Level of Service

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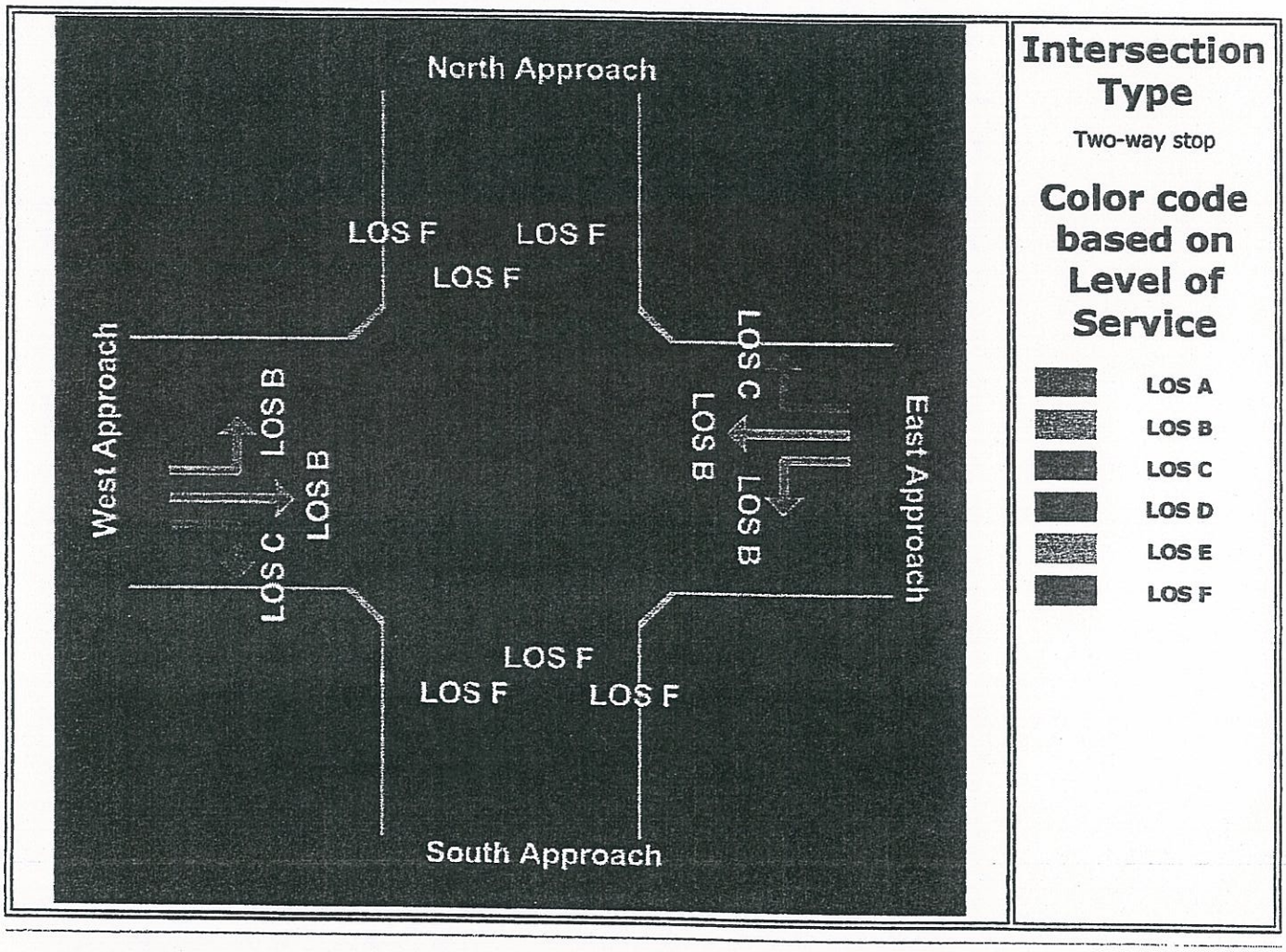
Based on Delay (HCM method)

PR-115 y PR-442



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Intersection Summary

PR-111 y PR-115

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Performance Measure	Vehicles	Persons
Demand Flow	2826 veh/h	3391 pers/h
Degree of Saturation	1.013	
Capacity (Total)	5577 veh/h	
95% Back of Queue (ft)	836 ft	
95% Back of Queue (veh)	32.9 veh	
Control Delay (Total)	23.52 veh-h/h	28.23 pers-h/h
Control Delay (Average)	30.0 s/veh	30.0 s/pers
Level of Service	LOS C	
Level of Service (Worst Movement)	LOS E	
Total Effective Stops	2535 veh/h	3042 pers/h
Effective Stop Rate	0.90 per veh	0.90 per pers
Travel Distance (Total)	1129.8 veh-mi/h	1355.8 pers-mi/h
Travel Distance (Average)	2111 ft	2111 ft
Travel Time (Total)	56.3 veh-h/h	67.5 pers-h/h
Travel Time (Average)	71.7 secs	71.7 secs
Travel Speed	20.1 mph	20.1 mph
Operating Cost (Total)	667 $/h	667 $/h
Fuel Consumption (Total)	60.8 ga/h	
Carbon Dioxide (Total)	575.5 kg/h	
Hydrocarbons (Total)	1.001 kg/h	
Carbon Monoxide (Total)	41.90 kg/h	
NOX (Total)	1.233 kg/h	

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Movement Summary

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PR-111 y PR-115

Signalised - Pretimed
Cycle Time = 62 seconds

Vehicle Movements

Mov No	Turn	Dem Flow (veh/h)	Cap (veh/h)	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Eff. Stop Rate	Aver Speed (mi/h)	Oper Cost ($/h)
South Approach										
32	L	309	316	0.977	68.7	LOS E	319	1.12	12.4	109
31	T	453	932	0.486	12.1	LOS B	287	0.62	27.1	82
Approach		**762**	**1248**	**0.977**	**35.0**	**LOS D**	**319**	**0.82**	**18.3**	**191**
North Approach										
41	T	700	691	1.013	57.0	LOS E	836	1.41	14.7	220
43	R	681	1592	0.428	7.7	LOS C#	20#	0.60	29.5	117
Approach		**1381**	**2283**	**1.013**	**32.7**	**LOS C**	**836**	**1.01**	**19.5**	**337**
West Approach										
12	L	374	658	0.568	27.5	LOS C	289	0.83	21.0	85
13	R	309	1387	0.223	8.3	LOS A	46	0.65	29.0	54
Approach		**683**	**2046**	**0.568**	**18.8**	**LOS B**	**289**	**0.75**	**24.0**	**139**
All Vehicles		**2826**	**5577**	**1.013**	**30.0**	**LOS C**	**836**	**0.90**	**20.1**	**667**

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Phasing

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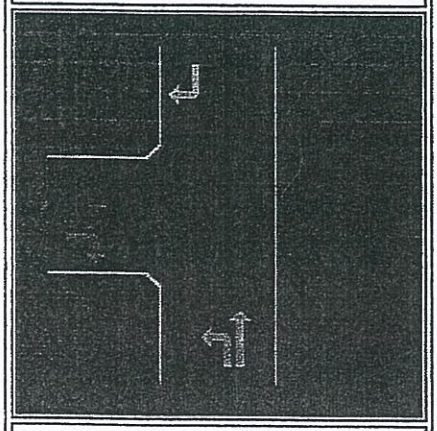
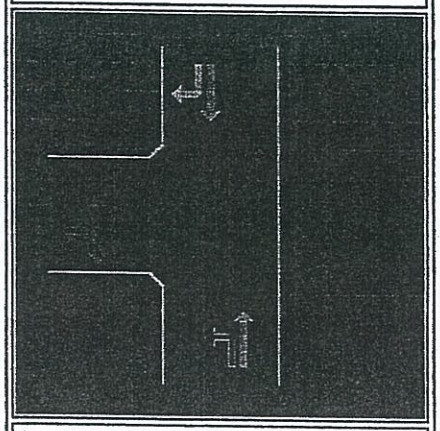
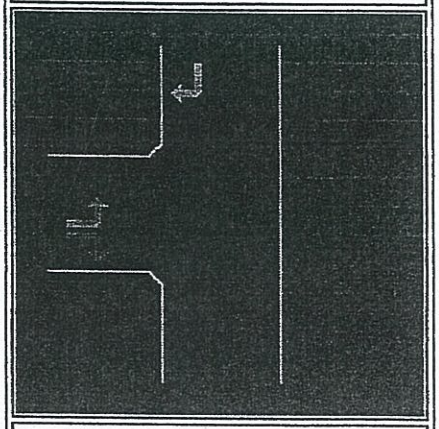
PR-111 y PR-115

C = **62** seconds
Cycle Time Option: **User-specified cycle time**
Phase times specified by the user.

Phase A	Phase B	Phase C
		
G = **7** seconds G + I = **8** seconds (G + I)/C = **12.9** %	G = **23** seconds G + I = **27** seconds (G + I)/C = **43.5** %	G = **23** seconds G + I = **27** seconds (G + I)/C = **43.5** %

Normal Vehicle | Permitted/Opposed | Stopped Vehicle
Slip-Lane | Opposed Slip-Lane | Continuous
Pedestrian | Turn On Red | Dummy

C	Cycle Time
G	Green Time
I	Intergreen Time (yellow plus all-red)
(G + I)/C	Phase time as a percentage of cycle

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Demand Flow

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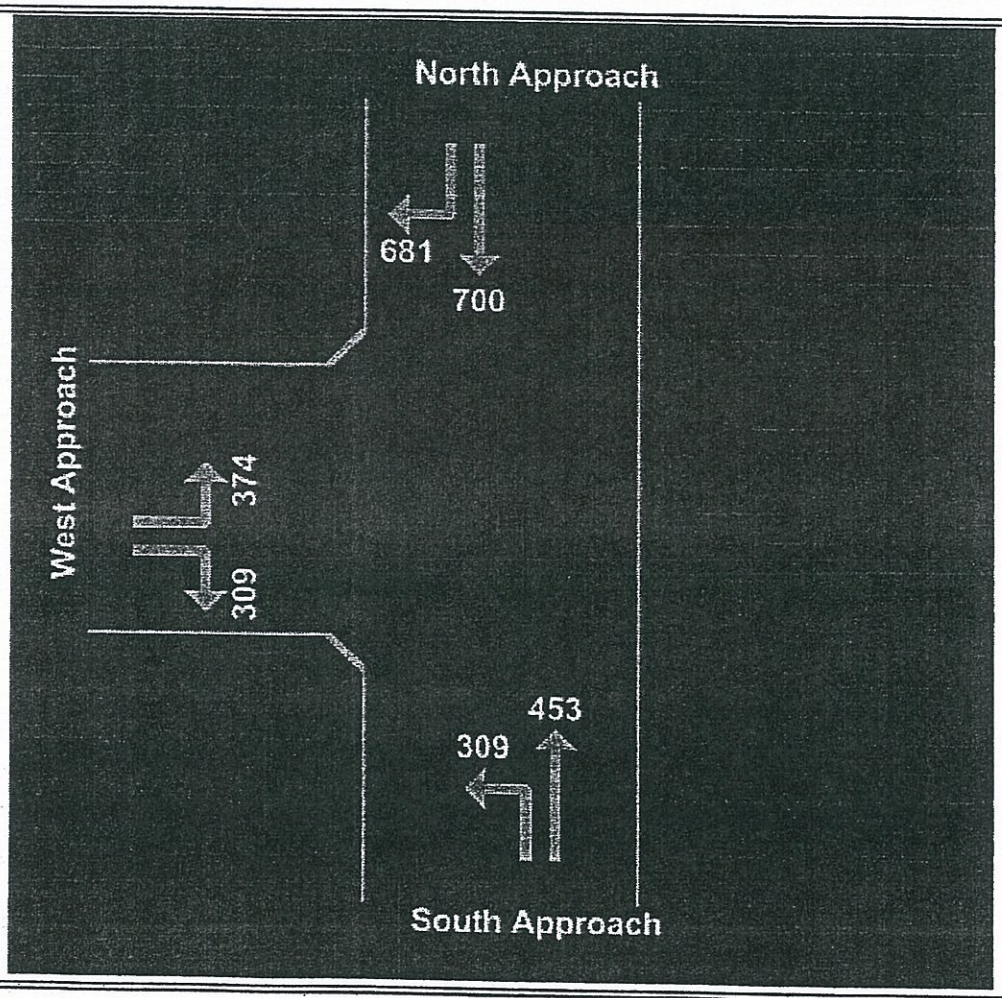
Total flow rates as used by the program (veh/h)

PR-111 y PR-115



Intersection Type

Signalised - Pretimed

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Level of Service

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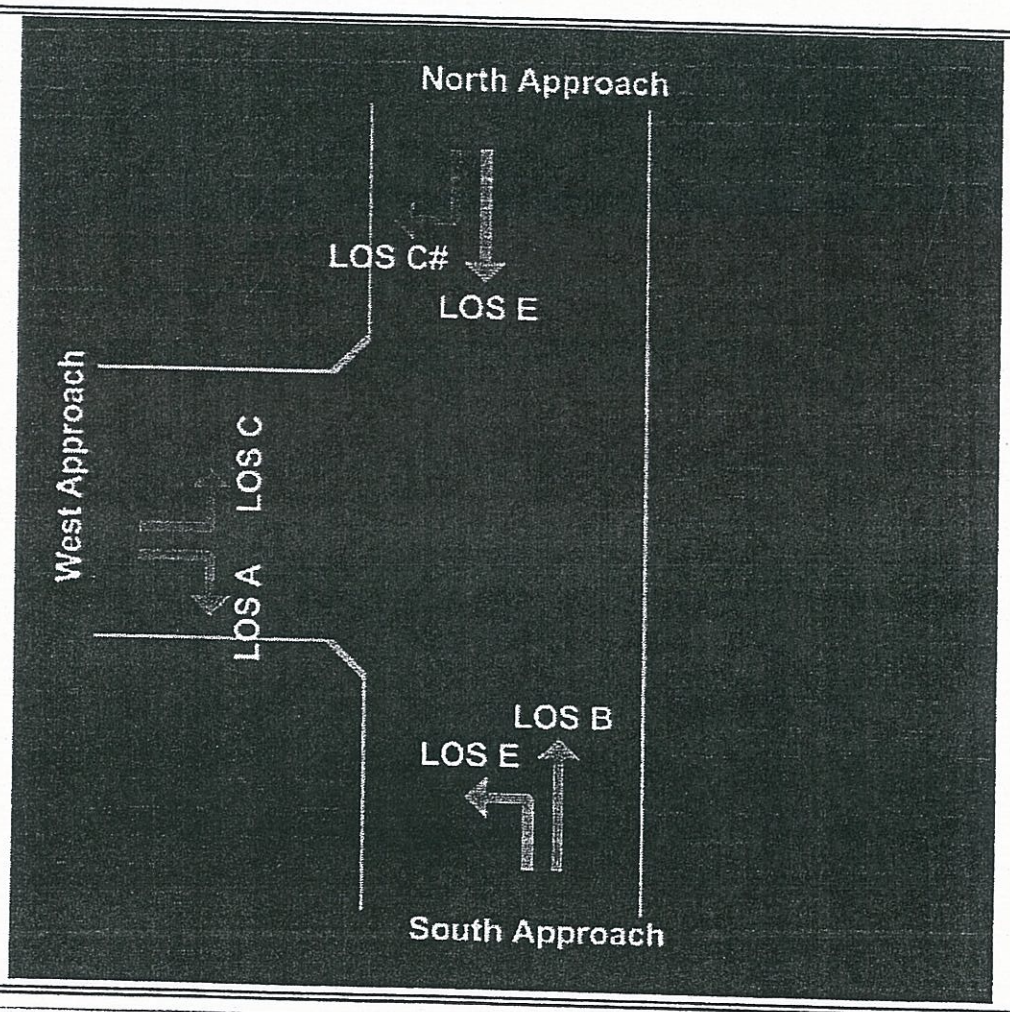
Based on Delay (HCM method)

PR-111 y PR-115



Intersection Type

Signalised - Pretimed

Color code based on Level of Service

- LOS A
- LOS B
- LOS C
- LOS D
- LOS E
- LOS F

 # - Based on density for continuous movements.

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Intersection Summary

Pr-2 y PR-111

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Performance Measure	Vehicles	Persons
Demand Flow	2146 veh/h	2575 pers/h
Degree of Saturation	1.017	
Capacity (Total)	6507 veh/h	
95% Back of Queue (ft)	292 ft	
95% Back of Queue (veh)	11.5 veh	
Control Delay (Total)	7.86 veh-h/h	9.43 pers-h/h
Control Delay (Average)	13.2 s/veh	13.2 s/pers
Level of Service	LOS B	
Level of Service (Worst Movement)	LOS F	
Total Effective Stops	1022 veh/h	1226 pers/h
Effective Stop Rate	0.48 per veh	0.48 per pers
Travel Distance (Total)	857.6 veh-mi/h	1029.1 pers-mi/h
Travel Distance (Average)	2110 ft	2110 ft
Travel Time (Total)	32.9 veh-h/h	39.5 pers-h/h
Travel Time (Average)	55.3 secs	55.3 secs
Travel Speed	26.0 mph	26.0 mph
Operating Cost (Total)	394 $/h	394 $/h
Fuel Consumption (Total)	36.9 ga/h	
Carbon Dioxide (Total)	349.4 kg/h	
Hydrocarbons (Total)	0.561 kg/h	
Carbon Monoxide (Total)	20.94 kg/h	
NOX (Total)	0.701 kg/h	

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Level of Service

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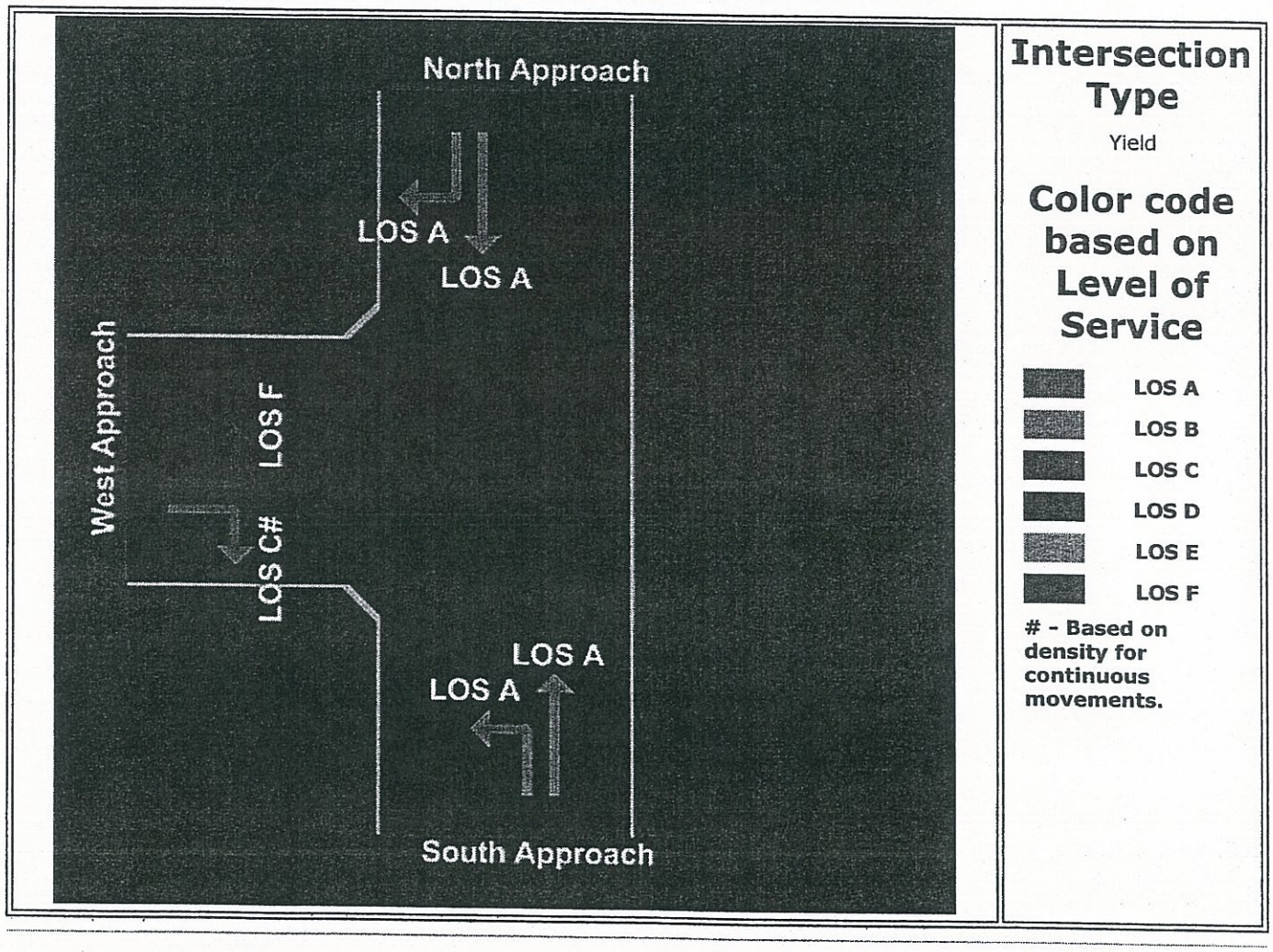
Based on Delay (HCM method)

Pr-2 y PR-111



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Movement Summary

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aaTraffic SIDRA

PR-2 y PR-111 b

Yield

Vehicle Movements

Mov No	Turn	Dem Flow (veh/h)	Cap (veh/h)	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Eff. Stop Rate	Aver Speed (mi/h)	Oper Cost ($/h)
South Approach										
32	T	1044	3725	0.281	2.2	LOS A	0	0.23	33.2	154
Approach		**1045**	**3725**	**0.281**	**2.2**	**LOS A**		**0.23**	**33.2**	**154**
North Approach										
42	T	1287	3042	0.423	0.0	LOS A	0	0.00	35.0	174
43	R	247	584	0.423	8.2	LOS A	0	0.65	29.2	43
Approach		**1534**	**3626**	**0.423**	**1.3**	**LOS A**		**0.10**	**33.9**	**217**
West Approach										
12	L	76	76	1.000	198.4	LOS F	1004	1.10	5.9	52
13	R	340	1900	0.179	5.0	LOS A#	10#	0.60	29.6	58
Approach		**416**	**1976**	**1.000**	**40.3**	**LOS E**	**1004**	**0.69**	**17.1**	**110**
All Vehicles		**2995**	**9327**	**1.000**	**7.0**	**LOS A**	**1004**	**0.23**	**29.7**	**482**

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Intersection Summary

PR-2 y PR-111 b

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Performance Measure	Vehicles	Persons
Demand Flow	2995 veh/h	3594 pers/h
Degree of Saturation	1.000	
Capacity (Total)	9327 veh/h	
95% Back of Queue (ft)	1004 ft	
95% Back of Queue (veh)	39.3 veh	
Control Delay (Total)	5.86 veh-h/h	7.03 pers-h/h
Control Delay (Average)	7.0 s/veh	7.0 s/pers
Level of Service	LOS A	
Level of Service (Worst Movement)	LOS F	
Total Effective Stops	687 veh/h	824 pers/h
Effective Stop Rate	0.23 per veh	0.23 per pers
Travel Distance (Total)	1198.6 veh-mi/h	1438.3 pers-mi/h
Travel Distance (Average)	2113 ft	2113 ft
Travel Time (Total)	40.4 veh-h/h	48.5 pers-h/h
Travel Time (Average)	48.6 secs	48.6 secs
Travel Speed	29.7 mph	29.7 mph
Operating Cost (Total)	482 $/h	482 $/h
Fuel Consumption (Total)	45.0 ga/h	
Carbon Dioxide (Total)	425.9 kg/h	
Hydrocarbons (Total)	0.635 kg/h	
Carbon Monoxide (Total)	20.37 kg/h	
NOX (Total)	0.797 kg/h	

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Demand Flow

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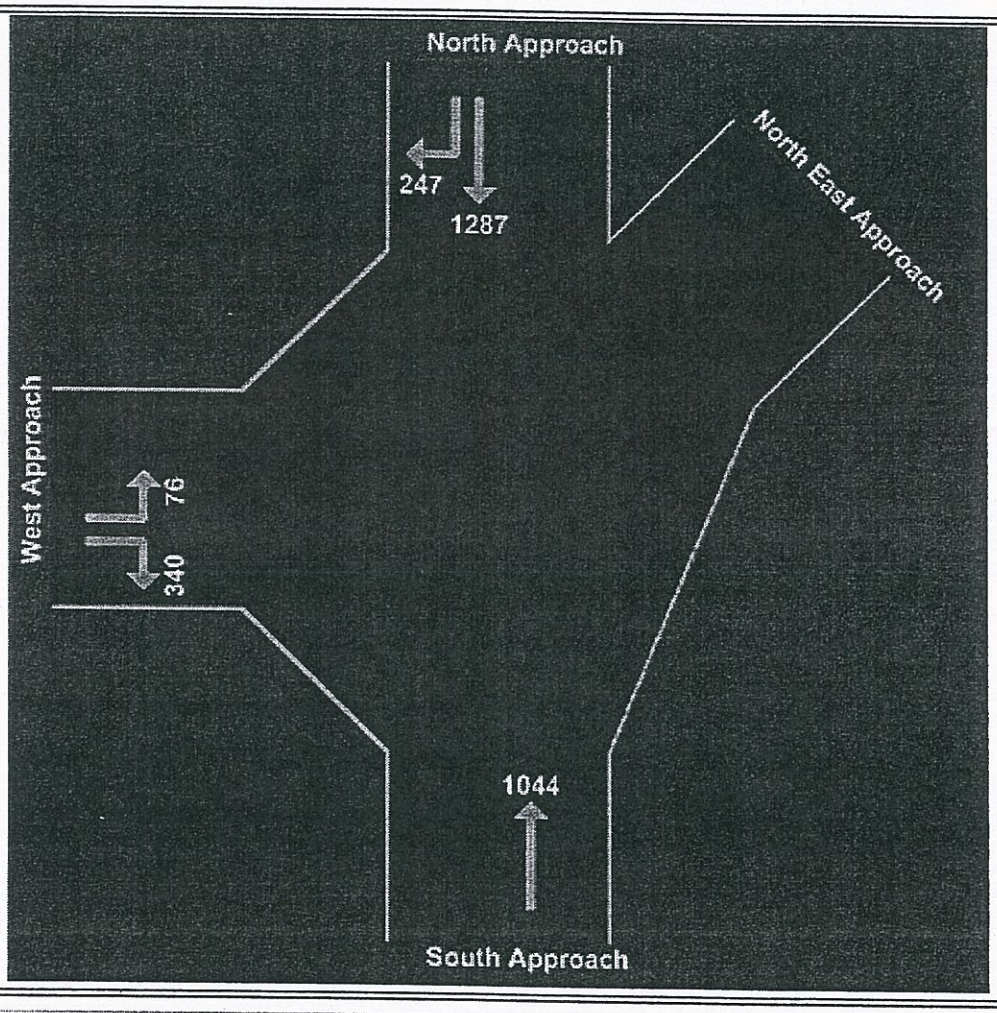
Total flow rates as used by the program (veh/h)

PR-2 y PR-111 b



Intersection Type

Yield

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Level of Service

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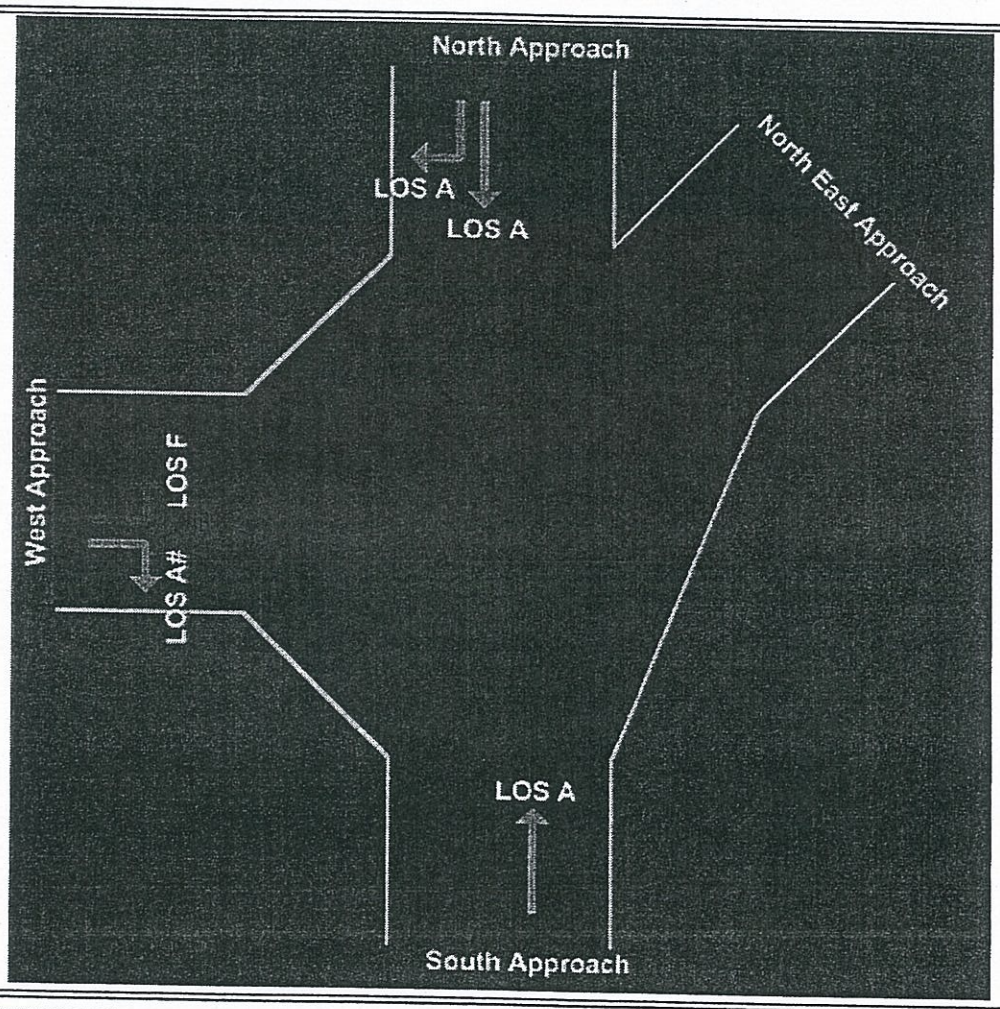
Based on Delay (HCM method)

PR-2 y PR-111 b



Intersection Type

Yield

Color code based on Level of Service

- LOS A
- LOS B
- LOS C
- LOS D
- LOS E
- LOS F

 # - Based on density for continuous movements.

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