

Background Information

A kickoff meeting was held on March 24, 2004 at the Cape May County Engineer's Office. This meeting featured a presentation by ORA and it provided a forum to educate attendees on core elements of RSA process such as:

1. Definition - What is involved in the typical safety audit and how it differs from other safety review measures currently in use.
2. Process – The required steps involved in a successful audit and the reasons the steps are required.
3. Lessons learned from previous audits.
4. The Final Report – What to expect.

The kickoff meeting also facilitated the exchange of ideas among attendees. The attendees displayed a genuine interest in safer roadways and more specifically an interest in participating in this pilot RSA project. A typical audit team is comprised of 3 to 5 members. ORA chose to have a larger than usual audit team for this project for the following reasons:

- ♦ There was a wealth of experience that could be tapped into
- ♦ The team did not want to discourage any effort towards achieving a safer roadway environment
- ♦ It is hoped that greater participation in this pilot project will encourage the proliferation of highway safety audits throughout New Jersey

At the end of the kickoff meeting, the Ninth Street RSA was tentatively set for May 28, 2004 commencing at 9:00 am. Several attendees volunteered to participate in the audit process and in the weeks preceding the Ninth Street RSA, some of these volunteers dropped out due to other commitments. Nonetheless, additional volunteers were included in the RSA team before the audit date. The safety audit team comprised of stakeholders from various agencies across New Jersey, with a majority having attended the kickoff meeting as well as the safety audit for Fulling Mill Road. Coordinating the efforts of this relatively large group was encouraged and facilitated by Dale Foster, Tim Chelius, and Joe Fiocco. The attendees at the kickoff meeting are listed below.

KICKOFF MEETING ATTENDEES

Name	Agency
Mary Pat Hastings	Cape May County - Department of Health
Lt. Lou Raniszewski	Cape May County - Sheriff's Office
Dale Foster	Cape May County - Engineer
Karen Yunk	FHWA
Kathleen McPherson	Lower Township - Administrator
Sgt. Paynter	Lower Township - Traffic Safety Officer
Lt. Tim Moore	Middle Township - Traffic Safety Officer
Ray Reeve	NJ Division of Highway Traffic Safety
Ed O'Connor	NJ Division of Highway Traffic Safety
Dick Dunne	NJDOT - Design Services
Steve Moy	NJDOT - Local Aid
John J. Petersack	NJDOT - Planning
Bill Beans	NJDOT - Safety Programs
Jaime Saladino	NJDOT - Safety Programs
Kevin Conover	NJDOT - Safety Programs
Nancy Allen	NJDOT - Traffic Engineering & Investigations
Patricia Ott	NJDOT - Traffic Engineering & Safety
Ernie Lemmerman	Ocean City - Engineer
Sgt. Charles Simonson	Ocean City - Traffic Safety Unit
Timothy Chelius	SJTPO - Executive Director
Teresa Thomas	SJTPO - South Jersey Traffic Alliance
Norman Deitch	Orth-Rodgers & Associates, Inc.
Joseph Fiocco	Orth-Rodgers & Associates, Inc.
Alex Adeeko	Orth-Rodgers & Associates, Inc.

Pre-Audit Data Collection and Analysis

Prior to the audit activities on site, ORA collected and reviewed traffic data and other related materials in order to establish the character of the Ninth Street corridor. A description of the materials that were reviewed is provided below.

1. Aerial Photos

The Cape May County Engineer's Office provided color copies of aerial photographs of Ninth Street, scaled at approximately 1"=500' on 11 x 14 inch sheets. An aerial photograph of Ninth Street was downloaded from NJDOT's web site at a scale of 1"=60'.

2. Traffic Volume Data

For the purpose of this study, traffic counts conducted by ORA on Saturday July 8, 2000 between 11:00 am and 7:00 pm were utilized. ORA reviewed turning movement counts at the major signalized intersections and conducted capacity analyses at these intersections to identify operational problems. These intersections include Bay Avenue, West Avenue, Asbury Avenue, Central Avenue, Wesley Avenue, and Ocean Avenue.

The traffic volume data showed a variation in peak hour volumes across the corridor, with a majority of intersections having peak hour demand between 11:00 am and 12:00 noon. It also identified significant pedestrian traffic particularly on the eastern section of Ninth Street closer to the Boardwalk. Bicycle traffic was moderate with the highest volume at the Asbury Avenue intersection.

Intersection capacity analyses (level of service analyses) showed that all major intersections identified above were operating at acceptable capacities with the exception of Bay Avenue, which experienced considerable delays during the peak hour. Graphical representations of the traffic volume data and capacity analyses results are included in the Appendix.

3. Crash Data

ORA received approximately two hundred (200) crash report forms from the Ocean City Police Department and

Cape May County but decided to take out some of these crashes from the pre-audit data analysis based on detailed information contained on these forms, which indicated that they were outside the limits of this study. Also, some of the crashes that were identified as ‘non-reportable’ on the accident report forms were included in the pre-audit data analysis. This was to ensure that crash frequency and patterns were not skewed based solely on the discretion of the reporting police officer or the motorists involved.

A total of one hundred and twenty-eight (128) crashes were included in the pre-audit data analysis to ascertain the existence of crash patterns or trends and to identify critical locations along the corridor. These ‘pre-audit crashes’ occurred between April 2001 and April 2004. It became apparent that some crash data from 2001 was not included in the data ORA received. However, for purposes of this safety audit, inclusion of ‘partial data’ was deemed reasonable since the objective was to identify crash potential along the corridor and not necessarily undertake an extensive crash study, which could compromise the completion of this report. It is worth pointing out that the crashes assigned to each intersection represent crashes that occurred on Ninth Street as well as on side streets within the ‘influence area’ of their intersection with Ninth Street. An extensive review of the crashes established the following:

- ♦ The critical months for crash occurrence are June, July, and August
- ♦ Wednesday and Friday have the highest frequency of daily crash occurrence
- ♦ The highest frequency of crashes during the morning period occurred between 11:00 am and 12:00 noon, which coincides with the Saturday peak hour for traffic volumes at 3 major intersections
- ♦ The highest frequency of crashes during the early afternoon period occurred between 2:00 pm and 3:00 pm & 3:00 pm and 4:00 pm
- ♦ The highest frequency of crashes during the late afternoon period occurred between 5:00 pm and 6:00 pm
- ♦ A majority of crashes occurred during dry surface conditions and clear weather conditions
- ♦ A majority of crashes occurred in daylight conditions
- ♦ Approximately 20 percent of crashes were parking related, i.e. involved parking maneuvers between parking lots and Ninth Street travel lanes as well as on the side streets in proximity of Ninth Street intersections
- ♦ Approximately 27 percent of crashes were ‘Same Direction’ or ‘Rear End’
- ♦ Approximately 8 percent of crashes involved Bicyclists and 3 percent involved Pedestrians
- ♦ Over 80 percent of crashes were ‘Property-Damage-Only’ (PDO)
- ♦ Less than 5 percent of crashes were alcohol/drug related (DUI related)
- ♦ The spot location with the highest occurrence of crashes was Bay Avenue

Detailed information on crash data analysis for Ninth Street is provided in the Appendix.

4. Other Information

Additional materials reviewed by ORA prior to the formal audit process included digital photographs from pre-audit field views and traffic signal plans.

Audit

On May 28, 2004, the Safety Audit Team met in the Council Chambers of City Hall, Ocean City to formally conduct the roadway inspection. The meeting commenced at 9:00 am with a brief statement by Joe Fiocco who reiterated the importance of RSAs and outlined the objectives of the Ninth Street safety audit. There were brief introductions by team members followed by a 3-hour brainstorming session that involved detailed discussion of traffic operations on Ninth Street as well as an extensive review of the following materials, copies of which were distributed to team members:

1. Street map showing the location of Ocean City
2. Aerial Photographs
3. Graphical illustration of historical traffic data for Ninth Street showing volumes for motorized vehicles, pedestrians, and bicyclists
4. Graphical illustration of historical traffic data for Ninth Street showing Levels of Service (peak hour delays) at 5 major signalized intersections
5. Latest Local Traffic Signal (LTS) plans at 5 major signalized intersections
6. Spreadsheet summarizing crash data for Ninth Street
7. Excel Charts showing crash trends or patterns on Ninth Street
8. Collision diagrams at spot locations on Ninth Street
9. Safety Audit Checklists specifically designed for auditing existing roads

Some of the issues discussed during the session include operational problems on Ninth Street that frequently results in gridlock, backups caused by drawbridge operations, inability of emergency vehicles to effectively navigate the corridor during heavy congestion, and a need to revise the circulation pattern on Ninth Street in concert with other parallel streets such as Eight Street and Tenth Street. All the materials listed above are included in the Appendix and a list of the safety audit team members is provided below.

SAFETY AUDIT TEAM FOR NINTH STREET, OCEAN CITY

Name	Agency
Dale Foster	Cape May County - Engineer
Barbara Blackmore	Cape May County - Intern
Karen Yunk	FHWA
Ray Reeve	NJ Division of Highway Traffic Safety
William Kafer	NJDOT – Traffic Engineering & Investigations
Jaime Saladino	NJDOT - Safety Programs
Edward Liu	NJDOT – Safety Programs
Ernie Lemmerman	Ocean City - Engineer
Sgt. Charles Simonson	Ocean City - Traffic Safety Unit
Timothy Chelius	SJTPO - Executive Director
Bill Schiavi	SJTPO
Norman Deitch	Orth-Rodgers & Associates, Inc.
Joseph Fiocco	Orth-Rodgers & Associates, Inc.
Alex Adeeko	Orth-Rodgers & Associates, Inc.

Following the brainstorming session, the team broke for lunch and returned to the Council Chambers around 1:00 pm. The team then proceeded to walk Ninth Street, starting at Bay Avenue and finishing at the Boardwalk.

During the walk, team members identified features on the roadway and its surrounding environment that could contribute to the occurrence or relative severity of roadway crashes. At each intersection and mid-block locations, the audit team identified safety deficiencies and inappropriately located street furniture, traffic signs, and landscaping, which are not consistent with effective road function and use. The inspection focused not only on motorists' safety issues, but also highlighted the safety needs of other user groups such as pedestrians, bicyclists, truck drivers, and disabled pedestrians. A variety of safety improvement measures were discussed with field notes and digital photographs being taken by Joe Fiocco and other team members.

The audit team returned to the Council Chambers in the City Hall to review information gathered during the roadway inspection. The Safety Audit Checklist was completed in correlation with findings from the inspection. The team leader informed other team members on the next step in the audit process; ORA will prepare a draft report summarizing the findings from the audit process and forward the report to all team members for their review and comments.

The next section of the report summarizes the findings from the roadway inspection.

Findings

The findings from the Ninth Street safety audit are presented below.

SAFETY ISSUE	REMEDIAL ACTION	LEVEL OF EFFORT REQUIRED			POTENTIAL SAFETY BENEFIT		
		LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
1 The causeway drawbridge opens (sometimes every half hour) creating congestion, which adversely impacts safety along Ninth Street.	Replace drawbridge with an elevated structure that does not require closings. (This replacement structure by the NJDOT is in the final design phase as of the writing of this report)			X			X
2 During times of congestion along Ninth Street, vehicles enter the intersections without the ability to clear the intersection exacerbating the situation	Install "Do Not Block The Box" treatments along the corridor. This work should be done in conjunction with an educational component to inform the public of the new design and operation.		X				X
3 During times of congestion along Ninth Street, emergency vehicles have a difficult time traveling to their destinations. Police manpower is routinely used to clear out the congested corridor.	Install "Do Not Block The Box" treatments along the corridor. This work should be done in conjunction with an educational component to inform the public of the new design and operation.		X				X

SAFETY ISSUE	REMEDIAL ACTION	LEVEL OF EFFORT REQUIRED			POTENTIAL SAFETY BENEFIT		
		LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
4	The congestion along the corridor creates frustration, often tempting motorists to operate their vehicles in an undesirable (unsafe) manner.		X				X
				X		X	
5	Pedestrian behavior is not consistent. Some pedestrians wait for turning vehicles, while others cross without apparent fear.	X					X
			X		X		
			X				X
6	The numerous pedestrian crossings restrict the corridor's ability to move vehicular traffic.		X			X	

SAFETY ISSUE		REMEDIAL ACTION	LEVEL OF EFFORT REQUIRED			POTENTIAL SAFETY BENEFIT		
			LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
7	The Ninth Street corridor does not provide adequate width for use by bicycles.	Restripe the four-lane section of Ninth Street (east of West Avenue) to three lanes; one left turn lane and one shared through/right lane in each direction. The extra width can be striped as a bicycle lane.		X				X
		Install "Share the Road" signs on approaches to the corridor.	X			X		
		Create informational pamphlets, which include a map recommending the best roads on the island for bicycle travel as well as bicycle safety tips. These pamphlets can be distributed at strategic locations, such as, bicycle rentals, bicycle shops and the welcome center.		X				X
		Encourage, through signage, bicycles to use parallel streets (such as 8th and 10th) which are more conducive to bicycle travel.		X				X
		Create bike routes in other parts of the city to further discourage travel along Ninth Street.			X			X

SAFETY ISSUE		REMEDIAL ACTION	LEVEL OF EFFORT REQUIRED			POTENTIAL SAFETY BENEFIT		
			LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
8	The curb reveal at many locations along Ninth Street is low (less than 2") and permits the mounting by vehicles as if it was permitted or intended.	Replace the curb at those locations to achieve the city's standard height.			X		X	
9	There is no transition area between the bridge on the western end (which has no bicycles permitted and virtually no pedestrians) to the eastern end that has a tremendous number of pedestrians and bicycles. This condition will be exacerbated when the new bridge is completed.	Redesign the stretch of Ninth Street, between Bay Avenue and West Avenue to provide visual clues to motorists entering the island that they are approaching a "downtown" section with high volumes of pedestrians. This could include; street trees, pedestrian-scale street lighting, benches, landscaping, etc.			X			X
		Install pedestrian crossing signs on the approaches to the higher density crossings within the corridor. (This work is already being undertaken by Ocean City.)	X			X		
		Install "State Law Requires Yield to Pedestrian" signs on the entrances to the high-density pedestrian corridor. (This work is already being undertaken by Ocean City.)	X			X		
10	There are no pedestrian streetlights along Ninth Street. All lights are the roadway type.	Supplement the overhead street lighting with pedestrian streetscape lights. This will illuminate the streets more appropriately for pedestrians and may even improve daytime driving conditions by way of a traffic calming effect.			X			X

SAFETY ISSUE		REMEDIAL ACTION	LEVEL OF EFFORT REQUIRED			POTENTIAL SAFETY BENEFIT		
			LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
16	Ponding was noted at various intersections and along Ninth Street.	Modify the profile of Ninth Street between the bridge and West Avenue to improve the removal of storm water from the highway. This is currently scheduled for incorporation into the construction of the Route 52 bridge.			X			X
		Examine all inlets within the corridor and schedule clean outs as appropriate.			X			X
17	There are no provisions for pedestrians along Ninth Street, between the bridge and Bay Avenue.	When the new bridge (Route 52) is opened, it will have a sidewalk. Provide a sidewalk between Bay Avenue and the bridge to provide for the anticipated pedestrian travel between Somers Point and Ocean City.			X			X
18	There are no provisions for bicyclists along Ninth Street, between the bridge and Bay Avenue.	When the new bridge (Route 52) is opened, it will have a shoulder. Provide a shoulder between Bay Avenue and the bridge to provide for anticipated bicycle travel between Somers Point and Ocean City.			X			X
19	The southbound Bay Avenue approach to Ninth Street has very few left turns (15 peak hour lefts) yet they create considerable delays for the intersection.	Prohibit left turns from southbound Bay Avenue. The left turns can be made using the existing grid plan of streets.	X				X	

SAFETY ISSUE		REMEDIAL ACTION	LEVEL OF EFFORT REQUIRED			POTENTIAL SAFETY BENEFIT		
			LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
11	Pavement markings along the Ninth Street corridor are worn out.	Replace all pavement markings. This work can be incorporated with the resurfacing work recommended in item # 15.		X				X
12	The other corridors on the island are not designed to encourage their use which could alleviate the congestion on Ninth Street	Modify some of the traffic controls along parallel routes (i.e. Eight Street, Tenth Street, etc.) to provide better progression, which will make these roads a more reasonable alternative to the Ninth Street congestion.		X				X
13	With the exception of Bay Avenue, traffic signals along the Ninth Street corridor do not provide clear indication for pedestrians.	Redesign each of the six signals within the corridor to provide man/hand signals. Pedestrian countdown signals should be considered.		X				X
14	"Truck Route" signing is not clear within the island.	The inventory of all "Truck Route" signing within the island should be undertaken to identify opportunities to improve information to truck drivers and eliminate unnecessary trips within this high-density pedestrian corridor.	X				X	
15	The pavement surface along the entire Ninth Street corridor is in a general state of disrepair. Much of the aggregate has been exposed and polished indicating a lower level of skid resistance.	Resurface the roadway to improve the skid resistance and improve the travel surface for all modes of transportation (passenger vehicles, pedestrians, motorized scooters, bicycles, etc.)			X			X

SAFETY ISSUE		REMEDIAL ACTION	LEVEL OF EFFORT REQUIRED			POTENTIAL SAFETY BENEFIT		
			LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
20	Parked vehicles on the northbound Bay Avenue approach to Ninth Street prevent through vehicles from bypassing the left-turning vehicles during times of congestion.	Restrict parking on northbound Bay Avenue approach to Ninth Street.	X				X	
21	The lid to the traffic signal junction box in the handicapped ramp on the northeast corner of Ninth Street and Bay Avenue is cracked.	Replace the lid.	X			X		
22	The Audit team witnessed a person walk across Ninth Street in the vicinity of the Transportation Center. A considerable time elapsed while the pedestrian waited for a gap in traffic in the middle of the road before finishing their crossing.	Install traffic islands to provide a middle refuge for those pedestrians crossing the wider portion of Ninth Street (west of West Avenue)			X			X
23	Left turn movements into and out of driveways reduces the capacity of the corridor.	Install a mountable channelization island along sections of Ninth Street between Bay Avenue and West Avenue to limit left turns to certain intersections.			X			X
24	Nighttime lighting at the Transportation Center is less than desirable.	Improve the lighting at the Transportation Center.			X		X	

SAFETY ISSUE	REMEDIAL ACTION	LEVEL OF EFFORT REQUIRED			POTENTIAL SAFETY BENEFIT		
		LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
25	Left turn movements into and out of the MacDonald's and the Transportation center reduces the capacity of the corridor and creates undesirable conflicts.			X			X
26	There is no pedestrian refuge area on the northwest corner at the intersection of Ninth Street and West Avenue.			X			X
27	Some of the decorative stones in the landscaping along the Commerce Bank property are falling onto the sidewalk.	X			X		
28	Vegetation on the northwest corner of Simpson Avenue and Ninth Street restricts visibility.	X					X
29	The driveway to Commerce Bank has pavement markings that indicate that left turns are prohibited, but there are no regulatory signs posted.	X				X	
30	The Two Way Left Turn Lane pattern between Bay Avenue and West Avenue does not have the regulatory signs as required in the MUTCD.	X			X		

SAFETY ISSUE	REMEDIAL ACTION	LEVEL OF EFFORT REQUIRED			POTENTIAL SAFETY BENEFIT		
		LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
31	The traffic signal at Ninth Street and West Avenue is not pedestrian friendly. For example, there is an advanced left turn arrow for eastbound Ninth and southbound West, which coincides with the pedestrian (green ball) signal for eastbound and southbound, respectfully. Some crossings have no signals readily visible to pedestrians.		X				X
32	Truck turning movements are very difficult at the intersection of Ninth and Asbury Avenue.	X				X	
33	There is no advance notice regarding the lane configuration on the Asbury Avenue approaches to Ninth Street.	X				X	
	Place advance lane use control signs [R3-8] on the approaches.						
	Paint a white skip pattern across the beginning of the left turn lane to guide through moving vehicles around the left turn lane.	X					X
34	A crosswalk at corner of Wesley Avenue leads to a full-face curb without depression for disadvantaged users.		X			X	

SAFETY ISSUE	REMEDIAL ACTION	LEVEL OF EFFORT REQUIRED			POTENTIAL SAFETY BENEFIT		
		LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
35	There is no northbound pedestrian signal on the northeast corner at the intersection of Ocean Avenue and Ninth Street.			X			X
36	The eastside terminus of Ninth Street (at the Boardwalk) does not have a proper area for vehicles to turn around. Vehicles must make a backing maneuver in the area that has a great concentration of both pedestrians and bicycles.			X			X
37	The sidewalks along Ninth Street are relatively narrow and immediately adjacent to the travel lanes.		X				X
	Install street furniture that would prevent an errant vehicle from immediately striking a pedestrian. An example (omni stop) is included in the appendix of this report.		X				X
38	The pavement markings on the eastbound Ninth Street approach to Atlantic Avenue provides for two lanes of travel. The eastbound Ninth Street departure from the intersection provides one lane of parking and one travel lane.						
	Restripe Ninth Street to eliminate the two-lane section and create a one-lane approach to Atlantic Avenue.	X					X

SAFETY ISSUE		REMEDIAL ACTION	LEVEL OF EFFORT REQUIRED			POTENTIAL SAFETY BENEFIT		
			LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
39	Westbound Ninth Street vehicles at Atlantic Avenue are not required to stop at the intersection. This is not readily apparent to pedestrians and opposing vehicles.	Install a stop sign on the westbound Ninth Street approach to Atlantic Avenue. This sign will become obsolete if the parking facility described in item #36 is constructed.	X					X
40	A resident from a private property (rental condos) located south of Ninth Street/Atlantic Avenue intersection complained about the difficulty in exiting the driveway due to poor visibility and opposing traffic.	Combine the last segment of Ninth Street with the existing municipal parking lot to the north to provide additional supply of parking and improve circulation.			X			X
		Restripe Ninth Street to eliminate the entire two-lane passing, and create a one-lane approach to Atlantic Avenue. This will move the eastbound travel lane away from the driveway.			X			X
41	The crosswalk at Atlantic Avenue leads to a full-face curb without depression for disadvantaged users.	Install a curb depression for disadvantaged users.		X			X	
42	The "Dead End" sign posted on eastbound Ninth Street approaching the boardwalk is hidden in the trees	Replace and relocate the sign with a "No Outlet" sign. This recommendation will become void if the parking facility described in item #36 is constructed.	X				X	

Recommendations

This Road Safety Audit project revealed a number of issues throughout the corridor as demonstrated in the findings of this report. The two primary issues that created concern among team members was the lack of adequate provisions for both pedestrians and bicyclists. It is believed that the high volume of pedestrian and bicycle travel witnessed during this audit, as well as the relative overrepresentation of bicycle crashes realized along Ninth Street, indicates that immediate actions are appropriate.

During the Ninth Street safety audit process, a suggestion was made to eliminate one of the four lanes on Ninth Street to provide a travel lane for the numerous bicyclists that were observed, and to get left turning vehicles into their own lane. ORA performed a preliminary analysis of the delays that will be experienced during the peak travel hours identified in the 2000 data. The capacity for through vehicles on Ninth Street will be diminished with the elimination of the two through lanes. However, re-timing of the signals to provide a higher percentage of green time to Ninth Street will help to negate its effects to the delays along the corridor. The preliminary analysis indicates that the corridor can operate at acceptable levels during the peak hours and the safety benefits gained will outweigh any effects from increased delays. The safety benefits include the following:

1. The added width can be utilized by bicycle traffic (a bicycle lane could be painted on Ninth Street and made part of a city-wide network)
2. The dedicated left turn lane will eliminate the last minute lane changes observed when through motorists are confronted with a slowing or stopped left turning vehicle.
3. The effective crossing distance for pedestrians and bicycles crossing over Ninth Street will be reduced.
4. The pedestrians on Ninth Street will be further from the travel lane and less likely to be splashed by vehicles hitting standing water in the gutter lines. The lane restriping can be done during a trial period and, if successful, made permanent with the resurfacing suggested in Safety Issue #15.

As stated earlier, the intent of the road safety audit process is to conduct a formal examination of highway features and surrounding environment that increase the potential for crashes and identify countermeasures that will reduce (or eliminate) the probability of such crashes. The safety issues identified during the conduct of this audit and included in this report have been organized to provide the convenience and flexibility necessary to allow the implementation of the safety improvements as time and budget limitations allow. To the extent possible, the recommendations have been separated into line items so that the improvements can be implemented independently

as appropriate. Clearly, consolidating a number of the safety recommendations will reduce the overall cost of improvements. We recommend that the appropriate management staff review the list of recommendations and decide what items can be completed in the immediate (within 1 year) future. The following is a list of remedial actions contained in this report that can be implemented without a major investment of resources.

1. Convert the Alleys along the corridor to right in / right out only to eliminate conflicts and increase capacity. This assumes that the restrictions will be implemented with the installation of no left turn signs. The construction of traffic islands would need to be considered with the other work requiring contracted forces. (Safety Issue 4)
2. Install "Yield to Pedestrians" signs on the approach to the corridor. (Safety Issue #5)
3. Install "Share the Road" signs on approaches to the corridor. (Safety Issue #7)
4. Inventory all "Truck Route" signing in Ocean City and identify opportunities to improve information to truck drivers and eliminate unnecessary trips within the corridor. (Safety Issue #14 and #32)
5. Prohibit left turns from southbound Bay Avenue to eastbound Ninth Street. (Safety Issue #19)
6. Restrict parking on the northbound Bay Avenue approach to Ninth Street. (Safety Issue #20)
7. Replace the cracked lid to the traffic signal junction box in the handicapped ramp on the northeast corner of Ninth Street and Bay Avenue. (Safety Issue #21)
8. Request (or require) the property owner at the Commerce Bank property to make modifications to keep stones from falling onto the sidewalk. (Safety Issue #27)
9. Request (or require) the property owner on the northwest corner of Simpson Avenue and Ninth Street to move, remove, or trim back the vegetation that restricts visibility. (Safety Issue #28)
10. Install "No Left Turn" signs at the Commerce Bank driveway exit. (Safety Issue #29)
11. Install "Two-Way Left Turn Only" signs (R3-9b) at the beginning of the Two Way Left Turn Lane pattern between Bay Avenue and West Avenue. (Safety Issue #30)
12. Install Advance Intersection Lane Control signs (R3-8) and paint a white skip pattern across the beginning of the left turn lanes on the Asbury Avenue approaches to Ninth Street. (Safety Issue #33)
13. Re-stripe Ninth Street to eliminate the passing on the eastbound and westbound approaches to Atlantic Avenue. (Safety Issue 38)

14. Install a Stop sign (R1-1) on the westbound Ninth Street approach to Atlantic Avenue. (Safety Issue #39)
15. Replace and relocate the Dead End sign with a "No Outlet" sign (W14-2) on the eastbound approach to the boardwalk. (Safety Issue #42)

The balance of recommendations in this report can be consolidated into a set of construction plans to be implemented by contracted forces.

The opinions found in the findings of this Safety Audit report are those of the Safety Audit Team, as a whole, and not necessarily the opinions of the SJTPO or the individual team members.

Appendix

Street Map of Ocean City

Traffic Volume Diagram

Level of Service Diagram

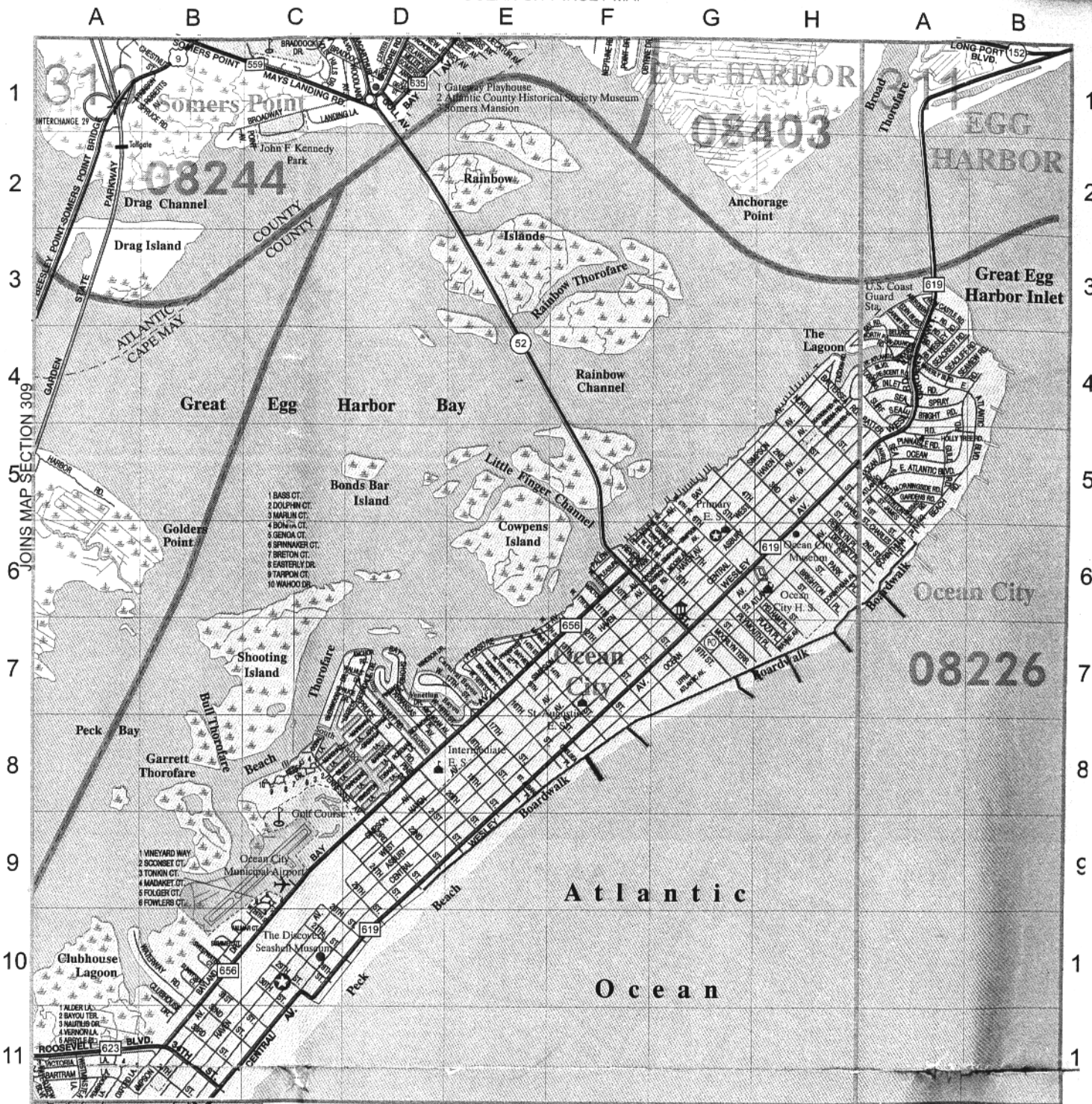
Crash Data Summary

Crash Data Charts

Collision Diagrams

Photographs

Checklists



METRO Street Map of **CAPE MAY** COUNTY IN NEW JERSEY

LEGEND

Limited Access Highways.....

Major Roads.....

Airports.....

Beaches.....

Boardwalks & Piers.....

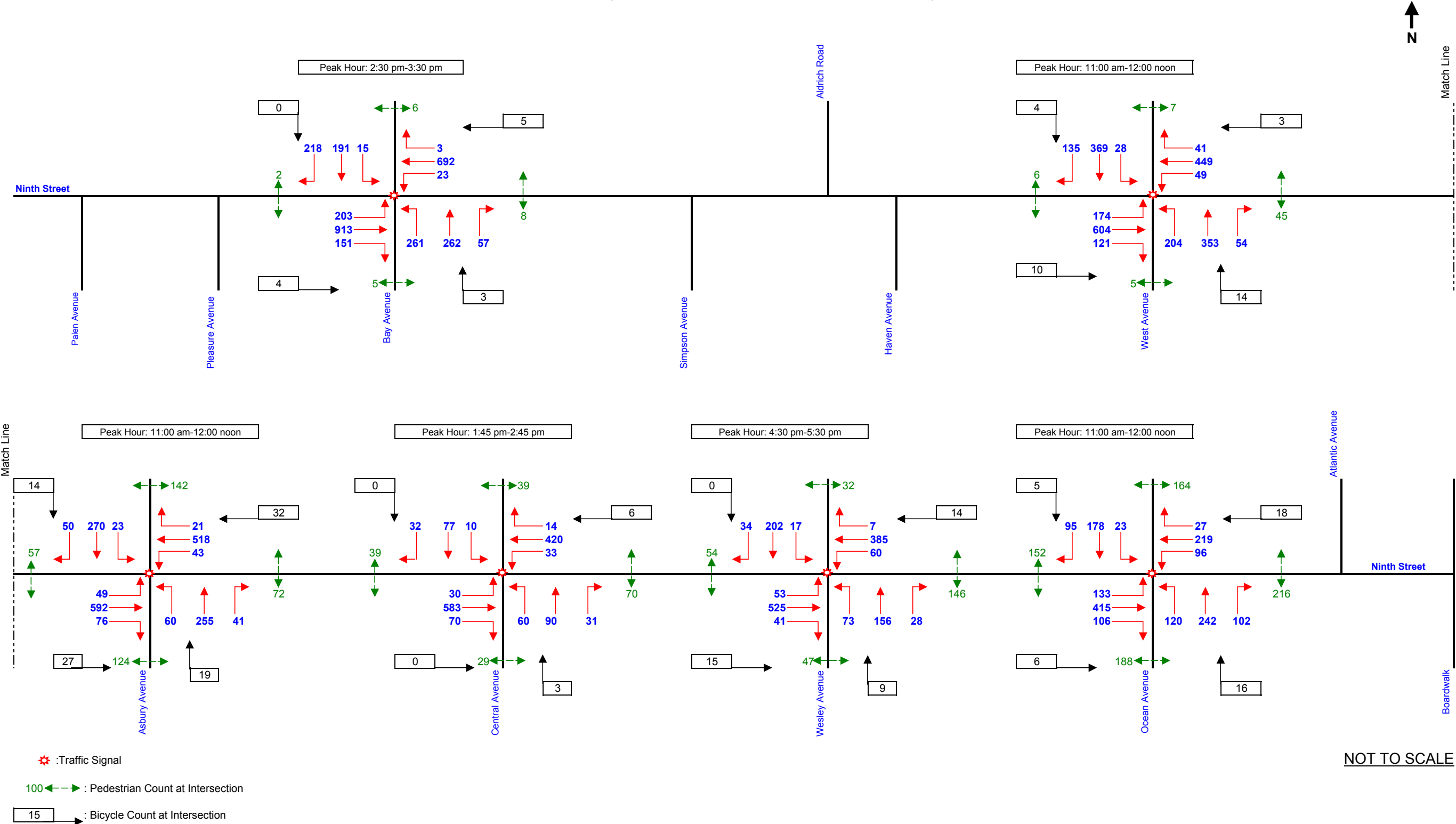
Libraries.....

Lighthouses.....

Municipal Buildings.....

SJTPO ROAD SAFETY AUDIT

2000 Saturday Peak Hour Traffic Volumes: Ninth Street, Ocean City



NOT TO SCALE

	Southbound								Westbound								Northbound								Eastbound									
MVMT NO.	1 LEFT		2 THRU		3 RIGHT		TOTAL	PEDS	4 LEFT		5 THRU		6 RIGHT		TOTAL	PEDS	7 LEFT		8 THRU		9 RIGHT		TOTAL	PEDS	10 LEFT		11 THRU		12 RIGHT		TOTAL	PEDS	TOTAL	TOTAL
TIME	TOT VEH	HV	TOT VEH	HV	TOT VEH	HV			TOT VEH	HV	TOT VEH	HV	TOT VEH	HV			TOT VEH	HV	TOT VEH	HV	TOT VEH	HV			TOT VEH	HV	TOT VEH	HV	TOT VEH	HV			VEH	PEDS
11:00 -12:00 PM	18	0	246	0	192	0	456	3	30	0	699	0	13	0	742	6	239	0	252	0	39	0	530	8	189	0	724	0	104	0	1017	2	2745	19
11:15 -12:15 PM	20	0	264	0	163	0	447	3	32	0	752	0	13	0	797	8	249	0	245	0	46	0	540	6	193	0	699	0	123	0	1015	2	2799	19
11:30 -12:30 PM	21	0	247	0	146	0	414	1	53	0	709	0	13	0	775	9	246	0	266	0	42	0	554	7	184	0	654	0	117	0	955	0	2698	17
11:45 -12:45 PM	26	0	253	0	121	0	400	0	57	0	652	0	13	0	722	4	237	0	295	0	47	0	579	7	188	0	634	0	123	0	945	2	2646	13
12:00 -1:00 PM	19	0	245	0	112	0	376	1	56	0	618	0	12	0	686	3	233	0	293	0	38	0	564	7	185	0	617	0	129	0	931	2	2557	13
12:15 -1:15 PM	16	0	225	0	113	0	354	4	51	0	588	0	13	0	652	2	224	0	266	0	30	0	520	4	189	0	629	0	111	0	929	6	2455	16
12:30 -1:30 PM	14	0	228	0	109	0	351	4	28	0	593	0	12	0	633	2	203	0	271	0	34	0	508	3	176	0	644	0	106	0	926	7	2418	16
12:45 -1:45 PM	8	0	211	0	110	0	329	4	30	0	636	0	13	0	679	2	193	0	230	0	29	0	452	3	173	0	635	0	110	0	918	5	2378	14
1:00 -2:00 PM	8	0	219	0	108	0	335	3	31	0	671	0	14	0	716	2	201	0	198	0	33	0	432	4	181	0	699	0	117	0	997	7	2480	16
1:15 -2:15 PM	10	0	189	0	111	0	310	0	32	0	722	0	12	0	766	1	199	0	200	0	36	0	435	4	177	0	754	0	123	0	1054	3	2565	8
1:30 -2:30 PM	11	0	189	0	114	0	314	2	34	0	739	0	10	0	783	0	203	0	182	0	35	0	420	5	196	0	788	0	133	0	1117	5	2634	12
1:45 -2:45 PM	10	0	175	0	112	0	297	2	26	0	700	0	8	0	734	3	224	0	221	0	34	0	479	9	188	0	851	0	144	0	1183	6	2693	20
2:00 -3:00 PM	13	0	173	0	149	0	335	4	27	0	734	0	5	0	766	3	219	0	229	0	31	0	479	6	197	0	872	0	153	0	1222	4	2802	17
2:15 -3:15 PM	18	0	191	0	187	0	396	4	27	0	686	0	4	0	717	6	221	0	230	0	55	0	506	10	208	0	849	0	150	0	1207	8	2826	28
2:30 -3:30 PM	15	0	191	0	218	0	424	2	23	0	692	0	3	0	718	6	261	0	262	0	57	0	580	8	203	0	913	0	151	0	1267	5	2989	21
2:45 -3:45 PM	16	0	193	0	225	0	434	2	20	0	641	0	3	0	664	3	224	0	230	0	53	0	507	4	192	0	816	0	118	0	1126	5	2731	14
3:00 -4:00 PM	15	0	192	0	204	0	411	1	9	0	626	0	3	0	638	3	241	0	238	0	56	0	535	4	176	0	802	0	106	0	1084	5	2668	13
3:15 -4:15 PM	6	0	195	0	181	0	382	1	10	0	648	0	6	0	664	2	241	0	207	0	30	0	478	2	165	0	808	0	103	0	1076	1	2600	6
3:30 -4:30 PM	10	0	185	0	163	0	358	1	8	0	635	0	6	0	649	2	219	0	215	0	27	0	461	2	173	0	769	0	108	0	1050	1	2518	6
3:45 -4:45 PM	10	0	169	0	180	0	359	1	9	0	666	0	8	0	683	2	243	0	239	0	29	0	511	6	191	0	821	0	117	0	1129	5	2682	14
4:00 -5:00 PM	10	0	172	0	190	0	372	0	11	0	679	0	10	0	700	2	241	0	237	0	23	0	501	11	182	0	793	0	105	0	1080	5	2653	18
4:15 -5:15 PM	12	0	162	0	190	0	364	0	11	0	654	0	8	0	673	0	248	0	259	0	21	0	528	10	179	0	772	0	100	0	1051	5	2616	15
4:30 -5:30 PM	12	0	159	0	176	0	347	3	14	0	657	0	7	0	678	1	246	0	186	0	19	0	451	12	173	0	697	0	76	0	946	9	2422	25
4:45 -5:45 PM	10	0	158	0	176	0	344	3	13	0	727	0	8	0	748	1	262	0	151	0	17	0	430	12	168	0	679	0	79	0	926	4	2448	20
5:00 -6:00 PM	10	0	146	0	163	0	319	3	14	0	763	0	6	0	783	1	271	0	141	0	20	0	432	7	177	0	621	0	81	0	879	4	2413	15
5:15 -6:15 PM	10	0	143	0	184	0	337	3	13	0	809	0	7	0	829	1	283	0	135	0	25	0	443	6	167	0	602	0	80	0	849	4	2458	14
5:30 -6:30 PM	6	0	140	0	208	0	354	1	13	0	868	0	9	0	890	0	270	0	172	0	28	0	470	5	144	0	599	0	88	0	831	0	2545	6
5:45 -6:45 PM	12	0	161	0	201	0	374	1	23	0	908	0	6	0	937	0	261	0	178	0	31	0	470	3	139	0	631	0	88	0	858	0	2639	4
2989	15	0	191	0	218	0	424	2	23	0	692	0	3	0	718	6	261	0	262	0	57	0	580	8	203	0	913	0	151	0	1267	5	2989	

	Southbound								Westbound								Northbound								Eastbound									
MVMT NO.	1 LEFT		2 THRU		3 RIGHT		TOTAL	PEDS	4 LEFT		5 THRU		6 RIGHT		TOTAL	PEDS	7 LEFT		8 THRU		9 RIGHT		TOTAL	PEDS	10 LEFT		11 THRU		12 RIGHT		TOTAL	PEDS	TOTAL	TOTAL
TIME	TOT VEH	HV	TOT VEH	HV	TOT VEH	HV			TOT VEH	HV	TOT VEH	HV	TOT VEH	HV			TOT VEH	HV	TOT VEH	HV	TOT VEH	HV			TOT VEH	HV	TOT VEH	HV	TOT VEH	HV			VEH	PEDS
11:00 -12:00 PM	28	0	369	0	135	0	532	6	49	0	449	0	41	0	539	7	204	0	353	0	54	0	611	45	174	0	604	0	121	0	899	5	2581	63
11:15 -12:15 PM	21	0	362	0	125	0	508	8	61	0	434	0	33	0	528	7	215	0	362	0	63	0	640	50	144	0	582	0	117	0	843	5	2519	70
11:30 -12:30 PM	22	0	331	0	119	0	472	9	61	0	398	0	34	0	493	7	227	0	350	0	67	0	644	74	152	0	549	0	112	0	813	6	2422	96
11:45 -12:45 PM	15	0	331	0	106	0	452	8	59	0	385	0	28	0	472	3	205	0	313	0	69	0	587	66	134	0	555	0	111	0	800	7	2311	84
12:00 -1:00 PM	15	0	312	0	102	0	429	10	59	0	392	0	27	0	478	2	206	0	317	0	78	0	601	60	127	0	564	0	98	0	789	11	2297	83
12:15 -1:15 PM	16	0	319	0	108	0	443	8	54	0	400	0	31	0	485	6	212	0	324	0	72	0	608	75	137	0	554	0	110	0	801	13	2337	102
12:30 -1:30 PM	14	0	308	0	100	0	422	7	57	0	433	0	31	0	521	16	195	0	307	0	65	0	567	51	112	0	603	0	104	0	819	10	2329	84
12:45 -1:45 PM	13	0	281	0	108	0	402	10	57	0	446	0	24	0	527	16	201	0	290	0	63	0	554	46	120	0	596	0	104	0	820	7	2303	79
1:00 -2:00 PM	21	0	270	0	101	0	392	9	51	0	444	0	29	0	524	22	203	0	270	0	52	0	525	54	126	0	606	0	100	0	832	7	2273	92
1:15 -2:15 PM	27	0	274	0	96	0	397	10	47	0	479	0	27	0	553	22	191	0	223	0	55	0	469	29	134	0	654	0	103	0	891	10	2310	71
1:30 -2:30 PM	30	0	281	0	100	0	411	16	46	0	480	0	22	0	548	13	205	0	228	0	67	0	500	36	145	0	645	0	122	0	912	20	2371	85
1:45 -2:45 PM	32	0	263	0	106	0	401	11	44	0	482	0	20	0	546	13	208	0	245	0	64	0	517	41	150	0	671	0	121	0	942	20	2406	85
2:00 -3:00 PM	22	0	260	0	104	0	386	8	36	0	499	0	12	0	547	5	196	0	228	0	66	0	490	18	133	0	628	0	127	0	888	15	2311	46
2:15 -3:15 PM	23	0	211	0	102	0	336	9	30	0	474	0	11	0	515	2	208	0	226	0	69	0	503	19	123	0	571	0	110	0	804	10	2158	40
2:30 -3:30 PM	20	0	182	0	101	0	303	2	22	0	469	0	12	0	503	1	184	0	226	0	56	0	466	12	110	0	597	0	103	0	810	0	2082	15
2:45 -3:45 PM	23	0	186	0	87	0	296	3	15	0	422	0	14	0	451	1	158	0	208	0	52	0	418	13	97	0	532	0	89	0	718	16	1883	33
3:00 -4:00 PM	32	0	220	0	107	0	359	3	16	0	435	0	18	0	469	3	175	0	255	0	51	0	481	13	133	0	599	0	91	0	823	30	2132	49
3:15 -4:15 PM	30	0	261	0	118	0	409	1	12	0	427	0	17	0	456	3	149	0	301	0	45	0	495	30	147	0	670	0	104	0	921	41	2281	75
3:30 -4:30 PM	33	0	282	0	118	0	433	4	12	0	434	0	13	0	459	14	164	0	307	0	54	0	525	36	156	0	630	0	99	0	885	41	2302	95
3:45 -4:45 PM	34	0	278	0	118	0	430	5	13	0	487	0	13	0	513	14	166	0	321	0	61	0	548	26	162	0	692	0	104	0	958	25	2449	70
4:00 -5:00 PM	29	0	247	0	97	0	373	5	12	0	459	0	12	0	483	15	146	0	314	0	59	0	519	26	138	0	644	0	84	0	866	11	2241	57
4:15 -5:15 PM	32	0	233	0	80	0	345	9	12	0	400	0	10	0	422	16	142	0	308	0	74	0	524	6	126	0	588	0	71	0	785	0	2076	31
4:30 -5:30 PM	32	0	239	0	86	0	357	10	14	0	385	0	13	0	412	5	126	0	308	0	68	0	502	9	132	0	538	0	65	0	735	0	2006	24
4:45 -5:45 PM	31	0	250	0	87	0	368	8	13	0	317	0	13	0	343	5	130	0	327	0	71	0	528	20	121	0	518	0	55	0	694	5	1933	38
5:00 -6:00 PM	30	0	252	0	95	0	377	8	13	0	345	0	10	0	368	2	141	0	301	0	74	0	516	20	118	0	475	0	63	0	656	5	1917	35
5:15 -6:15 PM	28	0	262	0	92	0	382	8	17	0	393	0	9	0	419	8	159	0	299	0	66	0	524	24	127	0	447	0	62	0	636	5	1961	45
5:30 -6:30 PM	24	0	246	0	80	0	350	4	14	0	417	0	8	0	439	10	174	0	303	0	75	0	552	18	113	0	478	0	59	0	650	5	1991	37
5:45 -6:45 PM	28	0	251	0	86	0	365	4	15	0	498	0	13	0	526	13	181	0	270	0	77	0	528	12	124	0	451	0	68	0	643	3	2062	32

2581	28	0	369	0	135	0	532	6	49	0	449	0	41	0	539	7	204	0	353	0	54	0	611	45	174	0	604	0	121	0	899	5	2581	
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	Southbound								Westbound								Northbound								Eastbound									
MVMT NO.	1		2		3		TOTAL	PEDS	4		5		6		TOTAL	PEDS	7		8		9		TOTAL	PEDS	10		11		12		TOTAL	PEDS	TOTAL	TOTAL
TIME	TOT VEH	HV	TOT VEH	HV	TOT VEH	HV			TOT VEH	HV	TOT VEH	HV	TOT VEH	HV			TOT VEH	HV	TOT VEH	HV	TOT VEH	HV			TOT VEH	HV	TOT VEH	HV	TOT VEH	HV			VEH	PEDS
11:00 -12:00 PM	23	0	270	0	50	0	343	57	43	0	518	0	21	0	582	142	60	0	255	0	41	0	356	72	49	0	592	0	76	0	717	124	1998	395
11:15 -12:15 PM	23	0	238	0	66	0	327	80	38	0	483	0	21	0	542	143	65	0	241	0	35	0	341	90	46	0	547	0	74	0	667	122	1877	435
11:30 -12:30 PM	21	0	208	0	62	0	291	79	49	0	450	0	17	0	516	135	70	0	202	0	35	0	307	108	39	0	532	0	73	0	644	91	1758	413
11:45 -12:45 PM	20	0	190	0	54	0	264	66	40	0	409	0	22	0	471	137	74	0	200	0	28	0	302	95	36	0	505	0	73	0	614	96	1651	394
12:00 -1:00 PM	14	0	160	0	46	0	220	55	43	0	390	0	18	0	451	127	72	0	185	0	25	0	282	81	34	0	535	0	79	0	648	101	1601	364
12:15 -1:15 PM	13	0	155	0	36	0	204	25	46	0	375	0	18	0	439	119	63	0	165	0	26	0	254	77	28	0	536	0	70	0	634	112	1531	333
12:30 -1:30 PM	14	0	149	0	46	0	209	21	40	0	370	0	16	0	426	102	73	0	156	0	22	0	251	60	26	0	591	0	68	0	685	110	1571	293
12:45 -1:45 PM	14	0	128	0	51	0	193	22	39	0	393	0	21	0	453	85	70	0	139	0	29	0	238	59	25	0	619	0	73	0	717	109	1601	275
1:00 -2:00 PM	14	0	132	0	56	0	202	28	38	0	406	0	21	0	465	75	70	0	123	0	31	0	224	60	21	0	629	0	65	0	715	102	1606	265
1:15 -2:15 PM	15	0	129	0	57	0	201	32	29	0	449	0	24	0	502	75	70	0	126	0	31	0	227	61	23	0	675	0	68	0	766	112	1696	280
1:30 -2:30 PM	13	0	121	0	50	0	184	29	27	0	486	0	25	0	538	64	69	0	139	0	38	0	246	69	19	0	637	0	66	0	722	119	1690	281
1:45 -2:45 PM	12	0	133	0	53	0	198	28	29	0	508	0	15	0	552	62	74	0	132	0	29	0	235	71	17	0	674	0	59	0	750	120	1735	281
2:00 -3:00 PM	12	0	135	0	52	0	199	21	22	0	546	0	13	0	581	47	68	0	126	0	28	0	222	76	19	0	646	0	60	0	725	130	1727	274
2:15 -3:15 PM	10	0	146	0	50	0	206	29	20	0	529	0	9	0	558	45	67	0	132	0	25	0	224	52	19	0	608	0	61	0	688	115	1676	241
2:30 -3:30 PM	10	0	145	0	48	0	203	37	20	0	557	0	6	0	583	59	57	0	127	0	18	0	202	48	19	0	618	0	60	0	697	117	1685	261
2:45 -3:45 PM	10	0	145	0	51	0	206	32	15	0	507	0	8	0	530	57	59	0	165	0	24	0	248	41	17	0	602	0	55	0	674	115	1658	245
3:00 -4:00 PM	10	0	159	0	48	0	217	33	16	0	498	0	6	0	520	71	66	0	182	0	25	0	273	51	18	0	648	0	55	0	721	110	1731	265
3:15 -4:15 PM	9	0	162	0	50	0	221	27	18	0	459	0	5	0	482	80	60	0	200	0	26	0	286	56	24	0	691	0	58	0	773	95	1762	258
3:30 -4:30 PM	10	0	170	0	49	0	229	21	15	0	440	0	6	0	461	77	62	0	199	0	27	0	288	65	27	0	696	0	70	0	793	90	1771	253
3:45 -4:45 PM	9	0	168	0	51	0	228	21	15	0	463	0	3	0	481	88	62	0	165	0	29	0	256	76	35	0	719	0	78	0	832	92	1797	277
4:00 -5:00 PM	12	0	168	0	52	0	232	23	16	0	484	0	3	0	503	80	65	0	169	0	31	0	265	53	30	0	726	0	70	0	826	87	1826	243
4:15 -5:15 PM	18	0	170	0	50	0	238	24	17	0	463	0	4	0	484	71	71	0	151	0	36	0	258	57	30	0	672	0	72	0	774	91	1754	243
4:30 -5:30 PM	22	0	166	0	53	0	241	16	14	0	395	0	4	0	413	73	78	0	144	0	33	0	255	53	33	0	649	0	64	0	746	79	1655	221
4:45 -5:45 PM	22	0	173	0	47	0	242	22	14	0	373	0	4	0	391	86	71	0	157	0	32	0	260	68	30	0	628	0	59	0	717	75	1610	251
5:00 -6:00 PM	22	0	165	0	45	0	232	24	17	0	374	0	6	0	397	92	62	0	149	0	36	0	247	93	36	0	588	0	71	0	695	70	1571	279
5:15 -6:15 PM	18	0	171	0	45	0	234	21	13	0	391	0	4	0	408	78	60	0	152	0	34	0	246	95	30	0	593	0	67	0	690	69	1578	263
5:30 -6:30 PM	14	0	171	0	44	0	229	35	17	0	460	0	5	0	482	65	50	0	164	0	41	0	255	101	25	0	586	0	67	0	678	76	1644	277
5:45 -6:45 PM	12	0	166	0	50	0	228	38	20	0	536	0	5	0	561	53	56	0	149	0	39	0	244	89	27	0	598	0	67	0	692	70	1725	250

1998	23	0	270	0	50	0	343	57	43	0	518	0	21	0	582	142	60	0	255	0	41	0	356	72	49	0	592	0	76	0	717	124	1998	
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Ninth Street at Central								HOURS11:00 am-7:00 pm				DATE7/8/2000				Orth-Rodgers & Associates, Inc. TRAFFIC * HIGHWAY * SITE ENGINEERING																							
SJTPO Road Safety Audit																																							
Southbound									Westbound									Northbound									Eastbound												
MVMT NO. TIME	1 LEFT		2 THRU		3 RIGHT		TOTAL	PEDS	4 LEFT		5 THRU		6 RIGHT		TOTAL	PEDS	7 LEFT		8 THRU		9 RIGHT		TOTAL	PEDS	10 LEFT		11 THRU		12 RIGHT		TOTAL	PEDS	TOTAL VEH	TOTAL PEDS					
	TOT VEH	HV	TOT VEH	HV	TOT VEH	HV			TOT VEH	HV	TOT VEH	HV	TOT VEH	HV			TOT VEH	HV	TOT VEH	HV	TOT VEH	HV			TOT VEH	HV	TOT VEH	HV	TOT VEH	HV					TOT VEH	HV	TOT VEH	HV	TOT VEH
11:00 -12:00 PM	11	0	86	0	38	0	135	45	37	0	341	0	8	0	386	25	58	0	121	0	26	0	205	69	43	0	491	0	62	0	596	52	1322	191					
11:15 -12:15 PM	10	0	86	0	41	0	137	50	34	0	335	0	10	0	379	22	52	0	122	0	26	0	200	61	43	0	483	0	62	0	588	54	1304	187					
11:30 -12:30 PM	15	0	74	0	43	0	132	50	27	0	341	0	12	0	380	12	42	0	128	0	33	0	203	87	37	0	500	0	58	0	595	75	1310	224					
11:45 -12:45 PM	16	0	77	0	40	0	133	43	32	0	326	0	11	0	369	11	33	0	122	0	38	0	193	81	35	0	488	0	61	0	584	58	1279	193					
12:00 -1:00 PM	14	0	75	0	33	0	122	45	26	0	330	0	14	0	370	8	42	0	103	0	32	0	177	58	30	0	459	0	56	0	545	56	1214	167					
12:15 -1:15 PM	13	0	73	0	36	0	122	36	25	0	318	0	14	0	357	6	40	0	107	0	36	0	183	61	26	0	449	0	58	0	533	38	1195	141					
12:30 -1:30 PM	8	0	69	0	32	0	109	25	34	0	319	0	12	0	365	8	44	0	99	0	31	0	174	31	33	0	479	0	68	0	580	44	1228	108					
12:45 -1:45 PM	4	0	67	0	38	0	109	26	42	0	323	0	11	0	376	6	49	0	101	0	24	0	174	30	41	0	487	0	67	0	595	47	1254	109					
1:00 -2:00 PM	4	0	72	0	45	0	121	30	48	0	351	0	7	0	406	17	49	0	104	0	22	0	175	59	42	0	546	0	66	0	654	38	1356	144					
1:15 -2:15 PM	4	0	64	0	41	0	109	42	51	0	387	0	6	0	444	31	56	0	102	0	23	0	181	67	41	0	587	0	78	0	706	38	1440	178					
1:30 -2:30 PM	6	0	76	0	42	0	124	47	44	0	394	0	8	0	446	33	53	0	96	0	28	0	177	68	38	0	566	0	75	0	679	13	1426	161					
1:45 -2:45 PM	10	0	77	0	32	0	119	39	33	0	420	0	14	0	467	39	60	0	90	0	31	0	181	70	30	0	583	0	70	0	683	29	1450	177					
2:00 -3:00 PM	9	0	75	0	28	0	112	30	27	0	426	0	15	0	468	26	51	0	96	0	32	0	179	44	25	0	582	0	59	0	666	38	1425	138					
2:15 -3:15 PM	8	0	77	0	24	0	109	15	29	0	440	0	21	0	490	21	47	0	90	0	26	0	163	32	25	0	531	0	46	0	602	41	1364	109					
2:30 -3:30 PM	7	0	64	0	25	0	96	5	27	0	454	0	22	0	503	17	54	0	95	0	28	0	177	34	30	0	529	0	42	0	601	47	1377	103					
2:45 -3:45 PM	4	0	67	0	28	0	99	10	29	0	423	0	22	0	474	20	49	0	86	0	23	0	158	28	32	0	492	0	52	0	576	28	1307	86					
3:00 -4:00 PM	3	0	66	0	27	0	96	20	32	0	411	0	21	0	464	25	53	0	75	0	28	0	156	46	41	0	444	0	71	0	556	26	1272	117					
3:15 -4:15 PM	3	0	78	0	25	0	106	19	27	0	374	0	22	0	423	20	53	0	80	0	27	0	160	46	39	0	472	0	75	0	586	30	1275	115					
3:30 -4:30 PM	2	0	78	0	29	0	109	19	26	0	355	0	19	0	400	20	49	0	77	0	23	0	149	48	33	0	500	0	82	0	615	26	1273	113					
3:45 -4:45 PM	1	0	80	0	27	0	108	12	26	0	363	0	15	0	404	15	48	0	78	0	25	0	151	57	35	0	523	0	80	0	638	29	1301	113					
4:00 -5:00 PM	4	0	82	0	25	0	111	0	29	0	379	0	17	0	425	17	47	0	85	0	23	0	155	52	35	0	568	0	79	0	682	33	1373	102					
4:15 -5:15 PM	8	0	74	0	25	0	107	19	27	0	372	0	16	0	415	37	48	0	91	0	25	0	164	76	40	0	567	0	73	0	680	31	1366	163					
4:30 -5:30 PM	8	0	78	0	17	0	103	29	23	0	371	0	20	0	414	56	50	0	102	0	27	0	179	66	47	0	542	0	64	0	653	31	1349	182					
4:45 -5:45 PM	10	0	68	0	13	0	91	42	21	0	342	0	19	0	382	66	51	0	111	0	35	0	197	72	49	0	518	0	58	0	625	41	1295	221					
5:00 -6:00 PM	8	0	76	0	15	0	99	45	12	0	363	0	20	0	395	79	50	0	118	0	34	0	202	67	48	0	502	0	49	0	599	36	1295	227					
5:15 -6:15 PM	6	0	81	0	18	0	105	41	18	0	391	0	23	0	432	89	48	0	122	0	35	0	205	67	51	0	482	0	51	0	584	36	1326	233					
5:30 -6:30 PM	5	0	77	0	23	0	105	38	28	0	399	0	23	0	450	97	49	0	131	0	40	0	220	89	38	0	485	0	49	0	572	35	1347	259					
5:45 -6:45 PM	4	0	78	0	26	0	108	30	33	0	459	0	29	0	521	102	51	0	126	0	36	0	213	108	36	0	507	0	49	0	592	25	1434	265					
1450	10	0	77	0	32	0	119	39	33	0	420	0	14	0	467	39	60	0	90	0	31	0	181	70	30	0	583	0	70	0	683	29	1450						

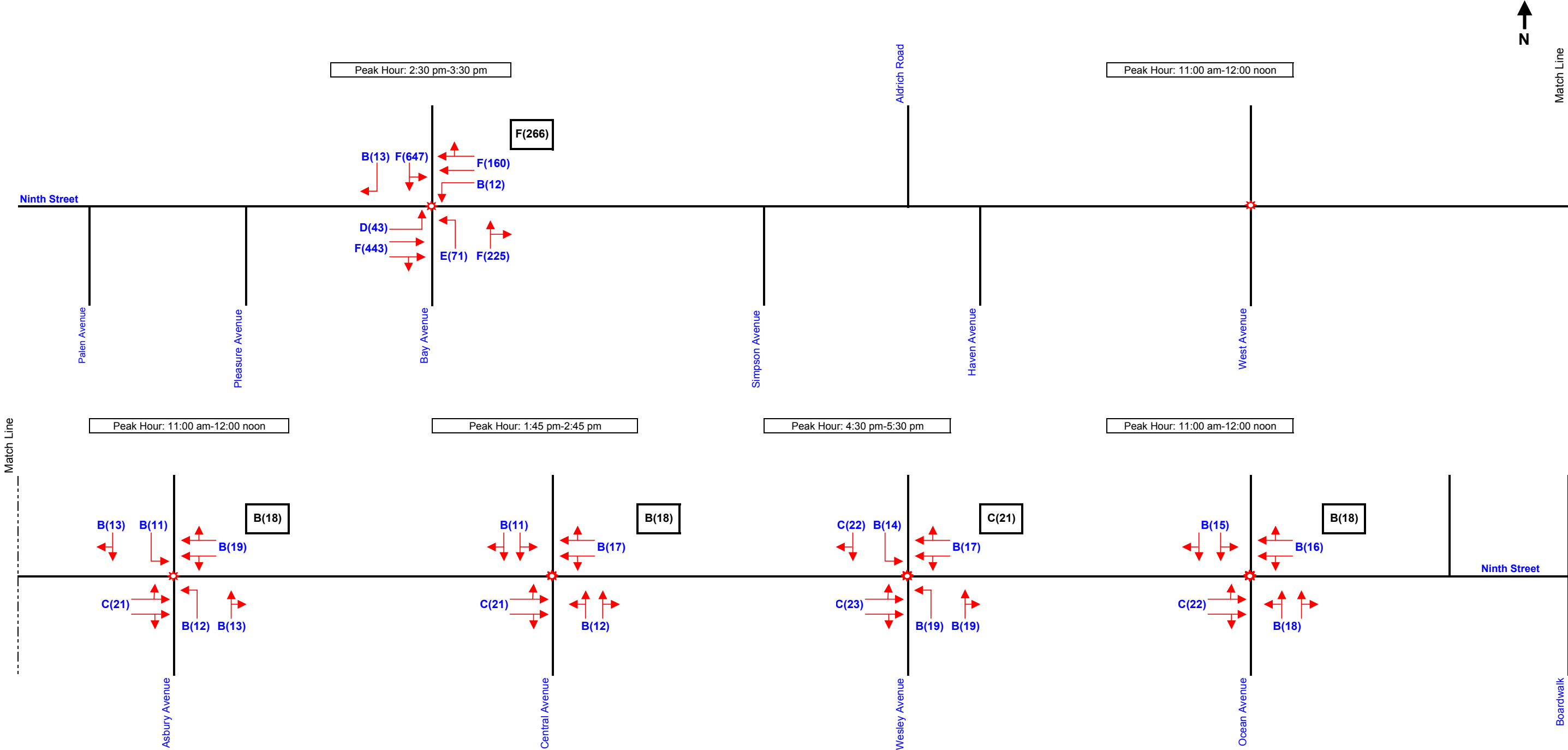
	Southbound								Westbound								Northbound								Eastbound									
MVMT NO.	1 LEFT		2 THRU		3 RIGHT		TOTAL	PEDS	4 LEFT		5 THRU		6 RIGHT		TOTAL	PEDS	7 LEFT		8 THRU		9 RIGHT		TOTAL	PEDS	10 LEFT		11 THRU		12 RIGHT		TOTAL	PEDS	TOTAL	TOTAL
TIME	TOT VEH	HV	TOT VEH	HV	TOT VEH	HV			TOT VEH	HV	TOT VEH	HV	TOT VEH	HV			TOT VEH	HV	TOT VEH	HV	TOT VEH	HV			TOT VEH	HV	TOT VEH	HV	TOT VEH	HV			VEH	PEDS
11:00 -12:00 PM	12	0	135	0	38	0	185	60	41	0	228	0	10	0	279	108	47	0	106	0	24	0	177	73	39	0	455	0	36	0	530	118	1171	359
11:15 -12:15 PM	21	0	155	0	40	0	216	69	40	0	268	0	15	0	323	99	52	0	96	0	26	0	174	85	30	0	455	0	33	0	518	145	1231	398
11:30 -12:30 PM	20	0	176	0	38	0	234	77	33	0	275	0	14	0	322	88	62	0	101	0	24	0	187	117	23	0	495	0	34	0	552	151	1295	433
11:45 -12:45 PM	20	0	179	0	37	0	236	61	37	0	255	0	13	0	305	64	64	0	92	0	18	0	174	120	26	0	473	0	31	0	530	159	1245	404
12:00 -1:00 PM	21	0	175	0	40	0	236	62	44	0	260	0	13	0	317	47	56	0	86	0	18	0	160	114	29	0	448	0	24	0	501	157	1214	380
12:15 -1:15 PM	12	0	151	0	40	0	203	59	41	0	247	0	16	0	304	30	55	0	87	0	20	0	162	124	31	0	443	0	22	0	496	136	1165	349
12:30 -1:30 PM	14	0	146	0	39	0	199	57	38	0	251	0	14	0	303	17	48	0	84	0	19	0	151	90	30	0	436	0	20	0	486	130	1139	294
12:45 -1:45 PM	11	0	142	0	37	0	190	51	39	0	267	0	13	0	319	34	47	0	89	0	22	0	158	80	25	0	425	0	24	0	474	118	1141	283
1:00 -2:00 PM	10	0	150	0	38	0	198	41	42	0	250	0	13	0	305	44	60	0	75	0	17	0	152	73	24	0	437	0	30	0	491	106	1146	264
1:15 -2:15 PM	11	0	167	0	39	0	217	39	44	0	276	0	7	0	327	45	62	0	112	0	17	0	191	49	31	0	461	0	31	0	523	89	1258	222
1:30 -2:30 PM	9	0	187	0	53	0	249	39	48	0	279	0	8	0	335	57	77	0	117	0	22	0	216	71	39	0	487	0	33	0	559	71	1359	238
1:45 -2:45 PM	10	0	204	0	56	0	270	43	45	0	287	0	11	0	343	45	77	0	118	0	22	0	217	73	40	0	517	0	35	0	592	79	1422	240
2:00 -3:00 PM	8	0	209	0	52	0	269	52	46	0	303	0	13	0	362	56	70	0	132	0	24	0	226	64	46	0	513	0	34	0	593	86	1450	258
2:15 -3:15 PM	13	0	234	0	53	0	300	50	48	0	297	0	10	0	355	52	83	0	99	0	31	0	213	75	36	0	465	0	38	0	539	88	1407	265
2:30 -3:30 PM	20	0	213	0	46	0	279	46	45	0	285	0	10	0	340	49	64	0	86	0	28	0	178	76	35	0	430	0	41	0	506	90	1303	261
2:45 -3:45 PM	22	0	192	0	50	0	264	45	51	0	276	0	11	0	338	55	65	0	74	0	41	0	180	66	41	0	378	0	40	0	459	65	1241	231
3:00 -4:00 PM	24	0	191	0	52	0	267	33	47	0	272	0	9	0	328	57	65	0	65	0	38	0	168	92	33	0	344	0	41	0	418	66	1181	248
3:15 -4:15 PM	17	0	162	0	46	0	225	25	37	0	247	0	11	0	295	82	51	0	77	0	32	0	160	91	37	0	356	0	44	0	437	64	1117	262
3:30 -4:30 PM	12	0	154	0	37	0	203	20	46	0	254	0	12	0	312	72	68	0	92	0	29	0	189	88	36	0	362	0	46	0	444	56	1148	236
3:45 -4:45 PM	16	0	151	0	38	0	205	20	50	0	267	0	8	0	325	68	64	0	111	0	19	0	194	99	33	0	383	0	48	0	464	69	1188	256
4:00 -5:00 PM	14	0	163	0	34	0	211	27	51	0	306	0	6	0	363	50	82	0	138	0	25	0	245	111	48	0	464	0	51	0	563	50	1382	238
4:15 -5:15 PM	19	0	174	0	33	0	226	33	64	0	331	0	4	0	399	23	90	0	148	0	22	0	260	155	51	0	511	0	43	0	605	47	1490	258
4:30 -5:30 PM	17	0	202	0	34	0	253	54	60	0	385	0	7	0	452	32	73	0	156	0	28	0	257	146	53	0	525	0	41	0	619	47	1581	279
4:45 -5:45 PM	10	0	220	0	34	0	264	99	49	0	343	0	10	0	402	29	75	0	180	0	27	0	282	201	56	0	519	0	48	0	623	36	1571	365
5:00 -6:00 PM	13	0	210	0	32	0	255	116	46	0	324	0	13	0	383	32	58	0	171	0	19	0	248	200	37	0	478	0	44	0	559	58	1445	406
5:15 -6:15 PM	15	0	216	0	33	0	264	144	42	0	310	0	16	0	368	33	57	0	160	0	22	0	239	180	38	0	414	0	47	0	499	62	1370	419
5:30 -6:30 PM	20	0	202	0	34	0	256	161	43	0	251	0	12	0	306	46	65	0	156	0	22	0	243	189	35	0	429	0	49	0	513	121	1318	517
5:45 -6:45 PM	26	0	217	0	37	0	280	166	53	0	326	0	14	0	393	76	72	0	142	0	23	0	237	157	40	0	489	0	39	0	568	192	1478	591
1581	17	0	202	0	34	0	253	54	60	0	385	0	7	0	452	32	73	0	156	0	28	0	257	146	53	0	525	0	41	0	619	47	1581	

	Southbound								Westbound								Northbound								Eastbound									
MVMT NO.	1 LEFT		2 THRU		3 RIGHT		TOTAL	PEDS	4 LEFT		5 THRU		6 RIGHT		TOTAL	PEDS	7 LEFT		8 THRU		9 RIGHT		TOTAL	PEDS	10 LEFT		11 THRU		12 RIGHT		TOTAL	PEDS	TOTAL	TOTAL
TIME	TOT VEH	HV	TOT VEH	HV	TOT VEH	HV			TOT VEH	HV	TOT VEH	HV	TOT VEH	HV			TOT VEH	HV	TOT VEH	HV	TOT VEH	HV			TOT VEH	HV	TOT VEH	HV	TOT VEH	HV			VEH	PEDS
11:00 -12:00 PM	23	0	178	0	95	0	296	152	96	0	219	0	27	0	342	164	120	0	242	0	102	0	464	216	133	0	415	0	106	0	654	188	1756	720
11:15 -12:15 PM	20	0	174	0	100	0	294	144	115	0	204	0	28	0	347	160	106	0	251	0	103	0	460	178	127	0	379	0	104	0	610	194	1711	676
11:30 -12:30 PM	14	0	162	0	81	0	257	142	134	0	200	0	25	0	359	148	96	0	243	0	104	0	443	124	116	0	402	0	91	0	609	218	1668	632
11:45 -12:45 PM	10	0	148	0	62	0	220	110	149	0	192	0	31	0	372	120	97	0	211	0	102	0	410	108	95	0	377	0	111	0	583	252	1585	590
12:00 -1:00 PM	9	0	145	0	71	0	225	120	159	0	188	0	26	0	373	90	102	0	178	0	94	0	374	98	86	0	311	0	111	0	508	240	1480	548
12:15 -1:15 PM	8	0	145	0	56	0	209	102	156	0	200	0	27	0	383	98	105	0	167	0	98	0	370	140	85	0	320	0	110	0	515	214	1477	554
12:30 -1:30 PM	10	0	144	0	65	0	219	72	160	0	202	0	31	0	393	88	94	0	174	0	86	0	354	144	101	0	297	0	124	0	522	150	1488	454
12:45 -1:45 PM	16	0	131	0	68	0	215	74	154	0	206	0	27	0	387	108	95	0	168	0	92	0	355	130	101	0	300	0	101	0	502	80	1459	392
1:00 -2:00 PM	17	0	136	0	63	0	216	60	151	0	210	0	28	0	389	98	83	0	169	0	96	0	348	138	83	0	344	0	101	0	528	118	1481	414
1:15 -2:15 PM	18	0	137	0	78	0	233	52	157	0	220	0	36	0	413	92	78	0	185	0	92	0	355	100	91	0	356	0	111	0	558	142	1559	386
1:30 -2:30 PM	20	0	138	0	74	0	232	36	162	0	243	0	29	0	434	90	81	0	164	0	102	0	347	102	83	0	366	0	120	0	569	146	1582	374
1:45 -2:45 PM	15	0	137	0	78	0	230	60	174	0	259	0	30	0	463	74	86	0	175	0	101	0	362	146	84	0	389	0	126	0	599	176	1654	456
2:00 -3:00 PM	12	0	140	0	83	0	235	62	180	0	265	0	29	0	474	70	88	0	180	0	99	0	367	166	93	0	392	0	140	0	625	170	1701	468
2:15 -3:15 PM	10	0	130	0	76	0	216	62	174	0	253	0	18	0	445	68	94	0	160	0	98	0	352	192	96	0	340	0	122	0	558	146	1571	468
2:30 -3:30 PM	7	0	123	0	71	0	201	64	157	0	238	0	22	0	417	60	90	0	157	0	93	0	340	202	99	0	354	0	103	0	556	164	1514	490
2:45 -3:45 PM	5	0	110	0	64	0	179	52	148	0	255	0	29	0	432	80	90	0	147	0	86	0	323	136	98	0	332	0	116	0	546	154	1480	422
3:00 -4:00 PM	4	0	116	0	56	0	176	38	148	0	285	0	31	0	464	98	93	0	149	0	91	0	333	120	91	0	296	0	97	0	484	96	1457	352
3:15 -4:15 PM	4	0	115	0	60	0	179	38	151	0	297	0	33	0	481	86	89	0	159	0	89	0	337	122	86	0	311	0	112	0	509	98	1506	344
3:30 -4:30 PM	2	0	118	0	63	0	183	42	146	0	299	0	41	0	486	78	100	0	182	0	98	0	380	100	91	0	289	0	126	0	506	90	1555	310
3:45 -4:45 PM	2	0	139	0	60	0	201	44	154	0	279	0	36	0	469	56	97	0	212	0	107	0	416	146	91	0	308	0	109	0	508	78	1594	324
4:00 -5:00 PM	3	0	137	0	73	0	213	52	143	0	243	0	42	0	428	74	105	0	206	0	113	0	424	130	90	0	311	0	117	0	518	100	1583	356
4:15 -5:15 PM	8	0	167	0	72	0	247	60	128	0	235	0	44	0	407	76	107	0	197	0	119	0	423	110	87	0	319	0	115	0	521	78	1598	324
4:30 -5:30 PM	9	0	174	0	66	0	249	52	145	0	223	0	45	0	413	70	109	0	191	0	107	0	407	118	79	0	299	0	104	0	482	48	1551	288
4:45 -5:45 PM	10	0	191	0	62	0	263	74	137	0	201	0	45	0	383	88	115	0	177	0	107	0	399	152	79	0	250	0	109	0	438	56	1483	370
5:00 -6:00 PM	10	0	194	0	53	0	257	176	148	0	227	0	48	0	423	94	113	0	186	0	98	0	397	204	76	0	260	0	106	0	442	74	1519	548
5:15 -6:15 PM	11	0	181	0	55	0	247	258	162	0	241	0	51	0	454	96	117	0	182	0	104	0	403	300	80	0	267	0	96	0	443	84	1547	738
5:30 -6:30 PM	17	0	181	0	71	0	269	310	163	0	251	0	46	0	460	142	109	0	200	0	123	0	432	284	72	0	309	0	89	0	470	154	1631	890
5:45 -6:45 PM	17	0	150	0	84	0	251	298	176	0	291	0	46	0	513	170	120	0	211	0	144	0	475	268	73	0	332	0	101	0	506	252	1745	988

1756	23	0	178	0	95	0	296	152	96	0	219	0	27	0	342	164	120	0	242	0	102	0	464	216	133	0	415	0	106	0	654	188	1756	
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SJTPO ROAD SAFETY AUDIT

2000 Saturday Peak Hour Levels of Service: Ninth Street, Ocean City



★ - Traffic Signal
C(21) - Level of Service for Lane Group
B(18) - Level of Service for Intersection

NOT TO SCALE

CRASH DATA SUMMARY: Ninth Street, Ocean City-CAPE MAY COUNTY-NJ

Crash #	Location (nearest intersection)	Inter. Ref.	Date	Year	Month	Day of Week	Time	Time Period	AM/PM	Crash Diag.	Surface Condition	Weather	Light Condition	Parking Related	Crash Type	Fixed Object Struck	Severity	Contr. Factor	DUI	Driver(s) Zipcode	CM County Resident Involved	Age of Driver(s)
1	Aldrich Road	5	9/3/03	2003	September	Wednesday	8:35	8:00 am-9:00 am	AM	Yes	Wet	Rain	Daylight	No	Right Angle	None	PDO	Failed to Obey TCD	None	08226	Yes	58 & 31
2	Aldrich Road Lot	5	8/26/02	2002	August	Monday	10:00	10:00 am-11:00 am	AM	Yes	Dry	Clear	Daylight	Yes	Same Direction	None	PDO	Driver Inattention	None	08226	Yes	48 & 64
3	Aldrich Road Lot	5	11/8/02	2002	November	Friday	12:21	12:00 noon-1:00 pm	PM	Yes	Wet	Clear	Daylight	Yes	Other	None	PDO	Backing Unsafely	None	08234 & 08226	Yes	49 & 61
4	Asbury Avenue	8	12/26/01	2001	December	Wednesday	14:38	2:00 pm-3:00 pm	PM	Yes	Dry	Clear	Daylight	No	Hit Pedestrian	None	PDO & Injury	Pedestrian's Action	None	08226	Yes	64
5	Asbury Avenue	8	1/4/02	2002	January	Friday	7:43	7:00 am-8:00 am	AM	Yes	Dry	Clear	Daylight	No	Right Angle	None	PDO & Injury	Failed to Obey TCD	None	08226	Yes	66
6	Asbury Avenue	8	3/24/02	2002	March	Sunday	17:31	5:00 pm-6:00 pm	PM	Yes	Dry	Clear	Daylight	No	Right Angle	None	PDO	Failed to Obey TCD	None	14892 & 08226	Yes	53
7	Asbury Avenue	8	5/18/02	2002	May	Saturday	14:06	2:00 pm-3:00 pm	PM	Yes	Dry	Clear	Daylight	No	Right Angle	None	PDO	Failed to Obey TCD	None	21015 & 19128	No	61 & 36
8	Asbury Avenue	8	6/21/02	2002	June	Friday	16:47	4:00 pm-5:00 pm	PM	Yes	Dry	Clear	Daylight	No	Same Direction	None	PDO	Driver Inattention	None	08330 & 08226	Yes	19 & 56
9	Asbury Avenue	8	6/22/02	2002	June	Saturday	19:38	7:00 pm-8:00 pm	PM	Yes	Dry	Clear	Daylight	No	Same Direction	None	PDO	Following Too Closely	None	08201 & 08035	Yes	22 & 32
10	Asbury Avenue	8	6/26/02	2002	June	Wednesday	20:34	8:00 pm-9:00 pm	PM	Yes	Dry	Clear	Daylight	No	Right Angle	None	PDO	Failed to Yield ROW	None	19063 & 08225	Yes	17 & 18
11	Asbury Avenue	8	7/4/02	2002	July	Thursday	17:24	5:00 pm-6:00 pm	PM	Yes	Dry	Clear	Daylight	No	Left turn	None	PDO	Failed to Yield ROW	None	18372 & 08226	Yes	21 & 19
12	Asbury Avenue	8	11/2/02	2002	November	Saturday	10:39	10:00 am-11:00 am	AM	Yes	Dry	Clear	Daylight	Yes	Same Direction	None	PDO & Injury	Driver Inattention	None	08230	Yes	19
13	Asbury Avenue	8	11/8/02	2002	November	Friday	10:22	10:00 am-11:00 am	AM	Yes	Dry	Clear	Daylight	Yes	Other	None	PDO	Other	None	08032 & 08226	Yes	46 & 72
14	Asbury Avenue	8	1/21/03	2003	January	Tuesday	15:34	3:00 pm-4:00 pm	PM	Yes	Wet	Clear	Daylight	No	Same Direction	None	PDO	Driver Inattention	None	08226 & 08826	Yes	40 & 54
15	Asbury Avenue	8	1/23/03	2003	January	Thursday	14:20	2:00 pm-3:00 pm	PM	Yes	Dry	Clear	Daylight	Yes	Sideswipe	None	PDO	Improper Parking	None	08226	Yes	69
16	Asbury Avenue	8	3/24/03	2003	March	Monday	16:41	4:00 pm-5:00 pm	PM	Yes	Dry	Clear	Daylight	No	Right Angle	None	PDO	Failed to Yield ROW	None	08223 & 08226	Yes	17 & 45
17	Asbury Avenue	8	4/15/03	2003	April	Tuesday	16:48	4:00 pm-5:00 pm	PM	Yes	Dry	Clear	Daylight	No	Same Direction	None	PDO	Improper Lane Change	None	19047 & 92007	No	17 & 43
18	Asbury Avenue	8	6/15/03	2003	June	Sunday	14:51	2:00 pm-3:00 pm	PM	Yes	Dry	Clear	Daylight	No	Same Direction	None	PDO	Improper Lane Change	None	08037 & 08085	Yes	18 & 17
19	Asbury Avenue	8	6/18/03	2003	June	Wednesday	13:08	1:00 pm-2:00 pm	PM	Yes	Wet	Clear	Daylight	No	Hit Bicyclist	None	PDO	Failed to Obey TCD	None	19446	No	46
20	Asbury Avenue	8	7/7/03	2003	July	Monday	21:34	9:00 pm-10:00 pm	PM	Yes	Dry	Clear	Dark Street Lights On	No	Same Direction	None	PDO	Improper Lane Change	None	08330 & 19038	Yes	18 & 54
21	Asbury Avenue	8	8/4/03	2003	August	Monday	16:15	4:00 pm-5:00 pm	PM	Yes	Dry	Clear	Daylight	No	Same Direction	None	PDO	Improper Lane Change	None	08004 & 08234	Yes	21 & 31
22	Atlantic Avenue	12	11/4/01	2001	November	Sunday	12:00	12:00 noon-1:00 pm	PM	Yes	Dry	Clear	Daylight	Yes	Hit Bicyclist	None	PDO	Failed to Yield ROW	None	08225 & 19083	Yes	19
23	Atlantic Avenue	12	5/24/02	2002	May	Friday	17:25	5:00 pm-6:00 pm	PM	Yes	Dry	Clear	Daylight	No	Same Direction	None	PDO	Other	None	08223 & 08226	Yes	23 & 22
24	Atlantic Avenue	12	7/3/02	2002	July	Wednesday	7:12	7:00 am-8:00 am	AM	Yes	Dry	Clear	Daylight	Yes	Other	None	PDO	Backing Unsafely	None	07501	No	22
25	Atlantic Avenue	12	8/18/02	2002	August	Sunday	10:36	10:00 am-11:00 am	AM	Yes	Dry	Clear	Daylight	Yes	Hit Fixed Object	Porch	PDO	Driver Inattention	None	08251	Yes	19
26	Atlantic Avenue	12	8/15/03	2003	August	Friday	12:17	12:00 noon-1:00 pm	PM	Yes	Dry	Clear	Daylight	Yes	Other	None	PDO	Driver Inattention	None	08226	Yes	44
27	Bay Avenue	3	7/1/01	2001	July	Sunday	22:02	10:00 pm-11:00 pm	PM	Yes	Wet	Clear	Dark Street Lights On	No	Hit Bicyclist	None	PDO	Bicyclist's Actions	None	N/A	N/A	N/A
28	Bay Avenue	3	1/11/02	2002	January	Friday	11:32	11:00 am-12:00 noon	AM	Yes	Wet	Rain	Daylight	No	Hit Fixed Object	Utility Pole	PDO	Water Puddles	None	08401	Yes	27
29	Bay Avenue	3	2/26/02	2002	February	Tuesday	16:13	4:00 pm-5:00 pm	PM	Yes	Dry	Clear	Daylight	No	Same Direction	None	PDO	Improper Lane Change	None	22191 & 08226	Yes	25 & 66
30	Bay Avenue	3	5/30/02	2002	May	Thursday	15:37	3:00 pm-4:00 pm	PM	Yes	Dry	Clear	Daylight	No	Same Direction	None	PDO	Driver Inattention	None	08225 & 08226	Yes	26 & 26
31	Bay Avenue	3	6/15/02	2002	June	Saturday	17:28	5:00 pm-6:00 pm	PM	Yes	Dry	Clear	Daylight	No	Same Direction	None	PDO	Driver Inattention	None	08226 & 08232	Yes	25 & 62
32	Bay Avenue	3	6/22/02	2002	June	Sunday	9:58	9:00 am- 10:00 am	AM	Yes	Dry	Clear	Daylight	Yes	Other	None	PDO	Backing Unsafely	None	33316 & 08810	No	57 & 50
33	Bay Avenue	3	6/28/02	2002	June	Friday	7:24	7:00 am-8:00 am	AM	Yes	Dry	Clear	Daylight	No	Same Direction	None	PDO	Other	None	08223 & 08226	Yes	33 & 59
34	Bay Avenue	3	8/4/02	2002	August	Sunday	18:48	6:00 pm-7:00 pm	PM	Yes	Dry	Clear	Daylight	No	Left turn	None	PDO	Other	None	08108 & 18507	Yes	40 & 58
35	Bay Avenue	3	8/29/02	2002	August	Thursday	7:53	7:00 am-8:00 am	AM	Yes	Wet	Rain	Daylight	No	Other	None	PDO	Backing Unsafely	None	08226 & 08223	Yes	23 & 56
36	Bay Avenue	3	9/30/02	2002	September	Monday	15:27	3:00 pm-4:00 pm	PM	Yes	Dry	Clear	Daylight	No	Hit Fixed Object	Utility Pole	PDO & Injury	Other	None	19033	No	71
37	Bay Avenue	3	2/5/03	2003	February	Wednesday	9:39	9:00 am- 10:00 am	AM	Yes	Dry	Clear	Daylight	No	Same Direction	None	PDO & Injury	Vehicle Defect	None	08226	Yes	67 & 48
38	Bay Avenue	3	2/26/03	2003	February	Wednesday	18:08	6:00 pm-7:00 pm	PM	Yes	Snowy	Snow	Daylight	No	Left turn	None	PDO	Driver Inattention	None	08226 & 08201	Yes	78 & 57
39	Bay Avenue	3	6/3/03	2003	June	Tuesday	15:23	3:00 pm-4:00 pm	PM	Yes	Dry	Clear	Daylight	No	Same Direction	None	PDO	Driver Inattention	None	08226 & 08081	Yes	75 & 57
40	Bay Avenue	3	6/24/03	2003	June	Tuesday	8:24	8:00 am-9:00 am	AM	Yes	Dry	Clear	Daylight	No	Same Direction	None	PDO & Injury	Other	None	08226	Yes	54 & 59
41	Bay Avenue	3	6/25/03	2003	June	Wednesday	17:59	5:00 pm-6:00 pm	PM	Yes	Dry	Clear	Daylight	No	Right Angle	None	PDO	Failed to Yield ROW	None	08057 & 19423	Yes	52, 18 & 23
42	Bay Avenue	3	6/27/03	2003	June	Friday	14:34	2:00 pm-3:00 pm	PM	Yes	Dry	Clear	Daylight	No	Sideswipe	None	PDO	Improper Lane Change	None	19008 & 08221	Yes	32 & 20
43	Bay Avenue	3	7/5/03	2003	July	Saturday	2:31	2:00 am-3:00 am	AM	Yes	Dry	Clear	Dark Street Lights On	No	Same Direction	None	PDO & Injury	Driver Inattention	Yes	18940 & 07011	No	18 & 32
44	Bay Avenue	3	7/29/03	2003	July	Tuesday	14:07	2:00 pm-3:00 pm	PM	Yes	Dry	Clear	Daylight	No	Same Direction	None	PDO	Other	None	08033 & 23831	Yes	18, 22 & 43
45	Bay Avenue	3	8/6/03	2003	August	Wednesday	18:36	6:00 pm-7:00 pm	PM	Yes	Dry	Clear	Daylight	No	Same Direction	None	PDO	Driver Inattention	None	08201 & 08244	Yes	27 & 17
46	Bay Avenue	3	8/10/03	2003	August	Sunday	4:00	4:00 am-5:00 am	AM	Yes	Wet	Clear	Dark Street Lights On	No	Same Direction	None	PDO	Driver Inattention	Yes	08226 & 18901	Yes	36 & 42
47	Bay Avenue	3	9/24/03	2003	September	Wednesday	11:10	11:00 am-12:00 noon	AM	Yes	Dry	Clear	Daylight	No	Right Angle	None	PDO & Injury	Failed to Obey TCD	None	08226	Yes	81 & 77
48	Bay Avenue	3	4/5/04	2004	April	Monday	15:15	3:00 pm-4:00 pm	PM	Yes	Dry	Clear	Daylight	No	Same Direction	None	PDO & Injury	Driver Inattention	None	08226 & 08234	Yes	17 & 51
49	Bay Avenue	3	6/8/03	2003	June	Sunday	23:46	11:00 pm-12:00 midnight	PM	Yes	Wet	Clear	Dark Street Lights On	No	Hit Fixed Object	Utility Pole	PDO	Driver Inattention	Yes	08234	Yes	32
50	Aldrich Road	5	6/25/03	2003	June	Wednesday	17:44	5:00 pm-6:00 pm	PM	Yes	Dry	Clear	Daylight	No	Right turn	None	PDO	Driver Inattention	None	19020 & 19119	No	17 & 47
51	Boardwalk	13	7/30/02	2002	July	Tuesday	18:34	6:00 pm-7:00 pm	PM	Yes	Dry	Clear	Daylight	Yes	Other	None	PDO	Backing Unsafely	None	08053 & 08080	Yes	41 & 42
52	Central Avenue	9	6/18/01	2001	June	Monday	17:34	5:00 pm-6:00 pm	PM	Yes	Dry	Clear	Daylight	Yes	Hit Bicyclist	None	PDO & Injury	Improper Parking	None	08270 & 08226	Yes	18
53	Central Avenue	9	6/23/02	2002	June	Sunday	17:38	5:00 pm-6:00 pm	PM	Yes	Dry	Clear	Daylight	No	Left Turn	None	PDO	Failed to Yield ROW	None	18954 & 19096	Yes	35 & 18
54	Central Avenue	9	6/30/02	2002	June	Sunday	21:47	9:00 pm-10:00 pm	PM	Yes	Dry	Clear	Dark Street Lights On	No	Left Turn	None	PDO	Other	None	16648 & 11704	No	49 & 33
55	Central Avenue	9	7/23/02	2002	July	Tuesday	9:45	9:00 am- 10:00 am	AM	Yes	Dry	Clear	Daylight	No	Hit Bicyclist	None	PDO & Injury	Driver Inattention	None	19001 & 08232	Yes	17
56	Central Avenue	9	8/2/02	2002	August	Friday	6:39	6:00 am-7:00 am	AM	Yes	Dry	Clear	Daylight	No	Hit Fixed Object	Fire Hydrant	PDO	Driver Inattention	None	N/A	N/A	N/A
57	Central Avenue	9	8/23/02	2002	August	Friday	20:06	8:00 pm-9:00 pm	PM	Yes	Dry	Clear	Dark Street Lights On	No	Left turn	None	PDO	Failed to Yield ROW	None	08317 & 08057	Yes	17 & 22
58	Central Avenue	9	5/29/03	2003	May	Thursday	11:54	11:00 am-12:00 noon	AM	Yes	Dry	Clear	Daylight	No	Other	None	PDO	Backing Unsafely	None	19008 & 60563	No	21 & 19
59	Central Avenue	9	6/7/03	2003	June	Saturday	13:21	1:00 pm-2:00 pm	PM	Yes	Wet	Rain	Daylight	No	Left turn	None	PDO	Driver Inattention	None	19008 & 08244	Yes	22 & 37
60	Central Avenue	9	7/21/03	2003	July	Monday	15:22	3:00 pm-4:00 pm	PM	Yes	Dry	Clear	Daylight	No	Right Angle	None	PDO	Failed to Obey TCD	None	08225 & 08302	Yes	19 & 51
61	Central Avenue	9	7/21/03	2003	July	Monday	19:31	7:00 pm-8:00 pm	PM	Yes	Dry	Clear	Daylight	No	Left turn	None	PDO	Failed to Obey TCD	None	08226 & 08226	Yes	17 & 36
62	Central Avenue	9	7/23/03	2003	July	Wednesday	11:47	11:00 am-12:00 noon	AM	Yes	Dry	Clear	Daylight	Yes	Same Direction	None	PDO	Driver Inattention	None	19044 & 18940	No	26 & 43
63	Central Avenue	9	7/31/03	2003	July	Thursday	20:36	8:00 pm-9:00 pm	PM	Yes	Dry	Clear	Dark Street Lights On	No	Left turn	None	PDO	Failed to Yield ROW	None	15701 & 08226	Yes	23 & 68
64	Central Avenue	9	9/30/03	2003	September	Tuesday	15:50	3:00 pm-4:00 pm	PM	Yes	Dry	Clear	Daylight	No	Right turn	None	PDO & Injury	Failed to Yield ROW	None	08234 & 08721	Yes	42 & 36
65</																						

CRASH DATA SUMMARY: Ninth Street, Ocean City-CAPE MAY COUNTY-NJ

Crash #	Location (nearest intersection)	Inter. Ref.	Date	Year	Month	Day of Week	Time	Time Period	AM/PM	Crash Diag.	Surface Condition	Weather	Light Condition	Parking Related	Crash Type	Fixed Object Struck	Severity	Contr. Factor	DUI	Driver(s) Zipcode	CM County Resident Involved	Age of Driver(s)
69	Haven Avenue	6	7/3/02	2002	July	Wednesday	10:44	10:00 am-11:00 am	AM	Yes	Dry	Clear	Daylight	No	Other	None	PDO	Backing Unsafely	None	08215 & 18938	Yes	19 & 58
70	Haven Avenue	6	7/31/02	2002	July	Wednesday	17:00	5:00 pm-6:00 pm	PM	Yes	Dry	Clear	Daylight	No	Right Angle	None	PDO	Failed to Yield ROW	None	54915	No	20
71	Haven Avenue	6	8/17/02	2002	August	Saturday	11:42	11:00 am-12:00 noon	AM	Yes	Dry	Clear	Daylight	Yes	Other	None	PDO	Backing Unsafely	None	27863 & 19355	No	22
72	Haven Avenue	6	9/10/02	2002	September	Tuesday	16:28	4:00 pm-5:00 pm	PM	Yes	Dry	Clear	Daylight	No	Left turn	None	PDO	Failed to Yield ROW	None	08226 & 08270	Yes	65 & 53
73	Haven Avenue	6	7/17/03	2003	July	Thursday	11:44	11:00 am-12:00 noon	AM	Yes	Dry	Clear	Daylight	No	Left turn	None	PDO & Injury	Failed to Yield TCD	None	08234 & 08330	No	37 & 49
74	Ocean Avenue	11	4/11/01	2001	April	Wednesday	11:17	11:00 am-12:00 noon	AM	Yes	Wet	Rain	Daylight	Yes	Hit Pedestrian	None	PDO & Injury	Backing Unsafely	None	08226	Yes	N/A
75	Ocean Avenue	11	5/30/01	2001	May	Wednesday	11:23	11:00 am-12:00 noon	AM	Yes	Dry	Clear	Daylight	No	Hit Bicyclist	None	PDO & Injury	Bicyclist's Actions	None	08226	No	44
76	Ocean Avenue	11	4/10/02	2002	April	Wednesday	10:57	10:00 am-11:00 am	AM	Yes	Dry	Clear	Daylight	Yes	Same Direction	None	PDO	Improper Parking	None	46307 & 08226	Yes	49 & 81
77	Ocean Avenue	11	5/1/02	2002	May	Wednesday	15:30	3:00 pm-4:00 pm	PM	Yes	Dry	Clear	Daylight	No	Right Angle	None	PDO	Driver Inattention	None	08215 & 08226	Yes	80 & 57
78	Ocean Avenue	11	6/8/02	2002	June	Saturday	14:39	2:00 pm-3:00 pm	PM	Yes	Dry	Clear	Daylight	No	Sideswipe	None	PDO	Improper Lane Change	None	08201 & 19055	Yes	32 & 43
79	Ocean Avenue	11	6/18/02	2002	June	Tuesday	13:23	1:00 pm-2:00 pm	PM	Yes	Dry	Clear	Daylight	Yes	Other	None	PDO	Improper Parking	None	08226	Yes	N/A
80	Ocean Avenue	11	8/3/02	2002	August	Friday	21:57	9:00 pm-10:00 pm	PM	Yes	Dry	Clear	Dark Street Lights On	Yes	Same Direction	None	PDO	Driver Inattention	None	08012 & 08360	Yes	17
81	Ocean Avenue	11	10/1/02	2002	October	Tuesday	15:05	3:00 pm-4:00 pm	PM	Yes	Dry	Clear	Daylight	Yes	Sideswipe	None	PDO	Driver Inattention	None	08266	Yes	95
82	Ocean Avenue	11	6/14/03	2003	June	Saturday	13:50	1:00 pm-2:00 pm	PM	Yes	Dry	Clear	Daylight	No	Sideswipe	None	PDO	Driver Inattention	None	08055 & 17584	Yes	18 & 66
83	Ocean Avenue	11	6/29/03	2003	June	Saturday	17:14	5:00 pm-6:00 pm	PM	Yes	Dry	Clear	Daylight	No	Same Direction	None	PDO	Driver Inattention	None	08225, 17022 & 08221	Yes	17, 54 & 39
84	Ocean Avenue	11	7/9/03	2003	July	Wednesday	12:00	12:00 noon-1:00 pm	PM	Yes	Dry	Clear	Daylight	No	Same Direction	None	PDO	Improper Lane Change	None	08037 & 08224	Yes	18 & 27
85	Ocean Avenue	11	7/23/03	2003	July	Wednesday	13:41	1:00 pm-2:00 pm	PM	Yes	Dry	Rain	Daylight	Yes	Other	None	PDO	Backing Unsafely	None	19116 & 08205	Yes	69
86	Ocean Avenue	11	8/27/03	2003	August	Wednesday	11:52	11:00 am-12:00 noon	AM	Yes	Dry	Clear	Daylight	No	Sideswipe	None	PDO	Improper Lane Change	None	18944 & 08037	Yes	36 & 28
87	Ocean Avenue	11	11/5/03	2003	November	Wednesday	7:20	7:00 am-8:00 am	AM	Yes	Wet	Fog	Daylight	No	Same Direction	None	PDO	Other	None	08081 & 08226	Yes	38 & 85
88	Ocean Avenue	11	11/12/03	2003	November	Wednesday	14:51	2:00 pm-3:00 pm	PM	Yes	Dry	Clear	Daylight	Yes	Sideswipe	None	PDO	Driver Inattention	None	08226	Yes	62 & 20
89	Ocean Avenue	11	12/22/03	2003	December	Monday	8:41	8:00 am-9:00 am	AM	Yes	Dry	Clear	Daylight	Yes	Right turn	None	PDO	Driver Inattention	None	08226	Yes	72 & 61
90	Palen Avenue	1	7/5/02	2002	July	Friday	15:12	3:00 pm-4:00 pm	PM	Yes	Dry	Clear	Daylight	No	Hit Fixed Object	Utility Pole	PDO & Injury	Driver Inattention	None	08226	Yes	27
91	Pleasure Avenue	2	7/12/02	2002	July	Friday	14:18	2:00 pm-3:00 pm	PM	Yes	Dry	Clear	Daylight	No	Same Direction	None	PDO	Driver Inattention	None	08034 & 07043	Yes	37 & 49
92	Pleasure Avenue	2	12/14/02	2002	December	Saturday	15:58	3:00 pm-4:00 pm	PM	Yes	Dry	Clear	Daylight	No	Same Direction	None	PDO	Driver Inattention	None	08332 & 08226	Yes	22 & 25
93	Pleasure Avenue	2	11/7/03	2003	November	Friday	10:29	10:00 am-11:00 am	AM	Yes	Dry	Clear	Daylight	Yes	Other	None	PDO	Backing Unsafely	None	15902	No	31
94	Simpson Avenue	4	4/27/02	2002	April	Saturday	20:35	8:00 pm-9:00 pm	PM	Yes	Dry	Clear	Dark Street Lights On	No	Same Direction	None	PDO	Other	Yes	08226 & 18508	Yes	53 & 22
95	Simpson Avenue	4	7/14/02	2002	July	Sunday	10:54	10:00 am-11:00 am	AM	Yes	Dry	Clear	Daylight	Yes	Other	None	PDO	Backing Unsafely	None	08226 & 10732	Yes	24 & 69
96	Simpson Avenue	4	4/25/03	2003	April	Friday	18:37	6:00 pm-7:00 pm	PM	Yes	Dry	Clear	Daylight	No	Other	None	PDO	Driver Inattention	None	08225 & 08226	Yes	36 & 30
97	Simpson Avenue	4	7/27/03	2003	July	Sunday	21:07	9:00 pm-10:00 pm	PM	Yes	Dry	Clear	Dark Street Lights On	No	Same Direction	None	PDO	Driver Inattention	None	08260 & 07003	Yes	33 & 22
98	Simpson Avenue	4	1/30/04	2004	January	Friday	12:26	12:00 noon-1:00 pm	PM	Yes	Dry	Clear	Daylight	No	Sideswipe	None	PDO	Improper Lane Change	None	08226 & 90245	Yes	46 & 42
99	Wesley Avenue	10	8/12/01	2001	August	Sunday	11:58	11:00 am-12:00 noon	AM	Yes	Dry	Clear	Daylight	No	Hit Bicyclist	None	PDO	Driver Inattention	None	19083 & 08226	Yes	44 & 8
100	Wesley Avenue	10	5/31/02	2002	May	Friday	14:40	2:00 pm-3:00 pm	PM	Yes	Dry	Clear	Daylight	No	Hit Pedestrian	None	PDO & Injury	Failed to Yield ROW	None	08230	Yes	18
101	Wesley Avenue	10	7/9/02	2002	July	Tuesday	13:25	1:00 pm-2:00 pm	PM	Yes	Dry	Clear	Daylight	No	Sideswipe	None	PDO	Improper Lane Change	None	08054 & 08226	Yes	43 & 63
102	Wesley Avenue	10	7/19/02	2002	July	Friday	8:36	8:00 am-9:00 am	AM	Yes	Dry	Clear	Daylight	No	Right turn	None	PDO	Improper Lane Change	None	08226 & 19446	Yes	40 & 17
103	Wesley Avenue	10	10/28/02	2002	October	Monday	9:43	9:00 am- 10:00 am	AM	Yes	Wet	Rain	Daylight	No	Hit Fixed Object	Street Light	PDO	Driver Inattention	None	N/A	N/A	N/A
104	Wesley Avenue	10	11/4/02	2002	November	Monday	12:44	12:00 noon-1:00 pm	PM	Yes	Dry	Clear	Daylight	No	Right turn	None	PDO	Improper Lane Change	None	08005 & 08260	Yes	57 & 60
105	Wesley Avenue	10	1/31/03	2003	January	Friday	14:46	2:00 pm-3:00 pm	PM	Yes	Wet	Clear	Daylight	No	Sideswipe	None	PDO	Improper Lane Change	None	19505 & 08270	Yes	31 & 17
106	Wesley Avenue	10	5/12/03	2003	May	Monday	16:07	4:00 pm-5:00 pm	PM	Yes	Dry	Clear	Daylight	No	Left turn	None	PDO	Driver Inattention	None	08226	Yes	22 & 19
107	Wesley Avenue	10	8/27/03	2003	August	Wednesday	15:33	3:00 pm-4:00 pm	PM	Yes	Dry	Clear	Daylight	No	Hit Pedestrian	None	PDO & Injury	Failed to Yield ROW	None	08226	Yes	18
108	Wesley Avenue	10	9/28/03	2003	September	Sunday	14:39	2:00 pm-3:00 pm	PM	Yes	Dry	Clear	Daylight	No	Left turn	None	PDO	Failed to Yield ROW	None	07203 & 19126	No	63 & 55
109	Wesley Avenue	10	12/13/03	2003	December	Saturday	15:31	3:00 pm-4:00 pm	PM	Yes	Dry	Clear	Daylight	No	Right turn	None	PDO	Improper Turning	None	37027 & 08244	Yes	65 & 55
110	Wesley Avenue	10	2/5/04	2004	February	Thursday	14:31	2:00 pm-3:00 pm	PM	Yes	Dry	Clear	Daylight	No	Right Angle	None	PDO	Vehicle Defect	None	08226 & 08205	Yes	50 & 57
111	West Avenue	7	2/1/02	2002	February	Friday	17:51	5:00 pm-6:00 pm	PM	Yes	Wet	Clear	Dark Street Lights On	No	Hit Bicyclist	None	PDO	Failure to Keep Right	None	08226 & 08081	Yes	30 & 41
112	West Avenue	7	4/3/02	2002	April	Wednesday	13:41	1:00 pm-2:00 pm	PM	Yes	Dry	Clear	Daylight	No	Other	None	PDO	Backing Unsafely	None	08226 & 08223	Yes	75 & 44
113	West Avenue	7	4/5/02	2002	April	Friday	7:45	7:00 am-8:00 am	AM	Yes	Dry	Clear	Daylight	Yes	Same Direction	None	PDO	Improper Turning	None	08226 & 08232	Yes	24 & 39
114	West Avenue	7	4/9/02	2002	April	Tuesday	18:53	6:00 pm-7:00 pm	PM	Yes	Wet	Rain	Daylight	No	Sideswipe	None	PDO	Improper Lane Change	None	08210 & 08226	Yes	40 & 22
115	West Avenue	7	5/13/02	2002	May	Monday	9:57	9:00 am- 10:00 am	AM	Yes	Dry	Clear	Daylight	No	Other	None	PDO	Other	None	19091 & 08201	Yes	76 & 46
116	West Avenue	7	5/31/02	2002	May	Friday	15:47	3:00 pm-4:00 pm	PM	Yes	Dry	Clear	Daylight	No	Hit Bicyclist	None	PDO & Injury	Failed to Yield ROW	None	08234 & 08226	Yes	17
117	West Avenue	7	6/5/02	2002	June	Wednesday	6:07	6:00 am-7:00 am	AM	Yes	Dry	Clear	Dawn or Dusk	No	Right Angle	None	PDO & Injury	Other	None	08226 & 08087	Yes	44 & 38
118	West Avenue	7	6/10/02	2002	June	Monday	16:31	4:00 pm-5:00 pm	PM	Yes	Dry	Clear	Daylight	No	Same Direction	None	PDO	Other	None	08226 & 18966	Yes	21 & 45
119	West Avenue	7	7/9/02	2002	July	Tuesday	20:49	8:00 pm-9:00 pm	PM	Yes	Dry	Clear	Dark Street Lights On	No	Other	None	PDO	Failed to Obey TCD	None	19115 & 08080	No	18 & 44
120	West Avenue	7	7/19/02	2002	July	Friday	10:28	10:00 am-11:00 am	AM	Yes	Dry	Clear	Daylight	No	Same Direction	None	PDO	Driver Inattention	None	19446 & 08080	No	41 & 28
121	West Avenue	7	8/1/02	2002	August	Thursday	14:11	2:00 pm-3:00 pm	PM	Yes	Dry	Clear	Daylight	No	Hit Bicyclist	None	PDO	Bicyclist's Actions	None	08226	Yes	42
122	West Avenue	7	8/28/02	2002	August	Wednesday	11:31	11:00 am-12:00 noon	AM	Yes	Dry	Clear	Daylight	No	Left turn	None	PDO	Backing Unsafely	None	08244 & 19087	Yes	45 & 18
123	West Avenue	7	8/31/02	2002	August	Saturday	10:35	10:00 am-11:00 am	AM	Yes	Dry	Clear	Daylight	No	Left turn	None	PDO & Injury	Other	None	08003 & 18964	No	50 & 50
124	West Avenue	7	10/12/02	2002	October	Saturday	16:30	4:00 pm-5:00 pm	PM	Yes	Wet	Rain	Daylight	No	Other	None	PDO	Improper Turning	None	08234 & 08230	Yes	19 & 36
125	West Avenue	7	11/5/02	2002	November	Tuesday	0:10	12:00 midnight-1:00 am	AM	Yes	Dry	Clear	Dark Street Lights On	No	Right Angle	None	PDO & Injury	Failed to Obey TCD	None	08244	Yes	18 & 22
126	West Avenue	7	12/12/02	2002	December	Thursday	15:32	3:00 pm-4:00 pm	PM	Yes	Dry	Clear	Daylight	No	Left turn	None	PDO	Failed to Yield ROW	None	08215 & 08226	Yes	63 & 76
127	West Avenue	7	8/9/03	2003	August	Saturday	11:50	11:00 am-12:00 noon	AM	Yes	Dry	Clear	Daylight	No	Right Angle	None	PDO	Failed to Yield ROW	None	19380 & 19083	No	54 & 17
128	West Avenue	7	6/20/02	2002	June	Thursday	23:12	11:00 pm-12:00 midnight	PM	Yes	Dry	Clear	Dark Street Lights Off	No	Same Direction	None	PDO	Driver Inattention	None	08360 & 08702	Yes	21 & 38

2-Year Trend

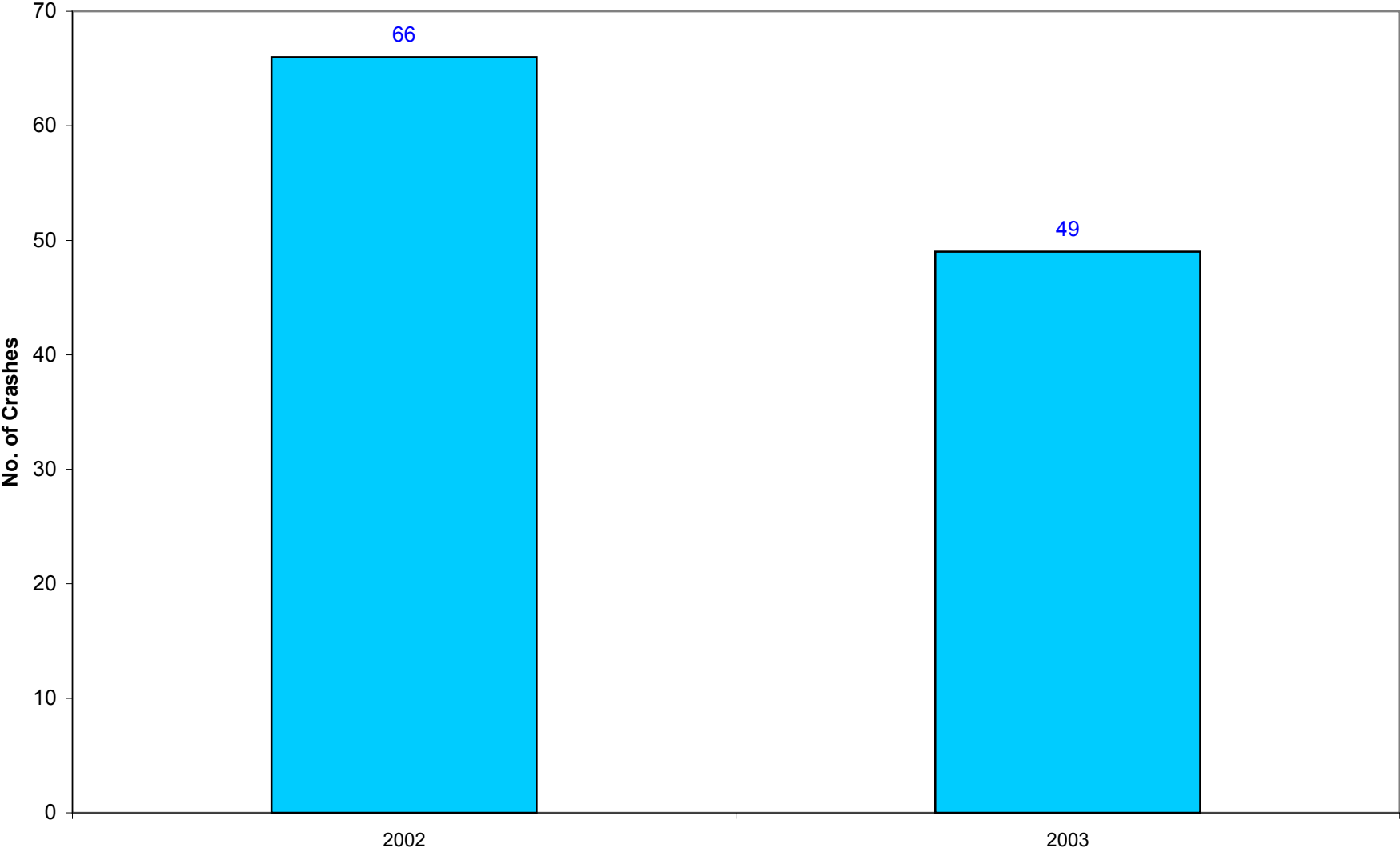


Chart 1

Crash Occurrence By Month

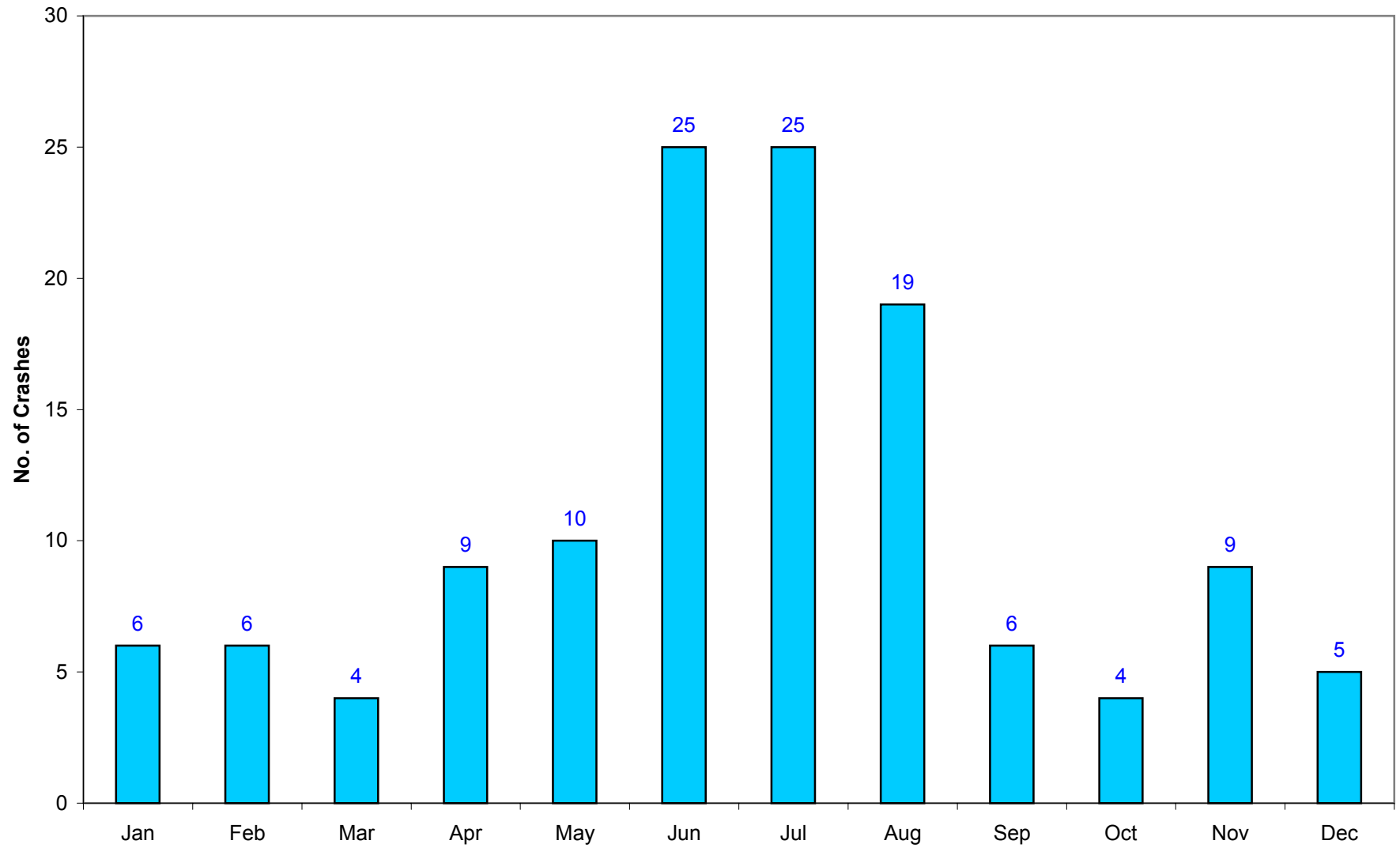


Chart 2

Crash Occurrence By Day of Week

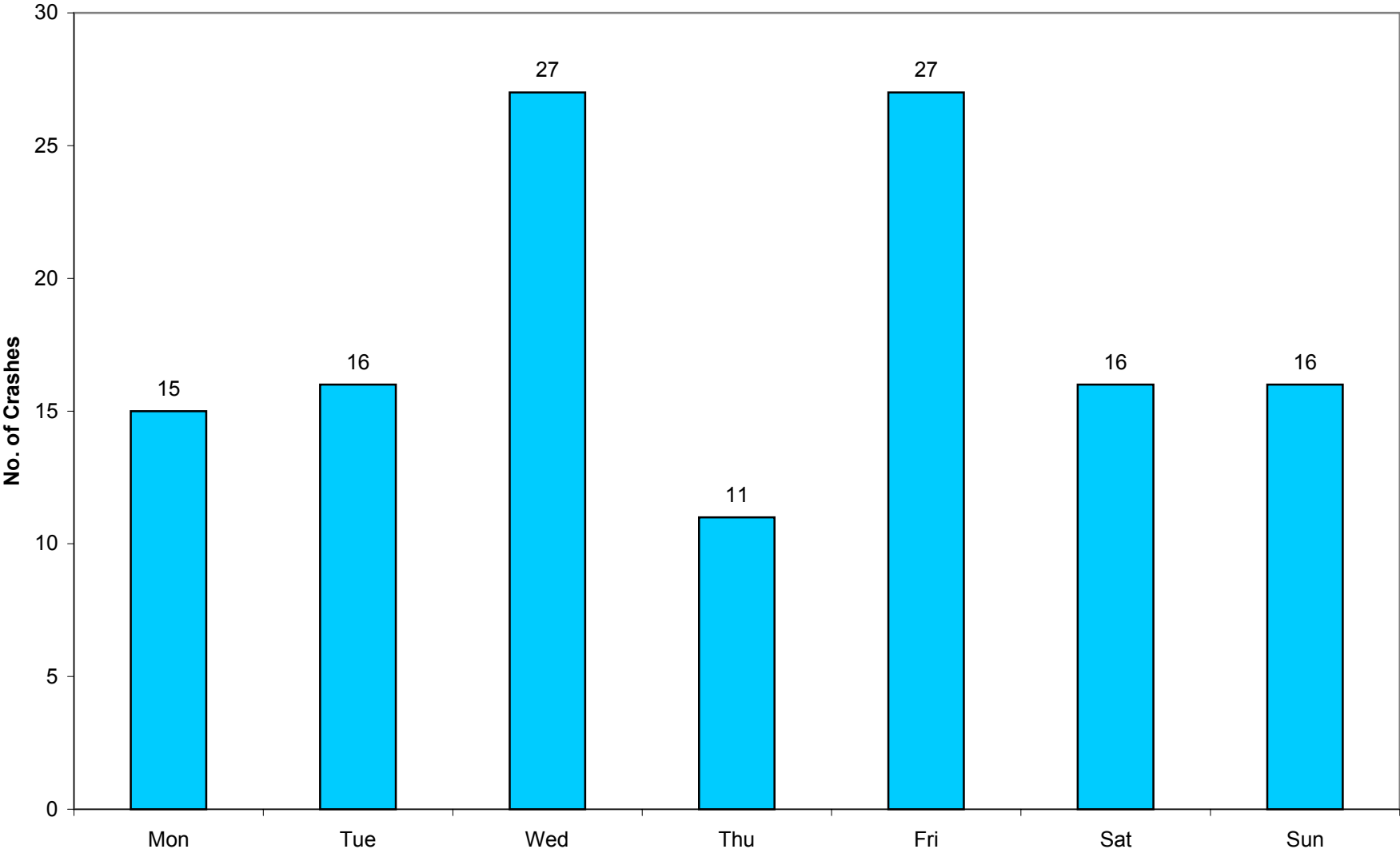


Chart 3

Crash Occurrence By Time of Day

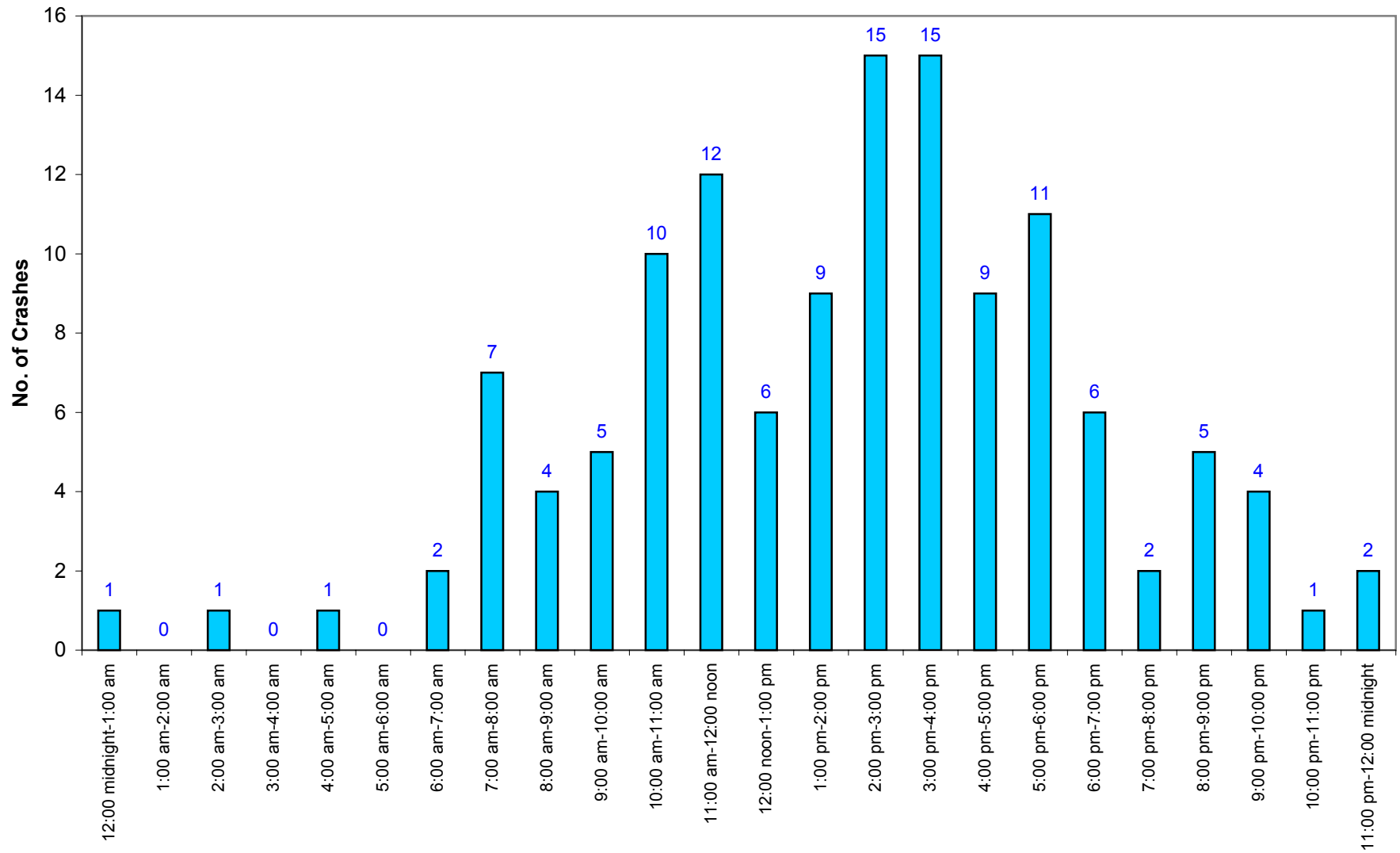


Chart 4

Crash Occurrence By Surface Conditions

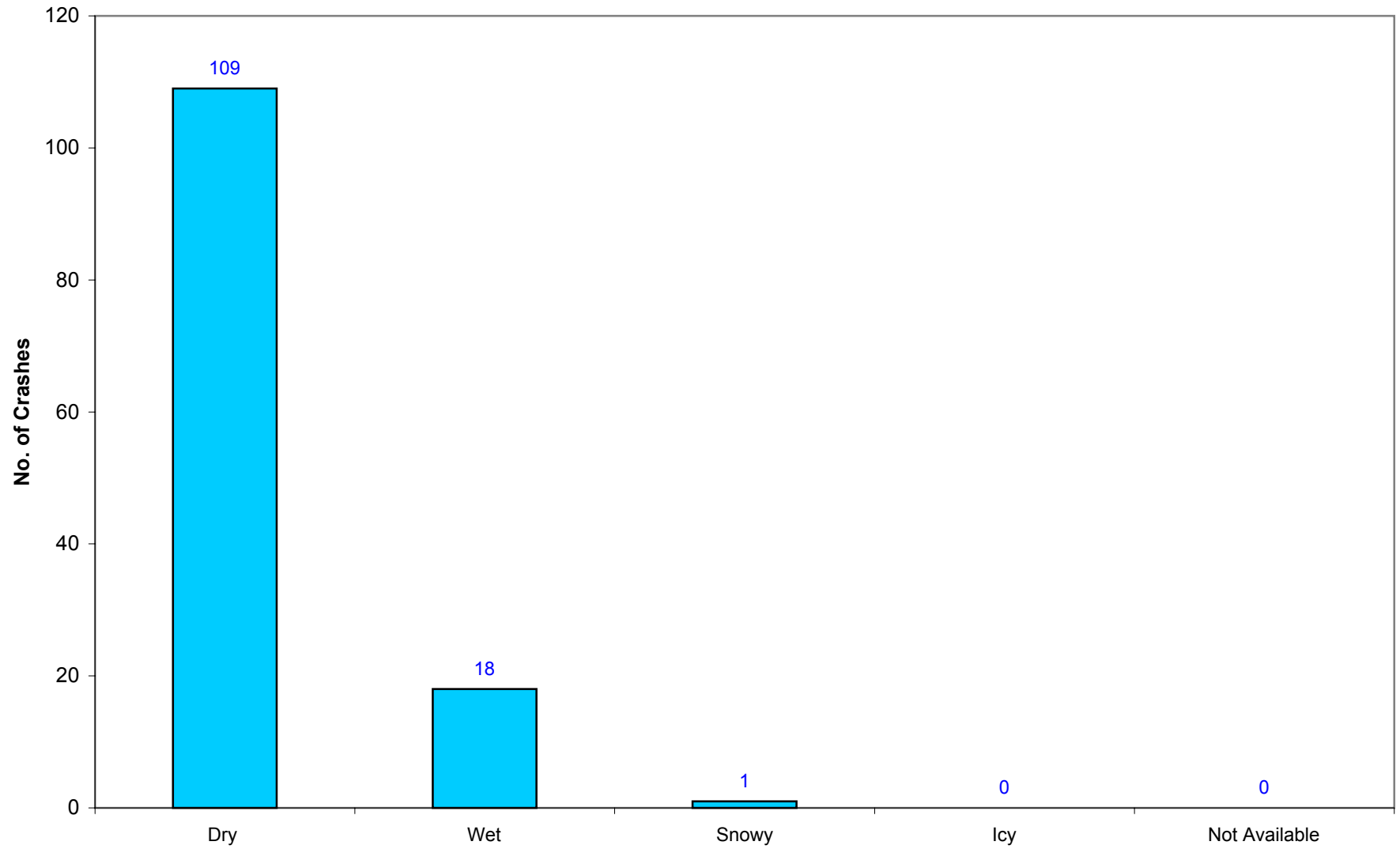


Chart 5

Crash Occurrence By Weather Condition

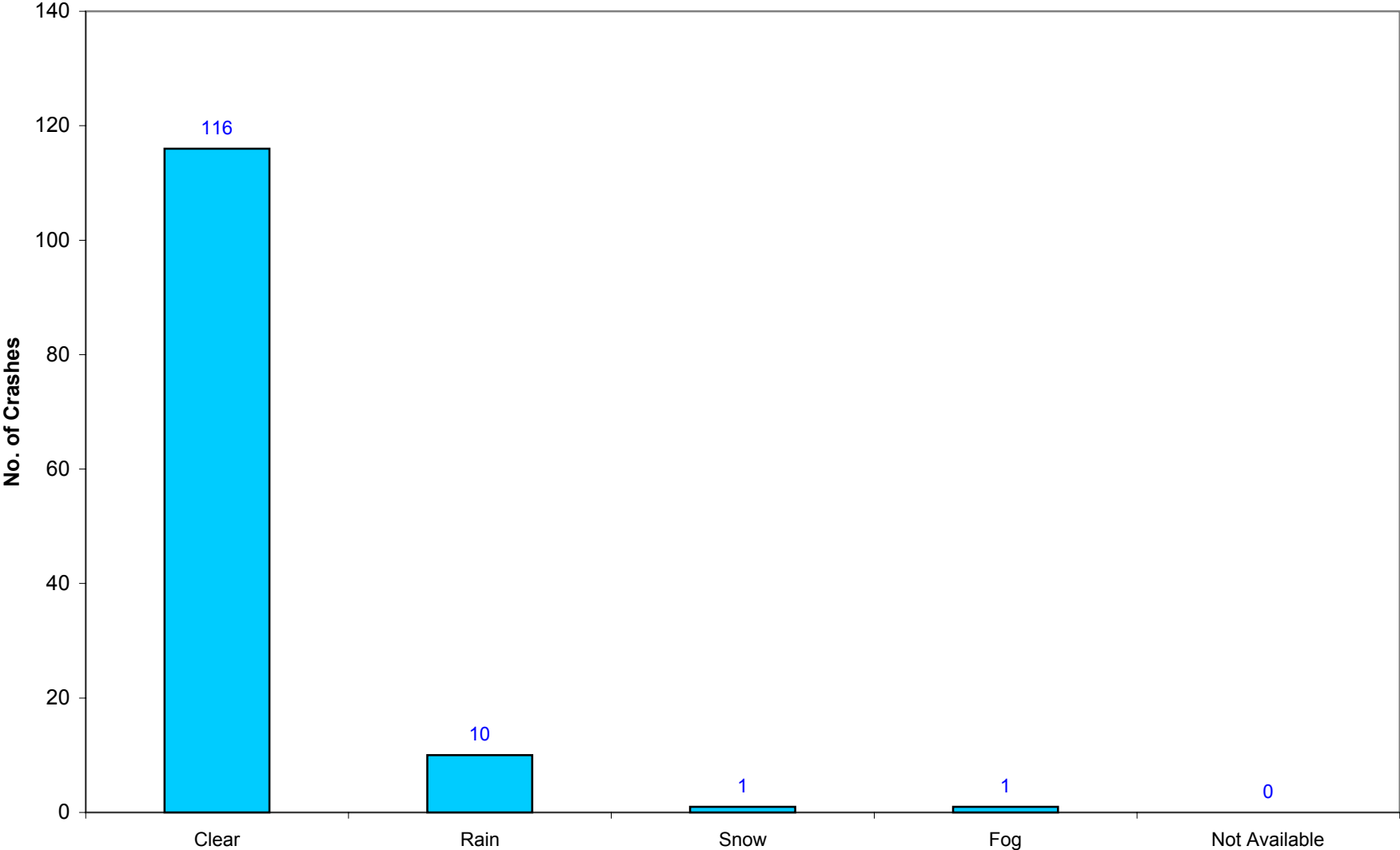


Chart 6

Crash Occurrence By Light Condition

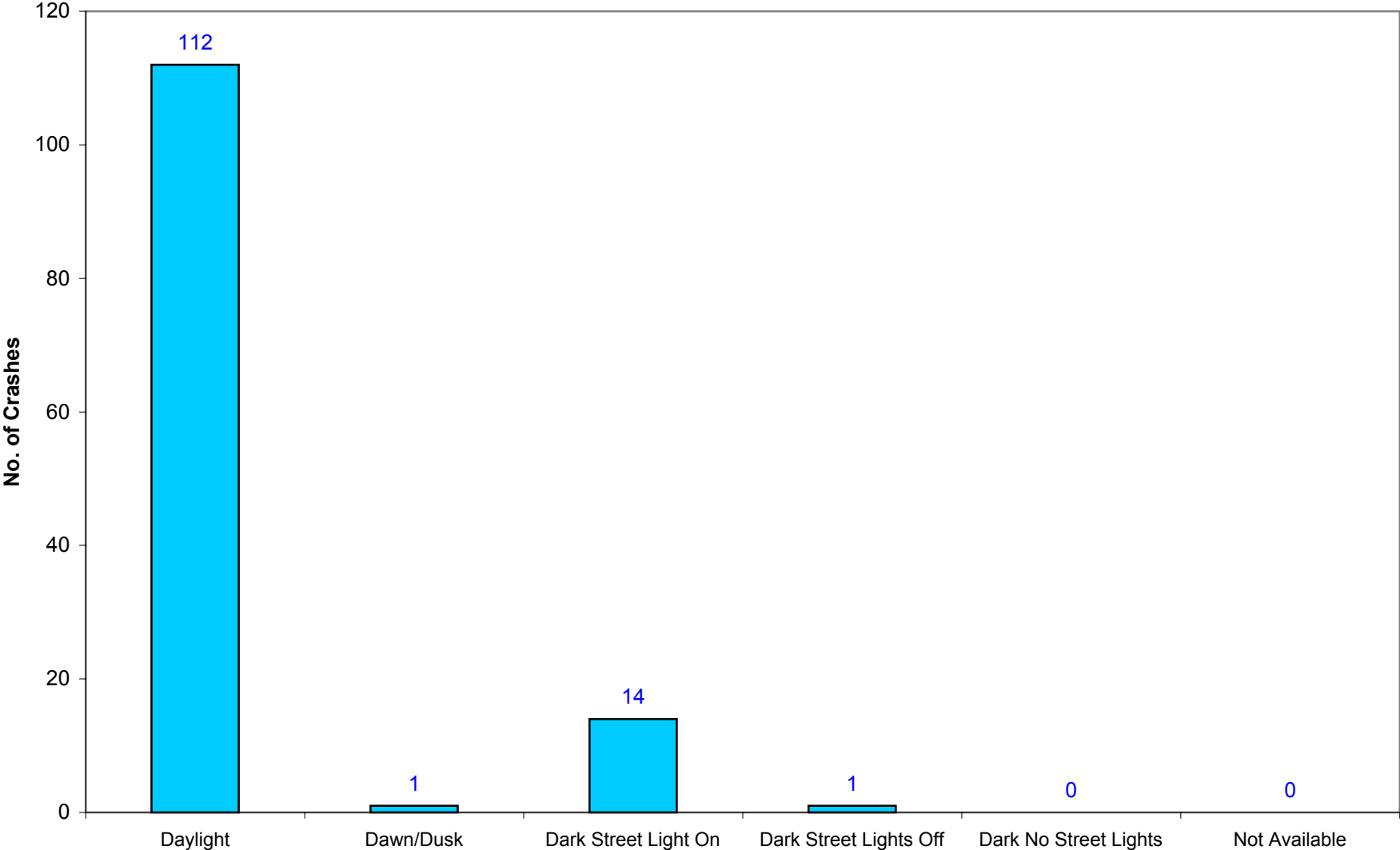


Chart 7

Parking Related

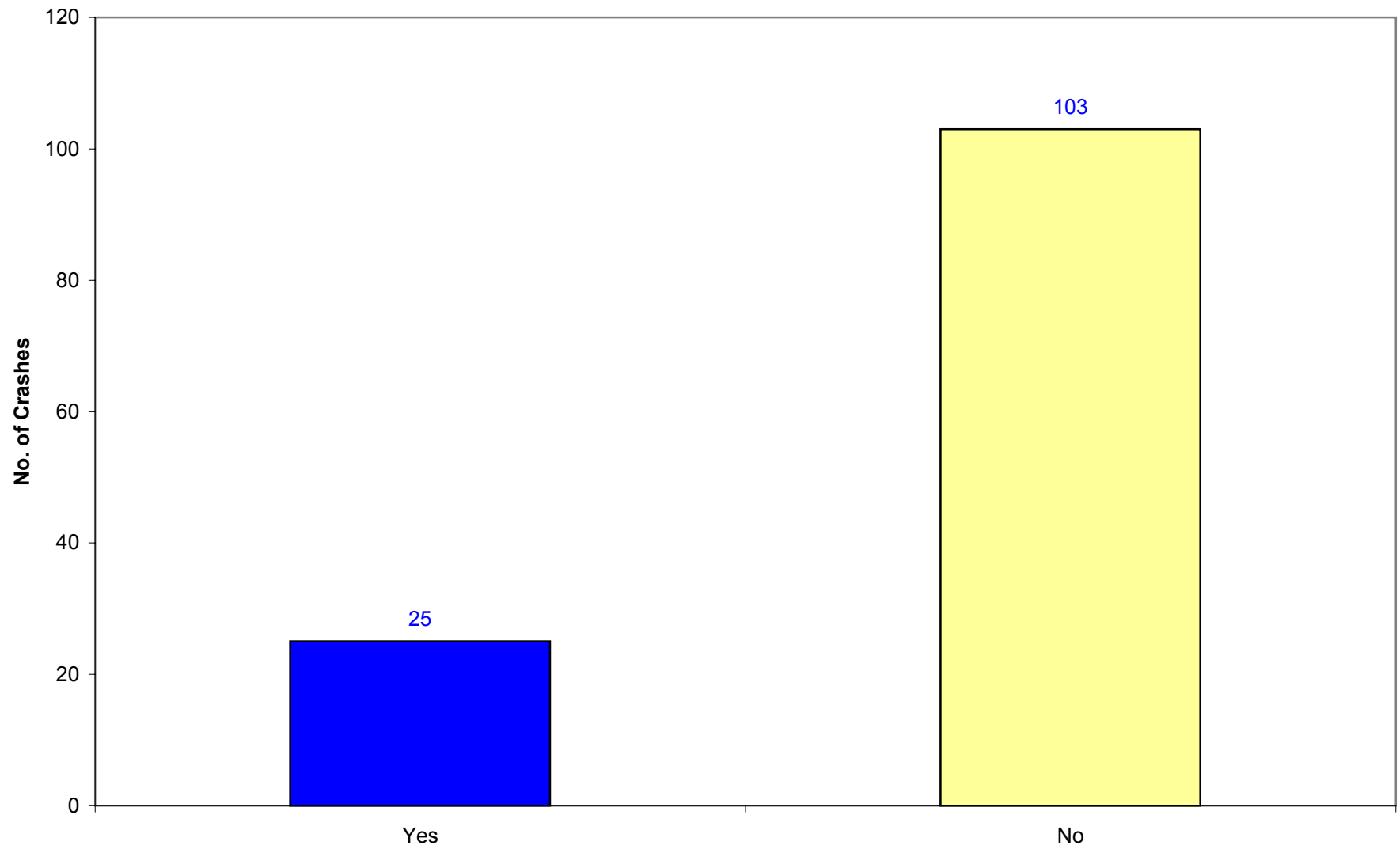


Chart 8 (a)

Parking Related

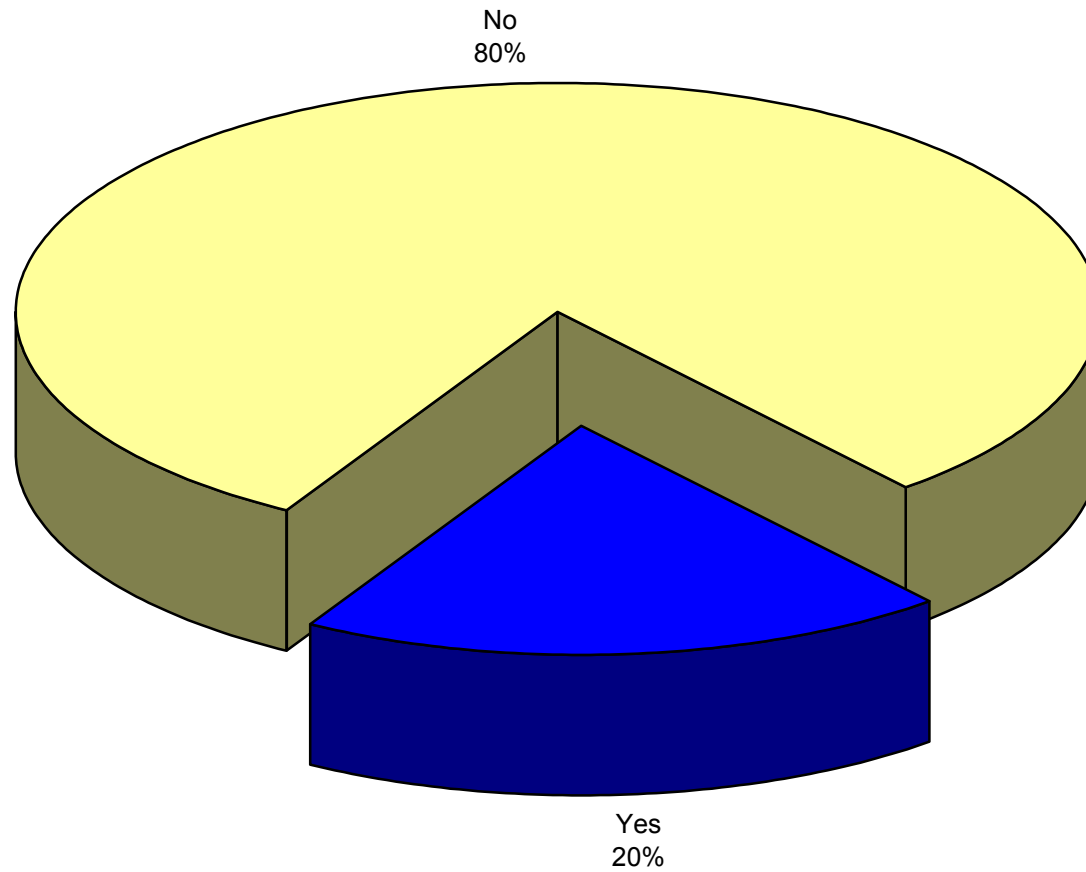


Chart 8(b)

Crash Type

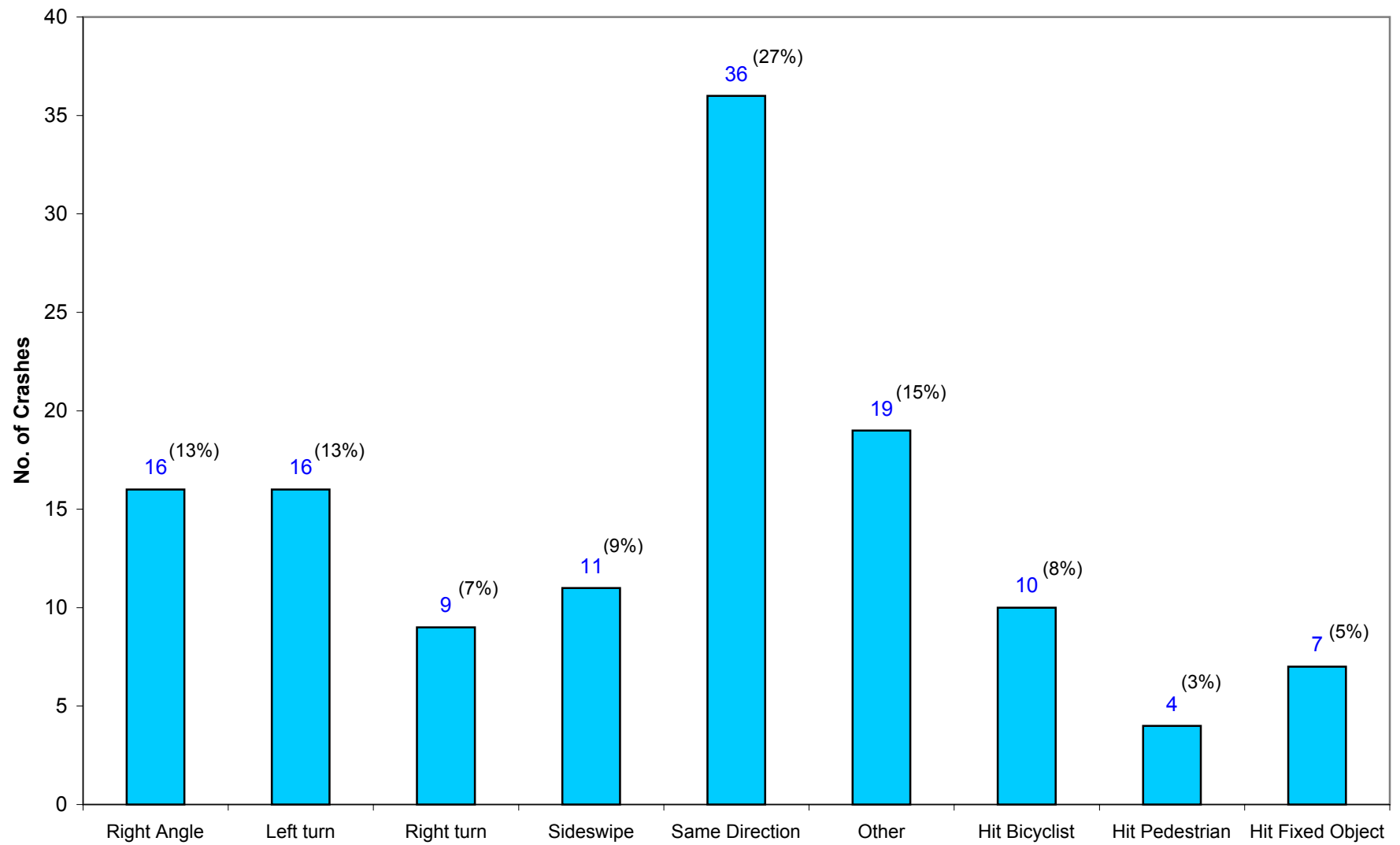


Chart 9(a)

Crash Type

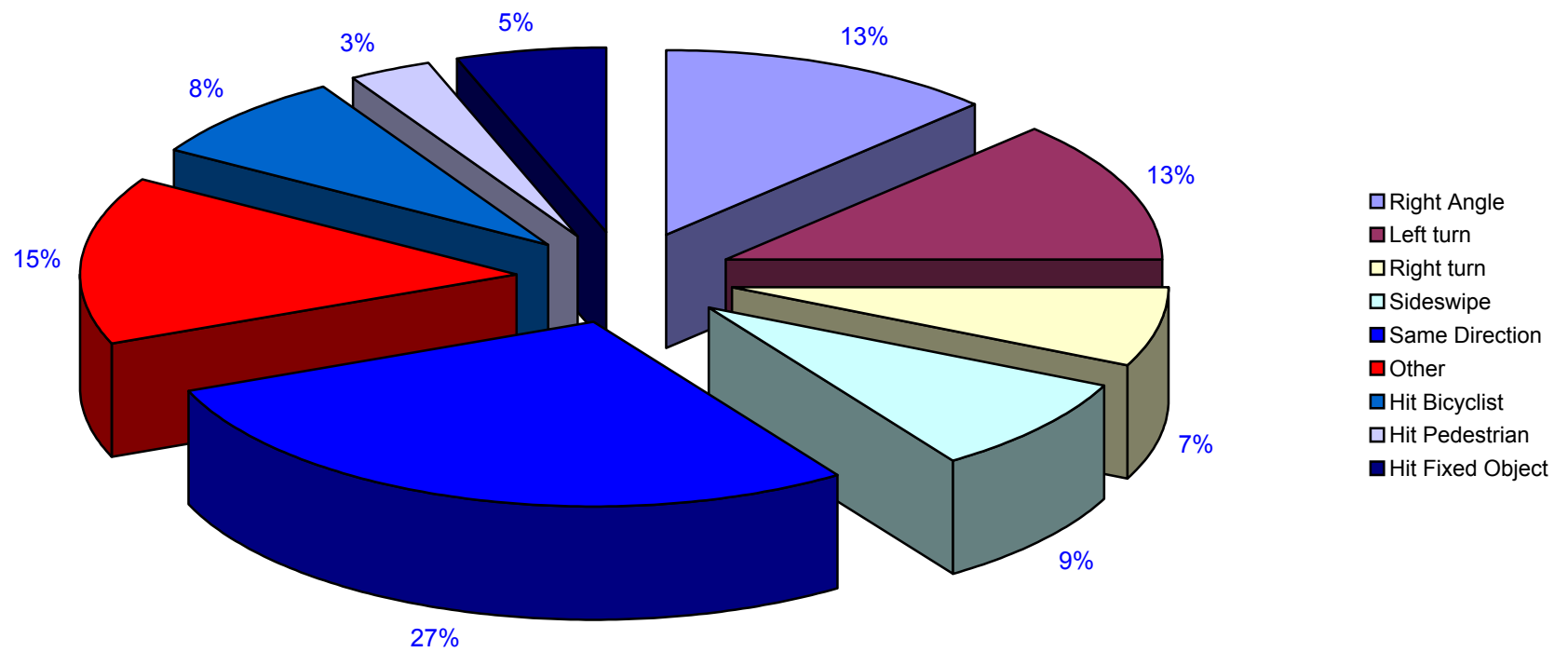


Chart 9(b)

Crash Severity

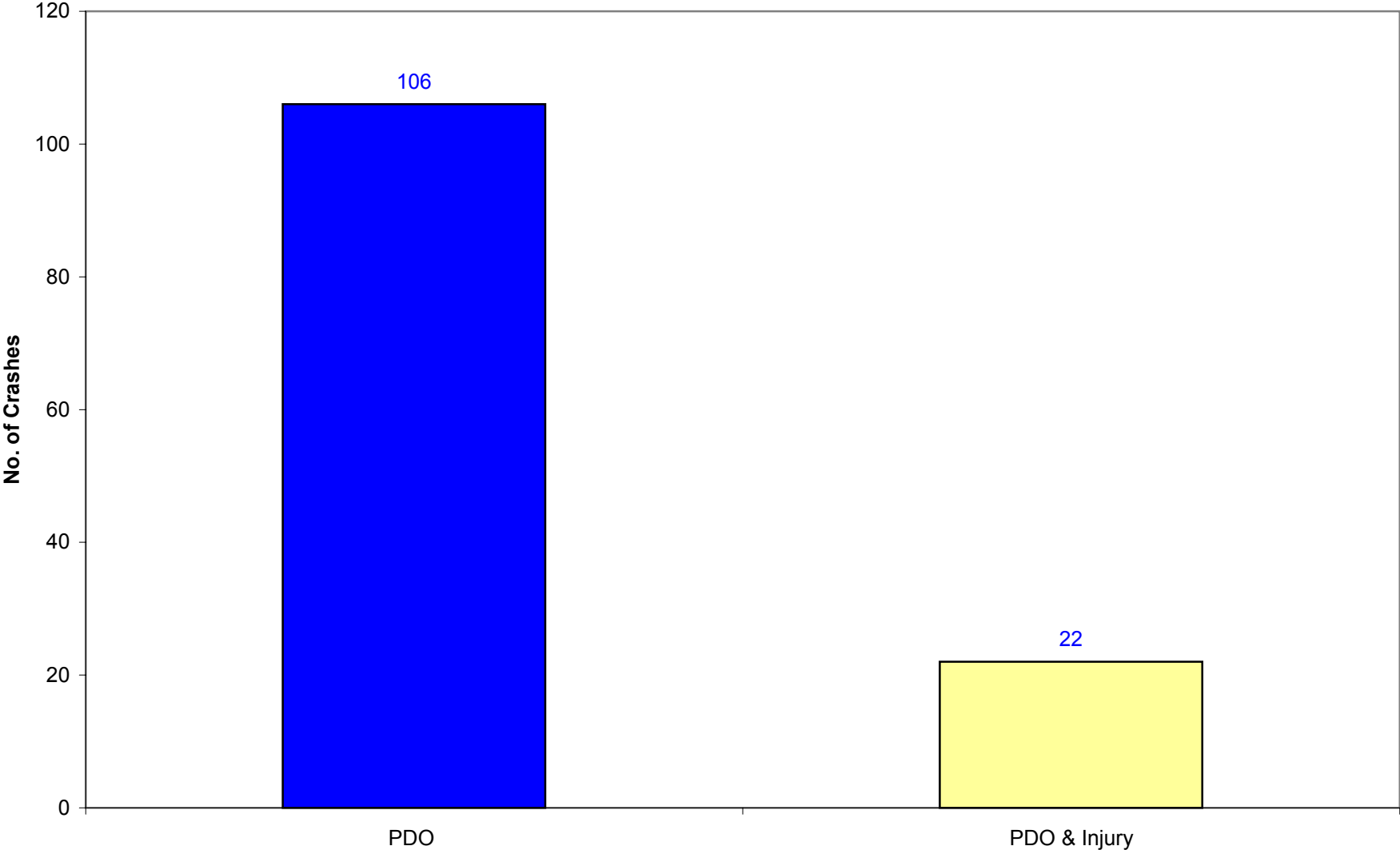


Chart 10(a)

Crash Severity

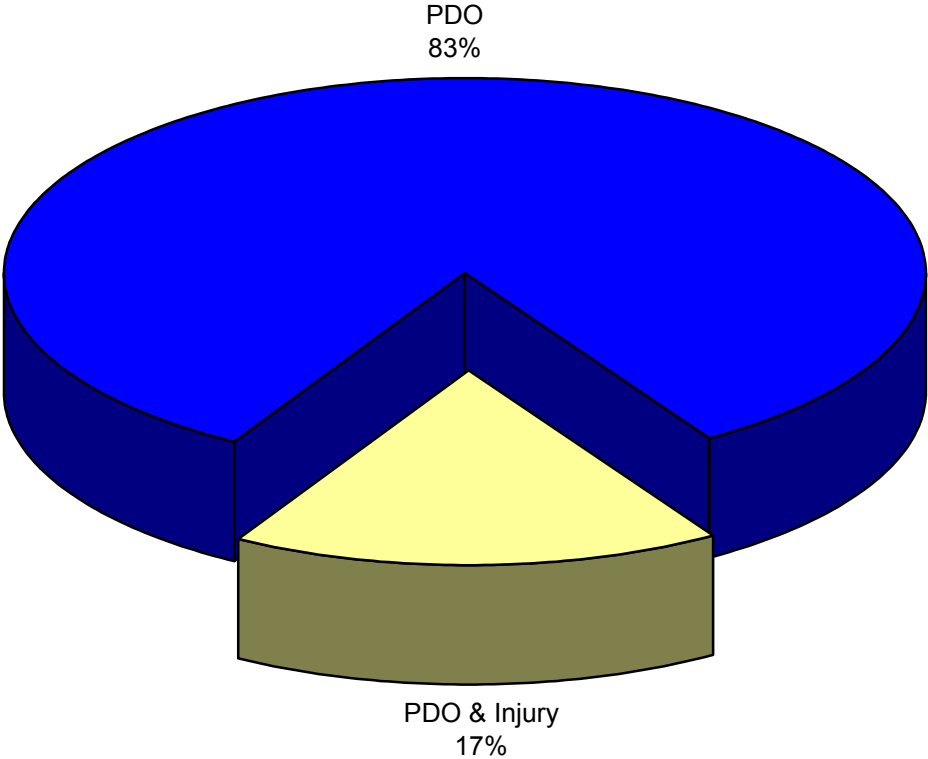


Chart 10(b)

DUI Related

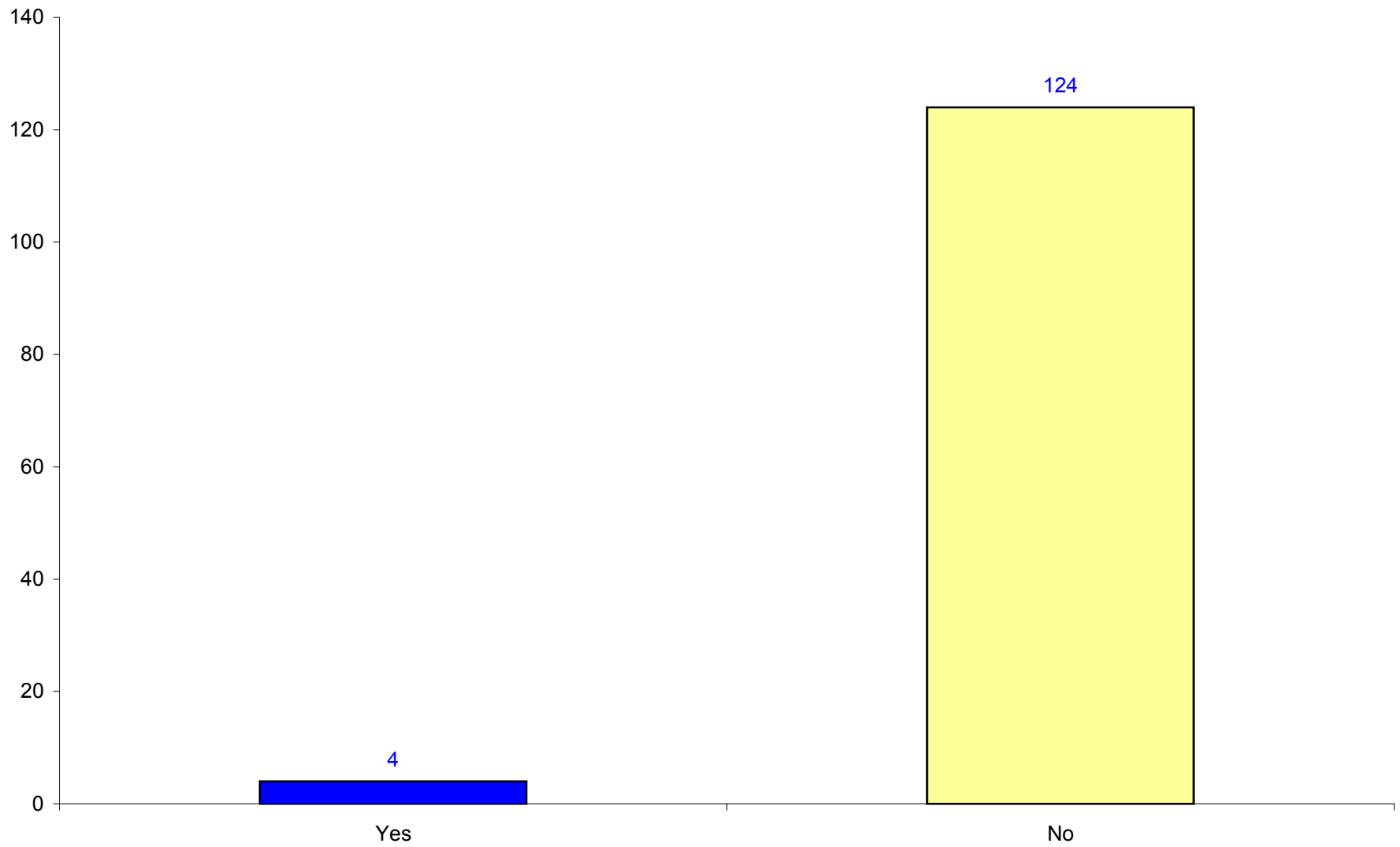


Chart 11(a)

DUI Related

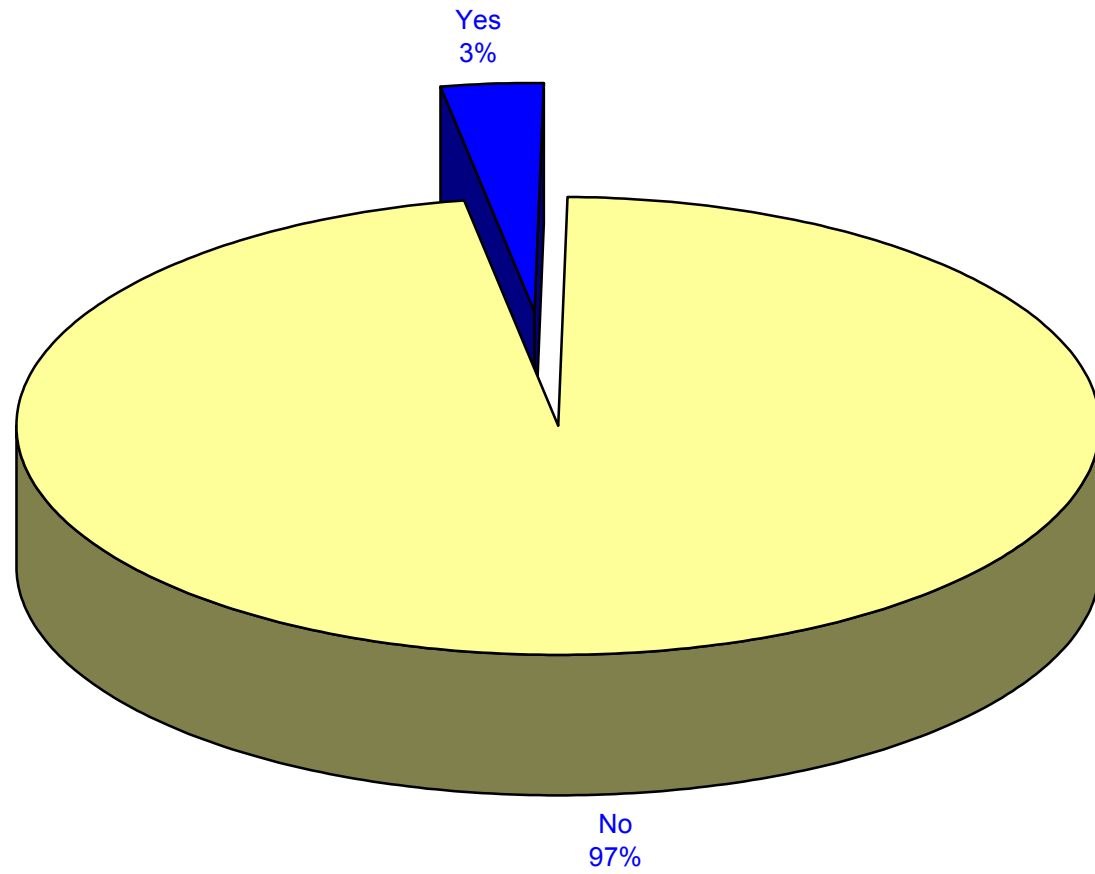


Chart 11(b)

Spot Location of Crashes (Proximity to Nearest Intersection)

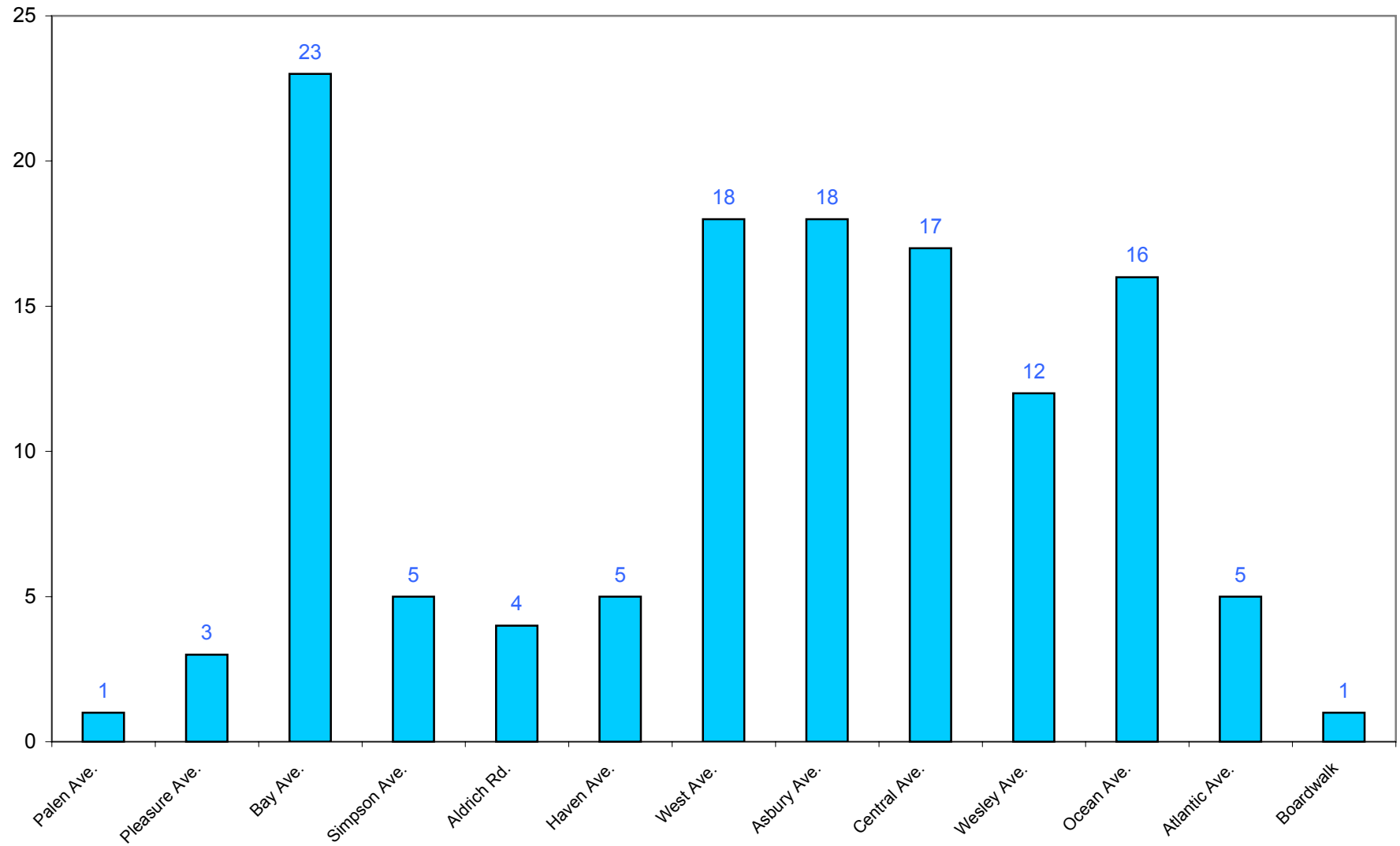
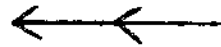


Chart 12

SJTPO ROAD SAFETY AUDITS, CAPE MAY COUNTY-NJ

KEY TO COLLISION DIAGRAM SYMBOLS (NOT TO SCALE)



Same Direction



Right Angle



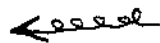
Sideswipe, Same Direction



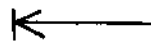
Sideswipe, Opposite Direction



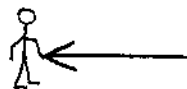
Backing



Lost Control



Parked/Parking Vehicle



Hit Pedestrian



Hit Bicyclist



Hit Utility Pole



Hit Fixed Other Object



Hit Fire Hydrant

SJTPO ROAD SAFETY AUDITS, CAPE MAY COUNTY-NJ

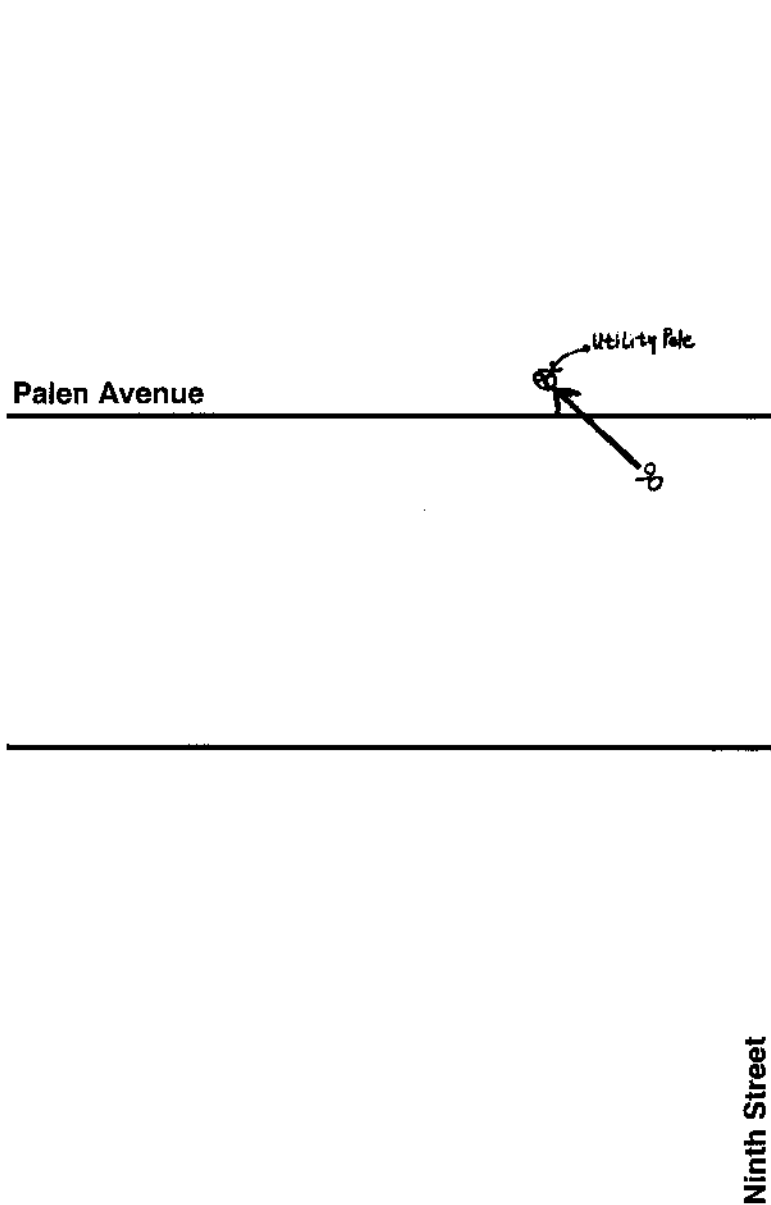
INTERSECTION LOCATION: Palen Avenue

MUNICIPALITY: Ocean City

DATE:



COLLISION DIAGRAM (NOT TO SCALE)



SJTPO ROAD SAFETY AUDITS, CAPE MAY COUNTY-NJ

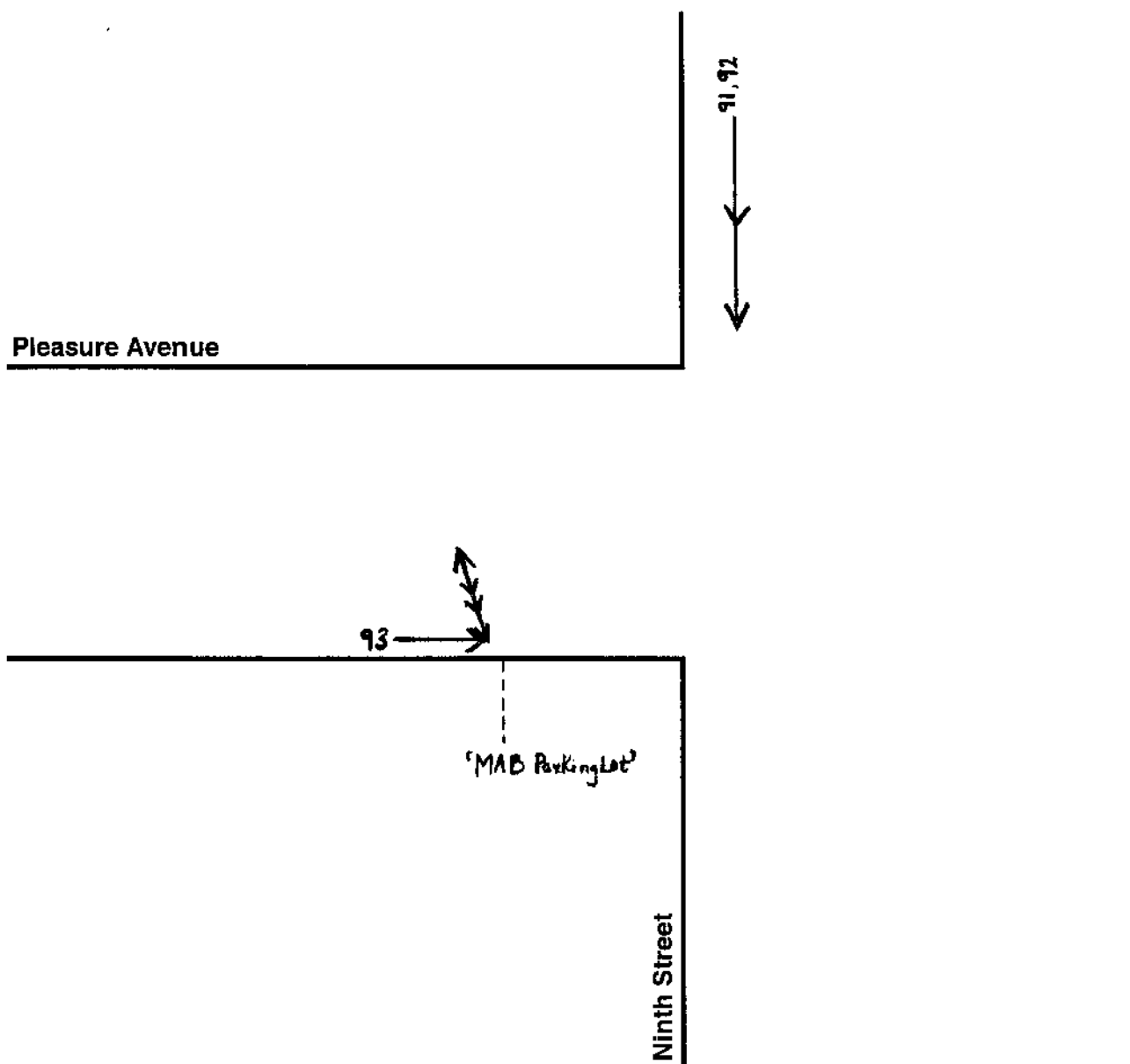
INTERSECTION LOCATION: Pleasure Avenue

MUNICIPALITY: Ocean City

DATE:



COLLISION DIAGRAM (NOT TO SCALE)



SJTPO ROAD SAFETY AUDITS, CAPE MAY COUNTY-NJ

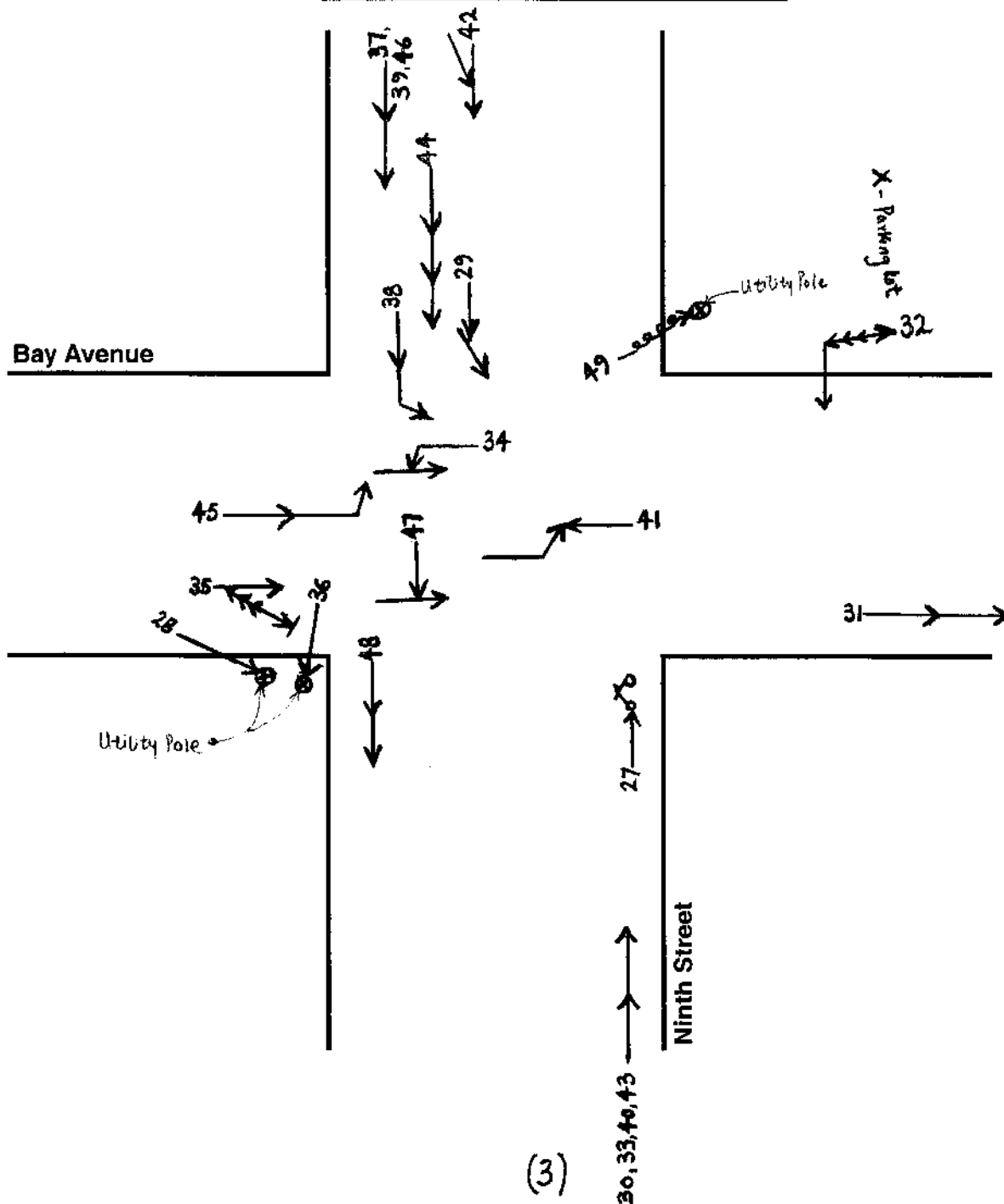
INTERSECTION LOCATION: Bay Avenue

MUNICIPALITY: Ocean City

DATE:



COLLISION DIAGRAM (NOT TO SCALE)



SJTPO ROAD SAFETY AUDITS, CAPE MAY COUNTY-NJ

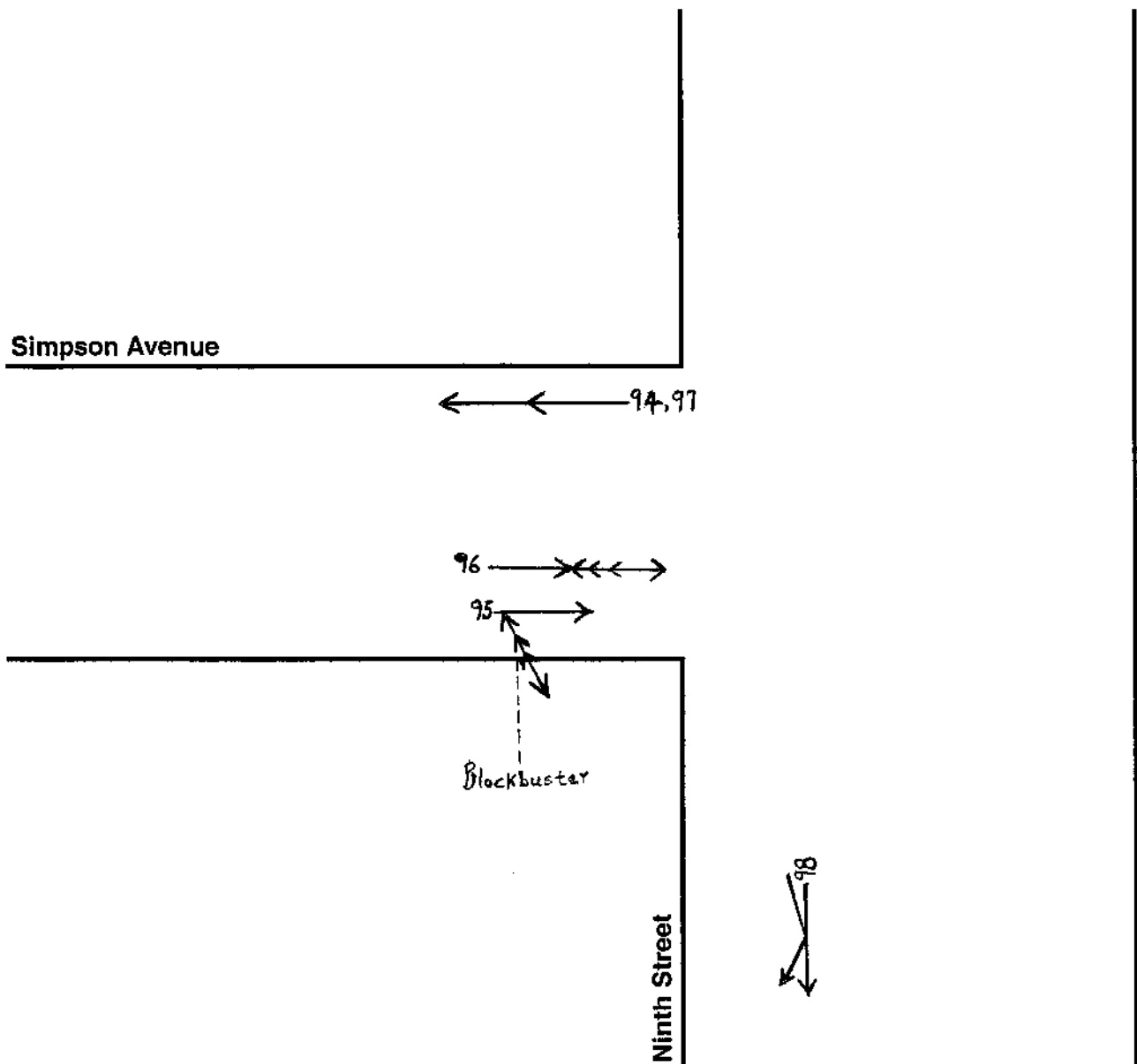
INTERSECTION LOCATION: Simpson Avenue

MUNICIPALITY: Ocean City

DATE:



COLLISION DIAGRAM (NOT TO SCALE)



SJTPO ROAD SAFETY AUDITS, CAPE MAY COUNTY-NJ

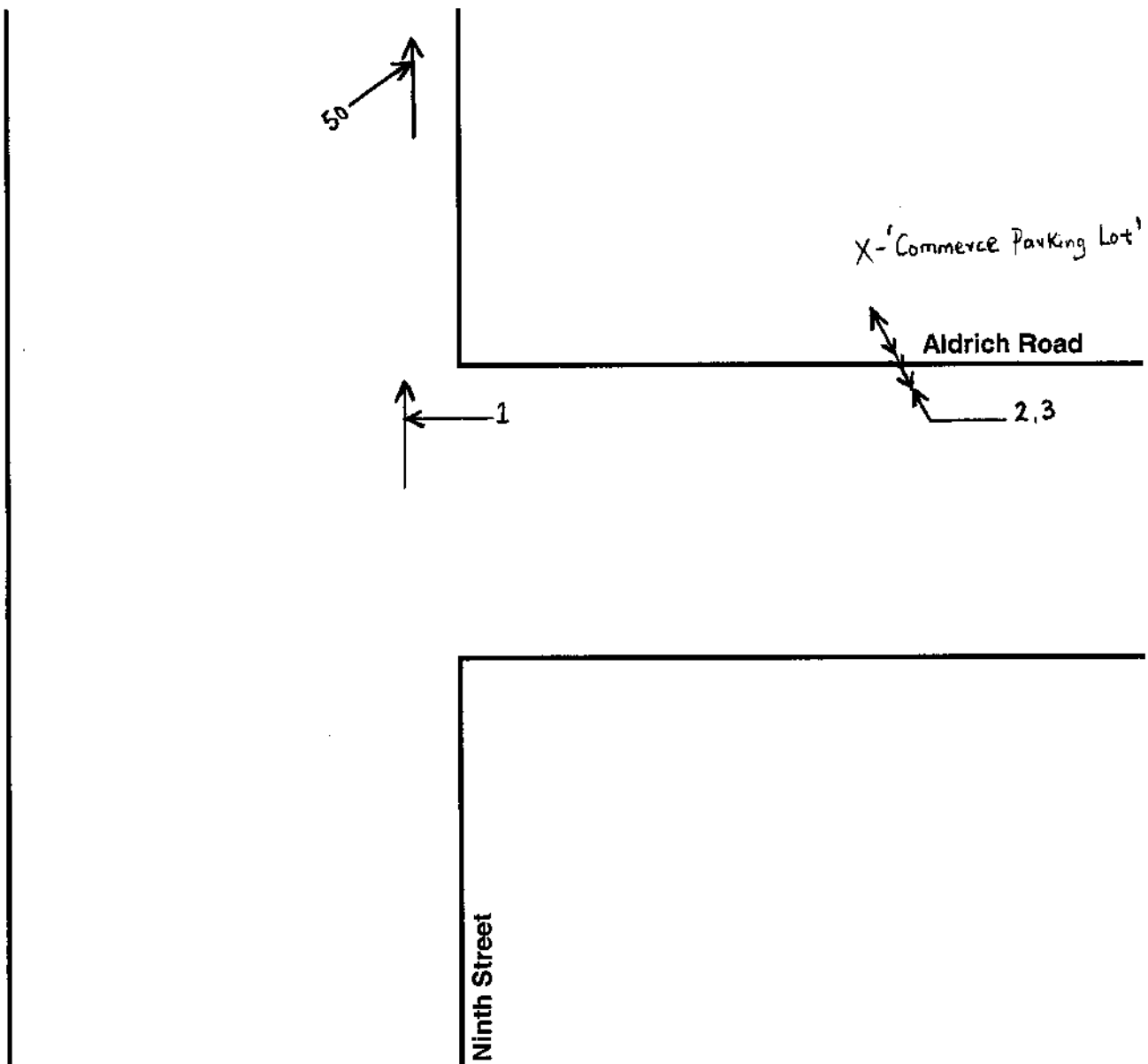
INTERSECTION LOCATION: Aldrich Road

MUNICIPALITY: Ocean City

DATE:



COLLISION DIAGRAM (NOT TO SCALE)



SJTPO ROAD SAFETY AUDITS, CAPE MAY COUNTY-NJ

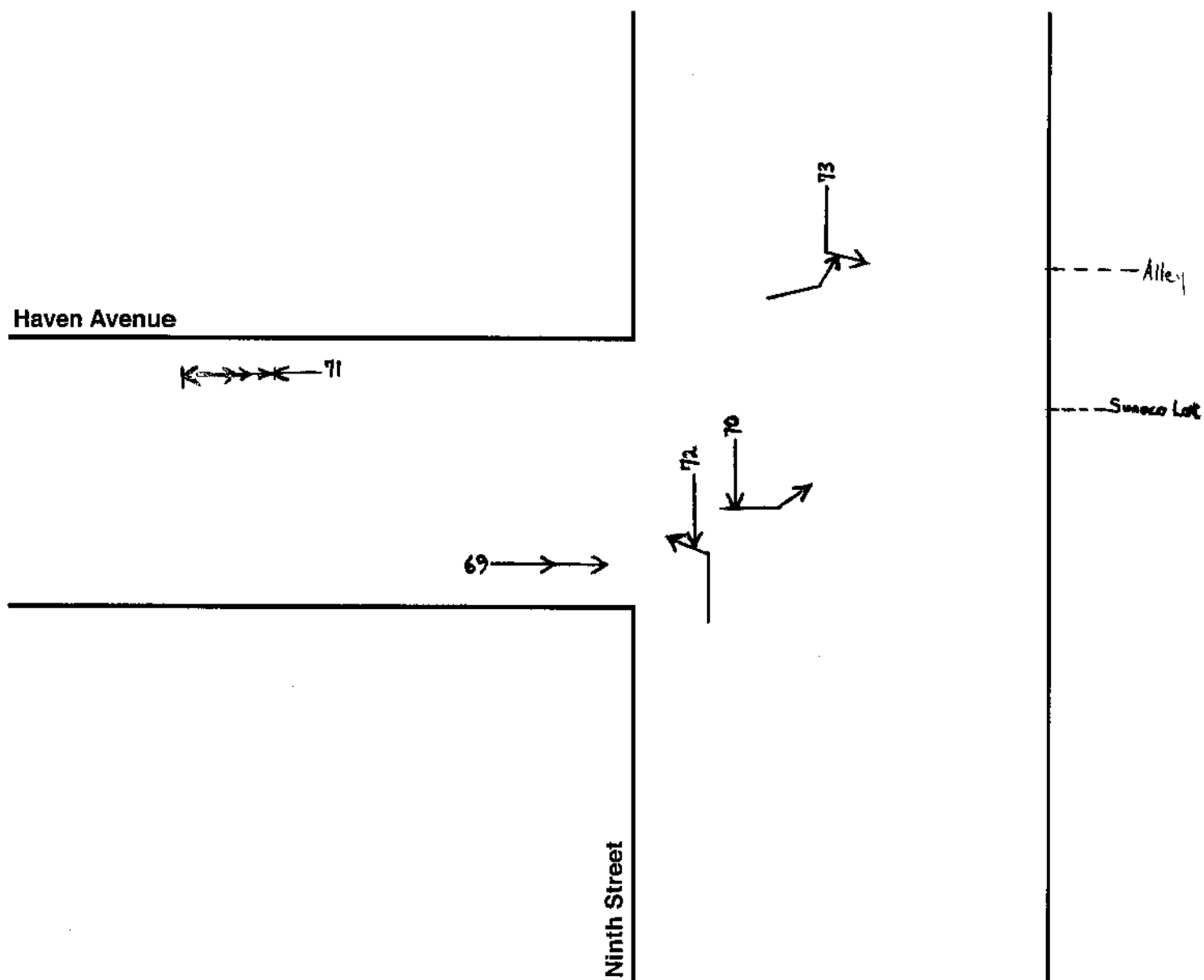
INTERSECTION LOCATION: Haven Avenue

MUNICIPALITY: Ocean City

DATE:



COLLISION DIAGRAM (NOT TO SCALE)



SJTPO ROAD SAFETY AUDITS, CAPE MAY COUNTY-NJ

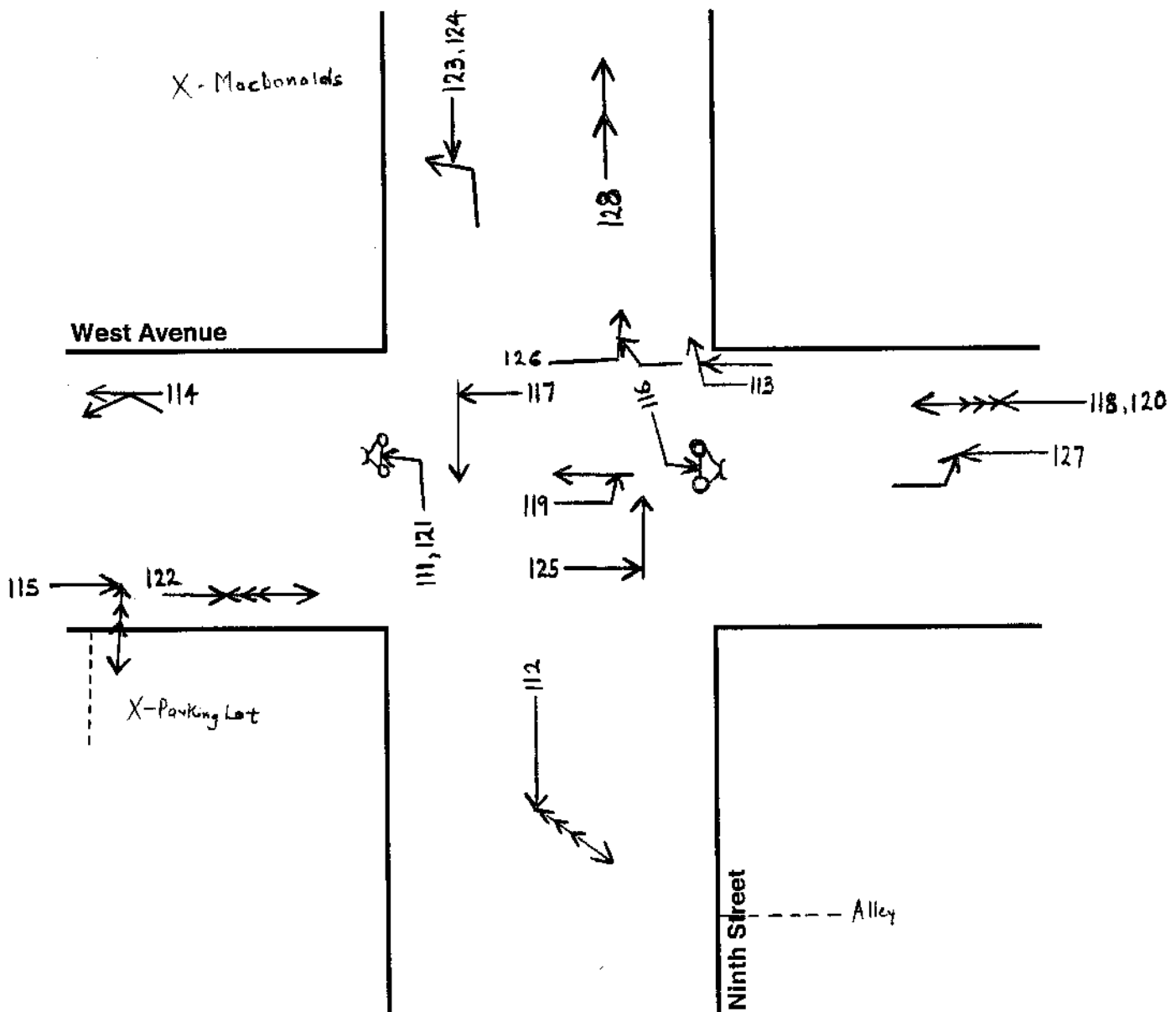
INTERSECTION LOCATION: West Avenue

MUNICIPALITY: Ocean City

DATE:



COLLISION DIAGRAM (NOT TO SCALE)



SJTPO ROAD SAFETY AUDITS, CAPE MAY COUNTY-NJ

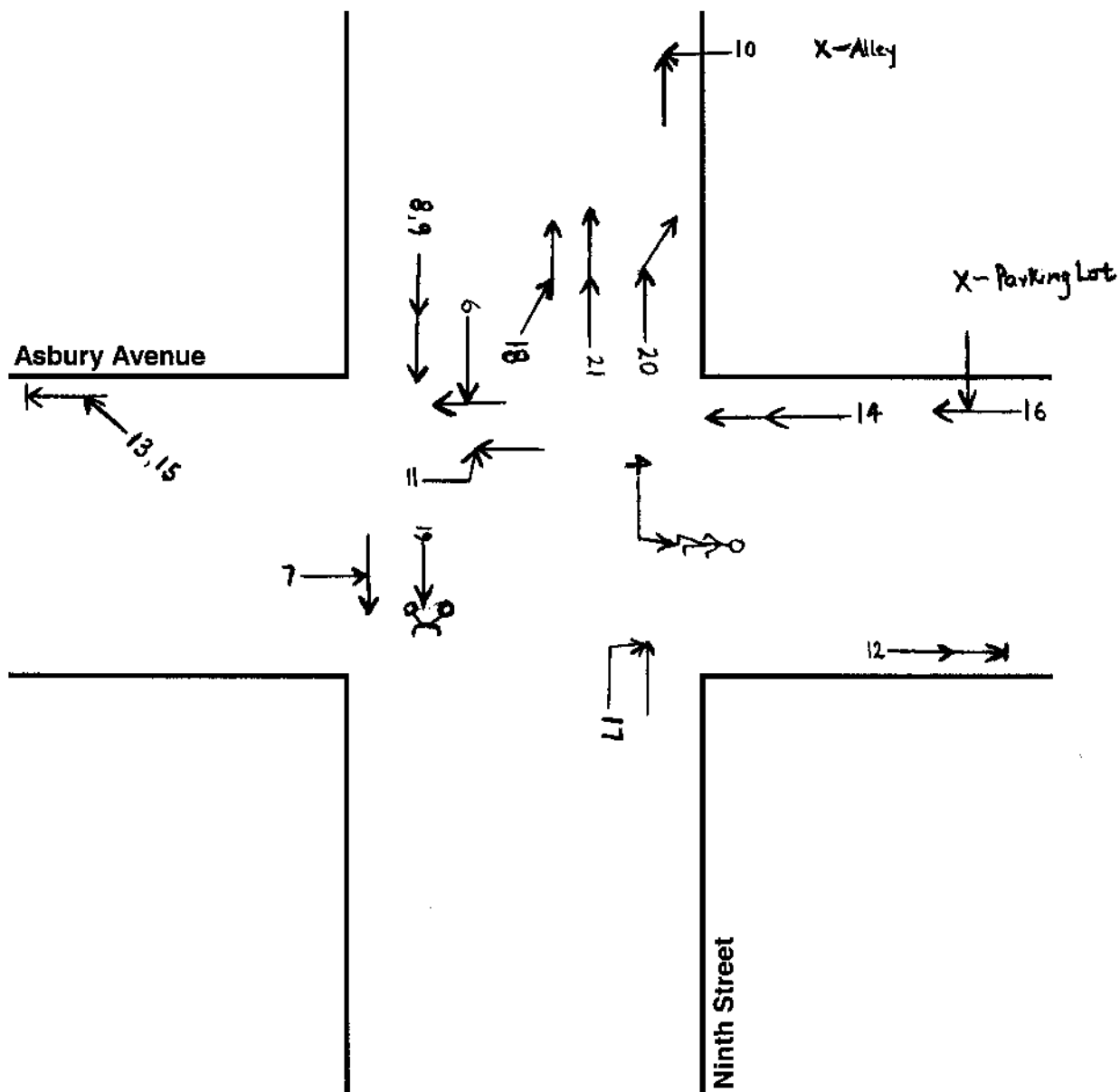
INTERSECTION LOCATION: Asbury Avenue

MUNICIPALITY: Ocean City

DATE:



COLLISION DIAGRAM (NOT TO SCALE)



SJTPO ROAD SAFETY AUDITS, CAPE MAY COUNTY-NJ

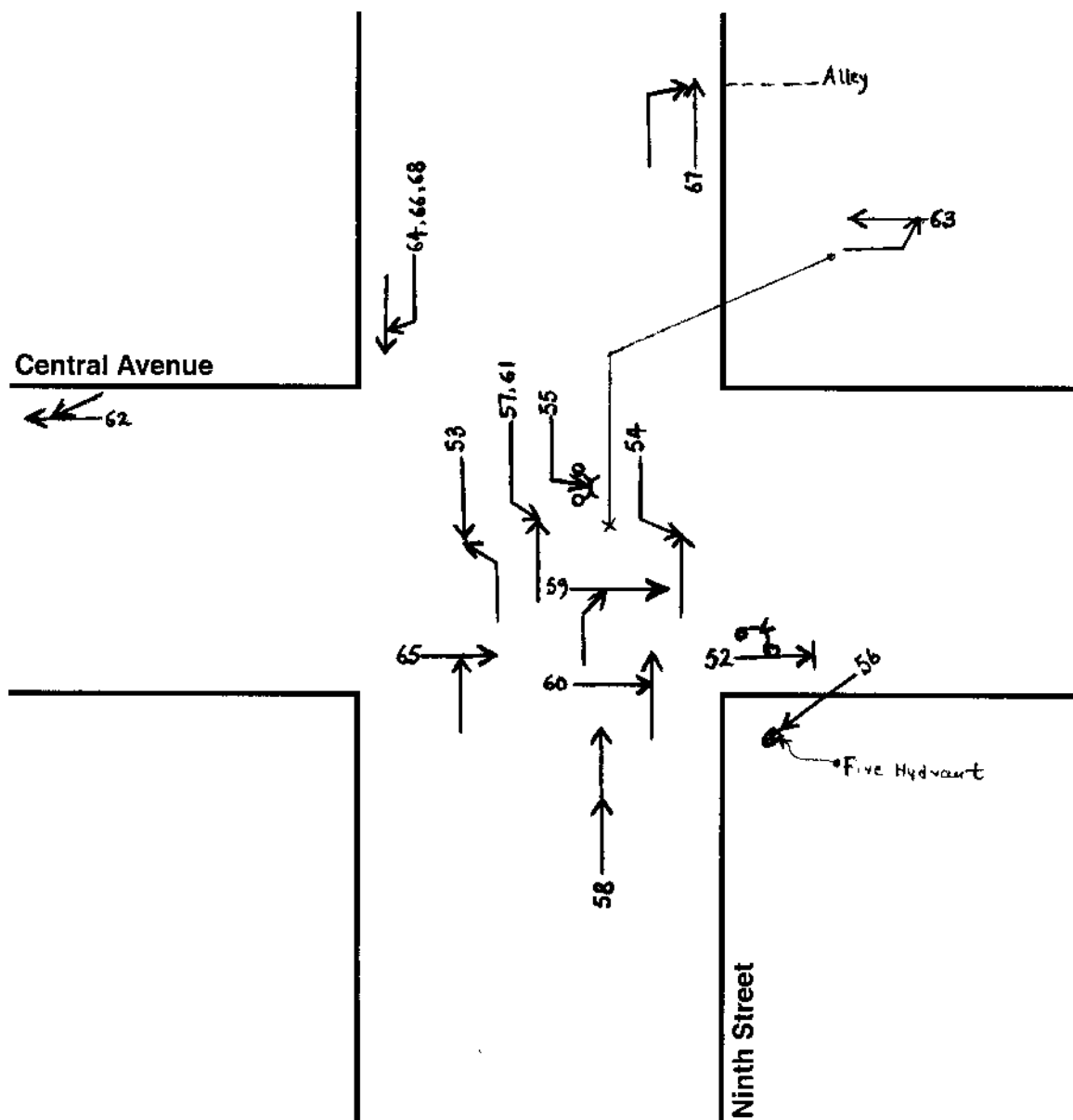
INTERSECTION LOCATION: Central Avenue

MUNICIPALITY: Ocean City

DATE:



COLLISION DIAGRAM (NOT TO SCALE)



SJTPO ROAD SAFETY AUDITS, CAPE MAY COUNTY-NJ

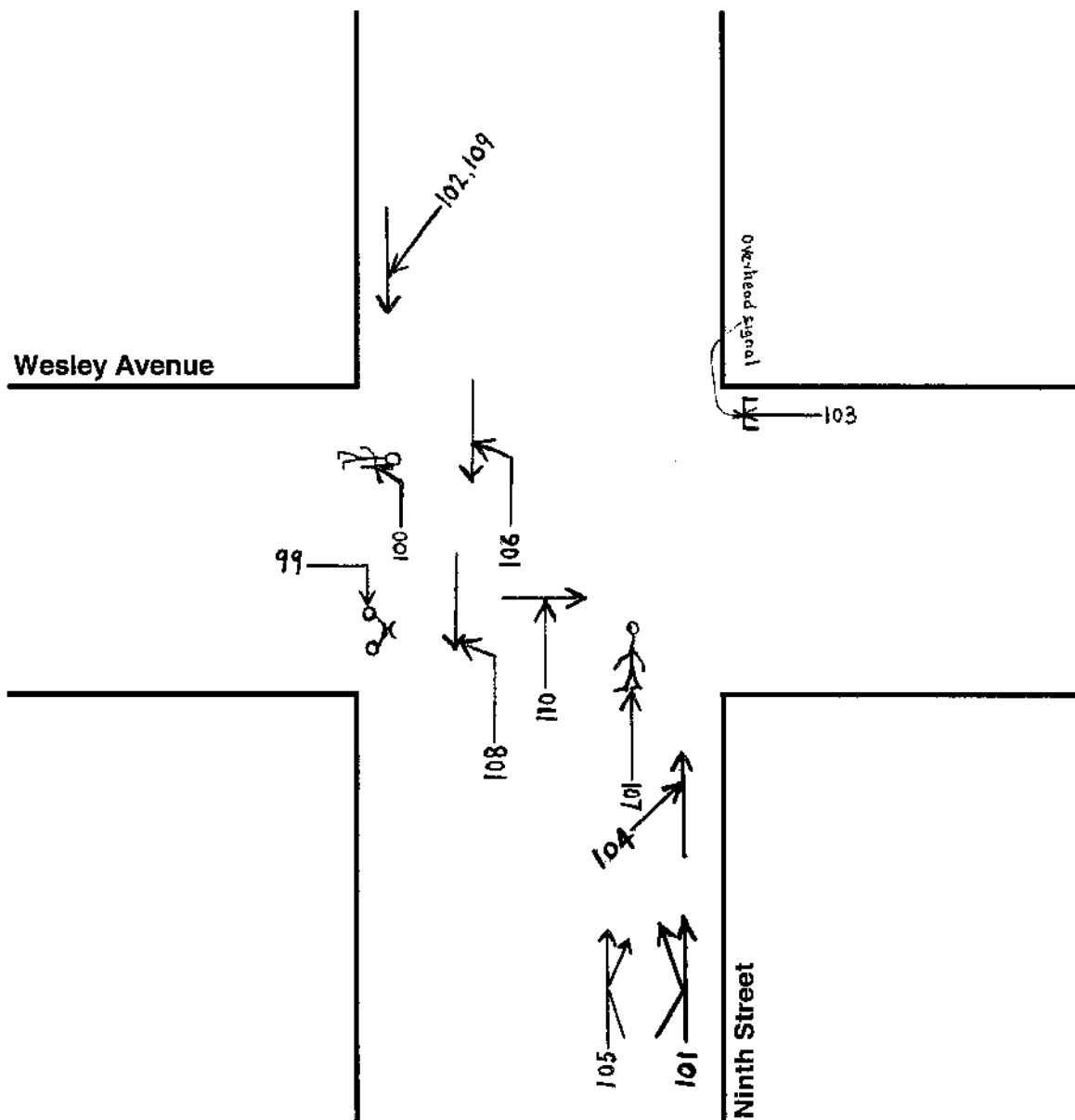
INTERSECTION LOCATION: Wesley Avenue

MUNICIPALITY: Ocean City

DATE:



COLLISION DIAGRAM (NOT TO SCALE)



SJTPO ROAD SAFETY AUDITS, CAPE MAY COUNTY-NJ

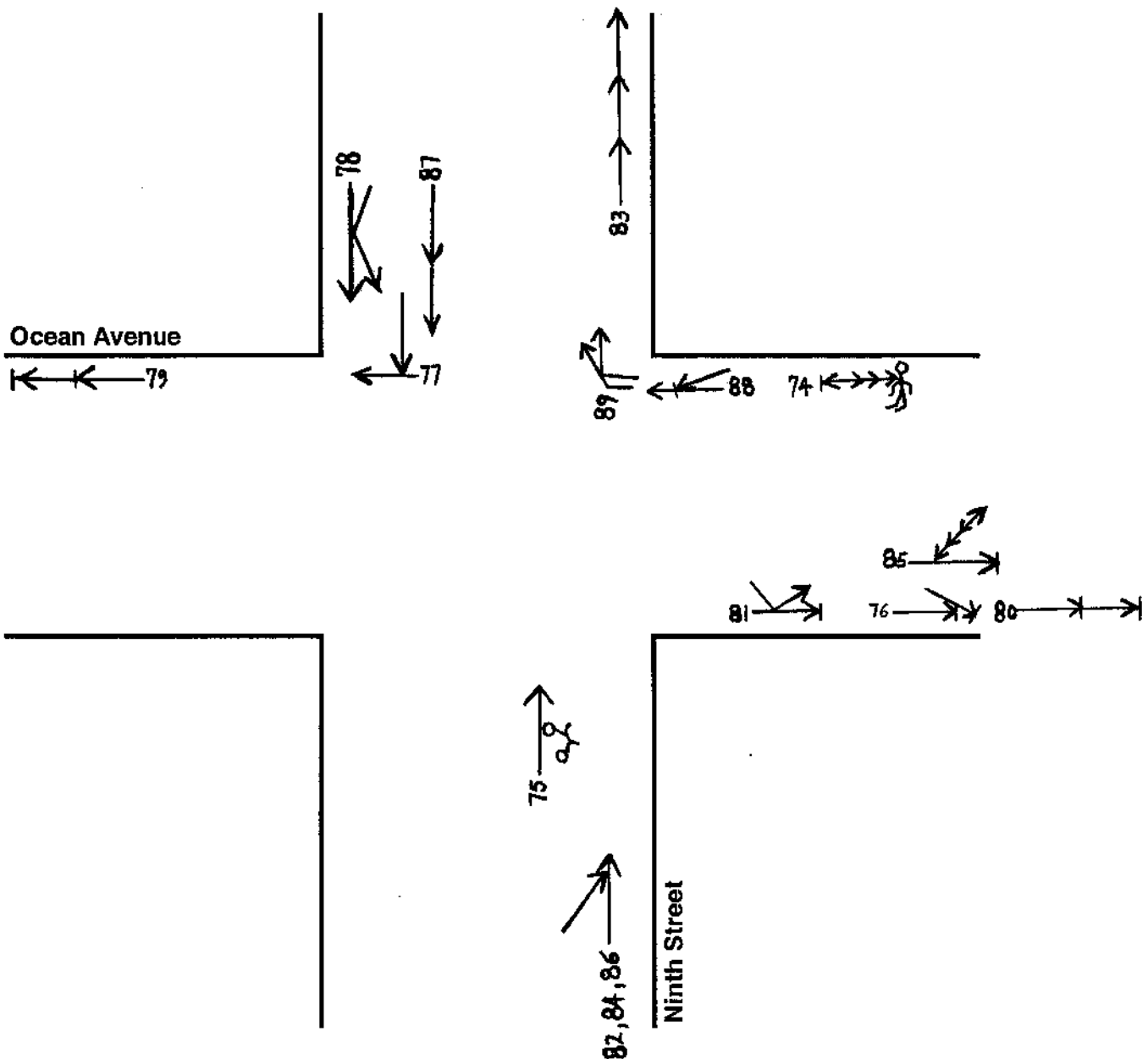
INTERSECTION LOCATION: Ocean Avenue

MUNICIPALITY: Ocean City

DATE:



COLLISION DIAGRAM (NOT TO SCALE)



SJTPO ROAD SAFETY AUDITS, CAPE MAY COUNTY-NJ

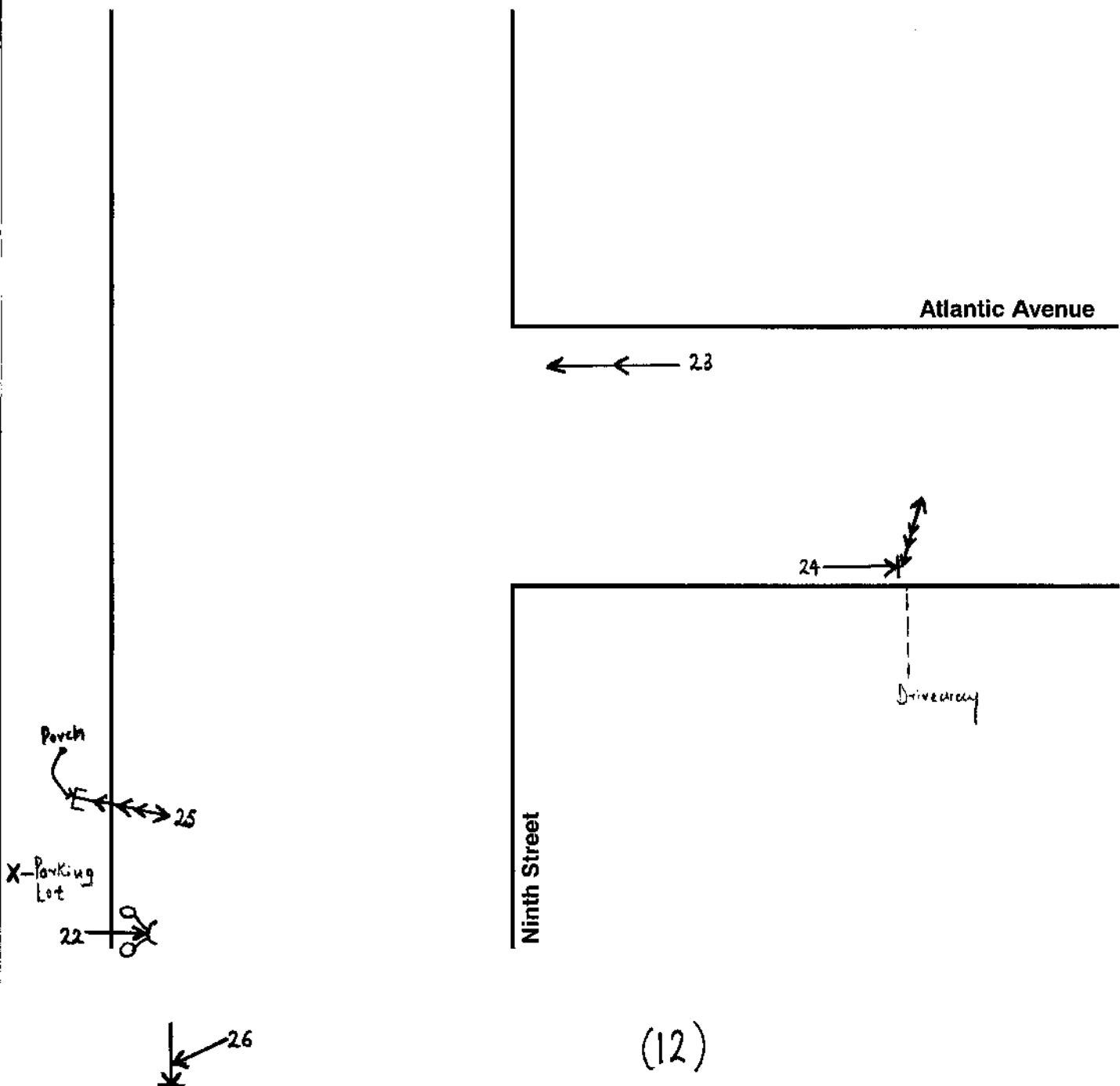
INTERSECTION LOCATION: Atlantic Avenue

MUNICIPALITY: Ocean City

DATE:



COLLISION DIAGRAM (NOT TO SCALE)



SJTPO ROAD SAFETY AUDITS, CAPE MAY COUNTY-NJ

INTERSECTION LOCATION: Boardwalk

MUNICIPALITY: Ocean City

DATE:



COLLISION DIAGRAM (NOT TO SCALE)

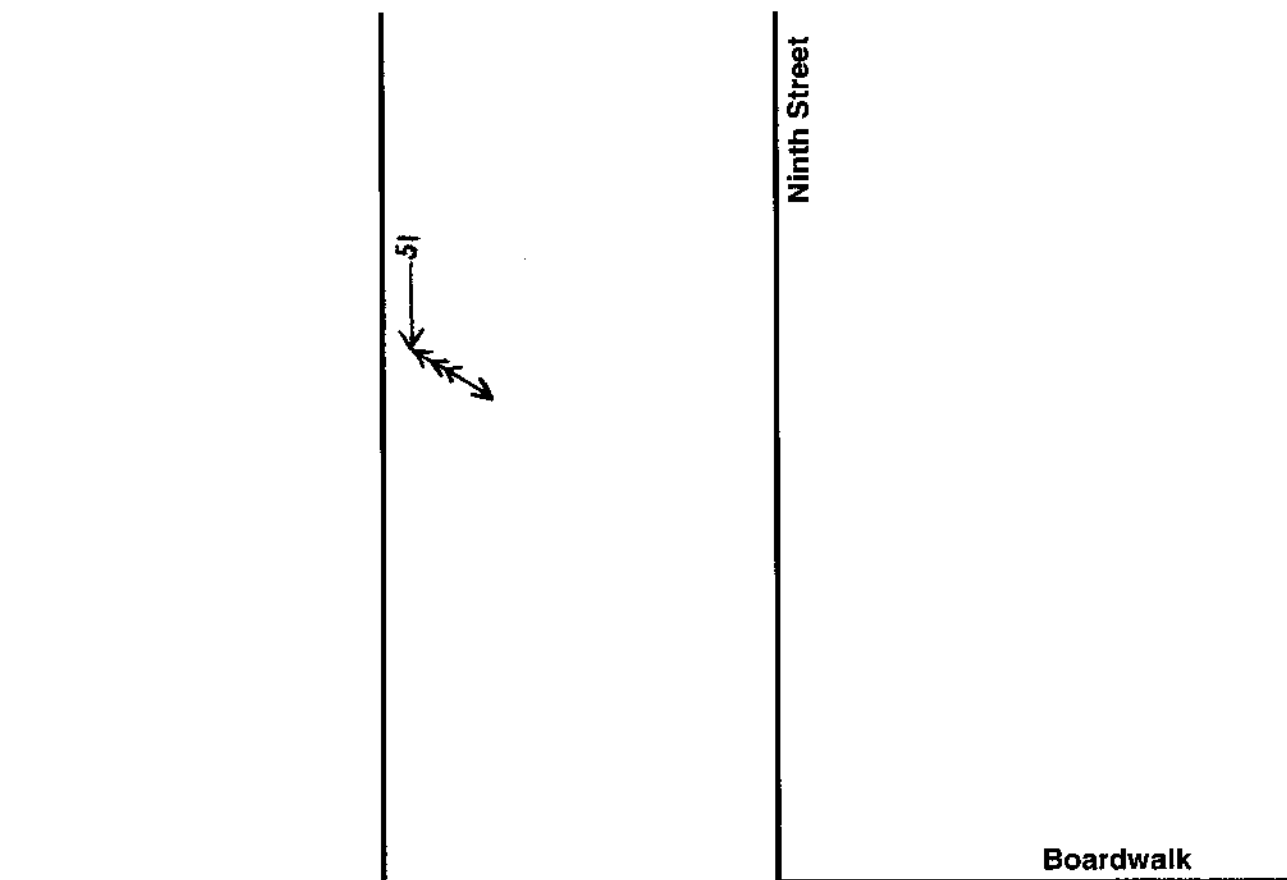


PHOTO LOG – NINTH STREET



1



2



3



4



5



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PHOTO LOG – NINTH STREET



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PHOTO LOG – NINTH STREET



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PHOTO LOG – NINTH STREET



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PHOTO LOG – NINTH STREET



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PHOTO LOG – NINTH STREET



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36

Route _____

Date _____

Safety Audit Stage 5**Operation/Existing Roads****Checklist 5-1****General Topics**

Item	Issues to be Considered	Check	Comments
1 Landscaping	Is landscaping in accordance with guidelines (e.g., clearances, sight distance)?		
	Are required clearances and sight distances not likely to be restricted following future plant growth (landscaping and natural)?		
2 Parking	Are provisions for parking satisfactory in relation to traffic operations and safety?		
3 Temporary works	Are all locations free of construction or maintenance equipment, and any signing or temporary traffic control devices that are no longer required?		
4 Headlight glare	Have any problems due to headlight glare (e.g., two-way service road close to main traffic lanes) been addressed?		

Checklist 5-2**Alignment and Cross Section****Project** _____**Audit Team Members** _____**Date** _____

Item	Issues to be Considered	Check	Comments
5 Widths	Are all traffic lanes and roadway widths, including bridges, adequate?		
6 Shoulders	Are shoulder widths appropriate (e.g. for broken down or emergency vehicles)?		
	Are shoulders traversable for all vehicles and road users?		
	Is the shoulder cross slope sufficient to provide proper drainage?		
7 Side slopes	Are the side slopes and table drains safe for run off vehicles to traverse?		

Checklist 5-2**Alignment and Cross Section****Project** _____**Audit Team Members** _____**Date** _____

Item	Issues to be Considered	Check	Comments
1 Visibility, sight distances	Is sight distance adequate for the speed of traffic using the route?		
	Is adequate sight distance provided for intersections, crossings (e.g., pedestrian, cyclist, cattle, railway) etc.?		
2 Design speed	Is the horizontal and vertical alignment suitable for the (85th percentile) traffic speed? If not:		
	(a) Are warning signs installed?		
	(b) Are advisory speed signs installed?		
	Are the posted advisory speeds for curves appropriate?		

Checklist 5-2**Alignment and Cross Section****Project** _____**Audit Team Members** _____**Date** _____

Item	Issues to be Considered	Check	Comments
3 Overtaking	Are adequate passing opportunities provided?		
4 Readability by drivers	Are there any sections of roadway which may cause confusion e.g.:		
	(a) Is alignment of roadway clearly defined?		
	(b) Has disused pavement (if any) been removed or treated?		
	(c) Have old pavement markings been removed properly?		
	(d) Do streetlight and tree lines conform with the road alignment?		

Checklist 5-3

Intersections

Project _____

Audit Team Members _____

Date _____

Item	Issues to be Considered	Check	Comments
1 Location	Are intersections located safely with respect to horizontal and vertical alignment?		
2 Warning	Where intersections occur at the end of high speed environments (e.g., at approaches to towns), are there traffic control devices to alert drivers?		
3 Controls	Are pavement markings and intersection control signing satisfactory?		
4 Layout	Is the alignment of curbs, traffic islands and medians satisfactory?		
	Is the intersection layout obvious to all users?		
	Are turning radii and tapers appropriate?		

Checklist 5-3

Intersections

Project _____

Audit Team Members _____

Date _____

Item	Issues to be Considered	Check	Comments
5 Visibility, sight distances	Is sight distance adequate for all movements and all users?		

Checklist 5-4***Auxiliary Lanes and Turn Lanes*****Project** _____**Audit Team Members** _____**Date** _____

Item	Issues to be Considered	Check	Comments
1 Tapers	Are starting and finishing tapers located and aligned correctly?		
2 Shoulders	Are appropriate shoulder widths provided at merges in accordance with design guidelines?		
3 Signs	Is signing and marking installed in accordance with standards?		
4 Turning traffic	Is there advance warning of the approaching auxiliary lane?		

Checklist 5-4

Auxiliary Lanes and Turn Lanes

Project _____

Audit Team Members _____

Date _____

Item	Issues to be Considered	Check	Comments
5 Visibility, sight distances	Have right turn movements within the length of the auxiliary lane been avoided?		
	Has stopping sight distance been provided to the rear of turning vehicles?		
	Has stopping sight distance been provided for entering and leaving vehicles?		

Checklist 5-5

Non-Motorized Traffic

Project _____

Audit Team Members _____

Date _____

Item	Issues to be Considered	Check	Comments
1 Paths	Are there appropriate travel paths and crossing points for pedestrians and cyclists?		
2 Barriers and fencing	Where necessary, is fencing installed to guide pedestrians and cyclists to crossings or overpasses?		
	Is fencing of your design (e.g., avoid solid horizontal rails)?		
	Where necessary, is crash barrier installed to separate vehicle, pedestrian and cyclist flows?		
3 Bus stops	Are bus stops appropriately located with adequate clearance from the traffic lane for safety and visibility?		
4 Elderly and disabled	Are there adequate provisions for the elderly, the disabled, children, wheelchairs and baby carriages (e.g., holding rails, curb and median crossings, ramps)?		
	Where necessary, are hand rails provided (e.g., on bridges, ramps), and are they adequate?		

Checklist 5-5

Non-Motorized Traffic

Project _____

Audit Team Members _____

Date _____

Item	Issues to be Considered	Check	Comments
Elderly and disabled (cont.)	Distance between stop line and pedestrian crossing at signalized intersections (for visibility of pedestrians from truck driver's seat).		
	Signal timing - cycle length - pedestrian clearance time - are pedestrian buttons operable?		
5 Cyclists	Is the pavement width adequate for the number of cyclists using the route?		
	Is the bicycle route continuous, i.e., free of squeeze points or gaps?		
	Are bicycle safe grates provided at drainage pits where necessary?		

Checklist 5-6

Signs and Lighting

Project _____

Audit Team Members _____

Date _____

Item	Issues to be Considered	Check	Comments
1 Lighting	Is appropriate lighting installed at intersections, roundabouts, pedestrian and bicycle crossings, pedestrian refuges, etc?		
	Is all lighting operating satisfactorily?		
	Are the appropriate types of poles used for all locations and correctly installed (e.g. slip base at correct height, rigid poles protected if within clear zone)?		
	Are all locations free of any lighting which may conflict visually with traffic signals or signs?		
	Has lighting for signs, particularly overhead signs, been provided where necessary?		
2 Signs	Are all necessary regulatory, warning and direction signs (including detours) in place? Are they conspicuous?		
	Are there any redundant signs?		

Checklist 5-6

Signs and Lighting

Project _____

Audit Team Members _____

Date _____

Item	Issues to be Considered	Check	Comments
Signs (cont.)	Are traffic signs in their correct locations, and properly positioned with respect to lateral clearance and height?		
	Are the correct signs used for each situation, and is each sign necessary?		
	Are signs placed so as not to restrict sight distance, particularly for vehicles?		
	Are all signs effective for all likely conditions (e.g. day, night, rain, fog, rising or setting sun, oncoming headlights, poor lighting)?		
	Do sign supports conform to guidelines?		
3 Marking and delineation	Have retroreflective markers been installed? Where colored markers are used, have they been installed correctly?		
	Is all necessary pavement marking installed?		
	Are pavement markings (center lines, edge lines, transverse lines) clearly visible and effective for all likely conditions (e.g. day, night, rain, fog, rising or setting sun, oncoming headlights, light colored pavement surface, poor lighting)?		
	On light colored pavement surfaces (e.g. concrete) are RRPMS used to simulate traffic lanes?		
Marking and delineation (cont.)			

Checklist 5-6***Signs and Lighting*****Project** _____**Audit Team Members** _____**Date** _____

Item	Issues to be Considered	Check	Comments
	Has raised profile edge marking been provided where necessary (e.g. fatigue zones)?		
	Is delineation adequate and in accordance with guidelines (e.g. post-mounted delineators, RRPMS, chevron alignment markers)?		
	Is delineation effective for all likely conditions (e.g. day, night, rain, fog, rising or setting sun, oncoming headlights)?		
	If chevron alignment markers are installed, have the correct types of markers been used?		
	Are vehicle paths through intersections delineated where required?		
	On truck routes, are reflective devices appropriate to driver's eye height?		

Checklist 5-7**Traffic Signals****Project** _____**Audit Team Members** _____**Date** _____

Item	Issues to be Considered	Check	Comments
1 Operation	Are traffic signals operating correctly? Is the number and location of signal displays appropriate?		
2 Visibility	Are traffic signals clearly visible to approaching motorists?		
	Is the end of likely vehicle queues visible to motorists so that they may stop safely?		
	Have any visibility problems caused by the rising or setting sun been addressed?		
	Are signal displays shielded so that they can be seen only by the motorists for whom they are intended?		
	Where signal displays are not visible from an adequate distance, are signal warning signs and/or flashing lights installed?		
3 Other provisions	Where necessary, are there provisions for visually impaired pedestrians (e.g., audio-tactile push buttons, tactile markings)? Are they working?		
	Where necessary, are there provisions for elderly or disabled pedestrians (e.g., extended green phase, phase displacement)?		

Checklist 5-8

Physical Objects

Project _____

Audit Team Members _____

Date _____

Item	Issues to be Considered	Check	Comments
1 Clear zone	Is a clear zone provided in accordance with the guidelines?		
	Is the appropriate treatment or protection provided for any objects within the clear zone (e.g., slip-base or frangible poles, crash barrier, crash cushions, sloping culvert, headwalls)?		

Checklist 5-8

Physical Objects

Project _____

Audit Team Members _____

Date _____

Item	Issues to be Considered	Check	Comments
2 Crash barriers	Are safety barriers installed at all necessary locations, including on bridges, in accordance with guidelines?		
	Are the crash barrier systems suitable for the purpose?		
	Is the length of crash barrier at each installation adequate? Are the crash barriers correctly installed?		
	Are Guard Rail Energy Absorbing Terminals (GREAT) or crash cushions installed where necessary (e.g., off ramp, bridge piers)?		

Checklist 5-8

Physical Objects

Project _____

Audit Team Members _____

Date _____

Item	Issues to be Considered	Check	Comments
Crash barriers (cont.)	Where works are subject to stage construction, are temporary barriers installed in accordance to guidelines?		
	Is there a safe run off area behind breakaway terminals?		
3 Fencing	Is pedestrian fencing where needed?		
	Is fencing in the clear zone free of separate horizontal rails?		
	Is there adequate delineation/visibility of barriers and fences at night?		

Checklist 5-9***Delineation*****Project** _____**Audit Team Members** _____**Date** _____

Item	Issues to be Considered	Check	Comments
1 Line markings	Are all line markings (center line, edge line, transverse lines) in good condition?		
2 Guide posts	Are guide posts correctly placed, clean, and visible?		
3 Raised and Recessed Pavement Markings	Are RPM's in good condition?		
4 Chevron Alignment Markers	Are Chevron Alignment Markers placed correctly, and used only according to standards?		

Checklist 5-10**Pavement****Project** _____**Audit Team Members** _____**Date** _____

Item	Issues to be Considered	Check	Comments
1 Pavement defects	Is the pavement free of defects (e.g., excessive roughness or rutting, potholes, etc.) which could result in safety problems (e.g., loss of steering control)?		
2 Skid resistance	Does the pavement appear to have adequate skid resistance, particularly on curves, steep grades and approaches to intersection? Has skid resistance testing been carried out where necessary?		
3 Ponding	Is the pavement free of areas where ponding or sheet flow of water may occur with resultant safety problems?		
4 Loose screenings	Is the pavement free of loose screenings?		