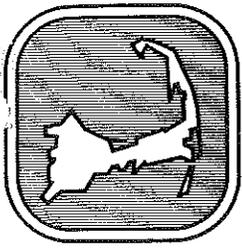


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**CAPE COD PLANNING AND ECONOMIC DEVELOPMENT COMMISSION**  
1ST DISTRICT COURT HOUSE, BARNSTABLE, MASSACHUSETTS 02630  
TELEPHONE: 617-362-2511

CAPE COD

HIGH HAZARD LOCATIONS - -

OBSERVATIONS

August, 1981

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## I INTRODUCTION

The following documentation is based upon on-site surveillance of each High Hazard Location intersection contained in the region's FY 1981 Transportation Improvement Program (TIP). These intersection observations were performed by the Transportation staff of the Cape Cod Planning and Economic Development Commission along with the following individuals:

- Mr. Quinton Kiepe, PE, Chairman CCJTC Highway Subcommittee, Harwich
- Mr. Martin Moran, Engineer, Town of Harwich
- Mr. Frank Lambert, Engineer, Town of Barnstable
- Mr. John Newton, Surveyor, Town of Yarmouth
- Mr. Sherman Reed, Traffic Committee, Town of Orleans
- Mr. Walter R. Jacobson, Superintendent of Streets, Town of Mashpee
- Mr. Burley Greene, Highway Foreman, Town of Mashpee
- Mr. William Taylor, Engineer, Town of Sandwich
- Photographs were by Mr. Glenn Rowland

The purpose of the observations is to determine whether or not a project requires improvements based on existing conditions with the end results being a regional High Hazard list that is reduced to an implementable number.

This activity represents the first step in a process that will give the Massachusetts Department of Public Works (MDPW) a better idea on when and how a particular high hazard project can be programmed for design and eventual construction.

An acceptable format for this investigative process was agreed to by the MDPW District 7 office and the MDPW Bureau of Transportation Planning and Development (BPT&D). A subsequent detailed scope of work under the present MDPW transportation planning contract was developed in order that the work could be completed.

Following this observation activity will be a TOPICS (safety improvement) like document which will present the more critical and locally supported projects on Cape Cod. Where appropriate, individual high hazard projects will be analyzed based on combinations of data which will include: traffic counts, traffic turning movements, right-of-way status, accident sketches and causes and the surrounding land use.

It should be noted that not all towns on the Cape have participated in this High Hazard Location analysis project. Those towns participating include:

- Barnstable
- Harwich
- Mashpee
- Orleans
- Sandwich
- Yarmouth

Bourne was also included, however improvements to its only High Hazard intersection are already programmed by the MDPW. (Rt. 6/28 Bypass).

The presentation format for this report involves a description of the intersection (location, problems), a discussion of possible solutions, statements on previous studies which involve accident data and Average Annual Daily Traffic (AADT), the participating parties involved with further analysis, local priority and the relationship to the FY 1982 Transportation Improvement Program (TIP).

Those projects recommended for further analysis during the coming year include:

<u>Town</u>	<u>Project</u>
Barnstable:	Intersection Bearses Way & Rt. 132 Intersection Rt. 28 & West Main St.
Harwich:	Intersection Rt. 28/Chase St. Intersection Rt. 124/Queen Anne Rd.
Mashpee:	Intersection Lowell Rd. & Central Ave. Intersection Rt. 28 & Quinaquisset Ave.
Orleans:	Intersection Rt. 28/Bridge Rd./6A
Sandwich:	Intersection Rt. 6A & Quaker Meetinghouse Rd.
Yarmouth:	Intersection Forest Rd. & Winslow Gray Rd. Intersection High Bank Rd. & Great Western Rd. Intersection Forest Rd. & Long Pond Dr. Intersection of Old Town House Rd. & Forest Rd.

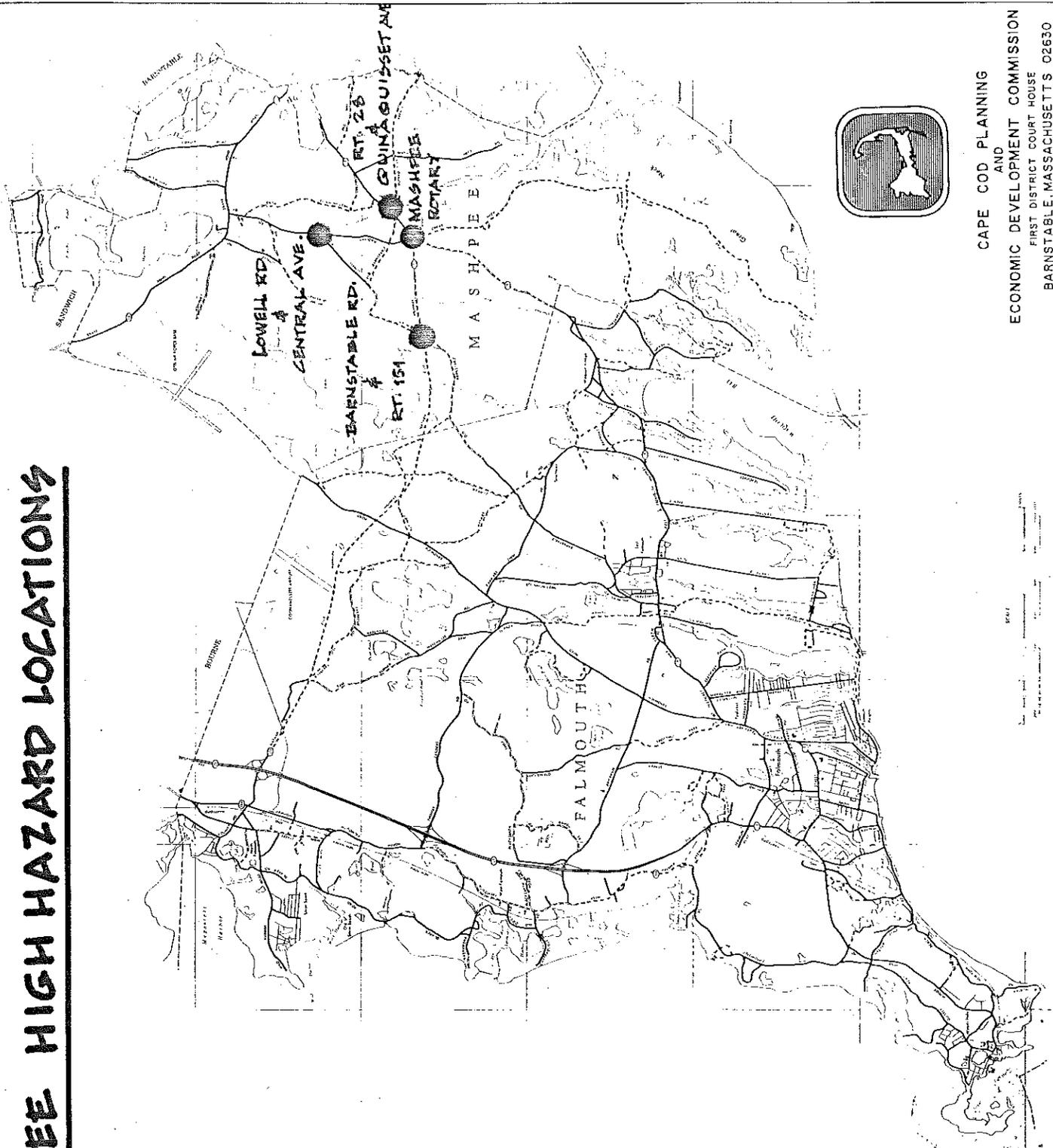
II

UPPER CAPE COD HIGH HAZARD LOCATIONS  
OBSERVATIONS

MASHPEE

# MASHPEE HIGH HAZARD LOCATIONS

MAP 1



GENERAL HIGHWAY MAP  
**BARNSTABLE COUNTY**  
 THE COMMONWEALTH OF MASSACHUSETTS  
 PREPARED FOR  
 MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS  
 BUREAU OF TRANSPORTATION PLANNING AND DEVELOPMENT  
 U. S. DEPARTMENT OF COMMERCE, BUREAU OF PUBLIC ROADS

CAPE COD PLANNING  
 AND  
 ECONOMIC DEVELOPMENT COMMISSION  
 FIRST DISTRICT COURT HOUSE  
 BARNSTABLE, MASSACHUSETTS 02630

## OBSERVATION REPORT

### MASHPEE

Rt. 151/Rt. 28 Mashpee Rotary

#### PROBLEM:

Merging problems which are typical of rotaries are occurring on all approaches. Great Neck Road seems to be the worst approach. There are no yield or control signs at the approach. Warning signs reminding the driver of a rotary ahead are present but their position, size, type and visual functions are suspect. Speeds are not necessarily reduced at the time of a merger.

While the Mashpee Circle intersections record the highest total accidents in town, the accident rate, because of the volume of traffic (24,300 AADT) is the lowest. Only a token amount of accidents produce injuries. The cost for corrective measures would be extremely high (elimination of rotary) in relation to benefits derived. However, low cost improvements such as re-evaluation of signing at all approaches and the proper placement of yield signs would seem to be sufficient.

#### COMMENTS:

A request by the town has been made in the past for the Massachusetts Department of Public Works to add yield signs on all approaches. However, nothing has been done to date. The project has been and remains on the Transportation Improvement Program for Cape Cod.

No further analysis would be needed to substantiate improvements to this project and until improvements are completed, this project should remain on the region's FY 1982 Transportation Improvement Program, Annual Element.



## OBSERVATION REPORT

### MASHPEE:

Lowell Road/Central Avenue - Y Intersection

### PROBLEM:

This is a stop control intersection (Lowell Rd.). There is no stop line at approach and the stop control on Lowell Road appears to be positioned well ahead of the intersection. The intersection is wide open causing turning movements to be extremely confusing and potentially dangerous. A good deal of development is planned off Lowell Road and will add to the existing problems.

### COMMENT:

This project will require surveying work with significant geometric changes made. Adding a 30-35" radius to close off the intersection with filler might be in order. Bringing the stop line perpendicular with Central Avenue might be part of the improvements.

Since this intersection was not included in a High Hazard Location analysis, accident data will have to be obtained from the Town's Police Department. This will be initiated by the Town's Highway Superintendent. No traffic counts or movement data would be necessary.

This project is recommended for further analysis and will remain on the Transportation Improvement Program (TIP) at the request of the Town. It will be included on the TIP's Annual Element for FY 1982.



## OBSERVATION REPORT

### MASHPEE

Rt. 151 & Old Barnstable Road - Four-Way Intersection

#### PROBLEM:

This is a four-way stop control intersection (Old Barnstable Road).

Left hand turns entering Old Barnstable Road are dangerous. Double yellow stripes stop too soon on Rt. 151 thereby causing turns onto Old Barnstable Road to be made well before the intersection. Rt. 151 is a high speed road (50 mph) and is locally known as the "Mashpee Turnpike".

Accident data in the past indicates that this intersection causes a moderate number of accidents involving injuries. The intersection volume is around 10,000 AADT with an accident rate of .9.

#### COMMENTS:

The problems at the intersection could be corrected by the town. Double yellow lines should be extended closer to the intersection to allow for safe left hand turns on all approaches. Center lines on Old Barnstable Road should also be made to align with one another. Some minor signing improvements (position) should also be made.

It is recommended that no further analysis is needed to substantiate the improvement. It is no longer necessary for the project to be included on the region's FY 1982 Transportation Improvement Program.



## OBSERVATION REPORT

### MASHPEE

Rt. 28/Quinaquisset Avenue - T Intersection

#### PROBLEM:

This is an extremely dangerous intersection which possesses a combination of safety related problems. There is poor sight distance coming out of Quinaquisset Ave. There is a tendency for vehicles to pass to the left when entering Quinaquisset Ave. The lanes on Quinaquisset Ave. are narrow ranging from 7-9'. Approaches to the intersection are both downhill and a sharp curve exist on Quinaquisset immediately before the intersection.

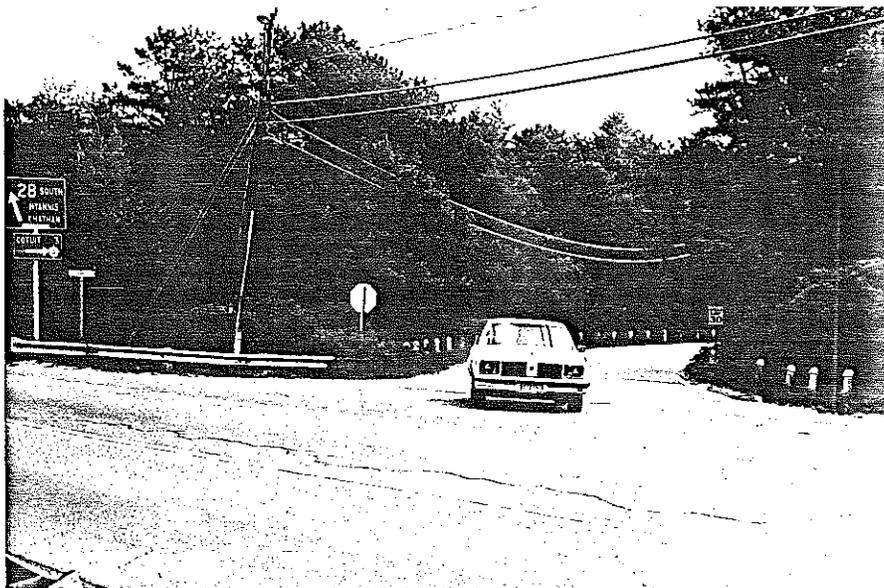
#### COMMENTS:

This project has been overlooked as far as its safety conditions and should be programmed for planning and analysis.

The geometrics should be changed. A signing survey and evaluation on Quinaquisset Ave. should be conducted. Curve symbol signs and signals at the intersection should be considered.

Because this intersection was not included in previous High Hazard Location analysis, accident data will be needed. Turning movement information along with traffic counts will be necessary on Quinaquisset Ave. Traffic counts on Rt. 28 are available from the Massachusetts Department of Public Works (MDPW). Right-of-way information can also be obtained from MDPW.

This project should be added to the FY 1982 Transportation Improvement Program (TIP) Annual Element.



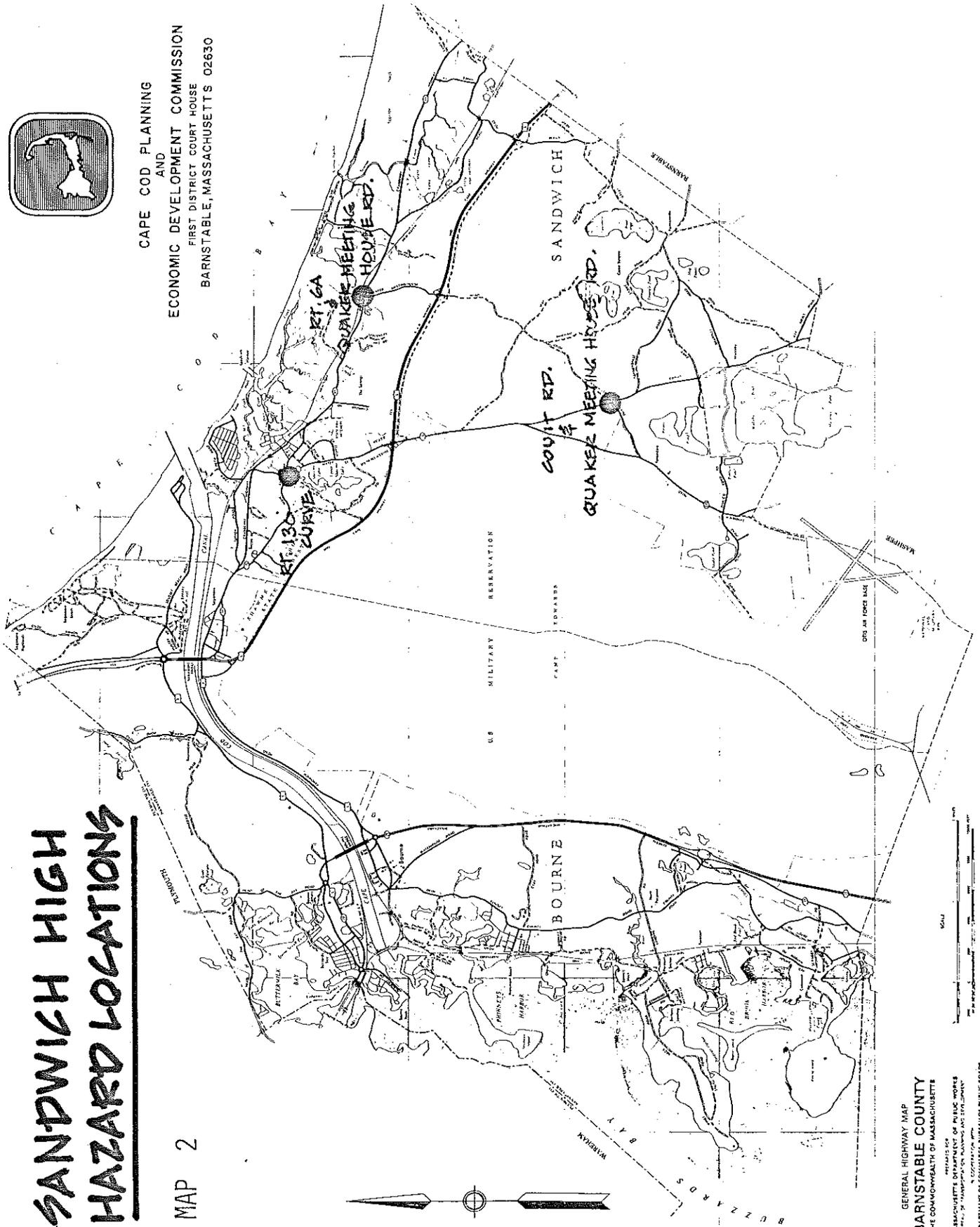
SANDWICH

# SANDWICH HIGH HAZARD LOCATIONS

MAP 2



CAPE COD PLANNING AND ECONOMIC DEVELOPMENT COMMISSION  
FIRST DISTRICT COURT HOUSE  
BARNSTABLE, MASSACHUSETTS 02630



GENERAL HIGHWAY MAP  
BARNSTABLE COUNTY  
THE COMMONWEALTH OF MASSACHUSETTS  
REVISION 1960  
MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS  
BUREAU OF TRANSPORTATION PLANNING AND DESIGN  
U.S. DEPARTMENT OF COMMERCE BUREAU OF PUBLIC ROADS

OBSERVATION REPORT

SANDWICH:

Rt. 6A/Quaker Meetinghouse Rd. - T Intersection Blinking  
Yellow/Red Controls

PROBLEMS:

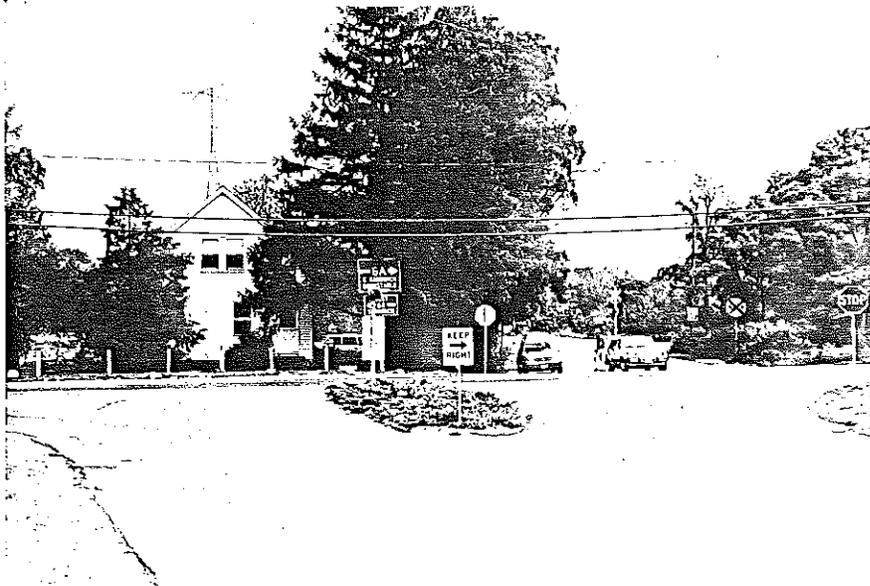
Vehicles especially at night have a tendency to continue through the intersection and onto private property. Right-of-way (ROW) could be necessary to improve conditions. Quaker Meetinghouse Rd. is heavily traveled during the school season.

This intersection was not part of a recent High Hazard Location analysis.

COMMENTS:

The intersection should be re-designed. The intersection should also be aligned into a four-way intersection. Traffic accident data will be needed if additional analysis is to be carried out. Massachusetts Department of Public Works should have traffic counts for Rt. 6A however, the Town would have to take counts for Quaker Meetinghouse Rd. ROW at the intersection would probably be necessary.

This project should be included on the region's FY 1982 Transportation Improvement Program, Annual Element.



## OBSERVATION REPORT

### SANDWICH :

Cotuit Rd/Quaker Meetinghouse Rd. - Four Way Intersection  
Stop control

### PROBLEM:

This intersection is wide open. It is very dangerous crossing or turning onto Cotuit Rd. The initial design of the intersection was approved by the Massachusetts Department of Public Works (MDPW), however the intersection was not constructed according to the design.

This intersection was not part of a recent High Hazard Location analysis although it did appear on the region's FY 1981 Transportation Improvement Program at the request of town officials.

### COMMENT:

At the moment the Town Engineer is seeking response from the MDPW District #7 office to use Chapter 90 funds to complete the project according to the initial approved designs.

This project should remain on the region's FY 1982 Transportation Improvement Program, Future Element until such time the town resolves it's request with District 7.



OBSERVATION REPORT

SANDWICH:

Rt. 130 Curve Near Pine St. - Dangerous Curve

PROBLEM:

There is a dangerous curve on Rt. 130 which is compounded by poor sight distance. Right of way problems exist because of the potential land takings from a cemetery which creates the curve. Some taking could be done but it would not correct the situation. Two isolated fatalities have caused concern by the Town Selectmen.

COMMENTS:

It would seem appropriate to let the Town resolve this issue on its own. Local circumstances together with Massachusetts Department of Public Works interest would not be conducive to further analysis. It is recommended that this project not be included on the region's FY 1982 Transportation Improvement Program (TIP).



III

MID-CAPE COD HIGH HAZARD LOCATIONS

OBSERVATIONS

.....

BARNSTABLE



OBSERVATION REPORT

BARNSTABLE:

Route 6/Rt. 132 - On/off Ramps

PROBLEM:

Rt.6 off ramps create dangerous situations especially on the Rt.132 south bound ramp. Cars are accelerating onto a high volume roadway (Rt. 132) with Shootflying Hill Rd. just short of the end of the ramp. At the Howard Johnson's intersection, cars have been known to run the lights causing serious accidents.

This area produces approximately twenty accidents per year with over 27% of the accidents being injury related. The accident rate is 4.4.

COMMENTS:

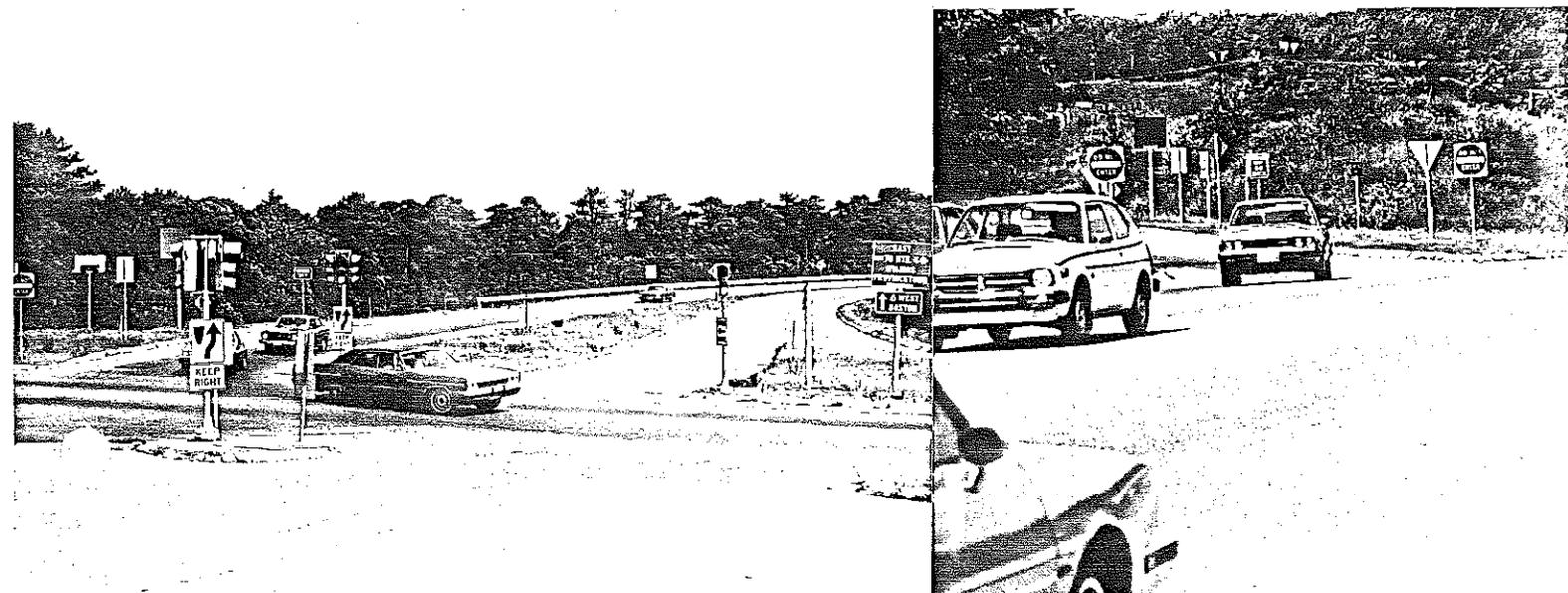
It would appear that the ramp and signalization associated with the Howard Johnson's exit is functioning normally - - geometrics appear to be appropriate. Speed signs and/or caution signs might be added on the off-ramp at Howard Johnson's to control the approach to the lights.

The off ramp merging on Rt. 132 south-bound could possibly utilize a stop control with appropriate warning signs ahead of the approach.

It is not recommended that a major redesign of the intersection(s) take place on Rt. 6 and 132. However, it would be proper to re-evaluate the signal system and the sign controls to the off-ramps.

If local priority is given to this project in the future, a joint effort should be made between the town, MDPW District 7 and the Cape Cod Planning and Economic Development Commission to gather traffic information necessary for preliminary design.

This project should remain on the region's Transportation Improvement Program Future Element for FY 1982.



OBSERVATION REPORT

BARNSTABLE:

Phinney's Lane/Rt. 132 - Signal control , Four-way Intersection

PROBLEM:

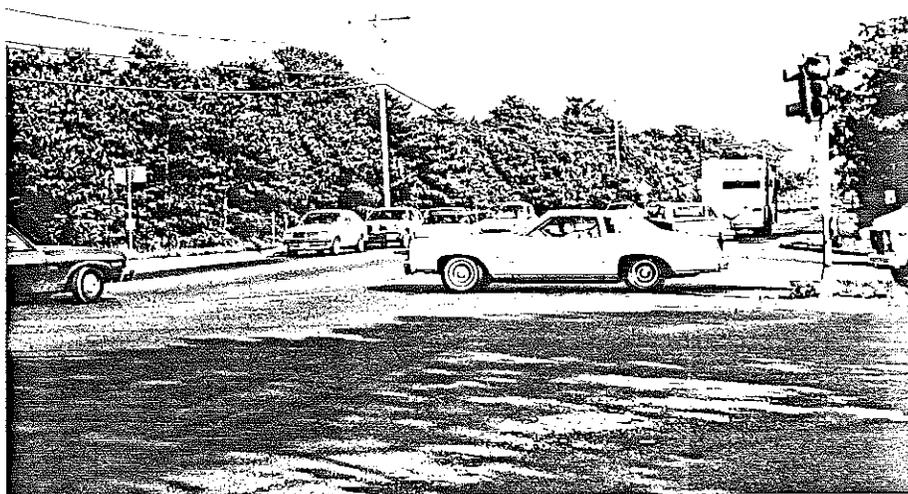
Approaches on Rt. 132 have two lane traffic flow and then narrows to one lane. The signal system is antiquated and does not appear to meet the Uniform Traffic Control Manual Standards. Lights are pole mounted. Turning movements are dangerous and are not properly controlled.

This intersection creates a number of accidents each year with injuries occurring about 45% of the time. The calculated intersection volume (35,600 AADT) contributes to an accident rate of 1.9.

COMMENTS:

Signals should be overhead with 12" lenses. The intersection should be part of a major widening and signalization project beginning at Phinney's Lane and ending at the Barnstable Airport Rotary. This improvement is recommended in the Long Range Element of the Regional Transportation Plan. Right of way in the Phinney's Lane/Rt. 132 area is 80 ft. and the State owns land off Rt. 132 northbound.

This intersection does warrant further analysis. However, the project is not a high priority project at the moment and should be shifted to the region's FY 1982 Transportation Improvement Program, Future Element.



OBSERVATION REPORT

BARNSTABLE

Rt. 28/Old Stage Road - Four-way Signalized Intersection

PROBLEM:

The approaches on Rt. 28 opens up for two lane traffic and closes to single lane traffic. Traffic volume is very high. There are too many curb cuts (driveways) and there are several intersections.

Over a three year span, twenty-six accidents occurred at this intersection involving fifteen injured people. The calculated intersection traffic volume is approximately 28,400 AADT which contributes to an accident rate of 1.6.

COMMENTS:

This is a complicated intersection which would seem to warrant further analysis and re-design. The project is not a high priority project at the moment and should be placed on the region's FY 1982 Transportation Improvement Program (TIP), Future Element.



OBSERVATION REPORT

BARNSTABLE

Bearses Way/Rt. 132 - Off-set Stop Control Intersection

PROBLEM:

This is an extremely dangerous intersection where drivers must take a risk when entering or exiting Bearses Way. Traffic volume is heavy on Rt. 132 and the calculated intersection volume is about 31,500 AADT. Blinking yellow/red lights do not seem to be working effectively. Traffic coming from the Bearses Way off-set cross street causes additional traffic tie-up. Curb cuts also add to the congestion. Of the twenty-two accidents occurring during a three year period, eleven people sustained injuries at this intersection.

COMMENTS:

It would appear that signalization is warranted. Traffic counts for Rt. 132 should be obtained from MDPW and counts should be taken by the Town on Bearses Way. The causes for the documented accidents should also be researched. If left hand turns are needed there appears to be sufficient right-of-way to do so.

Special attention should be made on future widening improvements involving this intersection which would be part of a long range widening project from Phinney's Lane to the Barnstable Airport Rotary.

This project is locally supported as a high priority project and is recommended for further analysis. The project should be included on the region's FY 1982 Transportation Improvement Program, Annual Element.



## OBSERVATION REPORT

### BARNSTABLE:

Rt. 28/Pitchers Way - Four-way Stop Controlled Intersection

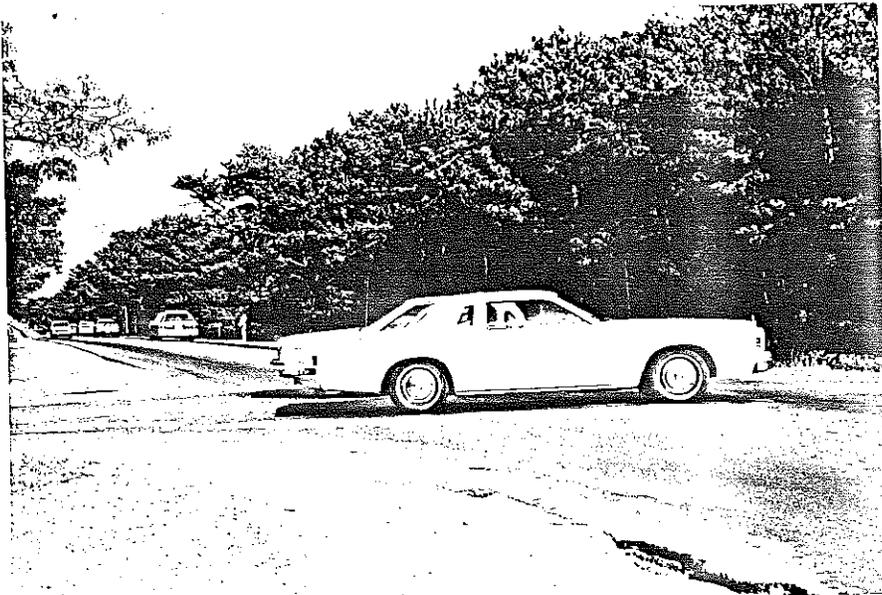
#### PROBLEM:

Backed-up traffic from the Bearses Way/Rt. 28 traffic light makes it difficult to cross Rt. 28 onto Pitcher's Way. Traffic volume is heavy on Rt. 28 with 38,600 AADT as a calculated intersection volume. Of the intersections analyzed, this intersection supports the lowest accident rate, .8.

#### COMMENTS:

Traffic signals would appear to be warranted based on interruption of traffic. Actuated signals would seem to be appropriate.

This project is not a high priority project although further analysis is recommended. The project should be on the region's FY 1982 Transportation Improvement Program, Future Element.



## OBSERVATION REPORT

### BARNSTABLE:

Barnstable Rd./Center St. - Off-Set Four-Way Intersection

### PROBLEM:

This is an extremely complicated intersection with dangerous head-on conditions. Traffic is fairly heavy. This intersection was not part of a recent High Hazard Location analysis.

### COMMENTS:

A properly aligned four-way intersection could improve traffic flow. The traffic island should be eliminated. Stop control should be re-evaluated over the short-term. It would seem a stop control would work more successfully on the Barnstable Road approach rather than on Center Street. Accordingly, the placement of stop control should be re-evaluated.

This is not a high priority project although additional analysis is warranted. It should be on the region's FY 1982 Transportation Improvement Program, Future Element.



## OBSERVATION REPORT

### BARNSTABLE

#### Route 28/W. Main Street - T Intersection

#### PROBLEM:

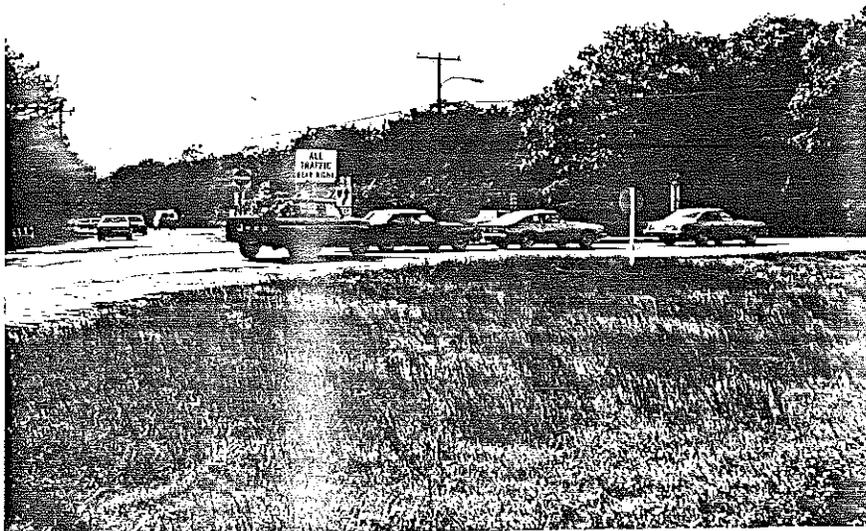
It is difficult for West Main Street traffic to enter Route 28 due to heavy flow on latter road. There were a total of 16 accidents at this intersection between 1976-1978. The intersection has a total empirical volume of 38,600 AADT.

#### COMMENTS:

It would appear after a reconnaissance survey that a Traffic Signal is warranted. It is suggested also that west bound Route 28 traffic be prohibited from making a left turn at the intersection. This movement can be, and is now generally, done at Strawberry Hill Road about 700 feet east of the subject intersection and would have no adverse effect on property owners on W. Main Street. Such a prohibition would eliminate any major reconstruction at the subject intersection.

Intersection counts should be obtained. Counts on Rt. 28 are available from Massachusetts Department of Public Works (MDPW), however counts will have to be generated for West Main Street. The town has indicated a willingness to compile this information along with accident information relative to the reasons for accidents. The MDPW should also have right of way information.

This project is a locally supported high priority project and is recommended for further analysis. It should be contained on the region's FY 1982 Transportation Improvement Program (TIP), Annual Element.



## OBSERVATION REPORT

### BARNSTABLE:

Race Lane/Rt. 149 - Four-way Intersection

#### PROBLEM:

This intersection needs additional brush clearing to improve sight distance problems on all approaches. STOP AHEAD signs should be placed on Rt. 149 ahead of the stop signs. Four way stop signs could also be a possibility. The safety concern for this intersection was the result of a High Hazard Location analysis which illustrated that the accident rate at this location was 7.2, highest in the town. Fifteen accidents occurred at this intersection from 1976-1978. The low calculated intersection traffic volume accounts for the high accident rate.

#### COMMENT:

This is not the type of project which should be on the region's improvement program. Low cost improvements could be made by the town without involving the Massachusetts Department of Public Works. It is not necessary to include this project on the region's FY 1982 Transportation Improvement Program.



YARMOUTH

## OBSERVATION REPORT

### YARMOUTH

Highbank Road/Great Western Road - T Intersection

#### PROBLEM:

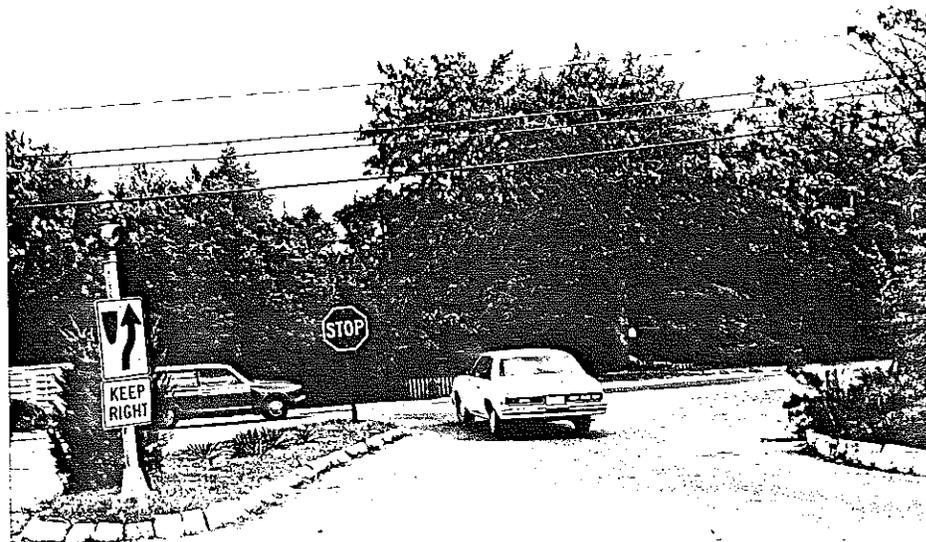
There is a high accident rate at this intersection involving fatalities. Vehicles travel at high speeds and collide with a house on High Bank Rd. There is poor visibility coming out of Great Western Road (two directions).

#### COMMENTS:

This intersection was designed and constructed for improvements by the Massachusetts Department of Public Works. The project consisted of flashing warning signals and channelization by use of islands. There has been some improvement in accident occurrence however, incidence is still too high. The standard on one light post was obviously new and the result of an accident. It is suggested that:

- The "banana" shaped island be extended northwest by use of a rumble strip to prevent west bound traffic on Great Western Road from riding over into opposing traffic, which was observed while locale was being viewed.
- Double flashers be used
- An oversize turn symbol sign with 20 MPH advisory plate be placed on the east bound lane side on Great Western Road
- All lines be repainted and brush cleared from all signs

This project is recommended for further analysis for the purpose of redesign. This project should be included on the region's FY 1982 Transportation Improvement Program Annual Element.



## OBSERVATION REPORT

### YARMOUTH

West Yarmouth Road and Buck Island Road - 4 Way Intersection

#### PROBLEM:

There is high volume on both Buck Island Road and West Yarmouth Road south bound. Turning motions cross traffic both ways. There is a high accident rate with 2 fatalities occurring at night before present lighting was installed.

#### COMMENTS:

This intersection is not recommended for further analysis. Improvements which could be made by the town include:

- Studying for warrant for signals. If warranted, lights on West Yarmouth Rd. should be actuated signals.
- Moving stop line 5 feet - 10 feet up on north bound lane on West Yarmouth Road. All stop lines should parallel the through road pavement edge.
- Cutting down two trees obscuring stop sign on northwest corner so sign stands out by itself. Brush back edge on south side of Buck Island Road east bound.
- Elimination wide approaches on Buck Island Road.
- Not reducing speed on speed zoning.

This intersection should be included on the region's FY 1982 Transportation Improvement Program, Future Element.



OBSERVATION REPORT

YARMOUTH

White Rock Road, Union Street and Starbuck Lane - 4 Way  
Offset Intersection (arrow shaped)

PROBLEM:

There is poor visibility south bound on Union Street with high and low grade separation. Union Street is a high speed roadway. Illumination is off center and favors Starbuck Lane. There are sharp angle approaches on Starbuck Lane and White Rock Road.

COMMENTS:

It is recommended that the stop line be moved up 5 feet on White Rock Road, north bound and make White Rock Road parallel to Union Street pavement edge. Double yellow lines should be painted on White Rock Road north bound up to stop line and the approaches on cranberry bog side should be expanded "STOP AHEAD" signs should be added.

This intersection does not require further analysis. It should be included on the region's FY 1982 Transportation Improvement Program, Future Element.



## OBSERVATION REPORT

### YARMOUTH

Forest Road and Lond Pond Drive - Offset 4 Way Intersection

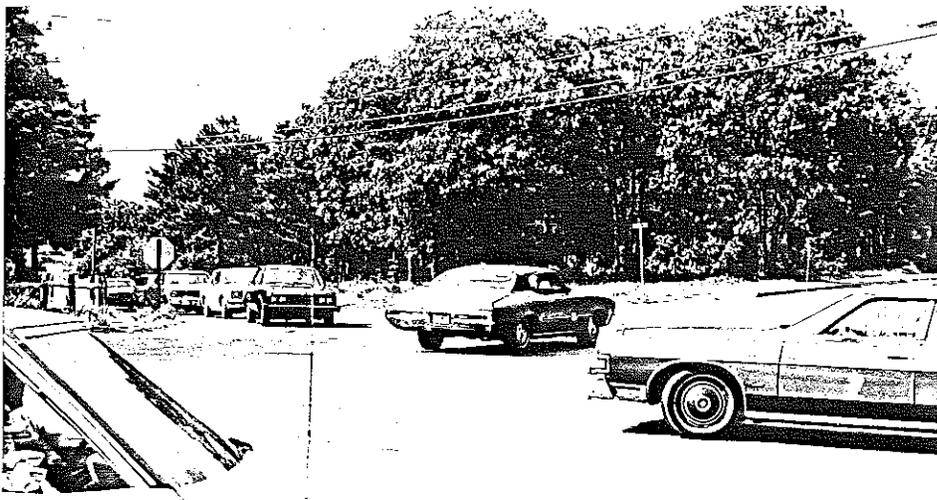
#### PROBLEM:

Approaches are too wide on Forest Road (south side intersection) causing driver indecision. There is poor sight distance to the west on Long Pond Drive for a north bound driver on Forest Road. There is high volume traffic on both roadways. Most accidents involve property damage and minor injuries. Illumination is not good.

#### COMMENTS:

Trees and brush on the west corner should be cleared (Forest Rd.). Stop signs and pavement markings should be refurbished. Early D.P.W. channelization design should be followed by using temporary curbing (sandbags), warning clusters and pavement markings. Traffic counts and turning motion counts will be needed. The intersection may warrant Pond Drive and Route 28 which could pose a problem for signalization.

This project is recommended for further analysis. It should be added to the regions FY 1982 Transportation Improvement Program, Annual Element.



## OBSERVATION REPORT

### YARMOUTH

Old Town House Road and Forest Road - 4 Way Offset Intersection

#### PROBLEM:

This intersection has wide pavement approaches on Forest Road at the south side of Old Town House Road. Both roads are high volume and high speed roadways. There are illegal "cut throughs" on Forest Road at Old Town House Road and Constance Avenue. There is a shopping center and sanitary landfill entrance causing several turning movements.

#### COMMENTS:

This intersection should be re-engineered. There are physically two intersections here. Three of the illegal "cut throughs" should be closed off with boulders. Stop sign for north bound traffic should be moved closer to roadway (not visible until you are at intersection). Double lines as centerline should be placed 50 feet back and stop line should be repainted. Channelization may be required.

This project is recommended for further analysis and should be included on the region's FY 1982 Transportation Improvement Program, Annual Element.



## OBSERVATION REPORT

### YARMOUTH

#### Forest Road and Winslow Gray Road - 4 Way Intersection With Signalization

#### PROBLEM:

This intersection has been signalized since the original listing was made and is antiquated. There is no "SIGNALS AHEAD" sign on Winslow Gray Road west bound approach. High speed travel occurs on both roadways.

#### COMMENTS:

Signals seem to be working well and illumination is good. However, it is recommended that a redesign be done at the signals (overhead signals on mast arm for better visibility). Forest Road acts as a by-pass for Route 28 and therefore there is significant traffic volume. Also, speed signs and regulatory signs on all approaches should be checked for proper location and right-turn-on-red is also recommended.

This intersection is recommended for further analysis and should be included on the region's FY 1982 Transportation Improvement Program, Annual Element.



## OBSERVATION REPORT

### YARMOUTH

White Rock Road and West Yarmouth Road - 4 Way Intersection

#### PROBLEM:

This intersection has poor sight distance and narrow approaches. West Yarmouth Road is a winding road with an uphill grade (north bound). The intersection has a high accident rate.

#### COMMENTS:

It is recommended that the intersection be made a four way stop intersection with "INTERSECTION" and "STOP AHEAD" warning signs. Present "DANGEROUS INTERSECTION AHEAD" signs are not legal. Stop lines should be moved up 5 feet and made parallel to the White Rock Road pavement edge. Sign visibility should be improved by clearing brush and overhanging branches. Curve ahead signs should be added. Approach lanes should be at least 12 feet wide. Stop signs should be moved up and placed so that they are parallel to drivers for visibility.

This intersection is not recommended for further analysis. The project should be included on the region's FY 1982 Transportation Improvement Program, Future Element.



IV

LOWER CAPE COD HIGH HAZARD LOCATIONS  
OBSERVATIONS

HARWICH



# HARWICH HIGH HAZARD LOCATIONS

MAP 4

GENERAL HIGHWAY MAP  
**BARNSTABLE COUNTY**  
 THE COMMONWEALTH OF MASSACHUSETTS  
 MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS  
 DIVISION OF HIGHWAYS  
 1971



CAPE COD PLANNING  
 AND  
 ECONOMIC DEVELOPMENT COMMISSION  
 FIRST DISTRICT COURT HOUSE  
 BARNSTABLE, MASSACHUSETTS 02630

## OBSERVATION REPORT

### HARWICH:

Rt. 28/Chase St. - Y Intersection

### PROBLEM:

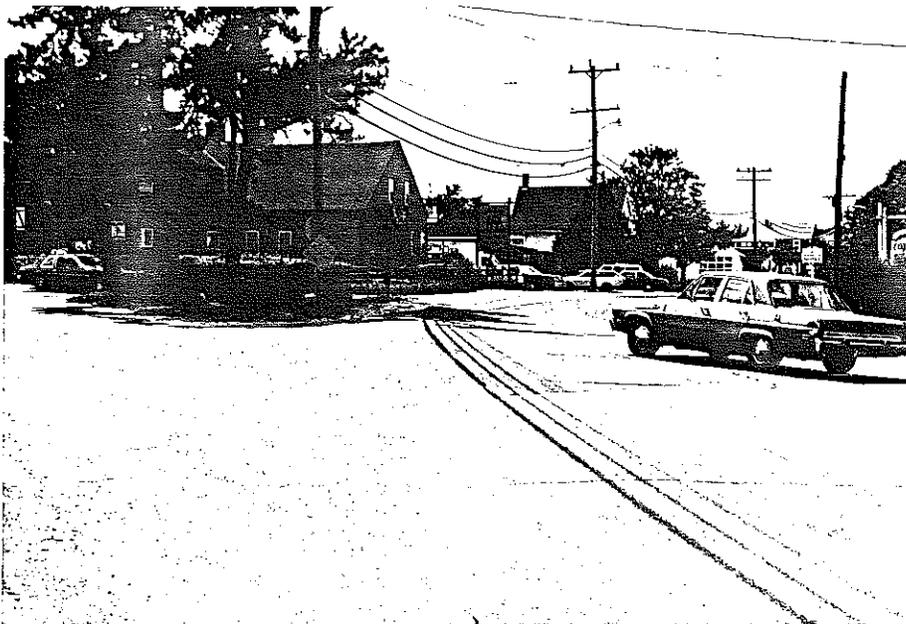
There is poor sight distance on Rt. 28 westbound - turning into Chase St. -- the obstruction is on a curve. A recent accident occurred where the vehicle did not negotiate the curve and hit a telephone pole on the opposite side of Rt. 28. A short entrance road before the intersection is narrow and adds to the intersection's safety problems. This intersection was not analyzed as part of a recent High Hazard Location Study.

### COMMENT:

Basically, the intersection/island should be re-designed. It would seem appropriate to close up the left turn on Chase St. and make Chase St. one-way going east. A left hand turn lane could be added to Rt. 28 feeding onto the narrow connector just before the intersection.

This intersection is recommended for further analysis. Data on accidents and the cause of the accidents will be necessary. Traffic counts would not be necessary because the improvements would be to change the geometrics. Some turning movement data might be needed.

The project should be included on the region's FY 1982 Transportation Improvement Program, Annual Element.



## OBSERVATION REPORT

### HARWICH:

Route 124/Queen Anne Road - 4 Way Intersection Queen Anne Rd.  
under Stop Control

### PROBLEM:

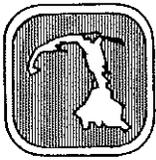
This intersection ranked number one in the 1980 High Hazard report as the most hazardous in Harwich. The problem is rather vague. Many accidents occur according to the police reports of "Running the STOP sign". An additional far side STOP sign together with the legal sign appears to have some beneficial effect as has removal of other signs and certain tree and shrub trimming. This year there is additional activity at the intersection because of the Cape Cod Rail Trail (Regional Bikeway) having been constructed nearby.

### COMMENTS:

It is certain that a flashing beacon would be appropriate. Town officials requested to have at least a traffic control signal. This project should be included on the region's FY 1982 Transportation Improvement Program, Annual Element.



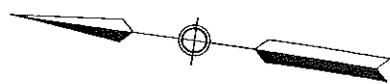
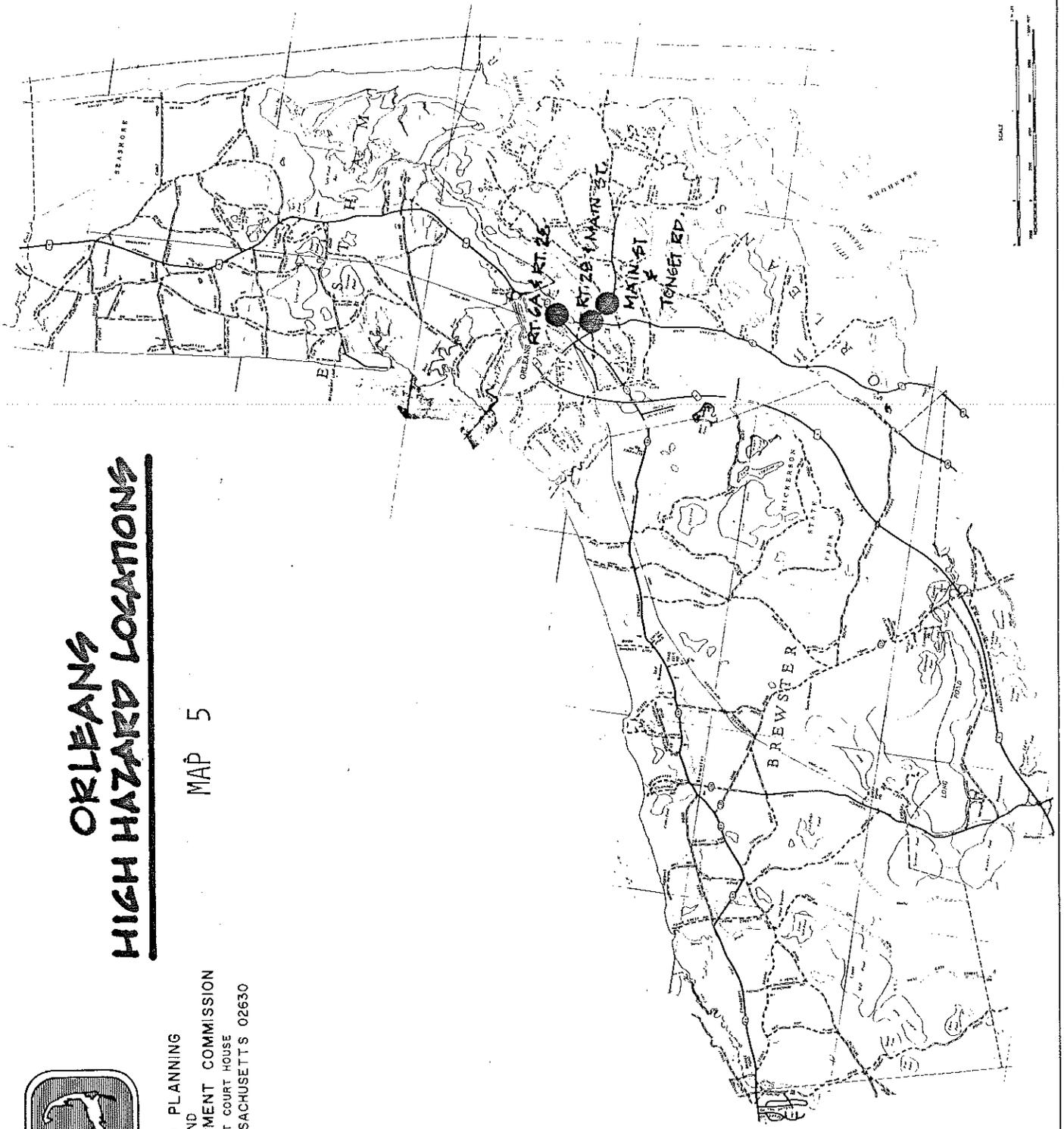
ORLEANS



# ORLEANS HIGH HAZARD LOCATIONS

CAPE COD PLANNING  
AND  
ECONOMIC DEVELOPMENT COMMISSION  
FIRST DISTRICT COURT HOUSE  
BARNSTABLE, MASSACHUSETTS 02630

MAP 5



GENERAL HIGHWAY MAP  
BARNSTABLE COUNTY  
THE COMMONWEALTH OF MASSACHUSETTS  
MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS  
100 SOUTH ST., BOSTON, MASS. 02109  
U. S. GEOLOGICAL SURVEY  
WASHINGTON, D. C.

## OBSERVATION REPORT

### ORLEANS:

Rt. 28/Bridge Rd./6A - Four-way Intersection

#### PROBLEM:

This is a wide open intersection with several business establishments and curb-cuts. Potentially dangerous approach movement occurs with cars passing to the left. There is no control of movement. The intersection is also located on a high grade.

No accident analysis has been recently performed for this intersection.

#### COMMENTS:

This project is locally supported by the town and is recommended for further analysis. The corridor planning study conducted in 1975 will be used as the basis of the analysis. The project should be added to the FY 1982 Transportation Improvement Program (TIP), Annual Element.



## OBSERVATION REPORT

### ORLEANS:

Main St./Rt. 28 - Four-way Signalized Intersection

### PROBLEM:

This intersection is already programmed for signalization improvements. Several curb cuts are located around the intersection causing traffic tie-ups and accident conditions. This is the worst accident intersection in town although only 30% of all accidents involve injuries. The calculated intersection volume is 17,700 AADT.

### COMMENTS:

It is recommended that the Massachusetts Department of Public Works go beyond signalization improvements and consider geometric improvements as well.

The intersection at the moment is not recommended for further analysis. The project should be included on the region's FY 1982 Transportation Improvement Program, Future Element.



## OBSERVATION REPORT

### ORLEANS:

Main St./Tonset Rd. - Four-way Fixed-time Signalized Intersection

### PROBLEM:

The intersection seems to be functioning satisfactorily. A small number of accidents occur at this intersection, averaging about three per year. The calculated intersection volume is 6,800 AADT.

### COMMENTS:

Some improvements or up-grading could be made to the intersection. For example, center lines on Tonset Rd. should be made to align. Signals should be up-dated to overhead lights. Some improvements could be made to the corners such as those on Tonset Rd. to create a perfectly aligned four-way intersection.

This intersection is not an immediate priority with the town and does not currently warrant further analysis. It should be contained on the region's FY 1982 Transportation Improvement Program, Future Element.

