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The Traffic Committee meeting was called to order at 7:32 p.m. in the Lower Level Conference Room of Troy City Hall on January 21, 1998 by Vice Chair Peggie Perry.

1. **Roll Call**

CITY OF TROY

PRESENT: Arthur Cotsonika
 Ted Halsey
 Jan Hubbell
 Michael Palchesko
 Peggie Perry

FEB 06 1998

CLERK'S OFFICE

ABSENT: Charles Solis
 John Diefenbaker

Also present were the following:

6. Shirley Grocki, 5108 Crowfoot
Frank Grabowski, 5118 Saffron
Pam Mackowski, 2341 Tucker
Joyce and Jim Entrekin, 5176 Saffron

7. Ron Wilson, 4457 Holly
Norman McComb, 6911 Livernois
Al Lenz, 430 Hartland
Roberta Lenz, 430 Hartland
John T. Murray, 840 Harris
John H. Davis, 775 Harris
Marvin Tucker, 655 Hartland
Nina Tucker, 655 Hartland
Regina Ure, 675 Hartland
James McKenzie, 640 Hartland
Diane Yankee, 437 Hartland
Arthur LaVoie, 915 Harris
Ruth M. LaVoie, 915 Harris
Ray Brunskill, 3075 Kilmer
Sue Brunskill, 3075 Kilmer
D. W. Johnson, 366 Hartland
Mike Finos, 611 Hartland
Cheryl Durst, 809 Hartland
Don Durst, 809 Hartland
Dave Aldinger 383 Hartland
John Cinader, 705 Hartland
Virginia Cinader, 705 Hartland
Keith Cinader, 705 Hartland
Robert Piscopo, 866 Hartland
Martha Piscopo, 866 Hartland
James Savage, 800 Harris

E-2
2-16-98

also present (no item number identified):

Dennis K??, Port Huron
Giuseppe Collesano, 150 Habrand
Leon Sowell, 5845 Glasgow Ct.
Richard T. Harding, 56 Whitney Ct.

and Bob DeCorte, Traffic Improvement Association
Lt. Gerard Scherlinck, Traffic Safety Unit
Lt. Robert Matlick, Fire Dept.
Sgt. Michael Kerr, Troy Police
John Abraham, Traffic Engineer

Motion to Excuse

Moved by Cotsonika
Supported by Hubbell

Recommend that Mr. Diefenbaker be excused because he is out of the City.

YEAS: 5

NAYS: 0

ABSENT: 2

MOTION CARRIED

2. Minutes - November 19, 1997

Moved by Palchesko
Supported by Hubbell

Recommend that the minutes of November 19, 1997 be accepted as printed.

YEAS: 5

NAYS: 0

ABSENT: 2

MOTION CARRIED

3. Visitors' Time

No one appeared to address the Committee on any items not on the agenda.

4. Concerns about Illegal Use of Center Left Turn Lanes as "Passing" Lanes

The Traffic Engineering Department has been working with Sgt. Kerr of the Troy Police Department to reduce the illegal use of the center left turn lane as a "passing" lane. Sgt. Kerr indicates that extensive enforcement efforts in this area have not helped ease the problem. There are repeated violations even when a police car is clearly visible. Most citizens seem unaware of the law, and education may be a viable addition to enforcement. Sgt. Kerr suggests pavement markings that would read NO PASSING on the center lane to educate motorists.

Research conducted by the Traffic Engineering office indicates that the following may be some solutions to this problem.

- A. Better pavement markings, including delineation of the intersection left turn lane by double yellow lines.
- B. Placing flexible tubular poles on the center lane that warn motorists that the center lane may not be used as a through lane. The marker poles, also called "ducks," are flexible and can be run over by vehicles without damaging the vehicles.
- C. Overhead signs that duplicate signs on the side of the road with CENTER LANE LEFT TURN ONLY.
- D. TV spots or other news media as a medium for educating the public.
- E. Small speed humps on center lane.
- F. Raised island close to the intersection delineating the left turn bay from the center lane for left turns.
- G. Turn prohibitions into and out of private driveways.

Any one or some of these alternatives may be tried on Troy roads on an experimental basis to reduce crashes related to this problem.

Mr. DeCorte, of TIA, commended the City staff for dealing proactively with the problem and finding solutions. Ms. Hubbell suggested using local newspapers and the cable channel for educating the public. Sgt. Kerr said the Police Department has purchased a page in the Parks & Recreation bulletin for traffic education.

Moved by Halsey
Supported Palchesko

Recommend installation of better pavement markings, including delineation of the intersection left turn lane by double yellow lines.

YEAS: 5

NAYS: 0

ABSENT: 2

MOTION CARRIED

Motion to Amend

Moved by Palchesko
Supported by Hubbell

To amend the above recommendation by adding the words "as a pilot program at the discretion of the Traffic Engineer."

YEAS: 5

NAYS: 0

ABSENT: 2

MOTION CARRIED

Motion to Take Items Out of Order

Moved by Hubbell
Supported by Palchesko

That Items 6 and 7 be taken out of order.

YEAS: 5

NAYS: 0

ABSENT: 2

MOTION CARRIED

6. Install Traffic Control Devices at Crowfoot/Saffron/Tucker/Palmetto.

Joyce Entrekin of 5176 Saffron is concerned about traffic on Saffron. She indicated that she sees right-of-way confusion and high speeds on Saffron. Ms. Entrekin requests STOP SIGNS A, B, and C below to improve traffic in the area. Renee Bryson of 5052 Saffron requests a STOP sign (D) on Saffron at Saffron Court to slow down motorists who are turning in from Long Lake Road. Mrs. Entrekin feels that a STOP sign in that location could have traffic backed up onto Long Lake Road.

- A. STOP sign on Crowfoot at Saffron.
- B. STOP sign on Tucker at Saffron.
- C. STOP sign on Saffron at Palmetto.
- D. STOP sign on Saffron at Saffron Court.

A traffic volume and crash analysis indicates the following:

Roadway	Avg. Daily Traffic	AM Peak Hour	PM Peak Hour	Crashes
Crowfoot	398	45	39	1 head on, 1 parked
Palmetto	1418	135	168	
Saffron	794	76	82	2 snow related, 1 backed into
Tucker	627	50	64	1 backed into

A sight distance study at the intersections indicated no major sight distance problems at the intersections that would warrant a STOP sign. The traffic volumes and crash experience also do not satisfy STOP sign warrants.

Further warrants for YIELD signs were referred to. The Michigan Manual of Uniform Traffic Control Devices (MMUTCD) states that a YIELD sign may be warranted at the entrance to an intersection where it is necessary to assign right of way. Therefore, a YIELD sign may be placed on Crowfoot at Saffron and on Saffron at Palmetto, to assign right of way. The intersection of Saffron and Tucker has similar volumes from both roadways, and since Tucker ends at Saffron, Saffron would have the right of way at this "T" intersection. The traffic volume and crash data indicate no major existing problems at these intersections.

Mr. Halsey suggested that speeders are most often residents of the area. He feels that the homeowners' association should send letters to residents seeking their cooperation. He would also like to see the Police Department step up enforcement.

Moved by Halsey
Supported by Hubbell

Recommend tabling this item for 60 days, until after the scheduled homeowners' association meeting, to give the association time to send letters to residents and to give the Police Department time to increase enforcement.

YEAS: 5

NAYS: 0

ABSENT: 2

MOTION CARRIED

7. Traffic Concerns on Hartland

Mr. and Mrs. Durst, of 809 Hartland, approached the City Traffic Engineering and Police Departments in September of 1997 regarding traffic concerns on Hartland Avenue. In response, the Police Department performed selective enforcement and installed the radar trailer to reduce speeds on Hartland. An additional "SPEED LIMIT 25 MPH" sign was also installed between Kilmer and Rochester to remind motorists of the speed limit. Mrs. Durst also submitted a petition from Hartland homeowners expressing willingness to work with the Traffic Committee to improve the traffic situation on Hartland. Copies of this petition were sent to Traffic Committee members along with the agenda for the September 1997 Traffic Committee meeting.

The City was also approached around the same time by the Troy Baptist Church with plans for expansion, and some options discussed involved reconfiguration of Hartland Avenue to create a separate campus for the church, independent of the Hartland neighbors. Since plans of the church would affect traffic on Hartland, the Dursts were advised that traffic issues would be revisited once the church plans are finalized.

The Hartland neighbors and the church are still discussing options that may be acceptable to both parties. Since the issues have not been resolved, Mrs. Durst feels that, in light of the safety of Hartland residents, something should be done to improve traffic conditions, particularly the cut-through traffic concerns, regardless of what the church plans to do.

The traffic volume study showed that there were 1251 vehicles per day on Hartland. The average residential roadway traffic in Troy ranges from 300 to 2500 vehicles per day. Speed measured by the Police Department indicates average speeds between Kilmer and Rochester to be 25.95 miles per hour, the 85th percentile speed was around 33 miles per hour, which is a little over the county average. Residents of Hartland voice concern that there is excessive cut-through traffic on Hartland, and some of the cut-through routes are from Livernois to Rochester, and from the cross roads of Troy, Talbot and Kilmer to Rochester. The residents also feel that the church is a major source of the cut-through traffic on Hartland. Troy Police Sgt. Swanson worked with the neighbors and the church, and the church authorities assured him that they will discourage the congregation from using Hartland as their access roadway through their newsletter and sermons. The church also has personnel directing traffic at their driveways on their busy days.

A license plate survey was performed on January 7, 1998. The points monitored were:

- a. Livernois and Hartland
- b. Big Beaver and Troy
- c. Big Beaver and Talbot
- d. Big Beaver and Kilmer
- e. Rochester and Hartland.

Ten volunteers from the area, along with two City employees, wrote down the first four numbers of the license plates of all vehicles entering and exiting at each entry/exit point. The study was started at 4:35 p.m. and continued until 6:45 p.m. 1070 vehicles were monitored at the five points. License plate numbers of 10% of the vehicles could not be determined by the field observers. The Traffic Engineering Department reduced all the data and matched the numbers to obtain the number of vehicles that were cut-through traffic.

Among the cut-through routes in the area, cut-through traffic from Livernois to Rochester using Hartland was found to be the highest with 36 vehicles. 13 vehicles entered at Talbot and exited at Rochester, while 10 that entered Talbot cut through to Livernois. There were 5 cars that entered at Rochester to travel through to Livernois.

Translating the numbers into percentages,

- 5.7% of vehicles entering from Livernois were cut-through.

- 3.6% of vehicles entering at Talbot were cut-through.

- 5.0% of vehicles exiting onto Livernois were cut-through.

- 13.6% of vehicles exiting onto Rochester were cut-through.

All of the results have been tabulated in the enclosed attachment.

Officer Mullins of the Troy Police Department and the Traffic Engineer monitored traffic speeds at different times during the observation period and clocked around eight vehicles at speeds near 35 mph, but all other vehicles traveled at lower speeds. No tickets were issued in the one hour and ten minutes that the officer monitored speeds.

The weather was rainy and this may have had an effect on speeds in general.

Since one of the concerns of the residents was traffic going to the Troy Baptist Church, license plate numbers of vehicles entering the church parking lots were noted. 12 vehicles traveled from Livernois to the church lot, while 7 entered from Talbot to go to the church. There were 172 vehicles parked in the church parking lots. Therefore, 12.3% of the church traffic used Hartland to get to the church. The enclosed table gives complete details of the analysis.

An analysis of the number of residences that may use Hartland as an access from the major roads indicated that around 181 houses may directly use Hartland. This includes 45 houses on Hartland and part of the residences on Louis, Troy, Frankton, Ellenboro, Helena and residences on approximately 900 feet of roadway on Talbot and Kilmer.

Hartland residents say their street is referred to as "the cut-through street" and "Big Beaver North." One suggestion was to close the east end of Hartland and open a street through to Harris. This may reduce the "cut-through" traffic on Hartland, due to the 90 degree turns, but the Harris residents object to having the traffic routed to their street.

Mrs. Durst says that the church has activities seven days a week, and only 20% of church members use the Rochester Road exits from the parking lots, while the others exit onto Hartland. Red Hughes says that local businesses have gone so far as to distribute maps to employees to help them use local streets to avoid heavy traffic.

Other Hartland residents explained that Sundays after services the Rochester end of Hartland is completely clogged in such a way that the residents cannot get into Hartland from Rochester, and vice-versa. There were a number of concerns about pedestrians crossing Hartland between the church buildings in a way that could be a traffic hazard.

Ron Wilson, of the Building Facilities Committee at the church, admits that citizens' complaints are valid. He stated that the church is looking at other sites; however, economics must be considered as well as the willingness of the congregation to move. The church is trying to do whatever it can to help. They have considered building an elevated walkway over Hartland to connect their two properties, but it is not economically feasible. They have asked their members to be more considerate of the neighbors.

Some of the suggestions from area residents to reduce cut-through traffic were to install NO THROUGH TRAFFIC signs at the entry points to the area, having NO WESTBOUND TURNS signs at the church driveways, etc. Some other options discussed were speed humps and a diverter at Hartland and Ellenboro.

One other suggestion from the residents was to build a cul-de-sac on Hartland at the church property. It was pointed out that such a "half-mile dead end street" may result in increasing emergency response time for the residents toward the east end. The church representative indicated that they would be glad to work with this configuration of Hartland.

Bob DeCorte of the Traffic Improvement Association said that speeds and volumes are normal for Oakland County. He thought the best suggestion would be to move the church, but whatever might take over that property could be worse. He also said there is no real definition for "through" traffic and that NO THROUGH TRAFFIC signs are invalid and unenforceable.

A suggestion from the Traffic Committee was that residents watch for speeders and report their license numbers to the Police Department. Since the problem may be better solved through cooperation and good communication between the church and the residents, the Committee suggested that one resident could represent the neighborhood and work with the church on a regular basis to resolve problems.

Moved by Palchesko
Supported by Halsey

Recommend installing signs at the driveways of the north parking lot prohibiting westbound turns.

YEAS: 5

NAYS: 0

ABSENT: 2

MOTION CARRIED

Motion to Amend

Moved by Halsey

Supported by Palchesko

To amend the above recommendation to read: Recommend installing signs prohibiting westbound turns at the driveways of the north parking lot. Also recommend closing one of the Hartland driveways to the south parking lot and using the remaining driveway as an entrance only. All traffic would be required to exit onto Rochester Road.

YEAS: 5

NAYS: 0

ABSENT: 2

MOTION CARRIED

5. **Install No Left Turn Sign at Standard Federal Driveway on Long Lake Road and Rochester**

Councilman Henry Allemon reported the hazardous conditions near the Long Lake and Rochester intersection, near the Standard Federal Bank. He indicated that he sees near crashes in the area every day during the peak hours.

A crash analysis performed to identify crashes related to left turns from the Standard Federal Bank driveway indicated 14 crashes in 1995, 7 in 1996, and 3 until June 1997. The following table gives the time of occurrence of the crashes. It is evident that a majority of all crashes occurred after noon. Traffic on Long Lake is heavy during lunch time hours and the evening peak hours. In addition, bank customers are also numerous at lunch time and evening peak hours, which may have contributed to the crashes.

	# OF CRASHES RELATED TO LEFT TURNS FROM S.F. BANK	TIME OF CRASH
1/97 - 6/97	3	07:35, 13:05, 13:45
1996	7	2:10, 07:15, 8:30, 11:25, 12:10, 12:25, 18:21
1995	14	11:50, 12:30, 12:43, 13:20, 13:45, 15:02, 15:08, 15:50, 15:50, 16:00, 16:25, 17:48, 17:49, 18:45

The attachment presents crash diagrams from police crash report forms of crashes related to left turns from the Standard Federal driveway onto westbound Long Lake Road. The causes for the crashes can be attributed to the hazardous nature of the left turn maneuver at peak traffic hours and improper usage of the center left turn lane by motorists trying to get to the left turn bay at the intersection to go north on Rochester.

A conflict analysis was also performed at the location. This involved analyzing traffic operations in the area between 4:15 and 5:45 p.m. from a vantage point covering the Standard Federal driveway. A conflict can be defined as an evasive maneuver taken by a driver to avoid an impending crash. This would include sudden braking, erratic turning, etc. In short, a conflict can be defined as a "near miss" crash. It was observed that at the study site there were 14 conflicts during the 1-1/2 hour observation period. The recorded conflicts were all potential crashes. Some other observations related to left turns from the bank driveway include that left turn vehicles were let in by the two lanes of eastbound Long Lake vehicles, but then had to wait, blocking both lanes, to have a clear center lane and to find a gap in westbound Long Lake traffic. This added to congestion and increased potential for crashes. Some left turn vehicles stalled on the center left turn lane to find a gap and merge into westbound traffic, while there were vehicles in the center lane in the opposite direction (eastbound) trying to get to the left turn bay at the intersection. It was observed that the "favor" extended by the through lanes of traffic to let a left turn vehicle make the maneuver often is exposing the left-turn motorist to more danger. The enclosed crash diagrams show this "favor" results in a considerable number of crashes.

Traffic Committee members were concerned there is no viable alternative to the present traffic control devices. If NO LEFT TURN signs were to be installed, motorists leaving the bank and several other interconnected business properties could only exit onto Rochester Road. Those wishing to go west on Long Lake or north on Rochester would have to make a left turn onto Rochester across three lanes, which would be just as hazardous as making a left onto Long Lake.

Moved by Hubbell
Supported by Halsey

Recommend no change to current traffic control devices at this time, pending Long Lake improvements.

YEAS: 5

NAYS: 0

ABSENT: 2

MOTION CARRIED

8. Other Business

Lt. Matlick requested establishment of the proposed fire lanes at 33333 Dequindre. Section 8.28, Chapter 106, Troy City Code, provides for the establishment of fire lanes on private property. The Fire Department recommends that the fire lanes shown on the attached sketch be provided to allow proper deployment of and travel by emergency vehicles (fire, police, medical).

Motion by Cotsonika
Supported by Hubbell

Recommend that the fire lanes/tow away zones shown in the attached sketch be established for 33333 Dequindre.

YEAS: 5

NAYS: 0

ABSENT: 2

MOTION CARRIED

Lt. Matlick requested establishment of the proposed fire lanes at 190 East Maple. Section 8.28, Chapter 106, Troy City Code, provides for the establishment of fire lanes on private property. The Fire Department recommends that the fire lanes shown on the attached sketch be provided to allow proper deployment of and travel by emergency vehicles (fire, police, medical).

Motion by Cotsonika
Supported by Hubbell

Recommend that the fire lanes/tow away zones shown in the attached sketch be established for 190 East Maple.

YEAS: 5

NAYS: 0

ABSENT: 2

MOTION CARRIED

Peggie Perry announced that she is resigning as a Traffic Committee member because she will begin work as a Police Service Aide on February 2, 1998. City Ordinances prohibit employees from serving on boards and committees. Jan Hubbell, on behalf of the Traffic Committee, expressed appreciation for Ms. Perry's twelve years of service to the Traffic

Committee and the City's residents. Cake was served and everyone extended best wishes to Ms. Perry in her new career.

9. Adjourn

Moved by Hubbell

Supported by Palchesko

To adjourn the meeting at 10:02 p.m. The next meeting is scheduled for February 25, 1998.

YEAS: 5

NAYS: 0

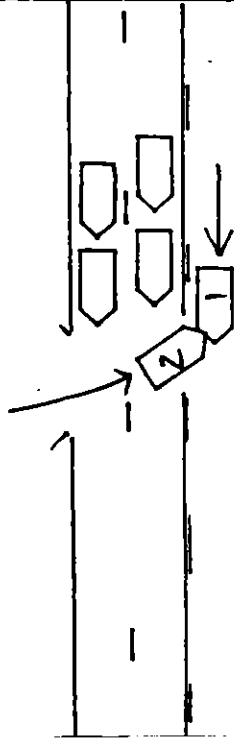
ABSENT: 2

MOTION CARRIED

Crash Diagram and Remarks



VEHICLE NO. 1 WAS W/B ON LONG LAKE AND JUST ENTERED THE CENTER TURN LANE INTENDING TO TURN INTO A BANK PARKING LOT. VEHICLE NO. 2 WAS ATTEMPTING TO EXIT A PRIVATE DRIVE AND GO EAST ON LONG LAKE. AS NO. 2 ENTERED THE CENTER TURN LANE THE TWO VEHICLES COLLIDED.



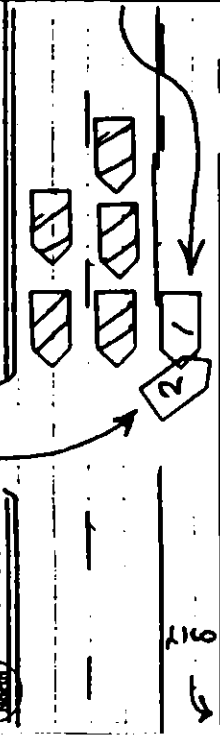
LONG LAKE
45 MPH

BANK DRIVEWAY

Crash Diagram and Remarks



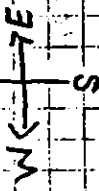
PRIVATE DRIVE



Long Lake road

W.B. TRAFFIC STOPPED TO ALLOW UNIT #2 TO EXIT THE PRIVATE DRIVE. UPON ENTERING THE LEFT TURN LANE UNIT #2 COLLIDED WITH UNIT #1 WHO WAS PASSING IN THE LEFT TURN LANE.

Crash Diagram and Remarks



LONG LAKE



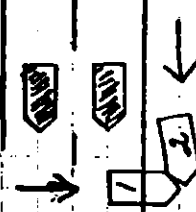
Vehicle #1 was making left turn into parking lot when vehicle #2 collided with vehicle #2 who was traveling EAST.

ROCHESTER RD.

Crash Diagram and Remarks



PRIVATE DRIVE

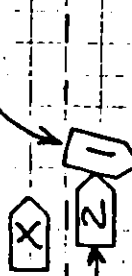


LONG LAKE 45 MPH

Crash Diagram and Remarks



E. LONG LAKE RD.



940 E. LONG LAKE RD. 45 MPH.

#1 MAKES LEFT AFTER VEH. #2 STOPS TO ALLOW. #2 COLLIDES WITH #1.

Crash Diagram and Remarks

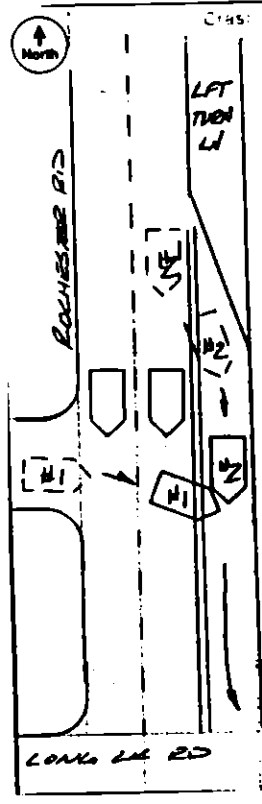


Longlake rd

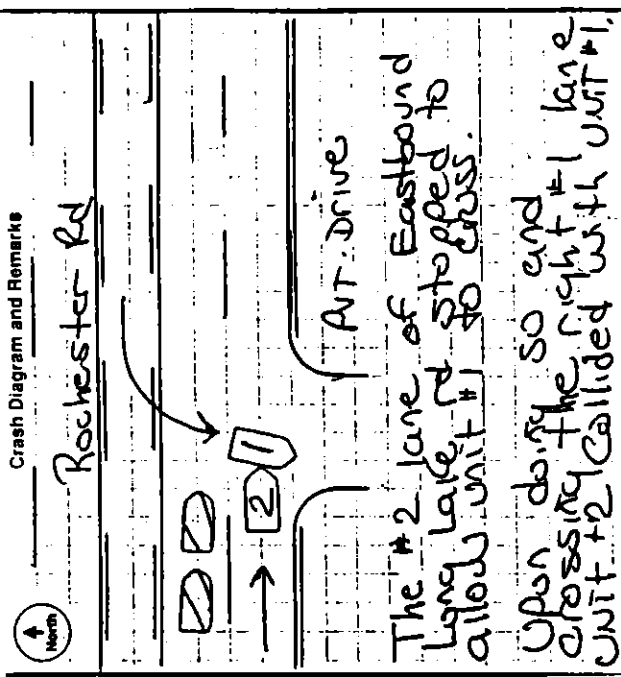
UNIT #1, EXITED OUT OF A PRIVATE DRIVE TO MAKE A LEFT TURN.

UPON ENTERING THE LEFT TURN LANE UNIT #2 COLLIDED WITH UNIT #1

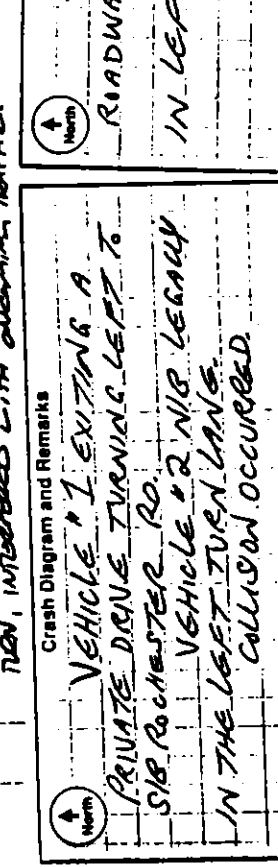
UNIT #2 INDICATED HE ONLY JUST PASSED THE ONE VEHICLE



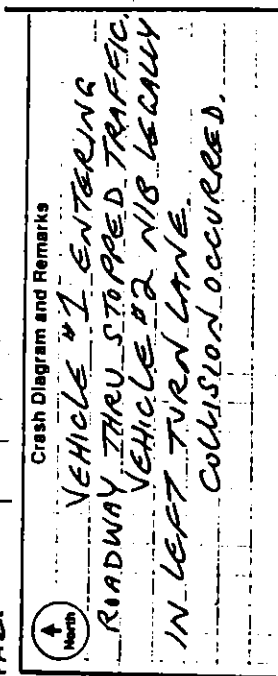
VEH #1 ENTERED THE ROADWAY FROM THE
 APPROX. W. VEH #1 MADE AN IMPROPER EXIT
 TURN AND INTERFERED WITH VEH #2 TRAVELING
 WITHIN THE LEFT TURN LANE. TRAFFIC IN THE
 TURN LANE STOPPED TO LET VEH #1 OUT
 OF APPROX. W. DRIVER #1 DID NOT COVER
 OF TRAVEL WITHOUT SAFE OBSERVATION. DRIVER
 #1 BEING 55/51/8 FAIL TO YIELD C/W/ROAD
 THEN, INTERFERED WITH ONCOMING TRAFFIC.



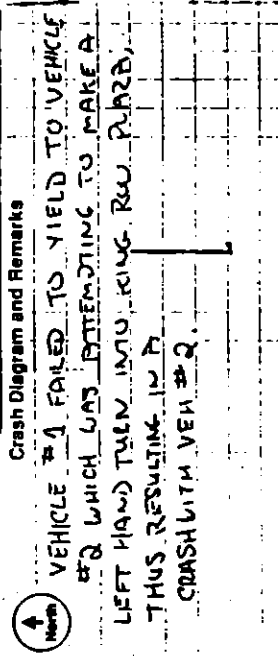
THE #2 LANE OF EASTBOUND
 LONG LAKE RD STOPPED TO
 ALLOW UNIT #1 TO CROSS.
 UPON DOING SO AND
 CROSSING THE RIGHT #1 LANE
 UNIT #2 COLLIDED WITH UNIT #1.



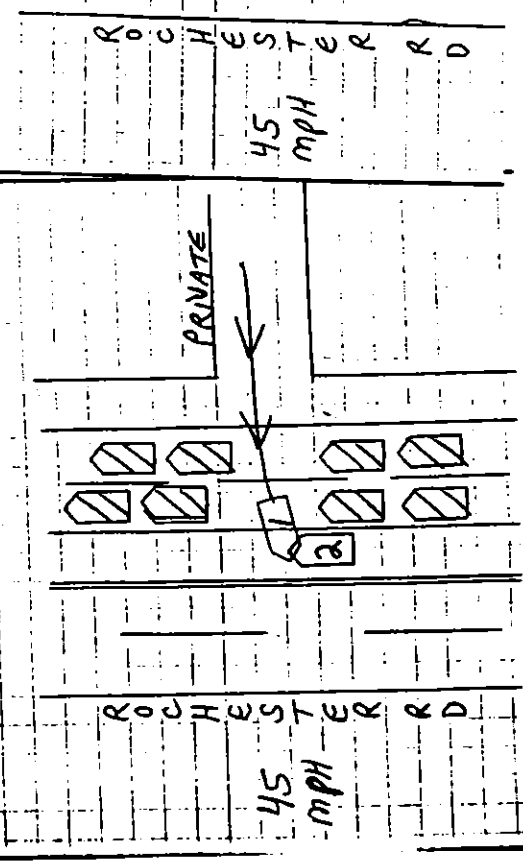
VEHICLE #1 EXITING A
 PRIVATE DRIVE TURNING LEFT TO
 SIB ROCHESTER RD.
 VEHICLE #2 NIB LEGALLY
 IN THE LEFT TURN LANE.
 COLLISION OCCURRED.



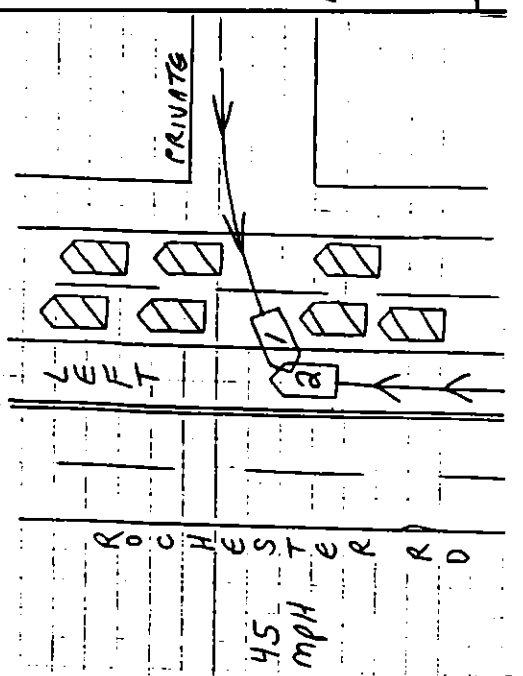
VEHICLE #1 ENTERING
 ROADWAY THRU STOPPED TRAFFIC.
 VEHICLE #2 NIB LEGALLY
 IN LEFT TURN LANE.
 COLLISION OCCURRED.



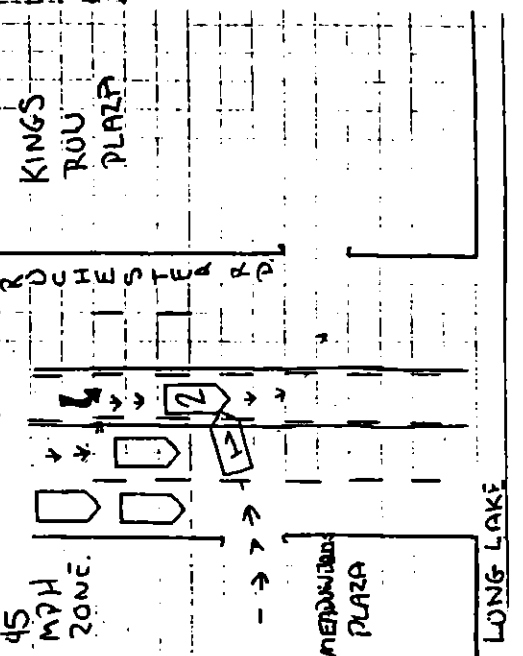
VEHICLE #1 FAILED TO YIELD TO VEHICLE
 #2 WHICH WAS ATTEMPTING TO MAKE A
 LEFT HAND TURN INTO KING ROW PLAZA,
 THUS RESULTING IN A
 CRASH WITH VEH #2.



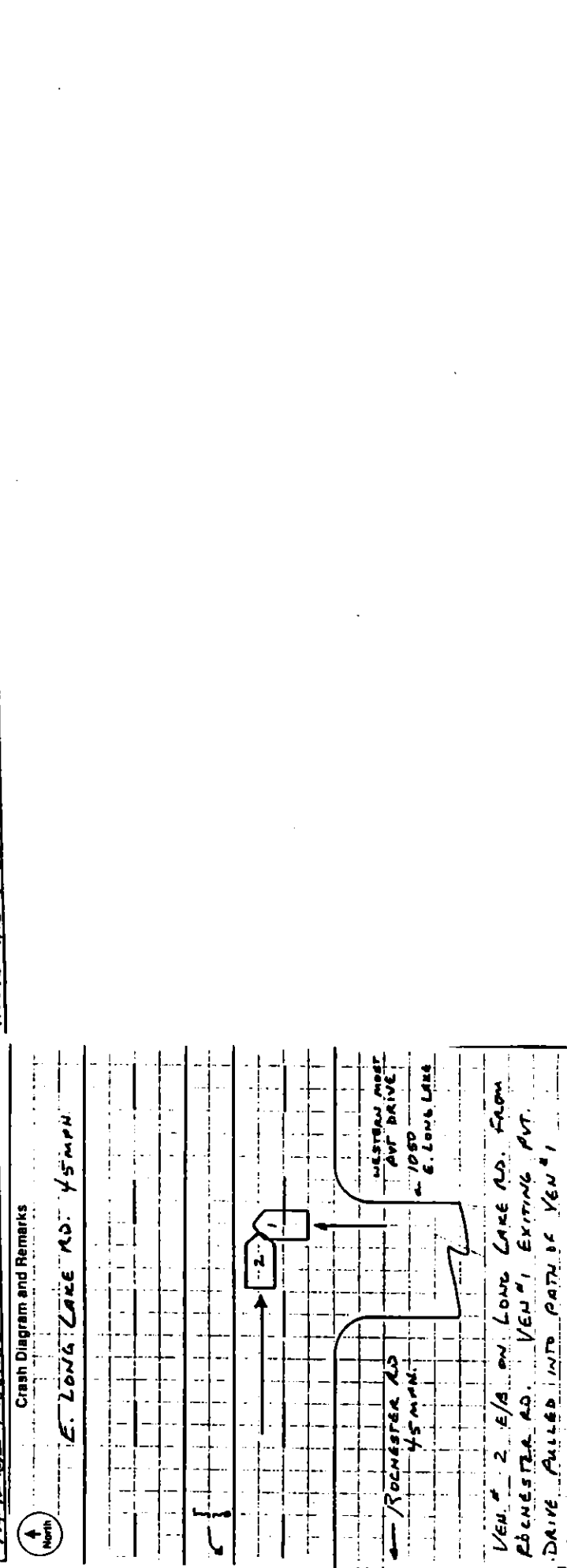
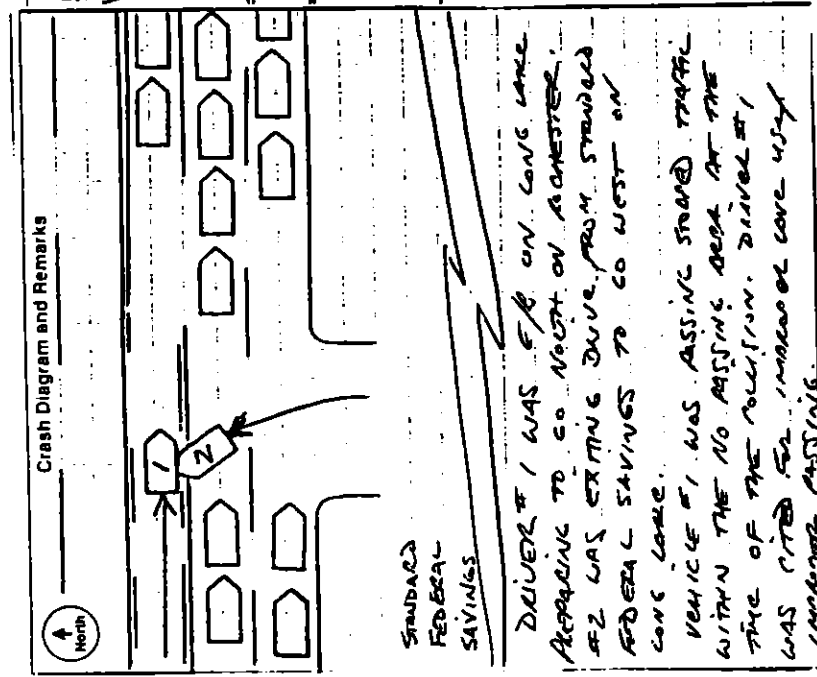
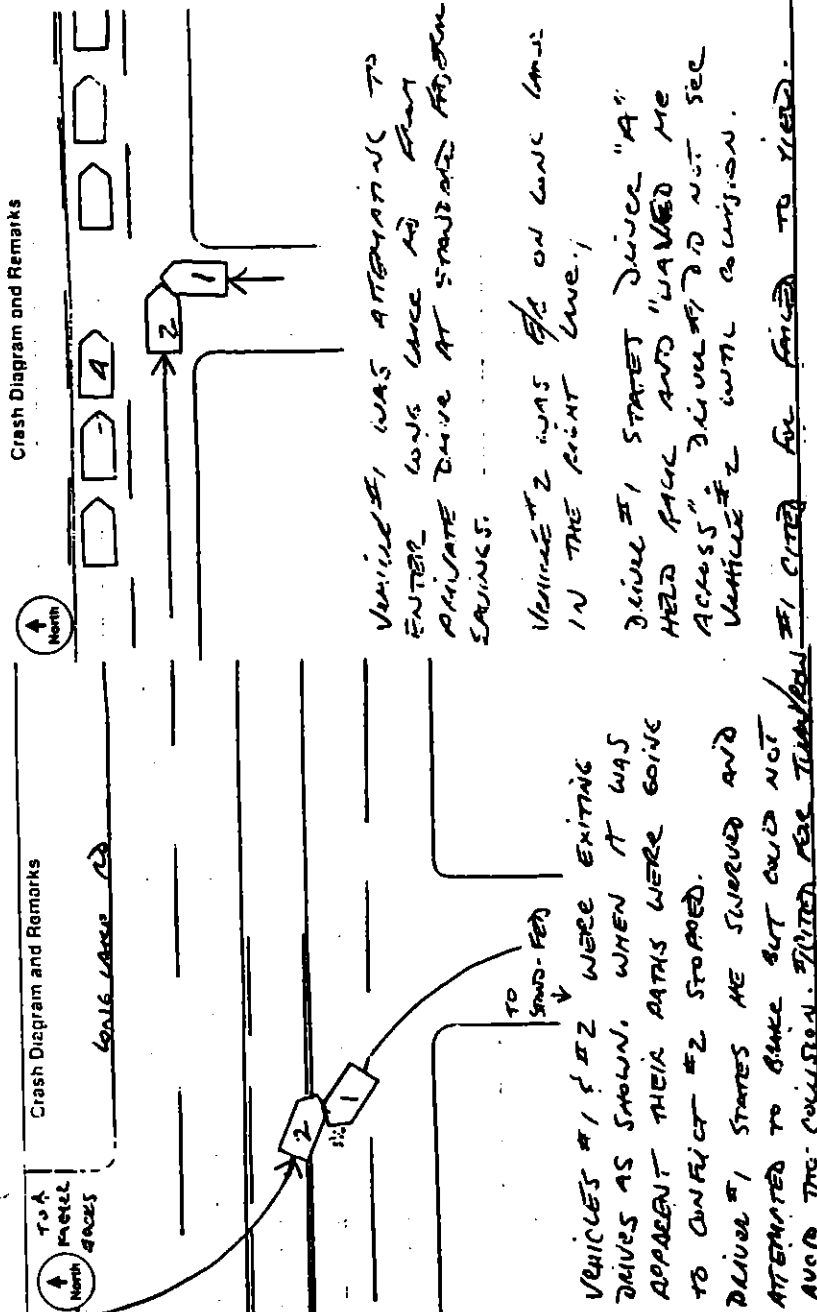
VEHICLE #1 EXITING A
 PRIVATE DRIVE TURNING LEFT TO
 SIB ROCHESTER RD.
 VEHICLE #2 NIB LEGALLY
 IN THE LEFT TURN LANE.
 COLLISION OCCURRED.

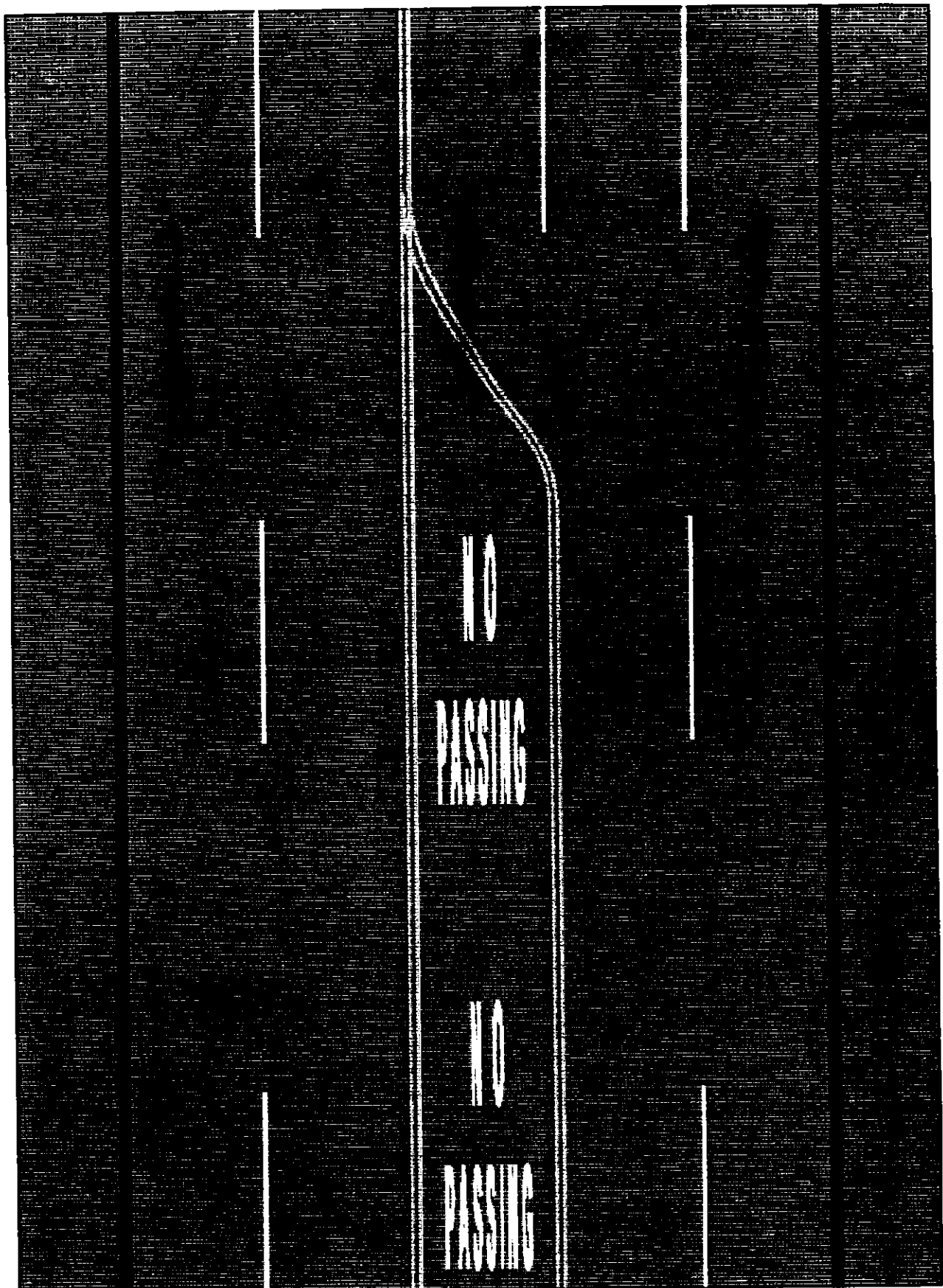


VEHICLE #1 ENTERING
 ROADWAY THRU STOPPED TRAFFIC.
 VEHICLE #2 NIB LEGALLY
 IN LEFT TURN LANE.
 COLLISION OCCURRED.



VEHICLE #1 FAILED TO YIELD TO VEHICLE
 #2 WHICH WAS ATTEMPTING TO MAKE A
 LEFT HAND TURN INTO KING ROW PLAZA,
 THUS RESULTING IN A
 CRASH WITH VEH #2.





Conflict Study

Details

LOCATION: Standard Federal Bank on the south side of Long Lake Road
just west of Rochester Road

DATE: Wednesday, Dec. 3, 1997

TIME: 4:15 p.m. to 5:45 p.m. (1.5 hours)

CONDITIONS: Cloudy, raining

VANTAGE POINT: In bank parking lot looking north just east of the bank driveway

Summary

Time Interval	IN				OUT			
	Left	Conflict	Right	Conflict	Left	Conflict	Right	Conflict
4:15-4:45 p.m.	1	0	11	0	4	2	11	0
4:45-5:15 p.m.	1	1	16	1	7	6	15	0
5:15-5:45 p.m.	0	0	11	0	3	1	7	1
TOTAL	2	1	38	1	14	9	33	1
<i>per hour</i>	<i>1.3</i>	<i>0.6</i>	<i>25</i>	<i>0.6</i>	<i>9.3</i>	<i>6</i>	<i>22</i>	<i>0.6</i>

Time Interval	Left Turn IN			Right Turn IN			Left Turn OUT			Right Turn OUT		
	SV	CT	B	SV	CT	B	SV	CT	B	SV	CT	B
4:15-4:45 p.m.	0	0	0	0	0	0	3	1	0	3	0	0
4:45-5:15 p.m.	1	0	0	0	1	0	5	0	2	3	0	0
5:15-5:45 p.m.	0	0	0	0	0	0	3	0	0	2	0	0
TOTAL	1	0	0	0	1	0	11	1	2	8	0	0
<i>per hour</i>	<i>.6</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>.6</i>	<i>0</i>	<i>7.3</i>	<i>.6</i>	<i>1.3</i>	<i>5.3</i>	<i>0</i>	<i>0</i>

Key: SV= Stopped vehicle allows turning vehicle through
CT= Cut-through traffic from shopping center to bank
B = Turning vehicle blocks traffic on Long Lake

Comments and Observations

- On Wednesday, the day the study was done, the bank closed at 5:00 p.m. but it has an ATM machine
- The bank has an entrance/exit on both Long Lake Rd. and Rochester Rd.

- Some cut-through traffic with bank and shopping center on the north side of Long Lake was observed
- One pedestrian and one bicycle crossed Long Lake from the bank driveway to the shopping center driveway on the north side
- The type of traffic conflicts observed dealt with sudden/sharp braking

TURNING MOVEMENT

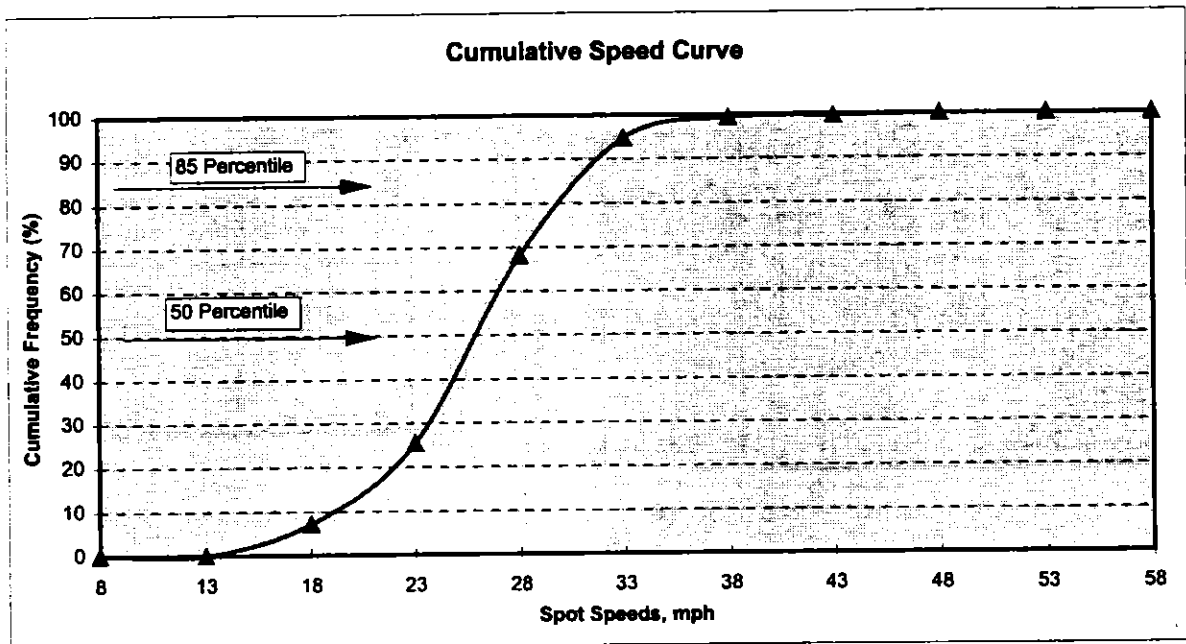
- Right Turning In
 - no problems
 - 2 lanes eastbound: 1 through lane and 1 combined through and right lane
- Left Turning In
 - drivers turning left into the bank block the centerlane for drivers wanting to turn left at Rochester
 - there is a long queue on Long Lake for drivers turning left onto Rochester
- Right Turning Out
 - no problem if the vehicle goes into the rightmost lane (through/right lane)
 - otherwise the vehicle has to wait for a eastbound driver to let him into either the through lane or the center left turn lane
- Left Turning Out
 - problems with traffic stacking up in the through lane and the queue in the center left turning lane
 - driver turning left out of the bank has to wait to be let in because of the blockage
 - once the driver is let through he has to wait for an appropriate gap in the opposing traffic thus blocking the eastbound traffic that let him in

SPOT SPEED STUDY

SAFFRON 7:10 HRS TO 21:26 HRS

Class Boundaries (mph)	Mid Value	Class Freq	rel freq	cumulative percentage	cumulative percentage
6 to 10	8	0	0	0.000	0.000
11 to 15	13	95	0.071108	0.000	0.000
16 to 20	18	243	0.181886	0.071	7.111
21 to 25	23	571	0.427395	0.253	25.299
26 to 30	28	355	0.265719	0.680	68.039
31 to 35	33	63	0.047156	0.946	94.611
36 to 40	38	4	0.002994	0.993	99.326
41 to 45	43	5	0.003743	0.996	99.626
46 to 50	48	0	0	1.000	100.000
51 to 55	53	0	0	1.000	100.000
56 to 60	58	0	0	1.000	100.000
Total # vehicles		1336			

mean = 23.299 Miles per hour

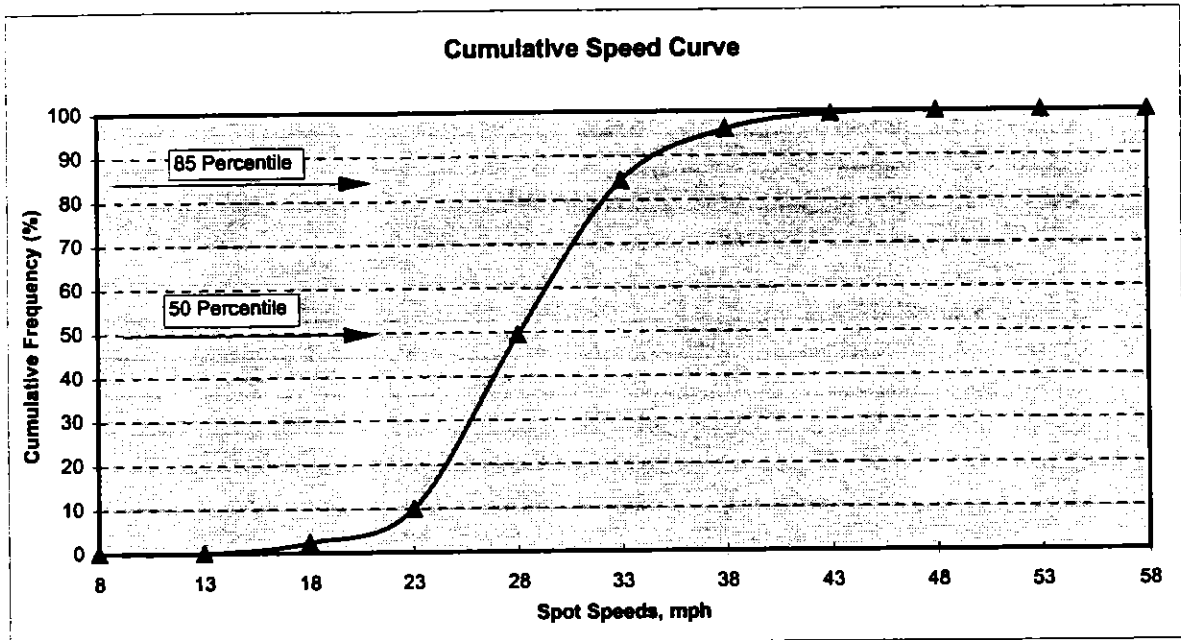


SPOT SPEED STUDY

HARTLAND AVE JUNE 29, 1997 11:00 TO 18:00

Class Boundaries (mph)	Mid Value	Class Freq	rel freq	cumulative percentage	cumulative percentage
6 to 10	8	0	0	0.000	0.000
11 to 15	13	19	0.023839	0.000	0.000
16 to 20	18	60	0.075282	0.024	2.384
21 to 25	23	314	0.393977	0.099	9.912
26 to 30	28	279	0.350063	0.493	49.310
31 to 35	33	92	0.115433	0.843	84.316
36 to 40	38	28	0.035132	0.959	95.859
41 to 45	43	4	0.005019	0.994	99.373
46 to 50	48	1	0.001255	0.999	99.875
51 to 55	53	0	0	1.000	100.000
56 to 60	58	0	0	1.000	100.000
Total # vehicles		797			

mean = 25.949 Miles per hour



PETITION FOR HARTLAND AVE HOMEOWNERS
(SEPTEMBER 1997)

We, the undersigned, request a resolution to the horrendous traffic congestion we experience consistently. We are willing to work with the City of Troy Traffic Committee to determine whether we need speed bumps, traffic circles, or a diverter barrier to deter the overwhelming volume of cut through traffic.

NAME ADDRESS PHONE # PREFERENCE

Director Chandi Dumbti	809 N. Highland	528-3248	
Monica Cole	715 Hartland	528-0199	
Virginia Craig	705 Hartland	689-2911	
Aligina M. Lee	675 Hartland	689-9049	
Nehru Jackson	655 Hartland	689-0249	
Nancy Johnson	635 Hartland	528-3915	
Pete Sanchez	623 Hartland	689-0565	
Kelly Lacy-Davis	575 Hartland	528-0013	
Jefferson L. Davis	575 Hartland	528-0013	
Gregg Gibbons	563 Hartland	524-9549	
Albert R. R. R.	471 HARTLAND	689-6910	
DEBORAH HANCOCK	710 HARTLAND	689-1766	
ELNA THOMPSON	478 HARTLAND	528-3327	
RUTH Mares	460 Hartland	689-0843	
Audrey Hammer	436 Hartland	528-3855	
Nicole Henderson	437 Hartland	689-0308	
Geo. Bunk	365 HARTLAND	690-0219	
Cheri Sikaty	574 Hartland	689-8319	
SHARON KIRKIN	620 HARTLAND	524-9051	
Diane Holmberg	737 HARTLAND	689-5516	
Cornelia R. R.	793 Hartland	689-6492	
Betty Valentine	845 Hartland	689-1535	
Robert McMiller	858 Hartland	689-8617	
Robert Piscopo	866 Hartland	689-5236	
Vasile Stansky	825 HARTLAND	629-6874	
Maura Jones	812 Hartland	528-3832	
Royce Williams	828 HARTLAND	689-8068	

ENTER/EXIT	Hartland at Livernois	Troy at Big Beaver	Talbot at Big Beaver	Kilmer at Big Beaver	Hartland at Rochester	TOTAL CUT-THROUGH
Hartland at Livernois	0	0	1	1	36	38
Troy at Big Beaver	4	0	0	0	2	6
Talbot at Big Beaver	10	0	0	1	13	24
Kilmer at Big Beaver	1	0	0	0	3	4
Hartland at Rochester	5	0	0	1	0	6
TOTAL CUT-THROUGH	20	0	1	3	54	78

	Total Vehicles Observed Entering	Total Vehicles Observed Exiting	Total Number of Vehicles Observed	Percent of Entering Vehicles Cutting Through	Percent of Exiting Vehicles Cutting Through	Percent of Vehicles Cutting Through
Hartland at Livernois	258	129	387	5.7	5.0	10.7
Troy at Big Beaver	41	3	44	0.9	0	0.9
Talbot at Big Beaver	135	37	172	3.6	0.3	3.9
Kilmer at Big Beaver	46	41	87	0.6	0.7	1.3
Hartland at Rochester	186	194	380	0.9	13.4	14.3
TOTAL	666	404	1070			

Note: 10% of license plates were unreadable

LICENSE PLATE SURVEY RESULTS
 CUT-THROUGH TRAFFIC ON HARTLAND
 January 7, 1998

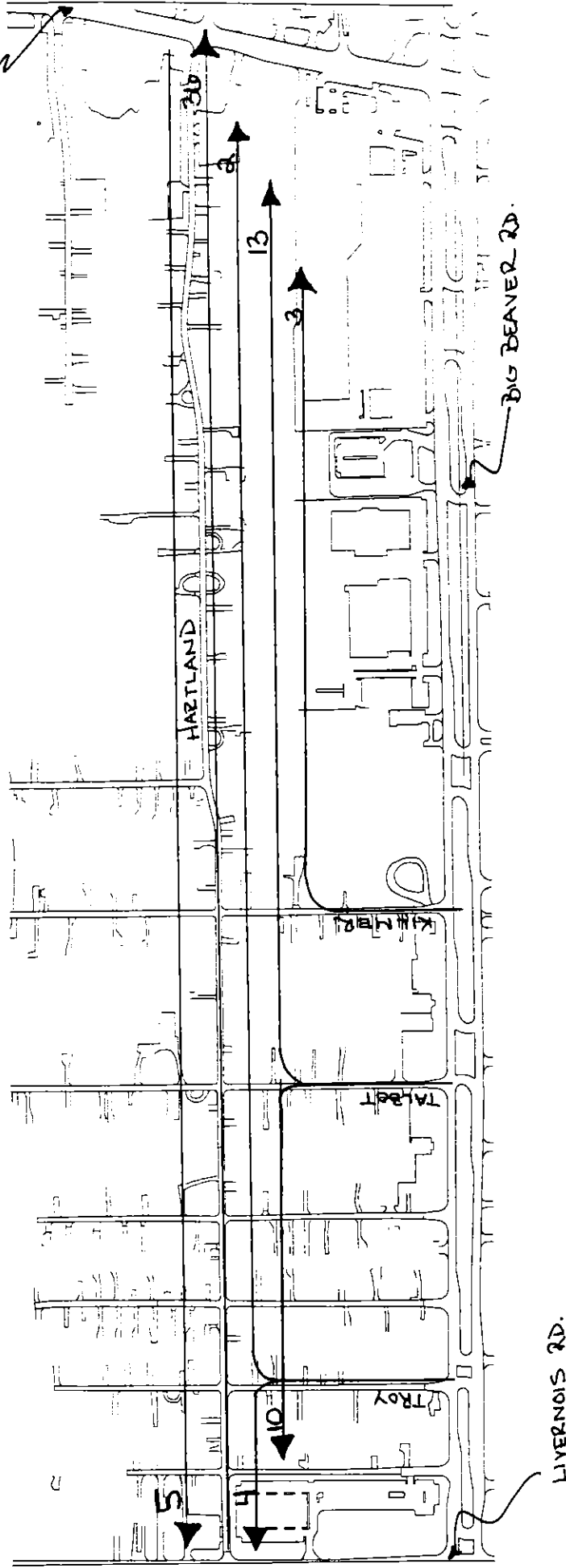
	Number of Vehicles Entering	Percent of Vehicles Entering
Hartland at Livernois	12	7.0
Troy at Big Beaver	1	0.6
Talbot at Big Beaver	7	4.1
Kilmer at Big Beaver	1	0.6
TOTAL CUT-THROUGH	21	12.3

Total number of vehicles in church parking lot = 172

LICENSE PLATE SURVEY RESULTS
CUT-THROUGH TRAFFIC ON HARTLAND TO CHURCH
January 7, 1998

↑ N

ROCHESTER RD.



LIVERNOIS RD.

LICENSE PLATE SURVEY RESULTS — OUT-THROUGH TRAFFIC ON HARTLAND

(January 7, 1998)



Troy Fire Department

500 West Big Beaver Road, Troy, Michigan 48084
248-524-3419

January 12, 1998

Robert Wineman
Etkin Equities
29100 Northwestern Hwy Ste 200
Southfield MI 48034

RE: 190 E. Maple, Troy

Dear Mr. Wineman:

In accordance with Chapter 106 of the Troy City Code, your property known as 190 E. Maple has been surveyed by the Troy Fire Department for the purpose of establishing fire lanes.

It is requested that you or your representative attend the Traffic Committee meeting on Wednesday, January 21, 1998, at 7:30 p.m., which is held at the Troy Civic Center, 500 W. Big Beaver.

If you have any questions regarding this matter, please feel free to contact me.

Sincerely,

TROY FIRE DEPARTMENT

Robert Matlick
Lieutenant

RM/cz

attch

EXISTING FIELD

DETENTION POND

FUTURE PARKING FOR 190 E. MAPLE

FUTURE TENANT SPACE

MICHIGAN CHANDELIER

MAPLE ROAD

190 E. MAPLE — SITE LANDSCAPE — SCALE 1" = 60'





Troy Fire Department

500 West Big Beaver Road, Troy, Michigan 48084
248-524-3419

January 12, 1998

Property Manager
33333 Dequindre
Troy MI 48084

RE: 33333 Dequindre

Dear Sir:

In accordance with Chapter 106 of the Troy City Code, your property known as 33333 Dequindre has been surveyed by the Troy Fire Department for the purpose of establishing fire lanes.

It is requested that you or your representative attend the Traffic Committee meeting on Wednesday, January 21, 1998, at 7:30 p.m., which is held at the Troy Civic Center, 500 W. Big Beaver.

If you have any questions regarding this matter, please feel free to contact me.

Sincerely,

TROY FIRE DEPARTMENT

Robert Matlick
Lieutenant

RM/cz

attch

ITEM 8

33341

33333

DEQUINDRE

N

X = FIRE LANE SIGNS