

Roadway Survey Field Sheet

TS Project # _____ Map _____ Grid _____ Start Time _____ # Of Days _____

Location: NE, 49th S. + ST JOHNS RD
 Location ID: _____ City: VANCOUVER

Type Of Survey:
 Volume
 Speed
 Classification

Start Date: 9/3/03 Counters: 6
 S M T W T F S
 End Date: 9/5/03 Tubes: 6
 S M T W T F S

SITE EVALUATION			POSTED SPEED		DWELL TIME																																			
Vehicles Crossing Tube Perpendicular	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> 30 Mph	<input type="checkbox"/> 40 Mph	<table border="1"> <thead> <tr> <th>LOWEST SPEED</th> <th colspan="5">HIGHEST SPEED</th> </tr> <tr> <th>MPH</th> <th>10-20</th> <th>15-30</th> <th>25-40</th> <th>35-45</th> <th>> 45</th> </tr> </thead> <tbody> <tr> <td>Standing Queue</td> <td>200</td> <td>130</td> <td>100</td> <td>80</td> <td>40</td> </tr> <tr> <td>5 - 10 MPH</td> <td>130</td> <td>90</td> <td>70</td> <td>60</td> <td>40</td> </tr> <tr> <td>> 10 MPH</td> <td>100</td> <td>80</td> <td>60</td> <td>40</td> <td>40</td> </tr> </tbody> </table>						LOWEST SPEED	HIGHEST SPEED					MPH	10-20	15-30	25-40	35-45	> 45	Standing Queue	200	130	100	80	40	5 - 10 MPH	130	90	70	60	40	> 10 MPH	100	80	60	40	40
LOWEST SPEED	HIGHEST SPEED																																							
MPH	10-20	15-30	25-40	35-45	> 45																																			
Standing Queue	200	130	100	80	40																																			
5 - 10 MPH	130	90	70	60	40																																			
> 10 MPH	100	80	60	40	40																																			
Do You Anticipate Queuing Across Tube	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> 25 Mph	<input type="checkbox"/> 45 Mph	(TAD, TBD) [A] [B] [M] [D]																																			
Speed Greater Than 20 Miles / Hour	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> 30 Mph	<input type="checkbox"/> 50 Mph	Use 2 Counters if Traffic Conditions are different in each direction.																																			
Tube Crosses More Than 2 Lanes	<input checked="" type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/> 35 Mph	<input type="checkbox"/> 55 Mph	DWELL (TAD, TBD)																																			
SPEED: High _____ Mph Low _____ Mph			<input type="checkbox"/> Other: _____																																					

AXLE STRIKE COUNT		SYSTEM DELAY LOGIC		SPEED LOW VOL		VEHICLE SPEED/CLASSIFICATION			
G M D A B	D	G M B	M B	G	L				
<input type="checkbox"/> Tube equal length		<input type="checkbox"/> Use proper spacing		<input type="checkbox"/> One Lane only except Low Volume Speed Surveys ADT 2,000					

COUNTER/SET DOWN			DIRECTION:					COMBINED:					ROAD:				
Type			<input type="checkbox"/> East Bound <input type="checkbox"/> West Bound <input type="checkbox"/> North Bound <input type="checkbox"/> South Bound <input type="checkbox"/> Approach					<input type="checkbox"/> East / West <input type="checkbox"/> North / South <input type="checkbox"/> DRWY: <input type="checkbox"/> Combined <input type="checkbox"/> In-Bound <input type="checkbox"/> Out-Bound					<input type="checkbox"/> Dry <input type="checkbox"/> Wet <input type="checkbox"/> Asphalt <input type="checkbox"/> Concrete <input type="checkbox"/> Broken <input type="checkbox"/> Rutted <input type="checkbox"/> Curved				
No.			NORTH IS UP 														
Box																	
Tube Length	<u>40</u>																
<input type="checkbox"/> Hammer Test																	
CHECK	DATE	TIME															
P F																	
P F																	
P F																	
P F																	
P F																	
PICK-UP																	
<input type="checkbox"/> Hammer Test																	
Date:																	
Time:																	
FILE NAMES																	
<u>0549SW80</u>																	
<u>0549SX6</u>																	
<u>0549SE82</u>																	
<u>0549SE81</u>																	
<u>055JON44</u>																	
<u>055JON A6</u>																	
Remarks:			WEATHER: <input type="checkbox"/> Sunny <input type="checkbox"/> Overcast <input type="checkbox"/> Rain <input type="checkbox"/> Snow Redo West Leg North Leg South Leg														
Surveyed By:			TRAFFIC SMITHY, Inc. 1225 NW Murray Blvd. Suite 111 Portland, OR 97229 Phone: 503/641-6333 - Fax: 503/643-8866														

TRAFFIC SMITHY, INC
 1225 NW MURRAY BLVD SUITE 111
 PORTLAND, OR 97229
 Phone: 503-641-6333 Fax: 503-643-8866

Roadway: NE 49TH STREET
 Location: EAST OF ST JOHNS ROAD

Date: 09/04/03
 Day of Week: Thursday

WB Traffic

TIME	:00	:05	:10	:15	:20	:25	:30	:35	:40	:45	:50	:55	Total
00:00	1	1	1	0	1	0	0	0	1	0	0	0	5
01:00	0	0	1	0	0	0	0	0	0	0	1	0	2
02:00	1	0	1	0	1	0	0	0	0	0	0	0	3
03:00	0	2	0	0	0	0	0	2	0	2	0	0	6
04:00	1	0	0	0	2	0	0	0	0	0	3	1	7
05:00	4	1	0	2	1	1	2	2	1	0	6	2	22
06:00	6	1	4	5	4	4	7	5	4	6	9	3	58
07:00	7	5	5	7	4	10	10	3	7	6	6	7	77
08:00	9	1	3	8	7	13	14	8	11	3	3	6	86
09:00	4	9	5	7	7	3	6	3	8	8	3	6	69
10:00	3	6	4	5	3	3	2	4	4	4	2	4	44
11:00	4	3	3	6	6	3	7	7	2	7	4	5	57
12:00	2	6	7	4	7	0	4	3	4	2	4	6	49
13:00	4	5	6	2	1	9	4	10	7	6	4	5	63
14:00	2	5	6	9	5	6	7	5	4	2	3	11	65
15:00	8	5	7	11	6	12	4	7	9	10	7	9	95
16:00	4	5	10	8	7	8	9	3	7	3	8	5	77
17:00	10	9	7	7	8	6	8	7	8	9	3	1	83
18:00	8	5	7	3	3	3	10	5	7	6	7	7	71
19:00	5	10	9	4	7	8	11	5	3	5	7	11	85
20:00	7	2	2	4	5	5	5	2	5	4	1	5	47
21:00	4	6	3	3	1	2	1	3	4	8	3	1	39
22:00	2	3	3	2	7	0	4	4	2	0	1	2	30
23:00	0	2	1	0	0	0	0	2	0	0	0	3	8

Daily Total: 1148

AM Peak Hour: 93 (07:45 - 08:45)

8.10% Of Daily Total

PM Peak Hour: 97 (14:55 - 15:55)

8.44% Of Daily Total

4th Highest Hour: 83 (17:00 - 18:00)

7.22% Of Daily Total

8th Highest Hour: 69 (09:00 - 10:00)

6.01% Of Daily Total

TRAFFIC SMITHY, INC
 1225 NW MURRAY BLVD SUITE 111
 PORTLAND, OR 97229
 Phone: 503-641-6333 Fax: 503-643-8866

Roadway: NE 49TH STREET
 Location: EAST OF ST JOHNS ROAD

Date: 09/04/03
 Day of Week: Thursday

EB Traffic

TIME	:00	:05	:10	:15	:20	:25	:30	:35	:40	:45	:50	:55	Total
00:00	1	1	0	1	0	0	1	0	0	1	0	0	5
01:00	0	2	1	1	0	0	0	0	2	1	0	1	8
02:00	0	0	0	1	0	3	0	0	0	1	0	0	5
03:00	0	1	0	1	0	0	1	2	0	1	0	0	6
04:00	1	0	0	0	0	0	0	0	0	0	0	0	1
05:00	0	0	2	1	0	0	0	0	1	1	1	0	6
06:00	0	2	3	0	2	4	5	1	2	2	4	0	25
07:00	0	3	13	6	11	1	4	8	4	8	4	9	71
08:00	3	7	1	5	5	11	2	5	5	3	0	1	48
09:00	3	2	4	3	7	7	4	6	3	5	8	1	53
10:00	3	2	5	0	3	3	3	2	8	2	6	1	38
11:00	3	4	4	5	5	6	2	8	4	8	5	4	58
12:00	8	3	7	5	1	5	3	6	4	6	8	7	63
13:00	5	2	4	7	5	4	5	5	9	7	4	4	61
14:00	3	6	5	4	5	5	8	11	8	5	8	7	75
15:00	8	9	7	7	6	4	5	5	8	14	7	7	87
16:00	5	3	5	15	7	7	12	4	3	11	7	3	82
17:00	5	8	13	11	13	9	6	11	11	8	7	13	115
18:00	5	6	14	8	2	4	8	11	3	7	6	9	83
19:00	11	7	9	2	7	4	7	12	8	8	8	6	89
20:00	5	6	4	5	5	1	7	8	9	5	6	4	65
21:00	3	4	7	8	6	4	2	4	5	3	7	6	59
22:00	2	1	3	1	4	3	0	2	1	4	1	2	24
23:00	2	2	0	10	0	3	0	0	0	0	1	0	18

Daily Total: 1145

AM Peak Hour: 78 (07:10 - 08:10)

6.81% Of Daily Total

PM Peak Hour: 115 (17:00 - 18:00)

10.0% Of Daily Total

4th Highest Hour: 83 (18:00 - 19:00)

7.24% Of Daily Total

8th Highest Hour: 65 (20:00 - 21:00)

5.67% Of Daily Total

Roadway Survey Field Sheet

TS Project # _____ Map _____ Grid _____ Start Time _____ # Of Days _____

Location: NE. 49TH ST. + ST JOHNS

Type Of Survey

- Volume
- Speed
- Classification
- _____

Start Date: 9/8/03

S (M) T W T F S

End Date: 9/10/03

S M T (W) T F S

Counters 4

Tubes 4

Location ID: _____

City: VANCOUVER

SITE EVALUATION

Vehicles Crossing Tube Perpendicular YES NO ???
 Do You Anticipate Queuing Across Tube YES NO ???
 Speed Greater Than 20 Miles / Hour YES NO ???
 Tube Crosses More Than 2 Lanes YES NO ???

SPEED: High _____ Mph Low _____ Mph

POSTED SPEED

- None
- 25 Mph
- 30 Mph
- 35 Mph
- Other: _____
- 40 Mph
- 45 Mph
- 50 Mph
- 55 Mph

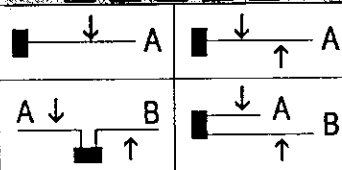
DWELL TIME

LOWEST SPEED MPH	HIGHEST SPEED					(TAD, TBD)
	10-20	15-30	25-40	35-45	> 45	
Standing Queue	200	130	100	80	40	<u>A</u>
5 - 10 MPH	130	90	70	60	40	<u>B</u>
> 10 MPH	100	80	60	40	40	<u>M</u>

Use 2 Counters if Traffic Conditions are different in each direction. DWELL (TAD, TBD) D

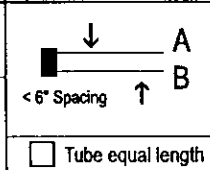
AXLE STRIKE COUNT

G M D A B



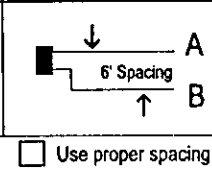
SYSTEM DELAY LOGIC

D



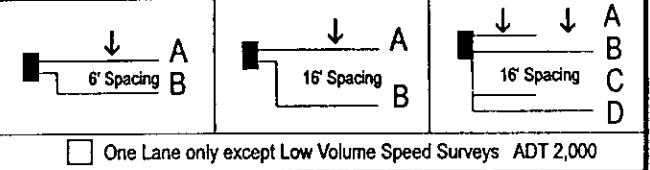
SPEED Low Vol

G M B



VEHICLE SPEED / CLASSIFICATION

M B G L



- Tube equal length
- Use proper spacing
- One Lane only except Low Volume Speed Surveys ADT 2,000

COUNTER / SET DOWN

Type A MAX
 No. A2/38/26/76
 Box _____

Tube Length 40

Hammer Test

CHECK	DATE	TIME
P F		
P F		
P F		
P F		
P F		

PICK-UP

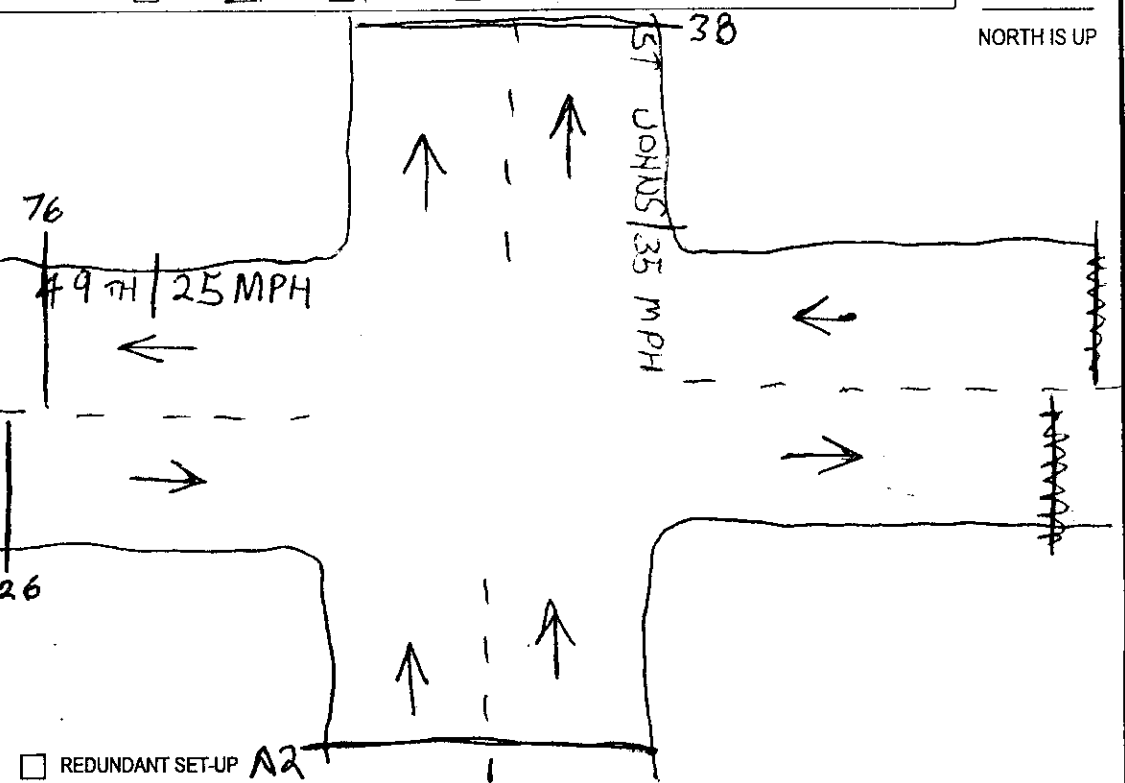
Hammer Test

Date: 9/10/03 Time: 10:00

FILE NAMES

105JONA2
105JON38
1049TE26
1049TW76

DIRECTION: East Bound West Bound North Bound South Bound Approach
 COMBINED: East / West North / South DRWY: Combined In-Bound Out-Bound
 ROAD: Dry Wet Asphalt Concrete Broken Rutted Curved



REDUNDANT SET-UP A2

Remarks: WEATHER: Sunny Overcast Rain Snow

Surveyed By: M.P.

TRAFFIC SMITHY, Inc.
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 Portland, OR 97229
 Phone: 503/641-6333 - Fax: 503/643-8866

TRAFFIC SMITHY, INC
 1225 NW MURRAY BLVD SUITE 111
 PORTLAND, OR 97229
 Phone: 503-641-6333 Fax: 503-643-8866

Roadway: ST JOHNS ROAD
 Location: NORTH OF 49TH

Date: 09/09/03
 Day of Week: Tuesday

NB Traffic

TIME	:00	:05	:10	:15	:20	:25	:30	:35	:40	:45	:50	:55	Total
00:00	5	5	2	7	9	3	2	5	3	5	5	5	56
01:00	3	2	5	1	7	5	3	3	2	3	2	3	39
02:00	1	1	3	4	1	1	0	1	2	1	2	3	20
03:00	4	4	1	3	2	8	1	1	0	2	3	1	30
04:00	3	0	3	5	1	5	3	0	3	3	3	5	34
05:00	6	6	5	4	2	3	8	9	8	11	13	4	79
06:00	12	10	5	16	12	26	26	34	20	28	30	30	249
07:00	24	20	33	25	29	51	35	30	36	35	44	35	397
08:00	40	44	33	33	46	56	36	54	41	55	56	45	539
09:00	50	36	39	40	41	39	51	39	46	34	51	46	512
10:00	48	49	44	46	41	50	45	42	40	59	48	44	556
11:00	46	47	56	42	49	49	40	58	49	46	60	46	588
12:00	46	69	59	47	43	59	63	36	45	62	52	69	650
13:00	61	56	61	70	60	67	55	68	74	53	53	52	730
14:00	56	70	63	63	59	55	52	58	54	51	61	69	711
15:00	85	78	84	91	98	94	73	58	66	85	56	73	941
16:00	75	89	78	71	93	75	93	78	79	66	60	67	924
17:00	76	96	70	100	87	58	68	70	62	64	64	49	864
18:00	62	62	67	49	56	52	41	40	45	54	58	48	634
19:00	39	38	39	46	39	26	28	33	40	39	26	38	431
20:00	41	30	32	29	36	24	37	29	31	30	27	29	375
21:00	27	26	34	23	25	16	20	30	20	23	17	20	281
22:00	17	15	13	17	22	12	17	13	14	7	8	4	159
23:00	4	10	4	9	9	12	12	15	7	8	15	8	113

Daily Total: 9912

AM Peak Hour: 588 (11:00 - 12:00)

5.93% Of Daily Total

PM Peak Hour: 953 (16:20 - 17:20)

9.61% Of Daily Total

4th Highest Hour: 730 (13:00 - 14:00)

7.36% Of Daily Total

8th Highest Hour: 588 (11:00 - 12:00)

5.93% Of Daily Total

TRAFFIC SMITHY, INC
 1225 NW MURRAY BLVD SUITE 111
 PORTLAND, OR 97229
 Phone: 503-641-6333 Fax: 503-643-8866

Roadway: ST JOHNS ROAD
 Location: SOUTH OF 49TH

Date: 09/09/03
 Day of Week: Tuesday

NB Traffic

TIME	:00	:05	:10	:15	:20	:25	:30	:35	:40	:45	:50	:55	Total
00:00	7	5	4	5	14	3	2	4	5	5	5	3	62
01:00	4	5	5	1	10	5	3	3	3	3	3	2	47
02:00	1	0	7	3	2	1	0	1	3	3	4	2	27
03:00	5	4	0	3	1	10	1	2	1	2	3	1	33
04:00	4	0	4	3	1	1	4	3	2	3	4	1	30
05:00	4	5	2	7	2	4	8	6	6	11	19	4	78
06:00	10	11	6	18	13	20	21	29	23	28	32	28	239
07:00	26	20	31	22	24	43	30	30	31	38	39	38	372
08:00	47	42	30	33	47	51	43	54	50	42	50	33	522
09:00	47	47	39	39	42	42	54	42	39	40	44	44	519
10:00	56	50	45	39	44	55	39	37	42	49	52	50	558
11:00	54	45	57	45	40	60	48	60	46	37	59	47	598
12:00	56	68	62	49	57	68	60	37	52	38	72	68	687
13:00	66	57	74	66	61	59	65	65	64	68	57	63	765
14:00	71	58	65	70	71	62	51	68	62	53	77	59	767
15:00	90	80	78	96	86	85	87	63	83	81	65	78	972
16:00	72	71	89	79	84	89	90	92	73	88	67	82	976
17:00	65	103	90	95	102	64	81	75	84	62	67	58	946
18:00	66	56	75	59	51	56	51	41	54	54	57	50	670
19:00	38	42	33	46	47	28	35	38	40	29	32	41	449
20:00	41	29	36	24	48	32	36	33	27	25	28	30	389
21:00	30	30	34	27	34	18	19	31	25	22	16	21	307
22:00	16	19	18	20	18	18	21	15	19	9	10	5	188
23:00	7	11	8	13	6	13	12	15	9	8	16	11	129

Daily Total: 10330

AM Peak Hour: 606 (10:45 - 11:45)

5.86% Of Daily Total

PM Peak Hour: 1036 (16:25 - 17:25)

10.0% Of Daily Total

4th Highest Hour: 767 (14:00 - 15:00)

7.42% Of Daily Total

8th Highest Hour: 598 (11:00 - 12:00)

5.78% Of Daily Total

TRAFFIC SMITHY, INC
 1225 NW MURRAY BLVD SUITE 111
 PORTLAND, OR 97229
 Phone: 503-641-6333 Fax: 503-643-8866

Roadway: 49TH STREET
 Location: WEST OF ST JOHNS

Date: 09/09/03
 Day of Week: Tuesday

EB Traffic

TIME	:00	:05	:10	:15	:20	:25	:30	:35	:40	:45	:50	:55	Total
00:00	2	1	1	2	3	0	1	0	0	1	0	0	11
01:00	1	0	2	0	0	1	0	1	0	0	0	1	6
02:00	1	0	0	0	0	0	0	0	0	0	2	0	3
03:00	0	0	1	0	0	0	0	0	0	0	1	0	2
04:00	0	0	0	1	0	2	0	0	0	0	0	1	4
05:00	1	2	0	0	1	4	0	0	0	1	4	1	14
06:00	0	0	1	6	3	3	10	3	7	7	4	6	50
07:00	7	5	6	9	13	7	15	13	9	5	6	4	99
08:00	7	11	7	8	4	9	4	10	5	9	8	5	87
09:00	10	8	6	11	6	5	5	9	6	3	7	8	84
10:00	8	5	8	6	6	8	6	5	3	12	9	8	84
11:00	2	11	6	10	7	9	10	13	8	15	7	12	110
12:00	3	12	13	6	8	9	12	9	13	5	13	8	111
13:00	5	8	6	7	13	12	6	13	14	7	7	7	105
14:00	3	14	12	7	9	9	5	5	6	7	9	7	93
15:00	8	19	10	14	9	11	10	11	16	8	13	14	143
16:00	17	15	12	5	8	5	13	9	13	10	10	5	122
17:00	12	12	13	9	11	8	9	5	10	9	11	16	125
18:00	9	12	8	14	10	12	12	7	11	3	11	8	117
19:00	10	5	6	11	4	6	1	4	8	6	10	4	75
20:00	7	3	5	5	7	1	4	6	9	4	9	8	68
21:00	5	4	3	7	4	2	3	4	4	4	8	3	51
22:00	2	3	0	2	1	3	0	1	0	2	1	3	18
23:00	0	1	0	1	1	1	0	0	0	1	1	2	8

Daily Total: 1590

AM Peak Hour: 110 (11:00 - 12:00)

6.91% Of Daily Total

PM Peak Hour: 152 (15:05 - 16:05)

9.55% Of Daily Total

4th Highest Hour: 117 (18:00 - 19:00)

7.35% Of Daily Total

8th Highest Hour: 99 (07:00 - 08:00)

6.22% Of Daily Total

TRAFFIC SMITHY, INC
 1225 NW MURRAY BLVD SUITE 111
 PORTLAND, OR 97229
 Phone: 503-641-6333 Fax: 503-643-8866

Roadway: 49TH STREET
 Location: WEST OF ST JOHNS

Date: 09/09/03
 Day of Week: Tuesday

WB Traffic

TIME	:00	:05	:10	:15	:20	:25	:30	:35	:40	:45	:50	:55	Total
00:00	0	1	0	1	3	0	3	1	2	0	0	0	11
01:00	1	1	0	1	0	0	1	0	0	0	0	1	5
02:00	2	1	2	1	0	1	1	0	0	1	4	0	13
03:00	0	0	0	0	0	0	0	0	0	0	1	1	2
04:00	1	0	0	0	0	0	0	0	1	0	1	0	3
05:00	1	1	0	1	1	9	1	2	3	1	2	7	29
06:00	3	3	6	11	4	6	2	13	6	9	9	10	82
07:00	5	14	6	8	10	11	8	7	12	3	4	5	93
08:00	4	12	8	4	9	7	10	15	9	9	9	8	104
09:00	8	9	5	8	11	3	9	15	1	7	10	7	93
10:00	9	7	9	6	6	6	11	3	4	5	5	6	77
11:00	13	7	11	7	5	6	14	8	13	4	7	7	102
12:00	15	8	9	9	13	7	7	7	13	10	7	15	120
13:00	14	5	7	8	11	11	11	13	16	9	15	6	126
14:00	10	10	11	14	10	13	8	9	7	4	10	8	114
15:00	15	7	14	8	8	10	18	10	11	12	12	12	137
16:00	8	12	10	10	8	9	9	11	10	15	7	13	122
17:00	11	12	18	8	12	17	13	10	18	15	12	10	156
18:00	14	12	9	3	7	7	14	11	7	10	9	5	108
19:00	14	9	11	5	7	6	5	4	4	6	5	9	85
20:00	4	9	9	3	6	8	6	10	16	4	7	9	91
21:00	5	6	8	6	5	2	3	5	4	4	4	0	52
22:00	7	2	5	4	7	3	4	7	1	5	2	2	49
23:00	0	1	2	1	5	0	0	2	2	3	2	2	20

Daily Total: 1794

AM Peak Hour: 109 (06:35 - 07:35)

6.07% Of Daily Total

PM Peak Hour: 159 (16:55 - 17:55)

8.86% Of Daily Total

4th Highest Hour: 122 (16:00 - 17:00)

6.80% Of Daily Total

8th Highest Hour: 104 (08:00 - 09:00)

5.79% Of Daily Total