

City of Garden Grove Engineering and Traffic Survey Summary

Street: TRASK AVENUE
 Intersects: NEWLAND STREET
MAGNOLIA STREET

Field Observer: ANTONIO
 Checked By: MARK MILLER
 Date: 4/8/2014

Factors	Direction: <u>East/West</u>		
<u>A. Prevailing Speed Data</u>			
Location of Survey	8601 Trask Avenue		
85th Percentile	43		
10 mph Pace	32 - 41		
Percent in Pace	65.7%		
Posted Speed Limit	40		
<u>B. Collision History</u>			
Date Range Covered	1/1/2010	To 12/31/2011	(2 yrs)
Total Collisions	2		
Collision Rate (Acc/MVM)	0.397		
Expected Collision Rate	3.55		
<u>C. Traffic Factors</u>			
Average Daily Traffic	13813		
Length of Segment	2641		
Lane Configuration	2 Lanes Each Direction		
Street Classification	Secondary Arterial		
<u>D. Conditions Not Readily Apparent</u>			
Conditions			
Roadway Geometrics			
Comments	No Parking, 25 mph When Children Are Present		
<u>E. Adjacent Land Use</u>			
	Residential		
Posted Speed Limit	40		
Speed Limit Change?	No		
Revised Speed Limit	40		

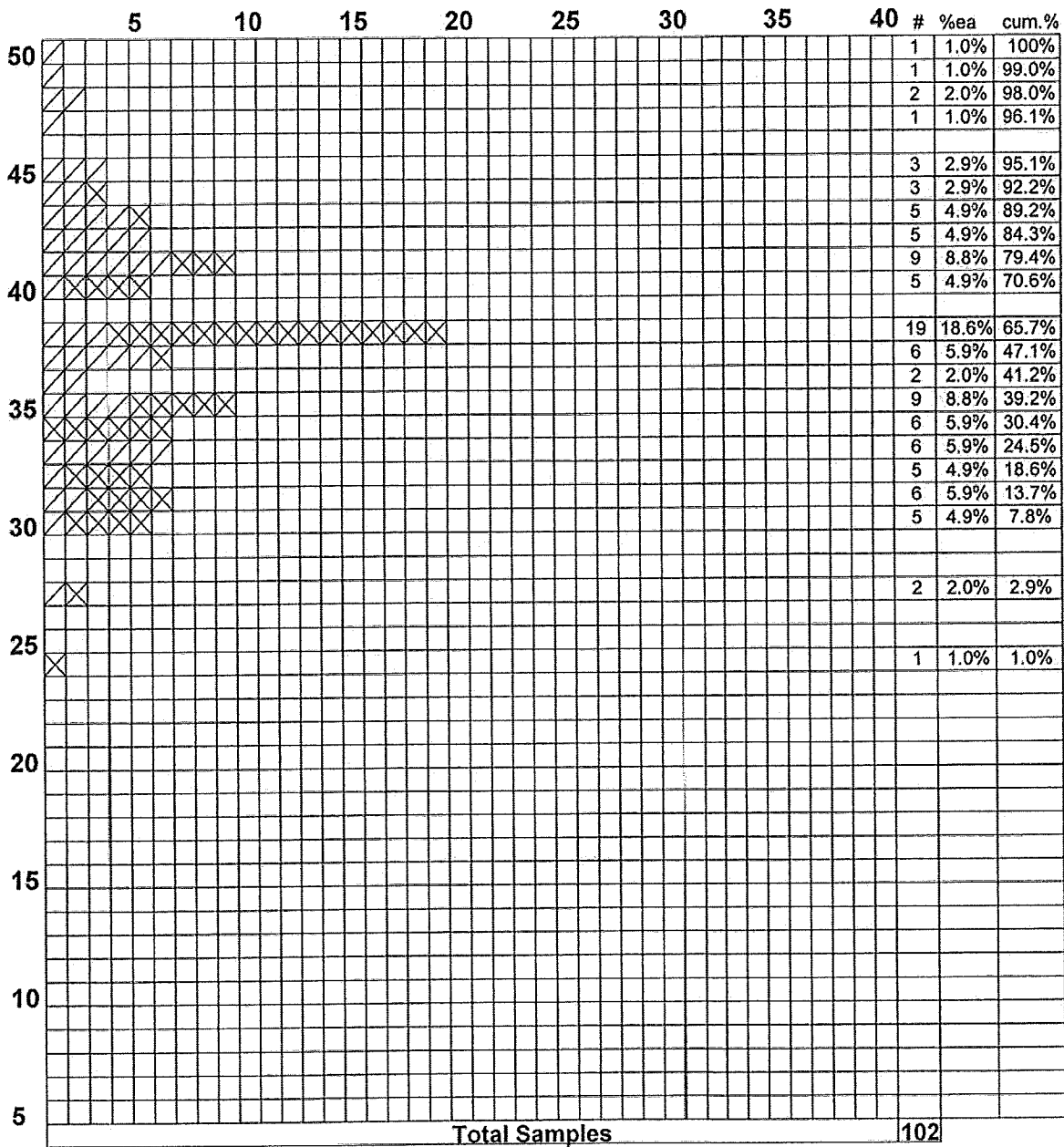
**City of Garden Grove
Traffic Engineering Department**

Street Name: TRASK AVENUE

Limits: NEWLAND STREET to MAGNOLIA STREET

Radar Survey Sheet

X=West /=East



85th Percentile Speed: 43
 50th Percentile Speed: 38
 15th Percentile Speed: 32
 10 MPH Pace: 32-41
 Number in Pace: 67
 Percent in Pace: 65.7%

Date of Survey: 4/8/2014 Start Time: 9:34
 Weather: Sunny End Time: 9:53
 Road Condition: Fair Posted Speed: 40
 Street Class.: Secondary Arterial Observer: ANTONIO
 Conditions not Apparent:

City of Garden Grove Engineering and Traffic Survey Summary

Street: TRASK AVENUE
 Intersects: MAGNOLIA STREET
GALWAY STREET

Field Observer: ANTONIO
 Checked By: MARK MILLER
 Date: 4/8/2014

Factors	Direction: <u>East/West</u>		
<u>A. Prevailing Speed Data</u>			
Location of Survey	Nissan Dealer		
85th Percentile	43		
10 mph Pace	33 - 42		
Percent in Pace	68.3%		
Posted Speed Limit	40		
<u>B. Collision History</u>			
Date Range Covered	1/1/2010	To 12/31/2011	(2 yrs)
Total Collisions	8		
Collision Rate (Acc/MVM)	1.347		
Expected Collision Rate	2.3		
<u>C. Traffic Factors</u>			
Average Daily Traffic	15367		
Length of Segment	2795		
Lane Configuration	2 Lanes Each Direction		
Street Classification	Secondary Arterial		
<u>D. Conditions Not Readily Apparent</u>			
Conditions			
Roadway Geometrics			
Comments	Parking, 2 Left Turn Pockets		
<u>E. Adjacent Land Use</u>			
	Residential/Commercial		
Posted Speed Limit	40		
Speed Limit Change?	No		
Revised Speed Limit	40		

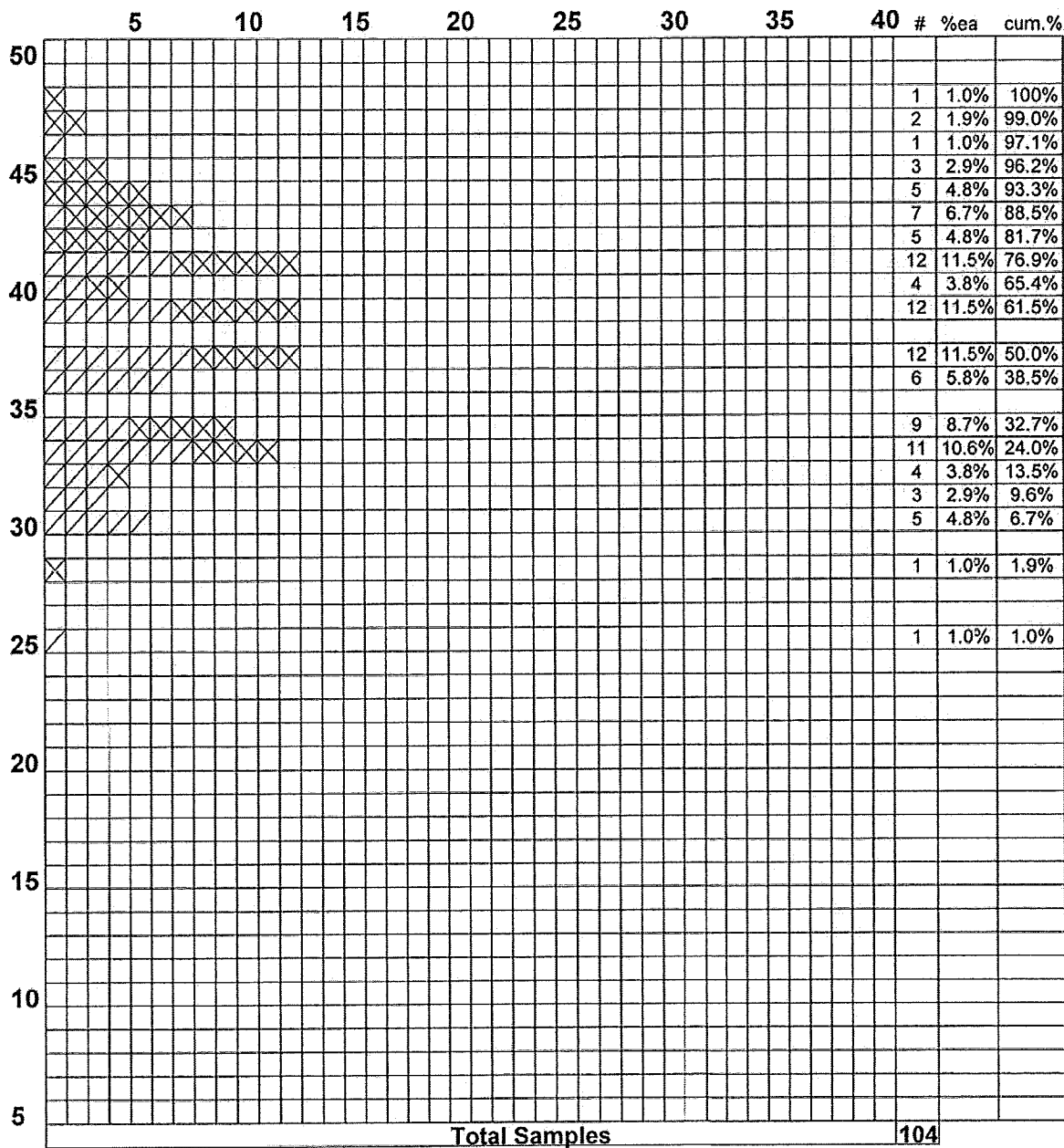
**City of Garden Grove
Traffic Engineering Department**

Street Name: TRASK AVENUE

Limits: MAGNOLIA STREET to GALWAY STREET

Radar Survey Sheet

X=West /=East



85th Percentile Speed:	<u>43</u>	Date of Survey:	<u>4/8/2014</u>	Start Time:	<u>9:56</u>
50th Percentile Speed:	<u>37</u>	Weather:	<u>Sunny</u>	End Time:	<u>10:12</u>
15th Percentile Speed:	<u>33</u>	Road Condition:	<u>Good</u>	Posted Speed:	<u>40</u>
10 MPH Pace:	<u>33-42</u>	Street Class.:	<u>Secondary Arterial</u>	Observer:	<u>ANTONIO</u>
Number in Pace:	<u>71</u>	Conditions not Apparent:			
Percent in Pace:	<u>68.3%</u>				

City of Garden Grove Engineering and Traffic Survey Summary

Street: MAGNOLIA STREET
Limits: WESTMINSTER BOULEVARD
TRASK AVENUE

Field Observer: MIKE ALMIR
Checked By: MARK MILLER
Date: 4/9/2014

Factors	Direction: <u>north/south</u>		
<u>A. Prevailing Speed Data</u>			
Location of Survey	13915 Magnolia Street		
85th Percentile	39		
10 mph Pace	31 - 40		
Percent in Pace	61.0%		
Posted Speed Limit	40		
<u>B. Collision History</u>			
Date Range Covered	1/1/2010	To 12/31/2011	(2 years)
Total Collisions	7		
Collision Rate (Acc/MVM)	0.449		
Expected Collision Rate	2.3		
<u>C. Traffic Factors</u>			
Average Daily Traffic	42612		
Length of Segment	2645		
Lane Configuration	3 Lanes Each Direction		
Street Classification	Principal Arterial		
<u>D. Conditions Not Readily Apparent</u>			
Conditions			
Roadway Geometrics			
Comments	No Parking, Multiple Driveways, Low Accident Rate, Continuity of Speed, 45 mph in Westminster		
<u>E. Adjacent Land Use</u>			
	Residential/Retail		
Posted Speed Limit	40		
Speed Limit Change?	No		
Revised Speed Limit	40		

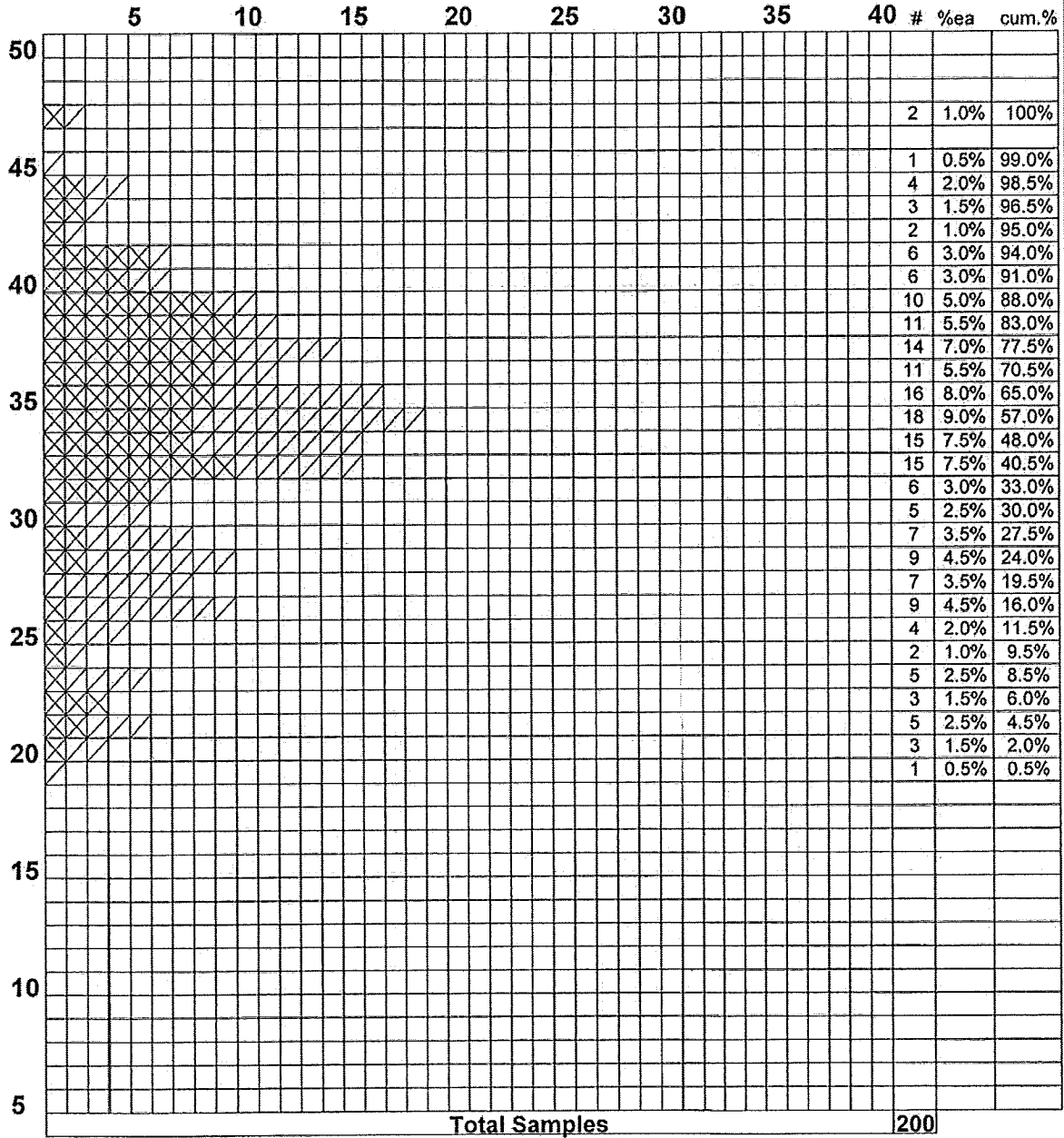
**City of Garden Grove
Traffic Engineering Department**

Street Name: MAGNOLIA STREET

Limits: WESTMINSTER BOULEVARD to TRASK AVENUE

Radar Survey Sheet

X=North /=South



85th Percentile Speed: <u>39</u>	Date of Survey: <u>4/9/2014</u>	Start Time: <u>9:00</u>
50th Percentile Speed: <u>34</u>	Weather: <u>cloudy</u>	End Time: <u>10:00</u>
15th Percentile Speed: <u>26</u>	Road Condition: <u>good</u>	Posted Speed: <u>40</u>
10 MPH Pace: <u>31-40</u>	Street Class.: <u>Principal Arterial</u>	Observer: <u>MIKE ALMIR</u>
Number in Pace: <u>122</u>	Conditions not Apparent:	
Percent in Pace: <u>61.0%</u>		

City of Garden Grove Engineering and Traffic Survey Summary

Street: MAGNOLIA STREET
 Limits: TRASK AVENUE
GARDEN GROVE BOULEVARD

Field Observer: MIKE ALMIR
 Checked By: MARK MILLER
 Date: 4/9/2014

Factors	Direction: <u>north/south</u>		
<u>A. Prevailing Speed Data</u>			
Location of Survey	13361 Magnolia Street		
85th Percentile	41		
10 mph Pace	31 - 40		
Percent in Pace	74.0%		
Posted Speed Limit	35		
<u>B. Collision History</u>			
Date Range Covered	1/1/2010	To 12/31/2011	(2 years)
Total Collisions	5		
Collision Rate (Acc/MVM)	0.355		
Expected Collision Rate	3.55		
<u>C. Traffic Factors</u>			
Average Daily Traffic	33293		
Length of Segment	3058		
Lane Configuration	2 Lanes Each Direction		
Street Classification	Principal Arterial		
<u>D. Conditions Not Readily Apparent</u>			
Conditions			
Roadway Geometrics			
Comments	Apartments, Curve, 25 When Children Are Present, No Parking, Low Accident Rate		
<u>E. Adjacent Land Use</u>			
	Residential/Commercial		
Posted Speed Limit	35		
Speed Limit Change?	No		
Revised Speed Limit	35		
Loc. #35			

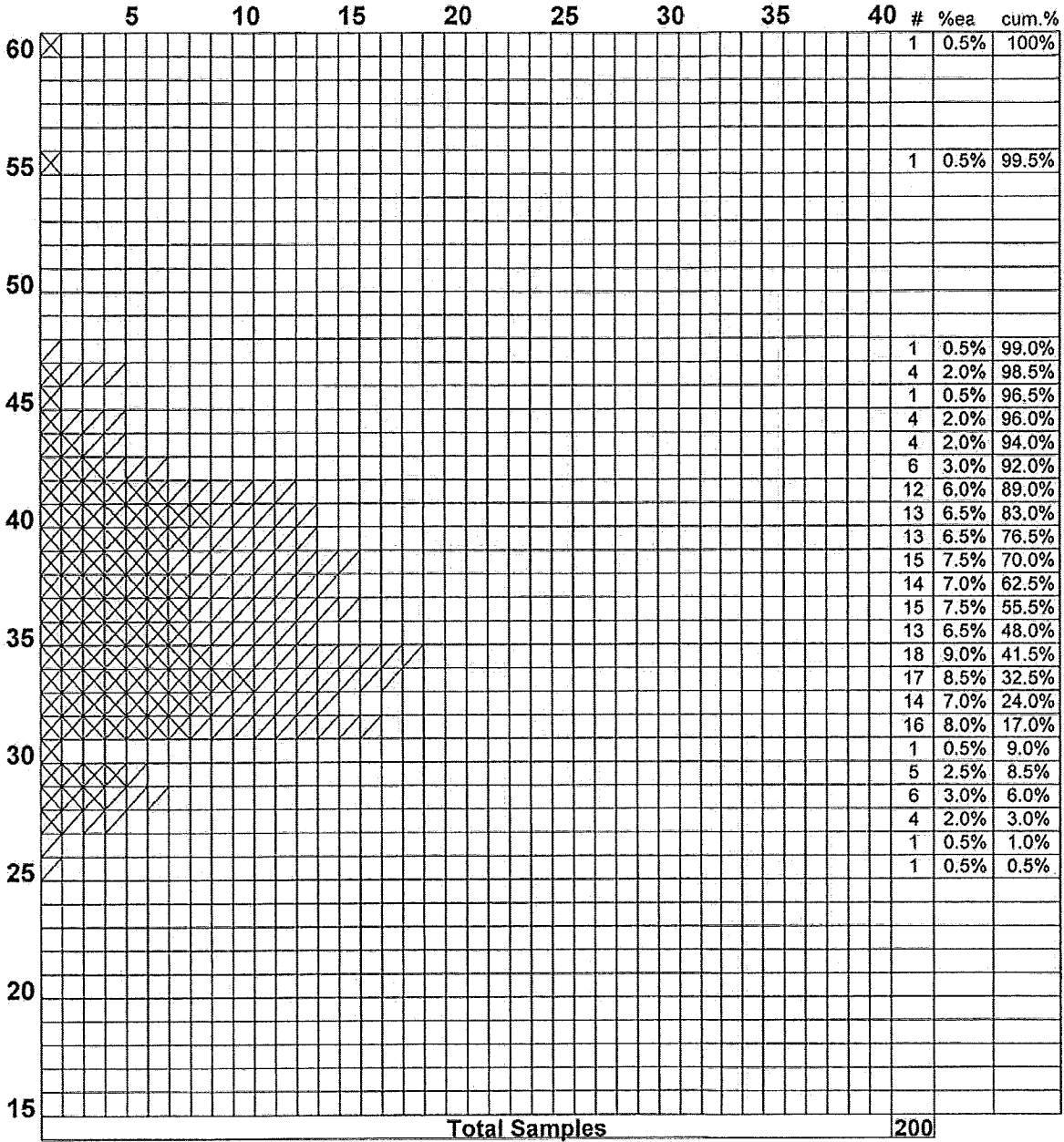
**City of Garden Grove
Traffic Engineering Department**

Street Name: MAGNOLIA STREET

Limits: TRASK AVENUE to GARDEN GROVE BOULEVARD

Radar Survey Sheet

X=North /=South



85th Percentile Speed: 41
 50th Percentile Speed: 36
 15th Percentile Speed: 31
 10 MPH Pace: 31-40
 Number in Pace: 148
 Percent in Pace: 74.0%

Date of Survey: 4/9/2014 Start Time: 10:00
 Weather: cloudy End Time: 11:00
 Road Condition: Poor Posted Speed: 35
 Street Class.: Principal Arterial Observer: MIKE ALMIR
 Conditions not Apparent:

City of Garden Grove Engineering and Traffic Survey Summary

Street: TRASK AVENUE
 Intersects: NEWHOPE STREET
HARBOR BOULEVARD

Field Observer: ANTONIO
 Checked By: MARK MILLER
 Date: 4/8/2014

Factors	Direction: <u>East/West</u>		
<u>A. Prevailing Speed Data</u>			
Location of Survey	11664 Trask Avenue		
85th Percentile	42		
10 mph Pace	35 - 44		
Percent in Pace	91.6%		
Posted Speed Limit	40		
<u>B. Collision History</u>			
Date Range Covered	1/1/2010	To 12/31/2011	(2 yrs)
Total Collisions	3		
Collision Rate (Acc/MVM)	0.64		
Expected Collision Rate	3.55		
<u>C. Traffic Factors</u>			
Average Daily Traffic	12757		
Length of Segment	2656		
Lane Configuration	2 Lanes Each Direction		
Street Classification	Secondary Arterial		
<u>D. Conditions Not Readily Apparent</u>			
Conditions			
Roadway Geometrics			
Comments	Double Yellow Center Line, 25 mph When Children Are Present, Parking		
<u>E. Adjacent Land Use</u>			
	Residential/Commercial		
Posted Speed Limit	40		
Speed Limit Change?	No		
Revised Speed Limit	40		
Loc. #132			

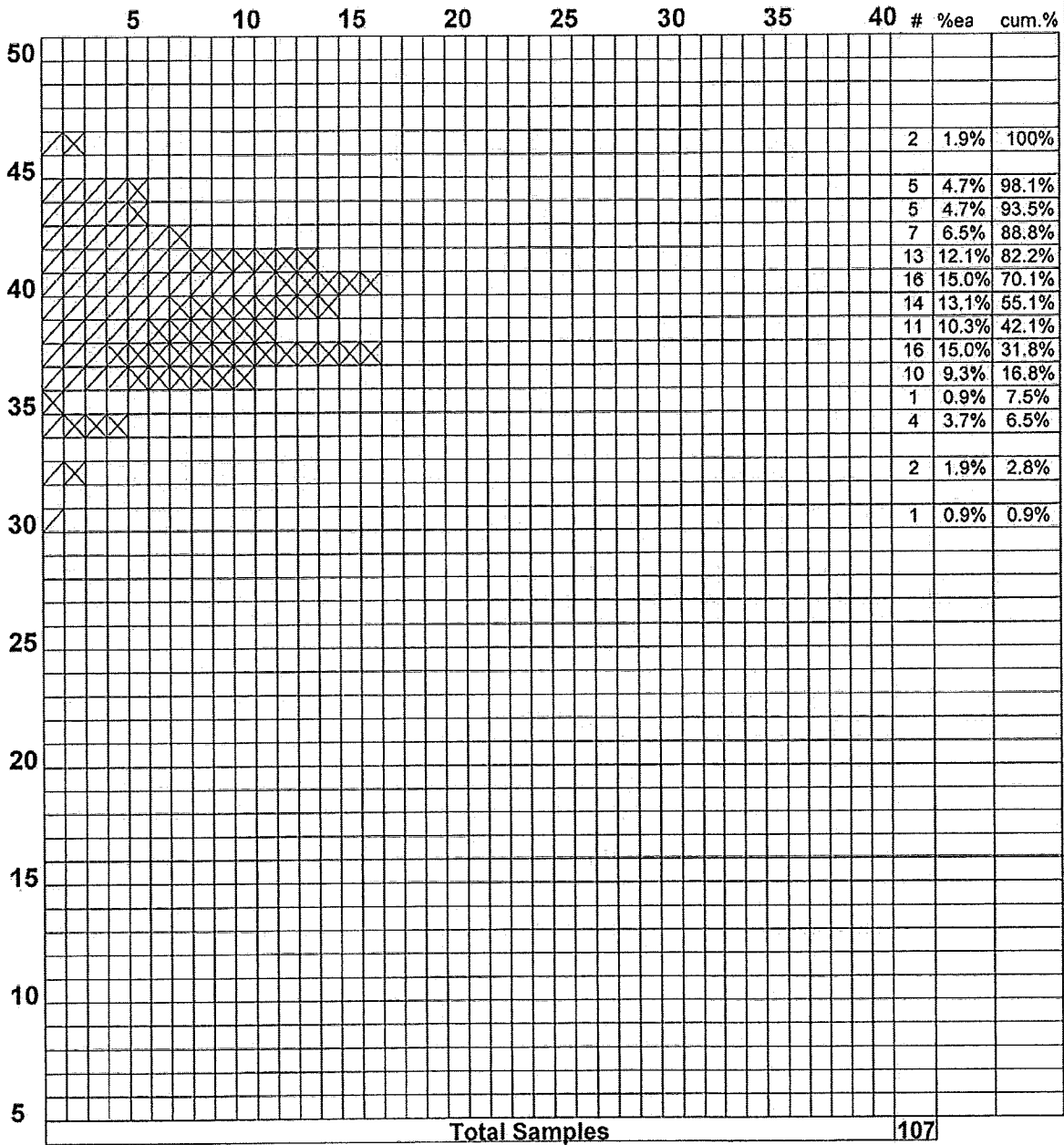
**City of Garden Grove
Traffic Engineering Department**

Street Name: TRASK AVENUE

Limits: NEWHOPE STREET to HARBOR BOULEVARD

Radar Survey Sheet

X=West / =East



85th Percentile Speed:	<u>42</u>	Date of Survey:	<u>4/8/2014</u>	Start Time:	<u>11:30</u>
50th Percentile Speed:	<u>39</u>	Weather:	<u>Sunny</u>	End Time:	<u>11:44</u>
15th Percentile Speed:	<u>36</u>	Road Condition:	<u>Good</u>	Posted Speed:	<u>40</u>
10 MPH Pace:	<u>35-44</u>	Street Class.:	<u>Secondary Arterial</u>	Observer:	<u>ANTONIO</u>
Number in Pace:	<u>98</u>	Conditions not Apparent:			
Percent in Pace:	<u>91.6%</u>				

City of Garden Grove Engineering and Traffic Survey Summary

Street: TRASK AVENUE
 nits: HARBOR BOULEVARD
CLINTON STREET

Field Observer: ANTONIO
 Checked By: MARK MILLER
 Date: 4/8/2014

Factors	Direction: <u>East/West</u>		
<u>A. Prevailing Speed Data</u>			
Location of Survey	Santiago H.S.		
85th Percentile	42		
10 mph Pace	33 - 42		
Percent in Pace	66.0%		
Posted Speed Limit	35		
<u>B. Collision History</u>			
Date Range Covered	1/1/2010	To 12/31/2011	(2 yrs)
Total Collisions	6		
Collision Rate (Acc/MVM)	1.12		
Expected Collision Rate	2.3		
<u>C. Traffic Factors</u>			
Average Daily Traffic	14592		
Length of Segment	2656		
Lane Configuration	2 Lanes Each Direction		
Street Classification	Secondary Arterial		
<u>D. Conditions Not Readily Apparent</u>			
Conditions			
Roadway Geometrics			
Comments	School X-ing, Bike Lane, 2 Way Left Turn Pocket, Multiple Driveways, School, Continuity of Speed		
<u>E. Adjacent Land Use</u>			
	Residential/School		
Posted Speed Limit	35		
Speed Limit Change?	No		
Revised Speed Limit	35		

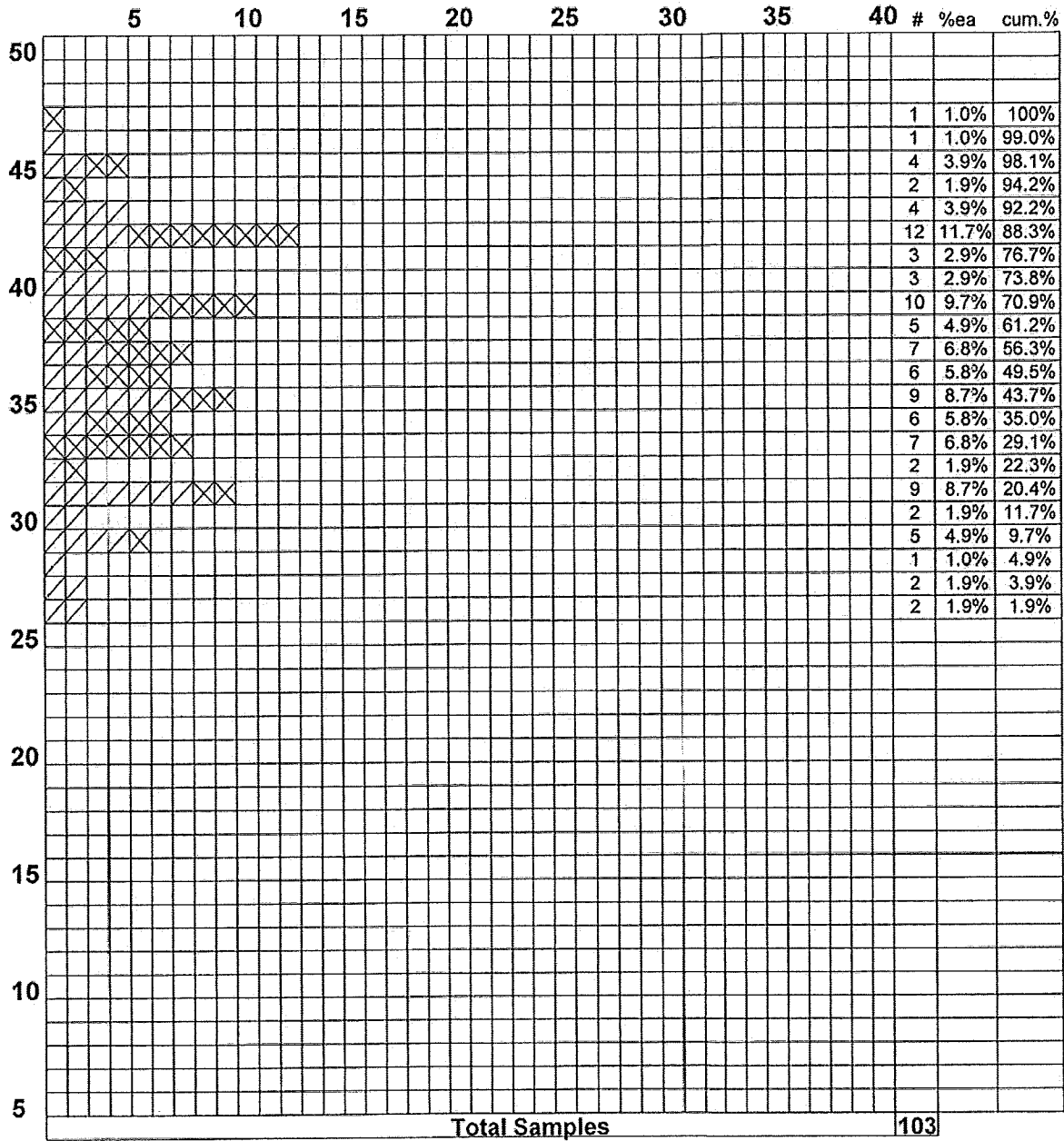
**City of Garden Grove
Traffic Engineering Department**

Street Name: TRASK AVENUE

Limits: HARBOR BOULEVARD to CLINTON STREET

Radar Survey Sheet

X=West / =East



85th Percentile Speed: 42
 50th Percentile Speed: 37
 15th Percentile Speed: 31
 10 MPH Pace: 33-42
 Number in Pace: 68
 Percent in Pace: 66.0%

Date of Survey: 4/8/2014 Start Time: 11:46
 Weather: Sunny End Time: 12:10
 Road Condition: Good Posted Speed: 35
 Street Class.: Secondary Arterial Observer: ANTONIO
 Conditions not Apparent:

City of Garden Grove Engineering and Traffic Survey Summary

Street: HARBOR BOULEVARD
 imits: WESTMINSTER AVENUE
TRASK AVENUE

Field Observer: EDELL
 Checked By: MARK MILLER
 Date: 4/3/2014

Factors	Direction: <u>north/south</u>		
<u>A. Prevailing Speed Data</u>			
Location of Survey	13752 Harbor Boulevard		
85th Percentile	43		
10 mph Pace	31 - 40		
Percent in Pace	61.8%		
Posted Speed Limit	40		
<u>B. Collision History</u>			
Date Range Covered	1/1/2010	To 12/31/2011	(2 years)
Total Collisions	9		
Collision Rate (Acc/MVM)	0.367		
Expected Collision Rate	2.3		
<u>C. Traffic Factors</u>			
Average Daily Traffic	66795		
Length of Segment	2653		
Lane Configuration	3 Lanes Each Direction		
Street Classification	Principal Arterial		
<u>D. Conditions Not Readily Apparent</u>			
Conditions			
Roadway Geometrics			
Comments	No Parking, Multiple Driveways, Low Accident Rate, 45 mph in Santa Ana.		
<u>E. Adjacent Land Use</u>			
	Residential/Commercial/Retail		
Posted Speed Limit	40		
Speed Limit Change?	No		
Revised Speed Limit	40		

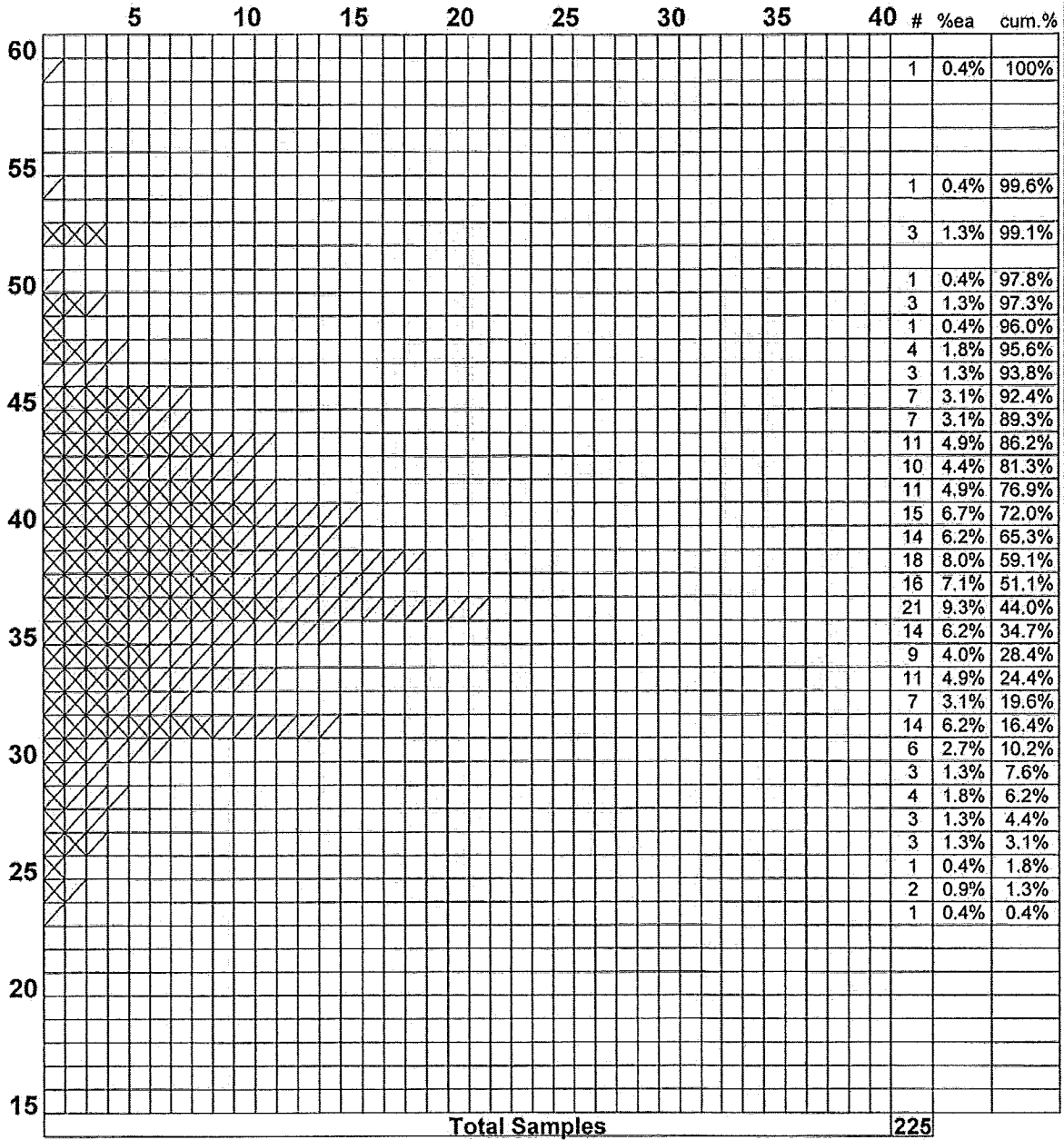
City of Garden Grove
Traffic Engineering Department

Street Name: HARBOR BOULEVARD

Limits: WESTMINSTER AVENUE to TRASK AVENUE

Radars Survey Sheet

X=North /-South



85th Percentile Speed:	<u>43</u>	Date of Survey:	<u>4/3/2014</u>	Start Time:	<u>15:36</u>
50th Percentile Speed:	<u>37</u>	Weather:	<u>clear</u>	End Time:	<u>16:00</u>
15th Percentile Speed:	<u>31</u>	Road Condition:	<u>good</u>	Posted Speed:	<u>40</u>
10 MPH Pace:	<u>31-40</u>	Street Class.:	<u>Principal Arterial</u>	Observer:	<u>EDELL</u>
Number in Pace:	<u>139</u>	Conditions not Apparent:			
Percent in Pace:	<u>61.8%</u>				

City of Garden Grove Engineering and Traffic Survey Summary

Street: HARBOR BOULEVARD
 imits: TRASK AVENUE
GARDEN GROVE BOULEVARD

Field Observer: EDELL
 Checked By: MARK MILLER
 Date: 4/3/2014

Factors	Direction: <u>north/south</u>		
<u>A. Prevailing Speed Data</u>			
Location of Survey	12345 Harbor Boulevard		
85th Percentile	40		
10 mph Pace	26 - 35		
Percent in Pace	58.3%		
Posted Speed Limit	40		
<u>B. Collision History</u>			
Date Range Covered	1/1/2010	To 12/31/2011	(2 years)
Total Collisions	27		
Collision Rate (Acc/MVM)	1.733		
Expected Collision Rate	2.3		
<u>C. Traffic Factors</u>			
Average Daily Traffic	42193		
Length of Segment	2670		
Lane Configuration	3 Lanes Each Direction		
Street Classification	Principal Arterial		
<u>D. Conditions Not Readily Apparent</u>			
Conditions			
Roadway Geometrics			
Comments	No Parking		
<u>E. Adjacent Land Use</u>			
	Retail/Commercial		
Posted Speed Limit	40		
Speed Limit Change?	No		
Revised Speed Limit	40		
Loc. #23			

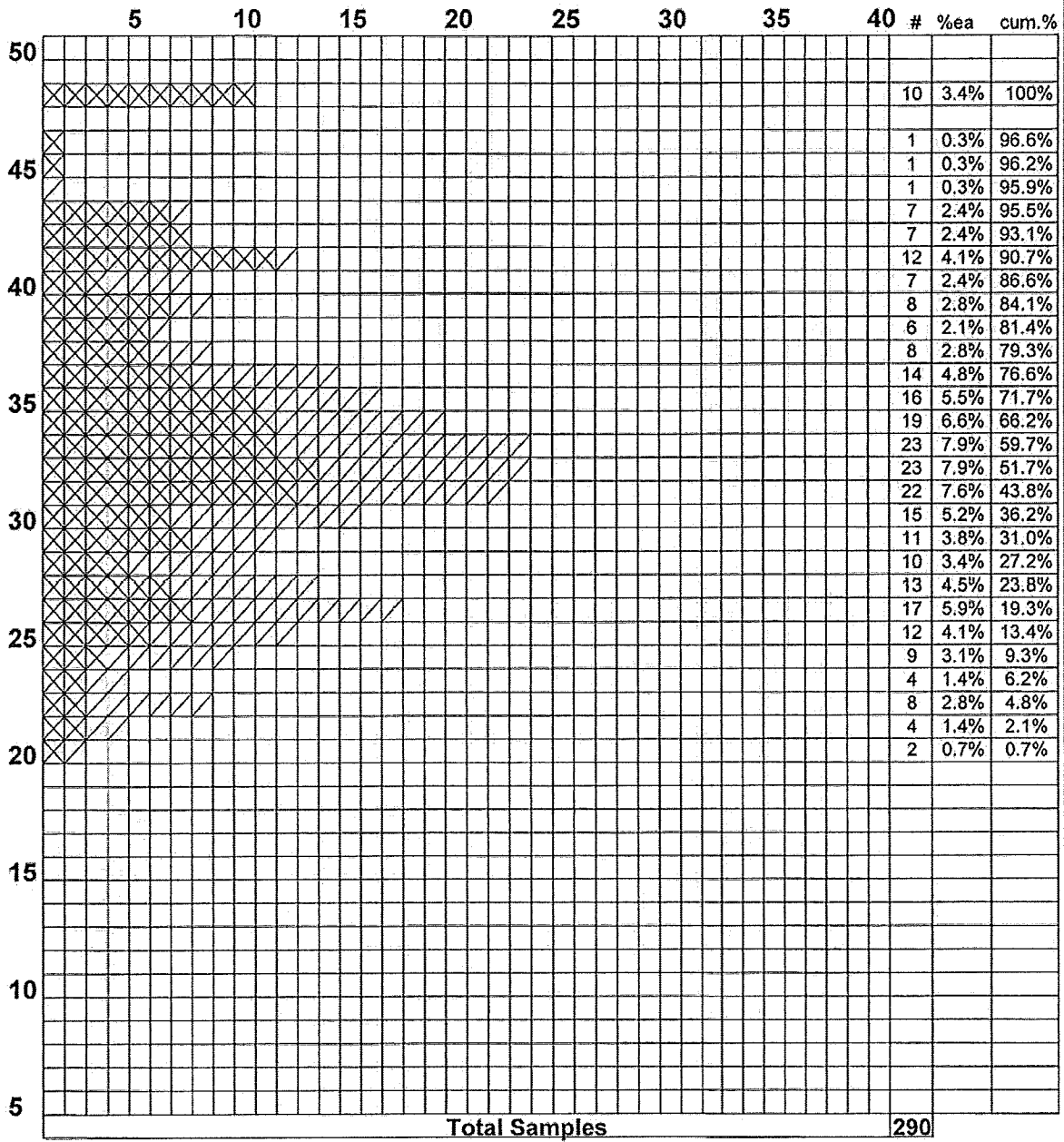
**City of Garden Grove
Traffic Engineering Department**

Street Name: HARBOR BOULEVARD

Limits: TRASK AVENUE to GARDEN GROVE BOULEVARD

Radar Survey Sheet

X=North /=South



85th Percentile Speed: 40
 50th Percentile Speed: 32
 15th Percentile Speed: 26
 10 MPH Pace: 26-35
 Number in Pace: 169
 Percent in Pace: 58.3%

Date of Survey: 4/3/2014 Start Time: 14:30
 Weather: clear End Time: 15:30
 Road Condition: good Posted Speed: 40
 Street Class.: Principal Arterial Observer: EDELL
 Conditions not Apparent:

City of Garden Grove Engineering and Traffic Survey Summary

Street: BROOKHURST STREET
Limits: HAZARD AVENUE
WESTMINSTER AVENUE

Field Observer: MIKE ALMIR
Checked By: MARK MILLER
Date: 4/10/2014

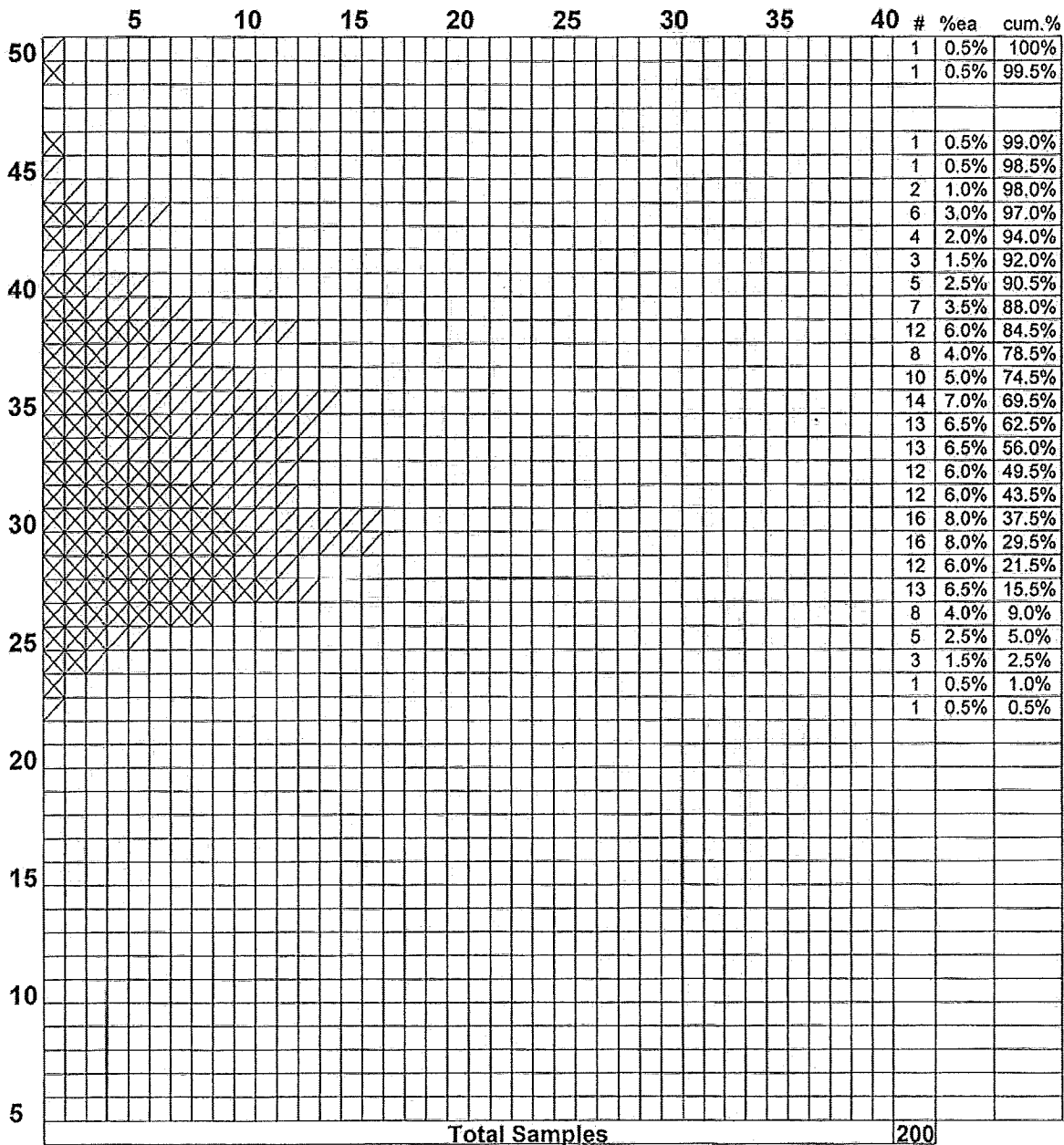
Factors	Direction: <u>North/South</u>		
<u>A. Prevailing Speed Data</u>			
Location of Survey	14257 Brookhurst Street		
85th Percentile	39		
10 mph Pace	27 - 36		
Percent in Pace	65.5%		
Posted Speed Limit	40		
<u>B. Collision History</u>			
Date Range Covered	1/1/2010	To 12/31/2011	(2 years)
Total Collisions	8		
Collision Rate (Acc/MVM)	0.468		
Expected Collision Rate	2.3		
<u>C. Traffic Factors</u>			
Average Daily Traffic	46436		
Length of Segment	2662		
Lane Configuration	3 Lanes Each Direction		
Street Classification	Principal Arterial		
<u>D. Conditions Not Readily Apparent</u>			
Conditions			
Roadway Geometrics			
Comments	No Parking, 45 mph in Westminster		
<u>E. Adjacent Land Use</u>			
	Retail/Commercial		
Posted Speed Limit	40		
Speed Limit Change?	No		
Revised Speed Limit	40		
Loc. #1			

**City of Garden Grove
Traffic Engineering Department**

Street Name: BROOKHURST STREET
Limits: HAZARD AVENUE to WESTMINSTER AVENUE

Radar Survey Sheet

X=North /=South



85th Percentile Speed:	<u>39</u>	Date of Survey:	<u>4/10/2014</u>	Start Time:	<u>14:00</u>
50th Percentile Speed:	<u>33</u>	Weather:	<u>Clear</u>	End Time:	<u>14:30</u>
15th Percentile Speed:	<u>27</u>	Road Condition:	<u>Fair</u>	Posted Speed:	<u>40</u>
10 MPH Pace:	<u>27-36</u>	Street Class.:	<u>Principal Arterial</u>	Observer:	<u>MIKE ALMIR</u>
Number in Pace:	<u>131</u>	Conditions not Apparent:			
Percent in Pace:	<u>65.5%</u>				

City of Garden Grove Engineering and Traffic Survey Summary

Street: WESTMINSTER AVENUE
 nits: BUSHARD STREET
BROOKHURST STREET

Field Observer: ANTONIO
 Checked By: MARK MILLER
 Date: 4/11/2014

Factors	Direction: <u>East/West</u>
<u>A. Prevailing Speed Data</u>	
Location of Survey	9500 Westminster Avenue
85th Percentile	45
10 mph Pace	37 - 46
Percent in Pace	68.9%
Posted Speed Limit	45
<u>B. Collision History</u>	
Date Range Covered	1/1/2010 To 12/31/2011 (2 yrs)
Total Collisions	14
Collision Rate (Acc/MVM)	1.243
Expected Collision Rate	2.3
<u>C. Traffic Factors</u>	
Average Daily Traffic	30674
Length of Segment	2656
Lane Configuration	3 Lanes Each Direction
Street Classification	Principal Arterial
<u>D. Conditions Not Readily Apparent</u>	
Conditions	
Roadway Geometrics	
Comments	2 Way Left Turn Pocket, Apartments, No Parking
<u>E. Adjacent Land Use</u>	
	Retail
Posted Speed Limit	45
Speed Limit Change?	No
Revised Speed Limit	45

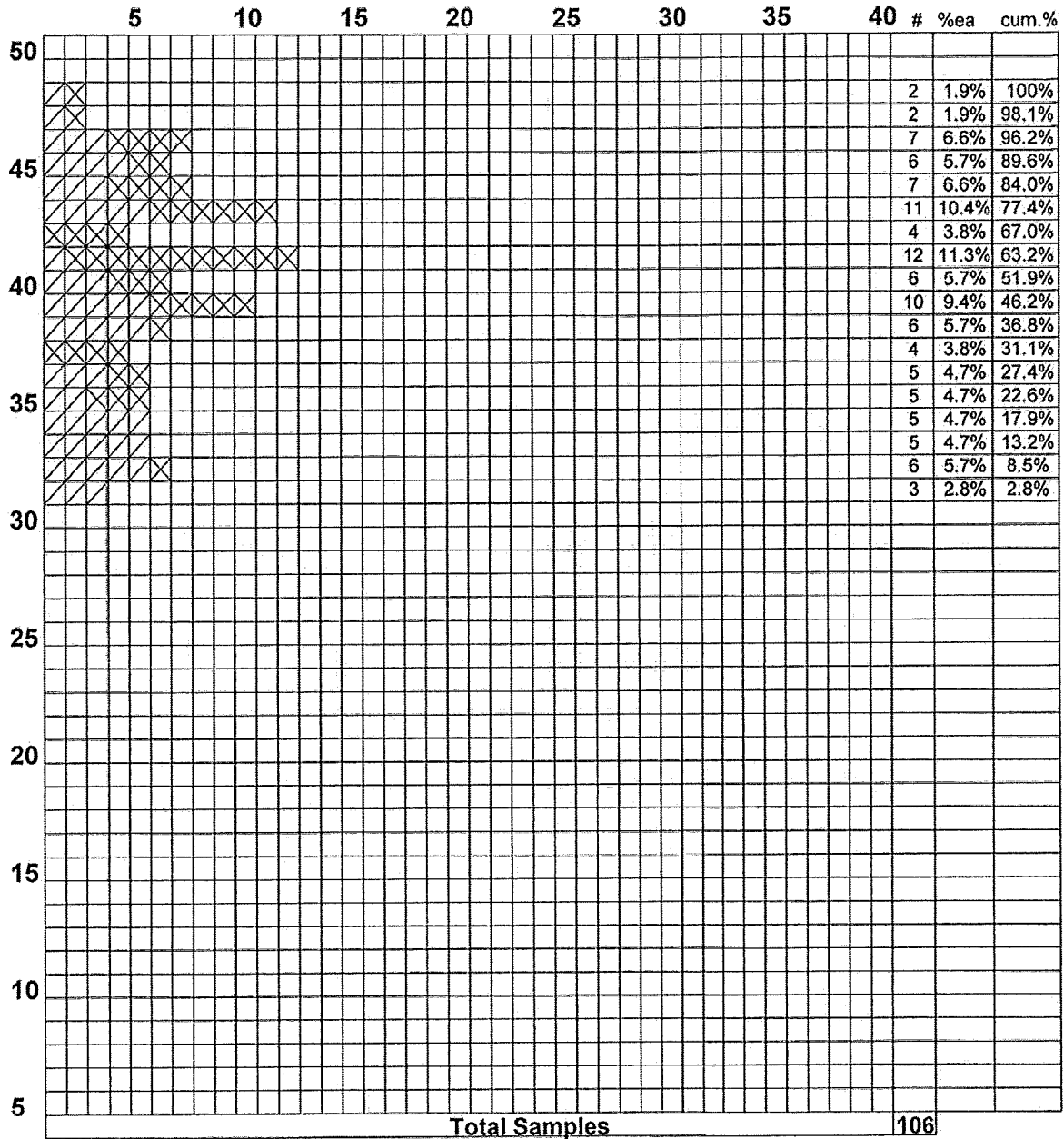
**City of Garden Grove
Traffic Engineering Department**

Street Name: WESTMINSTER AVENUE

Limits: BUSHARD STREET to BROOKHURST STREET

Radars Survey Sheet

X=West /=East



85th Percentile Speed:	<u>45</u>	Date of Survey:	<u>4/11/2014</u>	Start Time:	<u>10:13</u>
50th Percentile Speed:	<u>40</u>	Weather:	<u>Sunny</u>	End Time:	<u>10:25</u>
15th Percentile Speed:	<u>34</u>	Road Condition:	<u>New</u>	Posted Speed:	<u>45</u>
10 MPH Pace:	<u>37-46</u>	Street Class.:	<u>Principal Arterial</u>	Observer:	<u>ANTONIO</u>
Number in Pace:	<u>73</u>	Conditions not Apparent:			
Percent in Pace:	<u>68.9%</u>				

City of Garden Grove Engineering and Traffic Survey Summary

Street: WESTMINSTER AVENUE
 Intersects: BROOKHURST STREET
BOWEN STREET

Field Observer: ANTONIO
 Checked By: MARK MILLER
 Date: 4/11/2014

Factors	Direction: <u>East/West</u>		
<u>A. Prevailing Speed Data</u>			
Location of Survey	"The Pine Apartments"		
85th Percentile	43		
10 mph Pace	33 - 42		
Percent in Pace	69.8%		
Posted Speed Limit	45		
<u>B. Collision History</u>			
Date Range Covered	1/1/2010	To 12/31/2011	(2 yrs)
Total Collisions	7		
Collision Rate (Acc/MVM)	0.814		
Expected Collision Rate	2.3		
<u>C. Traffic Factors</u>			
Average Daily Traffic	27642		
Length of Segment	2251		
Lane Configuration	3 Lanes Each Direction		
Street Classification	Principal Arterial		
<u>D. Conditions Not Readily Apparent</u>			
Conditions			
Roadway Geometrics			
Comments	Raised Median from Brookhurst Street to Dawson Street, 2 Way Left Turn Pocket Dawson Street to Bowen Street, Apartments, No Parking		
<u>E. Adjacent Land Use</u>			
	Retail		
Posted Speed Limit	45		
Speed Limit Change?	No		
Revised Speed Limit	45		

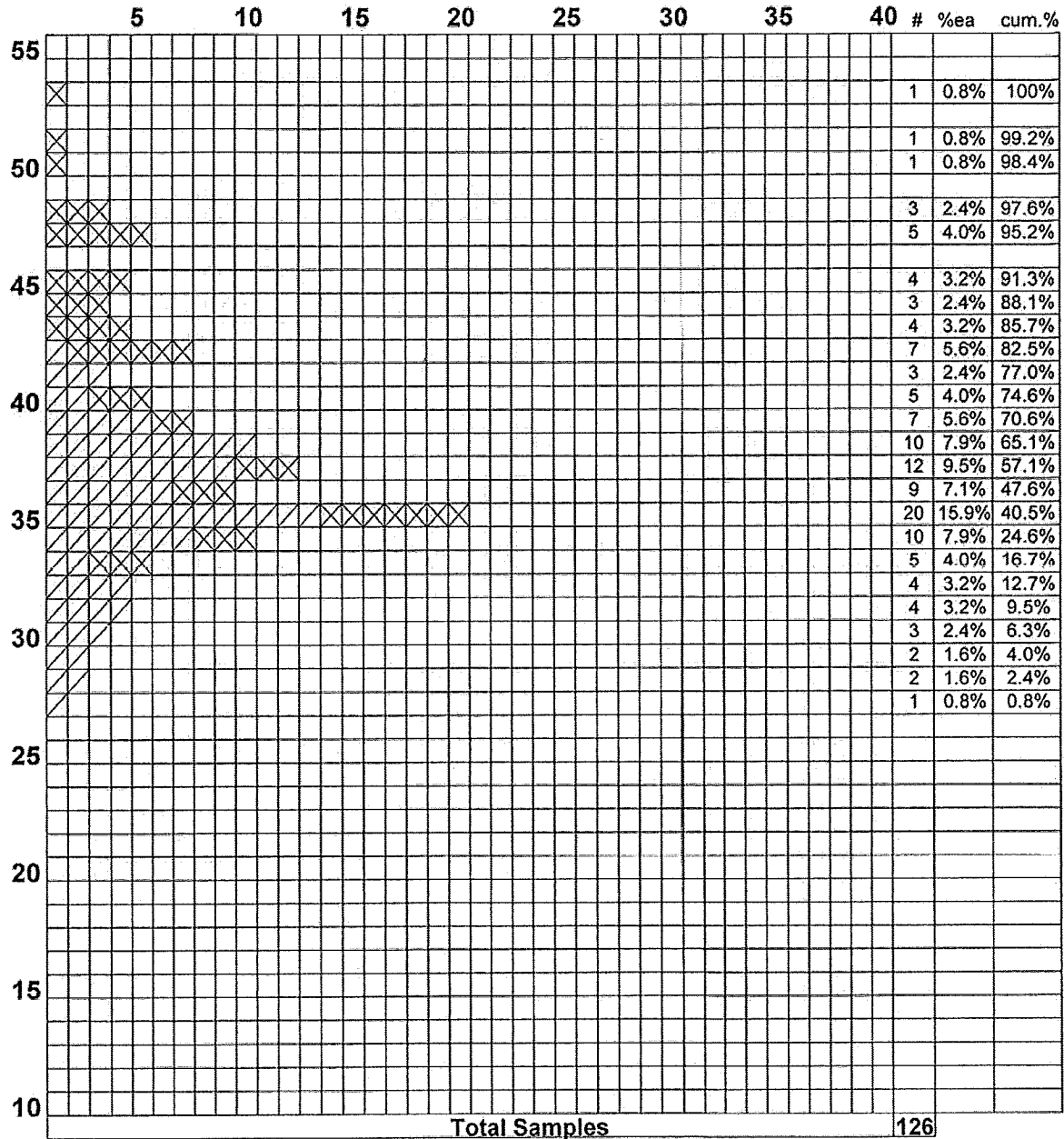
**City of Garden Grove
Traffic Engineering Department**

Street Name: WESTMINSTER AVENUE

Limits: BROOKHURST STREET to BOWEN STREET

Radar Survey Sheet

X=West /=East



85th Percentile Speed:	<u>43</u>	Date of Survey:	<u>4/11/2014</u>	Start Time:	<u>10:30</u>
50th Percentile Speed:	<u>37</u>	Weather:	<u>Sunny</u>	End Time:	<u>10:42</u>
15th Percentile Speed:	<u>33</u>	Road Condition:	<u>Fair</u>	Posted Speed:	<u>45</u>
10 MPH Pace:	<u>33-42</u>	Street Class.:	<u>Principal Arterial</u>	Observer:	<u>ANTONIO</u>
Number in Pace:	<u>88</u>	Conditions not			
Percent in Pace:	<u>69.8%</u>	Apparent:			

City of Garden Grove Engineering and Traffic Survey Summary

Street: VALLEY VIEW STREET
 Intersects: CHAPMAN AVENUE
SANTA CATALINA AVENUE

Field Observer: ANTONIO
 Checked By: MARK MILLER
 Date: 6/5/2014

Factors	Direction: <u>North/South</u>		
<u>A. Prevailing Speed Data</u>			
Location of Survey	LA Fitness Sports Club		
85th Percentile	47		
10 mph Pace	37 - 46		
Percent in Pace	74.6%		
Posted Speed Limit	45		
<u>B. Collision History</u>			
Date Range Covered	1/1/2010	To 12/31/2011	(2 yrs)
Total Collisions	3		
Collision Rate (Acc/MVM)	0.533		
Expected Collision Rate	2.3		
<u>C. Traffic Factors</u>			
Average Daily Traffic	49029		
Length of Segment	1189		
Lane Configuration	3 Lanes Each Direction with Raised Median		
Street Classification	Principal Arterial		
<u>D. Conditions Not Readily Apparent</u>			
Conditions			
Roadway Geometrics			
Comments	Limited Access, Low Accident Rate, 40 mph in Cypress		
<u>E. Adjacent Land Use</u>			
	Residential/Commercial		
Posted Speed Limit	45		
Speed Limit Change?	No		
Revised Speed Limit	45		
Loc. #68			

**City of Garden Grove
Traffic Engineering Department**

Street Name: VALLEY VIEW STREET
Limits: CHAPMAN AVENUE to SANTA CATALINA AVENUE

Radars Survey Sheet

X=North /=South

	5	10	15	20	25	30	35	40	#	%ea	cum.%
85	/								2	1.0%	100%
80											
75											
70											
65											
60											
55	/								1	0.5%	99.0%
	/								1	0.5%	98.5%
50	/								2	1.0%	98.0%
	/								4	2.0%	97.0%
	/								2	1.0%	95.0%
	/								9	4.5%	94.0%
	/								7	3.5%	89.6%
	/								7	3.5%	86.1%
	/								18	9.0%	82.6%
	/								11	5.5%	73.6%
	/								12	6.0%	68.2%
	/								19	9.5%	62.2%
	/								15	7.5%	52.7%
	/								16	8.0%	45.3%
	/								13	6.5%	37.3%
	/								20 1	7.5%	30.8%
	/								16	8.0%	23.4%
	/								15	7.5%	15.4%

Total Samples

85th Percentile Speed: 47
50th Percentile Speed: 42
15th Percentile Speed: 37
10 MPH Pace: 37-46
Number in Pace: 150
Percent in Pace: 74.6%

Date of Survey: 6/5/2014 Start Time: 11:53
Weather: Sunny End Time: 12:16
Road Condition: New Posted Speed: 45
Street Class.: Principal Arterial Observer: ANTONIO
Conditions not Apparent

City of Garden Grove Engineering and Traffic Survey Summary

Street: CHAPMAN AVENUE
 Intersects: BAILEY STREET
VALLEY VIEW STREET

Field Observer: ANTONIO
 Checked By: MARK MILLER
 Date: 4/1/2014

Factors	Direction: <u>East/West</u>		
<u>A. Prevailing Speed Data</u>			
Location of Survey	Orange County Library		
85th Percentile	27		
10 mph Pace	18 - 27		
Percent in Pace	84.2%		
Posted Speed Limit	25		
<u>B. Collision History</u>			
Date Range Covered	1/1/2010	To 12/31/2011	(2 yrs)
Total Collisions	4		
Collision Rate (Acc/MVM)	2.831		
Expected Collision Rate	2.3		
<u>C. Traffic Factors</u>			
Average Daily Traffic	8855		
Length of Segment	1154		
Lane Configuration	2 Lanes Each Direction with Raised Median		
Street Classification	Local		
<u>D. Conditions Not Readily Apparent</u>			
Conditions			
Roadway Geometrics			
Comments	Narrow, 25 at Stonegate, 2 Lanes to 1, Apartments, Park, Local Streets, High Accident Rate		
<u>E. Adjacent Land Use</u>			
	Residential		
Posted Speed Limit	25		
Speed Limit Change?	No		
Revised Speed Limit	25		
Loc. #70			

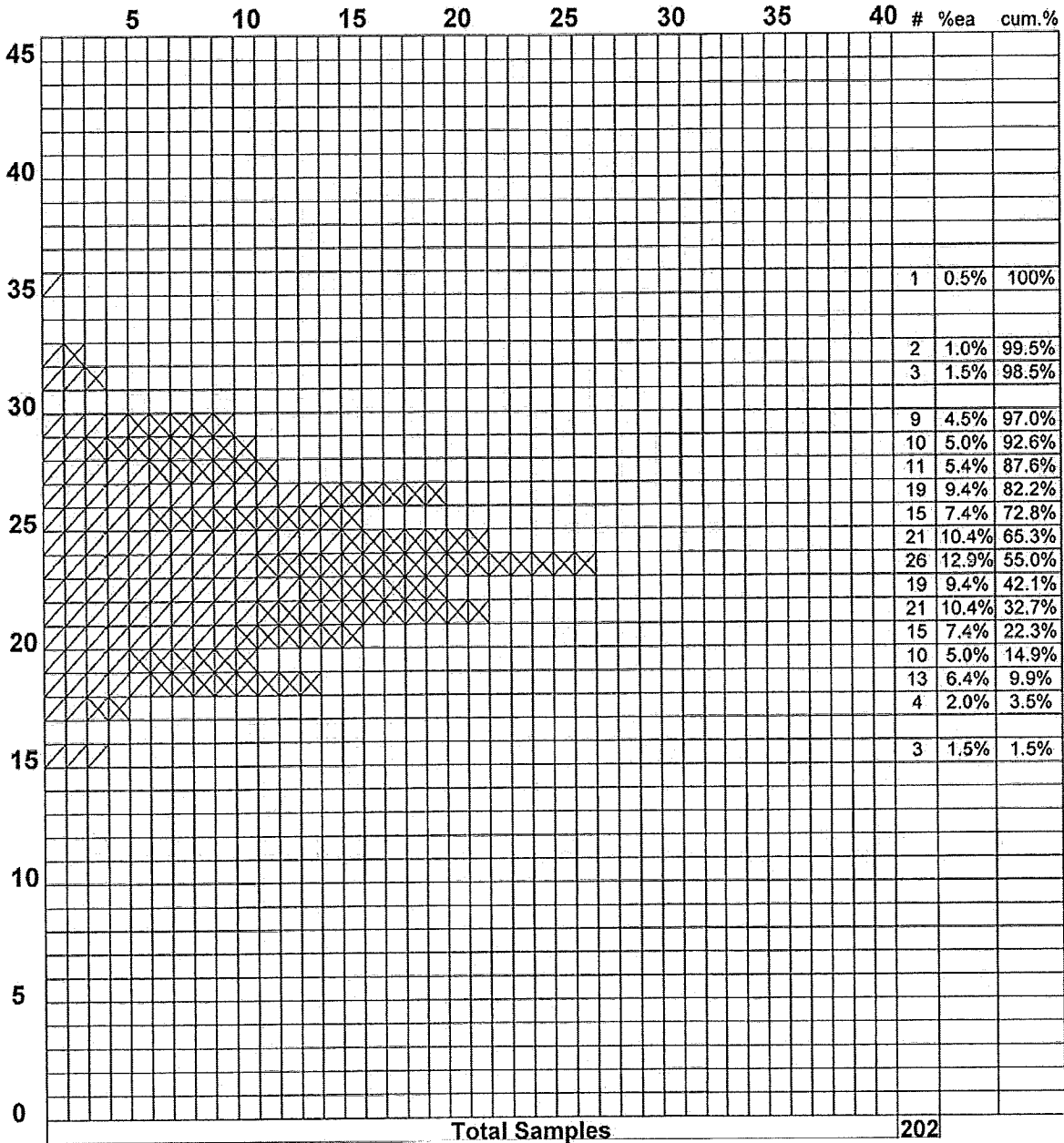
**City of Garden Grove
Traffic Engineering Department**

Street Name: CHAPMAN AVENUE

Limits: BAILEY STREET to VALLEY VIEW STREET

Radar Survey Sheet

X=West /=East



85th Percentile Speed: 27
 50th Percentile Speed: 23
 15th Percentile Speed: 20
 10 MPH Pace: 18-27
 Number in Pace: 170
 Percent in Pace: 84.2%

Date of Survey: 4/1/2014
 Weather: Sunny
 Road Condition: Good
 Street Class.: Local
 Conditions not Apparent:

Start Time: 9:10
 End Time: 9:45
 Posted Speed: 25
 Observer: ANTONIO

City of Garden Grove Engineering and Traffic Survey Summary

Street: CHAPMAN AVENUE
 Intersects: VALLEY VIEW STREET
SPRINGDALE STREET

Field Observer: ANTONIO ELMORE
 Checked By: MARK MILLER
 Date: 4/1/2014

Factors	Direction: <u>east/west</u>		
<u>A. Prevailing Speed Data</u>			
Location of Survey	near Jasper Street		
85th Percentile	45		
10 mph Pace	35 - 44		
Percent in Pace	78.3%		
Posted Speed Limit	45		
<u>B. Collision History</u>			
Date Range Covered	1/1/2010	To 12/31/2011	(2 years)
Total Collisions	1		
Collision Rate (Acc/MVM)	0.212		
Expected Collision Rate	2.3		
<u>C. Traffic Factors</u>			
Average Daily Traffic	12928		
Length of Segment	2641		
Lane Configuration	2 Lanes Each Direction		
Street Classification	Principal Arterial		
<u>D. Conditions Not Readily Apparent</u>			
Conditions			
Roadway Geometrics			
Comments	Bike Lane, Limited Access, Striped Median, Continuity of Speed		
<u>E. Adjacent Land Use</u>			
	Residential		
Posted Speed Limit	45		
Speed Limit Change?	No		
Revised Speed Limit	45		
Loc. #71			

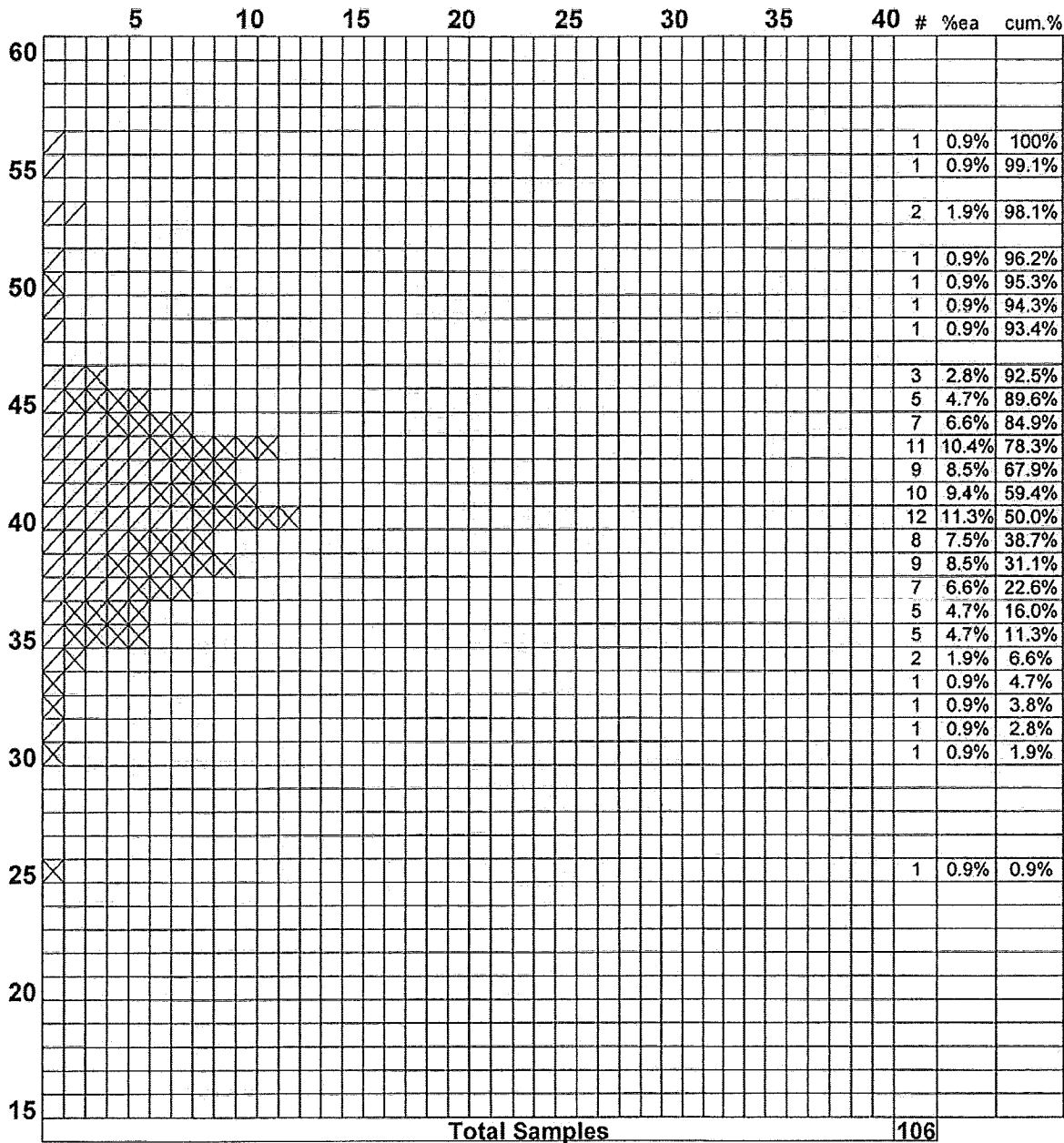
**City of Garden Grove
Traffic Engineering Department**

Street Name: CHAPMAN AVENUE

Limits: VALLEY VIEW STREET to SPRINGDALE STREET

Radars Survey Sheet

X=West /=East



85th Percentile Speed: 45
 50th Percentile Speed: 40
 15th Percentile Speed: 36
 10 MPH Pace: 35- 44
 Number in Pace: 83
 Percent in Pace: 78.3%

Date of Survey: 4/1/2014 Start Time: 9:48
 Weather: clear End Time: 10:10
 Road Condition: good Posted Speed: 45
 Street Class.: Principal Arterial Observer: ANTONIO EL
 Conditions not Apparent:

City of Garden Grove Engineering and Traffic Survey Summary

Street: BROOKHURST STREET
 imits: ORANGEWOOD AVENUE
KATELLA AVENUE

Field Observer: MIKE ALMIR
 Checked By: MARK MILLER
 Date: 4/15/2014

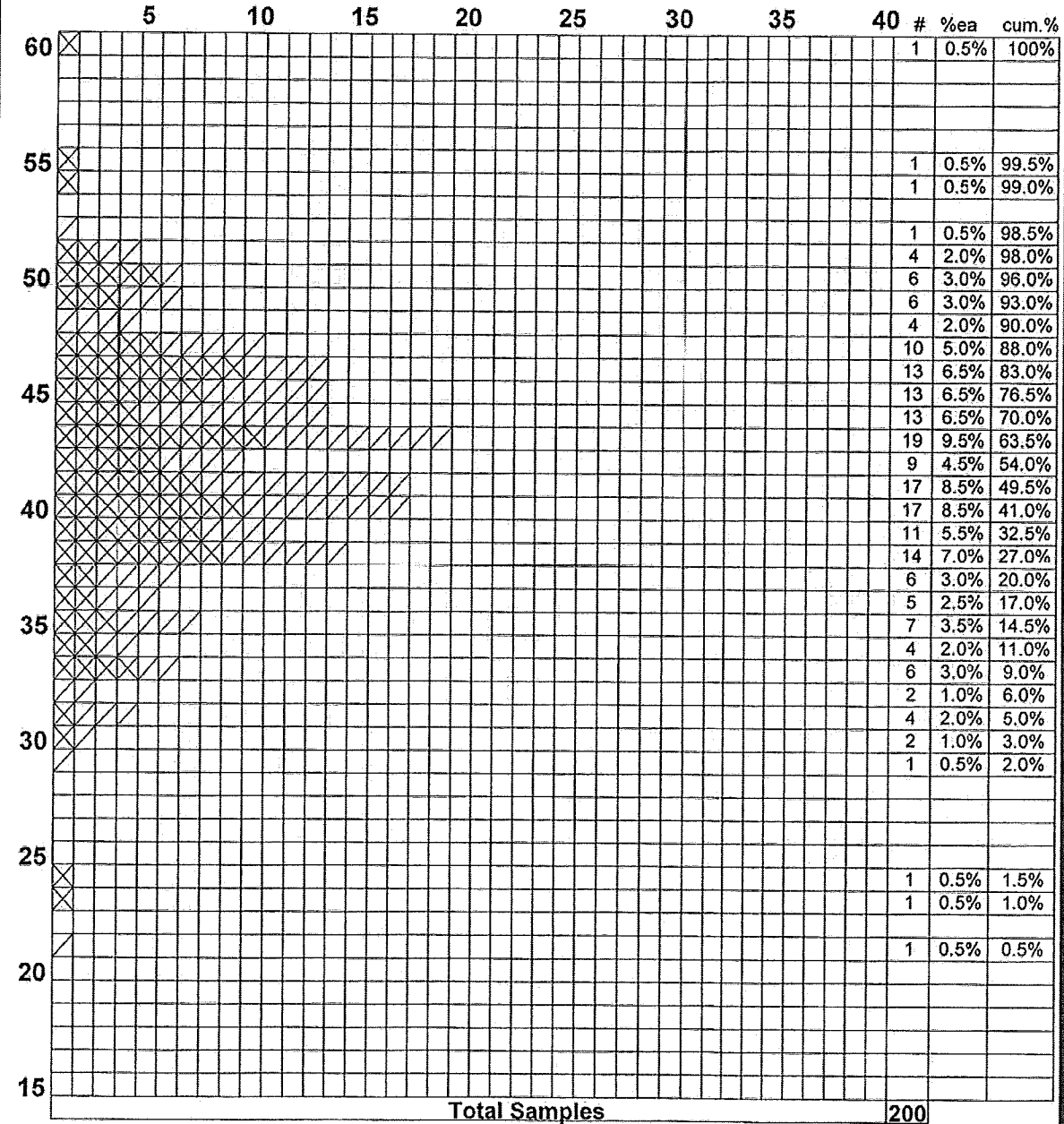
Factors	Direction: <u>north/south</u>		
<u>A. Prevailing Speed Data</u>			
Location of Survey	11400 Brookhurst Street		
85th Percentile	47		
10 mph Pace	38 - 47		
Percent in Pace	68.0%		
Posted Speed Limit	45		
<u>B. Collision History</u>			
Date Range Covered	1/1/2010	To 12/31/2011	(2 years)
Total Collisions	4		
Collision Rate (Acc/MVM)	0.378		
Expected Collision Rate	2.3		
<u>C. Traffic Factors</u>			
Average Daily Traffic	29009		
Length of Segment	2640		
Lane Configuration	3 Lanes Each Direction		
Street Classification	Principal Arterial		
<u>D. Conditions Not Readily Apparent</u>			
Conditions			
Roadway Geometrics			
Comments	Low Accident Rate, No Parking, 40 mph in Anaheim		
<u>E. Adjacent Land Use</u>			
	Residential/Commercial		
Posted Speed Limit	45		
Speed Limit Change?	No		
Revised Speed Limit	45		
Loc. #7			

**City of Garden Grove
Traffic Engineering Department**

Street Name: BROOKHURST STREET
Limits: ORANGEWOOD AVENUE to KATELLA AVENUE

Radar Survey Sheet

X=North / =South



85th Percentile Speed: 47
50th Percentile Speed: 42
15th Percentile Speed: 36
10 MPH Pace: 38- 47
Number in Pace: 136
Percent in Pace: 68.0%

Date of Survey: 4/15/2014 Start Time: 10:00
Weather: clear End Time: 10:30
Road Condition: fair Posted Speed: 45
Street Class.: Principal Arterial Observer: MIKE ALMIR
Conditions not Apparent:

City of Garden Grove Engineering and Traffic Survey Summary

Street: ORANGEWOOD AVENUE
 nits: GILBERT STREET
BROOKHURST STREET

Field Observer: ANTONIO
 Checked By: MARK MILLER
 Date: 4/10/2014

Factors	Direction: <u>East/West</u>		
<u>A. Prevailing Speed Data</u>			
Location of Survey	9741 Oranewood Avenue		
85th Percentile	33		
10 mph Pace	25 - 34		
Percent in Pace	96.1%		
Posted Speed Limit	35		
<u>B. Collision History</u>			
Date Range Covered	1/1/2010	To 12/31/2011	(2 yrs)
Total Collisions	0		
Collision Rate (Acc/MVM)	0		
Expected Collision Rate	1.98		
<u>C. Traffic Factors</u>			
Average Daily Traffic	7720		
Length of Segment	2667		
Lane Configuration	Single Lane Each Direction		
Street Classification	Secondary Arterial		
<u>D. Conditions Not Readily Apparent</u>			
Conditions			
Roadway Geometrics			
Comments	Street Parking, Multiple Driveways		
<u>E. Adjacent Land Use</u>			
	Residential		
Posted Speed Limit	35		
Speed Limit Change?	No		
Revised Speed Limit	35		
Loc. #120			

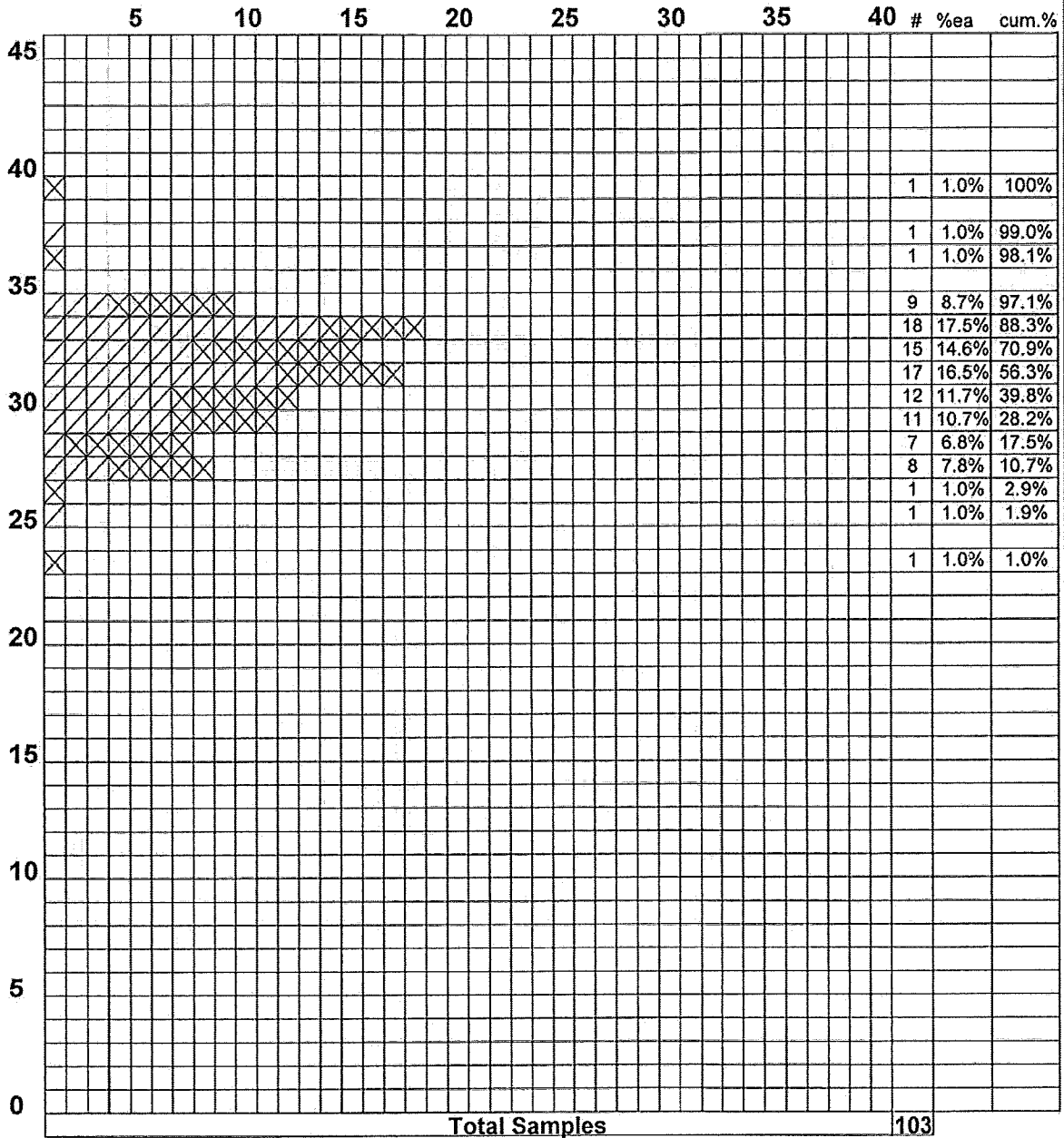
**City of Garden Grove
Traffic Engineering Department**

Street Name: ORANGEWOOD AVENUE

Limits: GILBERT STREET to BROOKHURST STREET

Radars Survey Sheet

X=West / =East



85th Percentile Speed:	<u>33</u>	Date of Survey:	<u>4/10/2014</u>	Start Time:	<u>11:12</u>
50th Percentile Speed:	<u>31</u>	Weather:	<u>Sunny</u>	End Time:	<u>11:36</u>
15th Percentile Speed:	<u>28</u>	Road Condition:	<u>Fair</u>	Posted Speed:	<u>35</u>
10 MPH Pace:	<u>25- 34</u>	Street Class.:	<u>Secondary Arterial</u>	Observer:	<u>ANTONIO</u>
Number in Pace:	<u>99</u>	Conditions not Apparent:			
Percent in Pace:	<u>96.1%</u>				

City of Garden Grove Engineering and Traffic Survey Summary

Street: ORANGEWOOD AVENUE
 nits: BROOKHURST STREET
PALMWOOD DRIVE

Field Observer: ANTONIO
 Checked By: MARK MILLER
 Date: 4/4/2014

Factors	Direction: <u>East/West</u>		
<u>A. Prevailing Speed Data</u>			
Location of Survey	"Garden Dr"		
85th Percentile	36		
10 mph Pace	28 - 37		
Percent in Pace	74.0%		
Posted Speed Limit	35		
<u>B. Collision History</u>			
Date Range Covered	1/1/2010	To 12/31/2011	(2 yrs)
Total Collisions	3		
Collision Rate (Acc/MVM)	0.945		
Expected Collision Rate	3.55		
<u>C. Traffic Factors</u>			
Average Daily Traffic	8648		
Length of Segment	2656		
Lane Configuration	Single Lane Each Direction		
Street Classification	Secondary Arterial		
<u>D. Conditions Not Readily Apparent</u>			
Conditions			
Roadway Geometrics			
Comments	Double Yellow Center Line, Parking, School X-ing, Bike Lanes Both Directions		
<u>E. Adjacent Land Use</u>			
	Residential		
Posted Speed Limit	35		
Speed Limit Change?	No		
Revised Speed Limit	35		
Loc. # 121			

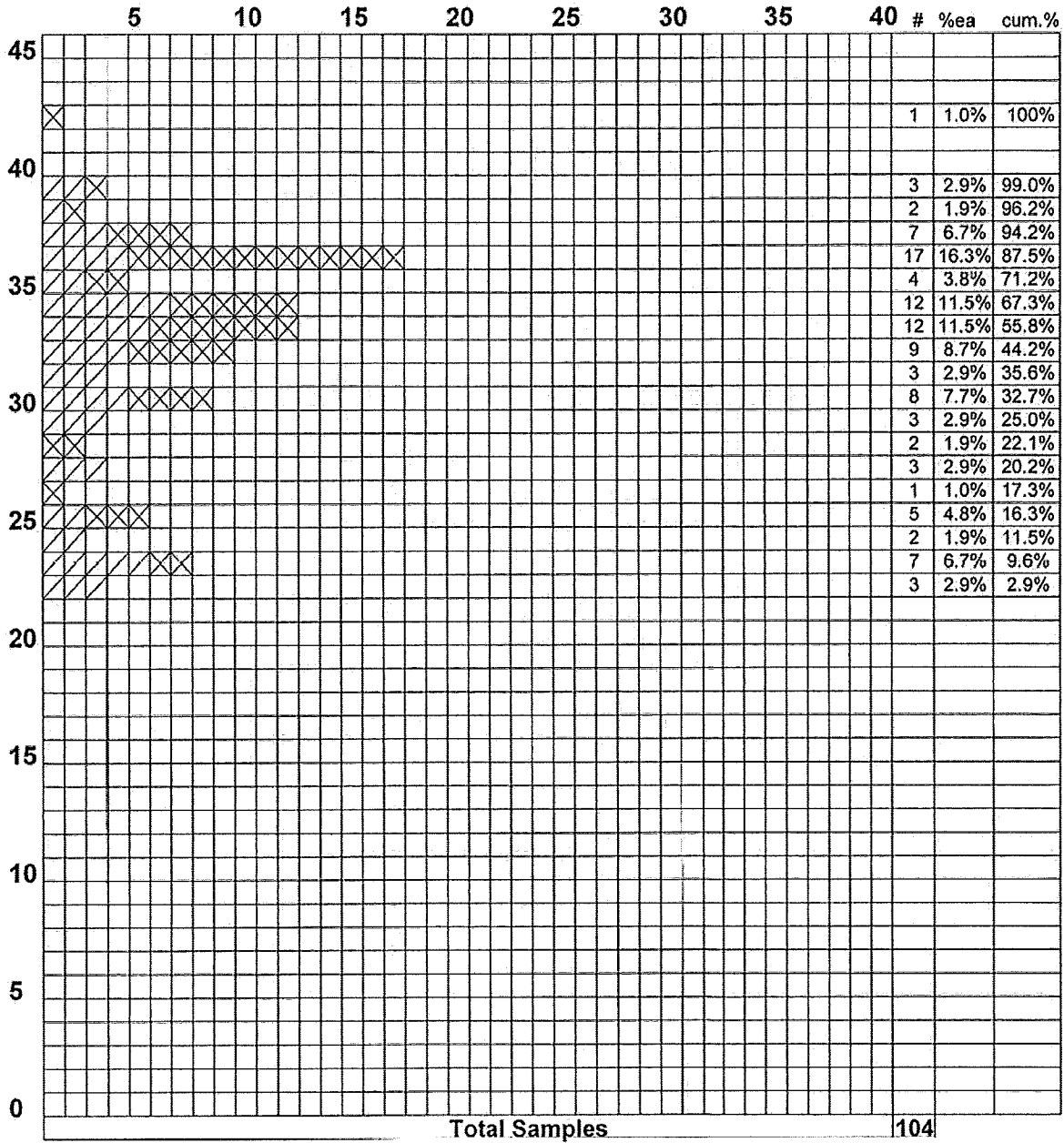
**City of Garden Grove
Traffic Engineering Department**

Street Name: ORANGEWOOD AVENUE

Limits: BROOKHURST STREET to PALMWOOD DRIVE

Radars Survey Sheet

X=West /=East



85th Percentile Speed:	<u>36</u>	Date of Survey:	<u>4/4/2014</u>	Start Time:	<u>11:39</u>
50th Percentile Speed:	<u>33</u>	Weather:	<u>Sunny</u>	End Time:	<u>12:17</u>
15th Percentile Speed:	<u>25</u>	Road Condition:	<u>Good</u>	Posted Speed:	<u>35</u>
10 MPH Pace:	<u>28-37</u>	Street Class.:	<u>Secondary Arterial</u>	Observer:	<u>ANTONIO</u>
Number in Pace:	<u>77</u>	Conditions not Apparent:			
Percent in Pace:	<u>74.0%</u>				