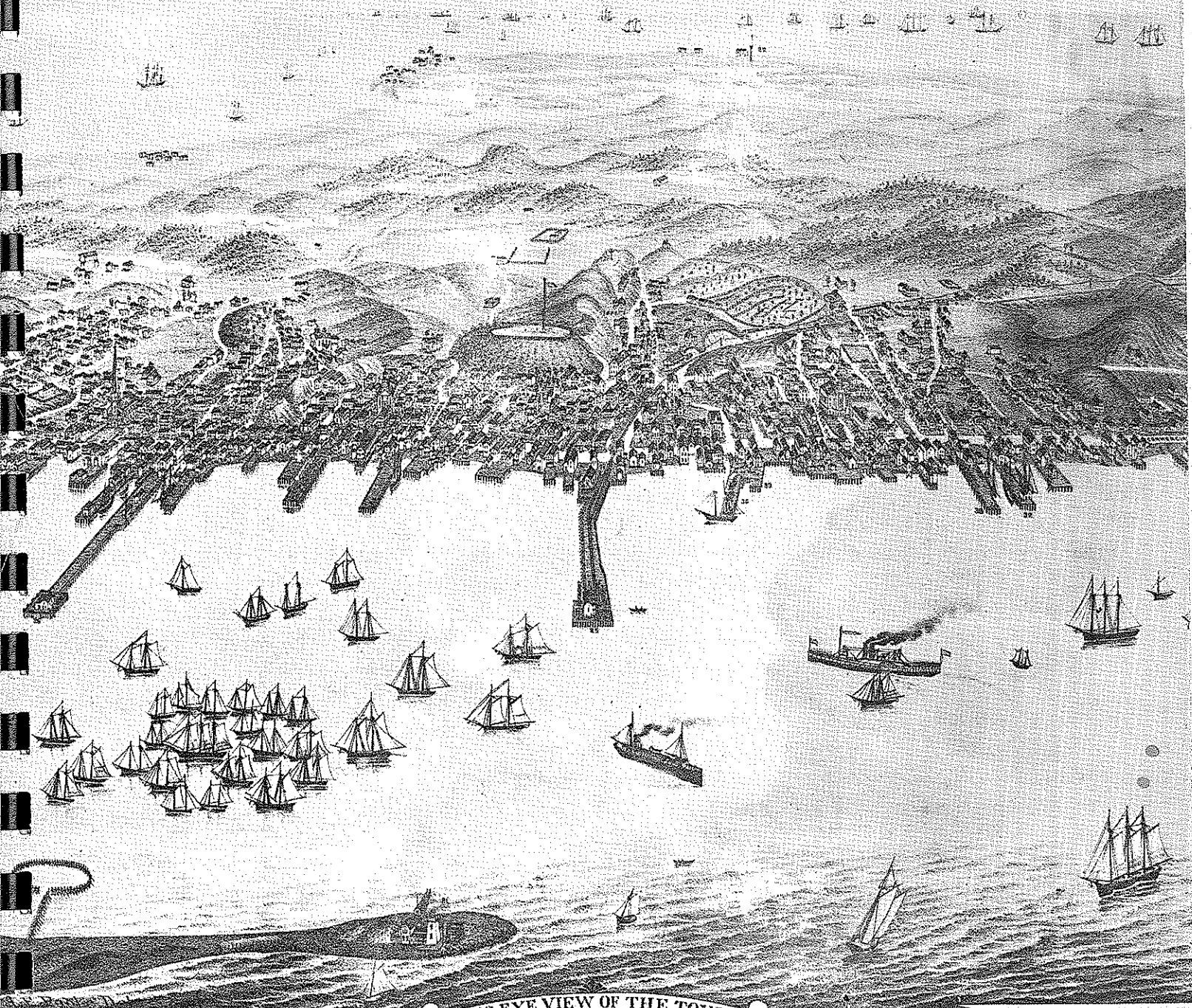


# PLANNING STUDY REPORT

## 1968



BIRD'S EYE VIEW OF THE TOWN OF  
**PROVINCETOWN,**  
BARNSTABLE COUNTY  
1882 MASS. 1882

TOWN OF PROVINCETOWN

MASTER PLAN STUDY REPORT

This report was prepared for  
THE PROVINCETOWN PLANNING BOARD AND  
THE MASSACHUSETTS DEPARTMENT OF COMMERCE AND DEVELOPMENT,  
and was financially aided through a Federal grant from the  
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT  
under the  
Urban Planning Assistance Program  
authorized by  
SECTION 701, OF THE HOUSING ACT OF 1954, AS AMENDED



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# CHAPTER 1 MASTER PLAN

## AREA OF INFLUENCE

Located on the tip of Cape Cod, Provincetown is isolated from other Cape Cod centers of population; namely, Barnstable, Yarmouth and Falmouth. Highly urban, Provincetown is separated from the central Cape Cod communities by the sparsely populated towns of Truro, Wellfleet and Eastham.

The National Seashore Park occupies much of the land area of all four of the above mentioned communities and will probably exert the most noticeable influence on these communities over the next few decades. In time, it will become the most dominating fact in the lower Cape economy as it continues to increase tourist traffic.

For the most part people who live in Provincetown either work there or are retired. Provincetown neither employs any significant labor from nearby towns, nor does it supply any. As such, it is basically a self-contained community with its basic industry tourism.

As the Seashore Park grows in popularity, Provincetown's market area for tourists will increase and its location is such that the tourist industry is likely to remain its basic industry for many years to come.



## MASTER PLAN SUMMARY

Provincetown is Provincetown, unique in history, physical development, social structure and location at the very end of Cape Cod. Problems and opportunities presented by the existing density of population and urban development are equally unique and are compounded by Provincetown's traditional attractiveness to tourists, an attractiveness made much stronger in recent years by the establishment of the National Seashore.

The physical plans and recommended actions in this report represent a coordinated overall concept of what has to be accomplished at the end of the Cape in order to maintain and enhance the unique beauty of the area and to provide the strongest possible framework for economic growth in future years. Basically, the interrelated proposals provide a wholly new system for accommodating people at the end of the Cape.

The system recognizes that people will be attracted to Provincetown for a great variety of reasons. To accommodate them all, that is to meet the varying needs for housing, entertainment and sustenance, will require different measures for different groups and land development policies which recognize the extreme diversity of attraction at the end of the Cape.

### The Physical Problem

studies indicate that radical steps must be taken to control and direct the forces of change, or Provincetown as known and loved by Townspeople and summer residents will shortly disappear. The



main physical problems confronting the Town result from the automobile and an everincreasing flood of visitors. Neither can be wished away. The number of visitors to the National Seashore alone will likely swamp Provincetown in the future. Most people after driving as far as the seashore will want to visit Provincetown not only for its historical attractiveness, but also just because it is there. The existing framework of streets and parking facilities cannot be expanded nor can they be made more efficient or more capable of handling many more people without totally changing all of the present characteristics of the community. A continuation of the present way of accepting cars and people will gradually bring about total physical change and may well result in the ultimate transformation of Provincetown into a commercial slum surrounded by the protected lands of the National Seashore.

With this danger in view, Provincetown and the National Seashore must recognize that the long-range interests of the two are so interwoven that any action taken by one will inevitably have effect on the other.

In other words, the problems and opportunities faced by Provincetown cannot be solved or realized wholly within Provincetown boundaries. On the contrary, even some boundary changes appear warranted to achieve the best balance of activities in the area. Any effective planning must recognize factors that geographically encompass the whole end of the Cape, and in trying to bring change, the Town of



Provincetown must work in concert with, and draw upon the financial assistance where possible of the Federal Government, the Commonwealth of Massachusetts, and private business.

#### The Goals

The sheer physical problem imposed by limited land area, the inability to accept more automobiles on existing streets, the greatly increased numbers of visitors in future years and the expressed desire of most Provincetown citizens to preserve many of the physical qualities of Provincetown have dictated the following goals:

1) The major single goal of all the interrelated recommendations of this report is the long-range guarantee of a quality environment at the terminus of Cape Cod. The end of the Cape will increasingly have two startling different qualities: A basic wilderness quality within the Seashore, a very urban quality within Provincetown. The two are not necessarily in conflict, but plans for each must almost be developed as one if the quite different values of each are to be fully protected and enhanced. For Provincetown this means development of a physical and economic environment which can attract high caliber investment to the area and as a consequence people interested in a quality experience. It also appears essential that the plan reinforce the traditional Provincetown role in the arts. Another major goal is to bring back Provincetown Harbor as a major yachting port.

2) The Provincetown central area has to be recognized for what



it already is, a predominantly pedestrian area, and planned accordingly. Intensification of commercial activities should take place here rather than being allowed to spread over the whole community to the detriment of those areas which are essentially residential. Indeed, except for those commercial areas outside the downtown area where on-site parking can be accommodated, the limit for most commercial activity in Provincetown should probably be set by walking limitations from the Town Center.

3) Day visitors should be separated from their automobiles. They should not be allowed to freely wander in their automobiles all over the limited land areas of Provincetown or through its narrow lanes. To permit this to continue will likely mean substantial down-grading of the communities' residential areas.

4) Some areas should be planned exclusively for transient accommodations. Since none of these are permitted within seashore boundaries, a heavy demand for such facilities will fall on Provincetown. Motels, cottages and the like should be geographically placed so they can be served by traffic facilities and yet have minimum impact on the established older areas of the community. Most of the present residential areas should be preserved as residential areas and no further commercial activity should be allowed to develop within them.

Through cooperation of Town and Seashore, a variety of experiences can be developed for the end of the Cape ranging from the colorful



urbanity of central Provincetown to the absolute solitude of the dunes. Uniquely, this would exist all within a few square miles and with minimum friction between the various groups drawn to the Cape which include short and long term summer residents, day visitors, yachtsmen, fishermen, bird watchers, surfers, the young and the old. In effect, the question posed by circumstances at the end of the Cape is how to develop an overall transportation and land use system capable of accommodating people in great numbers where their interests and reasons for being at the end of the Cape may vary considerably, and at the same time how to preserve and enhance the quality of the natural and man-made environment. The Planners believe that the drawings, perspectives and diagrams included in this report provide a framework for a sound beginning.

#### The Plan

The major overall framework of land uses and circulation proposed for the end of the Cape is illustrated in the first schematic diagram while other drawings illustrate major details. Essential elements of the plan include:

1. A definite stopping place and doorway to the public and private facilities at the end of the Cape would be developed by severing the Mid-Cape Highway well before the end of the Cape. At this point the visitor would have several options. He could visit the proposed museum of the history of fishing or visit the interpretive displays of the National Seashore. If he is looking for lodgings, he could



use a centralized, mechanized "desk" that would provide up-to-the-minute information about accommodations available in the area. He could drive the various scenic wilderness roads of the Seashore or start on a walking or bicycling tour of the area. If destined for downtown Provincetown, he could board a bus operating in a continuous shuttle between the visitor center and the town center.

Major parking facilities are proposed to be sympathetically sited onto the landscape as indicated on the schematic and other plans. Centralized visitor facilities and the museum would be constructed. Signs, the placement of roads and the visual termination of the Mid-Cape Highway are planned to make plain to the non-resident, non-staying visitor to Provincetown that there are no parking facilities, indeed no streets to drive on in central Provincetown.

2. A new roadway partially constructed on the old railroad right-of-way linking downtown Provincetown with parking facilities on the outskirts would be constructed for exclusive use of shuttle buses during peak seasonal periods. Commercial Street is proposed to have a small traffic-moving role in the future and a new street, parallel to Bradford Street, is proposed. In combination with Bradford Street, this new street would be the major traffic facility for Provincetown year-round residents, summer residents and people staying at transient accommodations. The Mid-Cape Highway would terminate as indicated with portions of the right-of-way to be accommodated into a network of seashore scenic roads.





3. As indicated above, from the locus of the visitor center, museum and parking area four distinctly different transportation and movement possibilities would exist: a scenic automobile loop through the National Seashore touching a great variety of landscape features including some presently in Provincetown; the hiking and bicycling trails; the new highway facilities skirting and serving the built up portions of Provincetown; a shuttle bus route leading to the pedestrian plazas and malls in the harbor and downtown areas of Provincetown.

4. Provincetown downtown and harbor areas will become pedestrian areas as shown on the many drawings in this booklet. Even so, plaza and mall areas would be designed to accommodate essential vehicles whose entrance would be controlled by stickers. These include service vehicles, some commercial vehicles, vehicles serving the fishing industry, and vehicles holding parking places in the municipal parking area. Key elements of the plan are these:

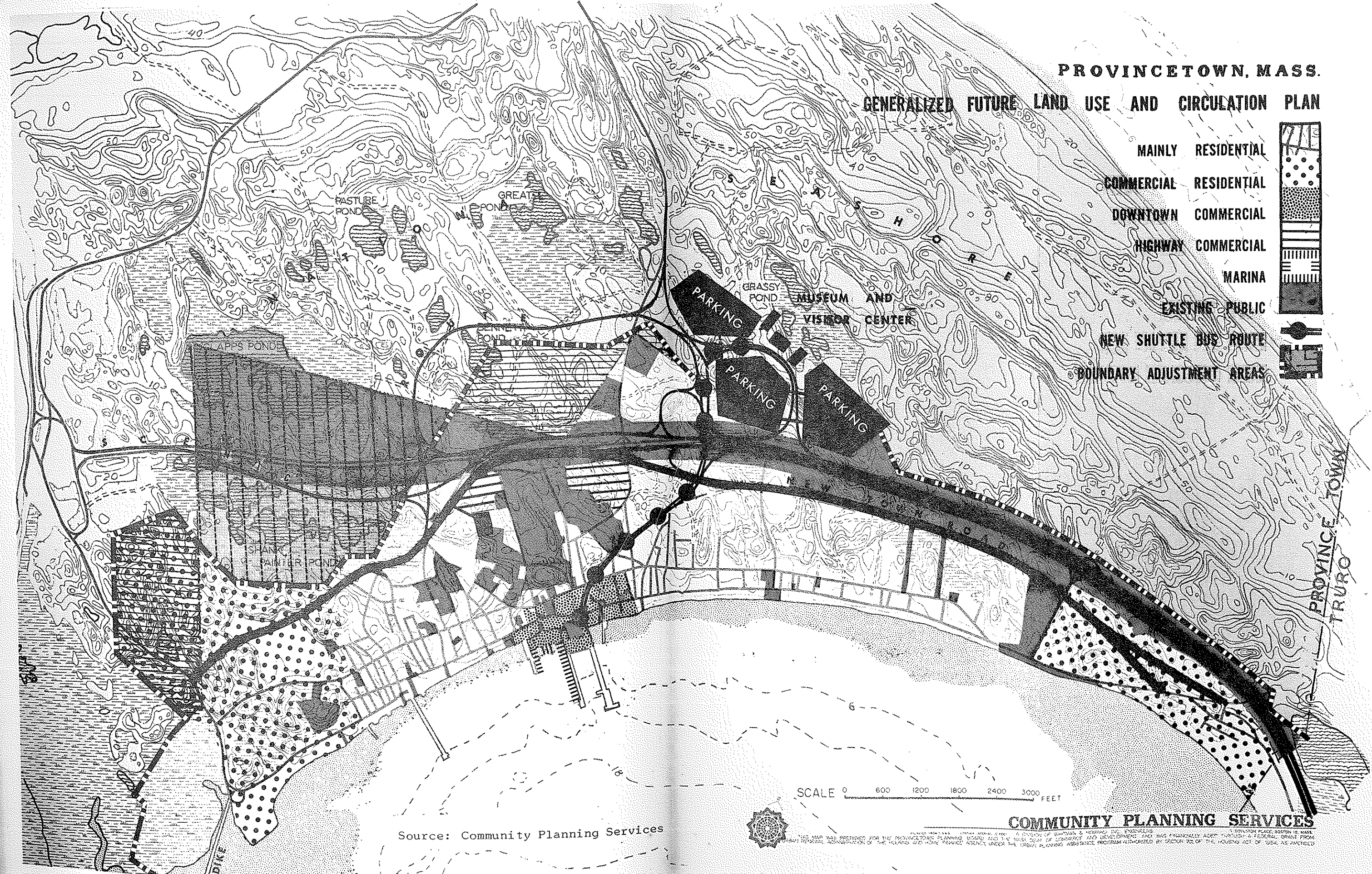
A) A "made" land project is proposed just west of the present municipal parking lot. This area together with portions of the present parking lot would be used for intensive commercial development, but incorporating the scale and flavor of present day Provincetown. This area would be closely linked with the present commercial area on Commercial Street to form an integrated complex with all the color, flavor and sense of the unexpected associated with present day Provincetown.



**PROVINCETOWN, MASS.**

**GENERALIZED FUTURE LAND USE AND CIRCULATION PLAN**

MAINLY RESIDENTIAL	
COMMERCIAL RESIDENTIAL	
DOWNTOWN COMMERCIAL	
HIGHWAY COMMERCIAL	
MARINA	
EXISTING PUBLIC	
NEW SHUTTLE BUS ROUTE	
BOUNDARY ADJUSTMENT AREAS	



SCALE 0 600 1200 1800 2400 3000 FEET

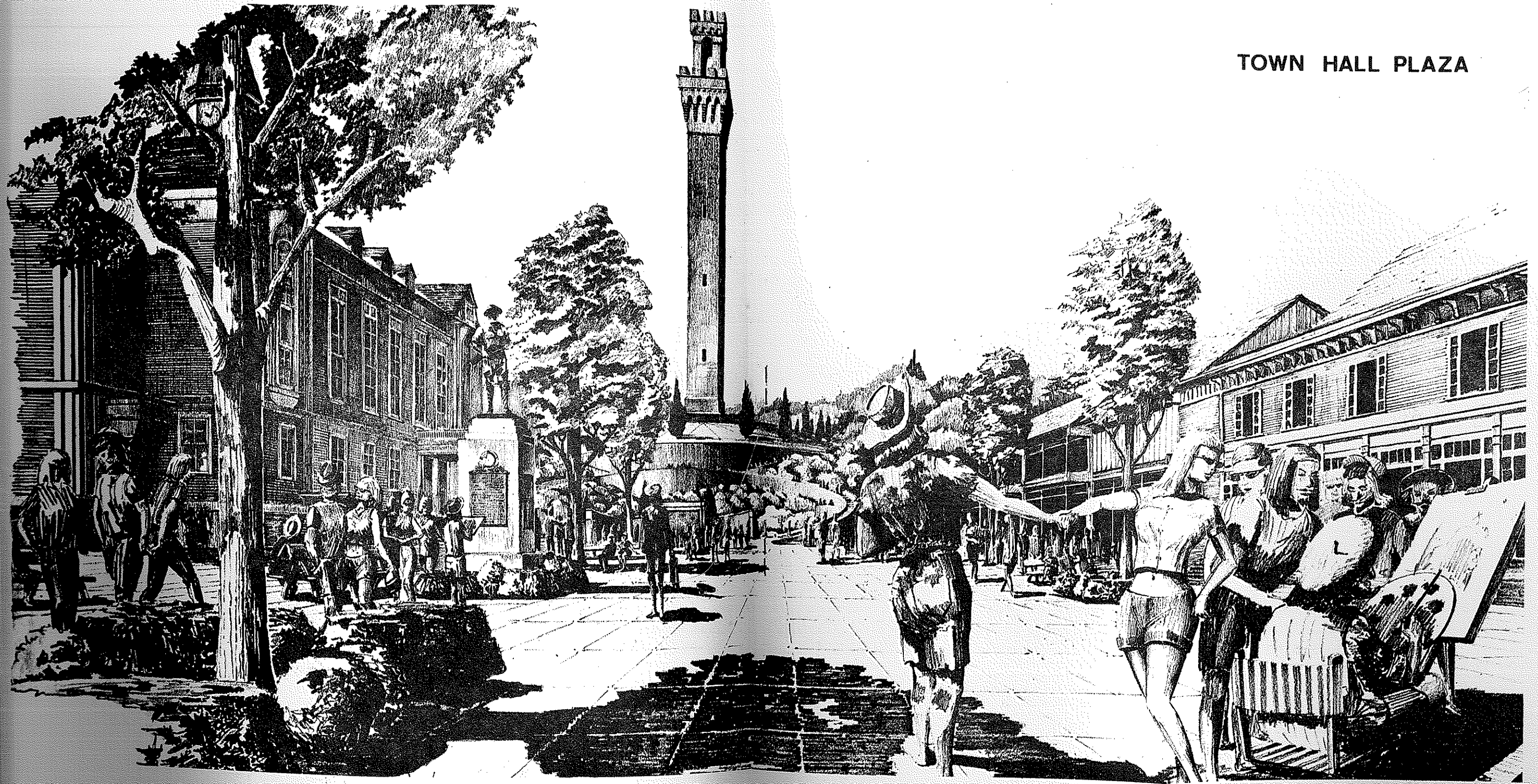
Source: Community Planning Services

**COMMUNITY PLANNING SERVICES**

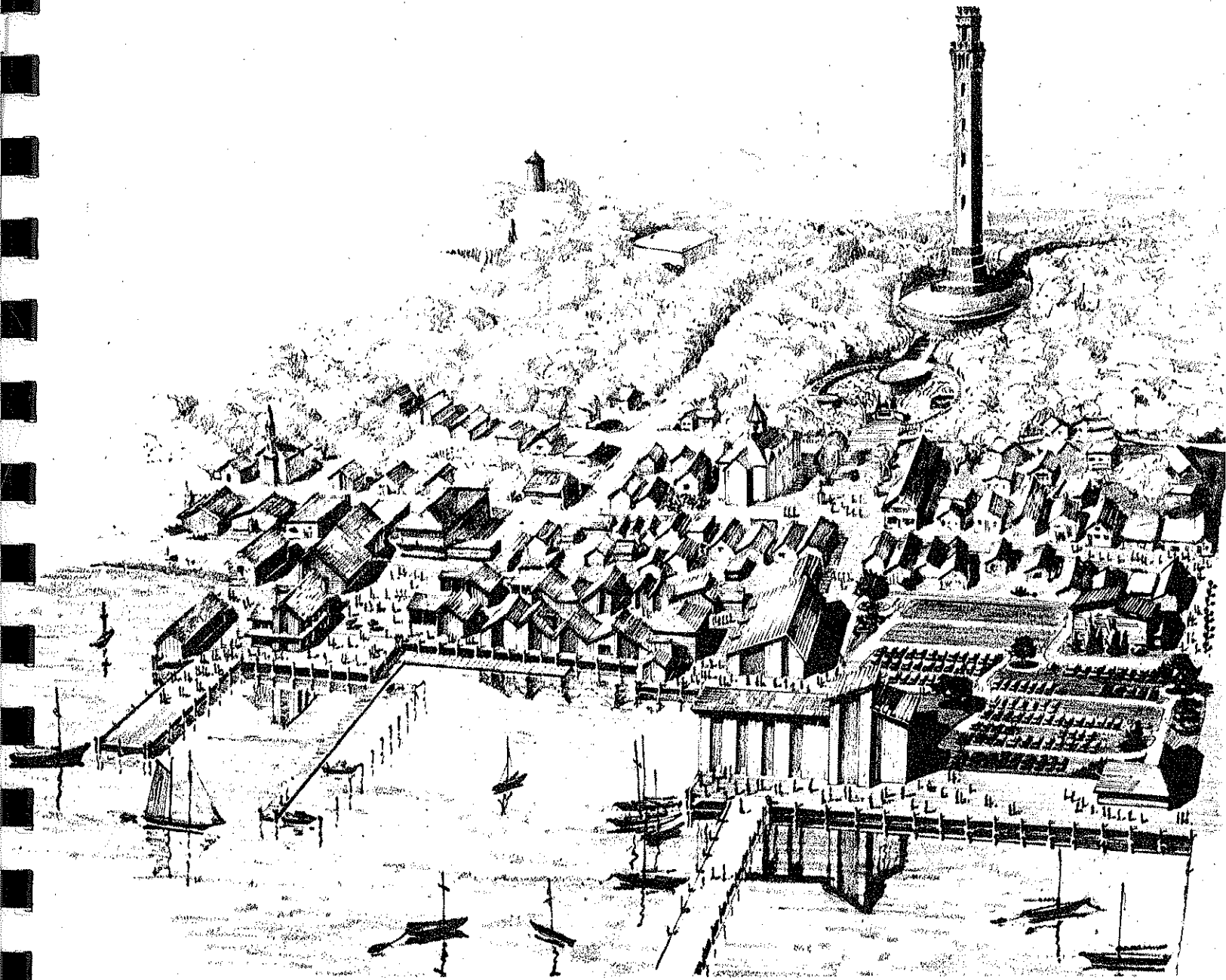


THIS MAP WAS PREPARED FOR THE PROVINCETOWN PLANNING BOARD AND THE MASS. DEPT. OF LANDS AND DEVELOPMENT AND WAS FINANCIALLY AIDED BY THE FEDERAL GOVT. FROM THE HOUSING AND URBAN DEVELOPMENT ACT OF 1954. AS AMENDED.

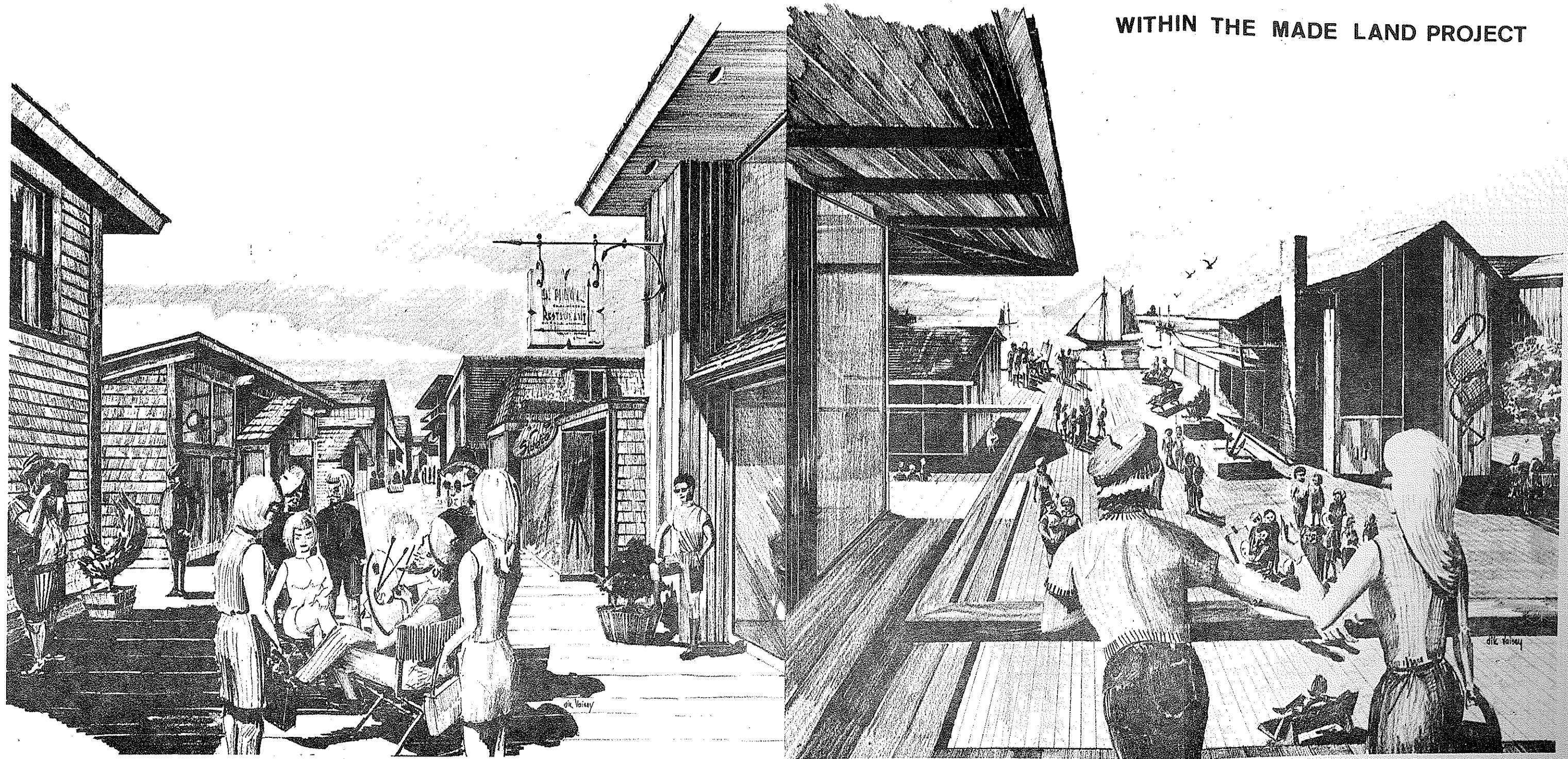
TOWN HALL PLAZA



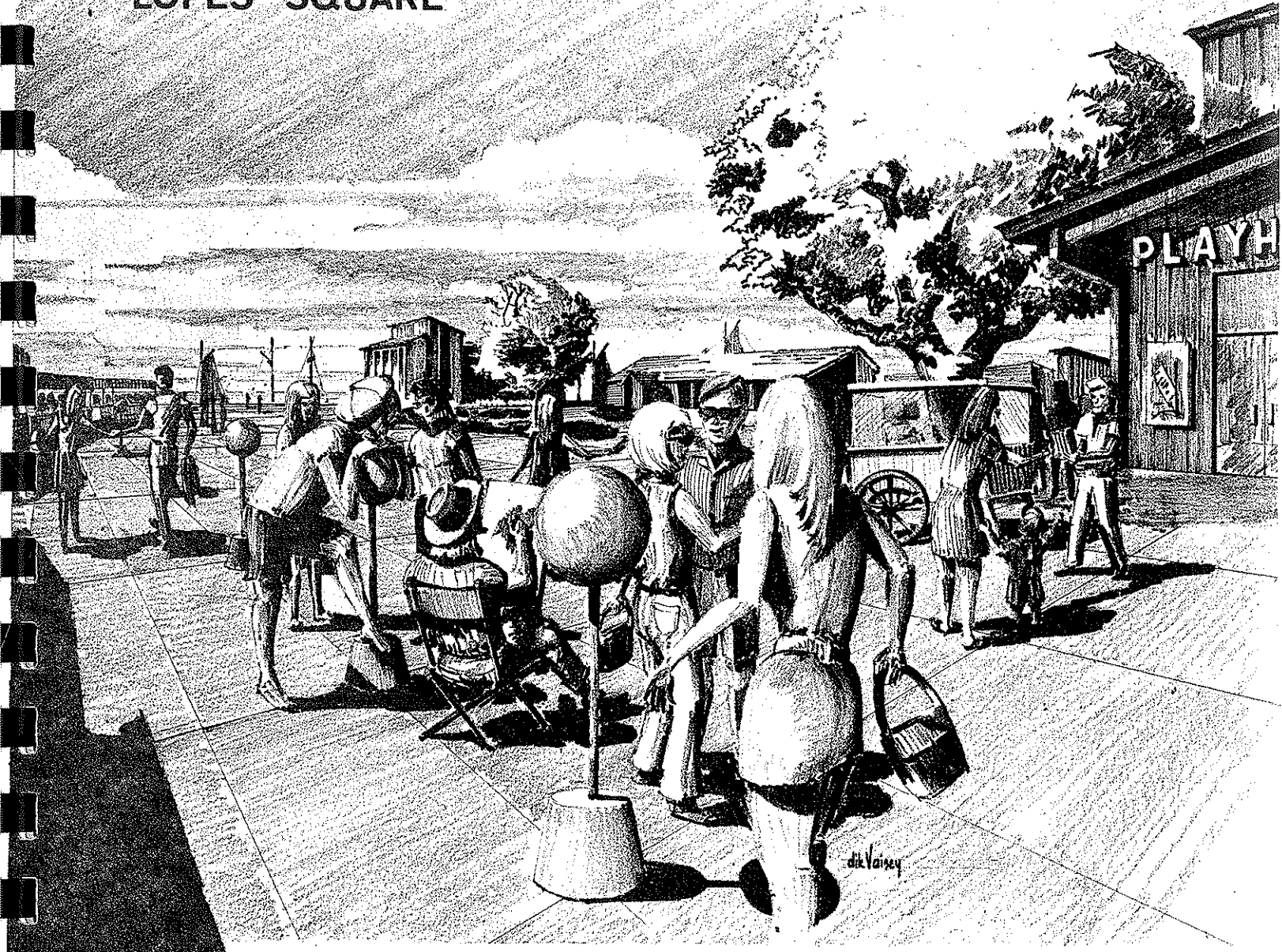
# BIRDS EYE VIEW



WITHIN THE MADE LAND PROJECT



LOPES SQUARE



PLAYH

dik Vaisey

B) As indicated on the overall plan and sketches, the pedestrian areas are designed as a series of continuous malls connecting several plazas and squares. A major square is planned at Town Hall with smaller plazas at the Chrysler Museum, Lopes Square, within the "made" land project, and at the Pilgrim Monument. New street lighting, new paving, landscaping and street benches would be provided throughout the project. The Monument is proposed to be linked with Town Hall Plaza by a footbridge over Bradford Street.

C) Design goal within the downtown area is creation of the flavor of a 19th century New England Seaport. However, the plan recognizes the great mixture in present Provincetown architectural style and does not propose development along pseudo-colonial lines. Rather the new should relate to the old in terms of color, texture, scale and size. Since the community will undertake the "made" land project, it can control architectural development of most of the new construction proposed by the plan.

D) The land uses proposed in the plan will be much the same as they are today. The plan proposes few if any changes in the present commercial area other than beautification measures. Within the "made" land project area and on that section of the parking lot proposed for development, a mixture of uses are planned including hotels, restaurants, galleries and shops with an emphasis on attracting high quality establishments. A new yacht club is proposed, also a new theatre. A major emphasis is to bring the harbor into view and





in conjunction with breakwater construction intensify marine activity in the central area.

#### Implementing the Plan

The main problem in achieving the extensive physical changes proposed in this report is not an economic one. Several sources of aid appear directly applicable to the project including urban beautification funds, urban renewal assistance funds for the open land project, and urban transportation funds. In fact the tax revenue increase realizable on the waterfront will probably be sufficient to provide the economic power for the whole project. But, unless the community can organize its human power nothing will occur. While the plan is complex, nothing less will answer the town's problems. The plan is achievable and within Provincetown's economic means if the community will organize its human resources for the task.

#### LAND JURISDICTION

-  NATIONAL SEASHORE PARK
-  STATE AND TOWN

Source: Federal Government





## CHAPTER 2

## LAND USES

### Introduction

Analysis of Provincetown land use patterns is helpful in determining future community planning alternatives. Provincetown's land uses are unique both from a Cape Cod and from a Commonwealth standpoint. Its location at the very tip of Cape Cod, its relative insularity, its fame as an art center, its harbor, and its underlying soil structure have all combined to result in a 1968 land use pattern wholly different from that to be encountered elsewhere in Massachusetts or for that matter most of the United States. Some of the outstanding features quickly apparent in the Provincetown land use pattern map are discussed below; thereafter follows a more detailed measurement and description of various land uses.

### Community Size

Provincetown's effective municipal jurisdiction now extends over 1,000 acres, approximately 1½ square miles. Barnstable, for contrast, the Cape's largest community, extends for some sixty square miles. Should even the lowland in Provincetown be developed, the total developable land would be 660 acres. Obviously community size alone dictates a different approach to long range planning.

Although it took centuries to develop one-third of its area, any future, major commitment of the land should be considered with



the understanding that Provincetown will soon take its place along with many other urban centers as wholly built-up.

#### Density

Only slightly over 300 acres in Provincetown are developed for residential and business uses. On this amount of land there are approximately 2,500 dwelling units and 500 hotel and motel units or 10 units per acre. This density makes Provincetown more closely related to urban than to rural or suburban areas.

#### Community Shape

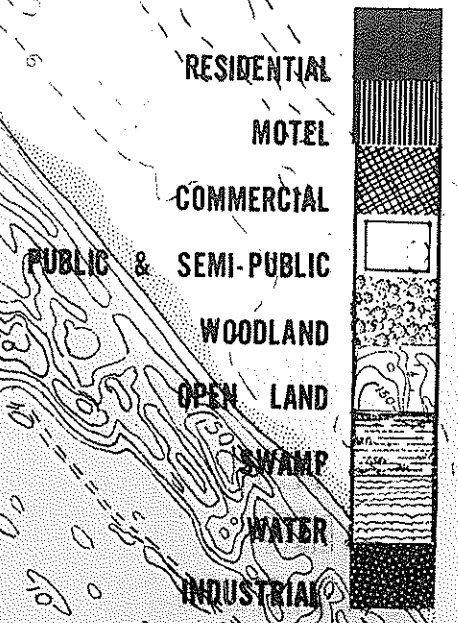
Provincetown's long attenuated east-west pattern of development, a result of topography, easily developable soils, and waterfront activities, presents a special problem. The developed portion of the community is some 18,000 feet long and only 7,000 feet wide at the widest point. This shape favors development of centralized facilities and excludes programs based on the traditional concept of the "neighborhood". The neighborhood school, the neighborhood shopping center, or neighborhood facilities are not applicable in Provincetown. The community exists as an entity both because of limited land areas and peculiar pattern of existing development.

#### Method of Analysis for Acreage Measurement

For measuring purposes, the land under the jurisdiction of the Town was divided into 35 sectors and the land uses in each sector were measured and charted. The land use maps used for this study were completed through on-site inspection and air photo interpretation.



**PROVINCETOWN, MASS.  
MAJOR LAND USES**



PROVINCETOWN  
TRURO

SCALE 0 600 1200 1800 2400 3000 FEET

**COMMUNITY PLANNING SERVICES**

Source: Community Planning Services



COMMUNITY PLANNING SERVICES, INC. 100 STATE STREET, BOSTON, MASS. 02109  
 THIS MAP WAS PREPARED FOR THE PROVINCETOWN PLANNING BOARD AND WAS FINANCIALLY AIDED THROUGH A FEDERAL GRANT FROM  
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 THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT UNDER THE COMMUNITY PLANNING ASSISTANCE PROGRAM AUTHORIZED BY SECTION 702 OF THE HOUSING ACT OF 1954, AS AMENDED

Streets in the area were not tabulated separately but were considered as a service for the surrounding land use and were included in the measurement of that category.

The total land uses are summarized as follows:

<u>Land Use</u>	<u>Acreage</u>	<u>% of Total</u>
Residential	178.8	17.9
Commercial	81.4	8.1
Industrial	5.4	0.5
Public & Semi Public	77.4	7.7
Undeveloped Land	436.0	43.6
	<u>221.2</u>	<u>22.1</u>
	1000.2	99.9%

The individual categories are discussed below and reported in Tables I and II.

#### Residential Lands

Residential land uses in this report include apartments, guest houses and residences. All together, they occupy about 18% or 178.8 acres of land. Most of the residential land, two-thirds, is near the waterfront between the shore and a line 150 feet north of Bradford Street. The residential land can be divided at Town Hall and Ryder Street into an eastern and a western section. The western section is composed of a single compact cluster; the eastern section is composed of a shoreline ribbon, with a lesser cluster near the town center. Each of these areas are densely urban, with houses side-to-side and back-to-back.



Table I

SECTORS	Residence	Business	Public & Semi-public	Motel	Open Land	Industry	Lowland	Parks & Playgrounds	Tourist oriented Business	Parking	Church Cemetery	TOTAL
<u>Core area</u>												
#5	1.2	.5	.4	.7	.1	.5			1.8		.2	5.4
#6	.6	.1	.5					.1	.3			1.6
#7	1.0	.5	.1	.1	5.5	.7		.5	.3	2.8		11.5
#8	1.4	1.2	.1			.3		.1	1.5			4.6
	4.2	2.3	1.1	.8	5.6	1.5		.7	3.9	2.8	.2	23.1
<u>Outer Core</u>												
#4	2.3	.5						.1				3.8
#13	6.1	.1	.1									6.3
#14	4.2			.4		.1			.2	.6	.5	6.0
#15	.5		.3					.5	.1			1.4
#16	3.2	.2						.7		.3		4.4
#17	3.1	2.0										5.1
#18	9.4	.6			.2							10.2
#9	5.2	.2	.4	.2	.9			.1	.4			7.4
	34.0	3.6	.8	.6	1.1	.1		1.4	1.6	.9	.5	44.6
<u>Southwest End</u>												
#2	4.6		.1	.4	.2			.2		.8		6.3
#3	28.4	.6	.4	1.5	5.0	2.9		1.0	.4	.4		40.6
#21	11.5	.3		.3	7.3		2.2				1.6	23.2
#22	8.4	.1	3.0		1.5		3.2			3.2	1.4	20.8
	52.9	1.0	3.5	2.2	14.0	2.9	5.4	1.2	.4	4.4	3.0	90.9
<u>Northeast End</u>												
#24	9.1	.7		.1	2.3							12.2
#10	11.6	.2			4.9				.6	.4	1.4	19.1
#11	11.8	.2		1.2	4.7	.9		.5	.6		.4	20.3
#12	11.8	.1	.3	1.7	6.9		2.2		.8			23.8
	44.3	1.2	.3	3.0	18.8	.9	2.2	.5	2.0	.4	1.8	75.4

Table II

SECTORS	Residence	Business	Public & Semi-public	Motel	Open Land	Industry	Lowland	Parks & Playgrounds	Tourist oriented Business	Parking	Church Cemetery	TOTAL
<u>Central Area</u>												
#23	5.1	2.1	.5	.8	1.1			6.2				21.1
#30					1.4		2.6	3.6		.9	4.4	31.8
	5.1	2.1	.5	.8	2.5		2.6	9.8		.9	28.6	52.9
<u>Outer Southwest</u>												
#19				1.1			53.7					54.8
#1	2.7		4.0	21.1	20.4		10.3	.5	.1			59.1
#20	.4			.4	57.3		79.5					137.6
#28	8.1	.2		1.5	23.7		30.3				.1	63.9
#29	3.1	.6	5.6		17.5		3.2		1.1		1.4	32.5
	14.3	.8	9.6	24.1	118.9		177.0	.5	1.2		1.5	347.9
<u>Outer Northeast</u>												
#31	7.5	1.6			16.8		4.6					30.5
#25	2.0			.2	32.7		6.7					41.6
#26	2.2			1.6	37.0		7.8					48.6
#27	.4		.2	.5	26.0		13.3		.6			41.0
	12.1	1.6	.2	2.3	112.5		32.4		.6			161.7
<u>Northeast of Rt.6</u>												
#32	1.1		2.3	3.9	43.7				1.0			52.0
	1.1		2.3	3.9	43.7				1.0			52.0
<u>Far Northeast</u>												
#33	7.4		19.0	23.1								49.5
#34	.3			87.6		1.6						89.5
#35	3.1		1.4	8.2								12.7
	10.8		20.4	118.9		1.6						151.7
TOTAL	178.8	12.6	18.3	58.1	436.0	5.4	221.2	14.1	10.7	9.4	35.6	1,000.2

The western area extends from Town Hall to Point Street and forms a semi-circle with a radius of about 2000 feet. The farthest point from the shoreline is at the end of Pleasant Street. This area contains about 39% of the total residential land in Provincetown.

East of the Town Hall the first residential cluster forms a right triangle with the base extending for 2000 feet from Ryder Street to Priscilla Alden Road and the other leg extending along Priscilla Alden Road to the state highway line. Adjacent to this cluster there is an almost perfect rectangle of residential land which extends from Priscilla Alden Road to the junction of Bradford and Commercial Street; in width it is defined by the shore and a line 150 feet northeast of Bradford Street. The eastern section contains about 41% of the residential land in Provincetown.

The remaining 20% is scattered throughout the rest of the town with major concentrations at the north end and on the fringe of the central corridor.

Other land uses to be found in both residential sections are of course vacant lots, public and semi-public facilities, commercial buildings, parking areas and a small number of industrial sites.

#### Commercial Lands

The total land used for commercial purposes is 81.4 acres or 8.1% of the total land in Provincetown.

Total commercial land can be subdivided into general business, tourist-oriented business, and motels. While motels are primarily

located at the northeastern and southwestern ends of the town\*, business properties are sited in the center of town. Considering general and tourist business together, about one-third of the total is concentrated along Commercial Street in the area between Center and Central Streets. Half of the total business in Provincetown can be found scattered along the waterfront.

#### General Business

General business includes retail stores, auto dealers, gas stations and all other business especially serving the permanent resident population. This type of business occupies 12.6 acres or 1.2% of the total land and is widely dispersed. Only one-quarter of the land used for general business is located in the dense commercial core; the remaining three-quarters are scattered on medium to large sites throughout the residential and outer areas.

#### Tourist-oriented business

This category includes gift shops, restaurants and art galleries; it extends for 10.7 acres or 1.1% of the total land in Provincetown. Almost one-half of the total tourist business area is located between Central and Center Streets. Over one-quarter of it lies north of Center Street. A golf course and a riding stable compose almost the total twenty per cent of land used by tourist businesses west of the central area. The remaining five per cent can be found scattered in the area southwest of Central Street.

The two types of business activities in Provincetown, general and

\*The generalized and common description of these two areas is East and West End.



tourist-oriented, utilize about the same percentage of the total town acreage but vary in site size and location; the general business being disposed in small sites throughout the town, and the tourist being compacted in small to medium sites along Commercial Street in the core area as well as in large sites at the outskirts of the town.

#### Motels

Land in motel, hotel, cottage and campground use is 5.8% of the total Provincetown land acreage. This figure does not include the land used by rooming houses. Motel lands, generally located on large sites, are found primarily at the northeastern and southwestern ends of the town.

Almost 40% of the land used for motel purposes is located in the southwestern area between Province Land Road and West Vine Street. Over one-third of the motel land is in the northeastern area near the Provincetown-Truro line. Other motel land is scattered through the rest of the town.

The Dunes Edge campground northwest of Route 6, contains 6.3% of the motel area in Provincetown and at present is the only camping facility in the town.

Motels, because of the large sites required, have generally located at the ends of town with the campground west of Route 6.

#### Industrial Lands

Only one-half of 1% of the land in Provincetown is devoted to

industrial uses and almost all of it is involved in the fishing industry. Most of the industrial sites are located on the waterfront on or adjacent to piers, providing a logical location for the unloading, processing, storage and packing of the fish products caught on local boats.

The largest and most active industrial complex is the site of the Atlantic Coast Fisheries on the waterfront at Franklin Street. Slightly less important is the site located at the end of the Town Pier. An abandoned cold storage plant is to be found northeast of the Town Hall. Other land in industrial use, mainly printing, is in small sites near the Town Hall.

The location and facilities of the industrial lands in Provincetown are dictated by the predominant industry, fishing and the cold storage and packing of the fish products.

#### Public and Semi-Public Lands

Public and semi-public land in Provincetown is about 77.4 acres or 7.7% of the total. This category includes general public land and land used for parks and playgrounds, parking lots, churches and cemeteries.

#### General Public & Semi-Public Lands

General public lands include land used by town buildings, schools, museums, the post office, clubs, the water department and the utilities. These lands represent 1.8% of the total land acreage of Provincetown.

Almost half of this public and semi-public land is used for



schools. Of the total semi-public and public land, 39% is included in the parochial and public school complex south of the Monument.

Another 21% of this land is the steep hillside area southwest of West Vine and between Bradford and Commercial Streets owned by New England Telephone and Telegraph. Another large parcel of public and semi-public land is the 12% owned by the Cape and Vineyard Electric Co. and located northwest of Route 6.

The last sizeable holding in this land use is the 7.5% adjacent to the school complex and is held by the Provincetown Water Department.

The remaining 20% of the lands are small parcels used for the Post Office, the Monument and the Chrysler Museums, the Town Hall, the Town Library, the Infirmary, the Tennis and Veterans Clubs, the Community Center, and the Public Works Garage. They are scattered randomly throughout the residential area.

General public and semi-public land is a small percentage of the total and is devoted primarily to schools with several other scattered uses.

#### Parks and Playgrounds

About 80% of the parkland owned by Provincetown is contained in the area surrounding the Monument north of the Town Hall. The remaining 20% is divided between a few small parks and nine waterfront "landings", one each at the foot of Pearl, Freeman, Gosnold, and Court Streets, Atlantic and Franklin Avenues, and West Vine Street. Another waterfront landing lies near the Atlantic Coast Fisheries facility. Finally, the

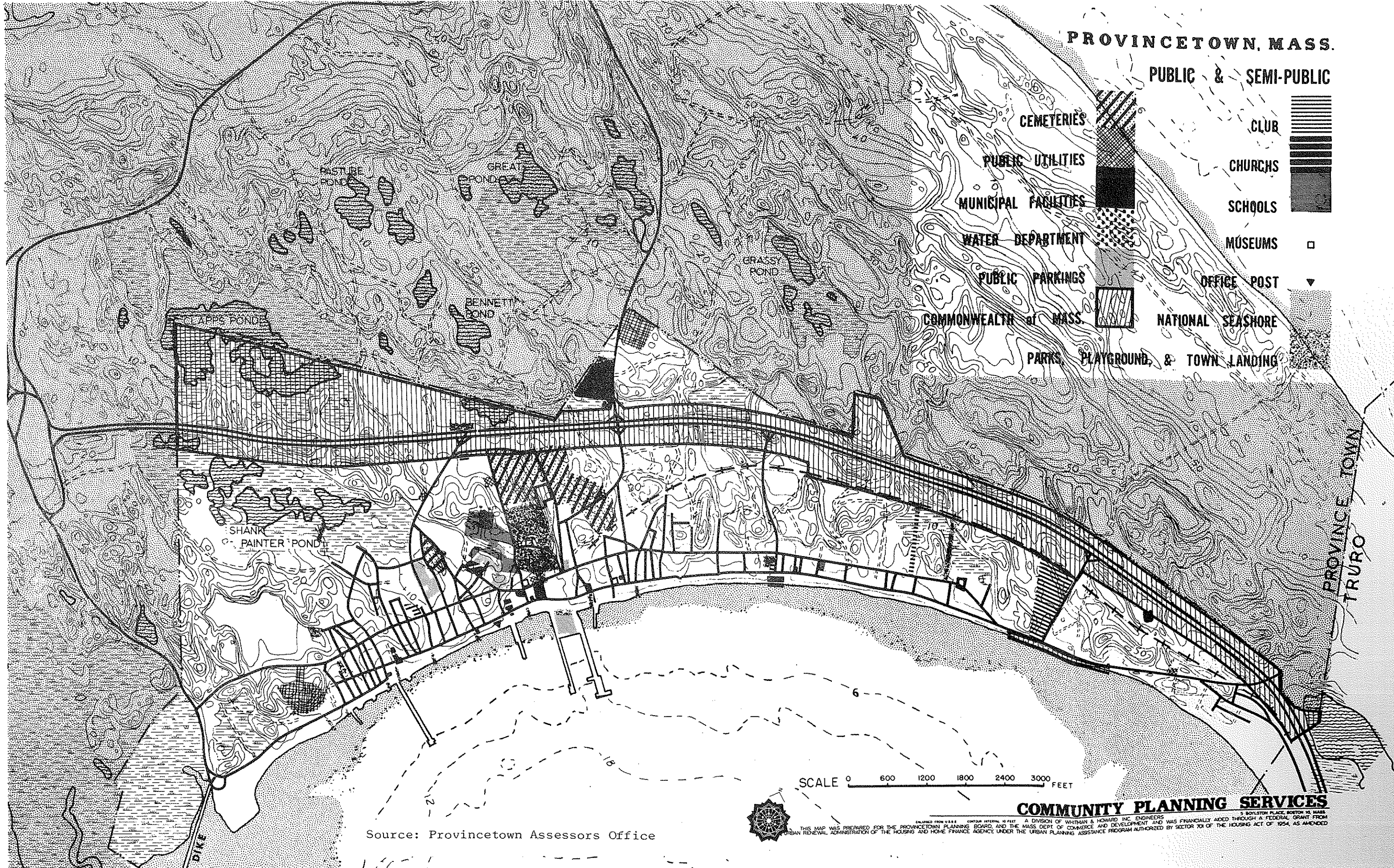




PROVINCETOWN, MASS.

PUBLIC & SEMI-PUBLIC

- CEMETERIES
- PUBLIC UTILITIES
- MUNICIPAL FACILITIES
- WATER DEPARTMENT
- PUBLIC PARKINGS
- COMMONWEALTH of MASS.
- PARKS, PLAYGROUND, & TOWN LANDING
- CLUB
- CHURCHS
- SCHOOLS
- MUSEUMS
- OFFICE POST
- NATIONAL SEASHORE



Source: Provincetown Assessors Office



SCALE 0 600 1200 1800 2400 3000 FEET

COMMUNITY PLANNING SERVICES

THIS MAP WAS PREPARED FOR THE PROVINCETOWN PLANNING BOARD, AND THE MASS DEPT. OF COMMERCE AND DEVELOPMENT AND WAS FINANCIALLY AIDED THROUGH A FEDERAL GRANT FROM THE URBAN RENEWAL ADMINISTRATION OF THE HOUSING AND HOME FINANCE AGENCY UNDER THE URBAN PLANNING ASSISTANCE PROGRAM AUTHORIZED BY SECTION 701 OF THE HOUSING ACT OF 1954, AS AMENDED

ninth landing is in the southern end just adjacent to the parking lot. All of these holdings are in the shape of narrow strips reaching from Commercial Street to the waterfront and are used as accessways to the waterfront.

In all, about 1.4% of the total Provincetown land acreage is held for parks and playgrounds by the town.

#### Parking

About 1% of Provincetown's total acreage is devoted to public parking. This amount does not include private facilities adjacent to motels and restaurants nor does it include on-street parking. There are two major parking areas in Provincetown, one on the town pier and one in conjunction with the public and parochial school complex. These two facilities, containing about 75% of the public parking area, are located within a few blocks of the Town Hall and the urban core. Several other smaller lots including one north of the Monument and one across from the Town Hall are located near the commercial core of the town. Two medium sized lots are located in northeastern and southwestern sections. Considering the average accommodation of cars at 125 vehicles per acre the 9.4 acres of public parking can accommodate about 1200 cars, three-quarters of these in or near the core and the remainder in the northeastern and southwestern areas.

#### Church & Cemetery

Land used for cemetery purposes and land owned and used by



churches is about 3.5% of the land in Provincetown.

Over 80% of the church and cemetery lands are contained in the adjoining Protestant and Roman Catholic cemeteries north of the Monument. The oldest cemetery in town--between Winthrop and Court Streets--amounts to another 8% in cemetery land use. The remaining 12% is divided between churches of various denominations.

#### Undeveloped Lands

Undeveloped land in Provincetown can be divided into two types, open land and lowland, the lands below the 10-foot contour. Together, they represent 66% of the land in Provincetown, the largest category of all the land uses. Since the lowland is undevelopable or should not be developed, the two categories must be treated separately.

#### Open and Vacant Land

Open and vacant land in Provincetown is 43.6% of the total land acreage or 436.0 acres out of 1000.2. Most of the open land in Provincetown is found in the southwestern and northeastern ends of the town with some undeveloped areas, west and north of the central area.

About one-quarter of vacant land in Provincetown is in the southwestern end with large uninterrupted tracts northwest of Bradford Street. Another one-quarter is found in the northeastern end near the Truro-Provincetown line south of the state highway and surrounding the unused railroad tracks. A third quarter of the open land is located south of the state highway and north of Bradford Street



between Priscilla Alden Road and the Bradford-Commercial Streets intersection.

One-tenth of the open land surrounds the campsite across the state highway; another 10% is located in the central corridor, south of the highway more than 150 feet north of Bradford Street between Priscilla Alden Road and Shank Painter Road. The remaining 5% is scattered in small vacant lots between the waterfront and a line 150 feet west of Bradford Street in the midst of the highly urbanized area.

#### Lowlands

Lowland in Provincetown is 22% of the total land or 221 acres of the total 1000.2 acres. Distribution of the lowlands is similar to the pattern followed by open and vacant land with vacant sections in the southwestern end of the town and scattered areas west and north of the central area.

About 15% of the lowlands are located east of the state highway between Alden Road and the Bradford-Commercial Street intersection. The other 85% is located in the southwestern end and is divided into three major sections.

One section surrounds Province Land Road on both sides, extending along Commercial Street on the west and to the town limits on the south. This lowland area is interrupted by motel and residential development. The second lowland section is west of Bradford Street, a large uninterrupted tract surrounded by higher open land. The



third section is composed of the Shank Painter Pond complex.

Shank Painter Pond itself extends for about 69 acres.

Some of this lowland will be difficult to develop because of drainage problems. Other parts should not be developed because of exceptional aesthetic and wild life qualities and should be fully protected by the Hatch Act. Shank Painter Pond, especially, falls into this category.

#### Waterfront Uses

##### Description

On the crsecent-shaped waterfront it is possible to recognize five pairings of predominant use patterns: to a cluster of motels and cottages on the East End corresponds a similar cluster on the West End; in the same relationship are two residential strips, as well as the adjacent industrial, mixed commercial-residential, and predominantly commercial strips. The amount of land taken by each category is generally larger in the Eastern section than in the Western; all together, they form two symmetrical sequences from the tips of the crescent to the Town Pier.

Two additonal uses, a vacant strip and the parking lot on the Town Pier, complete the profile.

Motels and Cottages Cluster - Two major clusters of motels and cottages are to be found at either end of the waterfront. On the West they extend up to the foot of Point Street; on the East they extend up to the foot of Mount Gilboa Road. The only marked

difference between them is that the first cluster, blocked inland by Telegraph Hill, extends toward the sea, the other toward the land.

Residential Strips - Adjacent to the motel area on the West there is a strip of waterfront which is predominantly residential. It extends up to the foot of Franklin Street. On the East, the predominantly residential strip is separated from the motel area by a strip of open land. The residential strip itself extends from the junction of Commercial and Bradford Streets up to the foot of Howland Street.

Scattered along both strips are a few neighborhood businesses, motels, studio apartments, art galleries, and parking lots.

Industrial Strips - Adjacent to both residential strips there are two industrial areas, the abandoned Cold Storage Plant on the East and the Atlantic Coast Fisheries with annexed boatbuilding and repairing facilities on the West. The industrial complex on the West is active and is more than triple the size of the one on the East.

Mixed-Use Strips - Directly adjacent to the industrial areas, there are two strips of an essentially mixed use. Residential and commercial uses are to be found there in an almost even balance. The commercial uses, including restaurants, motels, gift shops and art galleries are predominantly tourist-oriented businesses.



The strip on the West extends perhaps as far as the foot of Court Street; the one on the East extends as far as the foot of Pearl Street.

Commercial Strip - The remaining central strip, bisected by the Town Pier, is predominantly commercial and tourist oriented. Restaurants, gift, candy, camera and other general retail shops are present here in uninterrupted row. On the right of the pier, just on the waterfront, there is a commercial cluster which serves mainly local fishing businesses.

The Parking Lot on the Town Pier - At the center of the harbor there is a considerable amount of man-made land, approximately three acres. Apart from the pier itself, this is the only area along the central portion of Commercial Street from which it is possible to observe the harbor from a vantage point; yet, it is almost totally used for parking purposes.

Vacant Area - The only extensive vacant strip of waterfront can be found toward the East End, between the foot of Mount Gilboa Road and the junction of Bradford and Commercial Streets. It extends for almost half a mile.

#### Conclusions

The analysis of Provincetown waterfront development discloses an orderly and functional use pattern. There are some weaknesses in the pattern and also some opportunities which should be exploited.



The absence of vantage points from which to view the sea is especially evident and, considering the pedestrian nature of the town, should be corrected. The parking lot on the Town Pier represents underused land in the planner's opinion and detracts from the harbor atmosphere. Commercial uses are too uniform in intensity and should be more intensified in the town center and not be allowed to continue to spread as has been the case in recent years. The vacant area at the east end needs special detailed study. The long-term viability of industrial uses is questioned, particularly the eastern area. Suggested corrective measures to strengthen the waterfront land-use patterns are discussed in the wider context of the future physical plan for the town and downtown area.



## CHAPTER 3 TRAFFIC AND CIRCULATION PLAN

Summer traffic in Provincetown is seriously congested, and in all likelihood will continue to get worse in the future. This traffic congestion is not only a nuisance and a safety hazard to all the people, but is also a serious damper on the economic growth of the town. The town will inevitably be driven to finding a solution, at least a partial one, for this problem. Since many possible solutions could be more injurious to the town than traffic congestion itself, the proper solution should be carefully tailored to Provincetown's unique characteristics.

The regional and local nature of the traffic problem are described below, but its essence is that Provincetown is a pedestrian town invaded by the automobile. Since no other community perhaps presents a physical arrangement of streets and a circulation pattern as ill adapted to accepting and moving vehicles as Provincetown, it appears that the town either has to make room for the automobile and cease to be Provincetown or it has to achieve strict control over this means of transportation. The second solution alone seems acceptable, and it can summarily be articulated as follows:

1. reclaim downtown for people
2. close the central portion of Commercial Street
3. build parking lots on the edge of town
4. provide a first-class shuttle to move visitors into and out of the town



### Regional Traffic

A picture of the pattern of Cape Cod traffic is given in the enclosed map, Cape Cod - Average Daily Traffic, 1965; detailed figures on which the map is based are given in Table III. Behind this static picture there are basic movements, characterized by a remarkable rate of growth and a high seasonality, which are of great relevance for Provincetown. From 1959 to 1965 there was an enormous increase in the Cape Cod traffic volumes, but it did not take place uniformly. There was about 50% increase from the two Cape Cod Canal bridges approximately to the Barnstable Circle; eastward of this point the rate of increase was over 100%. The average number of vehicle trips per day at the Eastham-Wellfleet line, grew from 2,360 to 5,410 during the same period.

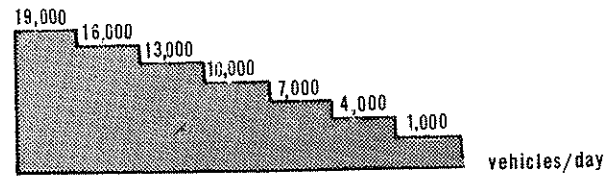
While the rate of growth has been different over the Upper and Lower Cape, the large seasonal variations have apparently been identical. As seen from the enclosed graph, Barnstable Circle Traffic Counts, summer traffic at the Barnstable Circle has been over five times larger than winter traffic. The same seasonal variation could be found at the Eastham-Wellfleet line where in 1965 the Average Daily Traffic varied from 2,700 vehicle trips for the winter months to 14,500 for the summer months.

One characteristic of the Lower Cape traffic is that the peak day occurs on Tuesdays instead of weekend days as typical of the Upper Cape. This dissimilarity seems to indicate that a large proportion

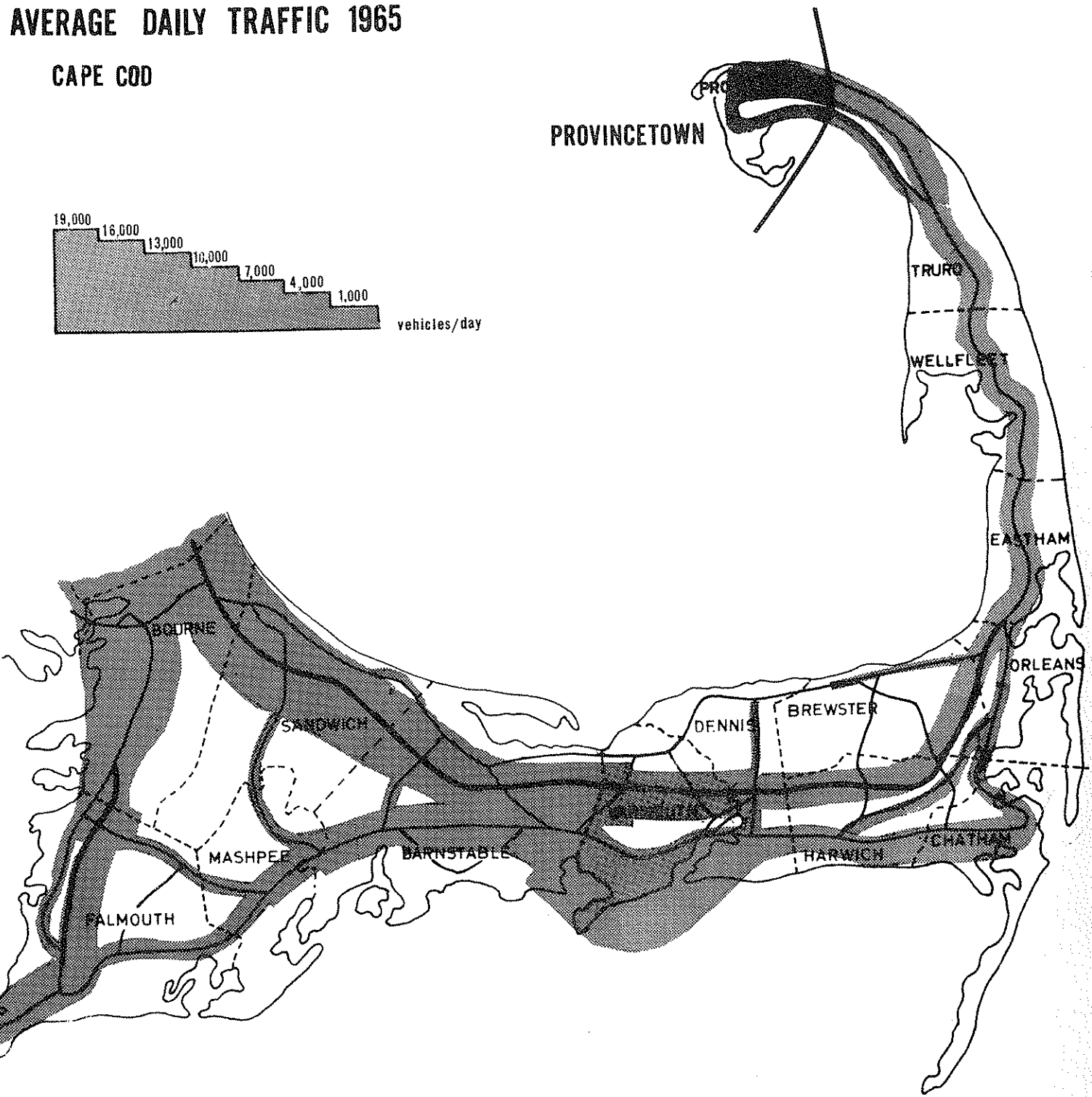


# AVERAGE DAILY TRAFFIC 1965

## CAPE COD



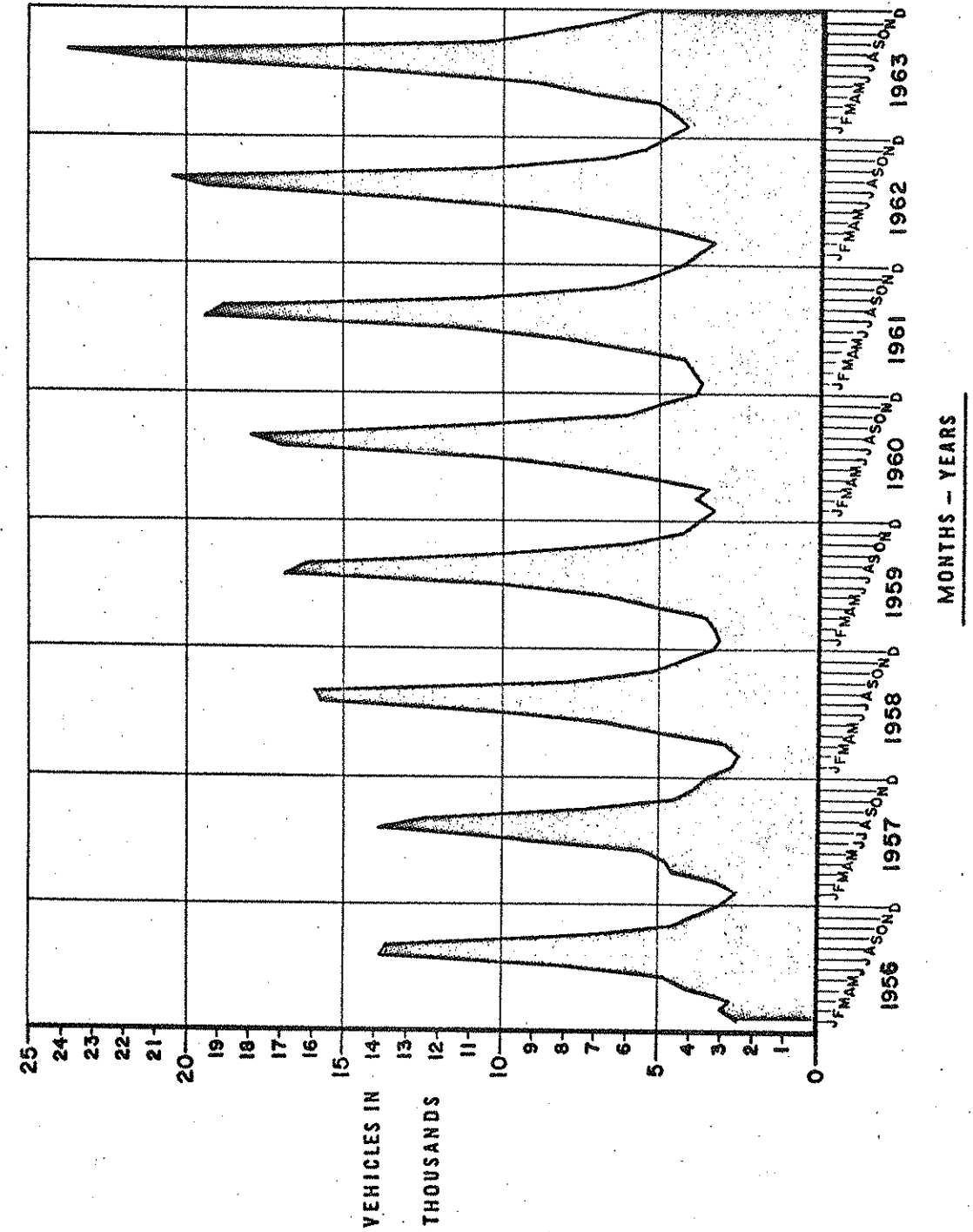
PROVINCETOWN



Source: Massachusetts Department of Public Works



### BARNSTABLE CIRCLE TRAFFIC COUNT



SOURCE: BUREAU OF TRANSPORTATION, PLANNING & DEVELOPMENT

Table III

## CAPE COD - AVERAGE DAILY TRAFFIC VOLUMES

Year	Sagamore Bridge	Bourne Bridge	Barnstable Circle	Eastham- Wellfleet	Truro S. Peters Hill	Provincetown- Route 6A	Truro Route 6
1959	13,090	11,770	7,350	2,360	2,120	1,170	2,000
1960	11,440	11,950	7,810	2,610	2,490	-	2,500
1961*	-	-	-	-	-	-	-
1962	13,870	14,670	8,880	4,500	4,670	1,700	2,230
1963	14,648	12,715	10,283	4,410	2,670	1,410	4,100
1964	18,779	12,496	10,666	5,053	4,000	1,200	4,200
1965	-*	12,130	10,360	5,410	4,210	1,250	-*

\* Figures not available.

SOURCE: Massachusetts Division of Public Works



COMMUNITY PLANNING SERVICES

of this traffic is composed of day visitors who spend part of their summer on the Upper Cape.

#### Future Outlook

Two methods can be applied for an estimate of future traffic volumes. One would involve making a projection of past trends; the other would take into account the attraction of the National Seashore.

On the basis of a rate of increase of 25% per year during the period 1959-1965 in the Average Daily Traffic at the Eastham-Wellfleet town line, it can be estimated that by the summer of 1980 there might be as many as 100,000 vehicle trips per day passing that line and potentially entering and leaving the Provincetown area. Physical constraints will partly limit the traffic growth on the Lower Cape; but they can and will be modified.

Elaboration of the expectations of the National Seashore shows the conservativeness of the above projection, and cancels the previous, rather unrealistic, assumption that the growth rate for the Lower Cape traffic will remain constant in the future. The Cape Cod National Seashore Master Plan cites the 10 million visitor days per year predicted by the Cape Hatteras National Seashore Master Plan as an indication of the scale of expectation for 1980 Lower Cape Cod visitation.\* Since in 1962 the Lower Cape experienced about 1.2 million visitor days, the general indication for the Cape Cod National Seashore would correspond to an eight-fold increase in

\*This figure would include visitors as well as permanent residents.





visitation. A parallel eight-fold increase in traffic, or about 120,000 vehicle trips per day during summer months, might reasonably be expected on the Lower Cape. This figure is the equivalent of the 1965 traffic flow on the Southeast Expressway in Boston.

Due to the differences between the two parks, theoretically it is possible that the Cape Cod National Seashore will experience as many as four times more visitor days. The distance to the centroid of the Eastern Megalopolis from Cape Cod is half the distance from Cape Hatteras, and according to Reilly's law \* the 1980 visitation on the Lower Cape could reach a figure as high as 40 million visitor days. Correspondingly, there could be a four-fold increase in the 1980 traffic volumes estimated above. Obviously, if the car remains the predominant means of transportation, sheer lack of land will prevent the materialization of such a possibility; the expectation of 100,000 vehicle trips per day is a legitimate indication of what might be expected.

#### From Vehicle Trips to Number of Vehicles

It is difficult to convert the estimate of about 100,000 vehicle trips per day into the actual number of vehicles. Perhaps the most realistic way is to start from the 10 million visitor days indicated by the Cape Cod National Seashore and to divide them by 50, the number of active days per season on Cape Cod, and

\* Reilly's law states that when travel time is reduced to half, a four-fold increase in number of trips is to be expected. This law was developed for shopping centers, but it appears generally valid in analyzing other land uses where competition, distance and population are factors.



subsequently by 3, the average number of persons composing each group and occupying each car. In this way, a figure of about 60,000 vehicles per day visiting the Lower Cape by 1980 is reached.

Considering that the large majority of the persons attracted by the National Seashore might be interested in visiting Provincetown at least for a few hours, it seems reasonable to conclude that to all practical effects the town is facing an almost inexhaustible tourist supply which could be good or bad depending upon one's point of view. Some visitors, however, will be exclusively attracted toward the beaches and the dunes; and others will remain in other areas of the Seashore.

In the light of the above factors, it is possible that the number of vehicles visiting Provincetown during summertime for any reason whatsoever might by 1980 gradually reach at least the figure of 20,000 per day. And since 1980, or the years thereabout, is nothing, but a reference year, further traffic expansion has to be envisioned and possibly all requirements provided for.

#### Local Traffic

Traffic counts taken in Provincetown area to date are not sufficiently illuminating because the sample is limited to a few days per year during the off season. The counts for the Eastham-Wellfleet line, however, can be considered comparable to those for Provincetown-Truro line if traffic on Route 6 and Route 6A is consolidated. Although a number of trips terminate in Wellfleet or



Truro, other trips originate in this area.

The 15,000 vehicle trips per day at the Eastham - Wellfleet line, when reduced to one-way figure and scattered along at least 10 hours per day, amount to about 750 vehicle trips per hour. Peak hours should not be much over 1,500 trips. These trips in the main interest Commercial and Bradford Street.

Traffic originating within the Town boundaries should be added to the above figures. Unfortunately, there are no meaningful counts on them. Neither is it possible to arrive at any definite conclusion through comparisons with other situations or through sporadic spot counts\*.

The above conclusions become even more indefinite considering that a kind of natural separation of traffic seems to take place in Provincetown; permanent residents seem to add very little to the congestion, and summer residents seem somehow to leave the streets to day-visitors when they appear in flocks. These factors make it difficult to pass judgement on traffic composition as well as total flows.

Some indirect evidence, however, can be derived from Provincetown road capacity.

#### Road Capacity

Road capacity is a very elastic concept depending on many

\*The only certain data concerns the number of motor vehicles registered in Provincetown by year-round residents. In 1965 this figure stood at 2,378, showing an increase of about 75% over the registration for 1954.



variables such as speed, width and condition of the road, degree of tolerance of travelers, and duration of congestion. The latter factors, as on many Cape Cod roads, account for Provincetown traffic loads probably greater than any theoretical standard would consider. The theoretical basic or congested capacity for any two-lane road sets a maximum of 2,000 vehicles per hour. Provincetown roads seem to be close to this limit, if they have not yet overcome it.

Considering the various obstacles on the two roads, Commercial and Bradford Street if combined together can be considered equivalent to a full two-lane road. The width of the pavement on Commercial Street varies between 16 and 19 feet; that of Bradford Street between 22 and 28 feet. Both roads are frequently interrupted by intersections, and apart from the Expressway there are no other roads running through the length of the town. The necessary on-street parking adds to the basic difficulties. Due to all these factors, circulation is generally slow and unsafe for the normal traffic requirements as well as for the unusual ones of the Fire and Health Departments. Any future traffic growth will increase these basic deficiencies. From any criteria Provincetown streets, particularly those in the downtown and waterfront locus are hopelessly inadequate, already well beyond "designed" capacity and are incapable of being modified to accept more traffic.

#### Accidents

It is quite difficult to make comparisons and to give a fair assessment of the number and the importance of motor vehicle accidents occurring in Provincetown, the following table is meaningful



at least insofar as it gives an indication of the overall persistence of underlying problems.

Year	1960	- 61 -	62 -	63	1964	1965
Accidents	85	78	50	45	49	66
Vehicles	137	121	85	71	95	104
Major	36	38	29	31	28	69
Fatal	2	0	0	0	0	1

Source: Annual Town Report

With the exclusion of those occurred in 1963, accidents which during the past five years have caused either property damage of above \$200 or personal injuries have been plotted on a town map so as to have an exact vision of their localization. A few accidents are missing from the map because of the lack of specific records. All the same, they reveal that dangerous spots exist all over the town.

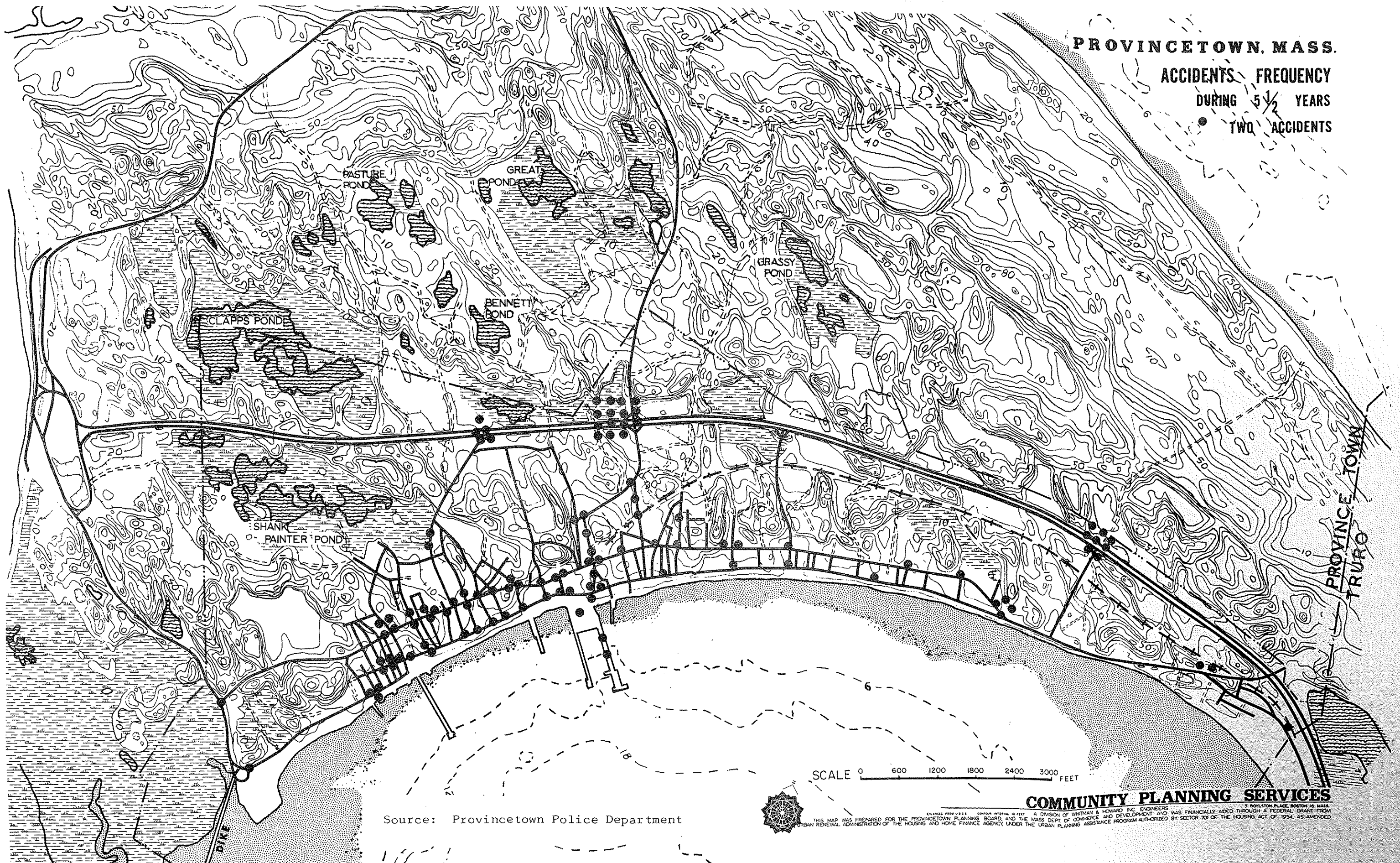
The highest frequency of accidents occurs at the three major Route 6 intersections. Here the absence of exit lanes, inadequate traffic light and signs create obvious hazards. Only recently some of these shortcomings have been partially remedied.

Present Parking Facilities and Future Needs

Currently the Town has parking lots scattered in various areas which cover a total of approximately 10 acres. Even adding the space



**PROVINCETOWN, MASS.**  
**ACCIDENTS FREQUENCY**  
**DURING 5 1/2 YEARS**  
 ● TWO ACCIDENTS



Source: Provincetown Police Department

SCALE 0 600 1200 1800 2400 3000 FEET

**COMMUNITY PLANNING SERVICES**

CHARGE FROM U.S.S. CONTRACT INTERNAL USE ONLY. A DIVISION OF WHITMAN & HOWARD, INC. ENGINEERS, 5 BOYLSTON PLACE, BOSTON 16, MASS. THIS MAP WAS PREPARED FOR THE PROVINCETOWN PLANNING BOARD, AND THE MASS. DEPT. OF COMMERCE AND DEVELOPMENT AND WAS FINANCIALLY AIDED THROUGH A FEDERAL GRANT FROM THE URBAN RENEWAL ADMINISTRATION OF THE HOUSING AND HOME FINANCE AGENCY UNDER THE URBAN PLANNING ASSISTANCE PROGRAM AUTHORIZED BY SECTION 701 OF THE HOUSING ACT OF 1954, AS AMENDED.

PROVINCETOWN  
 TRURO

occupied by cars parked in the streets, they are insufficient, and the need for additional facilities will increase in the future mainly to accommodate an increasing flow of one day visitors.

In order to be ready to accommodate possibly 20,000 cars per day by 1980 or perhaps 10,000 cars at any given moment, there is the need for one or a series of parking lots expandable to about 70 acres; each car requires approximately 300 sq. ft. of parking space. And since the 20,000 cars per day and the year 1980 are more reference data than concrete and ultimate elements, parking facilities should be provided in an area where further expansion is possible.

#### Long-range Circulation and Parking Plan

The planners have experimented with many alternative solutions to the Provincetown long-range parking and circulation problems.

No solutions involving substantially more traffic in the downtown area appeared to warrant serious long-range consideration. Preserving the status quo would only damage the Provincetown image and make life miserable for most residents in the summer. No system based on one-way directions were found which will work over the long run. There simply is inadequate road capacity throughout the community's mid-section to accomplish any significant improvement. Solutions involving short-term prohibition of traffic to increase pedestrian flow in the center appear to be impossible because of inadequate parking facilities unless certain traffic constituents are wholly removed from the center. Similarly, prohibition of parking to improve traffic flow only shifts the



parking problem elsewhere. Large scale demolition of buildings for street widening and parking lots would do irreparable harm to the quaintness and charm of Provincetown. Large new parking lots built on filled land along the harbor are questionable from an economic standpoint considering such land value for other purposes and also create more of a circulation problem over the inadequate streets leading into downtown. Parking garages in and near downtown appear economically out of the question, also would be out of scale with present Provincetown buildings.

The problem is obviously complex and no simple inexpensive solution suggests itself. The increasing flood of visitors to the Seashore will have to be accommodated on their visits to Provincetown but they and their automobiles ought to be encapsulated and not disrupt the lives of Provincetown year-round and summer residents by their presence. Similarly downtown Provincetown, the goal of most short-time visitors, should not be allowed to grow in geographic extent into the residential portions of the community or should short time summer visitors through their ignorance of the town wander in their automobiles all over town just because it is there. The only solution appears to be a recognition that Commercial Street is pedestrian, with shopping patterns and commercial land uses dictated by walking distance considerations rather than automobile considerations for the main part. Parking lots for visitors on the outskirts of town with good, efficient shuttle bus service on a free or charge



basis on a closed circuit route from the lots into downtown appears the only logical workable solution in the face of large scale increases in number of visitors and the equally valid consideration of town preservation. Highways and signboards should be arranged to channel visitors into an outside lot. This is essentially the Williamsburg solution. To make it further attractive the planners suggest construction of a Provincetown visitor and information center in conjunction with the outside parking facilities. This might well be accomplished in part with the National Sea Shore. Such a center would likely include a museum of marine and fishing history, mementoes of early Provincetown and exhibition of current fishing techniques. There would also be information on hotels, restaurant facilities and other Provincetown features.

The recommendations above and those shown on the accompanying long-range plan diagrams will represent certain inconveniences for Provincetown residents. It will mean acceptance of a wholly pedestrian Commercial Street core in summer months. It will mean juggling of delivery runs. Also it will probably mean construction of a cooperative warehouse facility at an outside parking lot for delivery of goods destined for restaurants to keep large trucks out of the downtown area. Large truck delivery would either be made in early morning hours or by transshipment from the warehouse by smaller vehicles as needed.



### Future Road Needs

Whether or not the previous suggestions are entirely or partially carried out, it is evident that the growth of the town requires both new roads and improvements of existing ones. These recommendations are listed below.

#### Construction of a New Street Along the Edge of Monument Hill

Downtown traffic congestion will increase. The closing to traffic of the central portion of Commercial Street will be an element of that increased congestion. Ultimately, a road along the edge of Monument Hill, between the High School site and the junction of the new proposed road and Bradford Street would help relieve future downtown congestion and would work within the framework of the overall plan.

#### Construction of a new road between Bradford Street and Route 6

This is the major road which the town will sooner or later require. It will link Route 6A at the Truro line, with Route 6 at its present junction with Conwell Street. Eventually, it will be extended to the western part of the town. The community should also keep in mind that the area below Route 6 will become the major entranceway to town and as such it will give the first impression to the visitor.

Some linking roads between this new road and Bradford Street should be constructed - adequate in width to absorb all through-traffic and to leave large sections in between open perhaps for quiet residential development. These roads should be able to divert as much traffic as



possible from an East-West to a North-South direction.

The major road itself should initially be two-lanes. A right-of-way suitable for handling four lanes should be acquired to provide for future requirements.

#### East End Roads

A realignment of Commercial Street, between its junction with Bradford and the foot of Mount Gilboa Road is a future consideration.

#### North End Roads

A new service road will be necessary in the North to reach the dump and other municipal facilities existing in the area.

#### Franklin Street Enlargement

The widening of Franklin Street would provide a convenient access to this section of the town, and also help the present and future development of the fishing industry located at the foot of this road.

The above suggestions are shown on the map, FUTURE LAND USE AND CIRCULATION PLAN. Only time will determine where other improvements will become necessary.

#### Pedestrian Circulation

In regard to future pedestrian circulation, an interesting question will be posed in the future. The urban character of Provincetown is such that even pedestrians will create congestion. In order to have elbow room, a number of persons which could progressively reach the 60,000 figure at any given moment, with each



person occupying about 10 sq. ft. will finally need at least 16 acres of land. At least half of these people can be expected to converge toward the center of the town where about 8 acres of essential pedestrian space will probably be required for the purpose.

Some persons will be in shops, restaurants or motels; others will be in the streets. With such a concentration, it may be assumed that there will be a spilling over and a further commercial development of Bradford Street. Covered places in the downtown area, however, will not provide more than two acres of room; considering that certain corners are, and are likely to remain, not "fashionable," at most 3 more acres can be found in the streets and on the pier. These 3 acres obviously will be available only when Commercial Street will be closed to traffic. All the same, it is likely that there will still be a need for about 3 additional acres of open space in the downtown.

These open space requirements can be met by providing an integral transformation of land uses and physical arrangement of the downtown area. A blueprint for these transformations has already been discussed and can be visualized from the Future Land Use and Circulation Plan.

#### Air Transportation

The number of passengers reaching Provincetown by air has increased from 5,044 in 1952 to 14,512 in 1965. This represents an increase of 200% and has shown a rather constant pattern over the

years. Generally, over 95% of this traffic takes place during summer months. Analytical figures are shown in Table IV. In addition to this traffic there is also a number of private aircraft, even 30 per day on weekends.

The yearly rate of increase for commercial traffic, an average of about 15%, gives an indication of the relative potentiality of this means of transportation.

If the maximum estimate of the National Seashore for 1980 visitation ever comes close to reality, it is evident that other means of transportation besides motor vehicles will have to be utilized, and air transportation will surely be among them, particularly if the community develops Provincetown along the unique lines proposed in the over-all plan.

Air transportation will deserve greater attention in the near future than in the present.

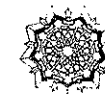




TABLE IV

## PROVINCETOWN AIRPORT ACTIVITY

YEAR	SEASON	DAILY*	TOTAL
1952			5,044
1953			4,302
1954			6,054
1955			7,379
1956	6,137	61	7,569
1957	8,608	86	10,094
1958	8,098	80	9,392
1959	10,003	100	11,751
1960	8,997	90	9,552
1961	8,951	90	10,085
1962	9,115	91	10,204
1963	10,769	108	12,050
1964	11,440	114	12,311
1965	14,048	140	14,512

\* Number of passengers per season divided by 100, the presumable number of active days per season.

SOURCE: Courtesy of Provincetown-Boston Airline, Inc.

Sea Transportation

The record of the activity of Provincetown Harbor substantially shows a decreasing number of vessel trips and a dwindling number of passengers; the cargo tonnage has shown a considerable degree of stability over the past fifteen years. Analytical figures can be found in the following table.

The remarkable factor in sea transportation for Provincetown seems to be not the downward trend in the number of passengers, but the large number of persons who used to avail themselves of this means of transportation in the not too distant past. In 1950, the summer daily average figure was 2,178, comparable to some 700 automobiles.

If the experience of the past is seen in the light of the limitations of land transportation, it can be assumed that the days of sea transportation for Provincetown are not ended. In order for this slight possibility to come about however, action and thought have to be applied to it, and the reasons for the present status of this means of transportation have to be fully analyzed. If this analysis is done, it is likely that the major causes will be found in:

- a) slowness of vessels currently in use;
- b) the range and the frequency of the services they offer;
- c) lack of customer amenities;
- d) the lack of widespread interest in sea transportation.

It might be useful for Provincetown to try to assert some leadership in this field in the near future. Action could be undertaken



PROVINCETOWN HARBOR ACTIVITY

Calendar Year	Both Ways Passengers	Daily <sup>1</sup> Average	Tonnage (Short Tons)	Vessel Trips
1950	217,883	4,357	8,590	15,144
1951	131,649	2,632	9,650	19,934
1952	117,845	2,356	9,667	11,236
1953	Not of Record		8,953	9,612
1954	Not of Record		13,308	10,736
1955	Not of Record		19,043	10,876
1956	Not of Record		11,149	10,680
1957	361,244 <sup>2</sup>	7,224 <sup>2</sup>	N.A.	N.A.
1958	59,454	1,189	14,216	11,393
1959	44,486	889	13,282	11,376
1960	49,849	996	13,522	11,508
1961	9,168 <sup>3</sup>	183 <sup>3</sup>	16,035	10,182
1962	35,792	715	9,821	9,638
1963	27,640	552	12,635	9,060
1964	22,672	453	10,429	8,560

<sup>1</sup> Total number of passengers divided by 50, the presumed number of active days per year

<sup>2</sup> Accumulation of previous years

<sup>3</sup> Year of a lengthy strike

SOURCE: Department of the Army, New England Corps of Engineers, Waterborne Commerce Operations Division



by a private or public organization, possibly in connection with officials of the National Seashore.

Plans to build 200-foot long hydrofoils and eventually to run them between Plymouth and Provincetown have been discussed.\* High-speed hovercraft cannot be discounted, particularly if extensive experiments in England and Europe with large-scale craft are successful. Hovercraft such as planned for the channel crossing or those now serving the Isle of Wight could reduce the downtown Boston-downtown Provincetown trip to an hour or less.

Bus Transportation

Bus transportation to Provincetown is negligible. In 1965, there seems to have been an average of 150 persons per day, both ways, using this means of transportation.

The existing line runs between Hyannis and Provincetown. Today there does not appear to be any possibility of an inter-regional bus system. In the future, however, the possibility of a heavier use of this mode of transportation might be more carefully explored.

Recommendations

Vehicular Circulation Improvement

- build a new parking complex outside downtown at a new Mid-Cape Highway terminus
- create an Information Center on the parking lot
- develop a new road between the lot and downtown

\* Information can be obtained at the Massachusetts Bay Line, Inc. in Boston; see also, The National Fisherman, Jan. 1967, p. 13-A.



- link the town to the parking lot through a system of shuttle buses
- construction of a new road to replace Conwell Street
- Construction of a service road in the North End
- construction of a new road parallel to Bradford Street
- widening of Franklin Street
- realignment of Route 6A between Mount Gilboa Road and Commercial-Bradford junction

Pedestrian Circulation Improvement

- close the central portion of Commercial Street to traffic
- create about three additional acres of open space in the downtown

Future Parking

For economic, social and aesthetic reasons, it seems preferable to concentrate the future parking needs at the outskirts of the town. Only this parking arrangement would have the ability to attract visitors instead of letting them wander around the town. Since this parking lot would mainly serve day visitors, existing parking lots in town, with some immediate additions, would in the future serve mainly permanent and summer residents.

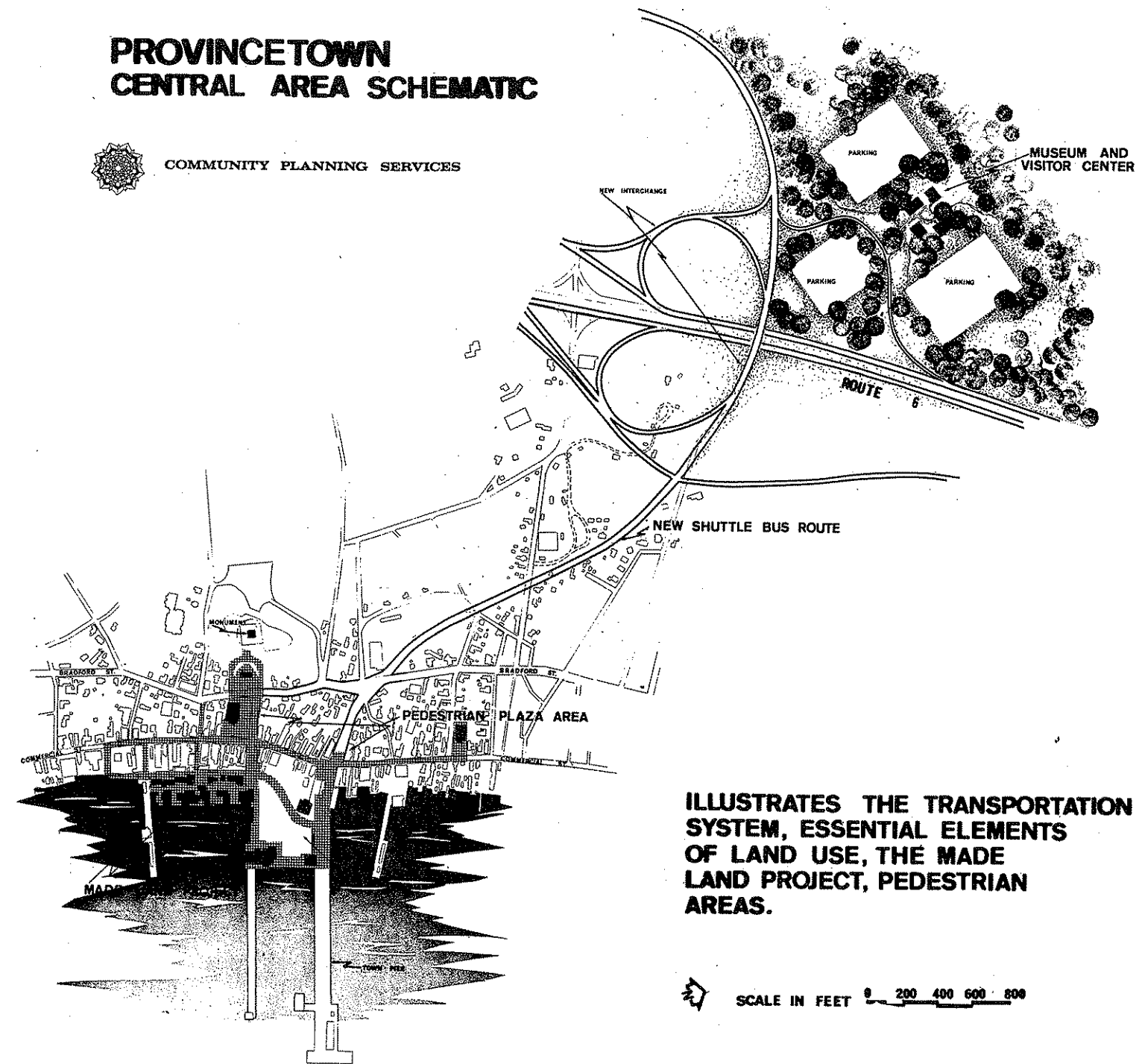
The most appropriate location and design of the proposed parking lot and the road system to channel traffic toward it is indicated on the Future Land Use and Circulation Plan. Options exist for the location of the new parking lot but only along an east-west line along Route 6. Besides the availability of land there, such location will be of immense benefit to the National



# PROVINCETOWN CENTRAL AREA SCHEMATIC



COMMUNITY PLANNING SERVICES



**ILLUSTRATES THE TRANSPORTATION SYSTEM, ESSENTIAL ELEMENTS OF LAND USE, THE MADE LAND PROJECT, PEDESTRIAN AREAS.**

SCALE IN FEET 0 200 400 600 800

Seashore; as this location will be the beginning point of a great variety of potential experiences related both to Provincetown and the National Seashore.

#### Information Center

In order to make it possible for the elimination of traffic in downtown and for the concentration of the bulk of the parking needs in one area, at least two elements have to be added to the picture: an information center and shuttle buses. Other centers of this sort have already been experienced with success. Perhaps the most famous is the one in Williamsburg, Virginia. It offers not only movies on the historical background of the town, but also general information on hotel or restaurant accommodations and places of interest in town. In Provincetown there would be no lack of topics to be emphasized, the past and the present of New England architecture or of its theatre might prove a worthwhile movie to see. Of special importance is the need for a major museum of fishing history.

#### Shuttle Buses

One shuttle bus line connecting the proposed parking lot to the downtown area via the new connector road should primarily serve day visitors.

In order to avoid an overconcentration of tourists in the center of the town, it might also be necessary at a rather early



stage to establish a bus line all along Bradford Street. If permanent and summer residents should get into the habit of using this bus line, circulation and parking problems would be in the central area further reduced; the days of the Accommodation\* would partially be back again.

#### Implementation

The shuttle bus system should be managed by the municipality. No other entity is likely to undertake this task.

The municipality should also decide on the means to finance the whole operation. It would seem advisable, however, to finance it through taxes more than passenger fares. No transit system seems to have ever been self-supporting. The issuance and control of tickets calls for a cumbersome and costly administration which does not seem to be justified on purely economic terms. There are studies advocating free transit systems even in cities like Paris; but vested economic and social interests have so far prevented the implementation of such proposals. A Provincetown transit system would encounter no such obstacles and a free system would be of inestimable value for the image of the town. A fee for the parking lot might be considered.

As a general indication of the cost involved in a free shuttle bus system, it might be pointed out that four buses, each with a 60-passenger capacity, running for ten hours at a 20-minute interval could transport at least 7,000 persons.

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\* The Accommodation was a horse driven wagon fifty years ago functioning as the Town public transportation system.



#### Closing to traffic the central portion of Commercial Street

As soon as a parking lot at the outskirts of the town is provided and the shuttle bus instituted, it will be possible to close the central portion of Commercial Street to traffic. The starting point might be the area between Center Street and Masonic Place. This area is already predominantly pedestrian.

When further extension of the pedestrian area is established, it might be advisable to change the direction of traffic on the eastern portion of Commercial Street. The resulting eastward flow would help relieve congestion on the Central portion of Bradford Street, and would eliminate the criss-crossing at the eastern junction of the two streets.

In the final stage, it might be possible and necessary to further reduce traffic on Commercial Street by instituting a series of cul-de-sac areas which would be used only by local residents.

#### Possible Arrangements for Overnight Tourists

Overnight tourists add to summer congestion and create considerable parking needs. Ways to alleviate this situation should be devised.

Undoubtly, all visitors should have the freedom to reach the motel of their choice by car. However, one possibility of eliminating some of them from the total traffic might consist of hotel personnel picking up the car and bringing it to a special parking lot. Another possibility would involve the creation of display stands in the Information Center, and the use of limousines which perhaps might



be managed by an independent agency. At least some visitors might find it convenient to shop for a room in a centralized place where they could easily compare conditions and prices. "No Vacancy" signs would not mean further journeys and annoyance.

In any case, it would appear advisable to install at the Information Center a direct reservation phone service as it exists in airports and railroad stations.

#### Business Traffic Regulations

Sooner or later it will be necessary to put some limitations on business traffic. Eventually, the delivery hours during summertime will have to be restricted; conferences between suppliers and businessmen should be able to work out the most convenient schedules.

In the more distant future, the feasibility of a more complex delivery system might be studied. It might be composed of a storage facility constructed at the outskirts of town, and of containers owned by single businessmen or a group of them to be either moved during the night in front of the various stores or left in the storage facility. Single pieces of merchandise might be picked up or ordered even during the day at the most convenient moment.

This system might free distant suppliers from the strictures of time limits. There is no compensation for Provincetown businessmen, except perhaps insofar as punctuality of delivery is concerned. The cost is part of the cost of doing business in Provincetown; but, perhaps, contributions from distant suppliers for at least the necessary initial expense might be solicited.



#### Some Concluding Remarks

This system of shuttle buses, display stands and transportation for overnight visitors and luggage, as well as storage and handling of merchandise would help not only to solve the traffic circulation problem, but would also eliminate in part the need for parking lots adjacent to hotels, motels and rooming houses. The successful implementation of these recommendations cannot be emphasized enough. These innovations may well determine the preservation of the aesthetic and economic vitality of Provincetown. The land otherwise required for parking might be more wisely used both for buildings and open space.

#### Intermediary Solutions

The above program will take a number of years to complete. The immediate parking problems which exist in town might be alleviated by the proposed parking lots on Johnson Street and around the water tank; the immediate traffic problems might be alleviated by the construction of a new road between Route 6 and Bradford Street. This road should be so built as to be later an integral part of the long-range program.



## CHAPTER 4 BUILDING CONSTRUCTION TRENDS

### Building Analysis

This chapter touches upon the present and the possible future number of residential and commercial buildings as well as their structural condition and their architectural, urbanistic qualities.

The knowledge of present and past conditions in this field, together with estimates of future trends is useful for population analysis, land use controls, and policies regarding types of buildings.

### Residential Building - Past Trends

The number of housing units in Provincetown has constantly increased from 1,597 in 1940 to 2,571 in 1960. This increase represents a rate of growth of 60.9%, or an average of approximately 3% per year.

More than new construction, this increase stems mainly from conversions of old houses to one room apartments as well as minor changes in the Census definitions. While in fact, the number of building permits for residential uses has been rather low each year, varying from 0 to 16 per year during the period 1951-64, the number of housing units composed of one room has jumped from 94 units in 1950 to 622 units in 1960.

Housing units are subdivided by the Census into occupied and vacant units; the latter give an indication of summer population as

the Census Data is compiled in April. The number of vacant units, together with those available for sale or rent, grew from 464 in 1940 to 773 in 1950 and to 1,387 in 1960. The number of year-round or occupied units has remained substantially constant. They were 1,133 in 1940; 1,264 in 1950; and 1,184 a decade later.

### Residential Buildings - Projection

Future growth of residential building in Provincetown will essentially be determined by the amount of open land available and by zoning policies adopted by the town. The presence of the National Seashore and the consequent likely strengthening of the economic base of the town will create a demand for additional housing units.

While it is likely that the demand will continue in its trend toward relatively small units, it seems that the supply will also make a qualitative jump: from conversion, to new construction.

Provincetown has a limited amount of relatively easy-to-build-on open land, some four-hundred acres. This supply of land must provide sites for roads, municipal services and other non-residential uses in addition to housing needs. The amount of land available for residential construction might therefore be approximately 100 acres, the amount of land available between Route 6 and the eastern section of Bradford Street. This area seems the most suitable for residential uses. The following table is an attempt to show the number of possible housing units which, according to the



type of development chosen, might be built on that amount of land.

Suburban Density	200	Units
Provincetown Past Density	1,500	"
Apartment Density	1,700	"

The above figures represent saturation levels which eventually will be reached in Provincetown if not by 1980-85 then possibly by the year 2,000. Which is the most likely density pattern which will be chosen by the community? Determining forces are not so clearly shaped yet as to allow for any degree of accuracy in forecast. With all likelihood, Provincetown will continue in the old pattern resulting in an additional 1500 housing units. While no accurate forecast of future residential breakdown between permanent and summer residents can be determined, it is expected that a ratio not unlike that which now exists will continue. An increase of semi-permanent residents might be expected resulting from increasing wealth and early retirements allowing people to live in Provincetown for six or more months and in warmer climates during the winter.

#### Commercial Buildings - Past Trends

The only meaningful data available on industrial and commercial buildings is on hotel and motel units built in recent years in Provincetown. The earliest record existing with the Town Board of Assessors refers to 1938. Since no new construction seems to have taken place up to 1952, those early records will be neglected. The figures are reported in the following table. Rooming houses are not taken into consideration here because they are included among



the vacant housing units.

The total number of recently built units has cumulatively grown from 25 to 528 in 1956. The average rate of growth for the decade 1957-1966 has been 22.6% per year.

#### Commercial Buildings - Projection

It is unlikely that the growth rate will remain on such high levels as in the recent past for a long period of time; the limited amount of land available will by itself slow the growth rate down. In the long run it is expected to decrease reaching a total number 2,500 to 3,000 units by 1985. If new construction takes place following the same density patterns now existing, that total implies the use of about 250-300 acres of land: substantially all the land available for this use at both the east and west end of town where motels might best be located.

#### The Influence of the National Seashore

The above projection appears valid if the prevailing, existing forces continue to operate in the future. The pressure of the National Seashore, however, is likely to alter land use and construction forces. If our estimates of 1980 visitation to the National Seashore--approximately 200,000 persons per day on the Lower Cape--are anywhere near the reality, the above projection of hotel and motel units in Provincetown will likely prove to be much on the conservative side.

In such case, pressures on Provincetown land would be enormous with motels and hotels fiercely competing with residential and other





uses for space. Pressures would ultimately develop to increase the height of buildings.

Instead of having one or more high rise buildings in the texture of the old or the new Provincetown, disfiguring the surrounding areas and increasing the logistic problems of moving persons and goods, it might be advisable then to try to obtain some high-rise construction in the Northwest part of the Town. Here high-rise buildings could have adequate road service, land for parking and, most important of all, Shank Painter Pond on one side and the Seashore on the other completely isolating them in space from the rest of the town. The view they would offer would be magnificent and unlimited; they would not hang like spectres over smaller buildings.

The land which seems most apt to receiving high-rise buildings in the future lies within the boundaries of the Seashore. To avoid any future administrative difficulties, it seems advisable to request such land now in partial exchange for the cession to the Seashore of Shank Pointer Pond. The areas proposed for exchange are shown on the Future Land Use and Circulation Plan.

Recommendations

- Reserve the area between Route 6 and East Bradford for residential purposes
- Reserve the East and West End for motel development
- Basically continue with present building densities, but allow more condominium type apartments
- Try to obtain from the National Seashore a piece of land in the northwest part of the tip of the Cape to be used in the future, if necessary, for a few high-rise constructions



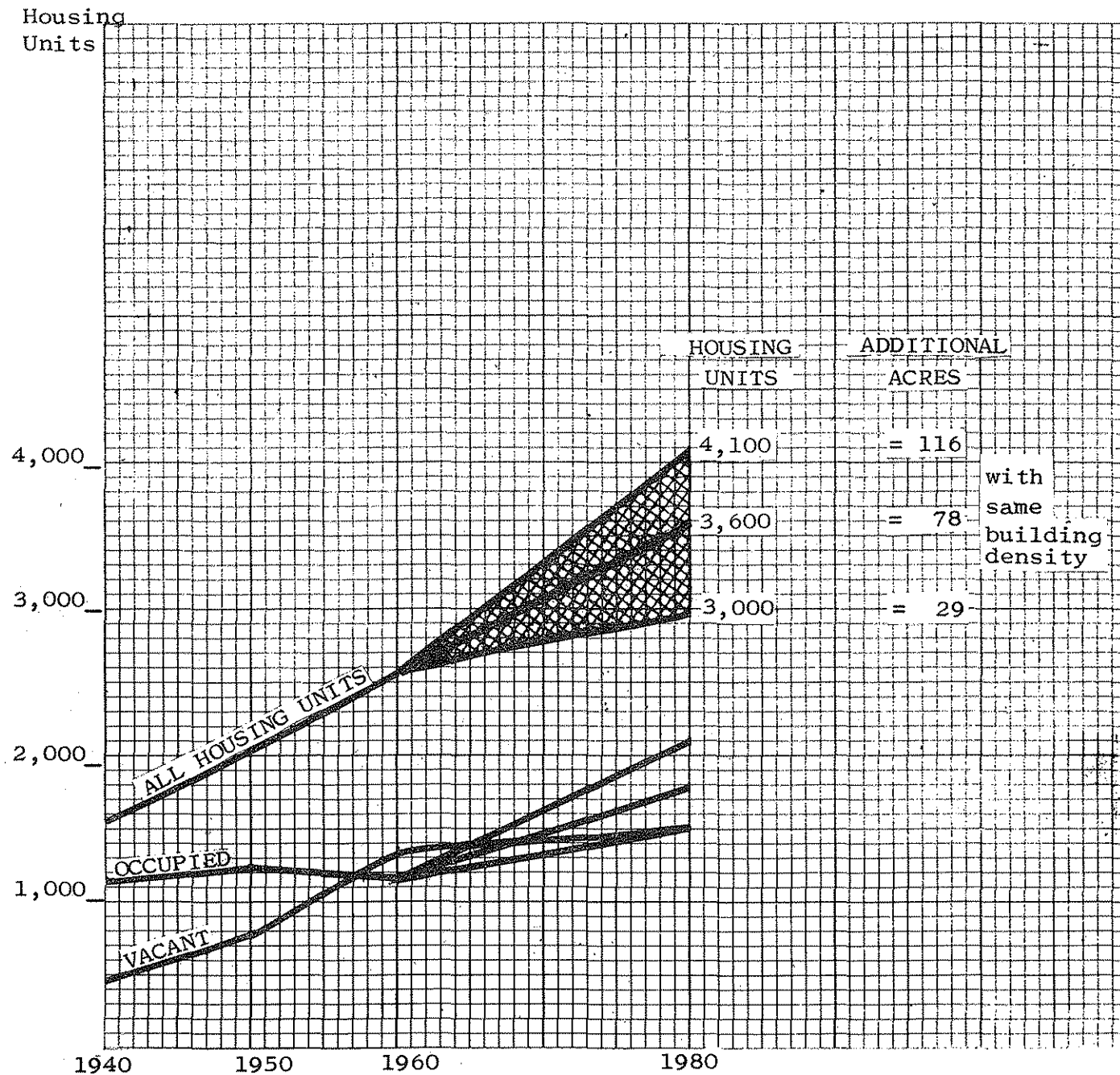
PROVINCETOWN - RECORD OF NEWLY BUILT HOTEL AND MOTEL UNITS

<u>Year</u>	<u>Number</u>	<u>Accumulation over previous years</u>	<u>% Variation</u>
1952	25		
1953	-	25	
1954	38	63	152.0
1955	-	63	-
1956	-	63	-
1957	14	77	22.2
1958	48	125	62.3
1959	25	150	20.0
1960	38	188	25.3
1961	22	210	11.7
1962	59	269	28.0
1963	3	272	1.1
1964	117	389	43.0
1965	3	392	0.7
1966	136	528	34.6

Source: Town Board of Assessors.



HOUSING UNITS  
TRENDS AND PROJECTIONS



Source: U. S. Census of Housing

CHAPTER 5 POPULATION

The particular character of Provincetown requires that the population analysis be subdivided as far as possible into three parts: Permanent Residents, Summer Residents, and Day Visitors.

This study is helpful in understanding present conditions in Provincetown, and determining what is likely to happen in the future. Estimates of future population levels are necessary to establish future community facilities needs and land use policies.

Permanent Residents - Past Trends

The population of Provincetown has been slightly decreasing since the beginning of the century. In 1900 it was 4,247; in 1965 it was 3,463. This decrease becomes more significant if seen in the light of the remarkable population increase in Barnstable County. Assuming 1930 equal to 100, the 1960 population index declined to 89.0 for Provincetown and increased to 217.6 for the County. The index for the United States reached 145.6.

A few seeming exceptions to the downward trend did take place; but they were generally off-set by heavy out-migration. During the decade 1950-1960, for instance, an excess of births over deaths of 205 was not sufficient to balance a net out-migration of 611 persons.\*

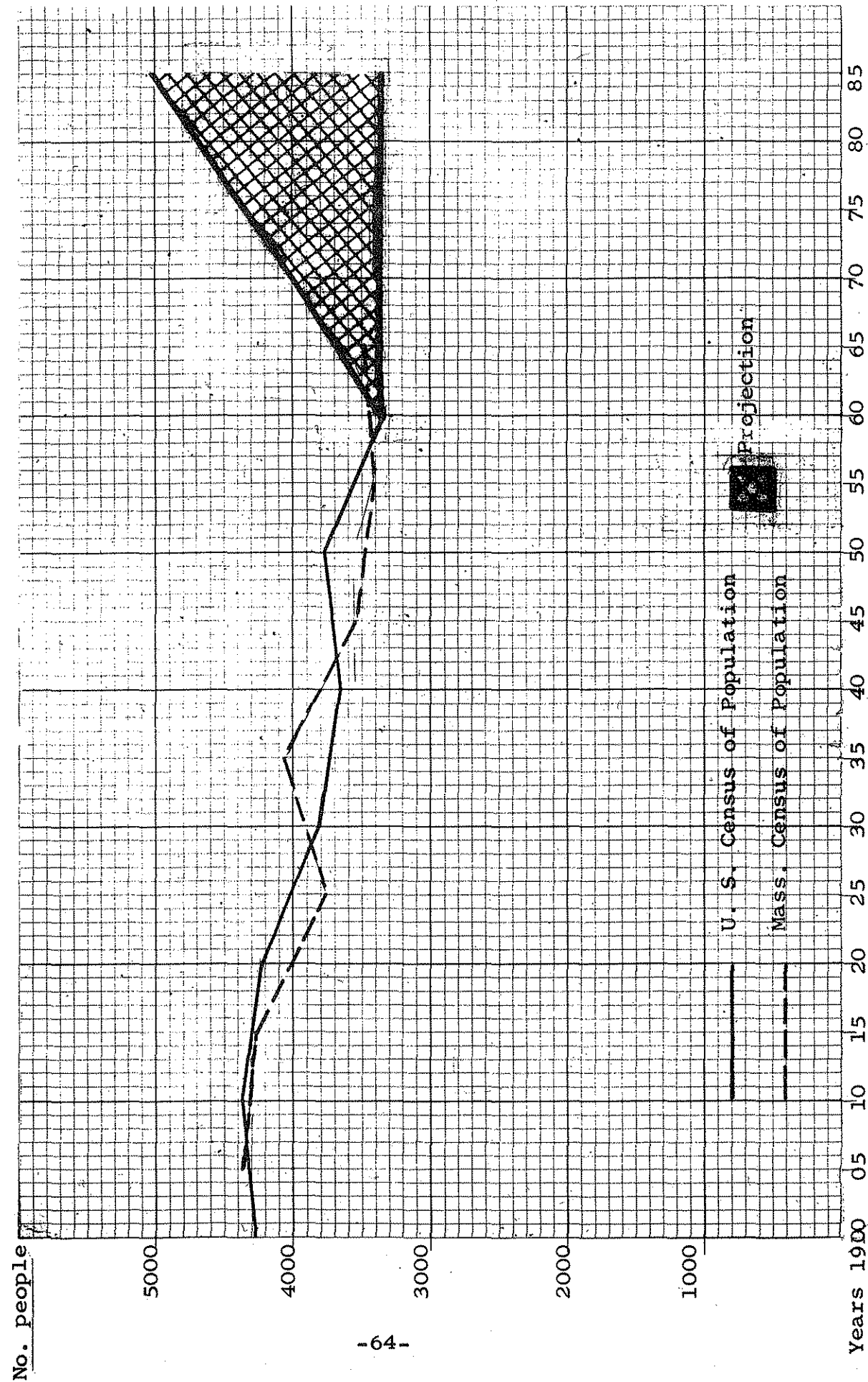
The declining population trend is clearly evident from the attached graph. The graph is based on the figures of both the United States and the Massachusetts censuses which are given in the following tables.

\* This data is from the Town Monograph revised in July 1965 by the -63- Mass. Dept. of Commerce & Development



PROVINCETOWN

Population Trends  
and Projection to 1985  
(Permanent Residents)



PROVINCETOWN, PERMANENT RESIDENT POPULATION

U. S. Census		Massachusetts Census	
1900	4,247	1905	4,362
1910	4,369 + 122	1915	4,295 - 67
1920	4,246 - 123	1925	3,787 -508
1930	3,808 - 438	1935	4,071 +284
1940	3,668 - 140	1945	3,564 -507
1950	3,795 + 127	1955	3,415 -149
1960	3,389 - 406	1965	3,463 + 48

AGE GROUP COMPOSITION, 1960

TABLE I

Age-Group	Number	Provincetown	BARNSTABLE COUNTY	Massachusetts	U.S.
Under 5	296	8.7%	12.0%	10.6%	11.3%
5-14	565	16.7	17.5	18.1	19.9
15-24	364	10.7	12.9	12.8	13.6
25-64	1,648	48.6	44.9	47.6	46.3
65 & Over	516	15.2	12.7	10.9	8.9

Source: Town Monograph revised in 1965 by the Mass. Department of Commerce and Development.



### Density

Population density decreased from 523 persons per square mile in 1910 to 406 in 1960. These official figures, however, do not give an accurate picture of reality. They are based on all the town land area and do not take into account the influx of summer residents and visitors. Basing the 1965 figure on the land which is thoroughly developed, an equivalent density of 5,000 ppsm is reached; considering summer population, the density becomes 15,000 to 20,000 ppsm. This density is equivalent to that existing year-round in many portions of Boston.

### Age Group Composition

The 1960 age-group composition of Provincetown population when compared with that of the county, the state and the nation disclosed three slight differences:

- a) a lower percentage number of persons in the group under 5 years of age;
- b) a larger percentage number in the group 25-64 years of age;
- c) a larger percentage number in the group 65 and over.

Of the three differences, keeping in mind the economically depressed condition of the town, the second one is the most interesting. It reveals the existence of closely knit economic and social relationships. Were it not so, out-migration would have made a bigger dent in this age group. The other two differences indicate that Provincetown's population currently shows the character of an "aged" population. Analytical figures can be found in Table I .



### Summer Residents

The appearance of summer residents in Provincetown is a phenomenon which preceded the permanent settlement of the community. The Pilgrims used the area as a fishing ground. The intensity of the phenomenon in recent years is a result of many forces originating in the American society as well as in Provincetown.

Occupants of vacant housing units, of hotels, motels, boarding houses and summer camps can be considered as summer residents. The 1940 U. S. Census of Housing reports 464 vacant housing units available for sale or rent. This number became 773 in 1950 and 1,322 in 1960; it included the large majority of guest houses. At an average of 4.25 persons per unit, and assuming a 90% occupancy\*, this section of the summer population probably, on the average, increased from about 2,000 in 1940 to 5,000 in 1960.

At a 68.5 per cent occupancy in hotels and motels, with 2.25 persons per unit, this portion of the summer population in 1965 probably averaged approximately 1,000 persons per day\*\*. Camp sites occupancy was negligible.

\*These national averages have been verified from many sources and used also by the Mass. Dept. of Commerce in their "Cape Cod Planning Program, Population Report" of July 1963.

\*\*Data regarding occupancy and persons per unit, which in the above mentioned report was given separately for hotels and motels, has been here combined and averaged.



Day Visitors

The number of day visitors during 1965 was probably, on the average, 8,000 persons per day.

The method used for this estimate is separately given in Exhibit I.

Estimated Total Population, 1960-65

The following table summarizes the previous conclusions:

Permanent Residents	3,463
Summer Residents	6,000
Day Visitors	<u>6,000</u>
	15,463

The above are average figures which imply daily variations between, perhaps, 10,000 and 20,000 persons per day.



Exhibit I

ESTIMATE OF DAY-TRIPPERS, 1965

Assuming that there is a year-round identical relationship between traffic and population, it is possible to establish the following ratios for 1965:

<u>Winter Residents</u>	<u>Summer Residents</u>	<u>Increase</u>
3,463	(6,000 + 3,463)	173.2%
<u>Winter ADT</u>	<u>Summer ADT</u>	
2,700	14,500	437.0%

The difference between the two rates of increase, or 263.8% of the total number of trips per day at the Eastham-Wellfleet line (14,500), should represent traffic attributable to day trippers. The result has to be divided by two in order to reach one-way figures.

Result: 1,906 cars or 5,718 persons.



Permanent Residents - Projection

The assumption of a future population increase in Provincetown, while impossible to dimension on the basis of past trends, is justifiable not only on the basis of the likely strengthening in the economic conditions of the Town, but also on the basis of the past experience of Barnstable County. The towns on the Cape are still experiencing a population explosion which has progressively invested them proceeding from the west towards the east. As seen from Table II and the attached graph, Cape Cod Population Growth, in the period 1950-1960 the population of the County increased by 50%. This wave-like trend should invest Provincetown during the next decades determining perhaps an approximate permanent resident population of 5,000 persons.

Another statistical element seems to consolidate the above conclusion. Assuming that the estimate of future total housing units, 4,000, will be equally split among summer and permanent residents, on the basis of 2.4 persons per unit experienced in the past, it is likely that by 1980-5 the permanent population might grow to the above mentioned number of 5,000 persons.\*

\*Should the likely future amount of housing units be split in a different proportion, the total estimate of future population would not be affected. An over-estimation in permanent residents would mean an under-estimation in summer residents or vice versa.



CAPE COD  
POPULATION GROWTH 1900 - 1960

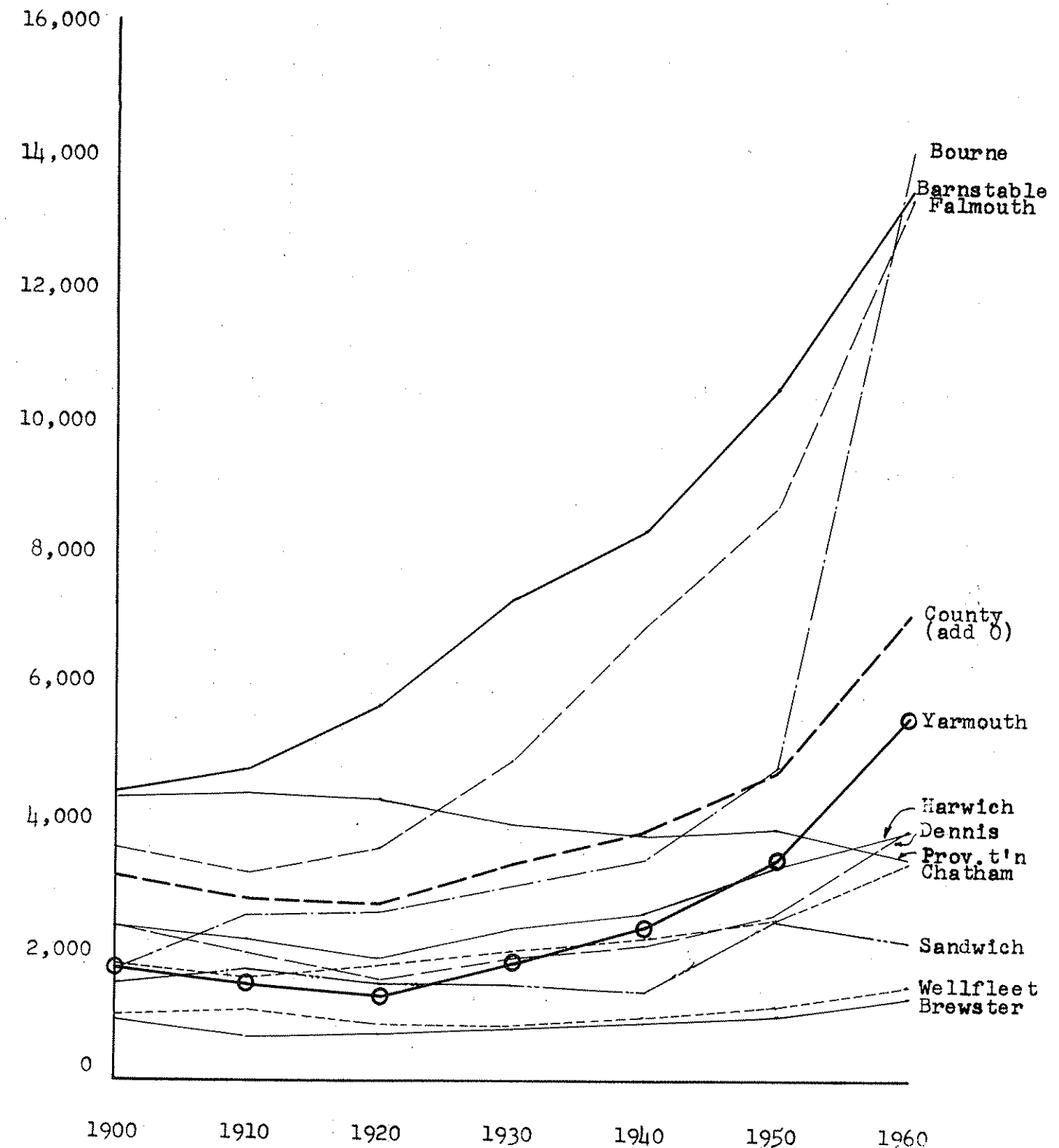


TABLE II

POPULATION OF  
SELECTED TOWNS IN BARNSTABLE COUNTY, MASSACHUSETTS

<u>Town or City</u>	<u>Year 1950</u>	<u>1960</u>	<u>Decrease or Increase in number</u>	<u>Decrease Or Increase in percentage</u>
PROVINCETOWN	3,795	3,389	-406	-10.7
Truro	661	1,002	341	51.6
Wellfleet	1,123	1,404	281	15.0
Eastham	800	1,200	340	39.5
Orleans	1,759	2,342	583	33.1
Chatham	2,457	3,273	816	33.2
Brewster	987	1,236	249	25.2
Harwich	2,649	3,747	1,008	41.4
Dennis	2,499	3,727	1,228	49.1
Yarmouth	3,297	5,504	2,207	66.9
Barnstable	10,480	13,465	2,985	28.5
BARNSTABLE COUNTY	46,805	70,286	23,481	50.2

- 72 -

Source: U. S. Census

Summer Residents - Projection

On the basis of the estimates of future building activity in Provincetown reached in Chapter III, it is likely that by 1980-85 the number of hotel and motel occupants might vary between 4,000 and 5,000, and that of non-resident real estate owners might vary between 5,000 and 8,000. Occupancy rates applied are the same as those estimated for the past.

Day Visitors - Projection

On the basis of our elaboration of National Seashore estimates, it is likely that the 1980-85 visitation in the Provincetown area could be in the order of 60,000 persons per day. This figure includes permanent and summer residents, as well as persons not directed toward Provincetown urban area but toward beaches and dunes. Realistic estimate of future day visitors' population should be, therefore, considerably reduced; but a visitation of some 20,000 to 40,000 per day is not beyond reason.

This estimate is based on the assumption that a large proportion of those who reach the area will want to visit the urban part of Provincetown: the town is surrounded by the Seashore, has a unique character and national reputation, it is at the far end of a road, and this is a position which by itself offers an irresistible psychological attraction.



Estimated Total Population, 1980-85

The following table summarizes the estimates of 1980-85 total population:

	<u>Minimum</u>	<u>Maximum</u>
Permanent Residents	3,463	5,000
Summer Residents	9,000	13,000
Day Trippers	<u>20,000</u>	<u>40,000</u>
Totals	32,463	58,000

These estimates imply a two or three-fold increase in the present levels of total population, and are based on the assumption that underlying forces will not only remain in existence, but will be strengthened in the course of the years.

It is implicit that the dates set for these estimates are not rigid; if not by 1985, they might come true by 1995 or by the year 2000. It is also evident that in order to accommodate this number of guests and visitors, numerous changes have to take place in the social, economic and physical pattern of the community; and, further, that these will mainly relate to accommodating a flood of short-term visitors to the community without destroying the community.



## CHAPTER 6 PHYSICAL FEATURES

### Purpose

Analysis of the physiographic structure of Provincetown is meant to point out those natural forces which might affect positively or negatively lives and property.

Neither the moving sand dunes nor the workings of marine currents appear to present any relevant danger; there is a limited threat of tidal flooding in some lowlying shoreline areas, and there is a general landscape and aesthetic problem involved in development of the fragile sandy areas.

### Location

Provincetown lies at the extreme tip of Cape Cod between an area commonly described as the "wrist" (North Truro) and the "finger" (Long Point) of the Cape. It is part of a peculiar geologic structure limited by the Atlantic Ocean, Cape Cod Bay, and Pilgrim Heights in Truro\* and is characterized by a most spectacular and unexpected sequence of beaches, tidal flats, marshes, and sand dunes. This structure extends seven miles in length and three in width including the Provincetown Urban Area, Long Point, Province Lands, Pilgrim Lake, and Pilgrim Springs State Forest.

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\*The administrative limits between the two towns do not correspond to the geologic characteristics.





There are at least four major ridges of sand dunes extending from east to west for the whole length of this area. Only a few of them along the northern shoreline as well as along the coast of Pilgrim Lake are not covered by vegetation. They all tend to be taller in the southeast, reflecting prevailing winds. In between the dunes are to be found bogs, marshes, and magnificent ponds.

Along the "palm" of the Cape lies a highly urbanized stretch of land, three miles long and one and a half wide at its broadest point. This is the area which has been left by the landtaking of the National Seashore Park to the direct jurisdiction of the Town and with it this report is mainly concerned.

#### Origin And More Recent Developments

The upper strata of the soil on Cape Cod were a direct creation of prehistoric glaciers but deposited by several varying methods. Near the extreme tip it seems likely that the glacial deposits were subsequently added to and covered by marine and wind deposits of sand. Pockets of glacial soils are still evident in the urban part of Provincetown.

The sea is the other powerful element which has constantly been affecting Provincetown land masses. Beach erosion and development is an almost continuous cyclical and much diversified process but the cumulative results can be described. On the southern side, a powerful shoreline current pushes sand northward along Cape Cod Bay from Wellfleet up to the major westward turnabout of

the land. To the works of this current have been due not only the definitive separation from the sea of Pilgrim Lake, but also the ever growing and shifting tidal flats along the shores of Truro and Provincetown. The shoreline of the urban area of Provincetown, however, seems to be highly stable at present.\*

On the northern side, part of the sand built up by the waves along the shore of Race Point is blown inland by the predominant northerly winds and goes to feed the dunes; the largest part of it is carried by prevailing surf toward the south or, more accurately, toward the southeast and southwest to engross both sides of Long Point in the west and to prolong the sand spit of Nauset Beach in the east.

The action of the winds is strictly interrelated with that of waves and marine currents. The significant winds are the ones which come from northwest. They are dry and are responsible for the major movements of the dunes. Yet, it seems that waves, currents and winds have established a closed circular pattern in Provincetown. It is likely that some sand is pushed into the sea by the winds and then in the course of centuries part of it perhaps is carried to the north where it starts again the movement previously described.

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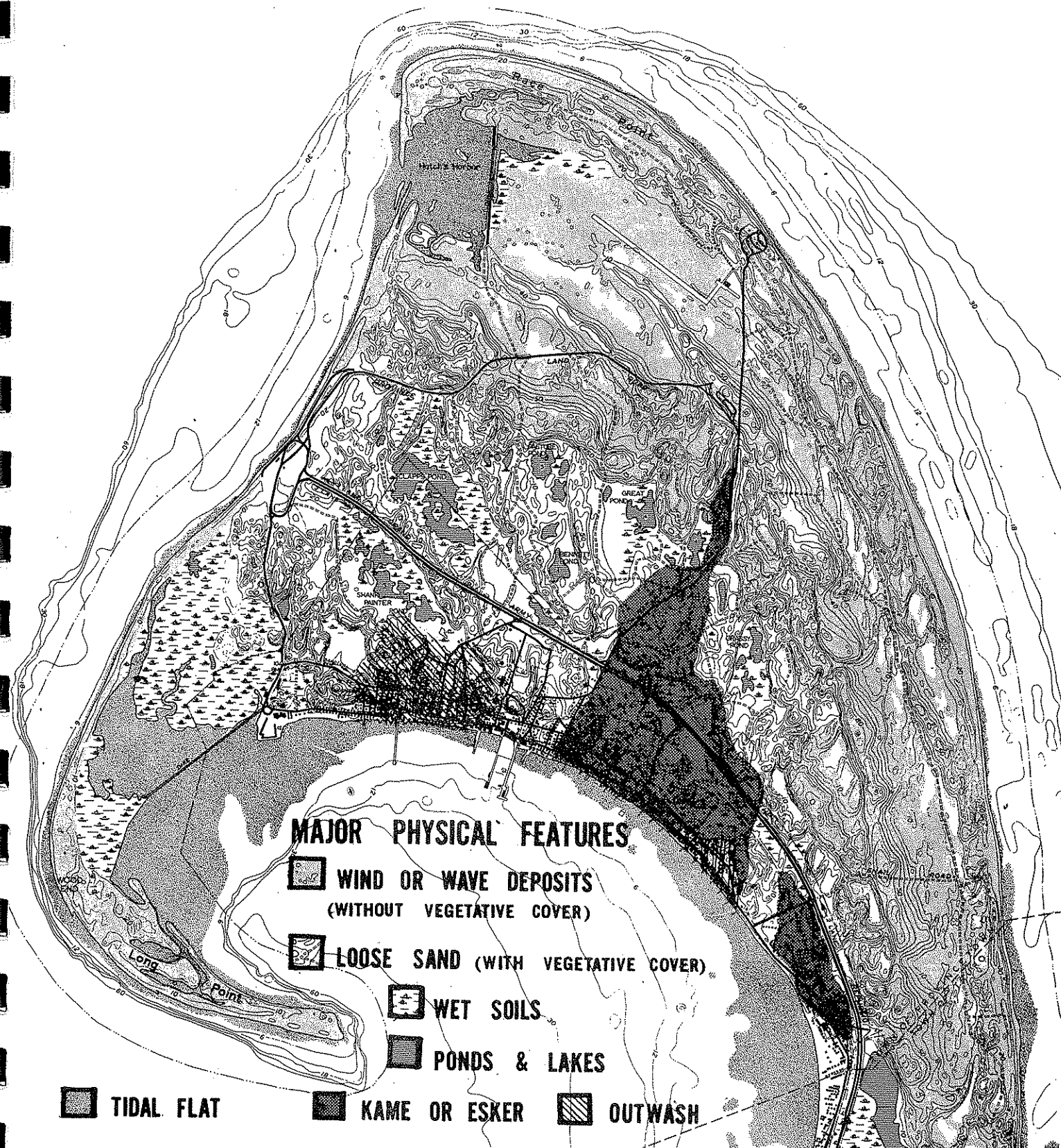
\* A recent survey on Cape Cod beach erosion reads: "From the point about 6,000 feet west of Pilgrim Lake throughout Provincetown the erosion occurring between 1833 and 1954 amounted to less than 50 feet, the major portion occurring prior to the survey of 1848." (U.S. Army Engineer Division, New England Corps of Engineers, Waltham, Mass. October 2, 1959, p. E-4)



It is difficult to establish the speed of the movement of the dunes not only because of lack of recent information, but also because each one of them seems subject to a different pace; some are almost completely trapped by vegetation. While it is disputable whether the vegetation adds anything to the appearance of the dunes, there is no doubt that it helps to stabilize them, to provide wild-life habitat as well as to create organic matter to enrich future growth. In addition, vegetation in the Provincetown area is extremely varied and colorful. Yellow beach grass, green marsh grass, grey bayberry and juniper shrubbery, pitch and scrub pines, and wild roses can be seen in relative abundance on this arid land. A few cranberry bogs, growing untended, survive. Part of this vegetation is man-created by design or by accident while part has been brought by winds and birds.

#### The Urban Area

As a veritable oasis, the urban area of Provincetown stands encircled by the dunes and the harbor. The noticeable distance from the northern shores, three miles, has afforded a natural barrier against the southeastern march of the dunes. This distance perhaps made it possible for the first dunes built along the northern shores to become a protection for the southern part of the land so allowing vegetation to grow behind them and afford further protection. The combination of the height of the dunes and vegetation eventually created also a barrier against the northerly winds.



Land elevations and contours at 10 ft. intervals above mean sea level  
 Shore line approximates mean high water  
 Water depths and contours in feet below mean low water  
 Soil groupings abstracted from 1926 map by U. S. Bureau of Soil together with Mass. Department of Agriculture.

### PROVINCETOWN, MASS.



The perfectly concave shape of land, moreover, naturally offered protection from inimical forces coming from the east as well as from the west; Long Point was a partial handy protection from the south.

The most immediate and most important result of the interplay of these factors was the preservation of a large amount of the stable top soils deposited by the glaciers. Without this element, development of an urban settlement would probably not have been possible there.

### Soils

The soils of the urban part of Provincetown, as can be seen from the map "Major Physical Features", are partly marine and dune deposits, partly derived from kame and glacial outwash. While to characterize sand deposits there is only to say that in Provincetown they are medium to coarse quality\*, kame and outwash materials perhaps need to be defined. Kame is a soil structure apparently deposited into still water by the glacier. It tends to be composed of rather deep masses of gravels, sand, and dust unsorted but free of clay. Outwash is a soil structure deposited by the moving waters of the glacier so that it was possible for the materials to be sorted out by size and weight and deposited in layers. Kame in Provincetown is of a yellowish color; outwash is brownish. None of these soils present any leaching problem; there is among them, however, a scale of growing stability which makes the outwash the most suitable soil for construction.

Sand covers the whole tip of the Cape and, with the exceptions

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\*Above report on beach erosion, Appendix A.



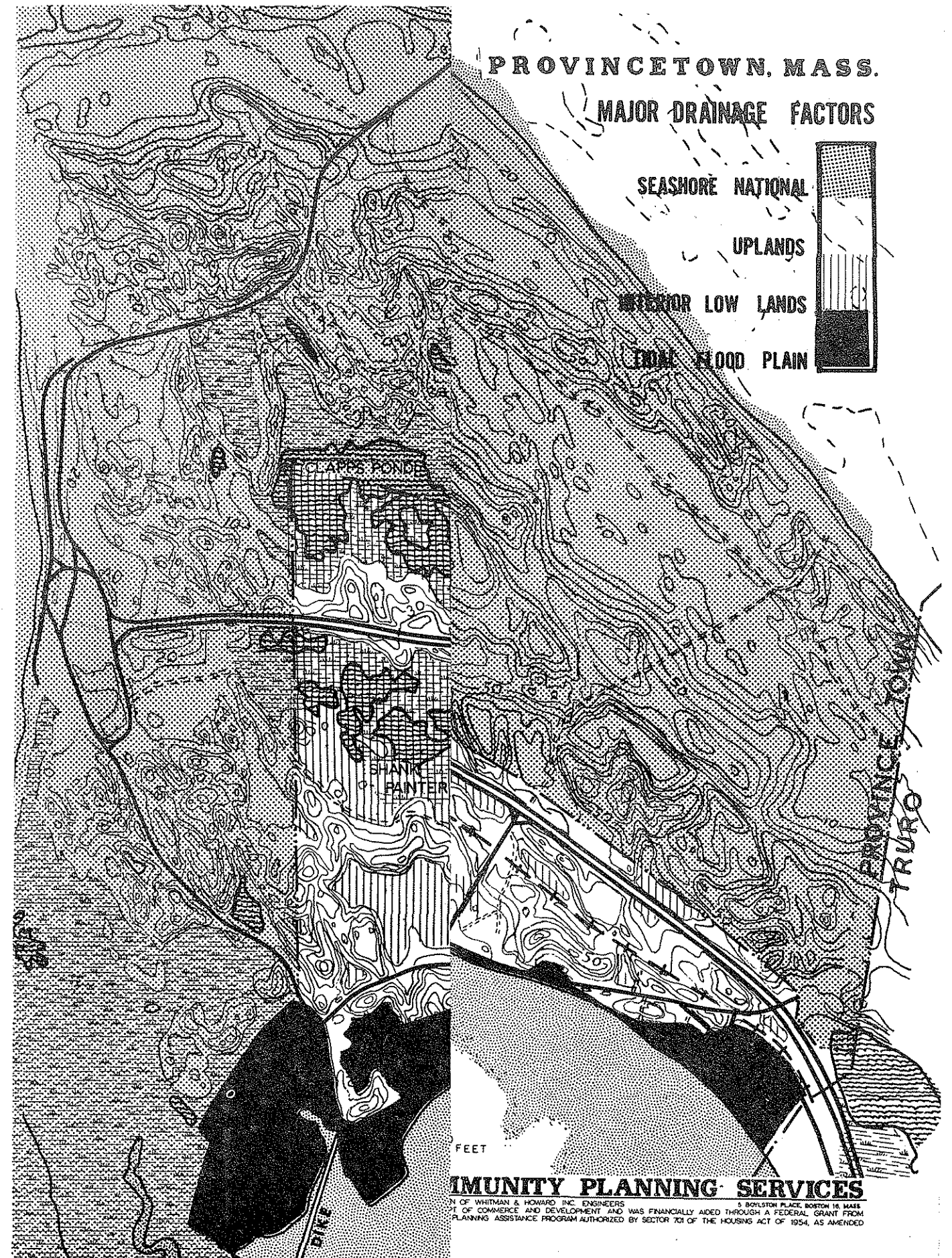
of relatively small pockets of kame and outwash, a large part of Provincetown urban area. The kame extends east-west along the harbor from Conwell Street almost to the Truro line. A narrow ribbon of it runs quite deeply into the National Seashore along Race Point Road. There are only two pockets of outwash soils in Provincetown: the first, with a roundish form, lies among Watson, Carver, Brown, West Franklin, Creek and Soper Streets; the second, with a triangular shape, lies within the previously mentioned kame structure and is enclosed among Kendall Lane and the junction of Commercial and Bradford Streets; it extends as far north as the end of Duncan Lane.

Altitude

The urban area of Provincetown has a large number of hills. Twenty are about 100 feet high; at least five are quite large. Although these hills are dispersed, they tend to be more concentrated around the center and in the north-northwest.

Except for the part of Telegraph Hill which faces the beginning of Commercial Street and other small scarps in the northeastern section of the town between Commercial and Bradford Streets, all the hills slope gently and allow dwelling construction to take place upon them. The few steep areas seem to be accountable to the work of men rather than to nature.

There are numerous wetlands which present some sewage disposal difficulties. They are indicated on the map "Major Drainage Factors".



# PROVINCETOWN, MASS.

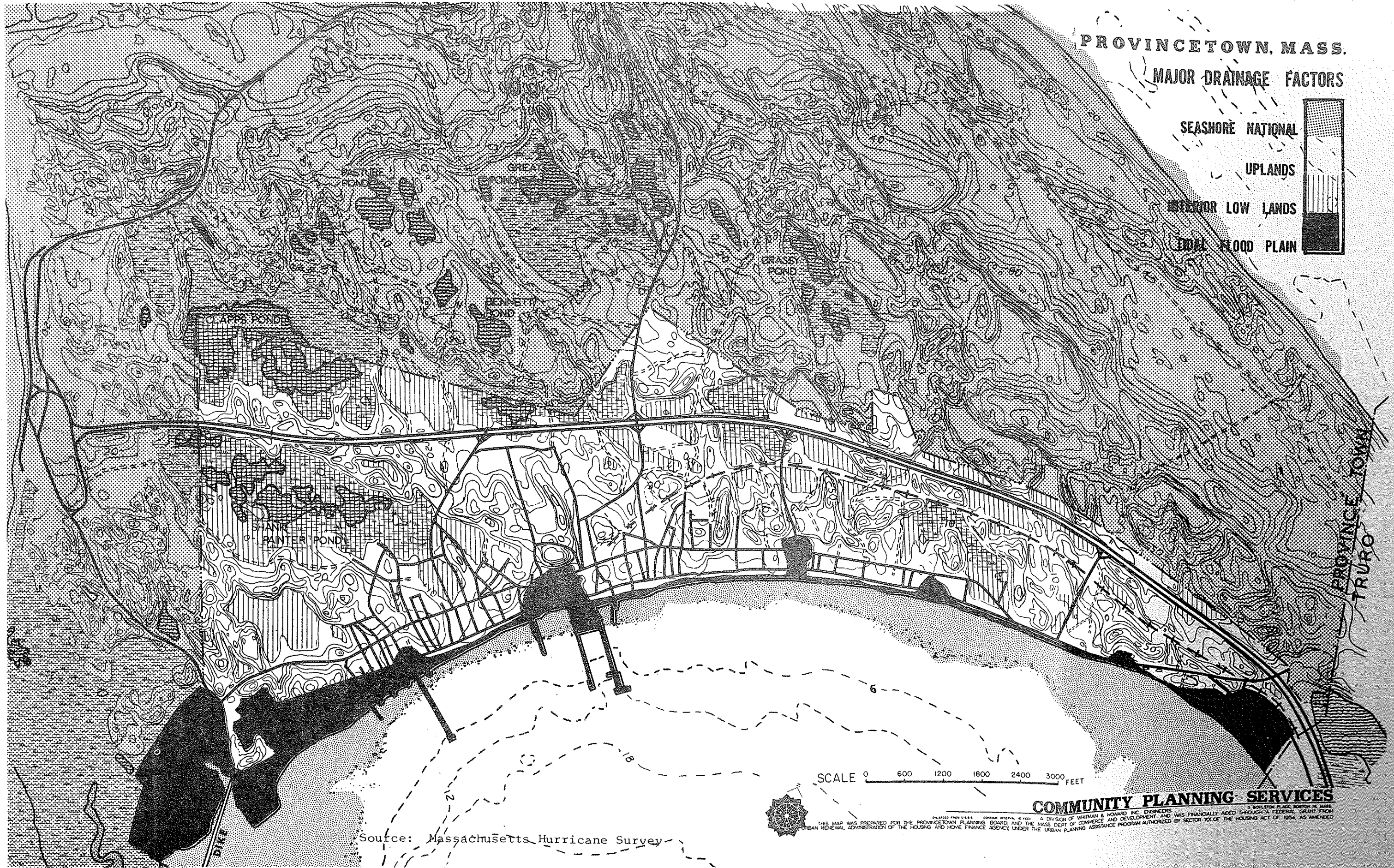
## MAJOR DRAINAGE FACTORS

SEASHORE NATIONAL

UPLANDS

INTERIOR LOW LANDS

TIDAL FLOOD PLAIN



Source: Massachusetts Hurricane Survey



SCALE 0 600 1200 1800 2400 3000 FEET

**COMMUNITY PLANNING SERVICES**

THIS MAP WAS PREPARED FOR THE PROVINCETOWN PLANNING BOARD, AND THE MASS DEPT OF COMMERCE AND DEVELOPMENT AND WAS FINANCIALLY AIDED THROUGH A FEDERAL GRANT FROM THE URBAN HOUSING ADMINISTRATION OF THE HOUSING AND HOME FINANCE AGENCY, UNDER THE URBAN PLANNING ASSISTANCE PROGRAM AUTHORIZED BY SECTION 704 OF THE HOUSING ACT OF 1954, AS AMENDED.

The coast line is rather flat and in a few areas is subject to serious flooding problems.

### Tidal Flooding

Coastal flooding is the result of a combination of factors which must occur simultaneously to create the maximum height of water. A hurricane or any severe storm, such as the New England nor'easter occurring on a high spring tide is the most dangerous situation. The maximum height of water will have to be just to the east of the storm center.

The hurricane or nor'easter piles up the water through a number of mechanisms, the wind piling the water into the center of the storm both by pushing and by lifting the water as the wind rushes over the surface, while the low pressure of the air causes the water to well upwards. When these elements are combined together, the tide can slosh far up above normal mean high water. For Provincetown this can be over 13 feet above mean sea level.\*

The probability of all this coming at once is small, but it can happen. The 1938 storm piled up 14½ feet of water in Buzzard's Bay, and the new hurricane flood barrier across New Bedford harbor will be 18½ feet above mean sea level. In general the higher the flood the less frequently it can be expected to occur. Recent history indicates that a storm equaling the 1944 and 1954 floods will occur more than once within the life of most buildings.

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\*Hurricane Survey, Interim Report. Massachusetts Coastal and Tidal Areas, U.S. Army Engineer Division, New England Corps of Engineers, Waltham, Mass. 5 August 1964; cfr. mainly Tables 2 and 3, p.6



As it appears from the map "Major Drainage Factors", most of the length of Commercial Street, the street parallel to the shoreline, is subject to floodings. The water can penetrate quite deep inland, in fact beyond Bradford Street, in five places.

The record of past damages, except in regard to the fishing fleet, does not seem to give ground to excessive worries and it is not anticipated that any serious flooding will occur. Most future construction within the town is likely to occur on the uplands.

## CHAPTER 7 COMMUNITY FACILITIES

This chapter analyzes the various operations of the Town from a functional and locational point of view. On the basis of the population estimates, it seeks also to determine future needs and their best locational opportunities.

### Town Hall

Town Hall is a frame construction of 1870, two-stories high, topped by an early Victorian steeple.

The main floor is occupied by the offices of the Town Manager, the Board of Assessors, the Treasurer, the Selectmen and the District Court.

The split-level floor is mainly taken by the Police Department. Remodeled rooms had to be provided for this purpose; as a result, the Police Department headquarters currently boast the most modern appearance. The Water Department and other service rooms are on the rest of this floor.

A rather hidden stairway leads to the second floor which consists of only one room with magnificent acoustics. This room serves at times as a concert hall and seats between 700 to 1,000 persons; it is used also for roller skating and other social events.

Apart from the second floor, the building is overcrowded. The need for expansion is evident, and there is a lack of space for any possible construction of annexes. Eventually some offices



will have to be housed elsewhere. The office of the District Judge is shortly going to be located in Orleans. Although this relocation will provide more room for other offices, an architectural study to ascertain whether in the short run it is possible to obtain a more functional utilization of the space on the main floor is recommended. This study might also look into the possibility of reopening the secondary entrance leading directly to the stairway to the second floor, as originally conceived and built.

In the long run, however, it might prove both feasible and necessary to build a new Town Hall. Efforts should then be made to preserve the existing structure. It is an architectural landmark. The increased pedestrian nature planned for the downtown area should also make it necessary to detach the Police Department from the site and find for it a more central location in relation to the future development of the Town. Land titles for this occurrence would better be acquired forthwith in the proximity of either Howland Street or Shauk Painter Road and Bradford Street.

#### Police Department

The Police Headquarters occupy the major part of the split-level floor of the Town Hall and are composed of three major rooms plus an adequate number of cells. The space appears to be efficiently utilized and certainly is sufficient for the off-season operations. During the tourist season some stress is put upon the

facilities. As of now, however, no expansion seems necessary.

The staff is composed of a chief, two sergeants, four patrolmen, one detective, one jailer and one secretary. During summer months the staff is almost doubled in size.

The department appears to be able to offer excellent protection and service to the community.

The future locational requirements of the Police Department have been discussed.

#### Highway Department

The present location of the public works garage is not ideal. It is between two cemeteries. The appearance, both of the grounds surrounding it and the construction itself, is even less ideal. The building is a World War II Quonset Hut. The whole lot extends for a little more than one acre.

It is recommended that the garage be removed from there. A better location might be found either in the vicinity of the town dump or at the site of the old Vocational School.

#### Town Dump

Currently Provincetown has an "open" dump of approximately one acre size. It is located in the National Seashore at the beginning of Race Point Street. The lot is subdivided so that various types of rubbish are disposed at special sites, then burned. Ashes and non-burning materials are afterwards thrown beyond the edge of this area into a wide valley underneath. A fire extinguisher apparatus is ready on site.





Since the site is in an area not yet built up, smoke and odors do not really disturb the habitat. Yet, the process used is not the most modern nor the most orthodox and eventually Provincetown will have to change it. The dump also serves the needs of the National Seashore which contributes toward the expenses. A municipal truck provides a partial rubbish disposal service.

In the not too distant future the Town of Provincetown, probably with the National Seashore and neighboring towns, will have to work out more efficient solid waste disposal facilities. The type and location of these is being studied by the Cape Cod Regional Planning Commission and as such, recommendations are beyond the scope of this report.

#### Sewer System

Provincetown has no public sewer system. Each building is serviced by individual cess pools or septic tanks.

The predominant sandy nature of the soils has until now favored easy leaching. With the increasing density of building and intensity of their use, these favorable conditions will cease to exist. The tidal flats are already polluted.

It is recommended that in the immediate future an engineering study be made regarding the feasibility of a sewer system in Provincetown. This study should take into consideration at least the whole strip of Commercial Street/Bradford Street complex and eventually the eastern low lands.



#### Cemeteries

There are four cemeteries in Provincetown. Three of them are located approximately between Route 6 and the athletic field, the fourth and oldest is between Winthrop and Court Streets.

All four cover approximately 35 acres of land. Due to the limited land available in and around the present cemeteries, it is recommended that for future needs the possibility of using Seashore lands for this purpose be explored.

#### Recommendations

Stage 1 - have an architectural study of Town Hall  
- study the feasibility of a sewer system  
- ask the Seashore for cemetery land  
- solve the solid waste disposal problem

Stage 2 - relocate the Highway Department near the Town Dump or in the old Vocational School

Stage 3 - relocate Police Headquarters

Stage 4 - substitute for Town Hall

#### Water System

Water systems, unlike most municipal facilities, must be designed for peak demand. For the time being, Provincetown is meeting this requirement and is also thinking about future needs. Additional supply is being searched for in North Truro; the distribution network and the storage capacity have already been made capable of handling a larger volume of supply.

#### Consumption

Water consumption in Provincetown shows a highly seasonal character. Winter consumption in the last twenty years has varied



from 50 to 100 thousand gallons per day. Summer consumption on hot, sunny days has reached two million gallons per day. In the last ten years, for which figures are of direct relevance, peaks like these have been frequent. They seem to conform to the national average consumption of approximately 100 gallons of water per person per day. The ratio between winter and summer consumption is approximately 1 to 20.

In the last decade some restrictions mainly on lawn watering have proved necessary; these restrictions might invalidate the figures regarding total consumption as a measure of demand. Total consumption has shown slight variations around the average of 50 million gallons per summer month and 240 million gallons per year. Analytical figures regarding total consumption since 1947 and the monthly consumption for the year 1965, when the highest monthly record took place, are given in the following table.







#### Sources

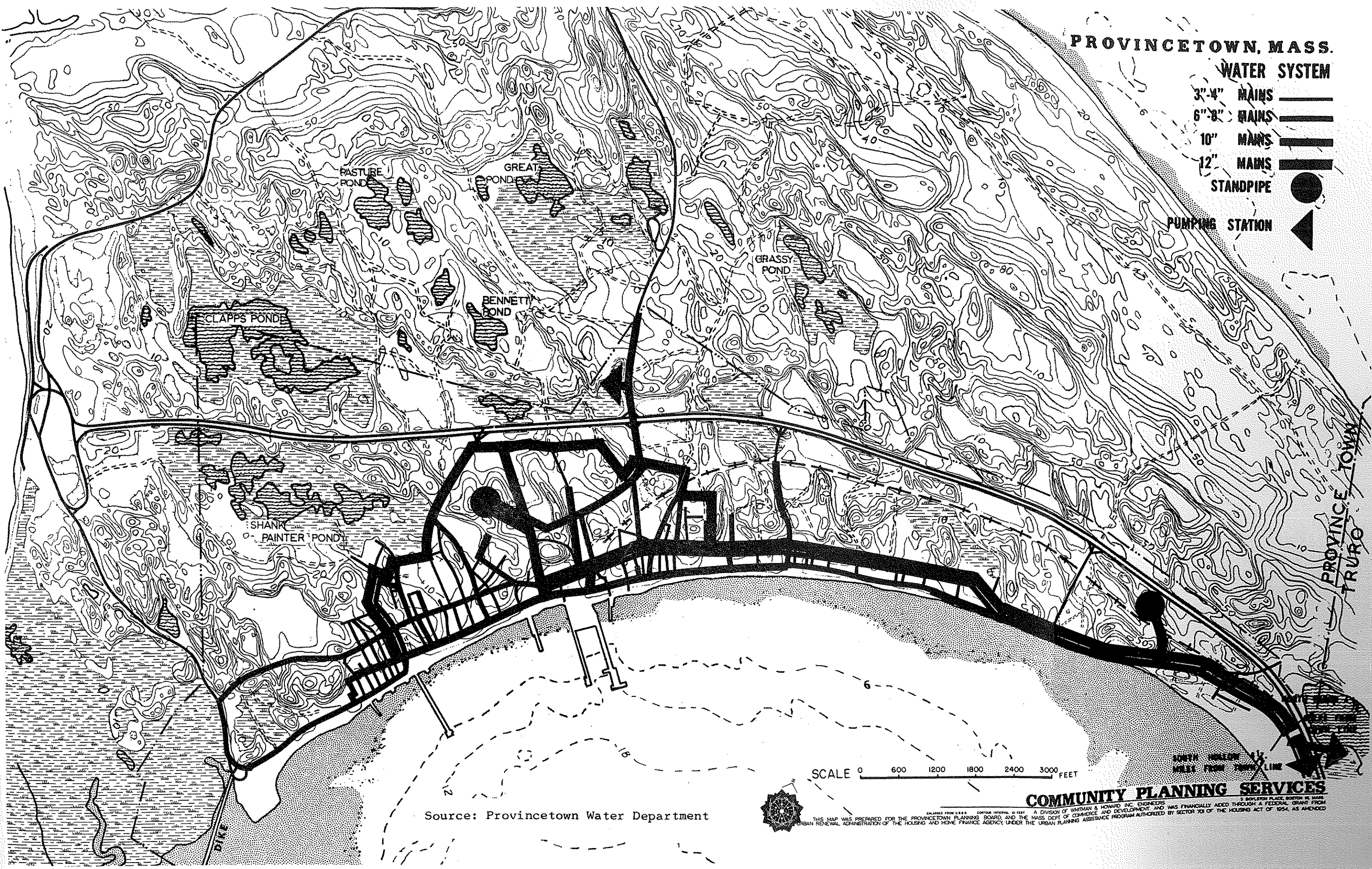
Provincetown's water is provided by three pumping stations. Two major ones are located in North Truro,  $4\frac{1}{2}$  to  $6\frac{1}{2}$  miles from the Town Line, respectively; the third, an auxiliary one, is on Conwell Street off Route 6.

The Old Station occupies a 35 acre lot, has three gravel packed wells and a pumping capacity of 500 gallons per minute. The South Hollow Station occupies a 19 acre lot, has eight gravel packed wells and a pumping capacity of 800 gallons per minute. The Auxiliary Station is operated only in case of emergencies because



**PROVINCETOWN, MASS.  
WATER SYSTEM**

- 3"-4" MAINS 
- 6"-8" MAINS 
- 10" MAINS 
- 12" MAINS 
- STANDPIPE 
- PUMPING STATION 



Source: Provincetown Water Department

SCALE 0 600 1200 1800 2400 3000 FEET

**COMMUNITY PLANNING SERVICES**  
3 BOYLSTON PLACE, BOSTON, MASS.

THIS MAP WAS PREPARED FOR THE PROVINCETOWN PLANNING BOARD AND THE MASS. DEPT. OF COMMERCE AND DEVELOPMENT AND WAS FINANCIALLY AIDED THROUGH A FEDERAL GRANT FROM THE URBAN RENEWAL ADMINISTRATION OF THE HOUSING AND HOME FINANCE AGENCY UNDER THE URBAN PLANNING ASSISTANCE PROGRAM AUTHORIZED BY SECTION 701 OF THE HOUSING ACT OF 1954, AS AMENDED.

PROVINCETOWN - MONTHLY WATER CONSUMPTION, 1965

Year 1965	Monthly Consumption in Gallons		
	<u>SOUTH HOLLOW STATION</u>	<u>AUXILIARY CONWELL ST.</u>	<u>OLD STATION</u>
January	4,943,100		
February	5,553,930		
March	2,882,140		4,699,000 15 days
April	4,416,460		14,739,000 20 days
May	16,493,510		7,611,000
June	24,158,700		10,817,000
July	34,207,710	630,000	17,458,000
August	33,579,870	36,000	14,076,000
September	19,777,850		8,851,000
October	11,276,250		5,552,000
November	<u>Did not operate</u>		<u>11,527,000</u>
Totals:	157,289,520	666,000	97,817,000
GRAND TOTAL:	255,772,520		

PROVINCETOWN - YEARLY WATER CONSUMPTION

<u>Year</u>	<u>Gallons</u>	
1947	188,843,544	estimated
1948	202,274,638	estimated
1949	165,278,648	estimated
1950	173,448,000	estimated
1951	166,000,000	estimated & metered
1952	166,000,000	estimated & metered
1953	162,000,000	estimated & metered
1954	178,328,000	metered
1955	212,764,470	metered
1956	204,958,550	metered
1957	240,717,514	metered
1958	221,832,314	metered
1959	243,840,000	metered
1960	224,748,000	metered
1961	234,770,000	metered
1962	239,712,820	metered
1963	257,937,860	metered
1964	249,875,700	metered
1965	255,772,520	metered

Source: Provincetown Water Department



COMMUNITY PLANNING SERVICES

its supply has a high iron content which is costly to eliminate. This station occupies an 11 acre lot, has three gravel packed wells and a pumping capacity of 300 gallons per minute.

Should all three pumping stations operate continuously at full capacity for 24 hours, their total output would be 2,300,000 gallons per day. Working under these conditions, the supply for peak days would slightly exceed the demand. The safe capacity, assuming that the biggest pump suffers any temporary failure, is reduced to exactly one half of total output and approximately one half of peak demand.

To eliminate the danger of operating the system under the threat of being unable to meet the peak demand, a comprehensive storage system has recently been completed.

#### Storage

Currently, Provincetown has two standpipes. One is located in the central part of the urban area, off Winslow Street. Its storage capacity is 1,100,000 gallons. It was built in 1931. The other is located in the eastern part of the town, on Mount Gilboa. It was built in 1965 and has a storage capacity of 3,000,000 gallons.

These two storage tanks give Provincetown a safe water storage capacity of 5,250,000 gallons. Thus at least four days are given to the Water Department to meet any emergency without imposing extraordinary restrictions on consumption and without running risks of being unable to face the requirements of the Fire

Department. With restrictions on consumption and cooperation from the citizens the leeway could be longer.

#### Distribution

The Provincetown water distribution system consists of 20 miles of pipelines ranging from 3 to 12 inches. In 1965 one major 12" main was built connecting in a semicircle the existing pipelines on Commercial, Franklin, Brown, Conwell, Miller Hill and Bradford Streets. The distribution system was further strengthened by the contemporary construction of a short stretch of 12" main along Standish Street and the addition of 6" and 8" mains off Holway Street and on Alden, Howland and Mayflower Heights roads.

The detailed location of the various elements of Provincetown Water System can be found on the relative map.

#### Water Meters

Currently Provincetown uses only few water meters and has an annual flat rate of \$32 per dwelling unit and other differential flat rates for other services. This situation stirs controversy; at times, it is attacked as unjust because it does not apportion the cost in relation to consumption. A further argument is advanced in favor of water meters by pointing out that they would reduce waste. The waste is generally estimated as high as 20 percent.

The matter can be settled only in the light of future findings in relation to the amount of the supply. Should the supply be inadequate, even the expected 20 percent saving in consumption would loom large.



### Recommendations

The Federal Government requires planning for water needs extending decades into the future as one prerequisite of financial assistance. A second federal requisite is water planning on a regional basis.

With or without federal financial help, especially on the Lower Cape, both of these federal requirements have validity. A summer population explosion is likely to occur here; land values, with the exception of the areas now under the jurisdiction of the National Seashore Park, are likely to rise sky high; and, most important, the sustainable yield may not be as great as in higher, broader sections of the Cape.

### Future Consumption

The summer population in Provincetown, whatever planning goals the community pursues, is likely to expand to the full limit of the town's physical capability. In the course of the next fifty years a doubling of the present summer population is conservatively to be expected.

Without any extraordinary event taking place in the region in the last twenty years, total water consumption in Provincetown has increased approximately one-third. The prevision of a 100 percent increase in fifty years, is a pace only slightly more rapid than the one experienced in the recent past.

### Future Sources

Provincetown has made many improvements in the last few years

in its water distribution and water storage facilities but some sources of supply, the third important physical element, need to be improved. To strengthen the system and meet future needs, the doubling of present sustained supply facilities is recommended for the future. Also Provincetown should begin to investigate a regional water system. A beginning might be an integrated Provincetown/Truro system. The bulk of wellfields are located in North Truro; Truro is already beginning to feel the need for a municipal water system in certain areas; the Federal Government now grants construction aid money to those areas where needs have been studied; up to a certain point, there are economies of scale to be taken into consideration. For these various reasons it is recommended that the two communities work together on their water problems.

Because of the likely paucity of ground water resources\* all over the Lower Cape and the thin land form, it is foreseeable moreover that eventually a broader regional system may have to come into being. It may be likely that in the more distant future some communities on the Lower Cape may have to reach all the way to the Brewster area for some of their water. The high elevation of the water table in this area is evidence of greater ground water resources. The planners suggest that some time in the not too distant future a comprehensive overall water resources study be accomplished for the Lower Cape to put these problems and unknowns into perspective. This will likely be forthcoming

\* The low elevation of ponds above mean sea level on the Lower Cape gives one indication of the paucity of ground water resources available.



through the auspices of the Cape Cod Regional Planning Commission.

#### Future Storage

When Provincetown approaches a peak consumption of 4 million gallons per day a strain will be put on the present storage capacity and the need for expansion will again be felt. Where and how this should be located is subject to further engineering study and should take into consideration regional as well as local storage needs.

#### Future Distribution

As of today, the distribution system in Provincetown appears largely adequate for the future; however, there are some things to be done. The most urgent appears to be the substitution of the old 3 and 4 inch mains existing mainly in the western part of the Town. In the same area, according to the degree of development which may take place, it seems that the strengthening of the loop between Franklin, Bradford and Commercial Streets may be necessary.

These in a way are problems of maintenance. The development of the urban area is also to be taken into consideration. To this purpose, subject to further engineering study, a main running along the railroad tracks in the eastern part of the Town may prove to be the most efficient location for serving the inland, undeveloped areas.

This main would not only provide the major water facility for the future development of this part of the Town, but if connected to the tank on Mount Gilboa and eventually to the mains from future pumping station or stations, it could serve also as a major safety device



Continuous Stage - Maintenance of the existing system.

- Gradual substitution of old, deteriorated pipelines.

Stage I - Search for new wellfields and eventual acquisition of land.

Stage II - In cooperation with Truro and hopefully other Lower Cape towns study local water resources.

Stage III - Construction of major main along railroad tracks up to the Mount Gilboa standpipe.

Stage IV - Strengthening of loop around Franklin, Bradford Extension and Commercial Streets.

Stage V - Construction of new wells and new pumping station.

Stage VI - Extension of new force main from Mount Gilboa to the new station.

Stage VII - Substitution or creation of new storage areas.

#### Fire Protection

The Provincetown Fire Department has an excellent record. As can be seen from Table I, yearly fire losses have varied from a low of \$11,000 to a high of \$47,000 during the past seven years. The past, however, is not always the best indication of the future, and the Fire Department is not the only factor assuring adequate fire protection for the Town. The availability of water supply,



easy accessibility to any area, elimination of danger of conflagration are equally important factors. The last two elements represent major Provincetown fire problems.

#### Fire Department - Equipment

The Fire Department in Provincetown operates from five stations well dispersed over the town. Only the West End is just beyond the  $1\frac{1}{2}$  mile radius of the closest fire station. This is one of the less intensely developed parts of the town. All other developed areas rest inside the  $\frac{1}{2}$  mile radius of one or more stations. The generalized location of each station can be found on the attached map.

All of the buildings appear to be in good condition and are well kept. Yet, they are not fire resistant.

Station No. 1 is located on Commercial Street near Franklin. It houses a 1946 Booster Truck which carries 550 gallons of water.

Station No. 2 is on Commercial off Court Street. It has a 1962 Triple Combination which carries 750 gallons of water. This station is endowed with the most efficient equipment.

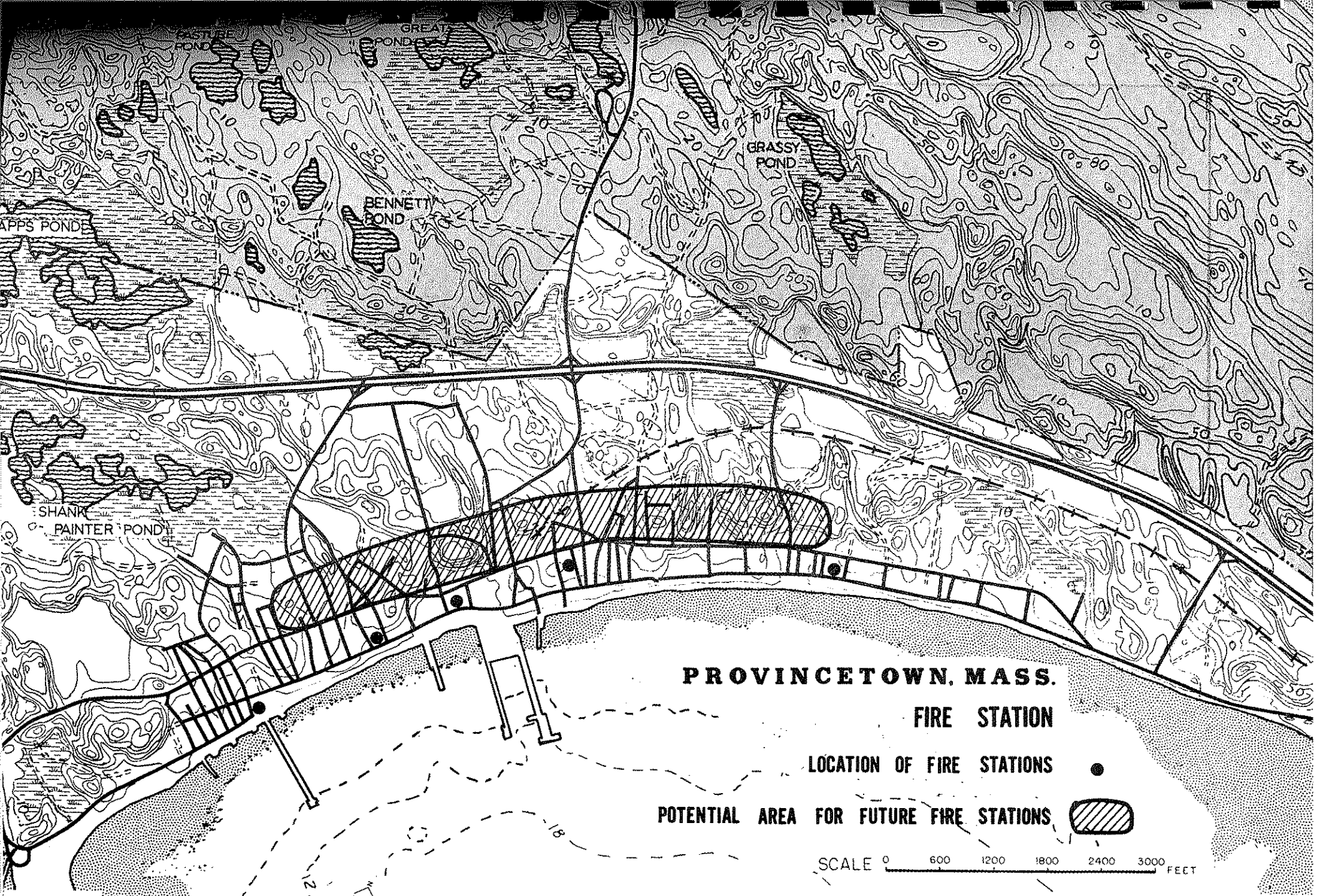
Station No. 3 is located on Commercial Street near Town Hall. It operates a 1940 Booster Truck and carries 500 gallons of water. A high expansion foam nozzle is among its specialized equipment.

Station No. 4 is located on Johnson Street and has a 1936 Triple Combination truck.

Station No. 5 is on Commercial and Anthony Streets. It has a 1946 American La France Truck with a 220 g.p.m. pump and 800 feet of  $2\frac{1}{2}$  inch hose.







**PROVINCETOWN, MASS.**

**FIRE STATION**

**LOCATION OF FIRE STATIONS**

**POTENTIAL AREA FOR FUTURE FIRE STATIONS**



SCALE 0 600 1200 1800 2400 3000 FEET

Source:  
Community Planning Services



**COMMUNITY PLANNING SERVICES**

ENLARGED FROM U.S.G.S. CONTOUR INTERVAL 10 FEET. A DIVISION OF WHITMAN & HOWARD, INC. ENGINEERS, 5 BOYLSTON PLACE, BOSTON 16, MASS. THIS MAP WAS PREPARED FOR THE PROVINCETOWN PLANNING BOARD, AND THE MASS. DEPT. OF COMMERCE AND DEVELOPMENT AND WAS FINANCIALLY AIDED THROUGH A FEDERAL GRANT FROM URBAN RENEWAL ADMINISTRATION OF THE HOUSING AND HOME FINANCE AGENCY, UNDER THE URBAN PLANNING ASSISTANCE PROGRAM AUTHORIZED BY SECTION 701 OF THE HOUSING ACT OF 1954, AS AMENDED.

## ESTIMATED FIRE LOSS

<u>Year</u>	<u>Amount</u>
1959	\$46,743.00
1960	30,664.78
1961	10,780.00
1962	30,326.46
1963	12,779.95
1964	15,977.26
1965	17,975.00

Note: For the years 1962,63,and 64 the figures available are amounts of Insurance actually paid, not the estimated damage.

Source: Provincetown Fire Department



As against the desirable total pumping capacity of approximately 3,000 g.p.m., the Town currently reaches a total of 1,790 g.p.m. with existing equipment. It is recommended that gradually old equipment be not simply replaced but expanded to reach the required minimum pump capacity.

The Fire Department in Provincetown also operates two rescue trucks.

#### Personnel

Personnel number about 80 persons, 20 of whom are auxiliaries. There is a chief, one deputy chief and five engineers. They are all volunteers. Because of the high spirit of the citizenry, there does not appear to be any need for full-time paid officers at this time.

#### Fire Alarm

In case of emergency the Police Department receives the call and puts the Fire Department on alarm through a system of mobile tone-controlled receivers and sirens. Minor improvements seem warranted in this area and are spelled out in a 1963 report of the New England Fire Insurance Rating Association.

#### Water Availability

With the recent improvements in the water system, the Town appears to be fully safe on this score. In this area too, however, the mentioned report makes minor suggestions which should be put into effect.

#### Accessibility to Needed Areas

The width of the streets and the intensity of traffic during



summer months are the major blocks of the Provincetown fire protection system. The number and location of the fire stations no longer afford full protection because the traffic has altered the original environmental conditions. In earlier days there was the assurance that at least one fire truck would reach any location in a matter of minutes. In addition, the present and future expansion of the built-up area in the Town will even more alter the old balance.

In view of these factors, the planners agree with the suggestion contained in the mentioned report of the Fire Insurance Rating Association to consolidate the five fire stations into two, and to build the two new ones somewhere along Bradford Street or in some equally appropriate location. This is not a matter of urgency and was not indicated as such in the report. It should be taken into consideration in the context of the long range planning program, particularly the ultimate circulation plan.

A future locational decision is also likely to be affected by the growing value of property along Commercial Street. It is foreseeable that in the next decade the economic balance between the value of the fire stations on Commercial Street and the two new ones in the less developed part of the Town will favor new sites.

#### Conflagration Hazard

The high intensity of land use and land coverage, coupled with the intensity of traffic during summer months and mainly frame construction, found throughout Provincetown makes for a potentially explosive fire hazard.



The potential danger of a disastrous conflagration could be averted with the construction of a number of "fire walls". Plazas, parking lots, or fire-resistant buildings would all serve this purpose and should be considered in the Master Plan development especially as they might protect the downtown area.

The previously discussed relocation of fire stations is another means to reinforce the fire protection of the Town. It would eliminate the danger that in a conflagration one or more buildings would be on fire together with the equipment inside them.

#### Recommendations

- Continuous stage - maintenance and replacement of equipment; encouragement to build minor fire walls through a Building Code Enforcement
- Stage one - Adoption of a Building Code  
- many useful, easy to apply suggestions can be found among the 57 recommendations included in the mentioned report of the Insurance Rating Association and should be undertaken by establishing priorities
- Stage two - replacement of major obsolete equipment and expansions of pumping capacity
- Stage three - construction of major fire walls where possible
- Stage four - consolidation and relocation of the existing fire stations



#### Libraries

In addition to the Chrysler Art Museum Library, there is one Public Library in Provincetown. The building is two-story frame structure built in 1874 with a private bequest. It is centrally located at the corner of Freeman and Commercial Street, and sits on a partially vacant half-acre lot.

In 1966 there were 18,254 books in the library. There are no circulation figures up to July 1966. From July 1966 to the end of the year there were 6,448 books borrowed.\* In 1962 the Town spent \$3.33 per capita to sustain the overall expenses of the library.\*\* This figure compares favorably with the same year's average State expenditures, \$3.26 per person.\*\*\* The Town, however, seems to be losing this position. In 1965 average State expenditures were \$3.98 per person and \$3.55 for the Town.

The library has problems of overcrowding and deficiencies in its reading facilities which will shortly be taken care of with the planned building of an annex on the adjacent publicly owned vacant land. The annex should solve the problems for the foreseeable future.

The library is associated with the Eastern Massachusetts Regional Library Service.

The possibility of receiving a yearly State Aid Grant should be explored.

\*Courtesy of the Librarian. \*\*Courtesy of the Chairman of the  
\*\*\*Newsletter by the Massachusetts Library Committee.  
Department of Education,  
Library Extension Division.



## SCHOOLS

Provincetown has had a lengthy school tradition.\* Today, apart from a parochial school and a few private schools which range from horseback riding to painting, there is in Provincetown one Elementary School and a Junior-Senior High School. The High School serves both Provincetown-Truro, although a true regional educational system does not exist.

### Veterans Memorial Elementary School

The T-shaped, single-level elementary school was opened in April of 1955. It is composed of fourteen classrooms, two special study rooms, a dental clinic, a multipurpose auditorium and rooms for administrative and maintenance purposes. Although relatively new, the building is already seriously inadequate in a number of

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\* It might be interesting to recall the following passage from the records of the General Court, 1671. It indicates that the Provincetown area provided the means for the early establishment of the free school system in the Plymouth Colony:

"The Providence of God hath made Cape Cod convenient to us for fishing with seines--All such profit as may and shall accrue annually to the Colony from fishing with nets or seines, for mackrel, bass or herring, to be improved for and toward a free school, in some town of this jurisdiction for the training up of youth in literature, for the good and benefit of posterity--They shall be duly taught to read the Scriptures, a knowledge of the Capital Laws, and the main principles of Religion necessary to Salvation." (Quoted in The Provincetown Book, by Nancy W.P. Smith, Tolman Print, Inc., Brockton, Mass., 1922; p. 137).

This tradition was kept very high in Provincetown. In 1828 there were six school districts in town, numerous private schools, a kindergarten, and, since 1845, also a Seminar where Navigation, among other subjects, was taught.



respects and as a result has hindered the development of comprehensive, progressive educational programs.

### Science

In the elementary sciences, no facilities for program demonstrations exist. This hinders the conceptual development of the students to the point where they are unable to smoothly make the transition into the Jr.-Sr. High School science programs. As a result, they must become familiar with basic concepts in Jr. High that should have been imparted to them in the elementary program.

### Guidance

The guidance program is a struggling affair hindered primarily by inadequate space. At present, the counselors utilize parts of the assembly hall for guidance meetings. There should be small counseling rooms for this purpose.

### Library

There is no formal library in the building, although a makeshift setup exists in a hallway. The absence of even a small library seriously limits the potential for fostering individual development outside the limiting classroom situation. This is especially true where minor individual deficiencies exist. A comprehensive reading program, for example, is dependent on the existence of a source for various types and levels of reading materials. The need for such a program is evident not only in Provincetown, but throughout the nation. And again, space limitations act as a prime barrier to



the development of an effective corrective reading program.

Although only fourteen years old, the elementary school simply hasn't the facilities to provide an educational program commensurate with the ever-increasing demands put upon education since the upsurge began in 1957 after the launching of Sputnik I.

The Public Elementary School in addition provides a small Junior Practical Arts course.

#### Junior-Senior High School

The High School Building, opened in 1932 and enlarged in 1963, serves both Provincetown and Truro. At present, the facilities it offers vary in quality from some that are excellent in all respects to others that are totally inadequate and unsuited to their present use.

Classrooms - There are thirteen classrooms in both the old and new buildings. Their furnishings are modern, well-lighted, and because of the mobility of the furnishings, they have the potential for utilization of a number of different types of classroom situations, e.g., seminar and discussion-type classes, small group clusterings, and the like.

Laboratories - Contained in the new addition are two labs, one for physics and one for chemistry. Both are roomy, modern, and well equipped.

Auditorium - The auditorium, located in the old building, is in dire need of renovation. The wooden-slat seats are those originally installed in 1932. Installation of modern, padded auditorium



seating with integral fold-away writing tablets would allow the hall to be used both for assembly purposes and as a classroom-lecture hall. Also desirable would be practice and storage space for band and dramatic activities.

Office space - Administrative space in the new building where the offices of the superintendent of schools are located is adequate, but just that. The High School principal's office is totally inadequate in all respects. The principal and his secretary have adjacent desks in an 8 x 15 room seemingly better suited for storage. Also lacking is conference space. At present, a tiny room next to the cafeteria serves as teachers lounge, their lunchroom, a conference room and is also the location of a duplicating machine. The guidance department has two adequate offices in the new building, along with a small career reference library.

Library - The library in a renovated section, seems small but adequate for the present. Lighting, shelf-space and seating all are fairly new and well used. A work room for the librarian is needed, however. It is also suggested that a divider system be obtained for some of the tables to provide individual study carrels. Three or four lounge-type chairs should also be provided in one corner for a relaxed reading atmosphere.

Industrial arts - The vocational school industrial arts program offered to Provincetown and Truro children is of the very highest quality. The equipment is first class, as are the work facilities.



There is a complete woodworking shop and a metal shop with equipment ranging from simple hand tools to electric arc welders, large power lathes, and even quality control testing equipment. Future plans call for the installation of a radio electronics shop. Again space is a problem in program development, however. The electronics shop will take up already inadequate storage space, posing yet unsolved problems.

Gymnasium - The new gym is a welcome addition to the school. It provides separate, yet spacious gym areas for boys and girls via a wall system that divides the gym in half. When open, the gym has a regulation basketball court. Locker space is adequate, but equipment storage poses a problem.

Cafeteria - The cafeteria-kitchen complex is located on the basement level of the old building. It serves one-third of the student body at a time and is used as a study hall during the hours when meals are not being served. The kitchen is small, but well equipped and seemingly set up in an efficient manner.

Special class - An office once used by the school nurse is the present location of the special class. The quarters are quite cramped, if not depressing, considering the needs of the children utilizing the room. More adequate space is not just desirable but necessary.

Conclusions - The needs of the physical plant are, basically: more work space, more administrative space and a great deal more

storage space. This last shortcoming is being partially resolved in a number of unorthodox ways, utilizing spaces not designed specifically for storage.

#### Past Enrollment Trends

School enrollment figures (Table II) for the past decade show an interesting if not unusual pattern. Enrollment in the elementary school remained reasonably stable up to 1963. The only exception was a sudden influx of 21 children in the first grade in 1961 bringing that class size up to 80 from 59 the year prior. This seemingly abnormal "bulge" in the enrollment is presently at the eighth grade level and will not pass out of the system until 1972. A sudden drop in enrollment in the first grade occurred in 1964 and the class size has dropped consistently since to almost half that of 1963. The primary cause of this decline in public school enrollment was the opening of a parochial school in Provincetown in 1964.

#### Future Enrollment

Provincetown poses a unique situation in which to make projections due to the large, ungainly and often unpredictable number of variables that must be taken into account. These may be grouped into three major categories.

A. Employees on Government Property - The Provincetown - Truro area is the base for a number of government activities. These are:

Naval Electron Lab Center  
Coast Guard Station, Race Point



Table II  
PROVINCETOWN PUBLIC SCHOOL ENROLLMENT

1959-1968

(Less Kindergarten)

School Year	**												Total			
	K	1	2	3	4	5	6	Elem.	7	8	9	10		11	12	Jr.-Sr.
1959	60	57	57	67	59	53	79	375	82	68	52	45	42	37	326	701
1960	59	53	53	61	66	56	54	349	88	70	55	48	37	39	337	686
1961	80	50	50	60	57	61	57	365	71	85	76	54	44	37	367	732
1962	57	75	75	46	52	58	59	347	74	66	91	60	61	43	395	742
1963	65	57	57	75	45	55	55	352	69	67	59	74	62	52	383	735
1964	48	57	57	57	63	43	54	322	70	69	57	53	58	49	356	678
1965	37	51	51	56	54	60	41	299	67	63	61	52	50	51	344	643
1966	37	46	46	43	53	47	60	286	54	63	61	58	58	56	350	660
1967	34	34	32	39	42	53	47	247	77	61	63	52	58	52	363	633
1968	34	34	33	33	40	41	55	236	66	78	58	64	45	54	365	632

\*\* Provincetown-Truro Children

Coast Guard Station, North Truro  
762nd Radar Squadron  
Northern District, National Seashore Park

The 762nd Radar Squadron, located in Truro, has the greatest impact of all. Base strength ranges generally from 220 to 280. The resultant effect upon school enrollment is difficult to measure since a single individual may be replaced by a man with a family with many children.

None of the agencies listed here have substantive plans for expansion or reduction in strength in the foreseeable future.

B. Truro Children - Under a cooperative arrangement between the two towns, children from Truro are educated from grade 7 on in the Provincetown School (Table III). This quasi-regional set-up does not meet the minimal Federal enrollment requirement of 2000 pupils, however, which subsequently makes the towns ineligible for Federal Aid provided to regional school systems.

C. Non-Public schools - St. Peters' parochial school etc. St. Peters' parochial school presently runs classes from kindergarten through the fourth grade. A fifth grade class will be added in September of 1969 and a sixth grade a year from then. Plans for a seventh and eighth grade are presently in the talking stage. Their institution will definitely not occur until September of 1971 and 1972, however, since growth must take place by adding one grade per year. Present Enrollment (Table IV) is 100. Their students are almost exclusively from Provincetown and North Truro.





Table III

TRURO PUBLIC SCHOOL ENROLLMENT (1959 - 1968)

YEAR	K	1	2	3	4	5	6	ELEM.					H.S.	GRAND		
								TOTAL	7	8	9	10			11	12
1959	-	24	12	16	14	18	21	105	22	14	12	8	17	5	78	183
1960	-	20	19	14	18	12	18	101	7	16	13	8	6	15	65	166
1961	-	15	19	15	14	17	14	94	17	12	16	17	9	5	76	170
1962	-	26	16	24	18	16	17	117	13	17	14	9	15	8	76	193
1963	-	23	19	21	18	18	15	110	12	12	15	9	7	14	69	179
1964	-	22	25	23	19	17	21	117	16	13	9	16	9	7	70	187
1965	18	26	27	29	25	21	13	159	14	12	17	7	14	6	70	229
1966	26	18	23	25	26	26	19	163	10	11	10	8	5	10	54	217
1967	20	26	18	20	25	28	23	160	21	14	20	10	10	8	83	243
1968	26	26	21	29	26	27	25	180	22	17	12	16	9	10	86	266

SOURCE: Truro Town Reports

Table IV

PROVINCETOWN  
ST. PETER'S PAROCHIAL SCHOOL ENROLLMENT

1964-1968

School Year	K	1	2	3	4	5	6	Total
1964	12							
1965	17	16						
1966	15	23	16					
1967	19	19	20	20				
1968	22	19	19	20	20			100
1969	20	22	19	19	20	20		
1970	20	20	22	19	19	20	20	

\* Based on 100% Cohort Survival Rate.

D. Seasonal-Permanent Residents - There are a number of residents who enroll their children in the system and pull them out from November through April when they go to Florida. Such an occurrence is fairly common among hotel and tourist-oriented shop owners. As an example, in the school year 1967-1968 according to enrollment figures, initial school enrollment was 741 while average membership for the year was only 655 and average actual attendance still smaller at 611.

#### Cohort Survival Method

The basis for this projection is a technique entitled the Cohort Survival method. Theoretically, 60 births in 1960 should result in an enrollment of 60 pupils in 1966, six years later. These pupils should go on to the second grade in 1961 and, similarly, 60 pupils should enter the third grade in 1962. Such a pattern would constitute a 100% survival rate from grade to grade. This report uses the actual survival rates based upon births (Table V) that occurred in the past five years and applies them to current enrollment figures to calculate what the enrollment pattern will be to 1975.

Two sets of figures were incorporated into this report. The first set involves the actual enrollments at the Veterans Memorial School (Table II). The second set combines the enrollment figures of Veteran Memorial with those of Saint Peters' Parochial (Table VI) since it is this combined group, along with the Truro pupils, that will eventually funnel into the seventh grade at Provincetown Junior-Senior High School. Table VII and VIII contain these rates the latter



concerned only with the elementary school population since St. Peters does not go beyond that level.\*

Both yearly rates and periodic averages are given. The tabulation shows: (1) Most of the survival rates are less than 100% indicating a general loss of pupils at all levels.

(2) The survival rates to first grade from town births six years prior are substantially lower than all others indicating a significantly large out-migration of residents with pre-school age children. This situation is not unusual considering the lack of economic opportunities for young families in Provincetown.

#### Future Needs

According to the data upon which this projection is based, the school population has reached a peak (Graphs I & II) and is about to enter a period of decline which shows no immediate sign of leveling off. The total population in 1975 will have declined 22.5% from present levels. The Truro School population will have increased slightly at the same time, but apparently not enough to offset the projected enrollment trend in the Junior-Senior High School.

\*Note: Kindergarten figures have been deliberately omitted for three reasons: A. Kindergarten attendance is not mandatory by law and therefore cannot be measured via the Cohort Survival Method. B. Kindergarten has been offered publicly only since 1965 and parochially only since 1964 and may or may not have "caught on" with the local population. C. The birthrate is unusually erratic precluding the positive definition of a trend upon which to base averages.



Table V

NUMBER OF CHILDREN BORN TO PROVINCETOWN'S RESIDENTS

<u>Year</u>	<u>Births</u>	<u>Year</u>	<u>Births</u>	<u>Year</u>	<u>Births</u>
1949	57	1957	72	1965	47
1950	68	1958	71	1966	38
1951	76	1959	76	1967	42
1952	76	1960	79	1968	61
1953	73	1961	57	*	
1954	66	1962	64	1969	67
1955	102	1963	68	1970	73
1956	71	1964	49		

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\* Based on 1964-1968 Average Annual Increase of 9.6%.

Source: Town Reports

Table VI  
 PROVINCETOWN PUBLIC AND ST. PETER'S PAROCHIAL SCHOOL  
 COMBINED ENROLLMENT  
 1964-1975  
 (Less Kindergarten)

<u>School Year</u>	<u>K</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>Elem.</u>	<u>**</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>Jr.-Sr.</u>	<u>Total</u>
1964	12	48	57	57	63	43	54	322	70	69	57	53	58	49	356	678	
1965	14	53	51	56	54	60	41	315	67	63	61	52	50	51	344	659	
1966	39	60	62	43	53	47	60	325	54	63	61	58	58	56	350	675	
1967	43	53	52	59	42	53	47	306	77	61	63	52	58	52	363	688	
1968	53	53	52	53	60	41	55	314	66	78	58	64	45	54	365	679	
1969	*	53	52	50	50	57	41	303	69	66	73	54	60	24	364	667	
1970		38	53	50	48	48	57	294	52	69	61	67	52	56	357	651	
1971		37	38	51	48	45	48	267	71	52	64	57	63	48	355	622	
1972		30	36	36	48	45	45	240	60	71	48	60	54	59	352	592	
1973		33	30	35	35	46	45	224	57	60	66	45	56	50	334	558	
1974		48	33	29	33	33	46	222	57	57	56	61	42	52	325	547	
1975		52	48	31	27	32	33	223	45	57	53	52	57	39	303	526	

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\* Based on Births 6 Years Prior

\*\* Provincetown-Truro Children

Table VII

 PROVINCETOWN PUBLIC SCHOOLS  
 COHORT SURVIVAL RATES (%)

1959-1968

School Year	**	1959-1968										
	To 1	1-2	2-3	3-4	4-5	5-6	*	7-8	8-9	9-10	10-11	11-12
1959	82	86	93	92	93	94	132	97	90	88	93	82
1960	89	88	107	99	94	102	111	85	81	92	82	93
1961	78	85	113	93	92	102	131	97	109	98	92	100
1962	80	94	92	87	102	98	130	93	107	79	113	98
1963	90	100	100	98	106	95	117	91	89	81	103	85
1964	68	88	100	84	96	99	127	100	85	90	78	79
1965	49	106	98	95	95	95	108	90	88	91	94	90
1966	47	124	84	93	87	100	132	94	97	96	112	112
1967	60	86	85	98	100	100	128	113	100	85	100	90
1968	53	97	103	103	98	104	140	101	96	102	87	93
59/63		91	101	94	97	98	124	93	95	88	97	92
64/68		100	94	95	95	100	126	100	93	93	94	93
59/68		95	98	94	96	99	125	96	94	90	95	92

\* Provincetown-Truro Children

\*\* Based on Births 6 Years Prior

Table VIII

 PROVINCETOWN ELEMENTARY AND ST. PETER'S PAROCHIAL SCHOOLS  
 COHORT SURVIVAL RATES (%)

1964-1968

School Year	*	**	1964-1968				
	To K	To 1	1-2	2-3	3-4	4-5	5-6
1964	--	68	88	100	84	96	98
1965	--	70	106	98	95	95	95
1966	68	76	117	84	95	87	100
1967	67	93	86	95	98	100	100
1968	78	83	98	102	102	98	104
1964-1968	74	78	99	96	95	95	99

\* Based on Births 5 Years Prior

\*\* Based on Births 6 Years Prior

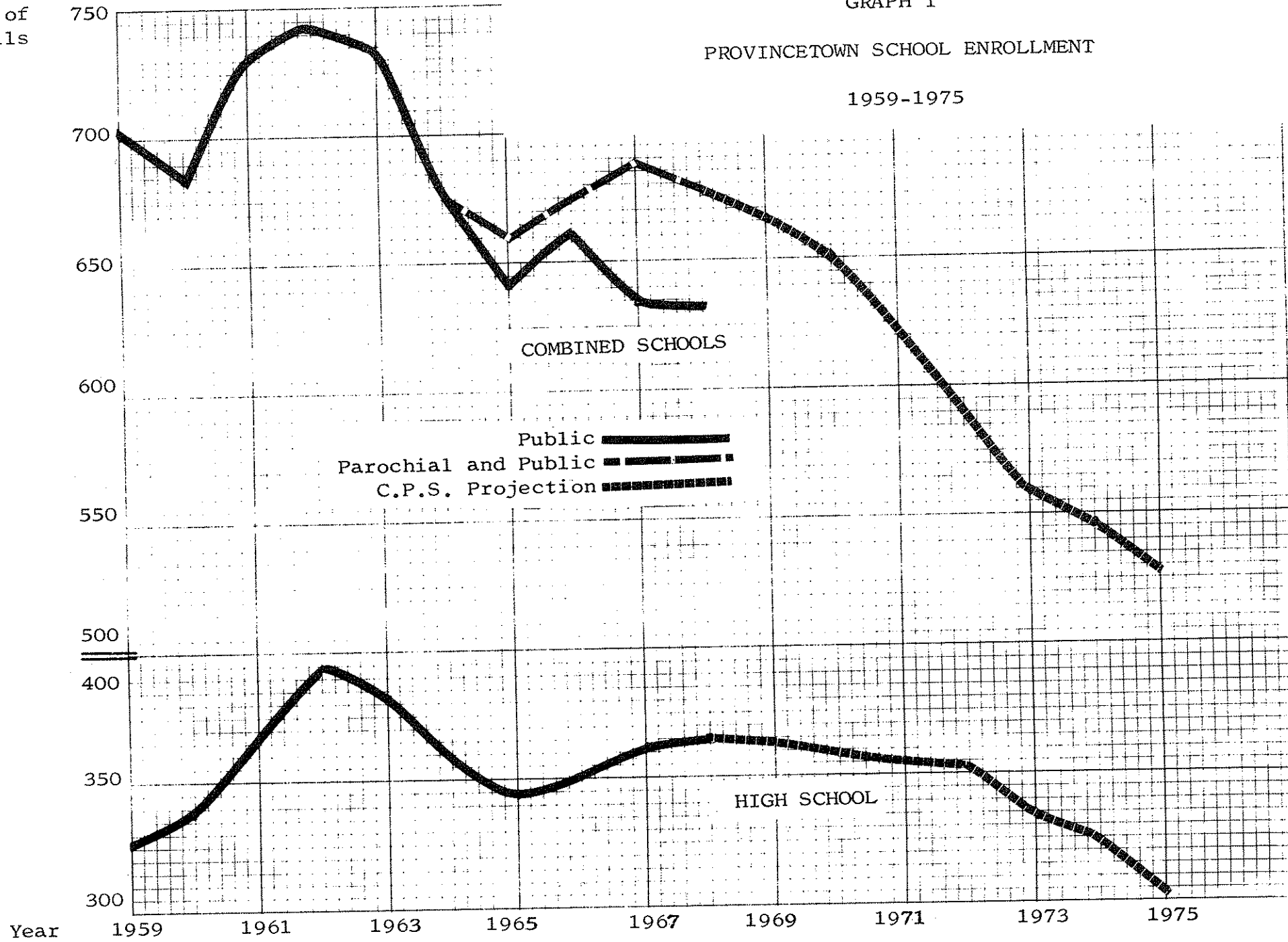
No. of Pupils

GRAPH I

PROVINCETOWN SCHOOL ENROLLMENT

1959-1975

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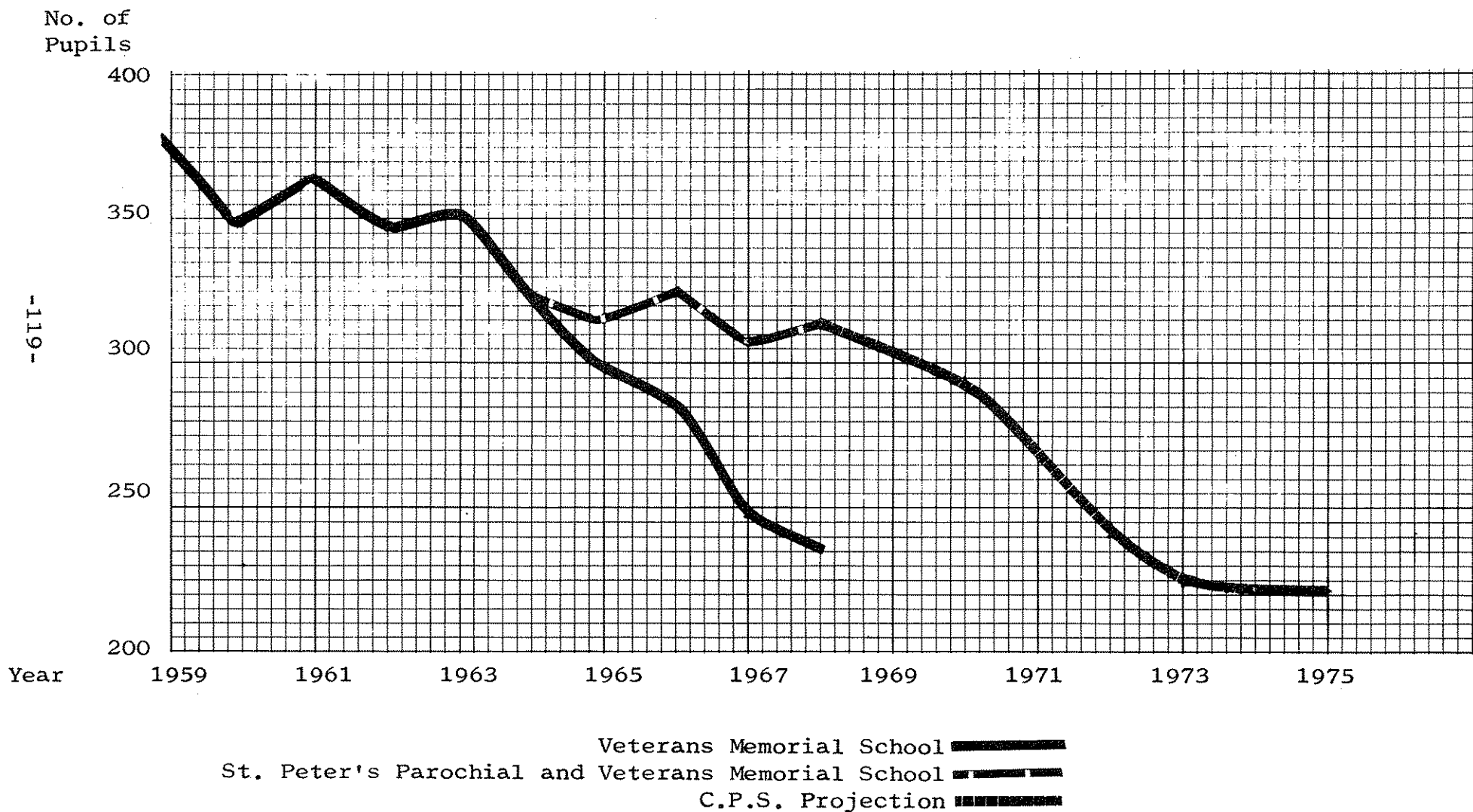


GRAPH II

PROVINCETOWN ELEMENTARY SCHOOL ENROLLMENT

1959-1975

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## Recommendations

In its present state of development, the Provincetown School system has and will have sufficient classroom space to handle its enrollment. In fact, if the school population continues to decline, the economics of the situation, instead of crowding, may necessitate the consideration of a regional system approach.

According to the State Department of Education, there are classes in Provincetown with ten or less pupils. This is especially true in the advanced sections of the science curriculum. Other programs, like the remedial and exceptional child programs cannot be fully developed on such a small scale. It may come to joining the system rather than incurring the expense of a Comprehensive High School Program.

Provincetown is fortunate to have a well-developed regional system available within busing distance, eg. the Eastham-Orleans-Wellfleet (Nauset Regional) High School. If (and the chance is very real) the population decline in the crucial school-age-child family age group is reversed; and if the population and birth rate trends stabilize and find direction in positive growth; the town has a viable outlet for its additional growth. Should the need ever arise, the present structure could easily be converted to a middle school (grades 5 through 8). The Nauset system is designed for regular future expansion, it would simply take place sooner to accommodate the Provincetown-Truro pupils.



## Recreation and Conservation

Private and public institutions in Provincetown sponsor a wide range of recreational activities. They vary from football to roller skating and general athletics, from golf and tennis to horseback riding. The beaches and the sea provide ample opportunities for swimming and suntanning, fishing, sightseeing and boating; the dunes and the marshes for hunting. Finally there are the cultural activities which offer painting and sculpture, theatre and symphonic music.

In addition to these opportunities, there are two publicly owned playgrounds, one along Nickerson and the other along Howland Street, one football field beyond Route 6 and one baseball field on the north of the Monument. The whole gamut of social clubs has to contend for hospitality in one Community Center Building.

Apart from whatever further care is shown by private activities, the Town might take direct action in many areas. As elsewhere specified in this report, the Town should create boat launchings and a marina; it might take better care of at least portions of its beach. A better maintenance of the existing playgrounds, the creation of one additional playground, and the establishment of a formally supervised summertime program for young residents and tourists would also be in order. This program might include swimming lessons, for instance, as well as supervision and organization of other games.



The central area of the town does not have any playground facility. Some areas might now be acquired for this purpose before new residential development takes place below Route 6.

Since the Town is surrounded by the large public preserve of the National Seashore, there is no need in Provincetown for large acquisitions of land. Shank Painter Pond, however, falls under a special category. It should be acquired either by the Town with the help of state money or by the National Seashore.



## CHAPTER 8 ECONOMIC BASE

### Economic Base - Introduction

The economy of Provincetown is still composed of many of the same basic elements as fifty or more years ago. Its component parts, however, are going through some major changes. In recent years, tourism has been assuming the role which during the last centuries was played by fishing and related activities. An aspect of life in Provincetown, the cultural activities, has been making always bigger inroads since the beginning of this century.

While the cultural activities, especially with the proposed establishment of an Academy of Living Arts, might in the future stage the primary factor in the economy of Provincetown. Directly or indirectly tourism is affecting the whole life of the town, from service and retail activities to construction or banking.

As in other things, the changes already introduced and those which are going to be introduced by the increasing importance of tourism present negative as well as positive aspects. The ideal, obviously, is to retain and foster the positive aspects while eliminating or minimizing the negative ones. The following pages are an attempt to analyze the economy of the town from various viewpoints and to indicate actions which might bring that ideal closer to reality.



## Scope

This section, through some economic indicators, gives a general view of the status of the economy in Provincetown. The indicators chosen are family income, rate of unemployment, volume of retail trade and service expenditures, and status of real estate ownership.

A second section, through an aggregate analysis, shows that the main feature of the economy of the town is its unbalanced growth, from a seasonal as well as from a sector point of view.

A third section analyzes the economy of the town sector by sector and indicates growth possibilities.

### Section A. - Some Economic Indicators

#### Family Income

The distribution of income per family is perhaps the most effective indicator of the status of any economy. The U. S. Census of Population indicates that in 1959 one-quarter of Provincetown families lived on less than \$3,000 a year. Half of them lived on a \$3,000 - \$5,999 income. Twenty per cent lived on a \$6,000 - \$9,999 income. Five per cent lived on \$10,000 or more per year.\*

Although comparisons of income are among the most arduous subjects of economic science, the above figures reveal their real meaning only when put in relationship with other terms of comparison, such as the county, the state, and the nation. The distribution of

\* Although considerably out of date, the 1959 figures should still be a valid indicator of the relative position of the various elements taken into consideration in the text.



income in Provincetown presents some of the negative but none of the positive features shown by the other administrative subdivisions:

- a) The percentage of families with income under \$3,000 is similar to that of the state and the nation, but much higher than that of Barnstable County;
- b) The percentage of families with income between \$3,000 and \$5,999 is much higher than that of all other subdivisions;
- c) The percentage of families with income between \$5,000 and \$9,999 is relatively lower than that of all other subdivisions;
- d) The percentage of families with income of \$10,000 and over is almost one-third of that of all other subdivisions.

These figures become even more telling perhaps if the two lower brackets are combined. It appears that almost two-thirds of the families in Provincetown live with an income of less than \$6,000 per year. This percentage is much higher than that of all other subdivisions. Analytical figures can be found in Table I.

#### Unemployment Rates

Unemployment rates are provided by the State Division of Employment Security for Truro and Provincetown together. Both towns have had for the past years an annual rate of unemployment well above the national figures. It has varied from 10.5% to 15.8% of the total labor force. These average figures do not show seasonal peaks, which generally have been higher than 30%.

During summer months, Provincetown and Truro are able to absorb a large amount of unemployment. The two towns generate so many new job positions that they require more than twice their winter





TABLE I

Family Income, 1959

Income	Percentage of Families			
	Provincetown	Barnstable Co.	Mass.	U.S.
Under \$3,000	24.2%	17.4%	26.6%	23.2%
\$ 3,000-\$5,999	49.1	41.2	31.5	33.6
\$ 6,000-\$9,999	21.4	28.3	28.6	28.1
\$10,000 over	5.3	13.1	13.3	15.1

Source: U. S. Census of Population, 1960

TABLE II

UNEMPLOYMENT RATE FOR PROVINCETOWN AND TRURO

	February	August	November	Annual Average
1962	33.1%	2.2%	17.2%	15.8%
1963	30.9	3.3	19.9	10.5
1964	33.3	7.9	22.4	14.3
1965	39.2	4.7	21.0	15.0

Source: ~~Mass.~~ Division of Employment Security (adjusted for August)



labor force. The labor force usually climbs from about 1,500 to more than 3,000 people.

Yet, even during summer months a considerable number of persons, varying from 30 to 120, or from 2.2% to 7.9% of the local labor force, have remained without work over the past years.\* This unemployment might be considered structural; but ways to reduce it should be worked out.

Analytical figures can be found in Table II.

Volume of Retail Trade and Service Expenditures

The volume of retail trade and service expenditures is another important indicator of the status of the town's economy. It has the advantage of giving some idea of the trend in the self-employed sector, too, a trend which is not covered by the Division of Employment Security. The usefulness of this indicator, however, is limited by a number of factors:

- a) In the absence of similar figures for manufacturing, construction, financial, insurance and real estate, it is impossible to put it in any frame of reference with the total economy of the town. Due to the particular composition of the economy of Provincetown, moreover, it is of limited value to compare the volume of retail trade and service expenditures with that of any other town;

\* Percentages of unemployment during summer months, if calculated on the labor force of the correspondent months are felt to be meaningless because of the influx of out-of-town workers. The percentages in the text have been calculated on the typical winter labor force, 1500 individuals.



- b) The distribution between resident and nonresident businessmen is not available; and resident operators are certainly of greater value to the town because they pay not only taxes, but presumably spend a large part of their income in town;
- c) In the absence of detailed figures on out-of-town expenditures to procure merchandise and services to be exchanged in Provincetown, it is impossible to know how much of the volume of retail trade and service expenditures remains in town or simply changes hands in town;
- d) An unknown portion of the volume of retail trade and service expenditures is directly related to the town's total income.

It might still be interesting to know that the volume of retail trade expenditures in Provincetown grew from \$7,505,000 in 1958 to \$8,529,000 in 1963, or by 13.6%. The volume of service expenditures increased from \$972,000 in 1958 to \$1,730,000 in 1963, or by 77.9%. Both volumes combined increased in the same period by 21.0%.

Real Estate Ownership

Another indicator which might be wise to follow carefully is the status of real estate ownership as it is subdivided among legal residents, nonresidents, and corporations. The trend since 1963 has been reported in Table III and for the time being it does not show a clear-cut pattern. Only the number of corporations which have title to real estate ownership in town is increasing.

To have a thoroughly meaningful picture, the distinction between resident and nonresident might be applied for corporations, too. Any criterion for this distinction, provided it is consistent, would be as good as the next one.



TABLE III

REAL ESTATE OWNERSHIP

Number of Individuals and Corporations  
Owning Real Estate as of January of  
the following years:

	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>
Legal Residents	900	891	912	915
Nonresidents	402	415	390	396
Corporations	<u>39</u>	<u>42</u>	<u>49</u>	<u>51</u>
Total	1,341	1,348	1,351	1,362
Parcels	1,768	1,775	1,776	1,786

Source: Provincetown, Board of Assessors.



Section B. Unbalanced Economic Growth

The behavior of unemployment rates points out that the winter economy in Provincetown has to be clearly distinguished from the summer economy, or in other words that there is a noticeable problem of seasonal unemployment.

A further inquiry into the summer economy discloses that only a few sectors, those clearly related to the tourist "industry", are experiencing a marked growth while all other activities remain relatively stable. This pattern of growth can be observed from the point of view of employment as well as of payroll trends. It has to be kept in mind, however, that these figures relate only to employment covered by unemployment compensation benefits. They exclude important elements of the economy, such as self-employment charities and the like, as well as public administration.

Seasonal Employment

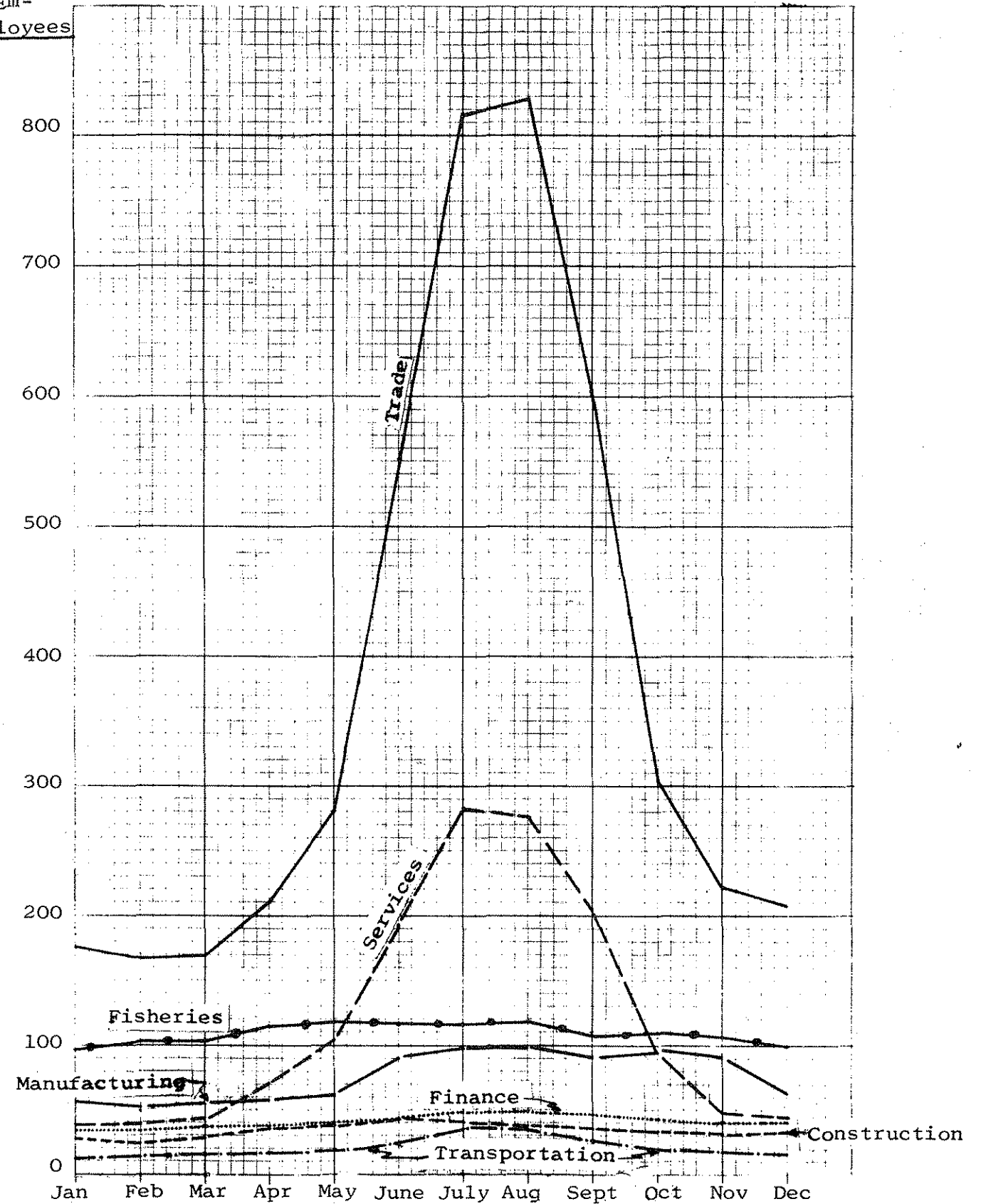
It would be sufficient to plot the monthly employment figures in each activity on a graph to have an immediate image of the difference existing between winter and summer employment in Provincetown. To avoid any yearly variation, the monthly figures for the seven years available\* have been averaged and transposed on the attached graph, "Seasonality of Employment." The figures are given in Table IV.

\* Because of a change in the official classification it is impossible to observe the trend of the years previous to 1958.



No. of Em-  
ployees

SEASONALITY OF EMPLOYMENT  
IN AVERAGE YEAR PROVINCETOWN



COVERED  
\*AVERAGE EMPLOYMENT IN PROVINCETOWN  
DURING THE YEARS 1958-1964,  
SUBDIVIDED BY MONTH & ECONOMIC ACTIVITY

TABLE IV

	Fisheries	Construction	Manufacturing	Transportation	Finance	Service	Trade
January	97	27	55	13	35	39	175
February	103	24	52	14	34	39	168
March	104	28	54	15	36	43	169
April	114	36	58	17	37	70	210
May	117	39	61	19	40	102	280
June	117	43	90	24	43	193	551
July	115	40	98	33	47	282	815
August	118	38	99	33	48	278	828
September	107	36	91	28	46	204	602
October	110	34	96	20	43	96	304
November	105	31	91	18	41	47	221
December	100	32	64	17	40	44	207

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\* Total divided by 7, the number of years

Source: Mass. Division of Employment Security

While all other economic activities show a rather constant employment trend throughout the year, summer employment in services and trade is four to seven times winter employment. Obviously, the whole economy shows a seasonal pattern but the variations for all other activities--with the exception perhaps of manufacturing--are rather irrelevant.

Evidently, if there were full employment throughout the year in Provincetown, the seasonal spur in services and trade employment would be unreservedly welcomed. The same would apply if the season of full employment were sufficiently long, instead of running for three or at most five months. A further difficulty presented to the economy of Provincetown is the existence of an influx of out-of-town workers.

#### Employment Trends

The long term trend of winter employment for Provincetown shows a static picture. The employment situation in February 1964 was exactly the same as in February 1958. November of the same years showed an increase of 32 positions. The variations in the intervening years were of minor momentum and tended to cancel each other.

Summer employment shows a considerable vitality. From 1958 to 1964, 452 new positions were created in Provincetown. Total employment figures increased from 1,285 to 1,738, or by 35.1%. Analytical figures can be found in Tables V and VI. Because of the influx of out-of-town workers, however, total employment figures are only of



Provincetown, Massachusetts

COVERED EMPLOYMENT  
in Selected Months.

TABLE V

Year	FISHERIES			CONSTRUCTION			MANUFACTURING			TRANSP. COMMUN. & UTILITIES			FINAN'L, INS. & REAL ESTATE			SERVICE			WHOLESALE & RETAIL TRADES		
	Feb.	Aug.	Nov.	Feb.	Aug.	Nov.	Feb.	Aug.	Nov.	Feb.	Aug.	Nov.	Feb.	Aug.	Nov.	Feb.	Aug.	Nov.	Feb.	Aug.	Nov.
1958	114	110	108	19	25	30	79	99	108	7	30	16	26	33	32	43	238	39	148	751	192
1959	124	125	105	27	36	29	50	69	93	12	37	15	32	40	36	42	244	44	169	745	227
1960	90	124	119	20	47	34	49	99	93	17	26	17	35	45	36	32	229	44	190	783	228
1961	108	123	121	27	43	36	53	108	78	14	24	16	33	47	38	37	241	51	168	764	218
1962	95	114	95	25	35	31	44	108	96	11	34	23	37	48	40	37	311	50	165	837	221
1963	95	122	102	22	39	30	40	101	87	16	39	20	36	57	47	44	343	55	171	886	220
1964	93	110	85	31	41	29	49	108	82	20	43	21	43	64	56	40	338	50	166	1034	241

Source: Massachusetts Division of Employment Security.

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TABLE VI

NUMBER OF FIRMS AND PAYROLL IN PROVINCETOWN,  
SUBDIVIDED BY ECONOMIC ACTIVITY

	Agriculture, Forestry, Fisheries		Construction		Manufacturing		Transportation, Communication & Utilities		Fin. Ins. & Real Estate		Wholesale & Retail Trade		Service	
	No.	\$.000	No.	\$.000	No.	\$.000	No.	\$.000	No.	\$.000	No.	\$.000	No.	\$.000
1958	25	395	14	90	7	325	7	57	8	114	91	873	36	272
1959	27	423	15	94	6	229	8	81	7	124	93	982	40	292
1960	29	396	15	126	6	259	10	88	6	141	90	1,150	41	281
1961	27	437	16	136	6	283	9	85	7	151	90	1,178	46	324
1962	26	391	16	111	6	293	8	103	8	171	94	1,241	50	373
1963	29	420	16	113	6	262	7	140	8	198	94	1,327	53	397
1964	28	383	16	127	5	258	7	128	8	244	93	1,449	48	436

Source: Mass. Division of Employment Security

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TABLE V..I

TOTAL NUMBER OF FIRMS, PAYROLL AND EMPLOYMENT IN PROVINCETOWN

	No. of Firms	Payroll in \$.000	Employment in		
			Feb.	Aug.	Nov.
1958	189	2,126	442	1,286	528
1959	197	2,225	456	1,296	550
1960	197	2,441	434	1,363	572
1961	201	2,594	440	1,357	566
1962	208	2,683	414	1,487	556
1963	213	2,857	424	1,578	561
1964	205	3,025	442	1,738	564

Source: Mass. Division of Employment Security

relative importance to Provincetown residents.

A further inquiry into the summer economy indicates that only two sectors were really growing; all others remained substantially static over the years. Services and trade created 383 of the 452 new positions; all other activities, that is, created only 69 new positions. A more precise knowledge is reached by further breaking down the figure for service and trade. Hotels, motels, eating and drinking places accounted for 283 out of 383 new positions.

The developing sectors are clearly those directly related to tourism. Certainly a few other activities like gift shops or art studios and galleries in Provincetown are also strictly related to the summer or tourist economy, yet it is impossible to give a detailed account of them because the Massachusetts Division of Employment Security does not publish the relative figures separately.

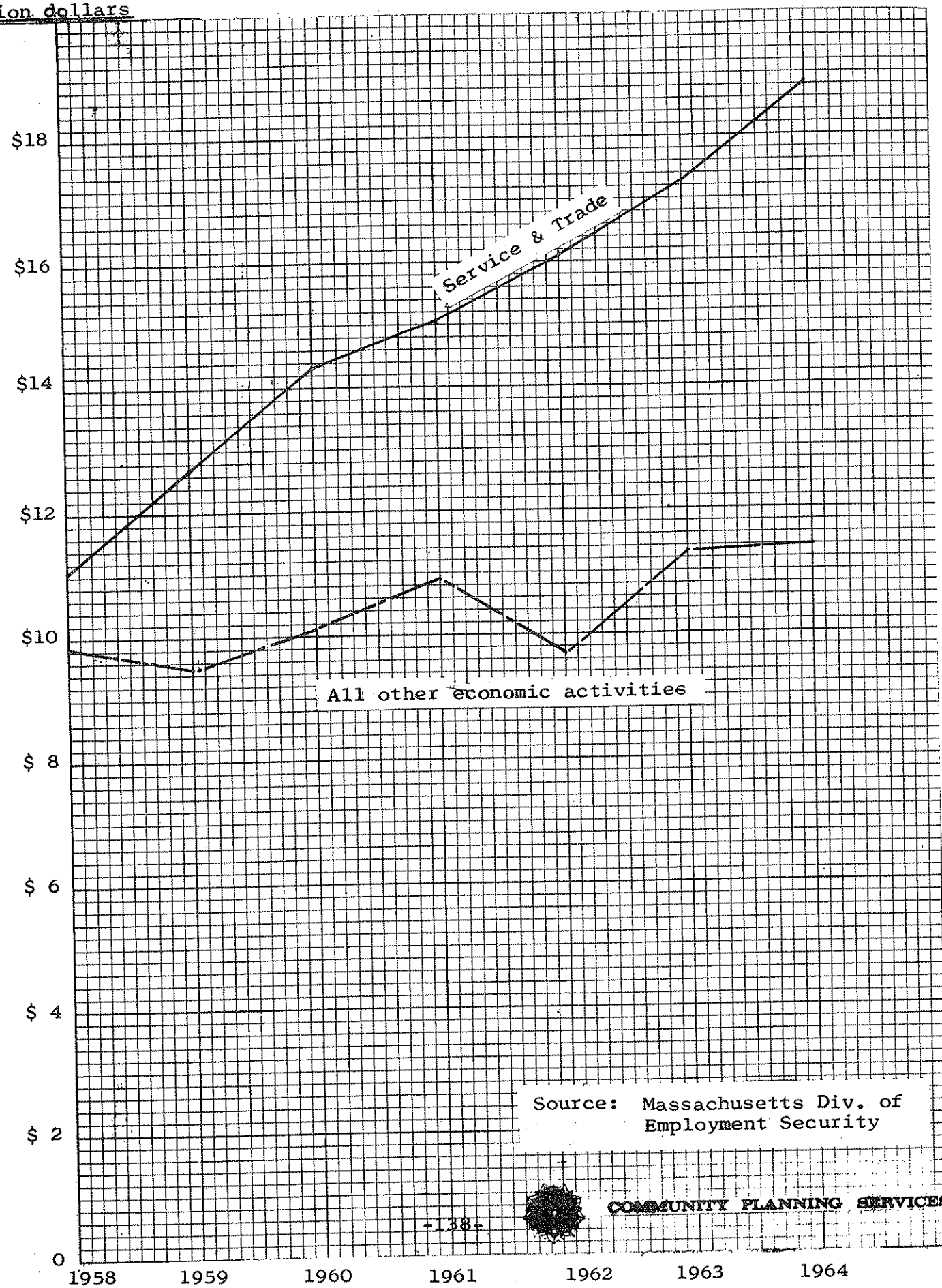
Payroll Trends

The same observations derived from the trend of employment figures can be drawn from payroll trends. Total payroll increased from \$2,126,000 in 1958 to \$3,025,000 in 1964, or by 41.4%. Analytical figures can be found in Tables VI and VII. It should be kept in mind, however, that total payroll figures, as total employment figures, are not completely relevant to Provincetown residents. Apart from any inflationary influence, out-of-town workers during summer months more than double the local labor force; and wages and salaries paid in Provincetown evidently are not entirely earned by Provincetown residents nor spent in town entirely.



BREAKDOWN OF  
TOTAL PAYROLL - PROVINCETOWN

Million dollars

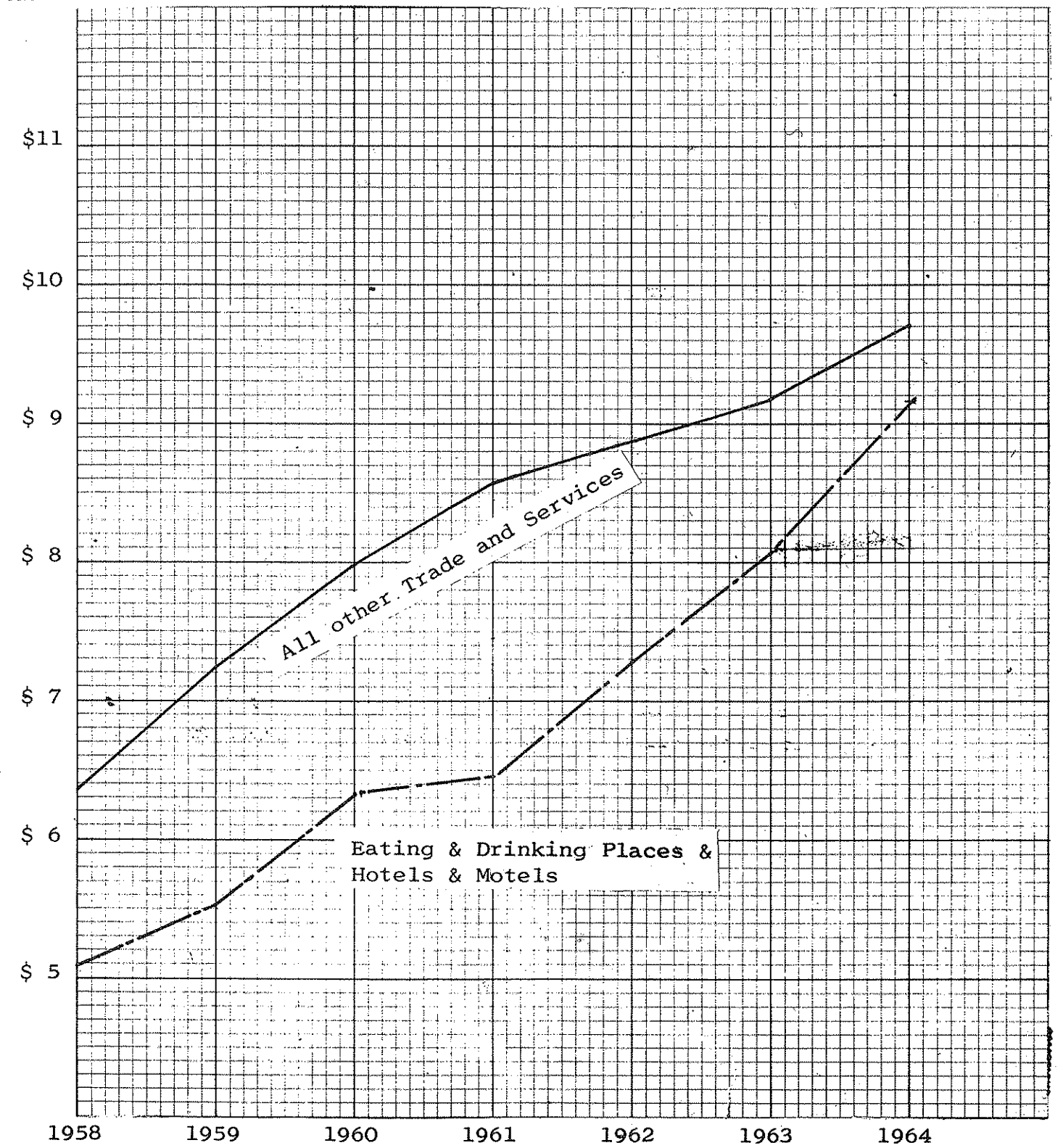


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COMMUNITY PLANNING SERVICES

BREAKDOWN OF SERVICES AND TRADE  
PAYROLL IN PROVINCETOWN

Million Dollars



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COMMUNITY PLANNING SERVICES

With this limitation in mind, it is still important to observe how the various activities relate to the total. Service and Trade were steadily increasing in importance. In 1958 they produced 53.9% of the total payroll; in 1964 this percentage went up to 62.3%.

This growth is shown in the graph, "Breakdown of Total Payroll."

Eating and drinking places, hotels and motels produced almost half of the payroll in service and trade, and progressively increased in importance from 44.4% to 48.0%; or, from 23.7% to 30.2% of total payroll. This growth is shown in the graph, "Breakdown of Service and Trade Payroll;" analytical figures can be found in Table VIII.

Preliminary Conclusions

If the impact of hotels, motels, eating and drinking places is eliminated from the employment picture, the relative curves of trade and service, as it can be seen from Table IX and from the attached graph, become almost so flattened as to resemble those of other activities. With one activity, tourism, and even more precisely, with only four elements growing and all others remaining relatively stable or even going backward--as the winter activity of fishing and manufacturing--the Provincetown economy is becoming increasingly unbalanced, both from a sector and from a seasonal point of view.

TABLE VIII

PAYROLL IN PROVINCETOWN  
BREAKDOWN OF TRADE AND SERVICES

Year	Eating and Drinking Places, Hotels, Motels	All Other Trade and Services
	\$ .000	\$ .000
1958	509	636
1959	551	723
1960	632	799
1961	645	857
1962	728	886
1963	806	918
1964	915	970

Source: Mass. Division of Employment Security





Certainly the previous analysis does not cover the whole Provincetown economy. Absence of figures mainly on public administration and self-employment prevent a more thorough analysis. Yet, even observing only the "covered" economy it can be concluded that if existing forces are allowed to work undisturbed, they will have a profound and not altogether positive impact upon the social and physical aspects of the town. A projection of the above trends into the future points out that in a short time hotels, motels, eating and drinking places might overcome the importance of all other elements of the economy. The possibility, moreover, of massive "foreign" investments in these four fields should not be summarily disregarded. Obviously, these trends and these possibilities, if unchecked or uncontrolled, might totally change the characteristic flavor of Provincetown.

The question is not to curb the growth in tourist activities, a near impossibility and hardly a satisfactory solution, but it is rather to provide a more diversified range of activities, promote a longer tourist season, and improve the quality of tourism in Provincetown.

EFFECT OF HOTELS, MOTELS, EATING & DRINKING PLACES ON EMPLOYMENT IN SERVICES AND TRADE IN PROVINCETOWN

No. of Employees

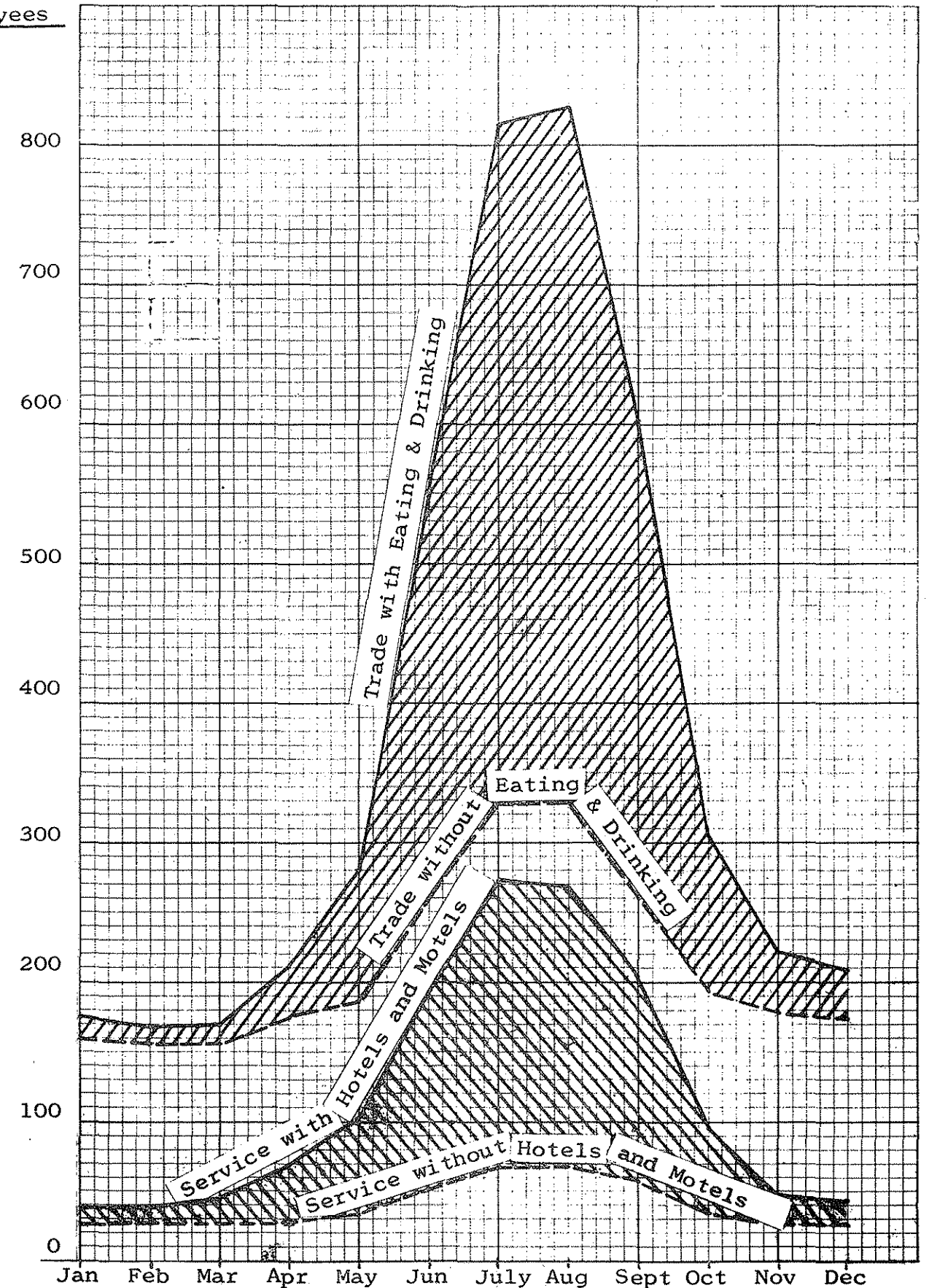


TABLE IX

COVERED AVERAGE EMPLOYMENT IN PROVINCETOWN  
DURING THE YEARS 1958-1964,  
SUBDIVIDED BY MONTH

	TRADE Minus Eating & Drinking Places	SERVICE Minus Hotels & Motels	Average*
January	159	25	25
February	156	25	25
March	155	28	25
April	164	33	28
May	184	50	33
June	260	68	50
July	327	68	68
August	327	57	68
September	260	32	57
October	194	26	32
November	179	26	26
December	175	26	26

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\* Total divided by 7, the number of years

Source: Mass. Division of Employment Security

Section C. Sector Analysis

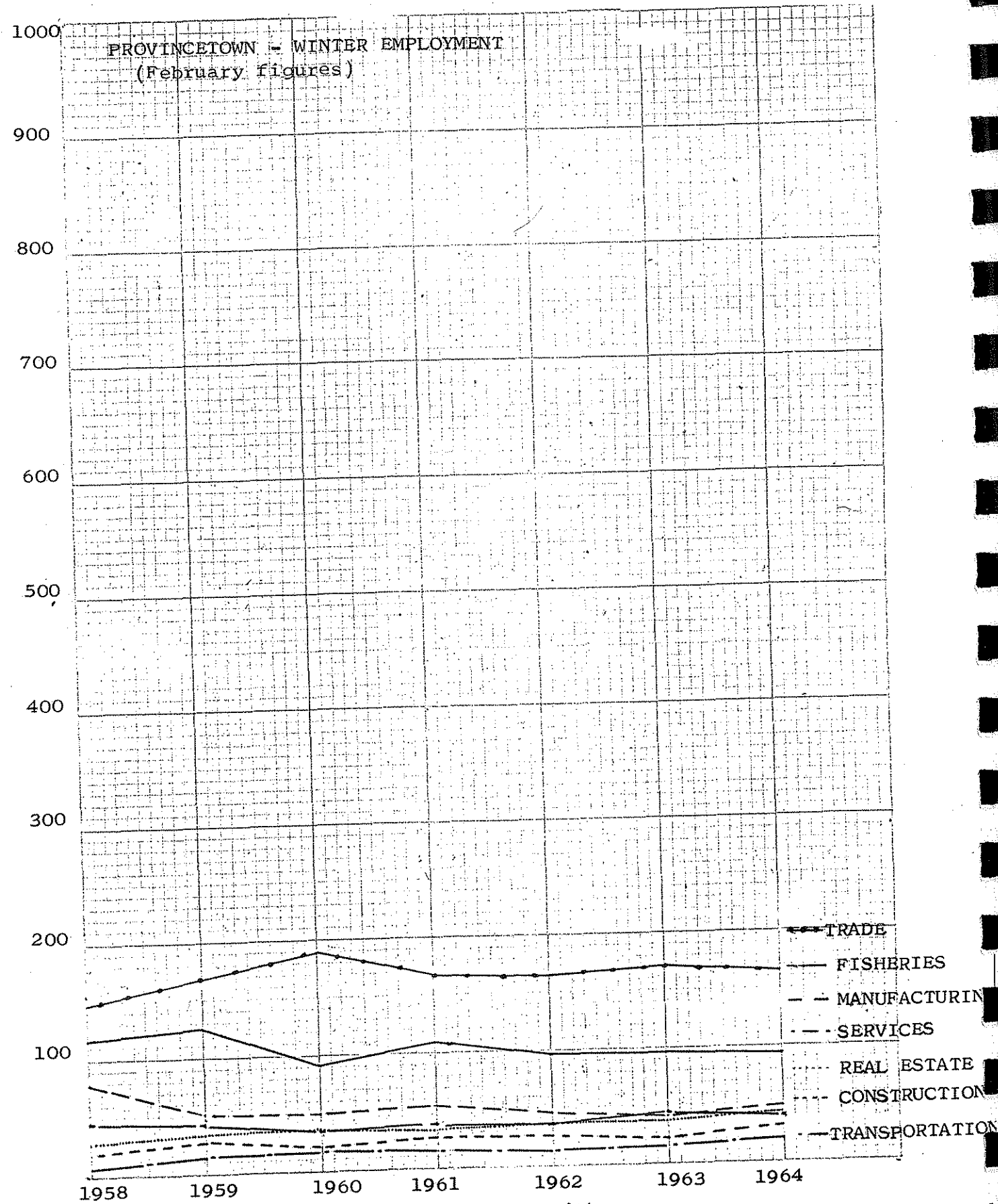
This section gives a brief analytical description of each economic sector and deals also with the behavior of employment in Government and self-employment. These two sectors are not included in the "covered" economy and are provided for the Provincetown-Truro area together.

A greater emphasis is put on those sectors which offer the possibility of directing the economy one way or the other. Certain sectors, like construction or finance and real estate, are clearly unable to generate any economic growth by themselves; others, like government and educational institutions, fishing, and tourism are able to generate such growth and to influence the rest of the economy of the town. Due to this peculiar capability, the second group of activities will be more intensely analyzed here.

The two attached graphs, "Winter and Summer Employment," reproduce not only the trends in the various "covered" activities but point also to their relative importance. The graphs are based on Table V. The following observations are derived from Tables V and VI.



NUMBER OF EMPLOYEES

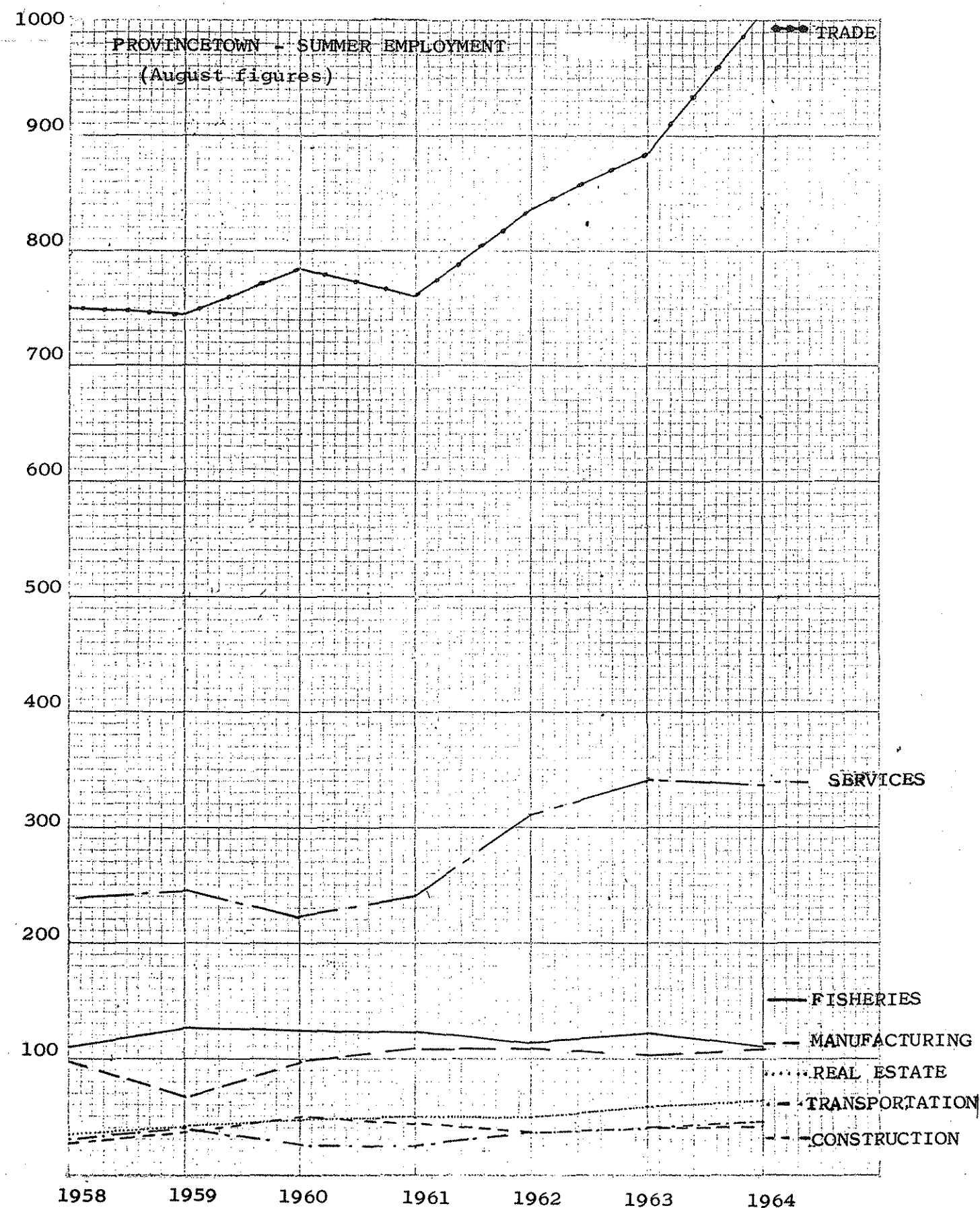


Source: Mass. Division of Employment Security. -146-



COMMUNITY PLANNING SERVICES

NUMBER OF EMPLOYEES



Source: Mass. Division of Employment Security. -147-



COMMUNITY PLANNING SERVICES

## Government

The various local, state and federal agencies in Provincetown and Truro are among the major stabilizers of employment and income. In recent years they have employed a constant of 170 persons per month. This figure represents 8.8% of the local labor force. In 1965 this figure, according to the U. S. Department of Labor Statistics, was five percentage points lower than the relative figure for the state as a whole.

Because of the importance of Government employment in Provincetown-Truro, it might be well to try to explore this area, too. A History of Fishing Museum, possibly incorporated in a Seashore Information Center, or any other civilian or military government institution would help to stabilize employment and income in the area. An attempt in this direction was recently made in regard to an Oceanographic Institute. Also, the possibility of establishing an Academy of Living Arts and a Summer Festival is presently being followed through.

The Environmental Science Service Administration (ESSA), was recently inquiring for a site on the East Coast on which to establish an Institute for Oceanography together with the necessary naval bases. This complex involved a public initial expenditure of about \$10,000,000. Although the competition from many equally appropriate sites was fierce, the planners helped the Town Officials to prepare a brochure in which the assets of Provincetown were presented to a Committee appointed to select the site. In particular, the following



points were stressed: Provincetown location in a clean, unpolluted marine environment; its strategic position between the cold and the temperate water zones; its closeness to Georges Bank; its position in the midst of a public preserve such as the Cape Cod National Seashore; the capacity and the safety of the harbor; the relative adequacy of dock space and building sites; the availability of manpower and of adequate living and maintenance conditions; the relative proximity to Boston and Wood's Hole; the cultural and environmental features of the town.

Even though Provincetown failed to obtain this institution, oceanographic research is certain to expand and it might be well to follow this field as closely as possible in order to try to exploit future possibilities. The area in which Provincetown seems to have a much better chance in these days is the establishment of an Academy of Living Arts. This is one of the most interesting projects currently being studied. This project might have an enormous impact on the economic and social life of the town.

It involves the establishment of a permanent School of Art, possibly as an extension of some university, together with a Summer Festival. A preliminary study made by the Area Development Center of Boston University indicates that the Festival might generate as many as 49 new year-round jobs. Apart from the size of a resident faculty, the winter school would require perhaps an administrative staff of 10 persons presumably to be mainly recruited in Town. The



student body is estimated at 70. In money terms, the operations of the Festival would create new expenditures of at least \$2,000,000 and the school \$250,000 per year.

The side effects of the establishment of this cultural center are easier to envisage than to estimate. Permanent jobs would be created in town to take care of many collateral activities. The tourist season might be extended an additional five weeks per year. The overall quality of tourism might be upgraded.

#### Self-Employment

In 1959, total income in Provincetown was approximately \$5,000,000. Income derived from the "covered" economy was \$2,225,000; the rest was obviously derived from self-employment, Government and out-of-town activities not excluding investment in stocks and bonds. The number of persons in this category has remained relatively constant during the most recent years. It has shown the same seasonal variations as covered employment, however. It fluctuates from about 300 persons per month during winter months to 1,000 during the rest of the year. Available figures are not broken down for each sector.

#### Construction

The number of firms increased from 14 in 1958 to 16 in 1964. The payroll increased in the same period from \$90,000 per year to \$127,000. The number of employees grew from 25 to 41 in the month of August of the same years. These various increases were almost progressive.



This activity, too, showed seasonal variations in employment, but they were not of great magnitude.

#### Manufacturing

Manufacturing in Provincetown is essentially related to sea-food processing. The number of firms decreased from seven in 1958 to five in 1964; it seems likely that their destiny is related to the trend in fishing activities.

The yearly payroll decreased from \$325,000 to \$258,000 with considerable variations in the intervening years. The greatest slump took place in 1959.

With the exception of 1959 when they dropped abruptly, employment figures varied little over the years. They stood at around 100 during summer months. During winter months employment was generally halved, and unlike the summer trend never recovered from the slump of 1959.

#### Transportation, Communication and Utilities

The number of firms was the same, seven, in 1964 as in 1958; but there was a larger number in other years.

Yearly payroll more than doubled, it passed from \$57,000 to \$128,000.

The number of employees increased slightly, it passed from 30 to 43 persons during summer months. During winter it varied from a minimum of seven to a maximum of twenty.



**U. S. CATCH  
CATCH BY REGIONS**

The fisheries of the Gulf States have shown substantial growth since 1940, increasing from 6 percent of the total domestic catch to 31 percent in 1965. During the same period, the California catch decreased from 32 percent to 10 percent. The New England, Middle Atlantic, and Alaska catch was less in 1965; the South Atlantic catch was slightly higher. Other areas showed little change. The increase in the Gulf was due largely to the growth of the menhaden fishery. The decrease in California was due to a failure of the sardine fishery and smaller catches of tuna and mackerel.

VOLUME OF THE CATCH BY REGIONS, VARIOUS YEARS, 1940-65  
(Million pounds)

Region	1940	1950	1960	1964	1965
New England and Middle Atlantic:					
Quantity . . . . .	982	1,498	1,636	1,052	1,043
Percent . . . . .	<u>24</u>	<u>31</u>	<u>33</u>	<u>23</u>	<u>22</u>
Chesapeake:					
Quantity . . . . .	321	381	435	536	565
Percent . . . . .	<u>8</u>	<u>8</u>	<u>9</u>	<u>12</u>	<u>12</u>
South Atlantic:					
Quantity . . . . .	325	261	379	336	355
Percent . . . . .	<u>8</u>	<u>5</u>	<u>8</u>	<u>7</u>	<u>8</u>
Gulf:					
Quantity . . . . .	250	571	1,266	1,318	1,457
Percent . . . . .	<u>6</u>	<u>12</u>	<u>26</u>	<u>29</u>	<u>31</u>
Alaska:					
Quantity . . . . .	564	482	358	493	484
Percent . . . . .	<u>14</u>	<u>10</u>	<u>7</u>	<u>11</u>	<u>10</u>
Washington and Oregon:					
Quantity . . . . .	166	177	162	158	191
Percent . . . . .	<u>4</u>	<u>4</u>	<u>3</u>	<u>4</u>	<u>4</u>
California:					
Quantity . . . . .	1,290	1,338	541	501	456
Percent . . . . .	<u>32</u>	<u>27</u>	<u>11</u>	<u>11</u>	<u>10</u>
Great Lakes and Mississippi River:					
Quantity . . . . .	162	177	154	134	151
Percent . . . . .	<u>4</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>
Hawaii:					
Quantity . . . . .	(1)	16	11	13	20
Percent . . . . .	-	-	-	-	-
Total quantity . . . . .	4,060	4,901	4,942	4,541	4,722

1/ Data not available.

Source: Fisheries of the United States - 1965  
Bureau of Commercial Fisheries C.F.S. No. 4100

Financial, Insurance and Real Estate

The number of firms, eight, remained almost constant, but the payroll doubled. It increased from \$114,000 to \$244,000.

Summer employment grew from 33 people in 1958 to 64 people in 1964. Winter employment, although less, remained very close to the summer employment.

Fishing

The whole series of activities connected with fishing reached their full blossoming in Provincetown during the last century when they could claim to nurture "the richest town in all the Commonwealth."\* Since the turn of the century they have been declining. Yet, they still have a decisive role to play.

The relative stability of fishing is in part counteracting the economic unbalance existing in town. Also, fishing constitutes one of the major tourist attractions in Provincetown. Not only for economic self-protection, but also to enhance the pleasure of the trip for the tourist, fishing should be preserved and strengthened.

Present Conditions

a) The General Outlook

Present conditions of the fishing industry in the United States and in New England present a patent contradiction. Total consumption is rapidly expanding while the domestic catch, as it can be seen from Table X, is remaining constant, if not decreasing. The

\* Nancy W. P. Smith, The Provincetown Book, Tolman Print, Inc., Brockton, Mass., 1922; p.49



gap obviously is filled by foreign supply; imported groundfish alone in the period 1947-1962 rose from 23.9 per cent to 70.1 per cent of national consumption.\* In 1950 the total catch was 4,901 million pounds; in 1965 it dropped slightly to 4,722 million pounds. Per capita consumption has remained constant at 10 to 11 pounds for many years; population, however, has greatly increased in the last half century and foreign imports have steadily increased to fill the gap.

The New England and Middle Atlantic fisheries, although still second among U. S. fisheries, have been steadily losing ground in absolute and in relative terms. As it can be seen from Table X, they passed from 33% of the total U. S. Catch in 1960 to 22% in 1965. To a large extent, this decline of the New England and Middle Atlantic fisheries is certainly due to their closeness to one of the most aggressive foreign competitors, Canada. And yet their closeness to Georges Bank, one of the richest fishing grounds of the world, does not help explain the decline.

The usual explanation given for the present status of the American fishing industry in general, and that of New England in

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\*Frederick W. Bell, The Economics of the New England Fishing Industry: The Role of Technological Change and Government Aid, Research Report to Federal Reserve Bank of Boston, No. 31, 1966; p. 35.



particular, points out that labor and boat building costs constitute the biggest advantages for competition and, conversely, a great drawback on the American industry. International comparison of costs is difficult; but even assuming as certain that labor and boat building costs are higher for the American fishing industry than for international competition, the offered explanation does not appear satisfactory. U. S. electronic equipment, chemicals, many types of machinery have always faced high labor and other costs; yet they have always been among the most highly competitive industries.

Generally, costs are not only a cause, but a result of many elements which can be summed up in one statement: currently, by far the largest part of capital, labor, and management in the United States finds comparatively better opportunities in fields other than fishing.

Since the market for fish, with slight variations among fresh and frozen\*, canned, or cured types, is expanding, the overall situation is likely to change. The Federal Government in these years is being active on many levels. Much emphasis is put on oceanographic research, also to know more about life and habits of fish. Aerial assistance to spot schools of fish is at times provided. Research on how to preserve the product is being carried out. Above all, two laws, Public Law 88-498 and 89-85, are already affecting the cost of vessels either by subsidizing shipyards, under certain conditions up

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\* Unfortunately, official statistics do not separate fresh from frozen fish consumption.



to fifty per cent of the cost, or by lending money for purchase and maintenance of old or new vessels.

Again, assuming that a gap really exists,\* it is likely that much will be done in the field of labor costs, too. The idea of the "mother ship," together with quick means of transportation to permit rapid and frequent movement of the labor force, is already being explored. Reduced transportation and perhaps processing costs might offset the even higher labor costs involved in this type of operation. Barring the possibility of the realization of the "mother ship" idea, there still is the alternative of building relatively bigger and better equipped vessels which eventually will reduce the working force and consequently labor costs.

(Fishing near the shore is likely to continue to exist independent of the offshore type, and will mainly supply the fresh fish market. In the latter type the profitability of small, quick vessels should be investigated. This possibility may have a direct application in Provincetown where most fishing is on a one day basis.)

With the renewal of the fleet and the introduction of technological innovations in equipment, living conditions aboard should be

\* F. W. Bell - op. cit., at pg. 44, footnote No. 13, states: "The absence of unionization in the Canadian Atlantic Provinces also prevents labor from changing the lay or striking for higher earnings. Lynch, Doherty, and Draheim state that the difference in the formal lay between Canada and New England does not result in a significant difference in the actual shares going to capital and labor." (Underlining in the text.)



improved. These factors, together with larger efforts in the field of training young people, should help solve what really appears to be at the bottom of the problem, lack of manpower at the different levels of the fishing operation.

Ultimately, however, working conditions and profits are strictly dependent upon the price which the landing earns. American prices are already higher than the Canadian ones.\* Should this trend continue, as it is reasonable to expect because of the low proportion of the domestic catch on total supply, the chances for improvements to come about, particularly in the fresh fish market, will increase.

b) The Local Outlook.

The volume of catch of both industrial and food fish in Provincetown has greatly varied in these last years. The series reported in Table XV start from 1957 when separate records were reported for the town. There were considerable variations between industrial and food fish landings from year to year. These variations, however, tended to balance out so that the total catch varied less, from a low 21 million pounds in 1964 and 1965 to 27 million in 1959 and 1960.

Prices, as listed in Table XI, fail to give a clear indication of their behavior. It seems, however, that they tended to act quite independently of the volume of catch.

\* F. W. Bell - op. cit. Table III - 2. Also, Bureau of Commercial Fisheries, Market News Service, Boston, September 20, 1966





TABLE XI

PROVINCETOWN CATCH -- by Volume and Price

<u>Year</u>	<u>Food Fish (by millions of pounds)</u>	<u>Value (by millions of dollars)</u>	<u>Indus- trial (mil/lbs)</u>	<u>Value (mil/ dols)</u>	<u>Total</u>	<u>Value</u>
1957	13	1.1	12	0.2	25	1.3
1958	17	1.3	9	0.1	26	1.4
1959	15	1.2	12	0.2	27	1.4
1960	15	1.2	12	0.2	27	1.4
1961	17	1.2	6	0.1	23	1.3
1962	17	1.2	3	0.1	20	1.3
1963	16	1.2	9	0.1	25	1.3
1964	17	1.1	4	0.1	21	1.2
1965	14	1.1	7	0.1	21	1.2

Source: New England Fisheries - Annual Summaries,  
U. S. Bureau of Commercial Fisheries, Boston.

The overall trend of the various figures for fisheries in Provincetown is slightly downward. This trend is also evidenced not only from the recent changes in the fish processing industry in Provincetown, with a few plants closing their operations, but also from the decreasing number of vessels in the fishing fleet. "The Provincetown fleet," reports the Bureau of Commercial Fisheries, "dwindled to 3 medium and 24 small Otter Trawlers by the end of 1965. Two trawlers were sold to other ports and were not replaced."\* However, during the winter months, fishing is the second largest category of employment in town. Even during the summer it is important employing an average of 100 persons per month in recent years. Fishing provided the second largest payroll up to 1964 when services jumped ahead. Analytical data can be found in Tables V and VI or in the graphs "Winter and Summer Employment."

Fishing, apart from representing much of the tradition of Provincetown, and apart from being of indirect advantage to tourism, is still a great stabilizing factor in the economy of the town. However, its relative decline cannot be arrested without help.

Future Opportunities

The wealth of Provincetown during the last century was due to the integration of the then existing economic activities; and they were all centered on fisheries. Fishing was not a specialized

\* New England Fisheries - Annual Summary, 1965. Bureau of Commercial Fisheries, Boston; p.20.



activity, it ranged from local to transoceanic; fish were not a one purpose product, all possible derivatives were extracted from them; salt works were very much alive and profitable; shipyards were strongly active; financing and insurance were generally run in Provincetown by Provincetown citizens.\*

The past has gone and it cannot be recreated. If fishing is to continue as a vital activity in Provincetown, it should be viewed as an integral part of a network of activities. Today many opportunities which could help to create such a network are being presented.

#### Marine Protein Concentrate Plant

Perhaps the most important single opportunity within reach of Provincetown is the establishment of a Marine Protein Concentrate plant. Congress, with Public Law 89-701 has authorized the construction of one and the lease of another such pilot plant. There is a strong movement in the country to enlarge the number of the plants to be supported by public money. There is no reason, however, why they should not be created through private money.

These experimental plants are currently estimated to process 50 tons of fish per day in order to produce a flour extremely rich in protein concentrates which can be added to man's food diet.\*\* The future of this product seems to be bright; "land" food production seems to be less apt than "sea foods" to keep pace with a growing

\* N.W. Smith - op. cit., pp. 50-91.

\*\* Marine Protein Concentrate, Bureau of Commercial Fisheries, Fishery Leaflet 584.



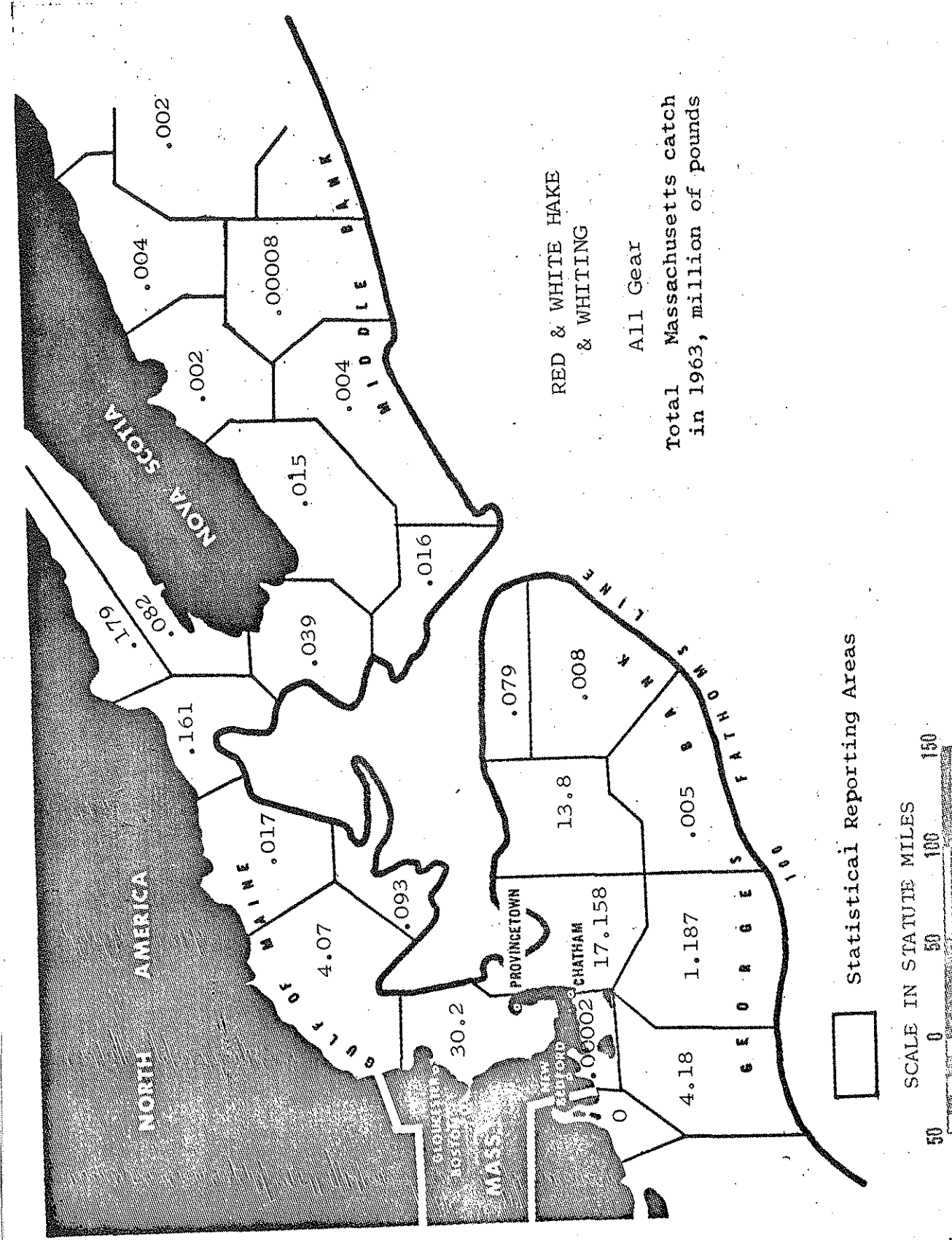
population and growing needs in the United States as well as in low income countries.\*

Each plant is supposed to create as many as 70 year-round job opportunities. Many more jobs would be created indirectly, from sheer construction and maintenance of the buildings, to trucking of the finished product and processing materials. The necessity for a bigger catch to operate the plant would in itself greatly favor the volume and the continuity of employment in Provincetown. The required increase in catch is the difference between 18,000 tons per year necessary to operate the plant and the lower volume actually caught which, as reported in Table XI has varied from 3,000 to 12,000 tons in recent years. Assuming, however, that the plant is in existence, every vacuum left by Provincetown fishermen would likely be filled by regional fishermen.

Obviously, there is a need for further inquiry to establish whether the project has any concrete possibilities. The availability of manpower in Provincetown and the closeness to the rich fishing grounds of Georges Bank seem to indicate the existence of such possibility. The graph "Total Massachusetts Catch of Red and White Hake and Whiting in 1963," shows that this species, the one approved by FDA, is in abundant supply. The graph also shows the strategic position of Provincetown in relation to the fishing grounds.

\* Senate Hearings, Eighty-ninth Congress, Second Session on S. 2720, Serial No. 89-64, mainly pp.70-72.





Source: Fishery Statistics of the United States 1963



A few more words should be directed towards the possibility of establishing a Marine Protein Plant in Provincetown or at the best location in its proximity. A fishing industry, as it is proved by experience, is the only type of industry which is feasible today in Provincetown. Industries rise either in the proximity of pools of natural resources or of labor, or of a combination of these factors. Provincetown does not offer any considerable pool of manpower nor any sizeable consumption market. The only pool of natural resources in Provincetown is the sea. This availability, combined with the strategic position of the Town at the crossroad between Georges Bank and the mainland, restrict the range of possible industries to the existing canning firms together with the establishment of a Marine Protein Concentrate plant. It is for their exclusive character that these two elements should receive the utmost support either through public or through private money.

The Breakwater

In 1948 Congress authorized a breakwater in the harbor of Provincetown and appropriated study funds. Much time has been consumed by engineering study time, financial difficulties, and a certain factionalism in town. The breakwater is a matter of great importance for the town as a whole. It should be seen as a project serving more than one group and more than just present needs alone. It seems that what is officially defined as Plan 1 B, the one 800 feet from the edge



of MacMillan Wharf, is to be preferred to other plans because it provides opportunity for future expansion of the fleet both for commercial and sport fishing, and eventually would be easier to adapt to a marina form when mooring space becomes critical.\*

#### Cooperative

All attempts to establish a Fishermen's Cooperative in Provincetown have failed so far. The reason for this failure seems evident. It is impossible to share poverty. Currently, Congress seems to be realizing that perhaps this has been the basic reason for the failure of so many cooperatives. Senator Magnuson has recently introduced a bill to "provide credit facilities for the use of fishermen's cooperative associations through establishment of a Bank for Fishermen's Cooperative Association, and for other purposes."\*\*

Should this bill become law and should the Bank be provided with sufficient financial resources, it would be another great opportunity for Provincetown fishermen. While waiting for such a favorable event, it would be wise to set things in motion for the establishment of a cooperative. Perhaps the first important thing to do should be an economic study to determine both present costs and future likely profits.

Ultimately, the cooperative should be owned by Provincetown

\* Provincetown Harbor, Design Memorandum on Construction of Breakwater, U.S. Army Corps of Engineers, Waltham, Mass., Feb. 1965, and following memoranda.

\*\* Bureau of Commercial Fisheries, Market News Service, Boston, Sept. 9, 1966.



fishermen, captains and crews together; it should be managed by and for them. Proper officials should soon be elected so that they could have sufficient time to get the necessary basic knowledge on how to operate this kind of business. The rest of the skills would be learned on the job.

There is much which a cooperative can do. Joining existing forces would be a major accomplishment; the total result would not be a mathematical addition but a compound result. An important task of the cooperative should be the constant access to meaningful sources of information to keep abreast of any technological or marketing development in the trade. Also of value is its potential access to financial resources, either through existing channels or those likely to be opened in the future.

The most important immediate task should be to follow through the process for the achievement of a Marine Protein Plant.

Another possibility worth exploring in the near future might be the ownership and direct management of fresh fish markets located in key cities of the eastern seaboard and inland states. Provincetown's fresh fish market potentially extends as far as New York, Louisville, and Chicago.\* The development of a brand name and the elimination of middlemen should in themselves mean a secure profit.

Eventually the cooperative might develop such a potential as to be able to finance all operations without normally reverting

\* F.W. Bell-op.cit., p.33.



to external sources. The final aim of the cooperative should be to own and manage all operations and means of production involved in the fishing activity, from the catch to the delivery of the final product to the consumer.

School for Fishermen

In the good "olde" days the largest part of knowledge and know-how was acquired through experience. Today conditions are different. Social compactness is decreasing; social mobility is increasing; youths need to earn a decent weekly pay at an early stage. Knowledge and know-how is no longer transmitted by oral tradition but through schools.

The need for the creation of knowledge and experience through the school system is a widespread phenomenon. In fishing it seems to be essential. The economic system today is much diversified, many types of job opportunities are available. A fisherman's life seems to be more laborious and less remunerative than that of other occupations. It is often mentioned that due to the longer hours required of them, full-time fishermen have to have a 60-hour week in order to reach a "standard level of income."\* As a consequence of those factors, the industry is characterized by an extremely high proportion of old workers. The age group distribution for Boston in 1964, which presumably was representative of the

\* An Economic Study of the Boston Large-Trawler Labor Force, Bureau of Commercial Fisheries, Circular 248; p.16.



current situation in New England, was as follows:\*

<u>Age Group</u>	<u>All Other Labor Force</u>	<u>Offshore Fishermen</u>
Under 25	20%	2%
25 - 34	21	10
35 - 44	22	9
45 - 54	20	17
55 - 64	13	41
65 & Over	4	21

The "image" of fishing activities seems to be more stereotyped than true. Much depends on the terms of comparison. It seems that fishing should be compared to retail activities, at least for the number of hours per week required. Very crude estimates indicate that fishing in Provincetown still provides a larger average income than retail jobs, \$4,000 against \$3,000 per year. This is corroborated by the comparison between the median income in 1959 given by the U. S. Census of Population for Boston. Fishermen earned \$4,549 per year as against \$1,724 by the retail trade. The type of life experienced in these respective activities should also be taken into full account.

A better "image" for the fishing industry, together with better living and working conditions for fishermen will eliminate the difficulty in attracting young people. The ground work consists of providing good training facilities. The optimum situation is realized when either a specialized school is created,

\* An Economic Study of the Boston Large-Trawler Labor Force, Bureau of Commercial Fisheries, Circular 248; p. 16.



or the vocational school is developed into a full-fledged specialized branch. Such a school could draw students from all of Massachusetts with its curriculum developed around the various arts which have to be acquired for an individual to become a competent fisherman. The school payroll would also have a year-round impact on the town's economy.

#### Regional Consciousness

While it is true that the problems of the Provincetown fishing community have to be solved in Provincetown, there are many aspects which can be solved only at the regional level. In order to have an efficient school, it should serve more than one fishing community and draw pupils from all of them. Some advertising today is necessary to increase per capita consumption of fish, but the expenses involved are prohibitive for one community alone. Other possibilities would present themselves once the limits of a shortsighted factionalism are overcome.

The most important of such opportunities definitely is the development of harbor facilities in Chatham. The potentiality of this harbor is of unlimited magnitude for the whole region; its materialization might well represent a quantum jump in the life of a large majority of Cape Cod fishermen.

The prerequisite to achieve a regional consciousness, however, is the strengthening of the ties existing in each community of fishermen.



#### Partial Conclusions

Of the above possibilities in the field of ocean related activities, the construction of the breakwater is the most likely to come about; but it might still leave things as they are. Should any of the other possibilities be realized, it is likely that a chain reaction would be put in motion which would facilitate the materialization of all others and eventually again let fishing activities perform a major role in Provincetown. While primary effects would be of direct advantage to the fishing community, the secondary ones would benefit the whole community not only by preserving social cohesiveness but also by favoring all other activities, from trade to construction to banking, during summer months as well as year round.

If none of the above possibilities, for one reason or another, comes true, Provincetown fishing will have to resign itself to serve only the local fresh fish market and eventually to be increasingly transformed into sport fishing. In both cases the winter activity would be always more reduced. A few months activity might be sufficient to support the year-round needs of boat owners and captains, but it is unlikely it would support the crews. Since their ranks would be depleted by emigration and not be replenished by new blood, even boat owners and captains would finally suffer.

#### Tourism

While tourism has played an important part over the last



several decades in the history of Provincetown, in recent years it has become the most important economic activity of the town. The National Association of Travel Organizations maintains that by 1970, only 2 years away, vacation travel probably will become the largest single economic activity in the country, a fact already evident in Provincetown. While many areas of the country can draw on tourist trade for up to 9 months of the year, and some even year-round, this activity in Provincetown centers primarily on the summer months, with some pre and post season activity in the spring and fall. However, the dollars spent during July and August provide the basic economy of the community. It is within this short period of time that the merchants and innkeepers must make their livelihood to carry them throughout the winter months. The following paragraphs will try to put into perspective just how important tourism is to Provincetown.

Nationwide the expenditure for recreation approached 25 billion dollars in 1964 and by the year 2000 it is expected that the amount will be doubled.\* A large portion of this sum forms the tourist market. In 1965, according to the Urban Survey Corporation, over 100 million dollars in tourist expenditures was spent in Barnstable County. This is equal to about 10% of what was spent in Massachusetts for the same period. Specific facts relating to the tourist industry

\* New Englander, June 1965.



are hard to come by, and where small geographic areas are concerned, such as Provincetown, it is extremely difficult to pinpoint the exact number of dollars that are spent by tourists. In the case of Provincetown, through the use of the Census of Business on both retail trade and selected services, and by using the 1960 census on income and population, we have attempted to dimension the possible dollar expenditures in Provincetown based on expenditure patterns experienced in the tourist industry and on expenditure patterns for retail sales trade in Massachusetts. In 1958 total retail sales reported by the Census of Business were \$7,505,000 and for this same year it was estimated that year-round residents of Provincetown probably expended 2.6 million dollars for total retail purchases. By 1963 total retail sales had increased 13.6% to \$8,529,000 while the estimated residents' retail expenditures had increased by 17% to three million dollars. This indicates a net influx of \$5,529,000 in Provincetown in 1963.

In the service fields, total estimated resident expenditure increased 17% from \$628,000 in 1958 to \$735,000 in 1963, while receipts increased 80% from \$972,000 to \$1,730,000 during the same period. (See Exhibit II)

1963 resident expenditures of \$735,000 resulted in a minimum of \$995,000 being spent in Provincetown by non-residents. Adding the two figures gives a total net influx of \$6,496,000 in Provincetown. This is the base figure for tourist



Exhibit II

PROVINCETOWN - Estimate of Resident and Nonresident Expenditures  
in Service and Trade

Estimated Income of Provincetown Residents	1958	1963	% Increase
Families	\$ 4,715,000 <sup>(1)</sup>	5,521,000	17.1 <sup>(3)</sup>
Individuals	348,000 <sup>(2)</sup>	408,000	17.1
	<u>5,063,000</u>	<u>5,929,000</u>	17.1
<u>Retail Expenditures</u>			
Total Expenditures in Provincetown (4)	7,505,000	8,529,000	13.6
Estimate Resident Expenditures in and out of Provincetown (5)	<u>2,592,000</u>	<u>3,028,000</u>	16.8
Net influx of Dollars	4,913,000	5,501,000	11.9
<u>Service Expenditures</u>			
Total (4)	972,000	1,730,000	77.9
Estimate Resident Expenditures in and out of Provincetown (5)	<u>628,000</u>	<u>735,000</u>	17.0
Net influx of Dollars	344,000	995,000	189.2
<u>Retail &amp; Service Expenditures</u>			
Estimate Residents Expenditures in and out of Provincetown	3,220,000	3,763,000	16.8
Net Influx of Dollars	<u>5,257,000</u>	<u>6,496,000</u>	23.6
Total	8,477,000	10,259,000	21.0

(1) U. S. Census of Population, Number of families in each bracket multiplied by median income of each bracket. Proportional adjustments with State breakdowns were made for incomes of \$10,000 and over.

(2) Number of individuals, 284, per proportional adjustment with state incomes.

(3) Rate of growth of total state income.

(4) U. S. Census of Business, 1958 and 1963.

(5) State average, 51.1% of total income, as retail expenditures.  
State average, 12.4% of total income, as service expenditures.

expenditures out of the total of \$10,259,000 reported for retail sales and service receipts in Provincetown in 1963. To this base figure must be added the amount of money expended by Provincetown residents outside of Provincetown in order to determine the total amounts spent in town by nonresidents.

In the service categories on the Cape, 56.4 cents out of every dollar spent was spent in hotels or motels, strictly a tourist oriented service. If the breakdown for the Cape holds true in Provincetown, it should account for some \$975,720 spent in Provincetown for this purpose. Of the other \$755,000 spent for services, it is estimated that \$600,000 is spent on personal services, entertainment, amusement and recreation. Since these types of services have a direct relationship to population, we have attempted to estimate the number of visitor days and the number of resident days for Provincetown. We have estimated that 42% of the total population-days is of the nonresident character (15,000 for 60 days). This would yield an expenditure of \$252,000 out of the \$600,000 being spent by nonresidents, giving a total of \$1,227,000 being spent by nonresidents in the service industries. This does not take into consideration the amount spent by the hotels and motels, restaurants and other tourist oriented businesses purchasing services from laundries, linen services, electrical repairs, and other repair services and business services.





As to retail trade, it has previously been estimated that residents spent approximately 3.4 million dollars on retail goods. The amounts spent outside is difficult to estimate. However, an estimate of approximately \$1,000,000 does not seem unrealistic when we consider the lack of variety in the apparel stores, general merchandise, the lack of furniture and appliance stores, and the lack of variety of automobile dealers. Also, money is spent either on-Cape or off-Cape by Provincetown residents on trips for gasoline and in restaurants. It is, therefore, estimated that out of the total sales and services receipts of \$10,259,000 that something over \$7,700,000 is being spent in Provincetown by nonresidents. This amounts to 75% of the total expenditures. Indirectly, however, this volume has an impact on the remaining retail sales and services expenditures as well as on the other basic economic activities in the community such as construction, real estate, transportation and financial activities, all of which are largely influenced on a year-round basis by the summertime dollars.

The cycle of the tourist spending money to support a resident who in turn spends money to support local government, school, and other retail facilities and services is a never ending cycle.

#### Some Considerations Regarding Quality

The above analysis is able to give only quantitative estimates. The tourist "industry," perhaps more than any other industry, is also made of qualitative elements which are difficult to pinpoint.



Provincetown's attraction is made of extremely volatile elements, such as the fishing tradition, the cultural tradition and the subtleties of natural or man-made aesthetic values, such as the beaches, art colony and quaintness of the town. The town as a whole and the tourist industry in particular would do well in paying much attention to the preservation and the strengthening of these elements.

#### RECOMMENDATIONS

Considering the heavy impact of tourism on the town's economy it would appear that three major conclusions could be drawn from all the previous analysis, the importance of lengthening the tourist season; the importance of improving the quality of tourism; the importance of asserting some leadership on the part of the tourist industry. These are all connected elements which can be isolated only on paper.

#### The Length of the Season

It is easier to emphasize the desirability of a longer tourist season than to give concrete suggestions for reaching this goal. The answer can be found perhaps more in the quality of the resort than in any other element. It has been estimated for instance that the establishment of the Academy of the Living Arts, together with the Summer Festival might prolong the tourist season another five weeks. Could some efforts be directed also toward the establishment of a Fine Arts School, a Craft Center, a Photo-



graphic Tours Club, and a History of Fishing Museum?

The latter could create a major off-season attraction as well as a focal point during the summer. The planners envision a large area of land set aside for this purpose located adjacent to the proposed new parking areas. Significant exterior displays should be developed. These would include old ships and boats no longer serviceable, discarded nets, life rafts, floats, buoys, life preservers and the like with interpretative materials and guides. The area could become a playground for children as well as an educational project for adults. Retired fishermen could be employed to show how gear was handled, nets were mended, boats caulked, etc.

The museum itself could have displays of models as well as graphic devices and could contain all sorts of memento relating to fishing.

Eventually, an aquarium might be added to the museum. It is expected that the museum would be self-supporting through admission fees, the sale of gifts and mementos and donations. Not only would this provide some jobs, it would provide a major attraction for tourists; Provincetown's number one industry.

Provincetown itself, presumably due to its remarkable tradition, can boast of the average stay of four months per year for its taxpaying nonresidents. If this assumption that the length of the tourist season depends upon the quality of the resort is true, all



attention should be given to the quality of tourism as well as of the town itself.

#### Quality

The best way perhaps to improve the quality of tourism in Provincetown is to keep the balance between peace and quiet and "activity," as well as to improve the quality of the activities.

The most positive aspect of the modern tourist is that he is a "doer", he does not want to be a spectator but a participant in events. Provincetown with its quaint downtown, the sea, beaches, dunes and the arts should be able to provide a wide range of activities for every type of tourist. Each one of these elements through care and imagination might become an invaluable asset to serve, in an always better way, the interests of the tourist industry, of the individual tourist, and of the town as a whole.

Of special interest in this study will be the physical aspects of the downtown together with its circulation pattern, and the physical aspects of the harbor and the beaches along Commercial Street.

#### Leadership

The fishing industry in Provincetown has over the past centuries left some fine examples of social concern and self-restraint.\* Money was provided for the establishment of the library and of non-discriminatory foundations; the fisherman who had fared worst in the season, to supplement his income, was given the position of custodian

\* footnote on following page



of the schools; one disabled man was offered a steady and "unnecessary" job, that of remaining on the pier and directing tourists.

In recent years the tourist industry has assumed the virtual leadership in the economic field, it should also take stock of itself and of social responsibilities as the industry owes its existence to the town. In the name of its own self-interest, the industry needs to devote more of its economic resources toward the improvement of the social, economic and physical aspects of the community. To this aim a relatively small Coordinating Committee might be formally or informally established to increase awareness of the large possibilities for tourism and to be the motor of actions and ideas in town and outside.

\* The traditional method of settling the voyage is instructive in itself: "There was an accepted system of settling the voyage", reports Nancy Smith, "First the great generals were taken out of the total. The great generals were bait, salt, gear, ice, towing, and canal charges if any. Then an eighth of the remainder was allowed for shrinking, and a fourteenth for curing the fish. Then the difference between an eighth and a fourteenth was given the owners. Nobody seems to know why this little dividend went to the owners here, except that custom decreed it. Then the vessel's part was taken out, and that was a third or a quarter as agreed upon in advance, then the smaller generals which were the food. The balance went to the sharesmen, who paid the wages of the men who were hired, (out of their share). A voyage to the Grand Banks lasted about five months. Each of the crew earned approximately three hundred dollars besides his food. Profits of owners varied. To quote one who had been at it many years: "You think you will get rich, but you don't; you think you will go to the poor-house, but you do not get there." (op. cit., p.62.)



RECOMMENDATIONS

- Continuous Stage -- a) Build up economic indicators as data become available;
- b) Preserve and improve the physical character of the town;
- c) Reduce the seasonal and sector unbalance of the economy; and
- d) A History of Fishing Museum.
- Stage One -- Establish a Fishermen's Cooperative  
Establish a Tourist Coordinating Committee
- Stage Two -- Establish an Academy of Living Arts,  
a School for Fishermen.
- Stage Three -- Try to obtain a Breakwater,  
an Oceanographic Institute,  
a Marine Protein Plant,  
a Photography Center,  
a Craft Center,  
a Seashore Information Center.



CATCH BY STATES, 1963  
(Thousands of Pounds and Thousands of Dollars)

Species	Maine		New Hampshire		Massachusetts		Rhode Island		Connecticut		Total	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Cod	1,960	88	75	5	37,221	2,640	509	48	136	13	39,901	2,764
Flounder	1,216	91	-	-	91,881	7,759	12,450	8,077	1,220	87	106,767	8,744
Haddock	2,877	245	40	4	120,940	11,444	21	2	3	(1)	123,881	11,695
Hake	3,656	156	3	2	2,704	183	184	5	22	(2)	11,365	311
Herring (Sea)	152,317	1,649	-	-	1,853	35	312	14	31	1	154,513	1,699
Ocean Perch	63,905	2,936	-	-	44,387	2,211	-	-	-	-	108,292	5,147
Pollack	2,489	73	10	(1)	12,093	597	9	(1)	-	-	14,601	670
Swordfish	445	101	-	-	1,717	431	169	45	-	-	2,331	577
Whiting	15,942	242	-	-	66,770	1,563	3,477	99	369	10	86,558	1,914
Scallops Bay Sea	-	-	-	-	-	-	2	2	56	68	391	492
	1,186	548	-	-	16,608	7,709	-	-	-	-	17,794	8,257

Source: Fishery Statistics of the United States, U. S. Dept. of the Interior

## CHAPTER 9 ARCHITECTURAL AND VISUAL FACTOR

### I. Architectural Historic Factors

Seven general categories provide a structured analysis of Provincetown architecture and are discussed in the pages that follow. Such divisions obviously present some limitations of overlapping. An understanding of the major elements typical of each category might be important for the development of the town's architecture.

#### Private Dwellings Prior to World War II

Private dwellings of the period up to World War II present the basic Cape Cod characteristics. Their main structure is either a cubic or a rectangular volume; and there is even an octahedron. The shape is rarely regular; more often it presents asymmetries and combinations of the basic forms. The roof lines are generally pitched, though gambrel and salt box occasionally are seen.

The architectural value of these houses can be found in the sense of proportion and in the care for details. A chimney, a window, a porch can do much to add or detract beauty from the building.

Quite a few dwellings are of historic interest. The oldest house was built in 1746. Indeed, an ad hoc survey might be warranted in this area.

#### Private Dwelling Since World War II

The large majority of the dwellings built or renovated after



World War II are a faithful repetition of the old types. The few which have tried to innovate, successfully or not, seem to be subject to a basic criticism. Instead of exploring the possibility of adapting old motifs to the necessities of today's life, instead of recreating the old motifs, they have reverted to styles which belong to totally different social, economic, and cultural contexts. As a result, in Provincetown today an architectural trend is appearing which does not evolve from the past of the town, but definitely breaks away from it.

#### Commercial Buildings Prior to World War II

Commercial enterprises prior to World War II were generally incorporated in dwellings and thus presented the same characteristics of these structures.

#### Industrial Buildings

Industrial buildings which required an inordinate amount of space were built separately. They remained adjacent to residential areas, but did not attempt to reach any degree of harmonization with the surroundings either through setbacks or style.

There have been no new industrial buildings since World War II.

#### Commercial Buildings Since World War II

The interruption of continuity which exists between old and new dwellings is most apparent in the field of commercial buildings. The large majority of motels, hotels, and restaurants are generally in contradiction with basic Provincetown features of form, scale,



and style. The new form is disproportionately elongated, straight rectangular. The scale is no longer dictated by the family unit and the style is no longer Cape Cod or Provincetown.

Taken individually, some of these buildings might even be considered pleasing. But one has to forget that he is in Provincetown.

#### Public Buildings Prior to World War II

The large majority of public buildings belong to the period prior to World War II. The fire houses, the library, and other minor community buildings are indistinguishable from private dwellings; they are all basic Cape Cod, pitch-roof style. The large majority of churches exhibit the same classic lines. An outstanding example is St. Mary's Church; its sense of harmony and proportions, its play of open and closed spaces make it an oasis of peace even during the bustling summer days.

Town Hall and the Chrysler Museum are two frame, steepled, buildings--a common New England landmark.

The Post Office and the High School are two brick constructions of the early twentieth century, a period in which the sense of indigenous architecture had almost disappeared from the American scene.

#### Public Buildings Since World War II

There are only three public buildings built since World War II. They are the Elementary School, the Methodist Church, and the Monument Museum. The scale of all three attempts to



adapt old Cape Cod motifs to the sensibility and exigencies of modern times.

### Architectural Conclusions

The Cape Cod style of architecture, being organic and indigenous, has in itself a variety and flexibility of forms which are able to adapt to the always new conditions of life.

The area of architectural creation, of course, cannot be subject to any regulation. No building in an urban context, however, exists by itself. Every building exists in relationship with all other surrounding buildings. And it is when a building is looked at in these relationships that some hard and fast rules can be derived which eventually might be of help even for architects and builders in general. In general, we have found that most new non-residential construction is out of context with Provincetown architectural antecedents as to scale, texture and color. More attention is needed with perhaps an architectural guidance committee warranted.

The use of historic zoning appears applicable in those areas of the Town built before 1900, not for the purpose of preserving historic shrines or one particular architectural style, but for the purpose of controlling scale and color in order to maintain the pleasant qualities of the community. This is particularly of concern if one examines Provincetown in the total overall context of its urban qualities as in the pages that follow.



### II. Urban Factors

Urbanism defines the set of relationships, among persons as well as among buildings, which are to be found only in a city or a town. The sum total of these relationships is what distinguishes one city from another. Obviously, here only the second type of relationships are of interest: the spatial relation existing among shapes, size, and spacings of various buildings. It is this spatial relation which gives to each city its respective visual, aesthetic image.

Provincetown shows two distinct urbanistic patterns: the Old and the New.

#### "Olde" Provincetown

With only a few exceptions, all the buildings built in Provincetown prior to the Second World War were set in a framework which shows an amazing harmonization of shape, size and distances. The basic materials, colors, window, porches, height, width, and length of one building were not overpowering, but were reinforcing the correspondent elements of the next building. This harmonization was the result of an instinctive appreciation of proportions in the original builders. It was a reflection of their own, harmonic and organic, internal life.

Although helped by many factors, no one single element accounted for that harmonization, no basic principle stood at its root. Among



the contributing factors it is possible to point out the small amount of land available, the basic economic activity--fishing-- which required proximity to the seashore, and the need to utilize one basic, relatively inexpensive, building material, wood. Above all, the social integration of the community prevented any single inhabitant from outdoing the others with excessive pretentiousness.

Although the process of building old Provincetown was unconscious and many-sided, the result was clear cut. It takes a single opening of the eyes to see a whole building, a meaningful portion of a street or even a whole street. Buildings which are too tall and too wide to be grasped, close-up, by a single glance all have an appropriate set back. Streets which are too long to be grasped in their entire length are reduced to human scale either by a curve or a hill or even a turnabout.

This quality of being instantly captured by a glance is the priceless value which everyone treasures about Provincetown. One short visit can convey this effect which is made evident by both visitors' and residents' unawareness of the actual dimensions of Provincetown. No one is aware that New York City's Fifth Avenue, from Washington Square to the beginning of Central Park, has the same length as Commercial Street in Provincetown.

If this effect had to be translated into a hard and fast rule, it might be put in this way: in order to see a building, a street



or any other comprehensive unit in Provincetown there is no need to turn either the eye, or the head, first in one direction then in another. This relaxed position allows for an instantaneous transfer of the image from the object to the observer.

#### "New" Provincetown

Although a few inroads into the core of the town have occurred in recent years, the majority of the "new" buildings, generally of a commercial nature, are scattered along its outskirts. The lack of any physical continuity between the old and the new Provincetown is not the only difference between them. The absolute lack of any urban quality in the latter represents the most evident line of demarcation between the two. There does not exist any resolved spatial relation among the new buildings and there does not exist any balanced spatial relation between the old and the new Provincetown. There is, in other words, a total departure from the original character of the town.

That the character of the "new" Provincetown is found also in many other parts of the country is no justification for its existence in Provincetown. Towns and cities are like persons, both are living beings. A town is created, flourishes and decays. A town can talk. It tells of the character of its inhabitants because the construction of a town is just another way in which man expresses himself.



No psychologist, to foster the development of his client, would ever attempt to patch up his personality with character traits of a different person. He would not justify his preposterous effort by saying, "The client is always right; he wanted the character of Julius Caesar and I gave it to him." No architect, no builder, or planner for that matter, should ever attempt a similar fabrication with a town.

The maintenance of the character of the old Provincetown would not, and should not, imply rejection of progress. There are cities which have been built during thousands of years. They have kept up with the times, otherwise they would have perished a long time ago; and still they have maintained their individual character.

#### Reasons for the New Provincetown

The departure from the original urbanistic pattern of Provincetown is not due to capricious or malevolent reasons, and even less to any lack of aesthetic appreciation. Rather, it is due simply to the impact of the motor vehicle, a means of transportation which requires an extensive amount of space for circulation and parking. The resulting weak use of space not only influences the appearance of the town but also causes less noticeable economic disadvantages which are suffered by both the individual person and the community.



#### Conclusions

The urbanistic qualities especially of the "old" Provincetown are so strong that they absorb the otherwise obvious shortcomings which exist there. The relative lack of trees and grass and flowers is not noticeable; the presence of crude telephone poles is not really disturbing; even the relatively poor street lighting is acceptable in the whole present context; and the narrowness of sidewalks together with poor pavements and markings of the streets are compensated by the sharing of the streets by pedestrians and vehicles. The scarcity of public benches is perhaps a much more felt deficiency in a town which is a major tourist center.

While the above problems of urban beautification can be rather easily corrected, there are, from an urban design standpoint, three problems of a more serious character. The town faces the issue of the preservation and possibly the extension of the old urbanistic pattern. The town lacks a focus, a point where the best of the town is put forward and which constitutes the true center of attraction. The town, although lying along one of the most magnificent harbors in the world, has been able for the most part to shut off itself and its visitors from an unexcelled view.

The Town Pier tries to perform both functions, focus and opening toward the sea, but being a poor substitute for either one, it fails in both of them. Its shape and geographical position, the overcrowding of people, the mixture of uses and the opportunity





to turn around and look back at the whole town are all elements which divert the attention from the sea and the horizon line. The pier's openness and its relative distance from the center of the town prevent it from becoming the true focal point.

The best instrument to help preserving and enhancing the value of space in Provincetown might be an Urban Commission which would not only attend to problems of normal urban beautification and historic preservation, but also to the rather long list of related issues involved in the creation of the Town focus and in the care of the waterfront.

#### Urbanistic Commission

The aesthetic value of Provincetown lies in the old urban pattern. Aesthetic, social, and economic reasons all indicate that it should be preserved and possibly strengthened and extended. The most common tool to reach this aim is the establishment of historic zoning.

Provincetown, however, is a town of its own. Tools widely used in other parts of the country have to be tailored to fit it. Historic zoning as generally used today serves mainly to preserve the facade of buildings and to slow down or at best to freeze the march of "undesirable" changes. Since the major asset of Provincetown is not the exterior of the buildings, but their relationship with other buildings, and since the town is in the midst and in need of major changes, a faithful replica of historic zoning as

applied in other parts of the country does not seem advisable.

It is only the central thrust of historic zoning, the desire to preserve what is best of the past and possibly to extend it to the present and the future, which is of utmost relevance for Provincetown; but it might be reached by establishing an Urban Commission using the legal tools of historic zoning. The Commission should be broadly based and include representatives of the fishing, restaurant, rooming house, and motel interests.



BUILDING CONDITIONS AND  
URBAN RENEWAL POSSIBILITIES

Scope

This chapter describes a survey of physical conditions of buildings in the Provincetown Urban Area.

Standards

The survey classifications as recorded were:

- 1) Excellent and Fair
- 2) Deterioration requiring extraordinary repairs
- 3) Deterioration probably beyond the point of repair.

These standards were based on the professional judgment of the consultant as applicable to Provincetown's unique physical conditions. The majority of the buildings are very old, some of them pre-Revolutionary and in many cases these are weathered and distorted. It was felt that this weathering and distortion rather than diminishing the future value of these buildings probably enhances their antique quality.

Method

Windshield survey plus walking inspection of narrower streets.

Summary.

Two areas with extensive deterioration were identified. One, in the center of town along Commercial Street near Standish; and

the second, along Franklin near Commercial. Special consideration should be given to both these areas from the point of view of their potential use for urban beautification, historic treatment, commercial expansion, and/or provision of urban open space.

General

The 1940 U. S. Census of Housing indicated that of the 1597 dwelling units in Provincetown, 84 needed repairs. The 1960 Census of Housing indicated that of 2571 dwelling units 85 were dilapidated, and 121 were deteriorating. Our survey, February 1967, indicates that 86 buildings were either seriously deteriorated or dilapidated.

It should be noted that the definitions used for each count were different. The Census uses dwelling units as the basis for its count whereas our count was based on buildings, not necessarily dwellings, and some of them may have contained more than one dwelling unit. Also, the 1940 Census included all the dwelling units within all of Provincetown, whereas the 1960 Census was limited to the Provincetown urban area. Despite all of these differences, in definition, it does appear the amount of dilapidation has remained relatively constant.



Perhaps the most striking aspect of Provincetown's building conditions to an on-the-ground observer is the widespread rehabilitation and reconstruction of buildings. Many buildings that could have been considered deteriorated by the survey are being actively and thoroughly restored. Many other buildings look as though they had been recently restored. With this strong trend and the special historic nature of the town, it appears that much of Provincetown's deterioration will probably be removed in the next few years without active government intervention.

The major exception to this trend is the great number of one-room summer cottages or sheds which have been built behind the old homes in many areas. These sheds seem to be concentrated mostly north of Bradford Street and represent a special threat to the quality development of land further to the north. They do not seem to justify urban renewal action; however, they could probably be eliminated by rigid enforcement of the state's sanitary code and by a reasonable town building code.

#### Blighted Areas

The major blighted areas in town are Commercial and Standish Streets and Franklin and Commercial. The Commercial-Standish Street area is predominantly a business area, and it is felt that with continued growth of the tourist economy these deteriorated buildings will be either replaced or rehabilitated. Need does exist in this area for improvement and beautification of the



town's streets to aid what will be the likely trend.

The Franklin-Commercial Street area on the other hand is residential and not likely to be self-renewed by commercial interests. In all there are about a dozen dwellings in this area that probably cannot be rehabilitated without extraordinary expense. It should also be noted that this area:

- 1) is subject to limited, periodic tidal flooding;
- 2) adjoins a fish processing plant (Atlantic Fisheries Co.);
- 3) is in the center of the west end residential area.

The condition and location of this blighted area, centrally located in a residential neighborhood, half a block from the sea adjoining the cannery, raises the possibility of a great number of future uses including:

- 1) residential rehabilitation or renewal
- 2) local park & playground
- 3) off-street parking
- 4) expansion for the cannery
- 5) shared cannery-town marina and boating center
- 6) a combination of any of the above.

As far as federal financial aid is concerned, it seems advisable not to call upon the Urban Renewal Program. The local building code enforcement should achieve, with less efforts in money and time, the same results. In cases of necessary demolition, the Town might receive federal aid through Section 116 added to Title I of the Housing Act of 1949 by the 1965 Act.



Another possibility worth exploring is the use of the either federal or Massachusetts Blighted Open Land Legislation. This Act might affect the future development of the land laying between Route 6 and the built-up area of the Town. This legislation allows the eminent domain taking of land by a public agency, and in some cases by a private corporation, to allow a unified development pattern to take place. To qualify, the land area in question must be "blighted". Among those factors which can be considered as constituting blight are difficult parcel shapes, which hinder the development of the overall pattern. In the area mentioned above, parcels are long, in many cases extending from Cape Cod Bay to the Atlantic, and narrow. Subject to more detailed analysis, it would appear to the planners at first inspection that the area in question could be considered as blighted, because of land assembly difficulties and would therefore be eligible for an urban renewal undertaking of some magnitude.

The reasoning behind this suggestion, with only a minor imperfection in the use of the word symmetry instead of proportion, was best expressed perhaps by Ebenezer Howard at the close of the last century:

"A town," he said, "like a flower, or a tree, or an animal, should at each stage of its growth, possess unity, symmetry, completeness, and the effect of growth should never be to destroy that unity, but to give it greater purpose, nor to mar that symmetry, but to make it more symmetrical; while the completeness of the early structure should be merged in the yet greater completeness of the later development." (Garden Cities of To-morrow, pp. 76-77, MIT Press-23.)



#### Recommendations

- through local building code enforcement clear the blight on the Franklin-Commercial Street area
- use the area partly for widening Franklin Street, partly for a processing park
- use the Massachusetts Blighted Open Land legislation to allow a reasonable development of the land between Route 6 and Bradford Street



THIS REPORT WAS PREPARED FOR THE PROVINCETOWN PLANNING BOARD AND THE MASSACHUSETTS DEPARTMENT OF COMMERCE AND DEVELOPMENT, AND WAS FINANCIALLY AID-ED THROUGH A FEDERAL GRANT FROM THE URBAN RENEWAL ADMINISTRATION OF THE HOUSING AND HOME FINANCE AGENCY, UNDER THE URBAN PLANNING ASSISTANCE PRO-GRAM AUTHORIZED BY SECTION 701 OF THE HOUSING ACT OF 1954, AS AMENDED.

**PROVINCETOWN, MASS.  
1967 PLANNING BOARD**

**ROBERT GUTZLER CHAIRMAN**

**PHILIP MALICOAT**

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