.543	27.41	0.778	303.9
8T	T	27.2	0.27	0.329	11.35	0.475	216.6
8R	R	19.7	0.34	0.526	26.26	0.760	298.2
		20.2	0.34	0.512	25.09	0.736	291.6
East: ACCESO ESTE (CAMINO VECINAL)							
1L	L	18.8	0.36	0.562	28.30	0.797	313.3
6T	T	18.9	0.36	0.553	27.78	0.793	311.2
6R	R	18.9	0.36	0.552	27.65	0.790	311.0
		18.9	0.36	0.552	27.67	0.790	311.0
North: ACCESO NORTE(PR-464)							
7L	L	19.6	0.34	0.534	26.96	0.769	300.2
4T	T	31.9	0.24	0.252	5.47	0.361	184.2
4R	R	20.0	0.34	0.516	25.75	0.748	294.0
		20.2	0.33	0.510	25.26	0.739	291.3
INTERSECTION:		19.1	0.36	0.548	27.17	0.779	308.5

Table S.14 - Summary of Input and Output Data

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Demand Flow (veh/h) L	T	R	Tot	%HV	Adj. Basic Satf.	Eff Grn (secs) 1st	2nd	Deg Sat x	Aver. Delay (sec)	Longest Queue (ft)	Shrt Lane (ft)
West: ACCESO OESTE (PR-464)												
1 LTR	140	12	4	156	0				0.247	12.6	39	1600
	140	12	4	156	0				0.247	12.6	39	
South: ACCESO SUR (CAMINO VECINAL)												
1 LTR	4	1	4	9	0				0.006	8.5	1	1600
	4	1	4	9	0				0.006	8.5	1	
East: ACCESO ESTE (CAMINO VECINAL)												
1 LTR	4	16	236	256	0				0.091	6.4	15	1600
	4	16	236	256	0				0.091	6.4	15	

North: ACCESO NORTE(PR-464)										
1 LTR	8	4	136	148	0		0.094	8.7	15	1600
	8	4	136	148	0		0.094	8.7	15	

ALL VEHICLES	Total Flow	% HV	Max X	Aver. Delay	Max Queue
	569	0	0.250	8.7	39

Peak flow period = 15 minutes.

Queue values in this table are 95% back of queue (feet).

Note: Basic Saturation Flows are not adjusted at roundabouts or sign-controlled intersections and apply only to continuous lanes.

Table S.15 - Capacity and Level of Service

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Mov ID	Mov Typ	Total Flow (veh /h)	Total Cap. (veh /h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	(ft)
West: ACCESO OESTE (PR-464)								
5L	L	140	567	0.247	12.6	B	1.5	39
2T	T	12	49	0.245	12.6	B	1.5	39
2R	R	4	16	0.250*	12.6	B	1.5	39
South: ACCESO SUR (CAMINO VECINAL)								
3L	L	4	694	0.006	9.6	A	0.0	1
8T	T	1	173	0.006	0.4	A	0.0	1
8R	R	4	694	0.006	9.3	A	0.0	1
East: ACCESO ESTE (CAMINO VECINAL)								
1L	L	4	44	0.091	6.4	A	0.6	15
6T	T	16	176	0.091	6.4	A	0.6	15
6R	R	236	2595	0.091	6.4	A	0.6	15
North: ACCESO NORTE(PR-464)								
7L	L	8	85	0.094	9.1	A	0.6	15
4T	T	4	43	0.093	0.0	A	0.6	15
4R	R	136	1453	0.094	8.9	A	0.6	15
ALL VEHICLES:		569		0.250	8.7	NA	1.5	39

Level of Service calculations are based on average control delay including geometric delay (HCM criteria), independent of the current delay definition used. For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

* Maximum v/c ratio, or critical green periods
" Movement Level of service has been determined using adjacent lane v/c ratio rather than short lane v/c ratio (v/c=1.0)

Table D.0 - Geometric Delay Data

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

From Approach	To Approach	Turn	Negn Radius (ft)	Negn Speed (mph)	Negn Dist. (ft)	Appr. Dist. (ft)	Downstream (ft)	Distance User Spec?
West: ACCESO OESTE (PR-464)								
	South	Right	32.8	12.5	51.5	1600	387	No
	East	Thru	S	12.4	35.0	1600	374	No
	North	Left	23.0	10.9	36.1	1600	375	No
South: ACCESO SUR (CAMINO VECINAL)								
	West	Left	19.8	10.3	32.8	1600	374	No
	East	Right	32.8	12.5	51.5	1600	387	No
	North	Thru	S	40.0	35.0	1600	403	No
East: ACCESO ESTE (CAMINO VECINAL)								
	West	Thru	S	12.4	35.0	1600	374	No
	South	Left	17.6	9.9	32.8	1600	377	No
	North	Right	32.8	12.5	51.5	1600	387	No
North: ACCESO NORTE(PR-464)								
	West	Right	32.8	12.5	51.5	1600	387	No
	South	Thru	S	40.0	35.0	1600	403	No
	East	Left	21.1	10.6	33.1	1600	373	No

Downstream distance is distance travelled from the stopline until exit cruise speed is reached (includes negotiation distance). Acceleration distance is weighted for light and heavy vehicles. The same distance applies for both stopped and unstopped vehicles.

Table D.1 - Lane Delays

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Stop-line Delay 1st d1	2nd d2	Total dSL	Acc. Dec. dn	Queuing Total dq	MvUp dqm	Stopd (Idle) di	Geom dig	Control dic
		---------- Delay (seconds/veh) ----------								
West: ACCESO OESTE (PR-464)										
1 LTR	0.247	5.7	1.9	7.6	0.5	7.1	0.0	7.1	5.0	12.6
South: ACCESO SUR (CAMINO VECINAL)										
1 LTR	0.006	0.4	0.0	0.4	1.3	0.0	0.0	0.0	8.1	8.5
East: ACCESO ESTE (CAMINO VECINAL)										
1 LTR	0.091	1.3	0.1	1.4	0.0	1.4	0.0	1.4	5.0	6.4
North: ACCESO NORTE(PR-464)										
1 LTR	0.094	0.0	0.0	0.0	0.1	0.0	0.0	0.0	8.7	8.7

dn is average stop-start delay for all vehicles queued and unqueued

Table D.2 - Lane Stops

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	-- Effective Stop Rate -- he1	he2	Geom. hig	Overall h	Prop. Queued pq	Queue Move-up Rate hqm
West: ACCESO OESTE (PR-464)							
1 LTR	0.247	0.22	0.00	0.74	0.95	0.262	0.00
South: ACCESO SUR (CAMINO VECINAL)							
1 LTR	0.006	0.05	0.00	0.44	0.49	0.292	0.00
East: ACCESO ESTE (CAMINO VECINAL)							
1 LTR	0.091	0.00	0.00	1.00	1.00	0.003	0.00
North: ACCESO NORTE(PR-464)							
1 LTR	0.094	0.00	0.00	0.65	0.65	0.031	0.00

hig is the average value for all movements in a shared lane
hqm is average queue move-up rate for all vehicles queued and unqueued

Table D.3A - Lane Queues (veh)

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Ovrfl. Queue No	Average (veh) Nb1	Nb2	Nb	Percentile (veh) 70%	85%	90%	95%	98%	Queue Stor. Ratio
West: ACCESO OESTE (PR-464)											
1 LTR	0.247	0.0	0.5	0.0	0.5	0.9	1.1	1.3	1.5	1.8	0.02
South: ACCESO SUR (CAMINO VECINAL)											
1 LTR	0.006	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
East: ACCESO ESTE (CAMINO VECINAL)											
1 LTR	0.091	0.0	0.2	0.0	0.2	0.3	0.4	0.5	0.6	0.7	0.01
North: ACCESO NORTE(PR-464)											
1 LTR	0.094	0.0	0.2	0.0	0.2	0.4	0.4	0.5	0.6	0.7	0.01

Values printed in this table are back of queue (vehicles).

Table D.3B - Lane Queues (feet)

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Ovrfl. Queue No	Average (feet) Nb1	Nb2	Nb	Percentile (feet) 70%	85%	90%	95%	98%	Queue Stor. Ratio
West: ACCESO OESTE (PR-464)											
1 LTR	0.247	0.0	12.2	0.0	12.2	22.7	27.6	31.3	38.7	44.8	0.02
South: ACCESO SUR (CAMINO VECINAL)											
1 LTR	0.006	0.0	0.3	0.0	0.3	0.5	0.6	0.7	0.8	0.9	0.00
East: ACCESO ESTE (CAMINO VECINAL)											
1 LTR	0.091	0.0	4.6	0.0	4.6	8.7	10.5	11.9	14.7	17.0	0.01
North: ACCESO NORTE(PR-464)											
1 LTR	0.094	0.0	4.6	0.0	4.6	8.8	10.6	12.0	14.8	17.1	0.01

Values printed in this table are back of queue (feet).

Table D.4 - Movement Speeds (mph) and Geometric Delay

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Mov ID	App. Speeds Cruise	Negn	Exit Speeds Negn	Cruise	Queue Move-up 1st Grn	2nd Grn	Av. Section Spd Running	Overall	Geom Delay (sec)
West: ACCESO OESTE (PR-464)									
5L L	40.0	0.0	10.9	40.0			30.1	26.0	5.0
2T T	40.0	0.0	12.4	40.0			30.3	26.2	5.0
2R R	40.0	0.0	12.5	40.0			30.0	26.0	5.0
South: ACCESO SUR (CAMINO VECINAL)									
3L L	40.0	10.3	10.3	40.0			30.7	30.7	9.2
8T T	40.0	40.0	40.0	40.0			37.2	37.2	0.0
8R R	40.0	12.5	12.5	40.0			30.8	30.8	8.9
East: ACCESO ESTE (CAMINO VECINAL)									
1L L	40.0	0.0	9.9	40.0			30.1	29.2	5.0
6T T	40.0	0.0	12.4	40.0			30.3	29.4	5.0
6R R	40.0	0.0	12.5	40.0			30.0	29.1	5.0
North: ACCESO NORTE(PR-464)									
7L L	40.0	10.6	10.6	40.0			31.4	31.4	9.1
4T T	40.0	40.0	40.0	40.0			39.7	39.7	0.0
4R R	40.0	12.5	12.5	40.0			31.6	31.6	8.9

"Running Speed" is the average speed excluding stopped periods.

Table D.6 - Gap Acceptance Parameters

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
EXISTENTE (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Mov ID	Mov Type	Opng Flow (pcu/h)	Critical Gap Hdwy (s)	Critical Gap Dist (ft)	Foll-up Headway (s)	Entry HV Equiv
West: ACCESO OESTE (PR-464)						
5L L	Normal	329+	7.50	140.9	3.50	2.00
2T T	Normal	77+	6.50	126.3	4.00	2.00
2R R	Normal	4	2.00	117.3	1.00	2.00
South: ACCESO SUR (CAMINO VECINAL)						
3L L	Normal	140	4.10	80.1	2.20	2.00
East: ACCESO ESTE (CAMINO VECINAL)						
1L L	Normal	31+	7.50	171.1	3.50	2.00
6T T	Normal	143+	6.50	126.3	4.00	2.00
6R R	Normal	1	2.00	117.3	1.00	2.00
North: ACCESO NORTE(PR-464)						
7L L	Normal	5	4.10	108.4	2.20	2.00
4T T	Normal	1	6.50	381.3	4.00	2.00

Values in this table are adjusted for heavy vehicles in the entry stream.
\+ Percentage of exiting flow included in total opposing flow

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SIDRA SOLUTIONS

Site: New Site - 1
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Processed Mar 06, 2008 10:49:34AM

A1460, PLC, Large Office
Produced by SIDRA Intersection 3.2.0.1455
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SIDRA INTERSECTION

Output Tables

INTERSECCION CARRETERA PR-464 & CALLE 3

EXISTENTE (PM) FIGURA 23

Run Information

```
* Basic Parameters:
  Intersection Type: Unsignalised - Two-Way Stop Control
  Driving on the right-hand side of the road
  Input data specified in US units
  Model Defaults: US HCM (US)
  Peak Flow Period (for performance): 15 minutes
  Unit time (for volumes): 60 minutes.
  Delay definition: Control delay
                    Geometric delay included
  HCM Delay Model option selected
  HCM Queue Model option selected
  Level of Service based on: Delay (HCM method)
  Queue definition: Back of queue, 95th Percentile
```

Table B.1 - Movement Definitions and Flow Rates (Origin-Destination)

```
INTERSECCION CARRETERA PR-464   CALLE 3
EXISTENTE (PM)
Intersection ID: 0
Stop Sign Controlled Intersection
```

From Approach	To Approach	Mov ID	Turn	Flow Rate LV	Flow Rate HV	Flow Scale	Peak Flow Factor
West: ACCESO OESTE (PR-464)							
	East	2T	Thru	192	0	1.00	1.00
	North	5L	Left	12	0	1.00	1.00
East: ACCESO ESTE							
	West	6T	Thru	160	0	1.00	1.00
	North	6R	Right	8	0	1.00	1.00
North: ACCESO NORTE (CALLE 3)							
	West	4R	Right	56	0	1.00	1.00
	East	7L	Left	24	0	1.00	1.00

```
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table B.2A - Flow Rates (Separate Light and Heavy Vehicles)

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (PM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID	Left		Through		Right	
	LV	HV	LV	HV	LV	HV
Demand flows in veh/hour as used by the program						
West: ACCESO OESTE (PR-464)						
5L L	12	0	0	0	0	0
2T T	0	0	192	0	0	0
East: ACCESO ESTE						
6T T	0	0	160	0	0	0
6R R	0	0	0	0	8	0
North: ACCESO NORTE (CALLE 3)						
7L L	24	0	0	0	0	0
4R R	0	0	0	0	56	0

Unit Time for Volumes = 60 minutes
Peak Flow Period = 15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor

Table B.2B - Flow Rates (Total Vehicles and Percent Heavy)

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (PM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID	Left		Through		Right	
	Total	%HV	Total	%HV	Total	%HV
Demand flows in veh/hour as used by the program						
West: ACCESO OESTE (PR-464)						
5L L	12	0.0	0	0.0	0	0.0
2T T	0	0.0	192	0.0	0	0.0
East: ACCESO ESTE						
6T T	0	0.0	160	0.0	0	0.0
6R R	0	0.0	0	0.0	8	0.0
North: ACCESO NORTE (CALLE 3)						
7L L	24	0.0	0	0.0	0	0.0
4R R	0	0.0	0	0.0	56	0.0

Unit Time for Volumes = 60 minutes
Peak Flow Period = 15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor

Table S.2 - Movement Capacity Parameters

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (PM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID	Demand Flow (veh/h)	HV (%)	Opposing Movement Flow (veh/h)	HV (%)	Adjust. Flow (pcu/h)	Total Cap. (veh /h)	Prac. Deg. Satn xp	Prac. Spare Cap. (%)	Lane Util (%)	Deg. Satn x
West: ACCESO OESTE (PR-464)										
5L L	12	0.0	168	0.0	168	110	0.80	633	100	0.109
2T T	192	0.0	0			1752	0.80	630	100	0.110*
East: ACCESO ESTE										
6T T	160	0.0	0			1794	0.80	797	100	0.089
6R R	8	0.0	0			90	0.80	800	100	0.089
North: ACCESO NORTE (CALLE 3)										
7L L	24	0.0	368+	0.0	368	408	0.80	1260	100	0.059
4R R	56	0.0	160	0.0	160	952	0.80	1260	100	0.059

\+ Percentage of exiting flow included in total opposing flow

Table S.3 - Intersection Parameters

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (PM)
Intersection ID: 0
Stop Sign Controlled Intersection

Intersection Level of Service	=	NA
Worst movement Level of Service	=	A
Average intersection delay (s/pers)	=	2.0
Largest average movement delay (s)	=	9.7
Largest back of queue, 95% (ft)	=	20
Performance Index	=	5.34
Degree of saturation (highest)	=	0.110
Practical Spare Capacity (lowest)	=	630 %
Effective intersection capacity, (veh/h)	=	4125
Total vehicle flow (veh/h)	=	452
Total person flow (pers/h)	=	542
Total vehicle delay (veh-h/h)	=	0.26
Total person delay (pers-h/h)	=	0.31
Total effective vehicle stops (veh/h)	=	82
Total effective person stops (pers/h)	=	98
Total vehicle travel (veh-mi/h)	=	171.1
Total cost ($/h)	=	76.41
Total fuel (gal/h)	=	6.5
Total CO2 (kg/h)	=	61.80

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections. See Table S.15 or Movement Displays for individual movement LOS values.

Table S.5 - Movement Performance

Mov ID		Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue 95% Back (vehs)	Longest Queue 95% Back (ft)	Perf. Index	Aver. Speed (mph)
West: ACCESO OESTE (PR-464)										
5L	L	0.03	0.04	9.7	0.30	0.66	0.8	20	0.20	30.7
2T	T	0.03	0.04	0.6	0.30	0.00	0.8	20	2.09	37.1
East: ACCESO ESTE										
6T	T	0.00	0.00	0.0	0.00	0.00	0.0	0	1.52	40.0
6R	R	0.02	0.02	8.9	0.00	0.69	0.0	0	0.13	31.7
North: ACCESO NORTE (CALLE 3)										
7L	L	0.05	0.06	7.8	0.29	0.94	0.3	8	0.43	28.7
4R	R	0.12	0.15	7.8	0.29	0.81	0.3	8	0.97	28.6

Table S.6 - Intersection Performance

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (PM)
Intersection ID: 0
Stop Sign Controlled Intersection

Total Flow (veh/h)	Deg. Satn x	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue (ft)	Perf. Index	Aver. Speed (mph)
West: ACCESO OESTE (PR-464)									
204	0.110	0.06	0.08	1.1	0.30	0.04	20	2.30	36.7
East: ACCESO ESTE									
168	0.089	0.02	0.02	0.4	0.00	0.03	0	1.64	39.5
North: ACCESO NORTE (CALLE 3)									
80	0.059	0.17	0.21	7.8	0.29	0.85	8	1.40	28.7
ALL VEHICLES:									
452	0.110	0.26	0.31	2.0	0.19	0.18	20	5.34	35.9
INTERSECTION (persons):									
542	0.110		0.31	2.0	0.19	0.18		5.34	35.9

Queue values in this table are 95% back of queue (feet).

Table S.7 - Lane Performance

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (PM)
Intersection ID: 0
Stop Sign Controlled Intersection

Lane No.	Dem Flow (veh /h)	Cap (veh /h)	Deg. Satn x	Aver. Delay (sec)	Eff. Stop Rate	Queue 95% Back (vehs)	Queue 95% Back (ft)	Lane Length (ft)
West: ACCESO OESTE (PR-464)								
1 LT	204	1862	0.110	1.1	0.04	0.8	20.2	1600.0
East: ACCESO ESTE								
1 TR	168	1884	0.089	0.4	0.03	0.0	0.0	1600.0
North: ACCESO NORTE (CALLE 3)								
1 LR	80	1359	0.059	7.8	0.85	0.3	8.1	1600.0

Table S.8 - Lane Flow and Capacity Information

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (PM)
Intersection ID: 0
Stop Sign Controlled Intersection

Lane No.	Dem Flow (veh/h) Lef	Thru	Rig	Tot	Min Cap (veh /h)	Tot Cap (veh /h)	Deg. Satn x	Lane Util %
West: ACCESO OESTE (PR-464)								
1 LT	12	192	0	204	204	1862	0.110	100
East: ACCESO ESTE								
1 TR	0	160	8	168	168	1884	0.089	100
North: ACCESO NORTE (CALLE 3)								
1 LR	24	0	56	80	60	1359	0.059	100

The capacity value for priority and continuous movements is obtained by adjusting the basic saturation flow for heavy vehicle and turning vehicle effects. Saturation flow scale applies if specified.

Table S.10 - Movement Capacity and Performance Summary

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (PM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID	Mov Typ	Dem Flow (veh	Total Cap. (veh	Lane Util	Deg. Satn	Aver. Delay	Eff. Stop Rate	95% Back of Queue	Perf. Index

	/h)	/h)	(%)	x	(sec)		(veh)	
West: ACCESO OESTE (PR-464)								
5L L	12	110	100	0.109	9.7	0.66	0.8	0.20
2T T	192	1752	100	0.110*	0.6	0.00	0.8	2.09
East: ACCESO ESTE								
6T T	160	1794	100	0.089	0.0	0.00	0.0	1.52
6R R	8	90	100	0.089	8.9	0.69	0.0	0.13
North: ACCESO NORTE (CALLE 3)								
7L L	24	408	100	0.059	7.8	0.94	0.3	0.43
4R R	56	952	100	0.059	7.8	0.81	0.3	0.97

* Maximum degree of saturation

Table S.12A - Fuel Consumption, Emissions and Cost (TOTAL)

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (PM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID	Fuel Total gal/h	Cost Total $/h	HC Total kg/h	CO Total kg/h	NOX Total kg/h	CO2 Total kg/h
West: ACCESO OESTE (PR-464)						
5L L	0.2	2.50	0.004	0.20	0.006	2.2
2T T	2.7	31.44	0.039	1.34	0.056	25.5
	2.9	33.94	0.043	1.54	0.061	27.6
East: ACCESO ESTE						
6T T	1.9	23.22	0.024	0.47	0.034	17.6
6R R	0.2	1.62	0.002	0.12	0.004	1.4
	2.0	24.85	0.026	0.59	0.038	19.0
North: ACCESO NORTE (CALLE 3)						
7L L	0.5	5.27	0.008	0.41	0.012	4.5
4R R	1.1	12.35	0.019	0.94	0.027	10.6
	1.6	17.62	0.027	1.35	0.038	15.1
INTERSECTION:	6.5	76.41	0.096	3.47	0.137	61.8

PARAMETERS USED IN COST CALCULATIONS

Pump price of fuel ($/US gal)	=	2.400
Fuel resource cost factor	=	0.70
Ratio of running cost to fuel cost	=	3.0
Average income ($/h)	=	19.00
Time value factor	=	0.40
Light vehicle mass (1000 lb)	=	3.1
Heavy vehicle mass (1000 lb)	=	24.0
Light vehicle idle fuel rate (US gal/h)	=	0.360
Heavy vehicle idle fuel rate (US gal/h)	=	0.530

Table S.12B - Fuel Consumption, Emissions and Cost (RATE)

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (PM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID		Fuel Eff. mpg	Cost Rate $/mi	HC Rate g/km	CO Rate g/km	NOX Rate g/km	CO2 Rate g/km
West: ACCESO OESTE (PR-464)							
5L	L	19.4	0.35	0.539	27.15	0.774	302.6
2T	T	27.1	0.27	0.330	11.44	0.477	217.1
		26.5	0.27	0.342	12.35	0.494	222.0
East: ACCESO ESTE							
6T	T	32.6	0.24	0.243	4.77	0.347	180.3
6R	R	20.0	0.34	0.515	25.68	0.747	293.5
		31.7	0.24	0.256	5.76	0.366	185.7
North: ACCESO NORTE (CALLE 3)							
7L	L	18.7	0.36	0.563	28.20	0.797	314.2
4R	R	18.8	0.36	0.555	27.67	0.791	312.2
		18.8	0.36	0.558	27.83	0.793	312.8
INTERSECTION:		26.2	0.28	0.348	12.62	0.499	224.4

Table S.14 - Summary of Input and Output Data

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (PM)
Intersection ID: 0
Stop Sign Controlled Intersection

Lane No.	Demand Flow (veh/h) L	T	R	Tot	%HV	Adj. Basic Satf.	Eff Grn (secs) 1st	2nd	Deg Sat x	Aver. Delay (sec)	Longest Queue (ft)	Shrt Lane (ft)
West: ACCESO OESTE (PR-464)												
1 LT	12	192		204	0				0.110	1.1	20	1600
	12	192	0	204	0				0.110	1.1	20	
East: ACCESO ESTE												
1 TR		160	8	168	0				0.089	0.4	0	1600
	0	160	8	168	0				0.089	0.4		
North: ACCESO NORTE (CALLE 3)												
1 LR	24		56	80	0				0.059	7.8	8	1600
	24	0	56	80	0				0.059	7.8	8	

ALL VEHICLES	Total Flow	% HV	Max X	Aver. Delay	Max Queue
	452	0	0.110	2.0	20

Peak flow period = 15 minutes.

Queue values in this table are 95% back of queue (feet).

Note: Basic Saturation Flows are not adjusted at roundabouts or sign-controlled intersections and apply only to continuous lanes.

Table S.15 - Capacity and Level of Service

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (PM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID	Mov Typ	Total Flow (veh /h)	Total Cap. (veh /h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	(ft)
West: ACCESO OESTE (PR-464)								
5L	L	12	110	0.109	9.7	A	0.8	20
2T	T	192	1752	0.110*	0.6	A	0.8	20
East: ACCESO ESTE								
6T	T	160	1794	0.089	0.0	A	0.0	0
6R	R	8	90	0.089	8.9	A	0.0	0
North: ACCESO NORTE (CALLE 3)								
7L	L	24	408	0.059	7.8	A	0.3	8
4R	R	56	952	0.059	7.8	A	0.3	8
ALL VEHICLES:		452		0.110	2.0	NA	0.8	20

Level of Service calculations are based on
average control delay including geometric delay (HCM criteria),
independent of the current delay definition used.
For the criteria, refer to the "Level of Service" topic in the
SIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

* Maximum v/c ratio, or critical green periods

Table D.0 - Geometric Delay Data

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (PM)
Intersection ID: 0
Stop Sign Controlled Intersection

From Approach	To Approach	Turn	Negn Radius (ft)	Negn Speed (mph)	Negn Dist. (ft)	Appr. Dist. (ft)	Downstream Dist. (ft)	Distance User Spec?
West: ACCESO OESTE (PR-464)								

East	Thru	S	40.0	35.0	1600	403	No
North	Left	23.0	10.9	36.1	1600	375	No
East: ACCESO ESTE							
West	Thru	S	40.0	35.0	1600	403	No
North	Right	32.8	12.5	51.5	1600	387	No
North: ACCESO NORTE (CALLE 3)							
West	Right	32.8	12.5	51.5	1600	387	No
East	Left	23.0	10.9	36.1	1600	375	No

Downstream distance is distance travelled from the stopline until exit cruise speed is reached (includes negotiation distance). Acceleration distance is weighted for light and heavy vehicles. The same distance applies for both stopped and unstopped vehicles.

Table D.1 - Lane Delays

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (PM)
Intersection ID: 0
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Stop-line Delay 1st d1	2nd d2	Total dSL	Delay (seconds/veh) Acc. Dec. dn	Queuing Total dq	MvUp dqm	Stopd (Idle) di	Geom dig	Control dic
West: ACCESO OESTE (PR-464)										
1 LT	0.110	0.6	0.0	0.6	2.5	0.0	0.0	0.0	0.5	1.1
East: ACCESO ESTE										
1 TR	0.089	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4
North: ACCESO NORTE (CALLE 3)										
1 LR	0.059	2.6	0.2	2.8	0.6	2.2	0.0	2.2	5.0	7.8

dn is average stop-start delay for all vehicles queued and unqueued

Table D.2 - Lane Stops

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (PM)
Intersection ID: 0
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	-- Effective Stop Rate -- he1	he2	Geom. hig	Overall h	Prop. Queued pq	Queue Move-up Rate hqm
West: ACCESO OESTE (PR-464)							
1 LT	0.110	0.01	0.00	0.03	0.04	0.296	0.00
East: ACCESO ESTE							
1 TR	0.089	0.00	0.00	0.03	0.03	0.000	0.00

North: ACCESO NORTE (CALLE 3)						
1 LR	0.059	0.14	0.00	0.71	0.85	0.292	0.00

hig is the average value for all movements in a shared lane
hqm is average queue move-up rate for all vehicles queued and unqueued

Table D.3A - Lane Queues (veh)

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (PM)
Intersection ID: 0
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Ovrfl. Queue No	Average (veh) Nb1	Nb2	Nb	Percentile (veh) 70%	85%	90%	95%	98%	Queue Stor. Ratio
West: ACCESO OESTE (PR-464)											
1 LT	0.110	0.0	0.3	0.0	0.3	0.5	0.6	0.7	0.8	0.9	0.01
East: ACCESO ESTE											
1 TR	0.089	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
North: ACCESO NORTE (CALLE 3)											
1 LR	0.059	0.0	0.1	0.0	0.1	0.2	0.2	0.3	0.3	0.4	0.01

Values printed in this table are back of queue (vehicles).

Table D.3B - Lane Queues (feet)

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (PM)
Intersection ID: 0
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Ovrfl. Queue No	Average (feet) Nb1	Nb2	Nb	Percentile (feet) 70%	85%	90%	95%	98%	Queue Stor. Ratio
West: ACCESO OESTE (PR-464)											
1 LT	0.110	0.0	6.4	0.0	6.4	12.0	14.5	16.4	20.2	23.4	0.01
East: ACCESO ESTE											
1 TR	0.089	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
North: ACCESO NORTE (CALLE 3)											
1 LR	0.059	0.0	2.5	0.0	2.5	4.8	5.8	6.5	8.1	9.3	0.01

Values printed in this table are back of queue (feet).

Table D.4 - Movement Speeds (mph) and Geometric Delay

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (PM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID	App. Speeds Cruise	App. Speeds Negn	Exit Speeds Negn	Exit Speeds Cruise	Queue Move-up 1st Grn	Queue Move-up 2nd Grn	Av. Section Spd Running	Av. Section Spd Overall	Geom Delay (sec)
West: ACCESO OESTE (PR-464)									
5L L	40.0	10.9	10.9	40.0			30.7	30.7	9.1
2T T	40.0	40.0	40.0	40.0			37.1	37.1	0.0
East: ACCESO ESTE									
6T T	40.0	40.0	40.0	40.0			40.0	40.0	0.0
6R R	40.0	12.5	12.5	40.0			31.7	31.7	8.9
North: ACCESO NORTE (CALLE 3)									
7L L	40.0	0.0	10.9	40.0			30.1	28.7	5.0
4R R	40.0	0.0	12.5	40.0			30.0	28.6	5.0

"Running Speed" is the average speed excluding stopped periods.

Table D.6 - Gap Acceptance Parameters

INTERSECCION CARRETERA PR-464 CALLE 3
EXISTENTE (PM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID	Mov Type	Opng Flow (pcu/h)	Critical Gap Hdwy (s)	Critical Gap Dist (ft)	Foll-up Headway (s)	Entry HV Equiv
West: ACCESO OESTE (PR-464)						
5L L	Normal	168	4.10	232.7	2.20	2.00
East: ACCESO ESTE						
No opposed movements on this approach						
North: ACCESO NORTE (CALLE 3)						
7L L	Normal	368+	7.50	423.2	3.50	2.00
4R R	Normal	160	2.00	117.3	1.00	2.00

Values in this table are adjusted for heavy vehicles in the entry stream.
+ Percentage of exiting flow included in total opposing flow

Site: New Site - 1
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Processed Mar 25, 2008 03:55:57PM

A1460, PLC, Large Office
Produced by SIDRA Intersection 3.2.0.1455
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SIDRA INTERSECTION

Output Tables

INTERSECCIÓN CARRETERA PR-2 & CARRETERA PR-464

FIGURA 24 FUTURO (AM)

Run Information

```
* Basic Parameters:
  Intersection Type: Unsignalised - Two-Way Stop Control
  Driving on the right-hand side of the road
  Input data specified in US units
  Model Defaults: US HCM (US)
  Peak Flow Period (for performance): 15 minutes
  Unit time (for volumes): 60 minutes.
  Delay definition: Control delay
                    Geometric delay included
  HCM Delay Model option selected
  HCM Queue Model option selected
  Level of Service based on: Delay (HCM method)
  Queue definition: Back of queue, 95th Percentile
```

Table B.1 - Movement Definitions and Flow Rates (Origin-Destination)

```
INTERSECCI N CARRETERA PR-2   CARRETERA PR-464
FIGURA 24 FUTURO (AM)
Intersection ID: 3
Stop Sign Controlled Intersection
```

From Approach	To Approach	Mov ID	Turn	Flow Rate LV	Flow Rate HV	Flow Scale	Peak Flow Factor
West: ACCESO OESTE (PR-2)							
	South	2R	Right	148	0	1.00	1.00
	East	2T	Thru	1038	0	1.00	1.00
	North	5L	Left	4	0	1.00	1.00
South: ACCESO SUR (PR-464)							
	West	3L	Left	85	0	1.00	1.00
	East	8R	Right	124	0	1.00	1.00
	North	8T	Thru	1	0	1.00	1.00
East: ACCESO ESTE							
	West	6T	Thru	2027	0	1.00	1.00
	South	1L	Left	156	0	1.00	1.00
	North	6R	Right	1	0	1.00	1.00
North: ACCESO NORTE							
	West	4R	Right	1	0	1.00	1.00
	South	4T	Thru	1	0	1.00	1.00

```
          East         7L   Left      1     0    1.00      1.00
-------------------------------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table B.2A - Flow Rates (Separate Light and Heavy Vehicles)

```
INTERSECCI N CARRETERA PR-2   CARRETERA PR-464
FIGURA 24 FUTURO (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

-----------------------------------------------
  Mov          Left        Through       Right
  ID        ---------     ---------    ---------
             LV    HV      LV    HV     LV    HV
-----------------------------------------------
Demand flows in veh/hour as used by the program
West: ACCESO OESTE (PR-2)
   5L L       4     0       0     0      0     0
   2T T       0     0    1038     0      0     0
   2R R       0     0       0     0    148     0
-----------------------------------------------
South: ACCESO SUR (PR-464)
   3L L      85     0       0     0      0     0
   8T T       0     0       1     0      0     0
   8R R       0     0       0     0    124     0
-----------------------------------------------
East: ACCESO ESTE
   1L L     156     0       0     0      0     0
   6T T       0     0    2027     0      0     0
   6R R       0     0       0     0      1     0
-----------------------------------------------
North: ACCESO NORTE
   7L L       1     0       0     0      0     0
   4T T       0     0       1     0      0     0
   4R R       0     0       0     0      1     0
-----------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table B.2B - Flow Rates (Total Vehicles and Percent Heavy)

```
INTERSECCI N CARRETERA PR-2   CARRETERA PR-464
FIGURA 24 FUTURO (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

-------------------------------------------------
  Mov          Left        Through       Right
  ID        ----------    ----------    ----------
            Total  %HV    Total  %HV    Total  %HV
-------------------------------------------------
Demand flows in veh/hour as used by the program
West: ACCESO OESTE (PR-2)
```

```
   5L L        4   0.0       0   0.0       0   0.0
   2T T        0   0.0    1038   0.0       0   0.0
   2R R        0   0.0       0   0.0     148   0.0
--------------------------------------------------
South: ACCESO SUR (PR-464)
   3L L       85   0.0       0   0.0       0   0.0
   8T T        0   0.0       1   0.0       0   0.0
   8R R        0   0.0       0   0.0     124   0.0
--------------------------------------------------
East: ACCESO ESTE
   1L L      156   0.0       0   0.0       0   0.0
   6T T        0   0.0    2027   0.0       0   0.0
   6R R        0   0.0       0   0.0       1   0.0
--------------------------------------------------
North: ACCESO NORTE
   7L L        1   0.0       0   0.0       0   0.0
   4T T        0   0.0       1   0.0       0   0.0
   4R R        0   0.0       0   0.0       1   0.0
--------------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table S.2 - Movement Capacity Parameters

```
INTERSECCI N CARRETERA PR-2   CARRETERA PR-464
FIGURA 24 FUTURO (AM)
Intersection ID: 3
Stop Sign Controlled Intersection
```

Mov ID	Demand Flow (veh/h)	HV (%)	Opposing Movement Flow (veh/h)	HV (%)	Adjust. Flow (pcu/h)	Total Cap. (veh /h)	Prac. Deg. Satn xp	Prac. Spare Cap. (%)	Lane Util (%)	Deg. Satn x
West: ACCESO OESTE (PR-2)										
5L L	4	0.0	2115	0.0	2115	128	0.80	2460	100	0.031
2T T	1038	0.0	0			3800	0.80	193	100	0.273
2R R	148	0.0	157	0.0	157	2991<	0.80	1517	100	0.049
South: ACCESO SUR (PR-464)										
3L L	85	0.0	3300+	0.0	3300	85	0.80	-20	100	1.000*
8T T	1	0.0	3301+	0.0	3301	1	0.80	-20	100	1.000*
8R R	124	0.0	0			124	0.80	-20	100	1.000*
East: ACCESO ESTE										
1L L	156	0.0	1274	0.0	1274	438	0.80	125	100	0.356
6T T	2027	0.0	0			3799	0.80	50	100	0.534
6R R	1	0.0	1	0.0	1	2	0.80	60	100	0.500
North: ACCESO NORTE										
7L L	1	0.0	3351+	0.0	3351	2	0.80	60	100	0.500
4T T	1	0.0	3459+	0.0	3459	2	0.80	60	100	0.500
4R R	1	0.0	0			2	0.80	60	100	0.500

\+ Percentage of exiting flow included in total opposing flow

Table S.3 - Intersection Parameters

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 24 FUTURO (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

Intersection Level of Service	=	NA
Worst movement Level of Service	=	F
Average intersection delay (s/pers)	=	8.3
Largest average movement delay (s)	=	784.4
Largest back of queue, 95% (ft)	=	9686
Performance Index	=	202.30
Degree of saturation (highest)	=	1.000
Practical Spare Capacity (lowest)	=	-20 %
Effective intersection capacity, (veh/h)	=	3587
Total vehicle flow (veh/h)	=	3587
Total person flow (pers/h)	=	4304
Total vehicle delay (veh-h/h)	=	8.31
Total person delay (pers-h/h)	=	9.97
Total effective vehicle stops (veh/h)	=	403
Total effective person stops (pers/h)	=	484
Total vehicle travel (veh-mi/h)	=	1359.4
Total cost ($/h)	=	632.76
Total fuel (gal/h)	=	48.5
Total CO2 (kg/h)	=	458.72

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections. See Table S.15 or Movement Displays for individual movement LOS values.

Table S.5 - Movement Performance

Mov ID		Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue 95% Back (vehs)	Longest Queue 95% Back (ft)	Perf. Index	Aver. Speed (mph)
West: ACCESO OESTE (PR-2)										
5L	L	0.04	0.05	36.3	0.92	0.98	0.1	3	0.14	19.3
2T	T	0.00	0.00	0.0	0.00	0.00	0.0	0	9.85	40.0
2R	R	0.37	0.45	9.0	0.17	0.63	0.3	6	2.36	31.1
South: ACCESO SUR (PR-464)										
3L	L	2.60	3.12	110.0	1.00	1.71	387.4	9686	66.94	9.2
8T	T	0.03	0.04	110.0	1.00	1.70	387.4	9686	0.79	9.2
8R	R	3.79	4.55	110.0	1.00	0.00	387.4	9686	96.46	9.2
East: ACCESO ESTE										
1L	L	0.83	0.99	19.1	0.81	1.00	2.0	49	3.79	25.5
6T	T	0.00	0.00	0.0	0.01	0.00	2.9	73	20.16	39.9
6R	R	0.00	0.00	8.9	0.01	0.68	0.0	0	0.02	31.6
North: ACCESO NORTE										
7L	L	0.22	0.26	784.4	1.00	1.29	3.4	86	0.60	1.6
4T	T	0.22	0.26	784.4	1.00	1.29	3.4	86	0.60	1.7
4R	R	0.22	0.26	784.4	1.00	0.00	3.4	86	0.59	1.6

Table S.6 - Intersection Performance

Table S.8 - Lane Flow and Capacity Information

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 24 FUTURO (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

Lane No.	Dem Flow (veh/h) Lef	Thru	Rig	Tot	Min Cap (veh /h)	Tot Cap (veh /h)	Deg. Satn x	Lane Util %
West: ACCESO OESTE (PR-2)								
1 L	4	0	0	4	4	128	0.031	100
2 T	0	519	0	519	519	1900	0.273	100
3 T	0	519	0	519	519	1900	0.273	100
4 R	0	0	148	148	60	2991<	0.049	100
South: ACCESO SUR (PR-464)								
1 LTR	85	1	124	210	210	210	1.000	100
East: ACCESO ESTE								
1 L	156	0	0	156	60	438	0.356	100
2 T	0	1014	0	1014	60	1900	0.534	100
3 TR	0	1013	1	1014	60	1901	0.534	100
North: ACCESO NORTE								
1 LTR	1	1	1	3	3	7	0.455	100

< Reduced capacity flow due to a short lane effect

The capacity value for priority and continuous movements is obtained by adjusting the basic saturation flow for heavy vehicle and turning vehicle effects. Saturation flow scale applies if specified.

Table S.10 - Movement Capacity and Performance Summary

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 24 FUTURO (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

Mov ID	Mov Typ	Dem Flow (veh /h)	Total Cap. (veh /h)	Lane Util (%)	Deg. Satn x	Aver. Delay (sec)	Eff. Stop Rate	95% Back of Queue (veh)	Perf. Index
West: ACCESO OESTE (PR-2)									
5L	L	4	128	100	0.031	36.3	0.98	0.1	0.14
2T	T	1038	3800	100	0.273	0.0	0.00	0.0	9.85
2R	R	148	2991<	100	0.049	9.0	0.63	0.3	2.36
South: ACCESO SUR (PR-464)									
3L	L	85	85	100	1.000*	110.0	1.71	387.4	66.94
8T	T	1	1	100	1.000*	110.0	1.70	387.4	0.79
8R	R	124	124	100	1.000*	110.0	0.00	387.4	96.46

East: ACCESO ESTE								
1L	L	156	438	100	0.356	19.1	1.00	2.0	3.79
6T	T	2027	3799	100	0.534	0.0	0.00	2.9	20.16
6R	R	1	2	100	0.500	8.9	0.68	0.0	0.02
North: ACCESO NORTE									
7L	L	1	2	100	0.500	784.4	1.29	3.4	0.60
4T	T	1	2	100	0.500	784.4	1.29	3.4	0.60
4R	R	1	2	100	0.500	784.4	0.00	3.4	0.59

< Reduced capacity due to a short lane effect

* Maximum degree of saturation

Table S.12A - Fuel Consumption, Emissions and Cost (TOTAL)

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 24 FUTURO (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

Mov ID	Fuel Total gal/h	Cost Total $/h	HC Total kg/h	CO Total kg/h	NOX Total kg/h	CO2 Total kg/h
West: ACCESO OESTE (PR-2)						
5L L	0.1	1.16	0.002	0.07	0.002	0.8
2T T	12.1	150.66	0.154	3.02	0.220	114.3
2R R	2.8	30.45	0.047	2.33	0.068	26.6
	15.0	182.27	0.202	5.43	0.290	141.7
South: ACCESO SUR (PR-464)						
3L L	2.6	45.05	0.048	1.60	0.047	24.5
8T T	0.0	0.54	0.001	0.02	0.001	0.3
8R R	3.7	65.26	0.069	2.25	0.066	35.3
	6.3	110.84	0.118	3.87	0.114	60.1
East: ACCESO ESTE						
1L L	3.2	36.98	0.054	2.63	0.075	30.1
6T T	23.7	294.94	0.303	6.06	0.433	224.1
6R R	0.0	0.00	0.000	0.00	0.000	0.0
	26.9	331.92	0.357	8.69	0.508	254.2
North: ACCESO NORTE						
7L L	0.1	2.58	0.002	0.03	0.001	0.9
4T T	0.1	2.58	0.002	0.03	0.001	0.9
4R R	0.1	2.57	0.002	0.03	0.001	0.9
	0.3	7.73	0.006	0.08	0.003	2.8
INTERSECTION:	48.5	632.76	0.684	18.07	0.914	458.7

PARAMETERS USED IN COST CALCULATIONS

Pump price of fuel ($/US gal)	=	2.400
Fuel resource cost factor	=	0.70
Ratio of running cost to fuel cost	=	3.0
Average income ($/h)	=	19.00
Time value factor	=	0.40
Light vehicle mass (1000 lb)	=	3.1

```
Heavy vehicle mass (1000 lb)              =      24.0
Light vehicle idle fuel rate (US gal/h)   =     0.360
Heavy vehicle idle fuel rate (US gal/h)   =     0.530
```

Table S.12B - Fuel Consumption, Emissions and Cost (RATE)

```
INTERSECCI N CARRETERA PR-2   CARRETERA PR-464
FIGURA 24 FUTURO (AM)
Intersection ID: 3
Stop Sign Controlled Intersection
```

Mov ID	Fuel Eff. mpg	Cost Rate $/mi	HC Rate g/km	CO Rate g/km	NOX Rate g/km	CO2 Rate g/km
West: ACCESO OESTE (PR-2)						
5L L	17.0	0.48	0.642	28.32	0.813	346.9
2T T	32.6	0.24	0.243	4.77	0.347	180.3
2R R	19.8	0.34	0.522	26.03	0.754	296.3
	30.1	0.25	0.279	7.47	0.399	195.2
South: ACCESO SUR (PR-464)						
3L L	12.4	0.87	0.930	30.94	0.902	473.6
8T T	12.4	0.87	0.934	31.13	0.901	473.8
8R R	12.5	0.87	0.925	29.98	0.883	469.6
	12.5	0.87	0.927	30.38	0.891	471.3
East: ACCESO ESTE						
1L L	18.4	0.39	0.577	27.86	0.795	319.5
6T T	32.5	0.24	0.245	4.90	0.350	181.0
6R R	0.0	0.00	0.000	0.00	0.000	0.0
	30.8	0.25	0.268	6.52	0.381	190.7
North: ACCESO NORTE						
7L L	3.9	4.25	3.400	45.90	1.510	1524.4
4T T	3.9	4.20	3.363	45.55	1.495	1508.4
4R R	3.9	4.25	3.400	45.45	1.502	1523.8
	3.9	4.23	3.387	45.63	1.502	1518.8
INTERSECTION:	28.0	0.29	0.313	8.26	0.418	209.7

Table S.14 - Summary of Input and Output Data

```
INTERSECCI N CARRETERA PR-2   CARRETERA PR-464
FIGURA 24 FUTURO (AM)
Intersection ID: 3
Stop Sign Controlled Intersection
```

Lane No.	Demand Flow (veh/h) L	T	R	Tot	%HV	Adj. Basic Satf.	Eff Grn (secs) 1st	2nd	Deg Sat x	Aver. Delay (sec)	Longest Queue (ft)	Shrt Lane (ft)

West: ACCESO OESTE (PR-2)										
1 L	4			4	0		0.031	36.3	3	230
2 T		519		519	0		0.273	0.0	0	1600
3 T		519		519	0		0.273	0.0	0	1600
4 R			148	148	0		0.049	9.0	6	230
	4	1038	148	1190	0		0.273	1.2	6	
South: ACCESO SUR (PR-464)										
1 LTR	85	1	124	210	0		1.000	110.0	9686	1600
	85	1	124	210	0		1.000	110.0	9686	
East: ACCESO ESTE										
1 L	156			156	0		0.356	19.1	49	230
2 T		1014		1014	0		0.534	0.0	0	1600
3 TR		1013	1	1014	0		0.534	0.0	73	1600
	156	2027	1	2184	0		0.534	1.4	73	
North: ACCESO NORTE										
1 LTR	1	1	1	3	0		0.455	784.4	86	1600
	1	1	1	3	0		0.455	784.4	86	

ALL VEHICLES	Total Flow	% HV	Max X	Aver. Delay	Max Queue
	3587	0	1.000	8.3	9686

Peak flow period = 15 minutes.

Queue values in this table are 95% back of queue (feet).

Note: Basic Saturation Flows are not adjusted at roundabouts or sign-controlled intersections and apply only to continuous lanes.

Table S.15 - Capacity and Level of Service

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 24 FUTURO (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

Mov ID	Mov Typ	Total Flow (veh /h)	Total Cap. (veh /h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	(ft)
West: ACCESO OESTE (PR-2)								
5L	L	4	128	0.031	36.3	E	0.1	3
2T	T	1038	3800	0.273	0.0	A	0.0	0
2R	R	148	2991<	0.049	9.0	A	0.3	6
South: ACCESO SUR (PR-464)								
3L	L	85	85	1.000*	110.0	F	387.4	9686
8T	T	1	1	1.000*	110.0	F	387.4	9686
8R	R	124	124	1.000*	110.0	F	387.4	9686
East: ACCESO ESTE								
1L	L	156	438	0.356	19.1	C	2.0	49
6T	T	2027	3799	0.534	0.0	A	2.9	73
6R	R	1	2	0.500	8.9	A	0.0	0
North: ACCESO NORTE								
7L	L	1	2	0.500	784.4	F	3.4	86
4T	T	1	2	0.500	784.4	F	3.4	86

4R	R	1	2	0.500	784.4	F	3.4	86
ALL VEHICLES:		3587		1.000	8.3	NA	387.4	9686

Level of Service calculations are based on
average control delay including geometric delay (HCM criteria),
independent of the current delay definition used.
For the criteria, refer to the "Level of Service" topic in the
SIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

< Reduced capacity due to a short lane effect
* Maximum v/c ratio, or critical green periods
" Movement Level of service has been determined using adjacent lane v/c ratio rather than short lane v/c ratio (v/c=1.0)

Table D.0 - Geometric Delay Data

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 24 FUTURO (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

From Approach	To Approach	Turn	Negn Radius (ft)	Negn Speed (mph)	Negn Dist. (ft)	Appr. Dist. (ft)	Downstream Distance (ft)	User Spec?
West: ACCESO OESTE (PR-2)								
	South	Right	32.8	12.5	51.5	1600	387	No
	East	Thru	S	40.0	35.0	1600	403	No
	North	Left	28.2	11.8	44.3	1600	381	No
South: ACCESO SUR (PR-464)								
	West	Left	43.8	14.0	68.8	1600	399	No
	East	Right	32.8	12.5	51.5	1600	387	No
	North	Thru	S	12.4	81.0	1600	416	No
East: ACCESO ESTE								
	West	Thru	S	40.0	35.0	1600	403	No
	South	Left	29.3	12.0	46.1	1600	383	No
	North	Right	32.8	12.5	51.5	1600	387	No
North: ACCESO NORTE								
	West	Right	32.8	12.5	51.5	1600	387	No
	South	Thru	S	12.4	81.0	1600	416	No
	East	Left	35.5	12.9	55.7	1600	390	No

Downstream distance is distance travelled from the stopline until exit cruise speed is reached (includes negotiation distance). Acceleration distance is weighted for light and heavy vehicles. The same distance applies for both stopped and unstopped vehicles.

Table D.1 - Lane Delays

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464

FIGURA 24 FUTURO (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Stop-line Delay 1st d1	2nd d2	Total dSL	Acc. Dec. dn	Queuing Total dq	MvUp dqm	Stopd (Idle) di	Geom dig	Control dic
West: ACCESO OESTE (PR-2)										
1 L	0.031	27.3	0.0	27.3	3.6	23.7	0.0	23.7	9.0	36.3
2 T	0.273	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3 T	0.273	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4 R	0.049	0.1	0.0	0.1	0.7	0.0	0.0	0.0	8.9	9.0
South: ACCESO SUR (PR-464)										
1 LTR	1.000	17.1	87.8	105.0	2.2	102.8	5.8	97.0	5.0	110.0
East: ACCESO ESTE										
1 L	0.356	8.7	1.5	10.1	3.2	6.9	1.1	5.8	9.0	19.1
2 T	0.534	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3 TR	0.534	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
North: ACCESO NORTE										
1 LTR	0.455	545.9	233.4	779.4	2.1	777.3	3.9	773.4	5.0	784.4

dn is average stop-start delay for all vehicles queued and unqueued

Table D.2 - Lane Stops

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 24 FUTURO (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	-- Effective Stop Rate -- he1	he2	Geom. hig	Overall h	Prop. Queued pq	Queue Move-up Rate hqm
West: ACCESO OESTE (PR-2)							
1 L	0.031	0.92	0.00	0.05	0.98	0.924	0.00
2 T	0.273	0.00	0.00	0.00	0.00	0.000	0.00
3 T	0.273	0.00	0.00	0.00	0.00	0.000	0.00
4 R	0.049	0.06	0.00	0.57	0.63	0.175	0.00
South: ACCESO SUR (PR-464)							
1 LTR	1.000	0.41	0.29	0.00	0.70	1.000	3.77
East: ACCESO ESTE							
1 L	0.356	0.81	0.06	0.13	1.00	0.809	0.21
2 T	0.534	0.00	0.00	0.00	0.00	0.000	0.00
3 TR	0.534	0.00	0.00	0.00	0.00	0.011	0.00
North: ACCESO NORTE							
1 LTR	0.455	0.67	0.19	0.00	0.86	0.998	1.56

hig is the average value for all movements in a shared lane
hqm is average queue move-up rate for all vehicles queued and unqueued

Table D.3A - Lane Queues (veh)

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 24 FUTURO (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Ovrfl. Queue No	Average (veh) Nb1	Nb2	Nb	Percentile (veh) 70%	85%	90%	95%	98%	Queue Stor. Ratio
West: ACCESO OESTE (PR-2)											
1 L	0.031	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.01
2 T	0.273	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
3 T	0.273	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
4 R	0.049	0.0	0.1	0.0	0.1	0.2	0.2	0.2	0.3	0.3	0.03
South: ACCESO SUR (PR-464)											
1 LTR	1.000	128.5	47.8	107.2	155.0	186.0	248.0	294.5	387.4	464.9	6.05
East: ACCESO ESTE											
1 L	0.356	0.1	0.5	0.1	0.6	1.2	1.4	1.6	2.0	2.3	0.21
2 T	0.534	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
3 TR	0.534	0.0	0.9	0.0	0.9	1.7	2.1	2.4	2.9	3.4	0.05
North: ACCESO NORTE											
1 LTR	0.455	1.9	0.6	0.6	1.1	2.0	2.4	2.8	3.4	4.0	0.05

Values printed in this table are back of queue (vehicles).

Table D.3B - Lane Queues (feet)

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 24 FUTURO (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Ovrfl. Queue No	Average (feet) Nb1	Nb2	Nb	Percentile (feet) 70%	85%	90%	95%	98%	Queue Stor. Ratio
West: ACCESO OESTE (PR-2)											
1 L	0.031	0.0	0.9	0.0	0.9	1.8	2.1	2.4	3.0	3.5	0.01
2 T	0.273	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
3 T	0.273	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
4 R	0.049	0.0	2.0	0.0	2.0	3.8	4.6	5.2	6.4	7.4	0.03
South: ACCESO SUR (PR-464)											
1 LTR	1.000	3211.9	1195.2	2679.2	3874.4	4649.3	6199.0	7361.4	9686.0	******	6.05
East: ACCESO ESTE											
1 L	0.356	2.7	13.6	2.1	15.7	28.9	35.2	39.9	49.3	57.1	0.21
2 T	0.534	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
3 TR	0.534	0.0	23.4	0.0	23.4	42.6	52.0	59.0	73.0	84.7	0.05
North: ACCESO NORTE											
1 LTR	0.455	47.7	13.8	13.8	27.6	49.9	60.9	69.2	85.7	99.5	0.05

Values printed in this table are back of queue (feet).

Table D.4 - Movement Speeds (mph) and Geometric Delay

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 24 FUTURO (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

Mov ID	App. Speeds Cruise	App. Speeds Negn	Exit Speeds Negn	Exit Speeds Cruise	Queue Move-up 1st Grn	Queue Move-up 2nd Grn	Av. Section Spd Running	Av. Section Spd Overall	Geom Delay (sec)
West: ACCESO OESTE (PR-2)									
5L L	40.0	11.8	11.8	40.0			29.1	19.3	9.0
2T T	40.0	40.0	40.0	40.0			40.0	40.0	0.0
2R R	40.0	12.5	12.5	40.0			31.1	31.1	8.9
South: ACCESO SUR (PR-464)									
3L L	40.0	0.0	14.0	40.0	5.5		22.9	9.2	5.0
8T T	40.0	0.0	12.4	40.0	5.4		22.6	9.2	5.0
8R R	40.0	0.0	12.5	40.0	0.0		30.0	9.2	5.0
East: ACCESO ESTE									
1L L	40.0	12.0	12.0	40.0	8.4		28.7	25.5	9.0
6T T	40.0	40.0	40.0	40.0			39.9	39.9	0.0
6R R	40.0	12.5	12.5	40.0			31.6	31.6	8.9
North: ACCESO NORTE									
7L L	40.0	0.0	12.9	40.0	5.5		26.6	1.6	5.0
4T T	40.0	0.0	12.4	40.0	5.4		26.2	1.7	5.0
4R R	40.0	0.0	12.5	40.0	0.0		30.0	1.6	5.0

"Running Speed" is the average speed excluding stopped periods.

Table D.6 - Gap Acceptance Parameters

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 24 FUTURO (AM)
Intersection ID: 3
Stop Sign Controlled Intersection

Mov ID	Mov Type	Opng Flow (pcu/h)	Critical Gap Hdwy (s)	Critical Gap Dist (ft)	Foll-up Headway (s)	Entry HV Equiv
West: ACCESO OESTE (PR-2)						
5L L	Normal	2115	4.10	234.0	2.20	2.00
2R R	Normal	157	2.00	35.2	1.00	2.00
South: ACCESO SUR (PR-464)						
3L L	Normal	3300+	7.50	412.1	3.50	2.00
8T T	Normal	3301+	6.50	357.0	4.00	2.00
East: ACCESO ESTE						
1L L	Normal	1274	4.10	210.5	2.20	2.00

6R R	Normal	1	2.00	36.5	1.00	2.00
North: ACCESO NORTE						
7L L	Normal	3351+	7.50	413.9	3.50	2.00
4T T	Normal	3459+	6.50	351.6	4.00	2.00

Values in this table are adjusted for heavy vehicles in the entry stream.
\+ Percentage of exiting flow included in total opposing flow

SIDRA SOLUTIONS

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SIDRA INTERSECTION

Output Tables

INTERSECCIÓN CARRETERA PR-464 & CAMINO VECINAL

FIGURA 25 FUTURO (AM)

Run Information

```
* Basic Parameters:
  Intersection Type: Unsignalised - Two-Way Stop Control
  Driving on the right-hand side of the road
  Input data specified in US units
  Model Defaults: US HCM (US)
  Peak Flow Period (for performance): 15 minutes
  Unit time (for volumes): 60 minutes.
  Delay definition: Control delay
                    Geometric delay included
  HCM Delay Model option selected
  HCM Queue Model option selected
  Level of Service based on: Delay (HCM method)
  Queue definition: Back of queue, 95th Percentile
```

Table B.1 - Movement Definitions and Flow Rates (Origin-Destination)

```
INTERSECCI N CARRETERA PR-464   CAMINO VECINAL
FIGURA 25 FUTURO  (AM)
Intersection ID: 2
Stop Sign Controlled Intersection
```

From Approach	To Approach	Mov ID	Turn	Flow Rate LV	Flow Rate HV	Flow Scale	Peak Flow Factor
West: ACCESO OESTE (PR-464)							
	South	2R	Right	5	0	1.00	1.00
	East	2T	Thru	36	0	1.00	1.00
	North	5L	Left	197	0	1.00	1.00
South: ACCESO SUR (CAMINO VECINAL)							
	West	3L	Left	1	0	1.00	1.00
	East	8R	Right	4	0	1.00	1.00
	North	8T	Thru	1	0	1.00	1.00
East: ACCESO ESTE (CAMINO VECINAL)							
	West	6T	Thru	18	0	1.00	1.00
	South	1L	Left	4	0	1.00	1.00
	North	6R	Right	200	0	1.00	1.00
North: ACCESO NORTE(PR-464)							
	West	4R	Right	192	0	1.00	1.00
	South	4T	Thru	1	0	1.00	1.00

```
           East         7L   Left      9     0    1.00     1.00
-------------------------------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table B.2A - Flow Rates (Separate Light and Heavy Vehicles)

```
INTERSECCI N CARRETERA PR-464   CAMINO VECINAL
FIGURA 25 FUTURO  (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

-----------------------------------------------
  Mov          Left        Through       Right
  ID        ---------     ---------    ---------
             LV    HV      LV    HV     LV    HV
-----------------------------------------------
Demand flows in veh/hour as used by the program
West: ACCESO OESTE (PR-464)
   5L L     197     0       0     0      0     0
   2T T       0     0      36     0      0     0
   2R R       0     0       0     0      5     0
-----------------------------------------------
South: ACCESO SUR  (CAMINO VECINAL)
   3L L       1     0       0     0      0     0
   8T T       0     0       1     0      0     0
   8R R       0     0       0     0      4     0
-----------------------------------------------
East: ACCESO ESTE (CAMINO VECINAL)
   1L L       4     0       0     0      0     0
   6T T       0     0      18     0      0     0
   6R R       0     0       0     0    200     0
-----------------------------------------------
North: ACCESO NORTE(PR-464)
   7L L       9     0       0     0      0     0
   4T T       0     0       1     0      0     0
   4R R       0     0       0     0    192     0
-----------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table B.2B - Flow Rates (Total Vehicles and Percent Heavy)

```
INTERSECCI N CARRETERA PR-464   CAMINO VECINAL
FIGURA 25 FUTURO  (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

-------------------------------------------------
  Mov          Left        Through       Right
  ID        ----------    ----------    ----------
           Total  %HV    Total  %HV    Total  %HV
-------------------------------------------------
Demand flows in veh/hour as used by the program
West: ACCESO OESTE (PR-464)
```

```
   5L L      197   0.0       0   0.0       0   0.0
   2T T        0   0.0      36   0.0       0   0.0
   2R R        0   0.0       0   0.0       5   0.0
------------------------------------------------
South: ACCESO SUR  (CAMINO VECINAL)
   3L L        1   0.0       0   0.0       0   0.0
   8T T        0   0.0       1   0.0       0   0.0
   8R R        0   0.0       0   0.0       4   0.0
------------------------------------------------
East: ACCESO ESTE (CAMINO VECINAL)
   1L L        4   0.0       0   0.0       0   0.0
   6T T        0   0.0      18   0.0       0   0.0
   6R R        0   0.0       0   0.0     200   0.0
------------------------------------------------
North: ACCESO NORTE(PR-464)
   7L L        9   0.0       0   0.0       0   0.0
   4T T        0   0.0       1   0.0       0   0.0
   4R R        0   0.0       0   0.0     192   0.0
------------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table S.2 - Movement Capacity Parameters

```
INTERSECCI N CARRETERA PR-464   CAMINO VECINAL
FIGURA 25 FUTURO  (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

-------------------------------------------------------------------------------
 Mov                    Opposing Movement  Total Prac. Prac.  Lane  Deg.
 ID      Demand                  Adjust.   Cap. Deg.  Spare  Util  Satn
         Flow     HV   Flow  HV   Flow     (veh  Satn  Cap.
         (veh/h)  (%) (veh/h) (%) (pcu/h)  /h)   xp    (%)    (%)   x
-------------------------------------------------------------------------------
West: ACCESO OESTE (PR-464)
  5L L     197    0.0   317+ 0.0    317     538  0.80   118   100  0.366
  2T T      36    0.0   102+ 0.0    102      98  0.80   118   100  0.367*
  2R R       5    0.0     1  0.0      1      14  0.80   124   100  0.357
-------------------------------------------------------------------------------
South: ACCESO SUR  (CAMINO VECINAL)
  3L L       1    0.0   193  0.0    193     268  0.80  ****   100  0.004
  8T T       1    0.0     0                268  0.80  ****   100  0.004
  8R R       4    0.0     0               1072  0.80  ****   100  0.004
-------------------------------------------------------------------------------
East: ACCESO ESTE (CAMINO VECINAL)
  1L L       4    0.0    54+ 0.0     54      47  0.80   840   100  0.085
  6T T      18    0.0   196+ 0.0    196     211  0.80   838   100  0.085
  6R R     200    0.0     1  0.0      1    2341  0.80   836   100  0.085
-------------------------------------------------------------------------------
North: ACCESO NORTE(PR-464)
  7L L       9    0.0     5  0.0      5      72  0.80   540   100  0.125
  4T T       1    0.0     1  0.0      1       8  0.80   540   100  0.125
  4R R     192    0.0     0               1530  0.80   538   100  0.125
-------------------------------------------------------------------------------
  +  Percentage of exiting flow included in total opposing flow
```

Table S.3 - Intersection Parameters

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 25 FUTURO (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Intersection Level of Service	=	NA	
Worst movement Level of Service	=	B	
Average intersection delay (s/pers)	=	9.8	
Largest average movement delay (s)	=	13.7	
Largest back of queue, 95% (ft)	=	72	
Performance Index	=	12.69	
Degree of saturation (highest)	=	0.367	
Practical Spare Capacity (lowest)	=	118	%
Effective intersection capacity, (veh/h)	=	1818	
Total vehicle flow (veh/h)	=	668	
Total person flow (pers/h)	=	802	
Total vehicle delay (veh-h/h)	=	1.82	
Total person delay (pers-h/h)	=	2.18	
Total effective vehicle stops (veh/h)	=	590	
Total effective person stops (pers/h)	=	708	
Total vehicle travel (veh-mi/h)	=	250.8	
Total cost ($/h)	=	147.52	
Total fuel (gal/h)	=	13.2	
Total CO2 (kg/h)	=	125.24	

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections. See Table S.15 or Movement Displays for individual movement LOS values.

Table S.5 - Movement Performance

Mov ID	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue 95% Back (vehs)	Longest Queue 95% Back (ft)	Perf. Index	Aver. Speed (mph)
West: ACCESO OESTE (PR-464)									
5L L	0.75	0.90	13.7	0.13	0.99	2.9	72	4.44	25.3
2T T	0.14	0.16	13.7	0.13	0.96	2.9	72	0.80	25.5
2R R	0.02	0.02	13.7	0.13	0.89	2.9	72	0.11	25.3
South: ACCESO SUR (CAMINO VECINAL)									
3L L	0.00	0.00	9.8	0.43	0.59	0.0	1	0.02	30.3
8T T	0.00	0.00	0.6	0.43	0.00	0.0	1	0.01	36.0
8R R	0.01	0.01	9.5	0.43	0.39	0.0	1	0.06	30.4
East: ACCESO ESTE (CAMINO VECINAL)									
1L L	0.01	0.01	6.5	0.00	1.00	0.5	13	0.07	29.1
6T T	0.03	0.04	6.5	0.00	1.00	0.5	13	0.31	29.3
6R R	0.36	0.43	6.5	0.00	1.00	0.5	13	3.50	29.1
North: ACCESO NORTE(PR-464)									
7L L	0.02	0.03	9.1	0.05	0.69	0.7	19	0.15	31.3
4T T	0.00	0.00	0.0	0.05	0.00	0.7	19	0.01	39.5
4R R	0.48	0.57	8.9	0.05	0.65	0.7	19	3.20	31.5

Table S.6 - Intersection Performance

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 25 FUTURO (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Total Flow (veh/h)	Deg. Satn x	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue (ft)	Perf. Index	Aver. Speed (mph)
West: ACCESO OESTE (PR-464)									
238	0.367	0.91	1.09	13.7	0.13	0.99	72	5.36	25.4
South: ACCESO SUR (CAMINO VECINAL)									
6	0.004	0.01	0.02	8.0	0.43	0.36	1	0.09	31.2
East: ACCESO ESTE (CAMINO VECINAL)									
222	0.085	0.40	0.48	6.5	0.00	1.00	13	3.89	29.1
North: ACCESO NORTE(PR-464)									
202	0.125	0.50	0.60	8.9	0.05	0.65	19	3.36	31.5
ALL VEHICLES:									
668	0.367	1.82	2.18	9.8	0.07	0.88	72	12.69	28.3
INTERSECTION (persons):									
802	0.367		2.18	9.8	0.07	0.88		12.69	28.3

Queue values in this table are 95% back of queue (feet).

Table S.7 - Lane Performance

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 25 FUTURO (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Dem Flow (veh /h)	Cap (veh /h)	Deg. Satn x	Aver. Delay (sec)	Eff. Stop Rate	Queue 95% Back (vehs)	Queue 95% Back (ft)	Lane Length (ft)
West: ACCESO OESTE (PR-464)								
1 LTR	238	650	0.366	13.7	0.99	2.9	71.9	1600.0
South: ACCESO SUR (CAMINO VECINAL)								
1 LTR	6	1609	0.004	8.0	0.36	0.0	0.6	1600.0
East: ACCESO ESTE (CAMINO VECINAL)								
1 LTR	222	2599	0.085	6.5	1.00	0.5	13.3	1600.0
North: ACCESO NORTE(PR-464)								
1 LTR	202	1609	0.126	8.9	0.65	0.7	18.6	1600.0

Table S.8 - Lane Flow and Capacity Information

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 25 FUTURO (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Dem Flow (veh/h) Lef	Thru	Rig	Tot	Min Cap (veh /h)	Tot Cap (veh /h)	Deg. Satn x	Lane Util %
West: ACCESO OESTE (PR-464)								
1 LTR	197	36	5	238	60	650	0.366	100
South: ACCESO SUR (CAMINO VECINAL)								
1 LTR	1	1	4	6	6	1609	0.004	100
East: ACCESO ESTE (CAMINO VECINAL)								
1 LTR	4	18	200	222	60	2599	0.085	100
North: ACCESO NORTE(PR-464)								
1 LTR	9	1	192	202	202	1609	0.126	100

The capacity value for priority and continuous movements is obtained by adjusting the basic saturation flow for heavy vehicle and turning vehicle effects. Saturation flow scale applies if specified.

Table S.10 - Movement Capacity and Performance Summary

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 25 FUTURO (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Mov ID	Mov Typ	Dem Flow (veh /h)	Total Cap. (veh /h)	Lane Util (%)	Deg. Satn x	Aver. Delay (sec)	Eff. Stop Rate	95% Back of Queue (veh)	Perf. Index
West: ACCESO OESTE (PR-464)									
5L	L	197	538	100	0.366	13.7	0.99	2.9	4.44
2T	T	36	98	100	0.367*	13.7	0.96	2.9	0.80
2R	R	5	14	100	0.357	13.7	0.89	2.9	0.11
South: ACCESO SUR (CAMINO VECINAL)									
3L	L	1	268	100	0.004	9.8	0.59	0.0	0.02
8T	T	1	268	100	0.004	0.6	0.00	0.0	0.01
8R	R	4	1072	100	0.004	9.5	0.39	0.0	0.06
East: ACCESO ESTE (CAMINO VECINAL)									
1L	L	4	47	100	0.085	6.5	1.00	0.5	0.07
6T	T	18	211	100	0.085	6.5	1.00	0.5	0.31
6R	R	200	2341	100	0.085	6.5	1.00	0.5	3.50
North: ACCESO NORTE(PR-464)									
7L	L	9	72	100	0.125	9.1	0.69	0.7	0.15
4T	T	1	8	100	0.125	0.0	0.00	0.7	0.01
4R	R	192	1530	100	0.125	8.9	0.65	0.7	3.20

* Maximum degree of saturation

Table S.12A - Fuel Consumption, Emissions and Cost (TOTAL)

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 25 FUTURO (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Mov ID	Fuel Total gal/h	Cost Total $/h	HC Total kg/h	CO Total kg/h	NOX Total kg/h	CO2 Total kg/h
West: ACCESO OESTE (PR-464)						
5L L	4.1	47.00	0.070	3.37	0.095	38.4
2T T	0.7	8.54	0.013	0.61	0.017	7.0
2R R	0.1	1.20	0.002	0.09	0.002	1.0
	4.9	56.75	0.084	4.06	0.115	46.4
South: ACCESO SUR (CAMINO VECINAL)						
3L L	0.0	0.21	0.000	0.02	0.000	0.2
8T T	0.0	0.17	0.000	0.01	0.000	0.1
8R R	0.1	0.84	0.001	0.06	0.002	0.7
	0.1	1.22	0.002	0.09	0.003	1.1
East: ACCESO ESTE (CAMINO VECINAL)						
1L L	0.1	0.87	0.001	0.07	0.002	0.8
6T T	0.4	3.89	0.006	0.30	0.009	3.4
6R R	4.0	43.67	0.067	3.35	0.096	37.7
	4.4	48.44	0.074	3.72	0.106	41.8
North: ACCESO NORTE(PR-464)						
7L L	0.2	1.84	0.003	0.15	0.004	1.6
4T T	0.0	0.15	0.000	0.00	0.000	0.1
4R R	3.6	39.12	0.060	3.00	0.087	34.2
	3.8	41.12	0.063	3.15	0.091	36.0
INTERSECTION:	13.2	147.52	0.223	11.02	0.315	125.2

PARAMETERS USED IN COST CALCULATIONS

Pump price of fuel ($/US gal)	=	2.400
Fuel resource cost factor	=	0.70
Ratio of running cost to fuel cost	=	3.0
Average income ($/h)	=	19.00
Time value factor	=	0.40
Light vehicle mass (1000 lb)	=	3.1
Heavy vehicle mass (1000 lb)	=	24.0
Light vehicle idle fuel rate (US gal/h)	=	0.360
Heavy vehicle idle fuel rate (US gal/h)	=	0.530

Table S.12B - Fuel Consumption, Emissions and Cost (RATE)

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 25 FUTURO (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Mov ID		Fuel Eff. mpg	Cost Rate $/mi	HC Rate g/km	CO Rate g/km	NOX Rate g/km	CO2 Rate g/km
West: ACCESO OESTE (PR-464)							
5L	L	18.1	0.40	0.587	28.38	0.804	324.1
2T	T	18.2	0.39	0.580	28.05	0.801	322.8
2R	R	18.1	0.40	0.583	28.23	0.804	324.0
		18.2	0.40	0.585	28.33	0.803	323.9
South: ACCESO SUR (CAMINO VECINAL)							
3L	L	19.2	0.35	0.547	27.59	0.783	305.6
8T	T	25.1	0.28	0.370	14.49	0.536	233.9
8R	R	19.6	0.35	0.532	26.54	0.766	300.5
		20.3	0.34	0.507	24.69	0.730	290.2
East: ACCESO ESTE (CAMINO VECINAL)							
1L	L	18.8	0.36	0.563	28.30	0.797	313.5
6T	T	18.9	0.36	0.553	27.78	0.793	311.4
6R	R	18.9	0.36	0.553	27.66	0.790	311.2
		18.9	0.36	0.553	27.68	0.790	311.2
North: ACCESO NORTE(PR-464)							
7L	L	19.6	0.34	0.535	26.99	0.770	300.4
4T	T	31.6	0.24	0.257	5.87	0.369	186.4
4R	R	20.0	0.34	0.517	25.78	0.749	294.3
		20.0	0.34	0.516	25.74	0.748	294.0
INTERSECTION:		18.9	0.37	0.553	27.29	0.782	310.3

Table S.14 - Summary of Input and Output Data

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 25 FUTURO (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Demand Flow (veh/h) L	T	R	Tot	%HV	Adj. Basic Satf.	Eff Grn (secs) 1st	2nd	Deg Sat x	Aver. Delay (sec)	Longest Queue (ft)	Shrt Lane (ft)
West: ACCESO OESTE (PR-464)												
1 LTR	197	36	5	238	0				0.366	13.7	72	1600
	197	36	5	238	0				0.366	13.7	72	
South: ACCESO SUR (CAMINO VECINAL)												
1 LTR	1	1	4	6	0				0.004	8.0	1	1600
	1	1	4	6	0				0.004	8.0	1	
East: ACCESO ESTE (CAMINO VECINAL)												
1 LTR	4	18	200	222	0				0.085	6.5	13	1600
	4	18	200	222	0				0.085	6.5	13	

North: ACCESO NORTE(PR-464)									
1 LTR	9	1	192	202	0		0.126	8.9	19 1600
	9	1	192	202	0		0.126	8.9	19

ALL VEHICLES	Total Flow	% HV	Max X	Aver. Delay	Max Queue
	668	0	0.367	9.8	72

Peak flow period = 15 minutes.

Queue values in this table are 95% back of queue (feet).

Note: Basic Saturation Flows are not adjusted at roundabouts or sign-controlled intersections and apply only to continuous lanes.

Table S.15 - Capacity and Level of Service

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 25 FUTURO (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Mov ID	Mov Typ	Total Flow (veh /h)	Total Cap. (veh /h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	(ft)
West: ACCESO OESTE (PR-464)								
5L	L	197	538	0.366	13.7	B	2.9	72
2T	T	36	98	0.367*	13.7	B	2.9	72
2R	R	5	14	0.357	13.7	B	2.9	72
South: ACCESO SUR (CAMINO VECINAL)								
3L	L	1	268	0.004	9.8	A	0.0	1
8T	T	1	268	0.004	0.6	A	0.0	1
8R	R	4	1072	0.004	9.5	A	0.0	1
East: ACCESO ESTE (CAMINO VECINAL)								
1L	L	4	47	0.085	6.5	A	0.5	13
6T	T	18	211	0.085	6.5	A	0.5	13
6R	R	200	2341	0.085	6.5	A	0.5	13
North: ACCESO NORTE(PR-464)								
7L	L	9	72	0.125	9.1	A	0.7	19
4T	T	1	8	0.125	0.0	A	0.7	19
4R	R	192	1530	0.125	8.9	A	0.7	19
ALL VEHICLES:		668		0.367	9.8	NA	2.9	72

Level of Service calculations are based on average control delay including geometric delay (HCM criteria), independent of the current delay definition used. For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

* Maximum v/c ratio, or critical green periods
" Movement Level of service has been determined using adjacent lane v/c ratio rather than short lane v/c ratio (v/c=1.0)

Table D.0 - Geometric Delay Data

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 25 FUTURO (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

From Approach	To Approach	Turn	Negn Radius (ft)	Negn Speed (mph)	Negn Dist. (ft)	Appr. Dist. (ft)	Downstream (ft)	Distance User Spec?
West: ACCESO OESTE (PR-464)								
	South	Right	32.8	12.5	51.5	1600	387	No
	East	Thru	S	12.4	35.0	1600	374	No
	North	Left	23.0	10.9	36.1	1600	375	No
South: ACCESO SUR (CAMINO VECINAL)								
	West	Left	19.8	10.3	32.8	1600	374	No
	East	Right	32.8	12.5	51.5	1600	387	No
	North	Thru	S	40.0	35.0	1600	403	No
East: ACCESO ESTE (CAMINO VECINAL)								
	West	Thru	S	12.4	35.0	1600	374	No
	South	Left	17.6	9.9	32.8	1600	377	No
	North	Right	32.8	12.5	51.5	1600	387	No
North: ACCESO NORTE(PR-464)								
	West	Right	32.8	12.5	51.5	1600	387	No
	South	Thru	S	40.0	35.0	1600	403	No
	East	Left	21.1	10.6	33.1	1600	373	No

Downstream distance is distance travelled from the stopline until exit cruise speed is reached (includes negotiation distance). Acceleration distance is weighted for light and heavy vehicles. The same distance applies for both stopped and unstopped vehicles.

Table D.1 - Lane Delays

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 25 FUTURO (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Stop-line Delay 1st d1	2nd d2	Total dSL	Acc. Dec. dn	Queuing Total dq	MvUp dqm	Stopd (Idle) di	Geom dig	Control dic
West: ACCESO OESTE (PR-464)										
1 LTR	0.366	5.5	3.2	8.7	0.2	8.4	0.1	8.3	5.0	13.7
South: ACCESO SUR (CAMINO VECINAL)										
1 LTR	0.004	0.6	0.0	0.6	2.1	0.0	0.0	0.0	7.5	8.0
East: ACCESO ESTE (CAMINO VECINAL)										
1 LTR	0.085	1.4	0.1	1.5	0.0	1.5	0.0	1.5	5.0	6.5
North: ACCESO NORTE(PR-464)										
1 LTR	0.126	0.0	0.0	0.0	0.2	0.0	0.0	0.0	8.9	8.9

dn is average stop-start delay for all vehicles queued and unqueued

Table D.2 - Lane Stops

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 25 FUTURO (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	-- Effective Stop Rate -- he1	he2	Geom. hig	Overall h	Prop. Queued pq	Queue Move-up Rate hqm
West: ACCESO OESTE (PR-464)							
1 LTR	0.366	0.11	0.01	0.87	0.99	0.131	0.02
South: ACCESO SUR (CAMINO VECINAL)							
1 LTR	0.004	0.03	0.00	0.33	0.36	0.432	0.00
East: ACCESO ESTE (CAMINO VECINAL)							
1 LTR	0.085	0.00	0.00	1.00	1.00	0.003	0.00
North: ACCESO NORTE(PR-464)							
1 LTR	0.126	0.00	0.00	0.65	0.65	0.049	0.00

hig is the average value for all movements in a shared lane
hqm is average queue move-up rate for all vehicles queued and unqueued

Table D.3A - Lane Queues (veh)

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 25 FUTURO (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Ovrfl. Queue No	Average (veh) Nb1	Nb2	Nb	Percentile (veh) 70%	85%	90%	95%	98%	Queue Stor. Ratio
West: ACCESO OESTE (PR-464)											
1 LTR	0.366	0.1	0.8	0.1	0.9	1.7	2.0	2.3	2.9	3.3	0.04
South: ACCESO SUR (CAMINO VECINAL)											
1 LTR	0.004	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
East: ACCESO ESTE (CAMINO VECINAL)											
1 LTR	0.085	0.0	0.2	0.0	0.2	0.3	0.4	0.4	0.5	0.6	0.01
North: ACCESO NORTE(PR-464)											
1 LTR	0.126	0.0	0.2	0.0	0.2	0.4	0.5	0.6	0.7	0.9	0.01

Values printed in this table are back of queue (vehicles).

Table D.3B - Lane Queues (feet)

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 25 FUTURO (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Ovrfl. Queue No	Average (feet) Nb1	Nb2	Nb	Percentile (feet) 70%	85%	90%	95%	98%	Queue Stor. Ratio
West: ACCESO OESTE (PR-464)											
1 LTR	0.366	1.7	19.7	3.3	23.0	42.0	51.2	58.1	71.9	83.4	0.04
South: ACCESO SUR (CAMINO VECINAL)											
1 LTR	0.004	0.0	0.2	0.0	0.2	0.3	0.4	0.5	0.6	0.6	0.00
East: ACCESO ESTE (CAMINO VECINAL)											
1 LTR	0.085	0.0	4.2	0.0	4.2	7.9	9.6	10.8	13.3	15.4	0.01
North: ACCESO NORTE(PR-464)											
1 LTR	0.126	0.0	5.9	0.0	5.9	11.0	13.4	15.1	18.6	21.5	0.01

Values printed in this table are back of queue (feet).

Table D.4 - Movement Speeds (mph) and Geometric Delay

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 25 FUTURO (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Mov ID	App. Speeds Cruise	Negn	Exit Speeds Negn	Cruise	Queue Move-up 1st Grn	2nd Grn	Av. Section Spd Running	Overall	Geom Delay (sec)
West: ACCESO OESTE (PR-464)									
5L L	40.0	0.0	10.9	40.0	12.7		30.1	25.3	5.0
2T T	40.0	0.0	12.4	40.0	20.1		30.2	25.5	5.0
2R R	40.0	0.0	12.5	40.0	40.0		29.9	25.3	5.0
South: ACCESO SUR (CAMINO VECINAL)									
3L L	40.0	10.3	10.3	40.0			30.3	30.3	9.2
8T T	40.0	40.0	40.0	40.0			36.0	36.0	0.0
8R R	40.0	12.5	12.5	40.0			30.4	30.4	8.9
East: ACCESO ESTE (CAMINO VECINAL)									
1L L	40.0	0.0	9.9	40.0			30.1	29.1	5.0
6T T	40.0	0.0	12.4	40.0			30.3	29.3	5.0
6R R	40.0	0.0	12.5	40.0			30.0	29.1	5.0
North: ACCESO NORTE(PR-464)									
7L L	40.0	10.6	10.6	40.0			31.3	31.3	9.1
4T T	40.0	40.0	40.0	40.0			39.5	39.5	0.0
4R R	40.0	12.5	12.5	40.0			31.5	31.5	8.9

"Running Speed" is the average speed excluding stopped periods.

Table D.6 - Gap Acceptance Parameters

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 25 FUTURO (AM)
Intersection ID: 2
Stop Sign Controlled Intersection

Mov ID	Mov Type	Opng Flow (pcu/h)	Critical Gap Hdwy (s)	Critical Gap Dist (ft)	Foll-up Headway (s)	Entry HV Equiv
West: ACCESO OESTE (PR-464)						
5L L	Normal	317+	7.50	138.7	3.50	2.00
2T T	Normal	102+	6.50	121.1	4.00	2.00
2R R	Normal	1	2.00	117.3	1.00	2.00
South: ACCESO SUR (CAMINO VECINAL)						
3L L	Normal	193	4.10	76.2	2.20	2.00
East: ACCESO ESTE (CAMINO VECINAL)						
1L L	Normal	54+	7.50	143.9	3.50	2.00
6T T	Normal	196+	6.50	121.1	4.00	2.00
6R R	Normal	1	2.00	117.3	1.00	2.00
North: ACCESO NORTE(PR-464)						
7L L	Normal	5	4.10	108.4	2.20	2.00
4T T	Normal	1	6.50	381.3	4.00	2.00

Values in this table are adjusted for heavy vehicles in the entry stream.
\+ Percentage of exiting flow included in total opposing flow

SIDRA SOLUTIONS

Site: New Site - 1
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A1460, PLC, Large Office
Produced by SIDRA Intersection 3.2.0.1455
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SIDRA INTERSECTION

Output Tables

INTERSECCION CARRETERA PR-464 & CALLE 3

FIGURA 26 FUTURO (AM)

Run Information

```
* Basic Parameters:
  Intersection Type: Unsignalised - Two-Way Stop Control
  Driving on the right-hand side of the road
  Input data specified in US units
  Model Defaults: US HCM (US)
  Peak Flow Period (for performance): 15 minutes
  Unit time (for volumes): 60 minutes.
  Delay definition: Control delay
                    Geometric delay included
  HCM Delay Model option selected
  HCM Queue Model option selected
  Level of Service based on: Delay (HCM method)
  Queue definition: Back of queue, 95th Percentile
```

Table B.1 - Movement Definitions and Flow Rates (Origin-Destination)

```
INTERSECCION CARRETERA PR-464   CALLE 3
FIGURA 26  FUTURO  (AM)
Intersection ID: 0
Stop Sign Controlled Intersection
```

From Approach	To Approach	Mov ID	Turn	Flow Rate LV	Flow Rate HV	Flow Scale	Peak Flow Factor
West: ACCESO OESTE (PR-464)							
	East	2T	Thru	212	0	1.00	1.00
	North	5L	Left	184	0	1.00	1.00
East: ACCESO ESTE							
	West	6T	Thru	177	0	1.00	1.00
	North	6R	Right	83	0	1.00	1.00
North: ACCESO NORTE (CALLE 3)							
	West	4R	Right	173	0	1.00	1.00
	East	7L	Left	73	0	1.00	1.00

```
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table B.2A - Flow Rates (Separate Light and Heavy Vehicles)

```
INTERSECCION CARRETERA PR-464   CALLE 3
FIGURA 26  FUTURO  (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

-----------------------------------------------
  Mov          Left        Through       Right
  ID        ---------    ---------    ---------
             LV    HV     LV    HV     LV    HV
-----------------------------------------------
Demand flows in veh/hour as used by the program
West: ACCESO OESTE (PR-464)
   5L L     184     0      0     0      0     0
   2T T       0     0    212     0      0     0
-----------------------------------------------
East: ACCESO ESTE
   6T T       0     0    177     0      0     0
   6R R       0     0      0     0     83     0
-----------------------------------------------
North: ACCESO NORTE (CALLE 3)
   7L L      73     0      0     0      0     0
   4R R       0     0      0     0    173     0
-----------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table B.2B - Flow Rates (Total Vehicles and Percent Heavy)

```
INTERSECCION CARRETERA PR-464   CALLE 3
FIGURA 26  FUTURO  (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

-------------------------------------------------
  Mov          Left        Through       Right
  ID        ----------    ----------    ----------
           Total  %HV    Total  %HV    Total  %HV
-------------------------------------------------
Demand flows in veh/hour as used by the program
West: ACCESO OESTE (PR-464)
   5L L      184   0.0       0   0.0       0   0.0
   2T T        0   0.0     212   0.0       0   0.0
-------------------------------------------------
East: ACCESO ESTE
   6T T        0   0.0     177   0.0       0   0.0
   6R R        0   0.0       0   0.0      83   0.0
-------------------------------------------------
North: ACCESO NORTE (CALLE 3)
   7L L       73   0.0       0   0.0       0   0.0
   4R R        0   0.0       0   0.0     173   0.0
-------------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table S.2 - Movement Capacity Parameters

INTERSECCION CARRETERA PR-464 CALLE 3
FIGURA 26 FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID	Demand Flow (veh/h)	HV (%)	Opposing Movement Flow (veh/h)	HV (%)	Adjust. Flow (pcu/h)	Total Cap. (veh /h)	Prac. Deg. Satn xp	Prac. Spare Cap. (%)	Lane Util (%)	Deg. Satn x
West: ACCESO OESTE (PR-464)										
5L L	184	0.0	260	0.0	260	723	0.80	214	100	0.254
2T T	212	0.0	0			833	0.80	214	100	0.255*
East: ACCESO ESTE										
6T T	177	0.0	0			1224	0.80	453	100	0.145
6R R	83	0.0	0			574	0.80	453	100	0.145
North: ACCESO NORTE (CALLE 3)										
7L L	73	0.0	615+	0.0	615	299	0.80	228	100	0.244
4R R	173	0.0	177	0.0	177	709	0.80	228	100	0.244

\+ Percentage of exiting flow included in total opposing flow

Table S.3 - Intersection Parameters

INTERSECCION CARRETERA PR-464 CALLE 3
FIGURA 26 FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Intersection Level of Service	=	NA
Worst movement Level of Service	=	B
Average intersection delay (s/pers)	=	5.8
Largest average movement delay (s)	=	10.3
Largest back of queue, 95% (ft)	=	49
Performance Index	=	13.21
Degree of saturation (highest)	=	0.255
Practical Spare Capacity (lowest)	=	214 %
Effective intersection capacity, (veh/h)	=	3544
Total vehicle flow (veh/h)	=	902
Total person flow (pers/h)	=	1082
Total vehicle delay (veh-h/h)	=	1.46
Total person delay (pers-h/h)	=	1.76
Total effective vehicle stops (veh/h)	=	397
Total effective person stops (pers/h)	=	477
Total vehicle travel (veh-mi/h)	=	340.1
Total cost ($/h)	=	172.92
Total fuel (gal/h)	=	15.3
Total CO2 (kg/h)	=	144.86

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections. See Table S.15 or Movement Displays for individual movement LOS values.

Table S.5 - Movement Performance

Mov ID		Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue 95% Back (vehs)	Longest Queue 95% Back (ft)	Perf. Index	Aver. Speed (mph)
West: ACCESO OESTE (PR-464)										
5L	L	0.53	0.63	10.3	0.41	0.71	1.9	49	3.25	30.4
2T	T	0.07	0.08	1.2	0.41	0.00	1.9	49	2.41	36.1
East: ACCESO ESTE										
6T	T	0.00	0.00	0.0	0.00	0.00	0.0	0	1.68	40.0
6R	R	0.21	0.25	8.9	0.00	0.69	0.0	0	1.30	31.7
North: ACCESO NORTE (CALLE 3)										
7L	L	0.20	0.24	9.7	0.36	1.00	1.3	33	1.41	27.6
4R	R	0.47	0.56	9.7	0.36	0.80	1.3	33	3.15	27.6

Table S.6 - Intersection Performance

INTERSECCION CARRETERA PR-464 CALLE 3
FIGURA 26 FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Total Flow (veh/h)	Deg. Satn x	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue (ft)	Perf. Index	Aver. Speed (mph)
West: ACCESO OESTE (PR-464)									
396	0.255	0.60	0.71	5.4	0.41	0.33	49	5.67	33.2
East: ACCESO ESTE									
260	0.145	0.21	0.25	2.8	0.00	0.22	0	2.98	36.9
North: ACCESO NORTE (CALLE 3)									
246	0.244	0.66	0.80	9.7	0.36	0.86	33	4.56	27.6
ALL VEHICLES:									
902	0.255	1.46	1.76	5.8	0.28	0.44	49	13.21	32.4
INTERSECTION (persons):									
1082	0.255		1.76	5.8	0.28	0.44		13.21	32.4

Queue values in this table are 95% back of queue (feet).

Table S.7 - Lane Performance

INTERSECCION CARRETERA PR-464 CALLE 3
FIGURA 26 FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Lane No.	Dem Flow (veh /h)	Cap (veh /h)	Deg. Satn x	Aver. Delay (sec)	Eff. Stop Rate	Queue 95% Back (vehs)	Queue 95% Back (ft)	Lane Length (ft)
West: ACCESO OESTE (PR-464)								
1 LT	396	1556	0.254	5.4	0.33	1.9	48.7	1600.0
East: ACCESO ESTE								
1 TR	260	1799	0.145	2.8	0.22	0.0	0.0	1600.0
North: ACCESO NORTE (CALLE 3)								
1 LR	246	1008	0.244	9.7	0.86	1.3	32.7	1600.0

Table S.8 - Lane Flow and Capacity Information

INTERSECCION CARRETERA PR-464 CALLE 3
FIGURA 26 FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Lane No.	Dem Flow (veh/h) Lef	Thru	Rig	Tot	Min Cap (veh /h)	Tot Cap (veh /h)	Deg. Satn x	Lane Util %
West: ACCESO OESTE (PR-464)								
1 LT	184	212	0	396	396	1556	0.254	100
East: ACCESO ESTE								
1 TR	0	177	83	260	260	1799	0.145	100
North: ACCESO NORTE (CALLE 3)								
1 LR	73	0	173	246	60	1008	0.244	100

The capacity value for priority and continuous movements is obtained by adjusting the basic saturation flow for heavy vehicle and turning vehicle effects. Saturation flow scale applies if specified.

Table S.10 - Movement Capacity and Performance Summary

INTERSECCION CARRETERA PR-464 CALLE 3
FIGURA 26 FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID	Mov Typ	Dem Flow (veh	Total Cap. (veh	Lane Util	Deg. Satn	Aver. Delay	Eff. Stop Rate	95% Back of Queue	Perf. Index

	/h)	/h)	(%)	x	(sec)		(veh)	
West: ACCESO OESTE (PR-464)								
5L L	184	723	100	0.254	10.3	0.71	1.9	3.25
2T T	212	833	100	0.255*	1.2	0.00	1.9	2.41
East: ACCESO ESTE								
6T T	177	1224	100	0.145	0.0	0.00	0.0	1.68
6R R	83	574	100	0.145	8.9	0.69	0.0	1.30
North: ACCESO NORTE (CALLE 3)								
7L L	73	299	100	0.244	9.7	1.00	1.3	1.41
4R R	173	709	100	0.244	9.7	0.80	1.3	3.15

* Maximum degree of saturation

Table S.12A - Fuel Consumption, Emissions and Cost (TOTAL)

INTERSECCION CARRETERA PR-464 CALLE 3
FIGURA 26 FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID	Fuel Total gal/h	Cost Total $/h	HC Total kg/h	CO Total kg/h	NOX Total kg/h	CO2 Total kg/h
West: ACCESO OESTE (PR-464)						
5L L	3.6	38.58	0.060	3.03	0.086	33.7
2T T	3.2	36.29	0.047	1.83	0.068	30.0
	6.7	74.88	0.107	4.85	0.155	63.7
East: ACCESO ESTE						
6T T	2.1	25.69	0.026	0.52	0.038	19.5
6R R	1.6	16.85	0.026	1.29	0.038	14.7
	3.6	42.54	0.052	1.81	0.075	34.2
North: ACCESO NORTE (CALLE 3)						
7L L	1.5	16.43	0.025	1.24	0.035	13.9
4R R	3.5	39.07	0.059	2.90	0.083	33.0
	5.0	55.50	0.084	4.14	0.118	46.9
INTERSECTION:	15.3	172.92	0.243	10.80	0.348	144.9

PARAMETERS USED IN COST CALCULATIONS

Pump price of fuel ($/US gal)	=	2.400
Fuel resource cost factor	=	0.70
Ratio of running cost to fuel cost	=	3.0
Average income ($/h)	=	19.00
Time value factor	=	0.40
Light vehicle mass (1000 lb)	=	3.1
Heavy vehicle mass (1000 lb)	=	24.0
Light vehicle idle fuel rate (US gal/h)	=	0.360
Heavy vehicle idle fuel rate (US gal/h)	=	0.530

Table S.12B - Fuel Consumption, Emissions and Cost (RATE)

INTERSECCION CARRETERA PR-464 CALLE 3
FIGURA 26 FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID		Fuel Eff. mpg	Cost Rate $/mi	HC Rate g/km	CO Rate g/km	NOX Rate g/km	CO2 Rate g/km
West: ACCESO OESTE (PR-464)							
5L	L	19.3	0.35	0.543	27.32	0.778	304.1
2T	T	25.4	0.28	0.365	14.10	0.528	231.8
		22.2	0.31	0.447	20.20	0.644	265.1
East: ACCESO ESTE							
6T	T	32.6	0.24	0.243	4.77	0.347	180.3
6R	R	20.0	0.34	0.515	25.68	0.747	293.5
		27.2	0.27	0.329	11.41	0.474	216.2
North: ACCESO NORTE (CALLE 3)							
7L	L	18.5	0.37	0.570	28.24	0.799	317.0
4R	R	18.7	0.37	0.562	27.71	0.792	315.0
		18.6	0.37	0.564	27.87	0.794	315.6
INTERSECTION:		22.2	0.32	0.445	19.74	0.635	264.7

Table S.14 - Summary of Input and Output Data

INTERSECCION CARRETERA PR-464 CALLE 3
FIGURA 26 FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Lane No.	Demand Flow (veh/h) L	T	R	Tot	%HV	Adj. Basic Satf.	Eff Grn (secs) 1st	2nd	Deg Sat x	Aver. Delay (sec)	Longest Queue (ft)	Shrt Lane (ft)
West: ACCESO OESTE (PR-464)												
1 LT	184	212		396	0				0.254	5.4	49	1600
	184	212	0	396	0				0.254	5.4	49	
East: ACCESO ESTE												
1 TR		177	83	260	0				0.145	2.8	0	1600
	0	177	83	260	0				0.145	2.8		
North: ACCESO NORTE (CALLE 3)												
1 LR	73		173	246	0				0.244	9.7	33	1600
	73	0	173	246	0				0.244	9.7	33	

ALL VEHICLES	Total Flow	% HV	Max X	Aver. Delay	Max Queue
	902	0	0.255	5.8	49

```
================================================================================
Peak flow period = 15 minutes.

Queue values in this table are 95% back of queue (feet).

Note: Basic Saturation Flows are not adjusted at roundabouts or sign-
      controlled intersections and apply only to continuous lanes.
```

Table S.15 - Capacity and Level of Service

```
INTERSECCION CARRETERA PR-464   CALLE 3
FIGURA 26  FUTURO  (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

-------------------------------------------------------------------
 Mov     Mov    Total  Total    Deg.   Aver.   LOS  Longest Queue
 ID      Typ    Flow    Cap.     of    Delay         95% Back
                (veh   (veh     Satn                (vehs)  (ft)
                  /h)    /h)    (v/c)  (sec)
-------------------------------------------------------------------
West: ACCESO OESTE (PR-464)
  5L L           184    723   0.254    10.3    B      1.9     49
  2T T           212    833   0.255*    1.2    A      1.9     49
-------------------------------------------------------------------
East: ACCESO ESTE
  6T T           177   1224   0.145     0.0    A      0.0      0
  6R R            83    574   0.145     8.9    A      0.0      0
-------------------------------------------------------------------
North: ACCESO NORTE (CALLE 3)
  7L L            73    299   0.244     9.7    A      1.3     33
  4R R           173    709   0.244     9.7    A      1.3     33
-------------------------------------------------------------------
 ALL VEHICLES:   902          0.255     5.8   NA      1.9     49
-------------------------------------------------------------------
     Level of Service calculations are based on
     average control delay including geometric delay (HCM criteria),
     independent of the current delay definition used.
     For the criteria, refer to the "Level of Service" topic in the
     SIDRA Output Guide or the Output section of the on-line help.

 NA  Not Applicable - Intersection Level of Service is not calculated at
     two-way stop control or give-way/yield controlled intersections.

  *  Maximum v/c ratio, or critical green periods
```

Table D.0 - Geometric Delay Data

```
INTERSECCION CARRETERA PR-464   CALLE 3
FIGURA 26  FUTURO  (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

-------------------------------------------------------------------------------
                            Negn  Negn   Negn   Appr.   Downstream  Distance
 From      To               Radius Speed Dist.  Dist.   ----------------------
 Approach  Approach  Turn    (ft)  (mph)  (ft)   (ft)      (ft)      User Spec?
-------------------------------------------------------------------------------
 West: ACCESO OESTE (PR-464)
```

East	Thru	S	40.0	35.0	1600	403	No
North	Left	23.0	10.9	36.1	1600	375	No
East: ACCESO ESTE							
West	Thru	S	40.0	35.0	1600	403	No
North	Right	32.8	12.5	51.5	1600	387	No
North: ACCESO NORTE (CALLE 3)							
West	Right	32.8	12.5	51.5	1600	387	No
East	Left	23.0	10.9	36.1	1600	375	No

Downstream distance is distance travelled from the stopline until exit cruise speed is reached (includes negotiation distance). Acceleration distance is weighted for light and heavy vehicles. The same distance applies for both stopped and unstopped vehicles.

Table D.1 - Lane Delays

INTERSECCION CARRETERA PR-464 CALLE 3
FIGURA 26 FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Stop-line Delay 1st d1	2nd d2	Total dSL	Delay (seconds/veh) Acc. Dec. dn	Queuing Total dq	MvUp dqm	Stopd (Idle) di	Geom dig	Control dic
West: ACCESO OESTE (PR-464)										
1 LT	0.254	1.2	0.0	1.2	2.7	0.0	0.0	0.0	4.2	5.4
East: ACCESO ESTE										
1 TR	0.145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	2.8
North: ACCESO NORTE (CALLE 3)										
1 LR	0.244	3.6	1.1	4.7	0.7	4.0	0.0	4.0	5.0	9.7

dn is average stop-start delay for all vehicles queued and unqueued

Table D.2 - Lane Stops

INTERSECCION CARRETERA PR-464 CALLE 3
FIGURA 26 FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	-- Effective Stop Rate -- he1	he2	Geom. hig	Overall h	Prop. Queued pq	Queue Move-up Rate hqm
West: ACCESO OESTE (PR-464)							
1 LT	0.254	0.13	0.00	0.19	0.33	0.414	0.00
East: ACCESO ESTE							
1 TR	0.145	0.00	0.00	0.22	0.22	0.000	0.00

```
-----------------------------------------------------
 North: ACCESO NORTE (CALLE 3)
 1 LR  0.244  0.22  0.00  0.64   0.86    0.363   0.00
-----------------------------------------------------
  hig is the average value for all movements in a shared lane
  hqm is average queue move-up rate for all vehicles queued and unqueued
```

Table D.3A - Lane Queues (veh)

```
INTERSECCION CARRETERA PR-464   CALLE 3
FIGURA 26  FUTURO  (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

-------------------------------------------------------------------------------------------
        Deg.  Ovrfl.   Average (veh)              Percentile (veh)             Queue
 Lane   Satn  Queue ------------------  ---------------------------------- Stor.
 No.      x    No      Nb1    Nb2     Nb     70%    85%    90%    95%    98%  Ratio
-------------------------------------------------------------------------------------------
 West: ACCESO OESTE (PR-464)
 1 LT  0.254    0.0     0.6    0.0    0.6     1.1    1.4    1.6    1.9    2.3   0.03
-------------------------------------------------------------------------------------------
 East: ACCESO ESTE
 1 TR  0.145    0.0     0.0    0.0    0.0     0.0    0.0    0.0    0.0    0.0   0.00
-------------------------------------------------------------------------------------------
 North: ACCESO NORTE (CALLE 3)
 1 LR  0.244    0.0     0.4    0.0    0.4     0.8    0.9    1.1    1.3    1.5   0.02
-------------------------------------------------------------------------------------------

     Values printed in this table are back of queue (vehicles).
```

Table D.3B - Lane Queues (feet)

```
INTERSECCION CARRETERA PR-464   CALLE 3
FIGURA 26  FUTURO  (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

-------------------------------------------------------------------------------------------
        Deg.  Ovrfl.   Average (feet)             Percentile (feet)            Queue
 Lane   Satn  Queue ------------------  ---------------------------------- Stor.
 No.      x    No      Nb1    Nb2     Nb     70%    85%    90%    95%    98%  Ratio
-------------------------------------------------------------------------------------------
 West: ACCESO OESTE (PR-464)
 1 LT  0.254    0.0    15.5    0.0   15.5    28.6   34.8   39.4   48.7   56.4   0.03
-------------------------------------------------------------------------------------------
 East: ACCESO ESTE
 1 TR  0.145    0.0     0.0    0.0    0.0     0.0    0.0    0.0    0.0    0.0   0.00
-------------------------------------------------------------------------------------------
 North: ACCESO NORTE (CALLE 3)
 1 LR  0.244    0.0    10.3    0.0   10.3    19.3   23.4   26.5   32.7   37.8   0.02
-------------------------------------------------------------------------------------------

     Values printed in this table are back of queue (feet).
```

Table D.4 - Movement Speeds (mph) and Geometric Delay

INTERSECCION CARRETERA PR-464 CALLE 3
FIGURA 26 FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID	App. Speeds Cruise	App. Speeds Negn	Exit Speeds Negn	Exit Speeds Cruise	Queue Move-up 1st Grn	Queue Move-up 2nd Grn	Av. Section Spd Running	Av. Section Spd Overall	Geom Delay (sec)
West: ACCESO OESTE (PR-464)									
5L L	40.0	10.9	10.9	40.0			30.4	30.4	9.1
2T T	40.0	40.0	40.0	40.0			36.1	36.1	0.0
East: ACCESO ESTE									
6T T	40.0	40.0	40.0	40.0			40.0	40.0	0.0
6R R	40.0	12.5	12.5	40.0			31.7	31.7	8.9
North: ACCESO NORTE (CALLE 3)									
7L L	40.0	0.0	10.9	40.0			30.1	27.6	5.0
4R R	40.0	0.0	12.5	40.0			30.0	27.6	5.0

"Running Speed" is the average speed excluding stopped periods.

Table D.6 - Gap Acceptance Parameters

INTERSECCION CARRETERA PR-464 CALLE 3
FIGURA 26 FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID	Mov Type	Opng Flow (pcu/h)	Critical Gap Hdwy (s)	Critical Gap Dist (ft)	Foll-up Headway (s)	Entry HV Equiv
West: ACCESO OESTE (PR-464)						
5L L	Normal	260	4.10	187.8	2.20	2.00
East: ACCESO ESTE						
No opposed movements on this approach						
North: ACCESO NORTE (CALLE 3)						
7L L	Normal	615+	7.50	312.1	3.50	2.00
4R R	Normal	177	2.00	117.3	1.00	2.00

Values in this table are adjusted for heavy vehicles in the entry stream.
+ Percentage of exiting flow included in total opposing flow

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A1460, PLC, Large Office
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SIDRA INTERSECTION

Output Tables

INTERSECCIÓN CARRETERA PR-2 & CARRETERA PR-464

FIGURA 27 FUTURO (PM)

Run Information

```
* Basic Parameters:
  Intersection Type: Unsignalised - Two-Way Stop Control
  Driving on the right-hand side of the road
  Input data specified in US units
  Model Defaults: US HCM (US)
  Peak Flow Period (for performance): 15 minutes
  Unit time (for volumes): 60 minutes.
  Delay definition: Control delay
                    Geometric delay included
  HCM Delay Model option selected
  HCM Queue Model option selected
  Level of Service based on: Delay (HCM method)
  Queue definition: Back of queue, 95th Percentile
```

Table B.1 - Movement Definitions and Flow Rates (Origin-Destination)

```
INTERSECCI N CARRETERA PR-2   CARRETERA PR-464
FIGURA 27 FUTURO (PM)
Intersection ID: 3
Stop Sign Controlled Intersection
```

From Approach	To Approach	Mov ID	Turn	Flow Rate LV	Flow Rate HV	Flow Scale	Peak Flow Factor
West: ACCESO OESTE (PR-2)							
	South	2R	Right	263	0	1.00	1.00
	East	2T	Thru	1585	0	1.00	1.00
	North	5L	Left	1	0	1.00	1.00
South: ACCESO SUR (PR-464)							
	West	3L	Left	140	0	1.00	1.00
	East	8R	Right	216	0	1.00	1.00
	North	8T	Thru	1	0	1.00	1.00
East: ACCESO ESTE							
	West	6T	Thru	1413	0	1.00	1.00
	South	1L	Left	205	0	1.00	1.00
	North	6R	Right	1	0	1.00	1.00
North: ACCESO NORTE							
	West	4R	Right	1	0	1.00	1.00
	South	4T	Thru	1	0	1.00	1.00

```
          East         7L   Left      1     0    1.00     1.00
-------------------------------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table B.2A - Flow Rates (Separate Light and Heavy Vehicles)

```
INTERSECCI N CARRETERA PR-2   CARRETERA PR-464
FIGURA 27 FUTURO (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

-----------------------------------------------
  Mov          Left        Through       Right
  ID        ---------     ---------    ---------
             LV    HV      LV    HV     LV    HV
-----------------------------------------------
Demand flows in veh/hour as used by the program
West: ACCESO OESTE (PR-2)
   5L L       1     0       0     0      0     0
   2T T       0     0    1585     0      0     0
   2R R       0     0       0     0    263     0
-----------------------------------------------
South: ACCESO SUR (PR-464)
   3L L     140     0       0     0      0     0
   8T T       0     0       1     0      0     0
   8R R       0     0       0     0    216     0
-----------------------------------------------
East: ACCESO ESTE
   1L L     205     0       0     0      0     0
   6T T       0     0    1413     0      0     0
   6R R       0     0       0     0      1     0
-----------------------------------------------
North: ACCESO NORTE
   7L L       1     0       0     0      0     0
   4T T       0     0       1     0      0     0
   4R R       0     0       0     0      1     0
-----------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table B.2B - Flow Rates (Total Vehicles and Percent Heavy)

```
INTERSECCI N CARRETERA PR-2   CARRETERA PR-464
FIGURA 27 FUTURO (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

-------------------------------------------------
  Mov          Left        Through        Right
  ID        ----------    ----------    ----------
            Total  %HV    Total  %HV    Total  %HV
-------------------------------------------------
Demand flows in veh/hour as used by the program
West: ACCESO OESTE (PR-2)
```

```
   5L L        1   0.0        0   0.0        0   0.0
   2T T        0   0.0     1585   0.0        0   0.0
   2R R        0   0.0        0   0.0      263   0.0
------------------------------------------------------
South: ACCESO SUR (PR-464)
   3L L      140   0.0        0   0.0        0   0.0
   8T T        0   0.0        1   0.0        0   0.0
   8R R        0   0.0        0   0.0      216   0.0
------------------------------------------------------
East: ACCESO ESTE
   1L L      205   0.0        0   0.0        0   0.0
   6T T        0   0.0     1413   0.0        0   0.0
   6R R        0   0.0        0   0.0        1   0.0
------------------------------------------------------
North: ACCESO NORTE
   7L L        1   0.0        0   0.0        0   0.0
   4T T        0   0.0        1   0.0        0   0.0
   4R R        0   0.0        0   0.0        1   0.0
------------------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table S.2 - Movement Capacity Parameters

```
INTERSECCI N CARRETERA PR-2   CARRETERA PR-464
FIGURA 27 FUTURO (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

-------------------------------------------------------------------------------
 Mov                    Opposing Movement  Total Prac. Prac.  Lane  Deg.
 ID      Demand                  Adjust.   Cap. Deg.  Spare  Util  Satn
         Flow     HV   Flow   HV  Flow    (veh  Satn  Cap.
         (veh/h)  (%) (veh/h) (%) (pcu/h)  /h)   xp    (%)    (%)   x
-------------------------------------------------------------------------------
West: ACCESO OESTE (PR-2)
  5L L       1    0.0  1556   0.0   1556    302  0.80  ****   100  0.003
  2T T    1585    0.0     0               3474  0.80    75   100  0.456
  2R R     263    0.0   158   0.0    158    576  0.80    75   100  0.457
-------------------------------------------------------------------------------
South: ACCESO SUR (PR-464)
  3L L     140    0.0  3336+  0.0   3336    140  0.80   -20   100  1.000
  8T T       1    0.0  3338+  0.0   3338      1  0.80   -20   100  1.000
  8R R     216    0.0     0                216  0.80   -20   100  1.000
-------------------------------------------------------------------------------
East: ACCESO ESTE
  1L L     205    0.0  1991   0.0   1991    157  0.80   -39   100  1.306*
  6T T    1413    0.0     0               3799  0.80   115   100  0.372
  6R R       1    0.0     1   0.0      1      3  0.80   140   100  0.333
-------------------------------------------------------------------------------
North: ACCESO NORTE
  7L L       1    0.0  3422+  0.0   3422      2  0.80    60   100  0.500
  4T T       1    0.0  3608+  0.0   3608      2  0.80    60   100  0.500
  4R R       1    0.0     0                 2  0.80    60   100  0.500
-------------------------------------------------------------------------------
  +  Percentage of exiting flow included in total opposing flow
```

Table S.3 - Intersection Parameters

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 27 FUTURO (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Intersection Level of Service	=	NA
Worst movement Level of Service	=	F
Average intersection delay (s/pers)	=	19.9
Largest average movement delay (s)	=	949.9
Largest back of queue, 95% (ft)	=	19132
Performance Index	=	379.35
Degree of saturation (highest)	=	1.306
Practical Spare Capacity (lowest)	=	-39 %
Effective intersection capacity, (veh/h)	=	2932
Total vehicle flow (veh/h)	=	3828
Total person flow (pers/h)	=	4594
Total vehicle delay (veh-h/h)	=	21.11
Total person delay (pers-h/h)	=	25.33
Total effective vehicle stops (veh/h)	=	869
Total effective person stops (pers/h)	=	1043
Total vehicle travel (veh-mi/h)	=	1449.7
Total cost ($/h)	=	830.62
Total fuel (gal/h)	=	59.4
Total CO2 (kg/h)	=	562.46

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections. See Table S.15 or Movement Displays for individual movement LOS values.

Table S.5 - Movement Performance

Mov ID	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue 95% Back (vehs)	Longest Queue 95% Back (ft)	Perf. Index	Aver. Speed (mph)
West: ACCESO OESTE (PR-2)									
5L L	0.01	0.01	20.0	0.82	0.80	0.0	0	0.02	25.1
2T T	0.04	0.05	0.1	0.09	0.00	2.4	59	15.63	39.1
2R R	0.67	0.80	9.1	0.21	0.64	2.4	59	4.27	31.1
South: ACCESO SUR (PR-464)									
3L L	3.21	3.85	82.4	1.00	1.83	765.3	19132	125.99	11.3
8T T	0.02	0.03	82.4	1.00	1.82	765.3	19132	0.90	11.3
8R R	4.95	5.94	82.4	1.00	0.00	765.3	19132	192.19	11.2
East: ACCESO ESTE									
1L L	11.43	13.72	200.7	1.00	2.15	23.1	577	24.20	5.8
6T T	0.00	0.00	0.0	0.00	0.00	1.6	41	13.92	40.0
6R R	0.00	0.00	8.9	0.01	0.68	1.6	41	0.02	31.6
North: ACCESO NORTE									
7L L	0.26	0.32	949.9	1.00	1.33	4.2	106	0.74	1.4
4T T	0.26	0.32	949.9	1.00	1.32	4.2	106	0.74	1.4
4R R	0.26	0.32	949.9	1.00	0.00	4.2	106	0.73	1.4

Table S.6 - Intersection Performance

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 27 FUTURO (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Total Flow (veh/h)	Deg. Satn x	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue (ft)	Perf. Index	Aver. Speed (mph)
West: ACCESO OESTE (PR-2)									
1849	0.457	0.71	0.85	1.4	0.11	0.09	59	19.92	37.7
South: ACCESO SUR (PR-464)									
357	1.000	8.18	9.81	82.4	1.00	0.72	19132	319.08	11.3
East: ACCESO ESTE									
1619	1.306	11.43	13.72	25.4	0.13	0.27	577	38.14	22.9
North: ACCESO NORTE									
3	0.500	0.79	0.95	949.9	1.00	0.88	106	2.20	1.4
ALL VEHICLES:									
3828	1.306	21.11	25.33	19.9	0.20	0.23	19132	379.35	24.9
INTERSECTION (persons):									
4594	1.306		25.33	19.9	0.20	0.23		379.35	24.9

Queue values in this table are 95% back of queue (feet).

Table S.7 - Lane Performance

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 27 FUTURO (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Lane No.	Dem Flow (veh /h)	Cap (veh /h)	Deg. Satn x	Aver. Delay (sec)	Eff. Stop Rate	Queue 95% Back (vehs)	Queue 95% Back (ft)	Lane Length (ft)
West: ACCESO OESTE (PR-2)								
1 L	1	302	0.003	20.0	0.80	0.0	0.4	230.0T
2 T	867	1900	0.456	0.0	0.00	0.0	0.0	1600.0
3 TR	981	2151	0.456	2.6	0.17	2.4	59.4	1600.0
South: ACCESO SUR (PR-464)								
1 LTR	357	357	1.000	82.4	0.72	765.3	******	1600.0
East: ACCESO ESTE								
1 L	205	157	1.302	200.7	2.15	23.1*	576.6	230.0T
2 T	707	1900	0.372	0.0	0.00	0.0	0.0	1600.0
3 TR	707	1901	0.372	0.0	0.00	1.6	40.9	1600.0
North: ACCESO NORTE								
1 LTR	3	6	0.535	949.9	0.88	4.2	105.8	1600.0

* Queue length exceeds short lane length due to specification of a percentile queue in the Tools-Options (Model tab). For calculation of this statistic, you may specify the lane with full length.
T Short lane due to specification of Turn Slot

Table S.8 - Lane Flow and Capacity Information

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 27 FUTURO (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Lane No.	Dem Flow (veh/h) Lef	Thru	Rig	Tot	Min Cap (veh /h)	Tot Cap (veh /h)	Deg. Satn x	Lane Util %
West: ACCESO OESTE (PR-2)								
1 L	1	0	0	1	1	302	0.003	100
2 T	0	867	0	867	60	1900	0.456	100
3 TR	0	718	263	981	60	2151	0.456	100
South: ACCESO SUR (PR-464)								
1 LTR	140	1	216	357	357	357	1.000	100
East: ACCESO ESTE								
1 L	205	0	0	205	60	157	1.302	100
2 T	0	707	0	707	60	1900	0.372	100
3 TR	0	706	1	707	60	1901	0.372	100
North: ACCESO NORTE								
1 LTR	1	1	1	3	3	6	0.535	100

The capacity value for priority and continuous movements is obtained by adjusting the basic saturation flow for heavy vehicle and turning vehicle effects. Saturation flow scale applies if specified.

Table S.10 - Movement Capacity and Performance Summary

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 27 FUTURO (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Mov ID	Mov Typ	Dem Flow (veh /h)	Total Cap. (veh /h)	Lane Util (%)	Deg. Satn x	Aver. Delay (sec)	Eff. Stop Rate	95% Back of Queue (veh)	Perf. Index
West: ACCESO OESTE (PR-2)									
5L	L	1	302	100	0.003	20.0	0.80	0.0	0.02
2T	T	1585	3474	100	0.456	0.1	0.00	2.4	15.63
2R	R	263	576	100	0.457	9.1	0.64	2.4	4.27
South: ACCESO SUR (PR-464)									
3L	L	140	140	100	1.000	82.4	1.83	765.3	125.99
8T	T	1	1	100	1.000	82.4	1.82	765.3	0.90
8R	R	216	216	100	1.000	82.4	0.00	765.3	192.19
East: ACCESO ESTE									
1L	L	205	157	100	1.306*	200.7	2.15	23.1	24.20

6T	T	1413	3799	100	0.372	0.0	0.00	1.6	13.92
6R	R	1	3	100	0.333	8.9	0.68	1.6	0.02
North: ACCESO NORTE									
7L	L	1	2	100	0.500	949.9	1.33	4.2	0.74
4T	T	1	2	100	0.500	949.9	1.32	4.2	0.74
4R	R	1	2	100	0.500	949.9	0.00	4.2	0.73

* Maximum degree of saturation

Table S.12A - Fuel Consumption, Emissions and Cost (TOTAL)

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 27 FUTURO (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Mov ID		Fuel Total gal/h	Cost Total $/h	HC Total kg/h	CO Total kg/h	NOX Total kg/h	CO2 Total kg/h
West: ACCESO OESTE (PR-2)							
5L	L	0.0	0.24	0.000	0.02	0.000	0.2
2T	T	19.6	239.37	0.262	6.65	0.376	185.7
2R	R	5.0	54.24	0.083	4.16	0.120	47.3
		24.6	293.85	0.345	10.83	0.496	233.2
South: ACCESO SUR (PR-464)							
3L	L	3.9	62.52	0.071	2.62	0.075	36.9
8T	T	0.0	0.45	0.001	0.02	0.001	0.3
8R	R	5.9	95.62	0.108	3.84	0.112	55.8
		9.8	158.59	0.179	6.48	0.188	92.9
East: ACCESO ESTE							
1L	L	8.1	163.24	0.159	4.38	0.127	76.9
6T	T	16.5	205.50	0.211	4.21	0.301	156.1
6R	R	0.0	0.20	0.000	0.02	0.000	0.2
		24.6	368.94	0.370	8.60	0.429	233.1
North: ACCESO NORTE							
7L	L	0.1	3.08	0.002	0.03	0.001	1.1
4T	T	0.1	3.08	0.002	0.03	0.001	1.1
4R	R	0.1	3.08	0.002	0.03	0.001	1.1
		0.3	9.24	0.007	0.09	0.003	3.2
INTERSECTION:		59.4	830.62	0.902	26.00	1.116	562.5

PARAMETERS USED IN COST CALCULATIONS

Pump price of fuel ($/US gal)	=	2.400
Fuel resource cost factor	=	0.70
Ratio of running cost to fuel cost	=	3.0
Average income ($/h)	=	19.00
Time value factor	=	0.40
Light vehicle mass (1000 lb)	=	3.1
Heavy vehicle mass (1000 lb)	=	24.0
Light vehicle idle fuel rate (US gal/h)	=	0.360
Heavy vehicle idle fuel rate (US gal/h)	=	0.530

Table S.12B - Fuel Consumption, Emissions and Cost (RATE)

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 27 FUTURO (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Mov ID		Fuel Eff. mpg	Cost Rate $/mi	HC Rate g/km	CO Rate g/km	NOX Rate g/km	CO2 Rate g/km
West: ACCESO OESTE (PR-2)							
5L	L	18.4	0.40	0.579	27.76	0.794	320.3
2T	T	30.6	0.25	0.271	6.87	0.388	191.9
2R	R	19.8	0.34	0.523	26.09	0.756	296.8
		28.4	0.26	0.306	9.60	0.440	206.8
South: ACCESO SUR (PR-464)							
3L	L	13.6	0.74	0.839	30.87	0.886	433.8
8T	T	13.6	0.74	0.839	30.84	0.883	433.3
8R	R	13.8	0.73	0.824	29.35	0.858	426.6
		13.7	0.73	0.830	29.95	0.869	429.5
East: ACCESO ESTE							
1L	L	9.5	1.32	1.282	35.35	1.023	620.4
6T	T	32.5	0.24	0.245	4.87	0.349	180.9
6R	R	20.0	0.34	0.515	25.70	0.747	293.6
		24.9	0.37	0.375	8.71	0.434	236.1
North: ACCESO NORTE							
7L	L	3.3	5.08	4.007	49.76	1.663	1783.1
4T	T	3.3	5.04	3.983	49.56	1.654	1772.2
4R	R	3.3	5.08	4.007	49.25	1.654	1782.6
		3.3	5.07	3.999	49.52	1.657	1779.3
INTERSECTION:		24.4	0.36	0.387	11.14	0.478	241.1

Table S.14 - Summary of Input and Output Data

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 27 FUTURO (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Lane No.	Demand Flow (veh/h) L	T	R	Tot	%HV	Adj. Basic Satf.	Eff Grn (secs) 1st	2nd	Deg Sat x	Aver. Delay (sec)	Longest Queue (ft)	Shrt Lane (ft)
West: ACCESO OESTE (PR-2)												
1 L	1			1	0				0.003	20.0	0	230
2 T		867		867	0				0.456	0.0	0	1600
3 TR		718	263	981	0				0.456	2.6	59	1600

	1	1585	263	1849	0		0.456	1.4	59	
South: ACCESO SUR (PR-464)										
1	LTR	140	1	216	357	0		1.000	82.4	**** 1600
		140	1	216	357	0		1.000	82.4	19132
East: ACCESO ESTE										
1	L	205			205	0		1.302	200.7	577* 230
2	T		707		707	0		0.372	0.0	0 1600
3	TR		706	1	707	0		0.372	0.0	41 1600
		205	1413	1	1619	0		1.302	25.4	577
North: ACCESO NORTE										
1	LTR	1	1	1	3	0		0.535	949.9	106 1600
		1	1	1	3	0		0.535	949.9	106

ALL VEHICLES	Total Flow	% HV	Max X	Aver. Delay	Max Queue
	3828	0	1.306	19.9	19132

Peak flow period = 15 minutes.

Queue values in this table are 95% back of queue (feet).

Note: Basic Saturation Flows are not adjusted at roundabouts or sign-controlled intersections and apply only to continuous lanes.

* Queue length exceeds short lane length due to specification of a percentile queue in the Tools-Options (Model tab). For calculation of this statistic, you may specify the lane with full length.

Table S.15 - Capacity and Level of Service

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 27 FUTURO (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Mov ID	Mov Typ	Total Flow (veh /h)	Total Cap. (veh /h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	(ft)
West: ACCESO OESTE (PR-2)								
5L	L	1	302	0.003	20.0	C	0.0	0
2T	T	1585	3474	0.456	0.1	A	2.4	59
2R	R	263	576	0.457	9.1	A	2.4	59
South: ACCESO SUR (PR-464)								
3L	L	140	140	1.000	82.4	F	765.3	19132
8T	T	1	1	1.000	82.4	F	765.3	19132
8R	R	216	216	1.000	82.4	F	765.3	19132
East: ACCESO ESTE								
1L	L	205	157	1.306*	200.7	F	23.1	577
6T	T	1413	3799	0.372	0.0	A	1.6	41
6R	R	1	3	0.333	8.9	A	1.6	41
North: ACCESO NORTE								
7L	L	1	2	0.500	949.9	F	4.2	106
4T	T	1	2	0.500	949.9	F	4.2	106
4R	R	1	2	0.500	949.9	F	4.2	106

ALL VEHICLES:	3828	1.306	19.9	NA	765.3	19132

Level of Service calculations are based on
average control delay including geometric delay (HCM criteria),
independent of the current delay definition used.
For the criteria, refer to the "Level of Service" topic in the
SIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

* Maximum v/c ratio, or critical green periods
" Movement Level of service has been determined using adjacent lane v/c ratio rather than short lane v/c ratio (v/c=1.0)

Table D.0 - Geometric Delay Data

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 27 FUTURO (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

From Approach	To Approach	Turn	Negn Radius (ft)	Negn Speed (mph)	Negn Dist. (ft)	Appr. Dist. (ft)	Downstream (ft)	Distance User Spec?
West: ACCESO OESTE (PR-2)								
	South	Right	32.8	12.5	51.5	1600	387	No
	East	Thru	S	40.0	35.0	1600	403	No
	North	Left	28.2	11.8	44.3	1600	381	No
South: ACCESO SUR (PR-464)								
	West	Left	36.4	13.0	57.1	1600	391	No
	East	Right	32.8	12.5	51.5	1600	387	No
	North	Thru	S	12.4	69.5	1600	405	No
East: ACCESO ESTE								
	West	Thru	S	40.0	35.0	1600	403	No
	South	Left	29.3	12.0	46.1	1600	383	No
	North	Right	32.8	12.5	51.5	1600	387	No
North: ACCESO NORTE								
	West	Right	32.8	12.5	51.5	1600	387	No
	South	Thru	S	12.4	69.5	1600	405	No
	East	Left	35.5	12.9	55.7	1600	390	No

Downstream distance is distance travelled from the stopline until exit cruise speed is reached (includes negotiation distance). Acceleration distance is weighted for light and heavy vehicles. The same distance applies for both stopped and unstopped vehicles.

Table D.1 - Lane Delays

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 27 FUTURO (PM)
Intersection ID: 3

Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Stop-line Delay 1st d1	2nd d2	Total dSL	Acc. Dec. dn	Queuing Total dq	MvUp dqm	Stopd (Idle) di	Geom dig	Control dic
West: ACCESO OESTE (PR-2)										
1 L	0.003	11.0	0.0	11.0	3.2	7.8	0.0	7.8	9.0	20.0
2 T	0.456	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3 TR	0.456	0.2	0.0	0.2	1.6	0.0	0.0	0.0	2.4	2.6
South: ACCESO SUR (PR-464)										
1 LTR	1.000	10.1	67.4	77.4	2.1	75.3	6.5	68.8	5.0	82.4
East: ACCESO ESTE										
1 L	1.302	26.8	164.9	191.7	3.9	187.8	22.2	165.6	9.0	200.7
2 T	0.372	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3 TR	0.372	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
North: ACCESO NORTE										
1 LTR	0.535	642.4	302.5	944.9	2.1	942.8	4.3	938.5	5.0	949.9

dn is average stop-start delay for all vehicles queued and unqueued

Table D.2 - Lane Stops

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 27 FUTURO (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Effective Stop Rate he1	he2	Geom. hig	Overall h	Prop. Queued pq	Queue Move-up Rate hqm
West: ACCESO OESTE (PR-2)							
1 L	0.003	0.67	0.00	0.13	0.80	0.816	0.00
2 T	0.456	0.00	0.00	0.00	0.00	0.000	0.00
3 TR	0.456	0.02	0.00	0.15	0.17	0.206	0.00
South: ACCESO SUR (PR-464)							
1 LTR	1.000	0.39	0.33	0.00	0.72	1.000	4.38
East: ACCESO ESTE							
1 L	1.302	1.00	1.15	0.00	2.15	1.000	4.87
2 T	0.372	0.00	0.00	0.00	0.00	0.000	0.00
3 TR	0.372	0.00	0.00	0.00	0.00	0.009	0.00
North: ACCESO NORTE							
1 LTR	0.535	0.67	0.22	0.00	0.88	0.999	1.75

hig is the average value for all movements in a shared lane
hqm is average queue move-up rate for all vehicles queued and unqueued

Table D.3A - Lane Queues (veh)

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 27 FUTURO (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Ovrfl. Queue No	Average (veh) Nb1	Nb2	Nb	Percentile (veh) 70%	85%	90%	95%	98%	Queue Stor. Ratio
West: ACCESO OESTE (PR-2)											
1 L	0.003	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
2 T	0.456	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
3 TR	0.456	0.0	0.8	0.0	0.8	1.4	1.7	1.9	2.4	2.8	0.04
South: ACCESO SUR (PR-464)											
1 LTR	1.000	238.0	85.3	220.8	306.1	367.3	489.8	581.6	765.3	918.3	11.96
East: ACCESO ESTE											
1 L	1.302	6.9	1.7	6.7	8.4	12.1*	15.5*	18.0*	23.1*	27.3*	2.51
2 T	0.372	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
3 TR	0.372	0.0	0.5	0.0	0.5	1.0	1.2	1.3	1.6	1.9	0.03
North: ACCESO NORTE											
1 LTR	0.535	2.4	0.6	0.7	1.4	2.5	3.0	3.4	4.2	4.9	0.07

Values printed in this table are back of queue (vehicles).
* Queue length exceeds short lane length due to specification of a percentile queue in the Tools-Options (Model tab). For calculation of this statistic, you may specify the lane with full length.

Table D.3B - Lane Queues (feet)

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 27 FUTURO (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Ovrfl. Queue No	Average (feet) Nb1	Nb2	Nb	Percentile (feet) 70%	85%	90%	95%	98%	Queue Stor. Ratio
West: ACCESO OESTE (PR-2)											
1 L	0.003	0.0	0.1	0.0	0.1	0.2	0.3	0.3	0.4	0.4	0.00
2 T	0.456	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
3 TR	0.456	0.0	18.9	0.0	18.9	34.8	42.4	48.1	59.4	68.9	0.04
South: ACCESO SUR (PR-464)											
1 LTR	1.000	5951.2	2133.6	5519.3	7652.8	9183.4	******	******	******	******	11.96
East: ACCESO ESTE											
1 L	1.302	173.1	43.6	166.5	210.1	303.5*	387.5*	450.6*	576.6*	681.6*	2.51
2 T	0.372	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
3 TR	0.372	0.0	13.0	0.0	13.0	24.0	29.2	33.1	40.9	47.4	0.03
North: ACCESO NORTE											
1 LTR	0.535	58.9	16.1	18.2	34.3	61.3	75.0	85.3	105.8	123.0	0.07

Values printed in this table are back of queue (feet).
* Queue length exceeds short lane length due to specification of a percentile queue in the Tools-Options (Model tab). For calculation

of this statistic, you may specify the lane with full length.

Table D.4 - Movement Speeds (mph) and Geometric Delay

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 27 FUTURO (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Mov ID	App. Speeds Cruise	App. Speeds Negn	Exit Speeds Negn	Exit Speeds Cruise	Queue Move-up 1st Grn	Queue Move-up 2nd Grn	Av. Section Spd Running	Av. Section Spd Overall	Geom Delay (sec)
West: ACCESO OESTE (PR-2)									
5L L	40.0	11.8	11.8	40.0			29.4	25.1	9.0
2T T	40.0	40.0	40.0	40.0			39.1	39.1	0.0
2R R	40.0	12.5	12.5	40.0			31.1	31.1	8.9
South: ACCESO SUR (PR-464)									
3L L	40.0	0.0	13.0	40.0	5.5		22.0	11.3	5.0
8T T	40.0	0.0	12.4	40.0	5.4		21.9	11.3	5.0
8R R	40.0	0.0	12.5	40.0	0.0		30.0	11.2	5.0
East: ACCESO ESTE									
1L L	40.0	12.0	12.0	40.0	7.1		19.6	5.8	9.0
6T T	40.0	40.0	40.0	40.0			40.0	40.0	0.0
6R R	40.0	12.5	12.5	40.0			31.6	31.6	8.9
North: ACCESO NORTE									
7L L	40.0	0.0	12.9	40.0	5.5		26.2	1.4	5.0
4T T	40.0	0.0	12.4	40.0	5.3		26.0	1.4	5.0
4R R	40.0	0.0	12.5	40.0	0.0		30.0	1.4	5.0

"Running Speed" is the average speed excluding stopped periods.

Table D.6 - Gap Acceptance Parameters

INTERSECCI N CARRETERA PR-2 CARRETERA PR-464
FIGURA 27 FUTURO (PM)
Intersection ID: 3
Stop Sign Controlled Intersection

Mov ID	Mov Type	Opng Flow (pcu/h)	Critical Gap Hdwy (s)	Critical Gap Dist (ft)	Foll-up Headway (s)	Entry HV Equiv
West: ACCESO OESTE (PR-2)						
5L L	Normal	1556	4.10	225.6	2.20	2.00
2R R	Normal	158	2.00	35.2	1.00	2.00
South: ACCESO SUR (PR-464)						
3L L	Normal	3336+	7.50	398.7	3.50	2.00
8T T	Normal	3338+	6.50	345.5	4.00	2.00

East: ACCESO ESTE							
1L	L	Normal	1991	4.10	207.1	2.20	2.00
6R	R	Normal	1	2.00	36.5	1.00	2.00
North: ACCESO NORTE							
7L	L	Normal	3422+	7.50	402.2	3.50	2.00
4T	T	Normal	3608+	6.50	337.0	4.00	2.00

Values in this table are adjusted for heavy vehicles in the entry stream.
\+ Percentage of exiting flow included in total opposing flow

SIDRA SOLUTIONS

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SIDRA INTERSECTION

Output Tables

INTERSECCIÓN CARRETERA PR-464 & CAMINO VECINAL

FIGURA 28 FUTURO (PM)

Run Information

```
* Basic Parameters:
  Intersection Type: Unsignalised - Two-Way Stop Control
  Driving on the right-hand side of the road
  Input data specified in US units
  Model Defaults: US HCM (US)
  Peak Flow Period (for performance): 15 minutes
  Unit time (for volumes): 60 minutes.
  Delay definition: Control delay
                    Geometric delay included
  HCM Delay Model option selected
  HCM Queue Model option selected
  Level of Service based on: Delay (HCM method)
  Queue definition: Back of queue, 95th Percentile
```

Table B.1 - Movement Definitions and Flow Rates (Origin-Destination)

```
INTERSECCI N CARRETERA PR-464   CAMINO VECINAL
FIGURA 28 FUTURO (PM)
Intersection ID: 2
Stop Sign Controlled Intersection
```

From Approach	To Approach	Mov ID	Turn	Flow Rate LV	Flow Rate HV	Flow Scale	Peak Flow Factor
West: ACCESO OESTE (PR-464)							
	South	2R	Right	6	0	1.00	1.00
	East	2T	Thru	28	0	1.00	1.00
	North	5L	Left	322	0	1.00	1.00
South: ACCESO SUR (CAMINO VECINAL)							
	West	3L	Left	6	0	1.00	1.00
	East	8R	Right	4	0	1.00	1.00
	North	8T	Thru	1	0	1.00	1.00
East: ACCESO ESTE (CAMINO VECINAL)							
	West	6T	Thru	30	0	1.00	1.00
	South	1L	Left	4	0	1.00	1.00
	North	6R	Right	236	0	1.00	1.00
North: ACCESO NORTE(PR-464)							
	West	4R	Right	312	0	1.00	1.00
	South	4T	Thru	4	0	1.00	1.00

```
          East         7L   Left      9     0    1.00     1.00
-------------------------------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table B.2A - Flow Rates (Separate Light and Heavy Vehicles)

```
INTERSECCI N CARRETERA PR-464   CAMINO VECINAL
FIGURA 28 FUTURO (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

-----------------------------------------------
  Mov          Left       Through       Right
  ID        ---------    ---------    ---------
             LV    HV     LV    HV     LV    HV
-----------------------------------------------
Demand flows in veh/hour as used by the program
West: ACCESO OESTE (PR-464)
   5L L     322     0      0     0      0     0
   2T T       0     0     28     0      0     0
   2R R       0     0      0     0      6     0
-----------------------------------------------
South: ACCESO SUR  (CAMINO VECINAL)
   3L L       6     0      0     0      0     0
   8T T       0     0      1     0      0     0
   8R R       0     0      0     0      4     0
-----------------------------------------------
East: ACCESO ESTE (CAMINO VECINAL)
   1L L       4     0      0     0      0     0
   6T T       0     0     30     0      0     0
   6R R       0     0      0     0    236     0
-----------------------------------------------
North: ACCESO NORTE(PR-464)
   7L L       9     0      0     0      0     0
   4T T       0     0      4     0      0     0
   4R R       0     0      0     0    312     0
-----------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table B.2B - Flow Rates (Total Vehicles and Percent Heavy)

```
INTERSECCI N CARRETERA PR-464   CAMINO VECINAL
FIGURA 28 FUTURO (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

-------------------------------------------------
  Mov          Left        Through        Right
  ID        ----------    ----------    ----------
           Total  %HV    Total  %HV    Total  %HV
-------------------------------------------------
Demand flows in veh/hour as used by the program
West: ACCESO OESTE (PR-464)
```

```
   5L L      322   0.0       0   0.0       0   0.0
   2T T        0   0.0      28   0.0       0   0.0
   2R R        0   0.0       0   0.0       6   0.0
------------------------------------------------
South: ACCESO SUR  (CAMINO VECINAL)
   3L L        6   0.0       0   0.0       0   0.0
   8T T        0   0.0       1   0.0       0   0.0
   8R R        0   0.0       0   0.0       4   0.0
------------------------------------------------
East: ACCESO ESTE (CAMINO VECINAL)
   1L L        4   0.0       0   0.0       0   0.0
   6T T        0   0.0      30   0.0       0   0.0
   6R R        0   0.0       0   0.0     236   0.0
------------------------------------------------
North: ACCESO NORTE(PR-464)
   7L L        9   0.0       0   0.0       0   0.0
   4T T        0   0.0       4   0.0       0   0.0
   4R R        0   0.0       0   0.0     312   0.0
------------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table S.2 - Movement Capacity Parameters

```
INTERSECCI N CARRETERA PR-464   CAMINO VECINAL
FIGURA 28 FUTURO (PM)
Intersection ID: 2
Stop Sign Controlled Intersection
```

Mov ID	Demand Flow (veh/h)	HV (%)	Opposing Movement Flow (veh/h)	HV (%)	Adjust. Flow (pcu/h)	Total Cap. (veh /h)	Prac. Deg. Satn xp	Prac. Spare Cap. (%)	Lane Util (%)	Deg. Satn x
West: ACCESO OESTE (PR-464)										
5L L	322	0.0	433+	0.0	433	481	0.80	20	100	0.669*
2T T	28	0.0	165+	0.0	165	42	0.80	20	100	0.667
2R R	6	0.0	4	0.0	4	9	0.80	20	100	0.667
South: ACCESO SUR (CAMINO VECINAL)										
3L L	6	0.0	316	0.0	316	755	0.80	9967	100	0.008
8T T	1	0.0	0			126	0.80	9980	100	0.008
8R R	4	0.0	0			504	0.80	9980	100	0.008
East: ACCESO ESTE (CAMINO VECINAL)										
1L L	4	0.0	50+	0.0	50	33	0.80	560	100	0.121
6T T	30	0.0	319+	0.0	319	251	0.80	569	100	0.120
6R R	236	0.0	1	0.0	1	1971	0.80	568	100	0.120
North: ACCESO NORTE(PR-464)										
7L L	9	0.0	5	0.0	5	44	0.80	291	100	0.205
4T T	4	0.0	1	0.0	1	20	0.80	300	100	0.200
4R R	312	0.0	0			1536	0.80	294	100	0.203

\+ Percentage of exiting flow included in total opposing flow

Table S.3 - Intersection Parameters

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 28 FUTURO (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Intersection Level of Service	=	NA
Worst movement Level of Service	=	C
Average intersection delay (s/pers)	=	14.0
Largest average movement delay (s)	=	24.4
Largest back of queue, 95% (ft)	=	226
Performance Index	=	21.50
Degree of saturation (highest)	=	0.669
Practical Spare Capacity (lowest)	=	20 %
Effective intersection capacity, (veh/h)	=	1437
Total vehicle flow (veh/h)	=	962
Total person flow (pers/h)	=	1154
Total vehicle delay (veh-h/h)	=	3.75
Total person delay (pers-h/h)	=	4.50
Total effective vehicle stops (veh/h)	=	899
Total effective person stops (pers/h)	=	1079
Total vehicle travel (veh-mi/h)	=	361.1
Total cost ($/h)	=	224.00
Total fuel (gal/h)	=	19.5
Total CO2 (kg/h)	=	184.42

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections. See Table S.15 or Movement Displays for individual movement LOS values.

Table S.5 - Movement Performance

Mov ID	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest 95% Back (vehs)	Queue (ft)	Perf. Index	Aver. Speed (mph)
West: ACCESO OESTE (PR-464)									
5L L	2.18	2.62	24.4	0.45	1.16	9.1	226	10.02	21.3
2T T	0.19	0.23	24.4	0.45	1.13	9.1	226	0.87	21.4
2R R	0.04	0.05	24.4	0.45	1.06	9.1	226	0.18	21.3
South: ACCESO SUR (CAMINO VECINAL)									
3L L	0.02	0.02	10.2	0.44	0.64	0.0	1	0.10	30.3
8T T	0.00	0.00	1.0	0.44	0.00	0.0	1	0.01	35.9
8R R	0.01	0.01	10.0	0.44	0.38	0.0	1	0.06	30.4
East: ACCESO ESTE (CAMINO VECINAL)									
1L L	0.01	0.01	6.8	0.00	1.00	0.7	18	0.07	28.9
6T T	0.06	0.07	6.8	0.00	1.00	0.7	18	0.53	29.1
6R R	0.45	0.54	6.8	0.00	1.00	0.7	18	4.17	28.9
North: ACCESO NORTE(PR-464)									
7L L	0.02	0.03	9.1	0.04	0.70	1.4	35	0.15	31.4
4T T	0.00	0.00	0.0	0.04	0.00	1.4	35	0.04	39.6
4R R	0.77	0.93	8.9	0.04	0.66	1.4	35	5.28	31.6

Table S.6 - Intersection Performance

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 28 FUTURO (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Total Flow (veh/h)	Deg. Satn x	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue (ft)	Perf. Index	Aver. Speed (mph)
West: ACCESO OESTE (PR-464)									
356	0.669	2.42	2.90	24.4	0.45	1.16	226	11.07	21.3
South: ACCESO SUR (CAMINO VECINAL)									
11	0.008	0.03	0.03	9.3	0.44	0.49	1	0.18	30.8
East: ACCESO ESTE (CAMINO VECINAL)									
270	0.121	0.51	0.61	6.8	0.00	1.00	18	4.77	28.9
North: ACCESO NORTE(PR-464)									
325	0.205	0.80	0.96	8.8	0.04	0.65	35	5.48	31.6
ALL VEHICLES:									
962	0.669	3.75	4.50	14.0	0.18	0.93	226	21.50	26.2
INTERSECTION (persons):									
1154	0.669		4.50	14.0	0.18	0.93		21.50	26.2

Queue values in this table are 95% back of queue (feet).

Table S.7 - Lane Performance

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 28 FUTURO (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Dem Flow (veh /h)	Cap (veh /h)	Deg. Satn x	Aver. Delay (sec)	Eff. Stop Rate	Queue 95% Back (vehs)	Queue 95% Back (ft)	Lane Length (ft)
West: ACCESO OESTE (PR-464)								
1 LTR	356	532	0.670	24.4	1.16	9.1	226.3	1600.0
South: ACCESO SUR (CAMINO VECINAL)								
1 LTR	11	1385	0.008	9.3	0.49	0.0	1.1	1600.0
East: ACCESO ESTE (CAMINO VECINAL)								
1 LTR	270	2255	0.120	6.8	1.00	0.7	17.9	1600.0
North: ACCESO NORTE(PR-464)								
1 LTR	325	1600	0.203	8.8	0.65	1.4	34.9	1600.0

Table S.8 - Lane Flow and Capacity Information

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 28 FUTURO (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Dem Flow (veh/h) Lef	Thru	Rig	Tot	Min Cap (veh /h)	Tot Cap (veh /h)	Deg. Satn x	Lane Util %
West: ACCESO OESTE (PR-464)								
1 LTR	322	28	6	356	60	532	0.670	100
South: ACCESO SUR (CAMINO VECINAL)								
1 LTR	6	1	4	11	11	1385	0.008	100
East: ACCESO ESTE (CAMINO VECINAL)								
1 LTR	4	30	236	270	60	2255	0.120	100
North: ACCESO NORTE(PR-464)								
1 LTR	9	4	312	325	325	1600	0.203	100

The capacity value for priority and continuous movements is obtained by adjusting the basic saturation flow for heavy vehicle and turning vehicle effects. Saturation flow scale applies if specified.

Table S.10 - Movement Capacity and Performance Summary

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 28 FUTURO (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Mov ID	Mov Typ	Dem Flow (veh /h)	Total Cap. (veh /h)	Lane Util (%)	Deg. Satn x	Aver. Delay (sec)	Eff. Stop Rate	95% Back of Queue (veh)	Perf. Index
West: ACCESO OESTE (PR-464)									
5L	L	322	481	100	0.669*	24.4	1.16	9.1	10.02
2T	T	28	42	100	0.667	24.4	1.13	9.1	0.87
2R	R	6	9	100	0.667	24.4	1.06	9.1	0.18
South: ACCESO SUR (CAMINO VECINAL)									
3L	L	6	755	100	0.008	10.2	0.64	0.0	0.10
8T	T	1	126	100	0.008	1.0	0.00	0.0	0.01
8R	R	4	504	100	0.008	10.0	0.38	0.0	0.06
East: ACCESO ESTE (CAMINO VECINAL)									
1L	L	4	33	100	0.121	6.8	1.00	0.7	0.07
6T	T	30	251	100	0.120	6.8	1.00	0.7	0.53
6R	R	236	1971	100	0.120	6.8	1.00	0.7	4.17
North: ACCESO NORTE(PR-464)									
7L	L	9	44	100	0.205	9.1	0.70	1.4	0.15
4T	T	4	20	100	0.200	0.0	0.00	1.4	0.04
4R	R	312	1536	100	0.203	8.9	0.66	1.4	5.28

* Maximum degree of saturation

Table S.12A - Fuel Consumption, Emissions and Cost (TOTAL)

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 28 FUTURO (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Mov ID	Fuel Total gal/h	Cost Total $/h	HC Total kg/h	CO Total kg/h	NOX Total kg/h	CO2 Total kg/h
West: ACCESO OESTE (PR-464)						
5L L	7.0	87.32	0.123	5.69	0.160	66.6
2T T	0.6	7.60	0.011	0.50	0.014	5.8
2R R	0.1	1.72	0.003	0.14	0.004	1.4
	7.8	96.64	0.136	6.34	0.178	73.9
South: ACCESO SUR (CAMINO VECINAL)						
3L L	0.1	1.26	0.002	0.10	0.003	1.1
8T T	0.0	0.17	0.000	0.01	0.000	0.1
8R R	0.1	0.84	0.001	0.06	0.002	0.7
	0.2	2.27	0.003	0.17	0.005	2.0
East: ACCESO ESTE (CAMINO VECINAL)						
1L L	0.1	0.88	0.001	0.07	0.002	0.8
6T T	0.6	6.51	0.010	0.50	0.014	5.6
6R R	4.7	51.75	0.079	3.95	0.113	44.5
	5.4	59.14	0.090	4.52	0.129	50.9
North: ACCESO NORTE(PR-464)						
7L L	0.2	1.84	0.003	0.15	0.004	1.6
4T T	0.0	0.59	0.001	0.01	0.001	0.5
4R R	5.9	63.52	0.098	4.87	0.141	55.6
	6.1	65.95	0.101	5.03	0.146	57.6
INTERSECTION:	19.5	224.00	0.331	16.06	0.459	184.4

PARAMETERS USED IN COST CALCULATIONS

Pump price of fuel ($/US gal)	=	2.400
Fuel resource cost factor	=	0.70
Ratio of running cost to fuel cost	=	3.0
Average income ($/h)	=	19.00
Time value factor	=	0.40
Light vehicle mass (1000 lb)	=	3.1
Heavy vehicle mass (1000 lb)	=	24.0
Light vehicle idle fuel rate (US gal/h)	=	0.360
Heavy vehicle idle fuel rate (US gal/h)	=	0.530

Table S.12B - Fuel Consumption, Emissions and Cost (RATE)

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 28 FUTURO (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Mov ID		Fuel Eff. mpg	Cost Rate $/mi	HC Rate g/km	CO Rate g/km	NOX Rate g/km	CO2 Rate g/km
West: ACCESO OESTE (PR-464)							
5L	L	17.1	0.45	0.632	29.36	0.826	343.7
2T	T	17.0	0.45	0.635	29.84	0.838	346.3
2R	R	15.1	0.47	0.738	38.57	1.008	389.8
		17.1	0.45	0.634	29.55	0.830	344.7
South: ACCESO SUR (CAMINO VECINAL)							
3L	L	19.2	0.35	0.547	27.60	0.783	305.7
8T	T	25.0	0.28	0.372	14.67	0.540	234.9
8R	R	19.6	0.35	0.532	26.56	0.766	300.7
		19.8	0.34	0.526	26.03	0.754	297.3
East: ACCESO ESTE (CAMINO VECINAL)							
1L	L	18.7	0.36	0.564	28.31	0.798	314.0
6T	T	18.9	0.36	0.554	27.79	0.793	311.9
6R	R	18.9	0.36	0.554	27.66	0.790	311.6
		18.9	0.36	0.554	27.69	0.791	311.7
North: ACCESO NORTE(PR-464)							
7L	L	19.6	0.34	0.534	26.97	0.769	300.2
4T	T	31.8	0.24	0.254	5.59	0.363	184.9
4R	R	20.0	0.34	0.516	25.76	0.748	294.1
		20.1	0.34	0.514	25.54	0.744	292.9
INTERSECTION:		18.5	0.39	0.570	27.63	0.789	317.3

Table S.14 - Summary of Input and Output Data

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 28 FUTURO (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Demand Flow (veh/h) L	T	R	Tot	%HV	Adj. Basic Satf.	Eff Grn (secs) 1st	2nd	Deg Sat x	Aver. Delay (sec)	Longest Queue (ft)	Shrt Lane (ft)
West: ACCESO OESTE (PR-464)												
1 LTR	322	28	6	356	0				0.670	24.4	226	1600
	322	28	6	356	0				0.670	24.4	226	
South: ACCESO SUR (CAMINO VECINAL)												
1 LTR	6	1	4	11	0				0.008	9.3	1	1600
	6	1	4	11	0				0.008	9.3	1	
East: ACCESO ESTE (CAMINO VECINAL)												
1 LTR	4	30	236	270	0				0.120	6.8	18	1600
	4	30	236	270	0				0.120	6.8	18	

North: ACCESO NORTE(PR-464)									
1 LTR	9	4	312	325	0	0.203	8.8	35	1600
	9	4	312	325	0	0.203	8.8	35	

ALL VEHICLES	Total Flow	% HV	Max X	Aver. Delay	Max Queue
	962	0	0.669	14.0	226

Peak flow period = 15 minutes.

Queue values in this table are 95% back of queue (feet).

Note: Basic Saturation Flows are not adjusted at roundabouts or sign-controlled intersections and apply only to continuous lanes.

Table S.15 - Capacity and Level of Service

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 28 FUTURO (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Mov ID	Mov Typ	Total Flow (veh /h)	Total Cap. (veh /h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	(ft)
West: ACCESO OESTE (PR-464)								
5L	L	322	481	0.669*	24.4	C	9.1	226
2T	T	28	42	0.667	24.4	C	9.1	226
2R	R	6	9	0.667	24.4	C	9.1	226
South: ACCESO SUR (CAMINO VECINAL)								
3L	L	6	755	0.008	10.2	B	0.0	1
8T	T	1	126	0.008	1.0	A	0.0	1
8R	R	4	504	0.008	10.0	A	0.0	1
East: ACCESO ESTE (CAMINO VECINAL)								
1L	L	4	33	0.121	6.8	A	0.7	18
6T	T	30	251	0.120	6.8	A	0.7	18
6R	R	236	1971	0.120	6.8	A	0.7	18
North: ACCESO NORTE(PR-464)								
7L	L	9	44	0.205	9.1	A	1.4	35
4T	T	4	20	0.200	0.0	A	1.4	35
4R	R	312	1536	0.203	8.9	A	1.4	35
ALL VEHICLES:		962		0.669	14.0	NA	9.1	226

Level of Service calculations are based on average control delay including geometric delay (HCM criteria), independent of the current delay definition used. For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

* Maximum v/c ratio, or critical green periods
" Movement Level of service has been determined using adjacent lane v/c ratio rather than short lane v/c ratio (v/c=1.0)

Table D.0 - Geometric Delay Data

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 28 FUTURO (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

From Approach	To Approach	Turn	Negn Radius (ft)	Negn Speed (mph)	Negn Dist. (ft)	Appr. Dist. (ft)	Downstream (ft)	Distance User Spec?
West: ACCESO OESTE (PR-464)								
	South	Right	32.8	12.5	51.5	1600	387	No
	East	Thru	S	12.4	35.0	1600	374	No
	North	Left	23.0	10.9	36.1	1600	375	No
South: ACCESO SUR (CAMINO VECINAL)								
	West	Left	19.8	10.3	32.8	1600	374	No
	East	Right	32.8	12.5	51.5	1600	387	No
	North	Thru	S	40.0	35.0	1600	403	No
East: ACCESO ESTE (CAMINO VECINAL)								
	West	Thru	S	12.4	35.0	1600	374	No
	South	Left	17.6	9.9	32.8	1600	377	No
	North	Right	32.8	12.5	51.5	1600	387	No
North: ACCESO NORTE(PR-464)								
	West	Right	32.8	12.5	51.5	1600	387	No
	South	Thru	S	40.0	35.0	1600	403	No
	East	Left	21.1	10.6	33.1	1600	373	No

Downstream distance is distance travelled from the stopline until exit cruise speed is reached (includes negotiation distance). Acceleration distance is weighted for light and heavy vehicles. The same distance applies for both stopped and unstopped vehicles.

Table D.1 - Lane Delays

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 28 FUTURO (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Delay (seconds/veh) Stop-line Delay 1st d1	2nd d2	Total dSL	Acc. Dec. dn	Queuing Total dq	MvUp dqm	Stopd (Idle) di	Geom dig	Control dic
West: ACCESO OESTE (PR-464)										
1 LTR	0.670	6.8	12.7	19.4	0.8	18.6	3.0	15.6	5.0	24.4
South: ACCESO SUR (CAMINO VECINAL)										
1 LTR	0.008	1.0	0.0	1.0	1.8	0.0	0.0	0.0	8.3	9.3
East: ACCESO ESTE (CAMINO VECINAL)										
1 LTR	0.120	1.6	0.2	1.8	0.0	1.8	0.0	1.8	5.0	6.8
North: ACCESO NORTE(PR-464)										
1 LTR	0.203	0.0	0.0	0.0	0.2	0.0	0.0	0.0	8.8	8.8

dn is average stop-start delay for all vehicles queued and unqueued

Table D.2 - Lane Stops

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 28 FUTURO (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	-- Effective Stop Rate -- he1	he2	Geom. hig	Overall h	Prop. Queued pq	Queue Move-up Rate hqm
West: ACCESO OESTE (PR-464)							
1 LTR	0.670	0.43	0.17	0.55	1.16	0.448	0.47
South: ACCESO SUR (CAMINO VECINAL)							
1 LTR	0.008	0.13	0.00	0.36	0.49	0.440	0.00
East: ACCESO ESTE (CAMINO VECINAL)							
1 LTR	0.120	0.00	0.00	1.00	1.00	0.002	0.00
North: ACCESO NORTE(PR-464)							
1 LTR	0.203	0.00	0.00	0.65	0.65	0.037	0.00

hig is the average value for all movements in a shared lane
hqm is average queue move-up rate for all vehicles queued and unqueued

Table D.3A - Lane Queues (veh)

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 28 FUTURO (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Ovrfl. Queue No	Average (veh) Nb1	Nb2	Nb	Percentile (veh) 70%	85%	90%	95%	98%	Queue Stor. Ratio
West: ACCESO OESTE (PR-464)											
1 LTR	0.670	0.8	1.6	1.4	3.0	5.1	6.3	7.2	9.1	10.6	0.14
South: ACCESO SUR (CAMINO VECINAL)											
1 LTR	0.008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.00
East: ACCESO ESTE (CAMINO VECINAL)											
1 LTR	0.120	0.0	0.2	0.0	0.2	0.4	0.5	0.6	0.7	0.8	0.01
North: ACCESO NORTE(PR-464)											
1 LTR	0.203	0.0	0.4	0.0	0.4	0.8	1.0	1.1	1.4	1.6	0.02

Values printed in this table are back of queue (vehicles).

Table D.3B - Lane Queues (feet)

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 28 FUTURO (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Ovrfl. Queue No	Average (feet) Nb1	Nb2	Nb	Percentile (feet) 70%	85%	90%	95%	98%	Queue Stor. Ratio
West: ACCESO OESTE (PR-464)											
1 LTR	0.670	19.5	40.6	35.3	76.0	127.5	157.9	180.7	226.3	264.3	0.14
South: ACCESO SUR (CAMINO VECINAL)											
1 LTR	0.008	0.0	0.4	0.0	0.4	0.7	0.8	0.9	1.1	1.3	0.00
East: ACCESO ESTE (CAMINO VECINAL)											
1 LTR	0.120	0.0	5.6	0.0	5.6	10.6	12.9	14.6	17.9	20.8	0.01
North: ACCESO NORTE(PR-464)											
1 LTR	0.203	0.0	11.0	0.0	11.0	20.6	25.0	28.3	34.9	40.4	0.02

Values printed in this table are back of queue (feet).

Table D.4 - Movement Speeds (mph) and Geometric Delay

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 28 FUTURO (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Mov ID	App. Speeds Cruise	Negn	Exit Speeds Negn	Cruise	Queue Move-up 1st Grn	2nd Grn	Av. Section Spd Running	Overall	Geom Delay (sec)
West: ACCESO OESTE (PR-464)									
5L L	40.0	0.0	10.9	40.0	11.0		28.3	21.3	5.0
2T T	40.0	0.0	12.4	40.0	16.0		28.0	21.4	5.0
2R R	40.0	0.0	12.5	40.0	40.0		27.5	21.3	5.0
South: ACCESO SUR (CAMINO VECINAL)									
3L L	40.0	10.3	10.3	40.0			30.3	30.3	9.2
8T T	40.0	40.0	40.0	40.0			35.9	35.9	0.0
8R R	40.0	12.5	12.5	40.0			30.4	30.4	8.9
East: ACCESO ESTE (CAMINO VECINAL)									
1L L	40.0	0.0	9.9	40.0			30.1	28.9	5.0
6T T	40.0	0.0	12.4	40.0			30.3	29.1	5.0
6R R	40.0	0.0	12.5	40.0			30.0	28.9	5.0
North: ACCESO NORTE(PR-464)									
7L L	40.0	10.6	10.6	40.0			31.4	31.4	9.1
4T T	40.0	40.0	40.0	40.0			39.6	39.6	0.0
4R R	40.0	12.5	12.5	40.0			31.6	31.6	8.9

"Running Speed" is the average speed excluding stopped periods.

Table D.6 - Gap Acceptance Parameters

INTERSECCI N CARRETERA PR-464 CAMINO VECINAL
FIGURA 28 FUTURO (PM)
Intersection ID: 2
Stop Sign Controlled Intersection

Mov ID	Mov Type	Opng Flow (pcu/h)	Critical Gap Hdwy (s)	Critical Gap Dist (ft)	Foll-up Headway (s)	Entry HV Equiv
West: ACCESO OESTE (PR-464)						
5L L	Normal	433+	7.50	139.7	3.50	2.00
2T T	Normal	165+	6.50	122.5	4.00	2.00
2R R	Normal	4	2.00	117.3	1.00	2.00
South: ACCESO SUR (CAMINO VECINAL)						
3L L	Normal	316	4.10	77.4	2.20	2.00
East: ACCESO ESTE (CAMINO VECINAL)						
1L L	Normal	50+	7.50	157.5	3.50	2.00
6T T	Normal	319+	6.50	122.5	4.00	2.00
6R R	Normal	1	2.00	117.3	1.00	2.00
North: ACCESO NORTE(PR-464)						
7L L	Normal	5	4.10	108.4	2.20	2.00
4T T	Normal	1	6.50	381.3	4.00	2.00

Values in this table are adjusted for heavy vehicles in the entry stream.
+ Percentage of exiting flow included in total opposing flow

SIDRA SOLUTIONS

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SIDRA INTERSECTION

Output Tables

INTERSECCION CARRETERA PR-464 & CALLE 3

FIGURA 29 FUTURO (AM)

Run Information

```
* Basic Parameters:
  Intersection Type: Unsignalised - Two-Way Stop Control
  Driving on the right-hand side of the road
  Input data specified in US units
  Model Defaults: US HCM (US)
  Peak Flow Period (for performance): 15 minutes
  Unit time (for volumes): 60 minutes.
  Delay definition: Control delay
                    Geometric delay included
  HCM Delay Model option selected
  HCM Queue Model option selected
  Level of Service based on: Delay (HCM method)
  Queue definition: Back of queue, 95th Percentile
```

Table B.1 - Movement Definitions and Flow Rates (Origin-Destination)

```
INTERSECCION CARRETERA PR-464   CALLE 3
FIGURA 29  FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection
```

From Approach	To Approach	Mov ID	Turn	Flow Rate LV	Flow Rate HV	Flow Scale	Peak Flow Factor
West: ACCESO OESTE (PR-464)							
	East	2T	Thru	212	0	1.00	1.00
	North	5L	Left	426	0	1.00	1.00
East: ACCESO ESTE							
	West	6T	Thru	177	0	1.00	1.00
	North	6R	Right	186	0	1.00	1.00
North: ACCESO NORTE (CALLE 3)							
	West	4R	Right	482	0	1.00	1.00
	East	7L	Left	207	0	1.00	1.00

```
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table B.2A - Flow Rates (Separate Light and Heavy Vehicles)

```
INTERSECCION CARRETERA PR-464   CALLE 3
FIGURA 29  FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

-----------------------------------------------
  Mov          Left        Through       Right
  ID        ---------     ---------    ---------
             LV    HV      LV    HV     LV    HV
-----------------------------------------------
Demand flows in veh/hour as used by the program
West: ACCESO OESTE (PR-464)
   5L L     426     0       0     0      0     0
   2T T       0     0     212     0      0     0
-----------------------------------------------
East: ACCESO ESTE
   6T T       0     0     177     0      0     0
   6R R       0     0       0     0    186     0
-----------------------------------------------
North: ACCESO NORTE (CALLE 3)
   7L L     207     0       0     0      0     0
   4R R       0     0       0     0    482     0
-----------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table B.2B - Flow Rates (Total Vehicles and Percent Heavy)

```
INTERSECCION CARRETERA PR-464   CALLE 3
FIGURA 29  FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

-------------------------------------------------
  Mov          Left        Through       Right
  ID        ----------    ----------   ----------
           Total  %HV     Total  %HV   Total  %HV
-------------------------------------------------
Demand flows in veh/hour as used by the program
West: ACCESO OESTE (PR-464)
   5L L      426   0.0       0   0.0      0   0.0
   2T T        0   0.0     212   0.0      0   0.0
-------------------------------------------------
East: ACCESO ESTE
   6T T        0   0.0     177   0.0      0   0.0
   6R R        0   0.0       0   0.0    186   0.0
-------------------------------------------------
North: ACCESO NORTE (CALLE 3)
   7L L      207   0.0       0   0.0      0   0.0
   4R R        0   0.0       0   0.0    482   0.0
-------------------------------------------------
Unit Time for Volumes =  60 minutes
Peak Flow Period =  15 minutes
Flow Rates include effects of Flow Scale and Peak Flow Factor
```

Table S.2 - Movement Capacity Parameters

INTERSECCION CARRETERA PR-464 CALLE 3
FIGURA 29 FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID	Demand Flow (veh/h)	HV (%)	Opposing Movement Flow (veh/h)	HV (%)	Adjust. Flow (pcu/h)	Total Cap. (veh /h)	Prac. Deg. Satn xp	Prac. Spare Cap. (%)	Lane Util (%)	Deg. Satn x
West: ACCESO OESTE (PR-464)										
5L L	426	0.0	363	0.0	363	886	0.80	66	100	0.481
2T T	212	0.0	0			441	0.80	66	100	0.481
East: ACCESO ESTE										
6T T	177	0.0	0			850	0.80	284	100	0.208
6R R	186	0.0	0			893	0.80	284	100	0.208
North: ACCESO NORTE (CALLE 3)										
7L L	207	0.0	908+	0.0	908	201	0.80	-22	100	1.030*
4R R	482	0.0	177	0.0	177	468	0.80	-22	100	1.030*

\+ Percentage of exiting flow included in total opposing flow

Table S.3 - Intersection Parameters

INTERSECCION CARRETERA PR-464 CALLE 3
FIGURA 29 FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Intersection Level of Service	=	NA
Worst movement Level of Service	=	F
Average intersection delay (s/pers)	=	32.0
Largest average movement delay (s)	=	67.7
Largest back of queue, 95% (ft)	=	1297
Performance Index	=	67.34
Degree of saturation (highest)	=	1.030
Practical Spare Capacity (lowest)	=	-22 %
Effective intersection capacity, (veh/h)	=	1641
Total vehicle flow (veh/h)	=	1690
Total person flow (pers/h)	=	2028
Total vehicle delay (veh-h/h)	=	15.02
Total person delay (pers-h/h)	=	18.02
Total effective vehicle stops (veh/h)	=	2579
Total effective person stops (pers/h)	=	3094
Total vehicle travel (veh-mi/h)	=	635.8
Total cost ($/h)	=	514.12
Total fuel (gal/h)	=	42.4
Total CO2 (kg/h)	=	401.31

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections. See Table S.15 or Movement Displays for individual movement LOS values.

Table S.5 - Movement Performance

Mov ID		Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue 95% Back (vehs)	Longest Queue 95% Back (ft)	Perf. Index	Aver. Speed (mph)
West: ACCESO OESTE (PR-464)										
5L	L	1.43	1.71	12.1	0.61	0.87	5.5	138	8.68	29.4
2T	T	0.18	0.21	3.0	0.61	0.00	5.5	138	2.79	34.5
East: ACCESO ESTE										
6T	T	0.00	0.00	0.0	0.00	0.00	0.0	0	1.68	40.0
6R	R	0.46	0.55	8.9	0.00	0.69	0.0	0	2.92	31.7
North: ACCESO NORTE (CALLE 3)										
7L	L	3.89	4.67	67.7	1.00	1.99	51.9	1297	14.21	12.8
4R	R	9.06	10.87	67.7	1.00	3.46	51.9	1297	37.06	12.8

Table S.6 - Intersection Performance

INTERSECCION CARRETERA PR-464 CALLE 3
FIGURA 29 FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Total Flow (veh/h)	Deg. Satn x	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue (ft)	Perf. Index	Aver. Speed (mph)
West: ACCESO OESTE (PR-464)									
638	0.481	1.60	1.92	9.0	0.61	0.58	138	11.47	31.0
East: ACCESO ESTE									
363	0.208	0.46	0.55	4.6	0.00	0.35	0	4.60	35.3
North: ACCESO NORTE (CALLE 3)									
689	1.030	12.95	15.54	67.7	1.00	3.02	1297	51.27	12.8
ALL VEHICLES:									
1690	1.030	15.02	18.02	32.0	0.64	1.53	1297	67.34	20.0
INTERSECTION (persons):									
2028	1.030		18.02	32.0	0.64	1.53		67.34	20.0

Queue values in this table are 95% back of queue (feet).

Table S.7 - Lane Performance

INTERSECCION CARRETERA PR-464 CALLE 3
FIGURA 29 FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Lane No.	Dem Flow (veh /h)	Cap (veh /h)	Deg. Satn x	Aver. Delay (sec)	Eff. Stop Rate	Queue 95% Back (vehs)	Queue 95% Back (ft)	Lane Length (ft)
West: ACCESO OESTE (PR-464)								
1 LT	638	1327	0.481	9.0	0.58	5.5	138.0	1600.0
East: ACCESO ESTE								
1 TR	363	1742	0.208	4.6	0.35	0.0	0.0	1600.0
North: ACCESO NORTE (CALLE 3)								
1 LR	689	669	1.030	67.7	3.02	51.9	1296.6	1600.0

Table S.8 - Lane Flow and Capacity Information

INTERSECCION CARRETERA PR-464 CALLE 3
FIGURA 29 FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Lane No.	Dem Flow (veh/h) Lef	Thru	Rig	Tot	Min Cap (veh /h)	Tot Cap (veh /h)	Deg. Satn x	Lane Util %
West: ACCESO OESTE (PR-464)								
1 LT	426	212	0	638	638	1327	0.481	100
East: ACCESO ESTE								
1 TR	0	177	186	363	363	1742	0.208	100
North: ACCESO NORTE (CALLE 3)								
1 LR	207	0	482	689	60	669	1.030	100

The capacity value for priority and continuous movements is obtained by adjusting the basic saturation flow for heavy vehicle and turning vehicle effects. Saturation flow scale applies if specified.

Table S.10 - Movement Capacity and Performance Summary

INTERSECCION CARRETERA PR-464 CALLE 3
FIGURA 29 FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID	Mov Typ	Dem Flow (veh	Total Cap. (veh	Lane Util	Deg. Satn	Aver. Delay	Eff. Stop Rate	95% Back of Queue	Perf. Index

	/h)	/h)	(%)	x	(sec)		(veh)	
West: ACCESO OESTE (PR-464)								
5L L	426	886	100	0.481	12.1	0.87	5.5	8.68
2T T	212	441	100	0.481	3.0	0.00	5.5	2.79
East: ACCESO ESTE								
6T T	177	850	100	0.208	0.0	0.00	0.0	1.68
6R R	186	893	100	0.208	8.9	0.69	0.0	2.92
North: ACCESO NORTE (CALLE 3)								
7L L	207	201	100	1.030*	67.7	1.99	51.9	14.21
4R R	482	468	100	1.030*	67.7	3.46	51.9	37.06

* Maximum degree of saturation

Table S.12A - Fuel Consumption, Emissions and Cost (TOTAL)

INTERSECCION CARRETERA PR-464 CALLE 3
FIGURA 29 FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID	Fuel Total gal/h	Cost Total $/h	HC Total kg/h	CO Total kg/h	NOX Total kg/h	CO2 Total kg/h
West: ACCESO OESTE (PR-464)						
5L L	8.4	91.68	0.142	7.16	0.203	79.3
2T T	3.5	38.90	0.055	2.39	0.079	33.1
	11.9	130.58	0.197	9.55	0.282	112.5
East: ACCESO ESTE						
6T T	2.1	25.69	0.026	0.52	0.038	19.5
6R R	3.5	37.76	0.058	2.89	0.084	33.1
	5.6	63.45	0.084	3.41	0.122	52.5
North: ACCESO NORTE (CALLE 3)						
7L L	5.6	83.87	0.102	4.08	0.113	52.6
4R R	19.4	236.22	0.381	21.80	0.490	183.7
	25.0	320.09	0.482	25.88	0.604	236.3
INTERSECTION:	42.4	514.12	0.764	38.84	1.007	401.3

PARAMETERS USED IN COST CALCULATIONS

Pump price of fuel ($/US gal)	=	2.400
Fuel resource cost factor	=	0.70
Ratio of running cost to fuel cost	=	3.0
Average income ($/h)	=	19.00
Time value factor	=	0.40
Light vehicle mass (1000 lb)	=	3.1
Heavy vehicle mass (1000 lb)	=	24.0
Light vehicle idle fuel rate (US gal/h)	=	0.360
Heavy vehicle idle fuel rate (US gal/h)	=	0.530

Table S.12B - Fuel Consumption, Emissions and Cost (RATE)

INTERSECCION CARRETERA PR-464 CALLE 3
FIGURA 29 FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID		Fuel Eff. mpg	Cost Rate $/mi	HC Rate g/km	CO Rate g/km	NOX Rate g/km	CO2 Rate g/km
West: ACCESO OESTE (PR-464)							
5L	L	19.0	0.36	0.555	27.91	0.790	309.2
2T	T	23.0	0.30	0.422	18.50	0.614	256.0
		20.2	0.34	0.510	24.75	0.731	291.4
East: ACCESO ESTE							
6T	T	32.6	0.24	0.243	4.77	0.347	180.3
6R	R	20.0	0.34	0.515	25.68	0.747	293.5
		24.7	0.29	0.382	15.44	0.551	238.1
North: ACCESO NORTE (CALLE 3)							
7L	L	13.9	0.67	0.815	32.73	0.909	422.0
4R	R	9.3	0.81	1.305	74.70	1.680	629.5
		10.4	0.77	1.158	62.14	1.449	567.4
INTERSECTION:		15.0	0.50	0.746	37.96	0.985	392.2

Table S.14 - Summary of Input and Output Data

INTERSECCION CARRETERA PR-464 CALLE 3
FIGURA 29 FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Lane No.	Demand Flow (veh/h) L	T	R	Tot	%HV	Adj. Basic Satf.	Eff Grn (secs) 1st	2nd	Deg Sat x	Aver. Delay (sec)	Longest Queue (ft)	Shrt Lane (ft)
West: ACCESO OESTE (PR-464)												
1 LT	426	212		638	0				0.481	9.0	138	1600
	426	212	0	638	0				0.481	9.0	138	
East: ACCESO ESTE												
1 TR		177	186	363	0				0.208	4.6	0	1600
	0	177	186	363	0				0.208	4.6		
North: ACCESO NORTE (CALLE 3)												
1 LR	207		482	689	0				1.030	67.7	1297	1600
	207	0	482	689	0				1.030	67.7	1297	

ALL VEHICLES	Total Flow	% HV	Max X	Aver. Delay	Max Queue
	1690	0	1.030	32.0	1297

```
================================================================================
Peak flow period = 15 minutes.

Queue values in this table are 95% back of queue (feet).

Note: Basic Saturation Flows are not adjusted at roundabouts or sign-
      controlled intersections and apply only to continuous lanes.
```

Table S.15 - Capacity and Level of Service

```
INTERSECCION CARRETERA PR-464   CALLE 3
FIGURA 29  FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

-------------------------------------------------------------------
 Mov     Mov    Total  Total    Deg.   Aver.   LOS  Longest Queue
 ID      Typ    Flow    Cap.     of    Delay          95% Back
                (veh   (veh     Satn                (vehs)  (ft)
                  /h)    /h)    (v/c)  (sec)
-------------------------------------------------------------------
West: ACCESO OESTE (PR-464)
  5L L            426    886   0.481    12.1    B       5.5    138
  2T T            212    441   0.481     3.0    A       5.5    138
-------------------------------------------------------------------
East: ACCESO ESTE
  6T T            177    850   0.208     0.0    A       0.0      0
  6R R            186    893   0.208     8.9    A       0.0      0
-------------------------------------------------------------------
North: ACCESO NORTE (CALLE 3)
  7L L            207    201   1.030*   67.7    F      51.9   1297
  4R R            482    468   1.030*   67.7    F      51.9   1297
-------------------------------------------------------------------
 ALL VEHICLES:   1690          1.030    32.0   NA      51.9   1297
-------------------------------------------------------------------
     Level of Service calculations are based on
     average control delay including geometric delay (HCM criteria),
     independent of the current delay definition used.
     For the criteria, refer to the "Level of Service" topic in the
     SIDRA Output Guide or the Output section of the on-line help.

 NA  Not Applicable - Intersection Level of Service is not calculated at
     two-way stop control or give-way/yield controlled intersections.

  *  Maximum v/c ratio, or critical green periods
```

Table D.0 - Geometric Delay Data

```
INTERSECCION CARRETERA PR-464   CALLE 3
FIGURA 29  FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

-------------------------------------------------------------------------------
                            Negn  Negn   Negn   Appr.   Downstream  Distance
 From      To               Radius Speed Dist.  Dist.   ----------------------
 Approach  Approach  Turn    (ft)  (mph)  (ft)   (ft)      (ft)      User Spec?
-------------------------------------------------------------------------------
 West: ACCESO OESTE (PR-464)
```

East	Thru	S	40.0	35.0	1600	403	No
North	Left	23.0	10.9	36.1	1600	375	No
East: ACCESO ESTE							
West	Thru	S	40.0	35.0	1600	403	No
North	Right	32.8	12.5	51.5	1600	387	No
North: ACCESO NORTE (CALLE 3)							
West	Right	32.8	12.5	51.5	1600	387	No
East	Left	23.0	10.9	36.1	1600	375	No

Downstream distance is distance travelled from the stopline until exit cruise speed is reached (includes negotiation distance). Acceleration distance is weighted for light and heavy vehicles. The same distance applies for both stopped and unstopped vehicles.

Table D.1 - Lane Delays

INTERSECCION CARRETERA PR-464 CALLE 3
FIGURA 29 FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	Stop-line Delay 1st d1	2nd d2	Total dSL	Acc. Dec. dn	Queuing Total dq	MvUp dqm	Stopd (Idle) di	Geom dig	Control dic
West: ACCESO OESTE (PR-464)										
1 LT	0.481	2.4	0.6	3.0	3.3	0.5	0.5	0.0	6.1	9.0
East: ACCESO ESTE										
1 TR	0.208	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	4.6
North: ACCESO NORTE (CALLE 3)										
1 LR	1.030	5.4	57.3	62.7	2.0	60.7	28.0	32.6	5.0	67.7

dn is average stop-start delay for all vehicles queued and unqueued

Table D.2 - Lane Stops

INTERSECCION CARRETERA PR-464 CALLE 3
FIGURA 29 FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Lane No.	Deg. Satn x	-- Effective Stop Rate -- he1	he2	Geom. hig	Overall h	Prop. Queued pq	Queue Move-up Rate hqm
West: ACCESO OESTE (PR-464)							
1 LT	0.481	0.35	0.05	0.19	0.58	0.610	0.18
East: ACCESO ESTE							
1 TR	0.208	0.00	0.00	0.35	0.35	0.000	0.00

```
-----------------------------------------------------
 North: ACCESO NORTE (CALLE 3)
 1 LR  1.030  0.65  2.36  0.00   3.02    1.000   3.79
-----------------------------------------------------
  hig is the average value for all movements in a shared lane
  hqm is average queue move-up rate for all vehicles queued and unqueued
```

Table D.3A - Lane Queues (veh)

```
INTERSECCION CARRETERA PR-464   CALLE 3
FIGURA 29  FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection
```

Lane No.	Deg. Satn x	Ovrfl. Queue No	Average (veh) Nb1	Nb2	Nb	Percentile (veh) 70%	85%	90%	95%	98%	Queue Stor. Ratio
West: ACCESO OESTE (PR-464)											
1 LT	0.481	0.2	1.4	0.4	1.8	3.2	3.9	4.4	5.5	6.4	0.09
East: ACCESO ESTE											
1 TR	0.208	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
North: ACCESO NORTE (CALLE 3)											
1 LR	1.030	11.0	4.5	15.8	20.3	25.5	33.6	39.7	51.9	62.0	0.81

Values printed in this table are back of queue (vehicles).

Table D.3B - Lane Queues (feet)

```
INTERSECCION CARRETERA PR-464   CALLE 3
FIGURA 29  FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection
```

Lane No.	Deg. Satn x	Ovrfl. Queue No	Average (feet) Nb1	Nb2	Nb	Percentile (feet) 70%	85%	90%	95%	98%	Queue Stor. Ratio
West: ACCESO OESTE (PR-464)											
1 LT	0.481	4.5	34.2	10.9	45.1	79.4	97.4	111.0	138.0	160.6	0.09
East: ACCESO ESTE											
1 TR	0.208	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
North: ACCESO NORTE (CALLE 3)											
1 LR	1.030	275.1	112.9	394.6	507.4	637.0	839.9	992.2	1296.6	1550.3	0.81

Values printed in this table are back of queue (feet).

Table D.4 - Movement Speeds (mph) and Geometric Delay

INTERSECCION CARRETERA PR-464 CALLE 3
FIGURA 29 FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID	App. Speeds Cruise	App. Speeds Negn	Exit Speeds Negn	Exit Speeds Cruise	Queue Move-up 1st Grn	Queue Move-up 2nd Grn	Av. Section Spd Running	Av. Section Spd Overall	Geom Delay (sec)
West: ACCESO OESTE (PR-464)									
5L L	40.0	10.9	10.9	40.0	13.9		29.4	29.4	9.1
2T T	40.0	40.0	40.0	40.0	0.0		34.5	34.5	0.0
East: ACCESO ESTE									
6T T	40.0	40.0	40.0	40.0			40.0	40.0	0.0
6R R	40.0	12.5	12.5	40.0			31.7	31.7	8.9
North: ACCESO NORTE (CALLE 3)									
7L L	40.0	0.0	10.9	40.0	8.0		21.2	12.8	5.0
4R R	40.0	0.0	12.5	40.0	29.3		17.6	12.8	5.0

"Running Speed" is the average speed excluding stopped periods.

Table D.6 - Gap Acceptance Parameters

INTERSECCION CARRETERA PR-464 CALLE 3
FIGURA 29 FUTURO (AM)
Intersection ID: 0
Stop Sign Controlled Intersection

Mov ID	Mov Type	Opng Flow (pcu/h)	Critical Gap Hdwy (s)	Critical Gap Dist (ft)	Foll-up Headway (s)	Entry HV Equiv
West: ACCESO OESTE (PR-464)						
5L L	Normal	363	4.10	155.9	2.20	2.00
East: ACCESO ESTE						
No opposed movements on this approach						
North: ACCESO NORTE (CALLE 3)						
7L L	Normal	908+	7.50	247.8	3.50	2.00
4R R	Normal	177	2.00	117.3	1.00	2.00

Values in this table are adjusted for heavy vehicles in the entry stream.
\+ Percentage of exiting flow included in total opposing flow

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