

2.)

$$T = \frac{L + d}{u}$$

Vehicle	Speed, mph	Length, ft	Time Spent in Zone, s
1	61	18	0.268
2	66	17	0.237
3	62	19	0.274
4	70	21	0.262
5	65	16	0.230
6	69	26	0.315
7	72	21	0.255
8	66	19	0.258
9	65	20	0.272
10	64	20	0.276
11	67	25	0.315
12	68	70	0.760
13	65	35	0.429
14	66	20	0.268
15	71	65	0.680
16	64	24	0.319
17	59	23	0.334
18	58	22	0.328
19	64	65	0.755
20	64	30	0.383
21	68	24	0.300
22	58	21	0.317
23	66	56	0.639
24	57	21	0.322
25	64	20	0.276
26	61	50	0.625
27	69	19	0.246
28	63	23	0.313
29	63	17	0.248
30	66	18	0.247
SUM	1941.00	845.00	10.75
AVERAGE	64.70	28.17	0.36

$$Occupancy = \frac{Time\ in\ Zone}{Data\ Interval}$$

Occupancy 17.92%

$$Density = \frac{Occupancy}{L_{mean} + d}$$

Density 0.005245891 veh/mile

$$Flow\ Rate = \frac{3600n}{T}$$

Flow Rate 1800 veh/hour

