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# CHAPTER 7

## TRANSPORTATION & PUBLIC WORKS

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### Part I

#### Transportation System

#### INTRODUCTION

Over the past two centuries, transportation has evolved from ocean and river transport to the railroad, automobile, and airplane. In the early days of settlement in Waldoboro, the community was dependent upon transportation by water for all commercial trade. Shipping was of prime importance to Waldoboro through the nineteenth century; only in recent years have the highways replaced waterways for this purpose. During the later part of the nineteenth century, railroad track sprang up along side many villages and towns to serve as loading and transfer points for agricultural products and finished goods. Since the 1920's, it has been the automobile that has had enormous growth and since the 1930's, the truck has supplanted railroads. As of the mid 1980's, low-cost passenger and freight air transport has spread across the nation.

Such dramatic changes in such a relatively short period of time leaves no doubt about the importance and need for a transportation plan. Municipal spending on highways is the second largest category of spending after education. This segment of the Comprehensive Plan identifies existing transportation and traffic deficiencies along the major highway system serving the Town of Waldoboro. It also provides general recommendations for meeting the existing and future transportation needs of that system. A major inventory of the highway network was undertaken which included:

- ① Classification of highways and maintenance responsibilities.
- ② A three-year review of traffic accidents in the community.
- ③ Collection of average annual daily traffic counts (AADT).
- ④ A report of roadway and bridge conditions.
- ⑤ Locations and capacity of parking facilities.
- ⑥ Public and Alternative transportation availability.
- ⑦ Pedestrian access.

Data collection has been recorded on a hard-copy map for digitizing and generation of a coded map of the transportation system in Waldoboro.

#### BACKGROUND AND SCOPE

Analysis of the data allowed for a determination to be made as to what current transportation needs exist along the transportation system and how the community can best correct those deficiencies to meet the future capacity demands on that system.

Improvement recommendations are presented that meet the existing highway needs and provide for

continued economic, commercial and residential development within the community. The plan provides the committees' report on prioritization of implementation tasks, implementation responsibilities and a time-frame for completion of the recommended tasks.

## **Part II**

### **Regional Transportation**

#### **REGIONAL TRANSPORTATION**

A comprehensive analysis of a community's' infrastructure and land-use is incomplete without an assessment of regional transportation factors. Regional transportation systems play a pivotal role in shaping local land-use decisions.

#### **ROADS & HIGHWAYS**

U. S. Route One (Atlantic Highway) serves as the only major arterial connection to destinations of general importance; service centers, airports, hospitals, shopping, schools, etc. Route One has been identified in a number of state and regional studies as having serious capacity deficiencies. In particular, the congestion in the stretch of highway in and around the Town of Wiscasset (located 18 miles south), is imposing significant constraints on the economy and travel requirements of Waldoboro.

The seasonal congestion impacts resident movement and business. Opportunities for business expansion or attraction of new business are limited by the time involved in accessing the Interstate Highway and major air and marine ports.

Although Waldoboro is not as tourist dependant as other towns of the midcoast region, tourism is bypassing the midcoast in favor of less congested routes to the north and east. This flow of tourism dollars to other destinations will have long term impacts as neighboring towns feel the downturn of tourist related business.

The comprehensive plan recommends a program for identifying the impacts of this and other important routes in the town and region. Consideration should be given to management of this system as being of a state and regional importance. A regional coordination program for the management of the Route One corridor system would provide consistency in transportation planning between the communities of the midcoast.

#### **AVIATION/AIR TRANSPORTATION**

Currently the State of Maine does not have a strong intra-state system of air service. The State's capacity to invest and build such a system has been diluted by a combination of inadequate financial resources and too many aviation facilities demanding equal consideration.

Two airports serve the greater Waldoboro region. Traveling north approximately 25 miles is the Knox County Regional Airport in Owls Head. To the south is the Wiscasset Municipal Airport approximately 20 miles from Waldoboro.

The community of Waldoboro, and this region of the state in general, benefit from access to these two commercial airports. These facilities can be significant assets to the local economy and hold the potential for future development. These facilities need to be preserved and should be expanded to provide scheduled air service to primary commercial airports in Portland and Bangor, with the

possibility of service to Boston and Canadian destinations.

### **Knox County Regional Airport**

The Knox County Regional Airport is a commercial airport. Commercial airports are those that receive some type of scheduled air service by a certified carrier. Scheduled air carriers are divided into two categories: Major/national and regional/commuter. Major/national carriers are those that operate large commercial jets. In Maine, Bangor and Portland are served by major/national carriers. The remaining commercial service airports, Augusta State, Hancock County, Knox County Regional and Northern Maine Regional are served by regional/commuter airlines. The regional/commuter carriers generally carriers passengers to a larger “hub” location for travel to more distant destinations. In our case, regional/commuter carriers predominantly provide service to Boston’s Logan International Airport.

The State Transportation Capital Improvement Commission (a transportation planning commission that was legislatively charged with transportation planning from 1988-1992) recommended a system of economic development airports, identified to support statewide and local economic development objectives. The Knox County Airport was designated as such for the midcoast region. These airports should be capable of serving business/corporate general aviation aircraft. Runway extensions and precision instrument approaches will be needed at some facilities to meet this objective

The Knox County Regional Airport has two runways, 4,200 ft. and 4,500 ft. in length. Completion within the next two years of an instrument landing system (ILS) will allow the extension of the longer runway to 5,000 ft., an improvement for the larger planes. Most importantly, however, the ILS will greatly improve safety at the airport in poor weather conditions that prevail so often.

Three companies provide air service from the Knox County airport: Colgan Air, Penobscot Air Service and Downeast Air. Colgan provides regularly scheduled service non-stop to and from Boston, continuing to Bar Harbor on the return flight. The other carriers provide a variety of services including charter flights, both local and long distance for passengers and freight, fuel sales, rental cars, hanger space and mechanical services. A growing number of businesses in the mid-coast area have planes based at the airport, and others, while not based here, use it frequently. UPS for example has a daily flight transporting cargo in and out for its distribution center in Rockland’s Industrial Park. Thus, this airport is an asset to businesses and has been a significant factor in attracting new commercial and industrial operations to the area. The MBNA Corporation identified the Knox County Airport as a primary factor in its decision to locate in Belfast, Maine.

### **Wiscasset Municipal Airport**

The Wiscasset Municipal Airport is a general aviation airport. General aviation airports are those that serve the needs of general aviation aircraft. These aircraft use the public airport system to fill various business, corporate, health, welfare, emergency, safety and recreational needs. The general aviation airports are important to the State’s transportation infrastructure.

The Wiscasset Municipal airport, constructed in 1961, is located at the southwesterly edge of Lincoln County, 3.5 miles southwest of Wiscasset town center. The airport serves a region from Brunswick/Topsham to the Rockland area, and from Boothbay to Augusta, encompassing recreational/vacation areas, major industrial sites and educational and cultural facilities. Its largest user is Bath Iron Works and it also provides service for such large companies as Maine Yankee and Osram-Sylvania. It also serves as a medical evacuation facility.

At the present time (August 1996) improvements to the airport are underway including upgrading the existing runway and extending the airport's taxiway. The primary transportation provider for Wiscasset Municipal is Downeast Express. Recently Downeast has expanded its operation to allow for regularly scheduled flights out of Wiscasset for the first time. A plane now leaves every morning for White Plains, New York with a return flight at 10:25 p.m. Downeast flights also go to Albany, New York and Hartford Connecticut, and a regular freight flight goes to Syracuse. Improvements at the airport are expected to lead to further expansion of service, including a direct service to Newark, New Jersey for Maine passengers who are connecting to other major cities or overseas. The company is headquartered in the town of Wiscasset.

## **RAIL TRANSPORTATION**

Within Maine, as evident in national trends, rail service has experienced a significant decline in traffic. Factors contributing to the decline of rail include the expansion and concentration of development along the interstate system, the movement of businesses away from rail locations, the trend toward "just in time" delivery and railroad institutional problems.

Consequently, rail operations have been undercapitalized and have not received investments in infrastructure upgrades. Many railroad bridges and sections of the lines require reconstruction or significant rehabilitation in order to sustain increased freight loadings diverted to that system from the highways.

Despite this decline, the overwhelming consensus of state policy-makers, industry representatives and others is that Maine's railroads are essential to the state's economy. Future growth in freight movement is expected to improve as a result of anticipated increases in industrial production, business investment and export markets.

Waldoboro and the midcoast region are in an advantageous geographic position since state-owned rail lines traverse the communities along the coast. Past comprehensive plans of the town of Waldoboro have overlooked reporting on this important asset, yet we are fortunate to have ten miles of rail line.

There are many locations on the rail lines and spurs in Waldoboro where manufacturing ventures may be located which can benefit from rail service. The MCRR maintains a facility in Waldoboro for repair and maintenance. At the Winslow Mills intersection of rail lines and Route 32, there is a site with some potential for railroad use. Utilities include 3 phase power.

The Maine Coast Railroad Company (MCRR), headquartered in Wiscasset, operates 90 miles of state-owned rail line including the line from Brunswick to Augusta (the Lower Roads), Brunswick to Lewiston (the Lewiston Lower Branch) and Rockland (the Rockland Branch). MCRR operates under a lease and operating agreement between the MCRR and MDOT. The MCRR provides commercial freight service (cement, coal, perlite, alcohol and tobacco products) to Augusta and Rockland. MCRR also provides a seasonal excursion service on the Rockland Branch, from its rail spur in Wiscasset, round trip to Newcastle, approximately 20 miles.

The Rockland Branch, which spans the town of Waldoboro from east to west, has underutilized capacity that can readily accept significant freight shipments without sacrificing efficiency. Freight is already moving on these rails. The cost of adding one or more stops along the route is marginal. Economic development planning could lead to significant growth in railroad freight without a substantial investment in new lines.

As with airports, rail facilities can be significant assets to the local economy and hold the potential for future development of both passenger and freight transportation services.

There are currently no plans for reestablishing passenger rail service to Waldoboro. To reestablish passenger rail service, the cost of track rehabilitation would be even more than that for freight service.

It is clear that, due to limited financial resources, the MDOT will not authorize capital investment in rehabilitation of the Rockland Branch until it appears that a viable rail service can be re-instituted. The role of individual communities and regional planning organizations, is to increase the viability of rail through concentrated land-use and development planning.

## **PUBLIC TRANSPORTATION SYSTEM**

Public transportation is limited in Waldoboro. The major transportation services offered in the mid-coast area are Concord Trailways and Coastal Transportation. There is no taxi service available, but there is limousine service to airports in Portland and Boston.

**Concord Trailways.** Concord Trailways currently offers two trips a day to Portland, Boston and Logan Airport, with a stop in Waldoboro at the Texaco station on Route One. There is no specific pedestrian access to the Texaco station except by car. Formerly the Greyhound bus stopped at Doug's Newsstand on Main Street in the village, which was more accessible for pedestrians. It should be noted however that the busses experienced traction difficulty occasionally stopping and starting on the Main Street hill during slippery weather.

**Coastal Trans.** Coastal Trans is a non-profit public transportation service subsidized by various levels of government available on a limited schedule in three counties (Knox, Lincoln, Sagadahoc). The agency provides door-to-door service to the general public on a demand-response basis and regularly provides transportation to medical facilities out of the immediate area, with a majority of their clients associated with the Department of Human Services. Coastal Transportation also delivers meals to senior citizens dining sites.

Coastal Trans was formed in 1982 and is headquarter in Rockland. They began minibus service in Lincoln County in May of 1996 on a trial basis for one year.

**Limousine Service.** There are presently two limousine services providing limo service to airports (Mid Coast Limo and Mermaid).

**Taxi Service.** There is no local taxi service.

**Park & Ride Facilities.** The comprehensive planning committee should consider discussion on the need for a park-and-ride location. The one location in town, the private lot across from Moody's Diner, has been discontinued for what appears to be a private development. There is the potential for a park-and-ride on U. S. Route 1 just south of the town, but this location is 3 miles from the Nobleboro Park n Ride. There is a need to determine the demand for this transportation service.

## **Part III**

### **The Road System**

#### **HIGHWAY INVENTORY & CLASSIFICATION**

##### **Highway System Classification**

Within the town of Waldoboro there are 100.18 miles of road. The Maine Department of Transportation classifies roads as state highways, state-aid highways, or town ways. Summer and winter maintenance responsibilities vary depending on highway classification. Summer maintenance refers to general physical upkeep, brush cutting and ditching. Winter maintenance includes plowing, sanding and the erection of snow fence.

##### ***State Highways***

State highways are comprised of connected main highways throughout the State which primarily serve arterial or through traffic. Maintenance and capital improvement of state highways rests primarily with the State, with the exception of winter maintenance in the urban compact area, which is the responsibility of the town. Summer maintenance responsibility shifts to the municipality for sections of state highway and state-aid highway in the "compact sections" and "compact areas" in municipalities having a population of 6,000 or more.

State highways in Waldoboro include U.S. Route One, Old Route One, State Route 32 from the Jefferson town line to the intersection of Old Route One, and Jefferson Street, representing a total of 18.87 miles.

##### ***State-aid Highways***

State-aid highways are highways which primarily serve as collector and feeder routes connecting local service roads to the state highway system. State aid highways link Waldoboro to adjacent towns in areas not connected by state highways, and include Route 32 from Old Route One to the Bremen town line, Route 220, Route 235, Manktown Road, and a portion of Finntown Road from Route 220 to the Friendship town line, representing a total of 27.01 miles.

Maintenance responsibilities for state-aid roads are shared by the State and the town. The town is responsible for the winter maintenance of all state-aid highways. See Table 7-1.

| <b>Road</b>              | <b>Mileage</b> |
|--------------------------|----------------|
| State Highways           |                |
| Route #1 (Urban)         | 0.27           |
| Route #32 (Urban)        | 0.28           |
| Jefferson Street (Urban) | 1.17           |
| Subtotal                 | 2.24           |
| State Aid Highways       | 27.01          |
| Town Roads               | 54.30          |
| <b>Total</b>             | <b>83.55</b>   |

***Local Highways***

Town ways comprise all other highways not included in the state or state-aid highway classification system, and primary serve as local service roads providing access to adjacent land. All local roads are the responsibility of the town for both summer and winter maintenance. There are 54.30 miles of local road in the town of Waldoboro. This includes 14.6 miles of state-aid road turned back to the town by the State as a result of the enactment of the Local Road Assistance Program on July 1, 1982, representing a 37% increase in maintenance responsibility. See Table 7-2.

| <b>Road</b>                     | <b>Mileage</b> |
|---------------------------------|----------------|
| SA#1 Depot Street               | .30            |
| SA#6 Wagner Bridge/Cross Street | 2.50           |
| SA#7 No. Nobleboro Road         | 1.79           |
| SA#8 Dutch Neck Road            | 3.57           |
| SA#9 Old Augusta Road           | 4.57           |
| SA#10 Back Cove Road            | 1.44           |
| SA#12 Mill Street               | .25            |
| <b>Total</b>                    | <b>14.60</b>   |

| <b>Road</b>           | <b>Mileage</b> |
|-----------------------|----------------|
| <b>State Highways</b> |                |



**Table 7-3**

**Street & Highway Inventory**

| <b>Road</b>                     | <b>Mileage</b>            |
|---------------------------------|---------------------------|
| <u>Federal Aid Primary</u>      |                           |
| U.S. Route #1                   | 6.80                      |
| State Route #32 (N)             | 5.83                      |
| <u>Federal Aid Secondary</u>    |                           |
| State Route #32 (Urban)         | 0.47                      |
| Jefferson Street (Urban)        | 0.52                      |
| <u>Non Federal Aid</u>          |                           |
| Old Route #1 (1.17 Urban)       | 5.25                      |
|                                 | <hr/> 18.87 <hr/>         |
| <b>State Aid Highways</b>       |                           |
| <u>Federal Aid Secondary</u>    |                           |
| State Route #32 (S) (.18 Urban) | 3.64                      |
| State Route #220 (S)            | 7.35                      |
| <u>Non Federal Aid</u>          |                           |
| State Route #220 (N)            | 7.45                      |
| State Route #235                | 4.20                      |
| Manktown Road                   | 3.04                      |
| Finntown Road                   | 1.33                      |
|                                 | <hr/> 27.01 <hr/>         |
| <b>Town Roads</b>               |                           |
| (See List Attached)             | 54.30                     |
| <b>Grand Total</b>              | <hr/> <b>100.18</b> <hr/> |

**Highway Functional Classification**

The highway functional classification was developed by the Maine Department of Transportation and refers to the Interstate system, major arterial, minor arterial, collector roads and local roads. All roadways with a functional classification of major collectors or above are eligible for federal funding. Functional classifications applicable to Waldoboro are described below.

***Rural Principal Arterials***

Arterials are the major highways which serve regional traffic and connect larger communities in the State. The rural principal arterials consist of connected rural networks of continuous routes servicing corridor movements of trip length and travel density indicative of substantial statewide or interstate travel.

U.S. Route One, also known as the Atlantic Highway, is the only major arterial serving the town of

Waldoboro. Route One is 6.8 miles in length with paved shoulders from the Nobleboro town line to the Warren town line. There are no pedestrian crosswalks or sidewalks along the Route One corridor in Waldoboro. The speed limit in the urban compact area is 40 mph and is 55 mph outside the urban area. There are approximately 60 businesses located on Route One according to a recent windshield survey.

There are three major intersections along Route One located at Winslows Mills and Bremen Road (State Route 32), Depot and Jefferson Street and at Washington and Friendship Road (State Route 220). There are three minor intersections located at West Main Street, the Union Road and Old Route One. There is one traffic signal located at the Route 32 intersection and one blinking warning signal at the intersection of Route 220 and Route One.

There are three passing (truck) lanes along Route One, each approximately one-half mile in length. Two are south-bound, one just south of the Moose Crossing; the other beyond the Route 32 intersection. The one north-bound truck lane is located between the town office and Route 220.

### ***Rural Minor Arterials***

In conjunction with the principal arterial system, the minor arterials have characteristics of linking larger towns and other traffic generators, such as resort areas, forming an integrated network of interstate and intercounty service. Rural minor arterials are spaced at intervals consistent with population density so that all developed areas are within a reasonable distance of an arterial highway. They constitute routes expected to have higher average overall speeds with minimum interference with through movement.

Winslows Mill Road (Route 32-N) is the only rural minor arterial in Waldoboro. This road is 5.83 miles in length.

### ***Major Collector Roads***

Collector roads serve small towns directly as links between local roads and arterials. They collect and distribute traffic from local roads. Collector roads generally serve travel of primarily intra-county, rather than statewide and constitute those routes on which, regardless of traffic volume, predominant travel distances are shorter than on arterial. Major collectors in Waldoboro are Route 220 and Route 32(S). Route 220 is 14.80 in length and Route 32(S) is 4.11 miles in length.

### ***Minor Collector Roads***

These roads are spaced at intervals consistent with population density in order to collect traffic from local roads and bring all developed areas within a reasonable distance of a collector road, to provide service to smaller communities, and to link the locally important traffic generators with the more rural areas.

State Route 235, known as the Union Road, between U. S. Route One and the Warren town line is classified a minor collector and is 4.20 miles in length. Old Route One is classified a minor collector between the village center, north to where it intersects with Route One in East Waldoboro, a distance of 4.08 miles.

### ***Local Roads***

As previously stated, local roads primarily serve as local service roads providing access to adjacent land. A detailed inventory of all highways in Waldoboro is provided in Tables 7-3 and 7-4.

### *Gravel Roads*

Waldoboro currently maintains 15.06 miles of gravel roads as part of its local road system. Gravel roads represent over one quarter (27%) of the total maintenance responsibility of the town. These roads require a considerable maintenance effort, particularly during the spring. The public works department conducts maintenance activities as required. All gravel roads should be upgraded, as funding permits, to the minimum design standards as outlined in our land use ordinance for minor streets.

There are several deficiencies or problems with the existing gravel roads. In most instances there is insufficient right-of-way to build the roads to a desirable minimum standard and the right-of-way data is not readily available. Without sufficient right-of-way it is impossible to provide for adequate road and shoulder width and to provide for adequate drainage design. Without the proper widths it is impossible to remove snow off the roadway and into the ditch. As a result melting snow and rain does not drain away from the road surface, saturating the roadway, and eventually weakening whatever surface material there is. Finally, in most areas, there is inadequate sub-base and surface gravel.

### ***Privately-owned Roads***

Private roads may include a public easement but they are essentially not local roads and are the responsibility of the private owner for maintenance and improvements. There is a state law prohibiting local maintenance or plowing of private roads. In many cases the town will agree to grade or plow for example, camp roads. When this is the case, town administrators should seriously consider getting out of these agreements.

**Table 7-4****Town Road Inventory**

| <b>Roads</b>   | <b>Paved</b> | <b>Gravel</b> | <b>Total</b> |
|--|--------------|---------------|--------------|
| 510 Genthner Road  | 0.70         | 1.42          | 2.12         |
| 515 Duck Puddle Road   | 1.16         | -             | 1.16         |
| 519 Gross Neck Road  | 2.08         | -             | 2.08         |
| 520 Back Cove Road   | 2.07         | -             | 2.07         |
| 521 Dutch Neck Road (including Ledge's Circle)                   | 3.57         | -             | 3.57         |
| 522 Mayo Road  | 0.20         | 0.16          | 0.36         |
| 523 Deaver Road  | -            | 0.92          | 0.92         |
| 525 Finntown Road  | 2.66         | -             | 2.66         |
| 526 Hadley Road (Pitcher Road)                                   | -            | 0.32          | 0.32         |
| 527 Goshen Road  | 1.45         | 0.50          | 1.95         |
| 530 Henry Orff Road (Goshen Road)                                | -            | 0.34          | 0.34         |
| 531 Old County Road  | -            | 2.55          | 2.55         |
| 532 Bowden Road  | 0.45         | -             | 0.45         |
| 547 Flanders Corner Road<br>a/k/a/Jasper Storer Road (Nash Road) | -            | 1.46          | 1.46         |
| 551 North Nobleboro Road   | 1.79         | -             | 1.79         |
| 553 Reef Road  | 0.20         | 0.84          | 1.04         |
| 554 Hoak Road  | -            | 0.70          | 0.70         |
| 555 Depot Street   | 3.92         | -             | 3.92         |
| 556 Ellard Mank Road (Old Augusta Road)                          | 5.60         | -             | 5.60         |
| 558 Levi Robinson Road   | -            | 0.70          | 0.70         |
| 559 Feyler Corner Road (Winston Road)                            | 3.95         | -             | 3.95         |
| 560 Orff's Corner Road   | 2.16         | -             | 2.16         |
| 561 Chapel Road  | 1.36         | -             | 1.36         |
| 562 Heyer (Ken) Road (a/k/a New County Road)                     | -            | 0.27          | 0.27         |
| 563 Castner Road   | 1.52         | -             | 1.52         |

**Table 7-4****Town Road Inventory**

| <b>Roads</b>                                 | <b>Paved</b> | <b>Gravel</b> | <b>Total</b> |
|--|--------------|---------------|--------------|
| 565 Noyes Road                               | -            | 0.50          | 0.50         |
| 567 Storer Mountain Road (Jackson Road)      | -            | 1.16          | 1.16         |
| 571 Fred Simon Road                          | -            | 0.47          | 0.47         |
| 586 Clary Hill Road (a/k/a Etta Miller Road) | -            | 0.42          | 0.42         |
| 591 Storer Pond Road                         | -            | 1.50          | 1.50         |
| 661 Cooney Road (Spruce Road)                | 0.18         | -             | 0.18         |
| 663 Ralph Winchenbach Road                   | 0.40         | 0.33          | 0.73         |
| 668 Earl Miller Road                         | 0.47         | 0.40          | 0.87         |
| 1010 Church Street (School Street)           | 0.11         | -             | 0.11         |
| 1010 School Street                           | 0.12         | -             | 0.12         |
| 1011 Mill Street                             | 0.25         | -             | 0.25         |
| 1012 Elm Street                              | 0.15         | -             | 0.15         |
| 1086 Cross Street                            | 0.40         | -             | 0.40         |
| 1102 Pleasant Street                         | 0.12         | -             | 0.12         |
| 1102 Marble Avenue                           | 0.13         | -             | 0.13         |
| 1104 Shady Avenue                            | 0.05         | -             | 0.05         |
| 1105 Glidden Street                          | 0.05         | -             | 0.05         |
| 1128 Geele Lane                              | 0.12         | -             | 0.12         |
| 1161 George Genthner (Pine Street)           | 0.05         | -             | 0.05         |
| 1162 Medomak Terrace                         | 0.12         | -             | 0.12         |
| 1163 Pine Street                             | 0.40         | -             | 0.40         |
| 1349 Koskela Road                            | 0.12         | -             | 0.12         |
| 1607 Butters Road                            | -            | 0.10          | 0.10         |
| 1615 Medomak Valley Estates                  | 0.10         | -             | 0.10         |
| 1911 George Luce Road                        | 0.23         | -             | 0.23         |
| 1965 Marine Park                             | 0.29         | -             | 0.29         |
| 3614 Elmer Burnham Road                      | 0.54         | -             | 0.54         |

**Table 7-4**

**Town Road Inventory**

| <b>Roads</b>                    | <b>Paved</b> | <b>Gravel</b> | <b>Total</b> |
|---------------------------------|--------------|---------------|--------------|
| <b>Grand Total - Town Roads</b> | <b>39.24</b> | <b>15.06</b>  | <b>54.30</b> |

## HIGHWAY CONDITION & IMPROVEMENT RECOMMENDATIONS

### State Highway

The construction and maintenance of State highways is the responsibility of the Maine Department of Transportation (MDOT). With the completion of three federal aid projects, U.S. Route One has been completely rebuilt with improved geometric alignment and paved shoulders. The section from the MCRR bridge east to the Warren town line is scheduled for paving in 1998. The MCRR bridge overpass near Moody's Diner was extremely narrow and was replaced with a 40 foot wide bridge in 1997.

Several improvements to the state highway system are recommended for consideration by the MDOT and are outlined below. As soon as practical, the Comprehensive Plan Committee and Board of Selectmen should actively pursue needed improvements with the MDOT Bureau of Planning in Augusta.

#### *Intersection of Route 220 and Route One*

The average daily traffic on Route One is 9,560, Main Street is 3,240 and Route 220 is 2,360. The north bound traffic is two lanes converging into the intersection causing a tremendous amount of traffic funneled into a congested area in front of Moody's Diner. Vehicles backing out of the parking lot onto Route One in front of Moody's Diner create an additional hazard at this dangerous intersection and should be prohibited. With a speed limit of 40 mph, traffic is considered to be moving too fast for this congested area.

Signalization or other safety improvements to this intersection will be essential in the near future to improve traffic safety.

#### *Jefferson Street*

Inadequate drainage on the east side of Jefferson Street from Main Street to Route One causes erosion and ice buildup in the roadway during the winter months. Due to drainage deficiencies, the town is unable to upgrade the sidewalk for pedestrian traffic. MDOT has been requested to design a drainage improvement project for this area. Secondly, the intersection of Route One and Jefferson Street should be considered for signalization.

#### *Winslow's Mills Road*

Winslow's Mills Road was repaved in 1992. There are several areas which should be considered for drainage improvements.

#### *Old Route One/Main Street*

Old Route One was repaved in 1983. Old Route One will likely need significant improvements from Main Street east to U.S. Route One to improve the base and drainage. Most important is a need to rebuild the drainage structures on the north side of upper Main Street.

For the 1998-99 State Biennial Transportation funding program, Waldoboro submitted the following project requests:

**Table 7-5**

**1998-1999 State Biennial  
Transportation Funding Request**

|     | <b>Location</b>   | <b>Problem</b>  | <b>Proposed Solution</b>   |
|-----|---|---|--|
| (1) | Intersection of Rte #1 & Rte #220.<br>MDOT Proj #1177                                       | Traffic delays from both legs of Rte. #220 onto Rte. #1 during periods of heavy traffic.  | Installation of traffic signals or intersection improvements.              |
| (2) | Jefferson Street;<br>E/S from the intersection of School Street to Rte One. MDOT Proj #1178 | Drainage problem during winter months with freezing and ice conditions. This is a heavily traveled road, raising safety concerns. | Install new underground drainage to replace older (1960's) drainage system |
| (3) | Cross St. Bridge<br>MDOT Proj #1179   | Bridge needs to be considered for replacement   | Refer to Maine Bridge Act  |
| (4) | Rte. 220; Main Street<br>MDOT Proj #1180  | Drainage improvement necessary on north side of street  | Project solution previously submitted to MDOT by Woodward and Curran.      |

**State Aid Highways**

All state aid highways are generally in fair condition but they should be considered for geometric improvements, and shoulder and drainage improvements as MDOT funding permits.

The Maine Department of Transportation solicits proposals annually for the *Collector Road Development Program*. This program will provide nearly \$7 million for projects on the State Aid roads that are federally classified as Rural Major Collectors or Rural Minor Collectors. The municipal share under this program is 25% and payments can be spread out over a period of 10 years without interest.

Although the town has a difficult time funding projects for local roads, it must be recognized that the State Aid roads impact out local economy and therefore consideration should be given to participate in the program.

Suggested priorities for improvements are Route 32(S), Route 220, Route 235, Manktown Road, Finntown Road and Old Route One. Specific recommendations are listed below.

*Bremen Road*

Poor drainage exists from Old County Road to Dutch Neck Road, and there are inadequate shoulders with high lawns and utility poles close to the edge of the road. From Dutch Neck Road to the



Bremen town line, there are dangerous curves, inadequate shoulders, and poor drainage.

#### *Kalers Corner Intersection*

The average daily traffic entering this intersection is 2,880 vehicles. Sight distance is limited at this intersection on the west leg of Old Route One. Typically vehicles traveling north bound and south bound on Route 32 fail to stop at the intersection. The MDOT has agreed to fund safety improvements under the Local Collector Roads Program at an estimated total cost of \$80,000, including a local share of \$20,000.

#### *Friendship Road*

Friendship Road has an average daily traffic of 1,600 vehicles. There is poor visibility immediately north of the Mayo Road. There are three dangerous knolls and steep grades in the area of Brookside Trailer Park which should be considered for reconstruction.

#### *Washington Road*

The average daily traffic on Washington Road is 2,360. Significant road deterioration has occurred from heavy truck traffic. Washington is the major source of gravel in the coastal area. Washington Road is a major artery for gravel businesses. Not built for such heavy, wide traffic, this road is deteriorating and has become a safety problem and should be considered for reconstruction including paved shoulders if it is to continue to accommodate major truck traffic.

#### *Union Road*

The average daily traffic on Union Road is 980. The following problems exist: considerable rutting and unevenness of the road, two bad corners (near Basham's and Castner's), and sight distance at the Manktown Road intersection.

#### *Manktown Road*

The average daily traffic on Manktown Road is 930 from Atlantic Highway to the Medomak Valley High School. A small section in this area was reconstructed approximately 12 years ago and is in fair condition. However the area from Medomak Valley High School to Union Road is deficient in the area of crown. In some areas the crown of the road is 5-6 inches in 10 feet and in other areas it is 14-16 inches in 10 feet. There are three knolls which should be removed and the curve before the Stratton Corner Bridge should be reconstructed.

#### *Finntown Road*

Average daily traffic on Finntown Road is 620. The State section needs drainage and base improvements as do several sections maintained by the Town.

### **Local Roads**

There are 39.24 miles of paved town roads in Waldoboro. Assuming an average useful pavement life of 8 years, approximately five (5) miles should be paved each year to maintain the existing road system. Assuming that paving costs are \$30.00 per ton, and an average application rate of 650 tons per mile, this represents an average annual investment of \$97,500. If the MDOT block grant, estimated to be \$82,716 annually, were applied directly toward the surface paving program, it would leave a net unfunded liability on the average of \$14,784 to be raised locally each year.

The surface paving program is designed to provide the funding necessary to repave these roads every 8-12 years depending upon condition. The Local Road Assistance Program provides a block grant which provides for the majority of funding for the surface paving program. The Highway Construction Account can and should address those roads that warrant reconstruction.

All the town owned streets in the urban area on the east side of the Medomak River were reconstructed in 1993 by a combination of funding sources including the CDBG Program.

There are several sections of road that should be considered for improvement as funding permits. These include the elimination of the hill on Dutch Neck Road just below the intersection of Bremen Road, elimination of a corner on Depot Street near the CMP transmission line, drainage improvements on Pine Street and Medomak Terrace, and the reconstruction of Depot Street between Quarry Hill Road and Cross Street.

## **AGGREGATE (GRAVEL) ROADS**

### **Condition Assessment**

Waldoboro maintains 15.06 miles of gravel roads as part of its local road system. Gravel roads represent over one quarter (27%) of the total maintenance responsibility of the town. These roads require a considerable maintenance effort, particularly during the spring. The public works department conducts maintenance activities as required. All gravel roads should be upgraded to the minimum design standards outlined in our land use ordinance for minor streets as funding permits.

There are several deficiencies or problems with the existing roads. In most instances there is insufficient right-of-way to build the roads to a desirable minimum standard and right-of-way data is not readily available. Without sufficient right-of-way it is impossible to provide for adequate road and shoulder width and to provide for adequate drainage design. Without the proper widths it is impossible to remove snow off the roadway and into the ditch. As a result, melting snow and rain does not drain away from the road surface, eventually saturating the roadway and weakening whatever surface material there is. Finally, in most areas there is inadequate sub-base and surface gravel. Clay and silt material bleed up to the surface under the weight of heavy traffic.

Clearly the important issues of design and construction are:

- a) adequate right-of-way
- b) properly graded sub-grade
- c) appropriate thickness of sub-base
- d) appropriate thickness of base
- e) adequate ditches and drainage
- f) adequate travel ways and shoulders

### **Recommended Road Design Standard**

Minimum road design standards have been developed by the Maine Local Roads Center for low-volume gravel roads and are outlined in Table 7-8 and 7-9. Road standards were adopted by the town of Waldoboro in November 1987 as a part of the Performance Standards Ordinance. Both of these resources offer excellent minimum design and construction standards.

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**Table 7-8**

**Recommended  
Street Design Standards**

| <b>Description</b>                     | <b>Minor Streets</b> |
|--|----------------------|
| Minimum Right-of-Way Width             | 50'                  |
| Minimum Traveled Way                   | 18'                  |
| Minimum width of shoulders (each side) | 2'                   |
| Roadway crown                          | 1/2"/foot            |
| Minimum shoulder drop                  | 1 1/2"/foot          |
| Minimum ditch in-slope                 | 50% (2 to 1)         |
| Minimum grade                          | .5%                  |
| Maximum grade                          | 10%                  |

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**Table 7-9**

**Recommended  
Street Construction Standards**

| <b>Street Materials</b>   | <b>Minor Streets</b> |
|---|----------------------|
| Aggregate sub-base course<br>(Max sized stone 6")<br>MDOT 703.06 Type D     | 18"                  |
| Crushed aggregate base course<br>(Max sized stone 4")<br>MDOT 703.06 Type B | 6"                   |
| Hot Bituminous Pavement   |                      |
| Total Thickness   | 3"                   |
| Surface Course  | 1"                   |
| Base Course   | 2"                   |

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**Part IV**  
**Traffic Operations**

**TRAFFIC VOLUME**

**Average Annual Daily Traffic (AADT)**

The Maine Department of Transportation, Bureau of Planning, Traffic Section is responsible for the collection of all types of traffic data and maintenance of a statewide traffic data base. The reporting of traffic volume is accomplished through two types of count programs. One is a permanent recorder location, which is monitored on a continuous, year round basis at sites throughout the State. The other type is a coverage count gathered to monitor traffic flow and changes in traffic patterns. These counts are generally taken at intersections of major routes, along other significant roadways or in special traffic studies for the Department.

During the month of June, 1996, the Town of Waldoboro participated in a town-wide 48-hour coverage count. The data from this AADT will be available in report form by September 1996. This information will be compiled to develop an Annual Average Daily Traffic figure for each location. Once the AADT's have been computed for all locations, the stations which exhibit similar traffic patterns are assembled and placed into one of three groups:

- Urban - Roadways that carry commuter traffic and exhibit little seasonal change in traffic volume.
- Arterial - Roadways that carry commuter traffic, but are moderately influenced by seasonal traffic.
- Recreation - Roadways that are heavily influenced by seasonal traffic.

Those locations in Waldoboro where the counts were recorded from 1990 through 1994 include:

| <b>Table 7-11</b>                                     |              |               |               |               |                            |
|---|--------------|---------------|---------------|---------------|----------------------------|
| <b>Traffic Volume</b>                                 |              |               |               |               |                            |
| <b>Location</b>                                       | <b>1990</b>  | <b>1992</b>   | <b>1993</b>   | <b>1994</b>   | <b>Annual %<br/>Change</b> |
| <b>Route One @ State Rd. 220<br/>(Washington Rd.)</b> | <b>7,970</b> | <b>9,220</b>  | <b>n/c</b>    | <b>10,120</b> | <b>+ 7%</b>                |
| <b>Route One @ State Rd. 32 (Urban line)</b>          | <b>9,200</b> | <b>10,140</b> | <b>10,540</b> | <b>n/c</b>    | <b>+ 5%</b>                |
| <b>State Road 220 Washington Rd @ U. S.<br/>Rte 1</b> | <b>1,890</b> | <b>1,960</b>  | <b>n/c</b>    | <b>2,410</b>  | <b>+ 7%</b>                |

Traffic Volume Counts, 1994 Annual Report, pg 84 AADT report for Lincoln County.

**Travel Speeds**

Because of increased development and congestion along West Main Street and because of the dangerous intersection at Kalers Corner, traffic speeds should be reduced. It is recommended that:

- The speed limit be 25 mph on Main Street from Route 220 and Route One to past Kalers Corner.
- That the speed limit be 40 mph from past Kalers Corner west to Route One.

**Travel (Commuter) Patterns - (Economic Development)**

The following represents Waldoboro’s major employers along with the route or street name they are located on. This information provides a glimpse at the commuting patterns of Waldoboro residents.

**Table 7-12**

**Commuter Patterns**

|                                     |                  |
|-------------------------------------|------------------|
| OSRAM Sylvania                      | State Route 220  |
| S.A.D. 40                           | State Route 32   |
| Moody’s Diner                       | U.S. Route #1    |
| New England 800                     | Jefferson Street |
| Science Source                      | U.S. Route #1    |
| The Town of Waldoboro               | U.S. Route #1    |
| The Waldoboro Bank                  | U.S. Route #1    |
| Maine Antique Digest                | Main Street      |
| Borealis Breads                     | U.S. Route #1    |
| Harold C. Ralph Chevrolet           | U.S. Route #1    |
| Ralph’s Homes                       | U.S. Route #1    |
| First National Bank of Damariscotta | U.S. Route #1    |
| Fieldcrest Nursing Home             | Depot Road       |

The following represents the major out-of-town employers of Waldoboro residents:

|                              |              |
|------------------------------|--------------|
| Bath Iron Works              | Bath         |
| Miles Memorial Hospital      | Damariscotta |
| State of Maine               | Augusta      |
| Penobscot Bay Medical Center | Rockland     |

According to the 1990 U. S. Census, there are 1,992 workers, 16 years of age or older residing in the Town of Waldoboro. Nine hundred, or 45%, work in the town. Two hundred and twenty-five, or 11% work in Rockland, the next highest place of work, and 117, or 6% work in Bath.

**Traffic Safety**

Reserved for future use.

**Accident Rates**

The latest MDOT’s Safety Bureau accident summation for all State Routes and town roadways is

shown below.

| <b>Table 7-13</b>              |                           |                     |                       |         |
|--------------------------------|---------------------------|---------------------|-----------------------|---------|
| <b>HIGH ACCIDENT LOCATIONS</b> |                           |                     |                       |         |
| ROUTE/ROAD NAME                | INTERSECTION              | NUMBER OF ACCIDENTS | CRITICAL RATE FACTOR* | NODE ** |
| STATE ROUTE 32                 | MAIN ST.                  | 15                  | 4.83                  | 4023    |
|                                | CROSS ST.                 | 1                   | 0.00                  | 6054    |
|                                | OLD COUNTY RD.            | 1                   | 0.00                  | 6092    |
|                                | GENTHNER RD.              | 2                   | 1.68                  | 6091    |
| <b>TOTAL RT. 32</b>            |                           | <b>19</b>           |                       |         |
| STATE ROUTE 235                | MANKTOWN RD.              | 1                   | 0.00                  | 1980    |
| <b>TOTAL RT 235</b>            |                           | <b>1</b>            |                       |         |
| STATE ROUTE 220                | BACK COVE RD.             | 2                   | 1.76                  | 5044    |
|                                | DEPOT AND MAIN ST.        | 6                   | 1.5                   | 6049    |
|                                | OLD AUGUSTA RD.           | 6                   | 4.73                  | 5073    |
| <b>TOTAL RT 220</b>            |                           | <b>14</b>           |                       |         |
| U. S. ROUTE ONE                | DEPOT RD.                 | 10                  | 2.08                  | 7044    |
|                                | RTE. 235                  | 2                   | 0.00                  | 7047    |
|                                | GOSHEN RD.                | 2                   | 0.00                  | 7048    |
|                                | MANKTOWN RD.              | 3                   | 0.00                  | 7049    |
|                                | WEST MAIN ST.             | 1                   | 0.00                  | 7042    |
|                                | RTE. 32                   | 8                   | 0.00                  | 7043    |
|                                | RTE 220                   | 10                  | 2.08                  | 7045    |
| <b>TOTAL ROUTE ONE</b>         |                           | <b>36</b>           |                       |         |
| OTHER ROADS                    | DEPOT AND REEF            | 1                   | 6.72                  | 1937    |
|                                | JEFFERSON/MILLS/<br>DEPOT | 2                   | 0.00                  | 6051    |
|                                | JASPER/STORER<br>/ELLA    | 1                   | 1.65                  | 1964    |
|                                | GROSS NECK/<br>GENTHNER   | 1                   | 1.61                  | 1924    |
|                                | WINSTON/ELLA              | 1                   | 1.55                  | 1971    |
| <b>TOTAL OTHER ROADS</b>       |                           | <b>6</b>            |                       |         |
| <b>TOTAL ACCIDENTS</b>         |                           | <b>76</b>           |                       |         |

MDOT defines a high-accident location as a roadway intersection or segment that meets both of the following criteria:

- ▶ eight or more accidents in three years and
- ▶ Critical Rate Factor (CRF) in excess of 1.00.

A critical rate factor is calculated using various measures including AADT, the study period type/severity of injuries, annual vehicle miles and a pre-determined confidence level.

Applying both criteria to the accident data above, three roadway segments and intersections were found meeting the definition of a high-accident location (HAL). The segment of highway that experiences a high number of accidents and high critical rate factor (CRF) is U. S. Route One. U. S. Route One experienced a total of 36 accidents, most occurring at the intersections of Route 220 and the Depot Road. The second highest HAL was Route 32 at the intersection of Main Street. All three of these intersections are approaches to and from the village area.

Other highway segments experiencing higher accident rates include Route 220, particularly at the intersection of the Old Augusta Road and also at the intersection of Jefferson and Main Street.



## **Part V**

### **Bridges**

#### **BRIDGE CLASSIFICATION**

There are thirteen (13) bridges located within the town of Waldoboro. Of these, three are owned by the town of Waldoboro. They are:

|                    |   |                                   |
|--------------------|---|-----------------------------------|
| Duck Puddle Bridge | - | Steel Pipe Arch (Town Maintained) |
| Wagner Bridge      | - | Steel Beam (State Maintained)     |
| Walter Mill        | - | Concrete Slab (State Maintained)  |

The Duck Puddle Bridge is the only bridge required to be maintained by the town of Waldoboro in conjunction with the town of Nobleboro. This pipe arch culvert is considered a bridge because it exceeds a 10 foot span.

On July 1, 1986, the Local Bridge Assistance Act became law realigning maintenance and ownership responsibilities for local bridges. Under this program municipalities are responsible for the maintenance of locally owned minor bridges carrying less than 25 vehicles per day. The State is responsible for maintaining all bridges on state roads, and all major bridges on local roads with 25 or more vehicles per day. In order for the State maintenance of town way bridges to commence or continue, both of the following conditions must be satisfied:

1. The bridge must have a clear span of 25 feet or more; or in the case of a T-beam steel stringer bridge, must have a clear span of 20 feet or more; and
2. The average annual daily traffic on the bridge must be at least 25 vehicles.

The effect of this legislation resulted in the transfer of maintenance responsibilities of the Wagner Bridge to the State, and the transfer of the ownership of the Walters Mill Bridge to the Town with the State retaining maintenance responsibilities.

All town owned bridges are in excellent condition with the exception of the Duck Puddle Bridge which is very narrow and is subject to flooding.

Deficiencies exist with the Cross Street Bridge, which is State owned, and should be considered for replacement. See the State bridge inspection report for further details.

**Table 7-14**  
**Town of Waldoboro**  
**Bridge Inventory**

| <b>Number</b> | <b>Name</b>     | <b>Location</b>                       | <b>Length</b> | <b>Owner</b> | <b>Maintainer</b> | <b>Road</b> |
|---------------|-----------------|---------------------------------------|---------------|--------------|-------------------|-------------|
| 623           | Wagner          | Wagner Bridge Road (Medomak River)    | 61            | Town         | State             | Town        |
| 2844          | Thomas Hill     | Friendship Road (Slaigo Brook)        | 23            | State        | State             | State       |
| 5078          | Winslows Mills  | Cross Street (Medomak River)          | 85            | State        | State             | Town        |
| 5427          | Soule           | Mill Street (Medomak River)           | 77            | State        | State             | Town        |
| 5740          | Stratton Corner | Manktown Road (Levensaler Brook)      | 25            | State        | State             | State       |
| 6010          | Walters Mill    | Old Augusta Road (Medomak River)      | 98            | Town         | State             | Town        |
| 6159          | Medomak River   | Washington Road (Medomak River)       | 80            | State        | State             | State       |
| 5265          | Goose River     | Friendship Road (Goose River)         | 25            | State        | State             | State       |
| 622           | Duck Puddle     | Duck Puddle Road (Duck Puddle Stream) | 12            | Town         | Town              | Town        |
| 2505          | Main Street     | Main Street (Medomak River)           | 51            | State        | State             | State       |
| 2905          | Wagner          | Winslows Mills Road (Hook Brook)      | 20            | State        | State             | State       |
| 2999          | MCRR Crossing   | Atlantic Highway (MCRR)               | 145           | State        | State             | State       |
| 3033          | New Medomak     | Atlantic Highway (Medomak River)      | 116           | State        | State             | State       |

## **Part VI**

### **Parking**

#### **PUBLIC PARKING**

##### **Kuhn Parking Lot**

The Kuhn Parking Lot is a .40 acre lot located on the north side of Main Street, adjacent to the Meenahga Grange. It was a gift of the Alfred Storer heirs, and acquired by the town in 1968. Maynard Kuhn heirs also deeded their interest in the property to the town in 1974. The lot has approximately 120 feet of frontage on Main Street and can accommodate 21 cars.

On August 8, 1988 the Maine Department of Transportation agreed to complete a drainage relocation project from the parking lot onto a Jefferson Street system. This project was completed in the fall of 1990 and greatly improved drainage condition on this site.

During the summer of 1989 the public works department began reconstruction of the parking area. A new 15" - 18" gravel base, catch basin and underground drainage was installed. Paving of the site and landscaping were completed in 1990.

##### **Parking Problems**

There are public parking issues evident in the village area. The town is considering the issue. The increase in parking demands have been met through the leasing of parking from the Waldo Theater.

An inventory and analysis needs to be prepared which describe existing conditions downtown, private business needs, etc. We may consider basing the number of spaces needed on the number of businesses and local parking available. Issues to be addressed include:

- The number of businesses in the downtown,
- Inventory existing spaces -- then establish demand,
- Potential for growth at the New England 800 business, and
- Review of the parking ordinance.

## Part VII

### Pedestrian/Bicycle Access

#### PEDESTRIAN ACCESS

In April 1996, the Town applied for a grant from the State Department of Transportation to fund a pedestrian facilities program for Waldoboro. The grant application placed fifth out of three awards given. Because of what the MDOT considered the merits of the proposal, and its potential for application statewide, it is currently being considered by the MDOT for funding in the 1998-99 budget cycle. The following is an excerpt from that application:

There are approximately 16,000 linear feet (3.03 miles) of sidewalk located within the urban compact area of Waldoboro. The majority of sidewalks in Waldoboro are in good condition with several exceptions. New granite curbed sidewalks were installed on Main Street during the summer of 1985 from Church Street west to the Main Street bridge. During the summer of 1990, new bituminous curb sidewalks were installed on West Main Street, Friendship Street, and Kaler Corner Street. Mill Street and Jefferson Street from Main to School Street were reconstructed during the summer of 1991. And in 1993 new granite curbed sidewalks were installed on School Street, Glidden Street, Pleasant Street, Marble Avenue and the south side of Main Street from the Baptist Church to Coles Hill Apartments. Shady Avenue was reconstructed with a new bituminous curbed sidewalk that same year.

A section of sidewalk in front of the Ashley Walter building was reset in 1995. An addition section of the Friendship Street sidewalk between the Waldoboro 5&10 and Clark's Drug Store is scheduled for resetting in 1998-99.

Several other urban streets should be considered for improvement as funding permits.

- Improvements of the Jefferson Street and upper Main Street (north side) sidewalks should be undertaken in conjunction with drainage improvement projects by the Maine Department of Transportation.
- Improvements to the Depot Street sidewalk should be undertaken in conjunction with drainage improvements by the Town of Waldoboro as funding permits. Due to extensive gravel surface maintenance costs, improvements to Depot Street are not programmed at this time.
- The town is also considering pedestrian walkways around the river's edge.

Waldoboro has extensive gaps in provision of sidewalks providing access to pedestrians. The lack of any sidewalks on U. S. Route One poses a particular danger to pedestrians and discourages foot traffic between businesses along this corridor. The Comprehensive Planning Committee's sub-committee on transportation has tentatively identified a series of access routes in the village area of the town which would establish the core of a network comprising Waldoboro's walking transportation system.

The village area of Waldoboro has a distinct advantage over other Route One towns in that it is not bisected by Route One. The village therefore is not concentrated in a compact area, but rather is laid out along a series of roads that "loop" from Route One.

Loops are found along the Bremen Road (Rt. 32) to Main Street and back to Route One either on Jefferson Street or Old Route One to Washington Road (Rt. 220). In addition there are interior loops: the Bremen Road, Main Street, Jefferson Street and Mill Street, or Jefferson Street to School Street to Old Route One. There are also peripheral roads accessing the village center such as Depot Street across Route One, Upper Main Street, Route 220 south, to the Osram Sylvania plant and, perhaps one of the most important, Pine Street, accessing the town's public landing to the tidal waters. Waldoboro has a history of supporting public shore land access and of supporting the fisheries industry.

Most all of the important destinations in Waldoboro are within this central village area. On Main Street are the Post Office, the Library, the Waldo Theater, and the Historical Society Museum. The A.D. Gray Junior High School is on School Street, and the Miller Grade School is on Kalers Corner Street. Also off this road is a 51 unit mobile home park and the town's only supermarket. Throughout the central village are residential areas, including a large housing facility for the elderly. The pharmacy is on the corner of Main Street and Friendship Street, and there are doctors' offices on Mill Street and Kaler Corner Street. There is a small riverfront park within the loops, and the Town Office is located just across Route One from the Jefferson Street intersection.

Yet, pedestrians face barriers to each of these sites. There are limited sidewalks near the schools, most ending in commercial area parking lots. The Shop 'n Save shopping plaza is adjacent to the trailer home park, yet is inaccessible due to ditching, an embankment and a stream. Most residents drive their cars around the block. Moody's Diner, one of the most active business in town, has no pedestrian access. There have been two fatalities here in recent years. There are no connections to the village center on Jefferson Street, the in-town sidewalk ends at the old town hall.

To clearly understand the extent of the problem requires interested parties to take an actual on-site tour. Meanwhile, State transportation planning has made little provisions for pedestrians in their construction projects in Waldoboro.

Table 7-15 summarizes the inventory of sidewalks in Waldoboro.

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**Table 7-15**  
**Sidewalk**  
**Inventory & Condition Assessment**

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**Condition**

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|                            | <b>Length</b>    | <b>Poor</b>  | <b>Fair</b>  | <b>Good</b>  |
|----------------------------|------------------|--------------|--------------|--------------|
| Depot Street               | 1,000 lf         | 1,000 lf     |              |              |
| Jefferson Street (1991)    | 2,800 lf         | 2,650 lf     |              | 150 lf       |
| School Street (1993)       | 700 lf           |              |              | 700 lf       |
| Glidden Street (1993)      | 200 lf           |              |              | 200 lf       |
| Pleasant Street (1993)     | 625 lf           |              |              | 625 lf       |
| Marble Avenue (1993)       | 700 lf           |              |              | 700 lf       |
| Main Street (N/S)          | 4,275 lf         | 1,700 lf     | 1,700 lf     | 875 lf       |
| Main Street (S/S)          | 1,750 lf         |              |              | 1,750 lf     |
| Friendship Street (1990)   | 2,100 lf         |              |              | 2,100 lf     |
| Kaler Corner Street (1990) | 900 lf           |              |              | 900 lf       |
| Mill Street (1991)         | 950 lf           |              |              | 950 lf       |
| <b>TOTAL</b>               | <b>16,000 lf</b> | <b>5,350</b> | <b>1,700</b> | <b>8,950</b> |

## **BICYCLE FACILITIES**

There are no designated bicycle facilities in Waldoboro although Friendship Road is considered a bicycle path for many bikers. Very little consideration has been given to bicycle path policy.

## **Part VIII**

### **Public Works**

#### **MAJOR RESPONSIBILITIES**

Waldoboro's Public Works Department is responsible for the construction, maintenance and repair of 54.24 miles of Town road; snow and ice control (plowing and sanding) on 83.49 miles of road during the winter months; the maintenance of one bridge; maintenance of 14,300 feet of sidewalk; the maintenance of all parking facilities and all park and recreation facilities; the operation of the gravel supply program; and the operation and maintenance of the transfer station.

#### **Summer Road Maintenance**

Waldoboro has 100.18 miles of roads within its boundaries. The Maine Department of Transportation maintains 45.88 miles of road, and the Public Works Department maintains the remaining 54.3 miles, including 39.24 miles of paved road (38 roads) and 15.06 miles of gravel roads (21 roads). Every year, the Department undertakes a pavement distress survey of all paved roads to prepare a priority list of maintenance and repair work. The Town repairs an average of three to four miles of road a year. It takes an average of 600 tons of paving material per mile to shim a road and 800 to 1,000 tons per mile for an overlay, at a cost of \$25 per ton. The Town is trying to repave every road once in every eight to ten years.

As of 1993, the Town has implemented a plan to upgrade its gravel roads. Many of these roads have inadequate sub-bases and insufficient rights-of-way for adequate drainage. Reconstructing these roads involves not only rebuilding the sub-base, but establishing the right-of-way, cutting and removing stumps and brush within the right-of-way, ditching, installing road stabilization fabric, installing culverts and adding gravel. Because of the high cost of reconstructing these roads (\$20 to \$25 per linear foot, contractors' price), the Department can undertake only about one-half to one mile of road per year.

#### **Winter Road Maintenance**

The Public Works Department is responsible for plowing and sanding 83.49 miles of Town roads, three parking lots, two Town landings, the town office, the transfer station, and 116 intersections and turn-arounds. This requires that the Department stockpile a minimum of 4,500 cubic yards of sand and 600 tons of salt.

## **Storm Drainage**

For the most part, the storm drainage system in Waldoboro is owned and maintained by the Maine Department of Transportation. However, since 1994, the Town's Public Works Department is responsible for maintaining several storm sewers in the village located on School Street, Shady Avenue, Pleasant Street and Marble Avenue.

## **PUBLIC WORKS GARAGE**

**The Public Works garage, which is located on a 56-acre site at 1400 Wagner Bridge Road, is an old wooden building measuring 36 feet by 180 feet (6,480 square feet). It is a two-story, gable-roof, wood-framed structure which was used at one time to house chickens. It was purchased by the Town in 1975 and retrofitted as a public works garage. The roof is covered with galvanized, corrugated metal roofing and the walls are sided with asphalt shingles. The building contains nine bays for the storage, maintenance and repair of public works vehicles, as well as an office and parts room at the east end of the building.**

## **SALT BUILDING**

**The existing salt building, which was constructed in 1975, can store approximately 300 tons of salt.**

## **GRAVEL PIT**

**In 1995, the Town purchased a 150-acre parcel of land in Washington for use as a sand/gravel supply. The site is licensed by the Washington Planning Board and the Maine Department of Environmental Protection, and is expected to supply sand and gravel for several years.**

## **EQUIPMENT**

**The Department's major pieces of equipment are summarized in the paragraphs below and in Table 7-12.**

**Light/Heavy Duty Trucks.** The Department operates and maintains seven heavy duty dump trucks and two general utility trucks. These vehicles receive extremely demanding use, particularly during winter storm emergencies, and are subject to corrosion from constant contact with road salt. The estimated useful life of heavy duty trucks is eight years, while that of utility public works trucks is generally five years. The Department's goal is to maintain an equipment replacement program consistent with the useful lives of these vehicles.

**Heavy/Mobile Equipment.** The Department maintains five pieces of heavy equipment including a bulldozer, a front end loader, a grader, an excavator, and a small backhoe. With the exception of the backhoe and boom on the excavator, the equipment is in good to excellent condition.

**Other Equipment.** The Department also maintains a Kolean Screen for the purpose of screening winter sand and various types of gravel needs, a steam boiler for thawing culverts, and a 10-ton flat bed trailer which is used to transport mobile/heavy equipment. Other equipment includes snow plows, sanders, wings and miscellaneous capital equipment.



**Table 7-16****Public Works Department  
Summary Of Major Equipment**

|  | <b>Condition</b> | <b>Replacement Schedule</b> | <b>Cost New</b> | <b>Estimated Replacement Cost</b> |
|--|------------------|-----------------------------|-----------------|-----------------------------------|
| <b>Heavy Duty Trucks</b>                   |                  |                             |                 |                                   |
| 1996 Ford LT-8000                          | Excellent        | FY 04                       | \$80,907        | \$119,540                         |
| 1996 Ford L-8000                           | Excellent        | FY 07                       | \$58,521        | \$103,144                         |
| 1994 Ford L-8000                           | Excellent        | FY 03                       | \$60,856        | \$89,915                          |
| 1992 Ford L-8000                           | Good             | FY 00                       | \$54,864        | \$81,062                          |
| 1990 Ford L-8000                           | Good             | FY 99                       | \$55,905        | \$82,600                          |
| <b>Light Duty/Utility Trucks</b>           |                  |                             |                 |                                   |
| 1993 Ford F-350                            | Excellent        | FY 99                       | \$24,253        | \$30,954                          |
| 1992 Ford F-350                            | Fair             | FY 98                       | \$27,981        | \$35,715                          |
| <b>Reserve Trucks - Winter Maintenance</b> |                  |                             |                 |                                   |
| 1987 Ford L-8000                           | Fair             | FY 00                       |                 |                                   |
| 1986 Ford L-8000                           | Fair             | FY 99                       |                 |                                   |
| <b>Heavy/Mobile Equipment</b>              |                  |                             |                 |                                   |
| 1994 Cat Bulldozer - Model D5C             | Excellent        | FY 14                       | \$79,870        | \$211,919                         |
| 1991 Cat Loader - Model 926E               | Excellent        | FY 12                       | \$89,369        | \$237,123                         |
| 1989 Dresser Grader - Model 850            | Excellent        | FY 09                       | \$93,004        | \$246,768                         |
| 1984 Cat Excavator - Model 206             | Good             | FY 02                       | \$36,000        | NA                                |
| 1978 John Deere Backhoe - Model 310A       | Poor             | FY 98                       | \$28,259        | \$74,980                          |
| 1986 Custom Flat Bed Trailer               | Good             | FY 01                       | \$6,790         | NA                                |

Source: Town of Waldoboro 1998-2002 Capital Improvement Program.

## Part IX

### Waste Management

#### SEPTIC WASTE MANAGEMENT

The Town of Waldoboro is required by law to provide for the disposal of septic wastes generated within the community. The Town has a contract with Interstate Septic Systems, Inc., of Thomaston under which septic wastes are disposed of at an in-vessel composting facility at the Rockland Industrial Park. The septage is dewatered and the water is discharged directly to the Rockland treatment plant, while the solids are composted.

#### SOLID WASTE MANAGEMENT

**Transfer Station.** The Town of Waldoboro operates a transfer station and inert landfill site which has been in operation since 1989. It is located at the site of the old landfill on the North Nobleboro Road. The facility serves Waldoboro, Friendship and Cushing. The transfer station building, constructed of concrete and steel, measures 28 feet by 49 feet (1,372 square feet). It houses a stationary compactor, an operator's room and restroom. Below the main level is an area for transfer trailers to back in and set up for loading. An area adjacent to the building is used for recycling materials and visitor parking. In addition to the stationary compactor, the Town maintains three 75 cubic yard transfer trailers.

**PERC Contract.** The Town has a contract with the Penobscot Energy Recovery Company (PERC) located in Orrington, Maine, to provide solid waste for incineration at the waste-to-energy plant. Under the terms of the contract, the transfer station will transfer annually approximately 3,000 tons of municipal solid waste to the PERC incinerator and recycle approximately 500 tons.

The PERC contract does not provide for the disposal of demolition debris from building or roadway construction, liquid waste or sludge, junk vehicles or parts thereof, hazardous waste, water treatment residues, pathological wastes, tree stumps, tannery sludge, waste oil, white goods, or other waste which will have less than 4,000 BTU value per pound.

**Inert Landfill.** To facilitate the disposal of construction and demolition debris, wood waste, brush and soil, a 4.5 acre, inert landfill has been licensed by the Department of Environmental Protection (DEP) adjacent to the transfer station. The facility opened in 1991 and, when fully developed, is expected to have a capacity for 172,500 cubic yards, with a life expectancy of 15 years.

A white good, tire and hot loads area was also built to the north of the landfill area. The Town has contracted with various private firms for the disposal of the stockpiled white goods and tires. The Town is proposing to work with the State of Maine Bureau of Forestry to undertake infrequent burning at the landfill site for wood waste from land clearing, demolition debris and diseased trees.

**Landfill Monitoring.** Waldoboro has two landfills for which it is responsible. The first one is the landfill that was closed and capped in 1991 according to State standards. The State Department of Environmental Protection requires that the Town spend \$4,000 for the next 23 years to monitor this landfill. The second landfill is the inert landfill. Following its closure, the Town will be required to spend about \$1,100 per year for 30 years to monitor it.

## Needs.

1. **New Public Works Garage.** In 1994, the Town hired Sebago Technics of Westbrook to conduct an evaluation of the building. Based on the results of that evaluation, the overall condition of the building is poor and obsolete. It lacks adequate equipment storage and vehicle maintenance space, it is not energy efficient, the roof leaks, the septic system is old and inadequate, the overhead doors need to be replaced, and the fact that it is a wooden building raises serious fire safety concerns. The evaluation concluded that it would not be economically feasible to upgrade the building to minimal standards.

In 1992, the Town retained Woodard & Curran, Inc., of Portland to prepare a preliminary design and cost estimate for construction of a new municipal garage, a sand/salt storage shed, removal of three existing fuel storage tanks and installation of a new 4,000 gallon fuel tank. The proposed building would be a pre-engineered metal building approximately 90 feet by 175 feet (15,750 square feet). It would contain 10 bays for vehicle and heavy equipment storage, two repair bays, a tool room, a storage room, a mechanical room, an office and meeting space, and locker rooms.

2. **Sand/Salt Storage Building.** The concrete retaining wall is deteriorating. The Town is mandated by law to construct a sand/salt storage building by January of 2000. The combined sand/salt storage facility needs to be large enough to hold 4,500 cubic yards of sand and 300 cubic yard of salt. A preliminary design for a new sand/salt facility was included in the 1992 Woodard & Curran plan for a new Public Works building (see above).
3. **Hopper Sanders.** There is a need to upgrade tailgate sanders to hopper sanders, as hopper sanders save material and labor.
4. **Future Staff Needs.** There is a need to determine whether staffing needs will be adequate to meet the needs of the community over the next 10 years. One way to gauge the need for full time public works staff is to review the staffing levels of communities that are larger than Waldoboro but within the range of growth that Waldoboro could experience over the next 10 years.

Table 7-17 shows the full-time staff levels for the public works departments of eight communities that range in size from 5,171 to 6,441 people, based on 1992 population estimates. The table provides only a rough comparison at best, because it does not take into account the range of duties of each department, nor the extent to which individual communities utilize private contractors for certain services. Public works responsibilities tend to vary considerably from town to town.

**Table 7-17**

**Summary of Public Works Staff  
Waldoboro and Larger Comparison Communities**

| <b>Town</b>               | <b>Waldoboro</b> | <b>Berwick</b> | <b>Buxton</b> | <b>Cumberland</b> | <b>Jay</b> | <b>Lincoln</b> | <b>Oakland</b> | <b>South Berwick</b> | <b>Winthrop</b> |
|---------------------------|------------------|----------------|---------------|-------------------|------------|----------------|----------------|----------------------|-----------------|
| Population                | 4,749            | 6,186          | 6,441         | 5,970             | 5,171      | 5,732          | 5,762          | 6,201                | 6,095           |
| Public Works Director     | 1                | 1              | 2             | 1                 | 0          | 1              | 1              | 1                    | 0               |
| Highway Foreman           | 0                | 0              | 0             | 2                 | 1          | 0              | 1              | 1                    | 1               |
| Heavy Equipment Operator  | 1                | 3              | 0             | 3                 | 4          | 0              | 1              | 5                    | 0               |
| Light Equipment Operator  | 5                | 0              | 2             | 2                 | 8          | 1              | 4              | 0                    | 0               |
| Mechanic                  | 0                | 0              | 0             | 1                 | 1          | 0              | 0              | 0                    | 0               |
| Landfill Operator         | 0                | 0              | 0             | 0                 | 0          | 0              | 0              | 1                    | 0               |
| Laborer                   | 0                | 0              | 0             | 0                 | 3          | 5              | 0              | 0                    | 3               |
| Recycling Manager         | 1                | 0              | 1             | 0                 | 1          | 0              | 0              | 0                    | 0               |
| Transfer Station Operator | 0.75             | 0              | 2             | 1                 | 0          | 0              | 0              | 1.5                  | 2               |
| <b>TOTAL</b>              | <b>8.75</b>      | <b>4</b>       | <b>7</b>      | <b>10</b>         | <b>18</b>  | <b>7</b>       | <b>7</b>       | <b>9.5</b>           | <b>6</b>        |

Source: "1996 MMA Salary Survey," Maine Municipal Association, 1996.