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Maine Department of Transportation

Maine Municipal Association

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National Emergency Number Association

State of Texas Advisory Commission on State Emergency Communications

United States Postal Service, District of Maine

Vermont Enhanced 9-1-1 Board

and the numerous guidebook users who suggested improvements to its content.

The State of Maine does not discriminate on the basis of disability in admission to, access to, or operation of its program, services, or activities. This material can be made available in alternative formats by contacting the Emergency Services Communication Bureau at 287-3831 or via TTY at 711.

For questions on the 911 process:

- Responsibilities of the Addressing Officer
- Designating an Addressing Officer
- Designating an Emergency Service Zone
- Database question or Errors

Call: Public Utilities Commission
Emergency Services Communications Bureau
Phone: 207-287-3831
TTY Maine Relay: 711
Fax: 207-287-1039

For questions on mapping and addressing support:

- Road naming, property numbering, numbering intervals, etc.
- Structure and road measurement
- Addressing ordinances
- Neighboring community addressing issues
- Reviewing address maps
- U.S. Postal Service address conversion process
- Technical issue regarding mapping
- Any topic related to this Addressing Guidebook
- Map maintenance

Call: Public Utilities Commission
Emergency Services Communications Bureau/GIS
Community Addressing/GIS Phone: 1-800-665-2830
Community Addressing/GIS Fax: 1-866-710-7381
Email: PUC.GIS911@maine.gov

For general questions on Enhanced 9-1-1 service:

Call: Public Utilities Commission
Emergency Services Communications Bureau
Phone: 207-287-3831
TTY Maine Relay: 711
Fax: 207-287-1039

For list of current 9-1-1 Council Members, please visit:

http://www.maine911.com/advisory_council/members.htm

Enhanced 9-1-1 and Physical Addressing

In 1988, Maine voters approved the statewide deployment of Enhanced 9-1-1 service. This improved emergency communication system automatically displays the address of a caller at an emergency call answering center. If a caller is hysterical, becomes unconscious, or hangs up, the answering center will know where to send help. This is also true if the caller does not speak English or is unfamiliar with his or her location, such as an out-of-state visitor, or even a resident, might be. In 1994, the Emergency Services Communication Bureau (E9-1-1 Bureau) was created as an agency within the Maine Department of Public Safety to oversee the development and implementation of statewide Enhanced 9-1-1 (E9-1-1) service.

To provide the location of a caller, a telephone number must be linked to a physical address that clearly identifies the location of that telephone. While the creation of physical addresses is the responsibility of municipalities, plantations, or counties (for unorganized territories), the E9-1-1 Bureau is providing assistance to support local addressing efforts. This assistance consists of this guidebook, training workshops, maps, road and structure measurement, and technical assistance, all free of charge to communities.

Purpose of the Third Edition

This guidebook: 1) acquaints municipalities with the statewide E9-1-1 project and its benefits for Maine's citizens, 2) explains the importance of creating physical addresses for E9-1-1 service, and 3) most importantly, provides a series of recommended steps for the creation, assignment, and maintenance of physical addresses.

This Third Edition combines all the information from the Second Edition, dated September or November 1995, the Guidebook Addendum released in October 1996, plus other materials. Generally, the Third Edition clarifies, updates, and adds to existing information and provides more guidance for “Creating Physical Addresses” and “Assigning and Maintaining Physical Addresses.” There is also a change to the order of Steps Four and Five, but this switch was made to better reflect the actual sequence of events and has no impact on the actions taken by a community.

No-cost Support

The recommended addressing process described in this guidebook is supported by the Maine Office of Geographic Information Systems (OGIS), a state agency working with the E9-1-1 Bureau to support community addressing efforts. This guidebook details what support is available from OGIS for those communities that choose to accept this assistance. It also defines a community's responsibilities in the addressing process if this support is requested. The addressing assistance described in this guidebook is provided at no cost to participating communities.

Communities are under no obligation to request assistance from OGIS. If they accept this support, however, they will be expected to carefully follow the steps outlined in this guidebook. If a community elects to withdraw from OGIS support and continue its own addressing process, it will have to financially support its independent efforts.

Recommended Steps for Independent Efforts

This guidebook provides an overview of the E9-1-1 addressing process to help communities decide whether to accept assistance from OGIS, to undertake addressing independently, or to hire a private contractor. For communities choosing not to request addressing assistance from OGIS, this guidebook also provides a step-by-step guide for creating physical addresses according to E9-1-1 recommendations. Regardless of how addressing is done, this guidebook describes how each community can create the best address information for E9-1-1 service.

Some Maine communities have hired consulting, engineering, or mapping companies to perform all or part of the work to develop new addresses. Although the community will bear the full cost of such efforts, using a private contractor may yield excellent results if managed properly. Any contractor hired should conform to E9-1-1 addressing recommendations and U.S. Postal Service conversion requirements, and be able to provide address information in a format established by the E9-1-1 Bureau.

The process described in this guidebook is intended to serve as a guide. It does not attempt to encompass all the finer details of how a community creates physical addresses. Nor does it suggest that there is a single "best way" to address.

1. What is 9-1-1?

9-1-1 is a single telephone number that provides common access to all emergency services. It saves callers from having to search for the correct phone number to call in an emergency.

2. What is basic 9-1-1 service?

Basic 9-1-1 service is provided by telephone equipment that routes an emergency call to an emergency call answering center. Specially trained personnel at the center then contact the appropriate law enforcement agency, fire department, or emergency medical services to respond to the call.

3. Is there basic 9-1-1 service in Maine?

At present, only half of Maine's citizens can dial 9-1-1 to request emergency assistance. The remainder of Maine's residents dials seven- or 11-digit emergency numbers, often having to use different numbers for law enforcement, fire, and emergency medical services.

4. What are the drawbacks to basic 9-1-1 service?

With either basic 9-1-1 service or other emergency numbers, dispatchers depend solely on callers being able to verbally provide their locations. Sometimes callers are hysterical, become unconscious, or hang up. Other callers, such as out-of-state visitors, may not speak English or are unfamiliar with their locations. In these cases, basic 9-1-1 service is of little help to the caller or dispatcher.

5. What is the primary difference between basic and Enhanced 9-1-1 service?

Enhanced 9-1-1, or E9-1-1, service automatically displays a caller's address on a computer screen at a call answering center. Also displayed is the caller's telephone number that can be automatically re-dialed if the line is disconnected.

6. Are there additional differences?

E9-1-1 service uses a caller's address, not telephone exchange, to direct a call to the appropriate call answering center. This contrasts with basic 9-1-1 service, which may route the call to an answering center not capable of dispatching emergency assistance to the caller's location.

7. Will E9-1-1 service be available in all communities?

Yes. Statewide implementation of E9-1-1 service is expected to begin regionally in 1999. Once the service is in place statewide, all residents and visitors will be able to dial 9-1-1 to reach an emergency call answering center.

8. Will cellular phones be able to take advantage of E9-1-1 service?

Yes, cellular phone users will eventually be able to dial 9-1-1 for emergencies. At present, however, the location of an emergency caller using a cellular phone cannot be determined by an E9-1-1 system. Technical efforts are currently underway nationally to automatically provide the location of a cellular phone caller during an emergency.

9. What is being done to implement E9-1-1 service in Maine?

In 1988, Maine voters approved a \$3.2 million bond issue for statewide E9-1-1 service. This money provides funding for the initial system design and the development of the address database. In August 1994, a \$0.02 per month surcharge on all telephones began generating funds to complete the installation of the E9-1-1 system. In August 1996, this surcharge was raised to the planned \$0.20 per month to provide additional funds for start up costs. To cover the full operational costs of the system, including network and equipment expenses, the surcharge will rise to \$0.32 per month in mid-1998.

10. Who is directing the development of E9-1-1 service?

The Emergency Services Communication Bureau, or E9-1-1 Bureau, is the state agency overseeing the development and implementation of statewide E9-1-1 service. For questions about the service not answered by this guidebook, please call the E9-1-1 Bureau at 287-9911.

11. What is the link between addresses and E9-1-1 service?

To gain the full benefits of E9-1-1 service, each telephone number must be linked to a physical address. This will allow a 9-1-1 caller's location to be identified automatically at an emergency call answering center.

12. What is a physical address?

A physical address is a permanent, unique address that clearly identifies where a property is physically located. Examples of physical addresses include 453 North Road or 98 Pine Street.

13. What do physical addresses mean to my community?

Creating physical addresses requires naming all roads, including fire lanes and private roads, with unique names and assigning numbers consistently to all properties. Once the road names and property numbers are assigned and adopted by the community, the new physical addresses can be used for E9-1-1 service. They will also be used for mail delivery (once all U.S. Postal Service operational changes are completed) and by utilities, delivery services, and others.

14. How do physical addresses work with E9-1-1 service?

A physical address is matched with a telephone number and entered into the E9-1-1 database. When a caller dials 9-1-1, the caller's telephone number and physical address automatically appear on a call answering center's computer screen.

15. Who has the authority to create physical addresses?

Every Maine community has the legal authority to create physical addresses by naming roads and numbering properties. Municipal authority is granted under Municipal Home Rule Powers as provided for in Article VIII, Part 2, Section 1 of the Constitution of the State of Maine and Title 30-A M.R.S.A. Section 3001. Plantation authority is granted under Title 30-A M.R.S.A. Section 7062, effective September, 1997. County Commissioners have the authority to address their unorganized territories under Title 30-A M.R.S.A. Section 7501 Sub-section 8.

16. Who is responsible for creating physical addresses at the local level?

The local legislative body of a municipality or plantation (the city or town council or town meeting) and the County Commissioners for unorganized territories have the authority to enact an addressing ordinance. In the ordinance, some towns have delegated the authority to name roads and number properties to the council, selectmen, Board of Assessors, or a municipal official. An Addressing Committee is usually formed first to do the work of addressing and then make recommendations to the town meeting or addressing authority for final approval.

17. Who should be involved with the local Addressing Committee?

Suggested members for an Addressing Committee include the town manager or town clerk, a selectman, the town planner or a planning board member, the tax assessor, the code enforcement officer, representatives from the community's law enforcement, fire or emergency medical services, the road commissioner, members of the local historical society, and, most importantly, volunteer citizens.

18. Who else should be involved with the Addressing Committee?

Besides those mentioned above, local postmasters should participate in a community's addressing efforts. The local postmaster should be invited to serve on the Addressing Committee and be consulted if any issues arise. The local postmaster will also be involved in the final stages to convert current addresses to new physical addresses.

19. Is it mandated that a community creates physical addresses?

No. Creating physical addresses is not mandated by the E9-1-1 system. It is, however, a responsible act of local government. By assigning physical addresses, a community allows its residents to take full advantage of E9-1-1 service by having a physical address, not a rural route box number, for example, displayed at the call answering center.

20. Why can't current addresses be used?

An emergency call from a property without a physical address will go to a call answering center's computer screen. However, the address shown, such as a rural route or P.O. box number, will not clearly identify the caller's location for emergency responders. In this case, the caller will have to verbally explain her or his location, if able to do so, possibly delaying the arrival of help.

21. What if my community already has physical addresses?

The E9-1-1 Bureau recognizes that some Maine municipalities already use physical addresses. In this instance, those communities should review their addresses to determine if they meet E9-1-1 guidelines. Please see page 14 to determine the usability of existing physical addresses for E9-1-1 service.

22. How does my community start the addressing process?

This guidebook contains a step-by-step list of recommended tasks for creating physical addresses. In addition to this guidebook, community base maps and other technical support are available, at no cost, to start the addressing process.

23. Is this the only thing my community will do in preparation for Enhanced 9-1-1 service?

Once physical addresses are assigned, communities will be asked to provide a list of old and new addresses for the E9-1-1 database. Telephone companies will use this list to link the new addresses with telephone numbers. Communities will also verify a list of road names and address ranges.

24. What is the cost to my community?

Municipal staff time or volunteer labor is necessary to undertake and complete the addressing process outlined in this guidebook. A direct cost will also be incurred if a community decides to purchase and install new or additional road signs. Suggestions for reducing sign costs are found on page 53.

25. Is there financial support from the State for addressing?

There is no direct financial support from the State for addressing efforts. The E9-1-1 Bureau, however, is working with the Maine Office of Geographic Information Systems to provide no-cost technical addressing support to communities. This support is being funded through the E9-1-1 bond issue passed by Maine voters in 1988.

26. What addressing support is being provided?

The E9-1-1 Bureau is providing addressing guidebooks, training workshops, presentations, and telephone support to community addressing committees. The Maine Office of Geographic Information Systems (OGIS) is providing technical support such as maps, road and structure measurement, property numbering, and guidance on the addressing process. All support is available at no cost to interested communities. Further specifics of this assistance are detailed in this guidebook.

27. How long does the addressing process take?

Since 1994, hundreds of Maine communities have begun the process of addressing in preparation for E9-1-1 service. A few have already finished. Considering the experience of completed communities, the E9-1-1 Bureau estimates that the process requires an average of two years to complete. Given this time frame, those communities that have not started the addressing process may wish to begin as soon as possible. Otherwise, their residents may not receive the full benefit of E9-1-1 service when it comes to their area.

28. Will the post office use the physical addresses for mail delivery?

Yes. Though created for safety reasons, physical addresses created under these guidelines will become permanent and be used by the U.S. Postal Service in most cases. Because of operational changes ongoing within the Postal Service, however, not all physical addresses may be used immediately for mail delivery. Please note that post office boxes will continue to be used for mail delivery. Residents using a post office box will also have a physical address for use with E9-1-1 service.

29. What are other benefits of creating physical addresses?

Communities have found that the addressing process provides information useful for tax assessment and town planning. Rural route and box number changes will no longer occur once physical addresses have been adopted by the U.S. Postal Service for mail delivery. Delivery services, such as UPS and FedEx, utilities, and government services find that physical addresses make locating a property much easier.

30. Can a community use a private contractor for the addressing process?

Yes. In this event, the OGIS Project Manager (287-8087) should be contacted for guidelines in selecting a contractor before beginning the process. This Manager can also provide information on possible additional benefits from using a private contractor.

Several communities already have existing physical addresses (street or road names and property numbers) for a portion or all of their community. Many of these physical addresses are clear and consistent. Some may not be, however, because they are confusing, inconsistent, or ambiguous. It is important to note that if existing addresses are currently causing problems during the dispatch of emergency responders, they may continue to be a problem under E9-1-1 service as well. This is because E9-1-1 service only displays the caller's address on a screen at a call answering center. It does not change the dispatching of the address over the radio, where background noise, radio static, and people working under stress sometimes lead to miscommunication or human error.

If your community currently has physical addresses for all or a portion of its properties, please review the following questions to determine if they meet the recommended E9-1-1 addressing standards.

- 1) Do numbers run sequentially up each street, e.g., 1-2-3-4-5-6-7.....? Or are they out of order, e.g. 1-17-8-26-14.....? Property numbers that are out of sequence may confuse emergency responders when trying to find a house where emergency assistance is desperately needed.
- 2) Are odd numbers found consistently on one side of all streets and even numbers consistently on the opposite side? Or are odd numbers and even numbers mixed in on the same side of a street? Again, odd and even numbers mixed in on the same side of a street may confuse emergency responders when they are searching for a particular house number.
- 3) Are whole numbers available to assign to structures built on vacant lots? Or will numbers with a letter or fraction be assigned? Do existing addresses contain a letter or fraction after the property number, e.g., 45A Brown Road or 26½ Ash Street? E9-1-1 addressing guidelines recommend that only whole numbers be assigned to structures to reduce potential opportunities for error. The U.S. Postal Service also discourages the use of mailing addresses containing fractions or letters.

-
- 4) Is the numbering direction consistent throughout the community? All streets should have their numbers ascend as they proceed away from a designated numbering origin or follow a consistent numbering pattern throughout the community.

 - 5) Do duplicate or similar-sounding street names exist, such as Maple Street and Maple Road or Ocean Lane and Ocean View Lane? Again, if certain street names are currently causing confusion with emergency responders, they will continue to be a problem under E9-1-1 service as well. Why? Because E9-1-1 service does not change the method of dispatching an address over the radio, where background noise, radio static, and people working under stress sometimes lead to miscommunication or human error.

If a community finds that it currently has inconsistent property numbers or potentially confusing street names, it may wish to consider re-numbering or re-naming certain streets following E9-1-1 addressing standards. In doing so, it is recommended that re-addressing should focus only on problem areas, and not necessarily on the entire community. Only those addresses that really need to be changed should be changed, leaving alone what is clear and consistent.

Under some circumstances, a community with existing physical addresses may decide to re-number all streets because of numbering inconsistencies scattered throughout the community. If contemplating either partial or complete re-numbering, please contact the local postmaster to discuss potential issues for postal delivery addresses prior to any re-numbering process.

Finally, a community may only wish to modify or establish naming and numbering standards to avoid problems in the future. If so, the E9-1-1 addressing standards outlined in this guidebook can be followed to establish new standards.

If you have any questions about your community's existing physical addresses or on E9-1-1 addressing standards, please call the E9-1-1 Database Manager.

Over the past few years, the U.S. Postal Service has begun efforts to change the rural route addresses of certain postal customers. While these changes are related to statewide E9-1-1 service, it is not always clear to the general public how they are related.

To explain the connection, it is necessary to understand how rural mail is delivered in Maine. For many years, the Postal Service has used rural routes to deliver mail to residents living in rural areas. Thus, someone with an address of RR 1 Box 889, for example, was one of many people along a particular rural route created to deliver mail in that area. In Maine today, the Postal Service has nearly 500 rural routes, serving 350,000 postal customers daily.

For many, rural route mail is delivered from the post office within their own community. For others, rural routes cross municipal boundaries, meaning that residents in one community have their mail delivered from one or more post offices in neighboring communities. This situation exists even though these residents have a post office in their own community. In this instance, these postal customers use the name of the neighboring town and its zip code rather than their own community's name and associated zip code. This is also true of postal customers who live in communities with no post office at all.

With the coming of E9-1-1 service, it is recommended that rural route addresses be changed to physical addresses to better locate dwellings in an emergency. To insure that these physical addresses can be used for both an emergency address and a mailing address, it is necessary for mail to be delivered to customers from the post office within their community. Otherwise, some customers would have two addresses: a rural route mailing address from a different community and a physical address used for emergencies within their own community.

Given the large number of rural mailing addresses used in the state, the Postal Service will, as far as is practical, switch rural route addresses when certain events happen. The retirement of a rural route carrier, for example, means that some of these changes are known well in advance. Others occur on short notice. As a result, these changes sometimes happen when a community is close to completing its addressing efforts. All residents can then simply change from a rural route number to a physical

address. On other occasions, these changes may occur when a community is not ready to change its addresses. In this instance, some residents will change their rural route addresses to allow delivery of their mail from their town's post office, and then change address again when their community finally creates physical addresses for E9-1-1 service.

However changes in rural routes occur, those postal customers who live in a community with no post office will continue to have their mail delivered from a neighboring community's post office. This will continue even after their community creates and assigns new physical addresses. When this happens, these postal customers will use their new physical address, their community name, and the zip code of the community that delivers their mail, providing the Postal Service serves the entire community under one zip code.

The Postal Service and the E9-1-1 Bureau are working closely to minimize the number of address changes postal customers must undergo. In some cases, however, more than one change may be unavoidable because a community is not ready to adopt new physical addresses. The key to avoiding unnecessary changes is for all communities to create physical addresses for E9-1-1 service as soon as possible. For further information on Postal Service changes and their impact on your community, please contact your local postmaster.

The primary goal of the E9-1-1 addressing process is to link each telephone number to a permanent, unique address that clearly identifies where a caller is physically located. This requires the creation of a physical address for any property that currently has a telephone, might have one installed, or might be occupied by someone using a cellular phone.

The most important reason for creating physical addresses is for the quick location of properties by law enforcement, fire, and emergency medical services. In creating new addresses, a community should assign each property a single address that can be used for emergency service, mail delivery, private delivery services, municipal records, utilities, etc.

Ideally, there should be one physical address per property that can be used for all purposes. Having more than one address can potentially confuse a building's occupant when confirming a location in an emergency. It might also confuse those responding to the emergency. The one exception will be residents who use a post office box for mail delivery will also have a physical address for use with E9-1-1 service.

While the time to implement an addressing change can take two years or longer, it can be shortened if the local Addressing Committee works diligently and has strong local support. By following the recommended step-by-step tasks outlined in this guidebook, a community can complete its addressing process in a timely fashion.

The major steps of the recommended addressing process include:

- Establishing an Addressing Committee and local contact person.
- Establishing addressing standards and enacting an addressing ordinance.
- Naming all roads with unique names and updating a base map.
- Providing a local guide to ride with a contractor during property location and road measurement.
- Reviewing and approving address maps and completing an address conversion package.
- Designating an Addressing Officer to maintain accurate address information once created.

The addressing process described in this guidebook is based on working with the Maine Office of Geographic Systems (OGIS), which is supporting E9-1-1 addressing efforts. This support includes the use of the Global Positioning System (GPS), a satellite-based measurement technology that accurately locates all structures and missing roads in a community. Following GPS measurement, OGIS will provide a set of maps showing the location and address of all structures. These new physical addresses are created automatically by the GPS location and the community's designated addressing standards.

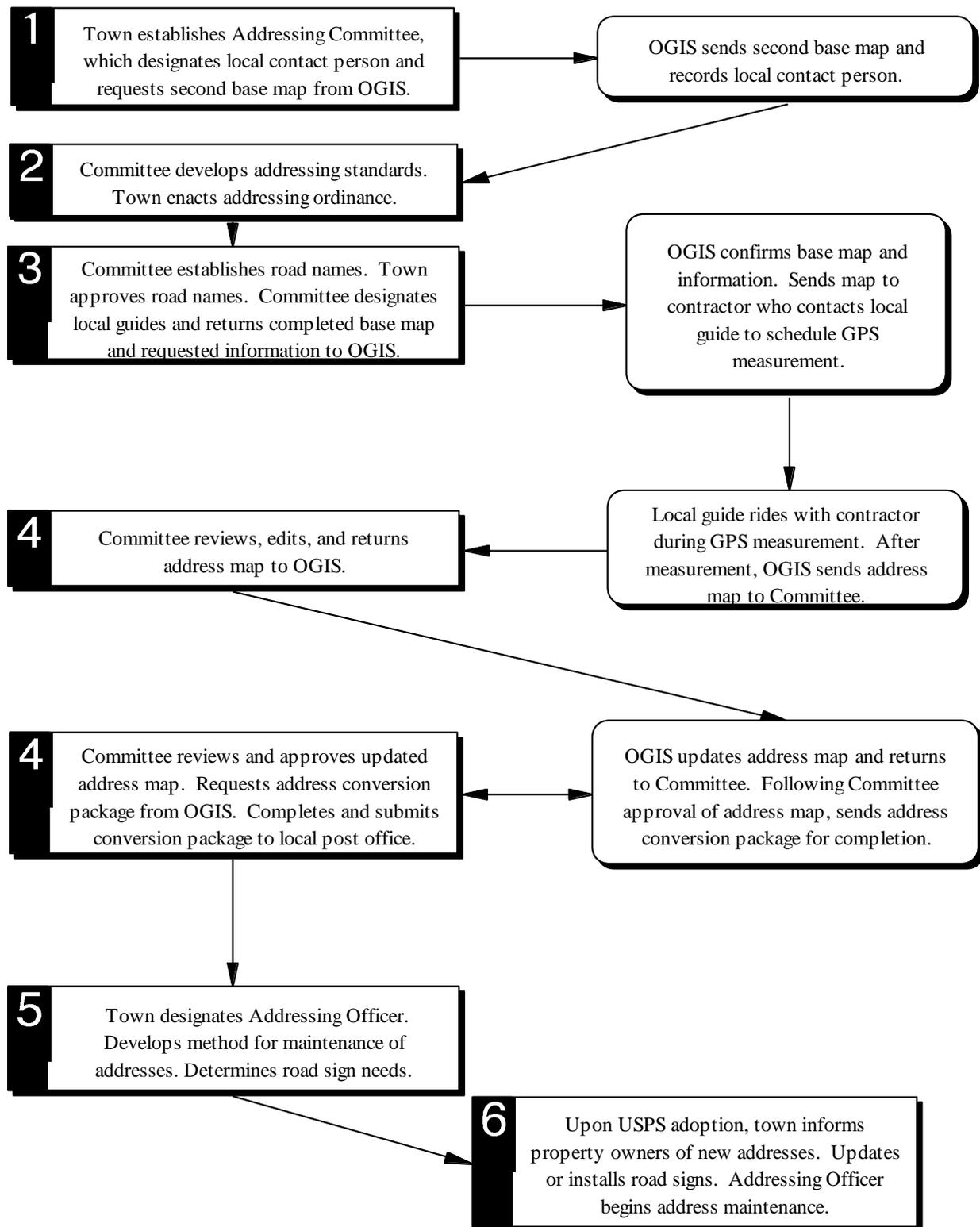
The community will then be required to review the accuracy of the address maps and make whatever corrections necessary. Once the maps are corrected and approved, the community will receive an address conversion package for completion and submission to the local postmaster.

It is important to note that the scheduling of a community for any part of OGIS support, including GPS measurement, depends on several factors. Chief among these are the E9-1-1 Bureau's statewide management plan, the timetable for a community's rural route conversion by the Postal Service, if scheduled, and a community completing its official road naming process.

While all OGIS support, including GPS measurement, is provided free of charge, it does require a community to carefully complete each step outlined in this guidebook. More information on the actual steps required is found on the following pages.

A community that chooses to work with a private contractor for the addressing process should insure that the contractor follows the recommended steps to insure compatibility with E9-1-1 address information requirements. Specific information on these requirements is available from OGIS.

Note: For the purposes of this guidebook, a "road" refers to any highway, road, street, avenue, lane, private way, or similar paved, gravel, or dirt thoroughfare within municipality, plantation, or unorganized territory. "Property" refers to any property on which a more or less permanent structure has been erected or could be placed.



Step One: Getting Started

- 1a. Establish an Addressing Committee with a designated leader. (See page 23.)
- 1b. Involve the local postmaster with addressing activities. (See page 24.)
- 1c. Inform residents of addressing plans. (See page 25.)
- 1d. Contact neighboring communities on addressing issues. (See page 27.)
- 1e. Request a second base map from OGIS. (See page 28.)

Step Two: Develop and Enact an Addressing Ordinance

- 2a. Develop addressing standards. (See page 31.)
- 2b. Enact an addressing ordinance. (See page 35.)

Step Three: Name or Rename Roads

- 3a. Identify all roads to be covered by emergency services. (See page 38.)
- 3b. Establish road names, including new names for unnamed roads.
(See page 39.)
- 3c. Gain approval for road names. (See page 41.)
- 3d. Update and return base map to OGIS after road name approval.
(See page 41.)

Step Four: Create Physical Addresses

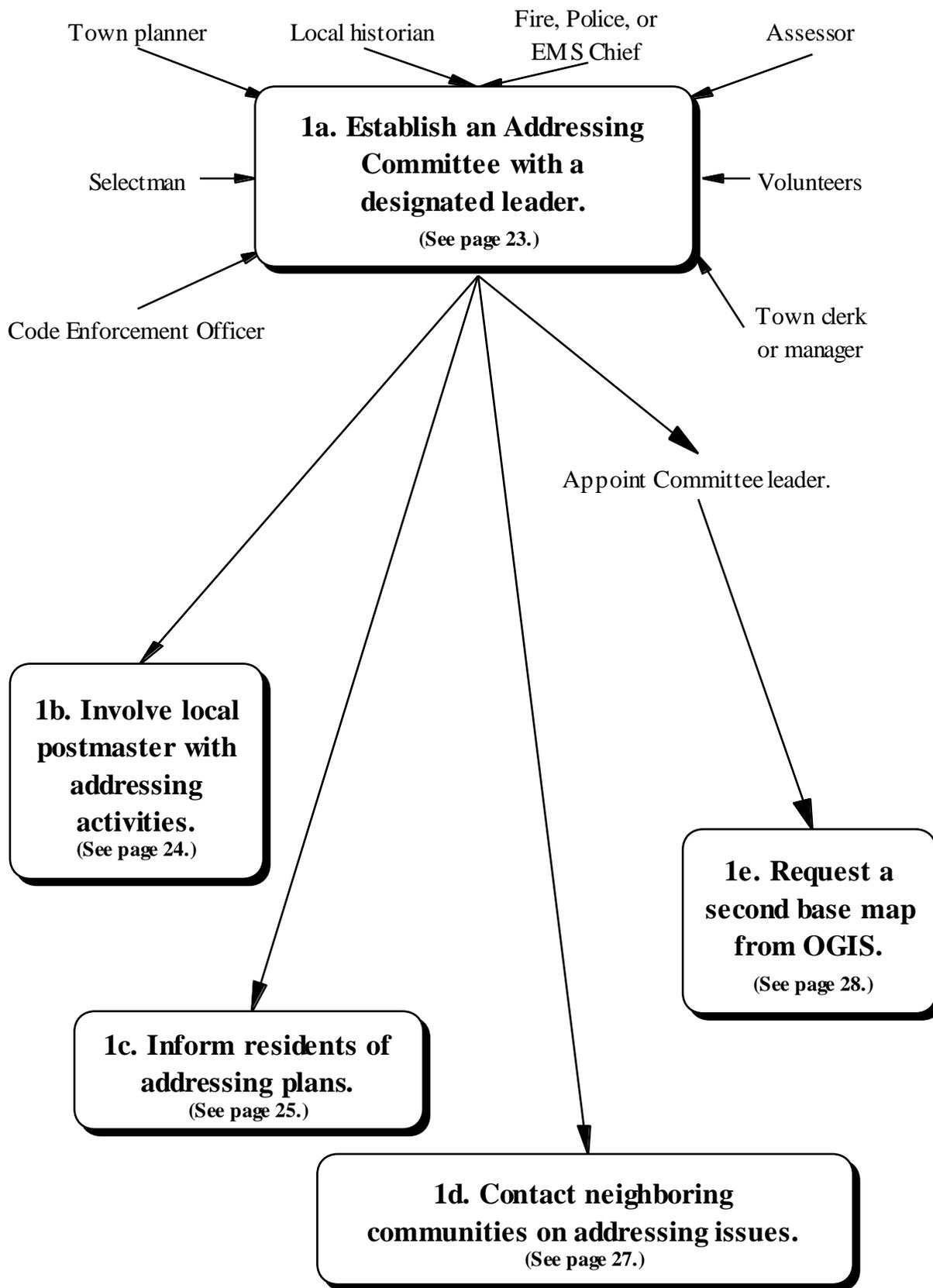
- 4a. Complete GPS measurement with contractor and local guide. (See page 44.)
- 4b. Review and approve the address maps. (See page 45.)
- 4c. Complete and submit an address conversion package to local postmaster.
(See page 46.)

Step Five: Develop Address Maintenance Method and Road Sign Requirements

- 5a. Designate an Addressing Officer. (See page 50.)
- 5b. Develop method for storage and maintenance of addresses. (See page 51.)
- 5c. Determine road sign requirements. (See page 53.)

Step Six: Assign and Maintain Physical Addresses

- 6a. Inform property owners of address changes and effective date. (See page 55.)
- 6b. Update or install road signs and property numbers. (See page 56.)
- 6c. Implement new addresses and begin address maintenance. (See page 58.)



1a. Establish an Addressing Committee with a designated leader.

1. The first step in the E9-1-1 addressing process is for the community to establish an Addressing Committee. This will be the driving force behind local addressing efforts. The committee will, among other things, identify those roads to be included in the community's emergency road network, determine the method of road naming and the standards for number assignment, and work with OGIS on the mapping. The steps listed in this guidebook will form the bulk of the Committee's work.
2. Depending on the amount of authority granted to the Addressing Committee, it will be able to make decisions on its own or with approval from its local legislative body (council, town meeting, or County Commissioners for unorganized territories).
3. Key individuals to include on an Addressing Committee are the town manager or town clerk, a selectman, the assessor, the town planner or a planning board member, the tax assessor, the code enforcement officer, the local postmaster, representatives from the community's law enforcement, fire and emergency medical agencies, a road commissioner, members of the local historical society, and, especially, volunteer citizens.
4. Smaller committees tend to be more efficient; larger groups allow more members to be assigned tasks. Many communities find six to eight people to be an ideal size.
5. Patience, perseverance, and attention to detail are important characteristics of effective Address Committee members. Dedication is also critical for a process that can take an average of two years to complete.
6. Many communities have found it helpful to have a committee member with computer skills and access to a computer. By using a computer, address information can be stored, changed, and maintained more easily. It also allows a community to provide address information to their local postmaster in a format that speeds the conversion process. Finally, a computer file also allows for the easy transfer of address information to the E9-1-1 databases.

7. When selecting or recruiting people for the Addressing Committee, keep in mind that one individual will eventually need to maintain the accuracy of a community's addresses once they are created. (Please see page 52.)
8. The committee must have a designated leader to insure that the community completes its addressing process in a timely manner. Communities that have not started the addressing process or are working slowly often do not have a clear leader. Communities with well-organized leaders have generally worked efficiently through the addressing process. It is very important to have one person who can coordinate the process and insure that all the steps necessary for addressing are carefully completed.
9. The Addressing Committee leader generally serves as the community's designated contact person for addressing efforts with the E9-1-1 Bureau and OGIS. Any community requesting addressing assistance should insure that OGIS (287-8087) has on file the name, address, and telephone number of the community's local addressing contact person. Note: This local contact person may or may not be the community's Addressing Officer. To understand the difference, please see page 51.

1b. Involve the local postmaster with addressing activities.

1. A key individual to include on the Addressing Committee is the local postmaster. Sometimes, a community may have its mail delivered by more than one post office, in which case, additional postmasters should be invited. Postmasters are important because they can help insure that the addresses created by a community are compatible for use by the Postal Service as mailing addresses. For this reason, the local postmaster should be kept aware of a community's progress to help resolve any issues encountered.

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2. When starting the addressing process, the community should review its existing address files (such as in tax records) to determine that these files contain the most current mailing addresses. The postmaster can provide current addresses if a community official signs a letter of confidentiality to protect the address information. This initial review is necessary before completing the old-to-new address conversion list in Step 4c.
 3. While the community is the ultimate authority on assigning physical addresses, it should work closely with the postmaster to insure that addresses being created for E9-1-1 are also usable as postal delivery addresses. This is particularly important if a community has no post office, receives its mail from an adjacent community's post office, and uses the same zip code as that office. If both communities have a Main Street, for instance, then there cannot be any duplicate property numbers on a road that has the same name in both communities. Rather, the numbers need to be 1-500 Main Street in one town and 600-1000 Main Street in the other, for example.
 4. After the GPS process has created new physical addresses, the local postmaster can help the community match new addresses with existing mailing addresses. When the community has approved the new addresses and adopted by the Postal Service, the new addresses will be used for both emergency service location and mail delivery. In some cases, however, the use of the new addresses by the Postal Service must await completion of operational changes.

1c. Inform residents of addressing plans.

1. Communities should let their residents know about E9-1-1 service and the need to create physical addresses. Methods to inform residents include letters, newsletters, public hearings or meetings, public notices, or local public access channels.
2. Summer residents who live elsewhere in the winter and out-of-state property owners should be informed via a letter. Please see Appendix A on page 59 for a sample letter that can be used to inform all property owners and residents of the community's addressing efforts.

3. When informing residents about addressing efforts, some Addressing Committees have used the opportunity to recruit additional committee volunteers.
4. Generally, the better residents understand the reason for E9-1-1 addressing (increased public safety) and the more they have an opportunity to offer suggestions, the less resistance will be encountered at public meetings.
5. While the creation of physical addresses has many advantages for a community, there are genuine reasons for resistance. Those reasons listed below and any others should be openly discussed and considered in the planning process.
 - Business owners typically feel a close identification of their activities with their addresses and are reluctant to change. They also will have to pay to acquaint the public with their new address, such as having signs repainted and new stationery printed.
 - For citizens, a change of a road name and property number will mean that their personal checks must be reprinted and their addresses on work records, credit cards, and magazine subscriptions must change. They must also notify relatives, friends, and businesses.
 - Historical societies or older members of the community may dislike changes in historic names.
 - Finally, there will be some objections just because there are changes.
6. Whatever the objection, please remind people that they achieve the greatest benefit from E9-1-1 service when their phone numbers are linked to unique physical addresses that clearly identify where they are located.

1d. Contact neighboring communities on addressing issues.

1. Neighboring communities should discuss the consistent naming and numbering of “shared” roads to eliminate any possible confusion. Examples of shared roads include roads that travel from one community into another, those that run into and then back out of a neighboring community, or those that follow a municipal boundary.
2. Discussion of shared roads is particularly important when communities are served by the same emergency service providers or dispatching services. In this situation, neighboring communities should discuss with each other the implications of duplicate road names that exist in both communities.
3. Suggestions for naming and numbering shared roads include:
 - If neighboring towns agree to keep the same name of a road running between the towns, the numbering should be consecutive, starting in one community and ending in the other. This will avoid duplicate property numbers in close proximity on a same-named road.
 - For same-named roads spanning many towns, such as State Route 201, it may not be practical to use consecutive numbering starting in one town and ending in another many miles away. In this case, it may be better to number consecutively through three or four towns and then start the numbering over again. This will prevent high property numbers from being created, while separating duplicate numbers by a large geographical distance. An emergency service coverage boundary might be used to determine such a number break.
 - If neighboring communities cannot agree on the same name, each town’s road segment should have a separate name and be numbered separately. If possible, it is recommended that numbers on that road not ascend towards each other, since this could result in similar property numbers in close proximity near the towns’ borders, despite dissimilar road names.

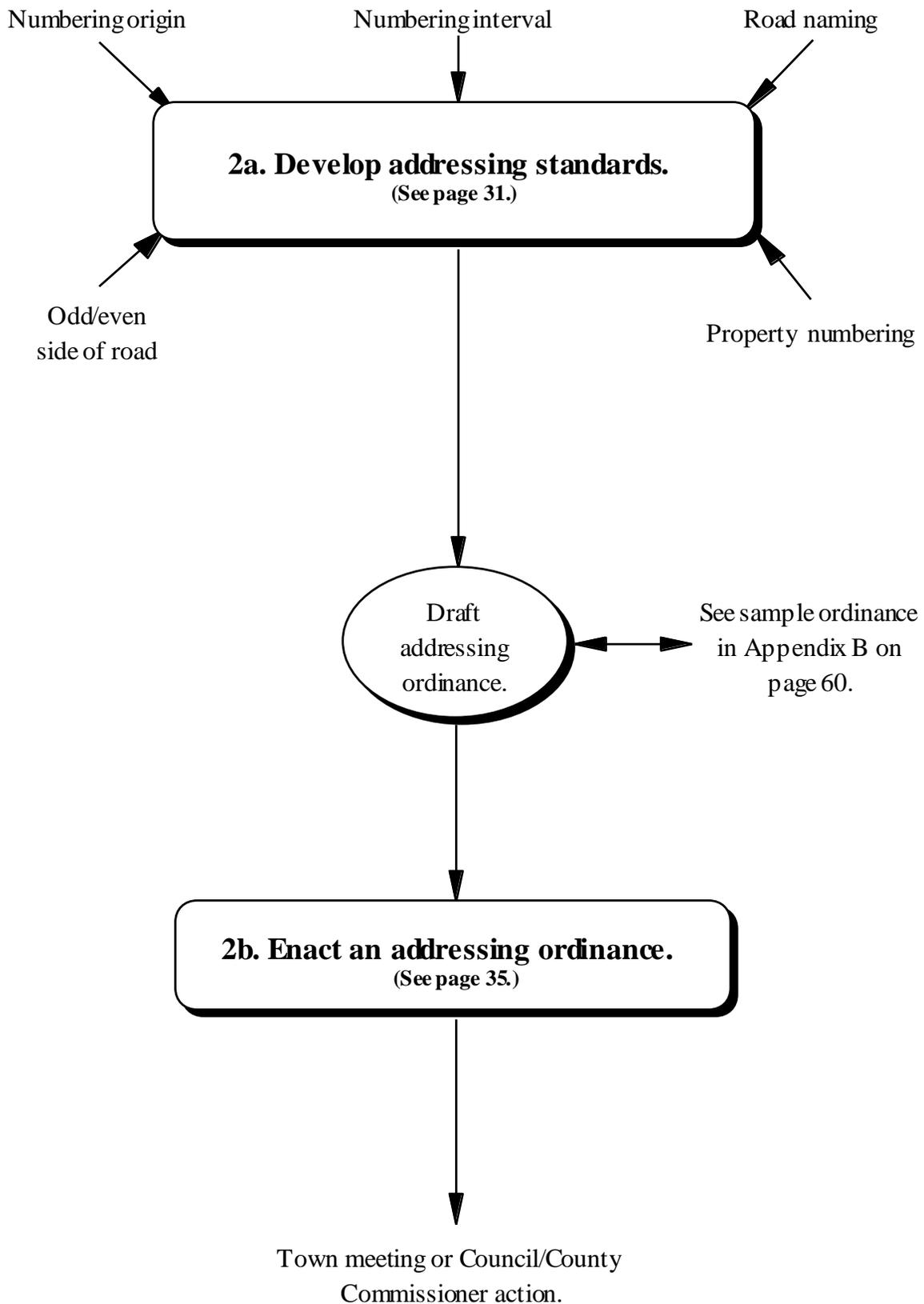
- If names of non-contiguous streets are duplicated within a town and village, the numbering should not overlap (e.g., 1-500 Main Street in Acadia and 600-1000 Main Street in North Acadia). This is also an issue when mail delivery in one town is performed by a post office in another town. In such cases, every effort should be made to avoid using the same road names. If this is not possible, every effort should be made to avoid duplicate property numbers to avoid postal delivery address problems.
4. Early discussion of adjacent addressing issues will avoid problems later when one community has completed its addressing process only to find that there are numbering or naming conflicts with a neighboring community on shared roads. This discussion also spurs neighboring communities to start their addressing process, if they haven't already done so.
 5. For the name and telephone number of the Addressing Committee contact person in a neighboring community, please call the OGIS at 287-8087.

1e. Request a second base map from OGIS.

1. Every community in the state has been sent at least one copy of an addressing guidebook and a base map for use by their Addressing Committee. If unable to locate the base map or if additional guidebooks are needed, please call OGIS at 287-8087.
2. A second copy of the base map should also be requested from OGIS. The first copy should be used as a working copy to note changes. When road names changes are approved, the second copy can then be marked up with all the final changes and returned to OGIS. Keep the working copy for comparison with the address map when that map is sent to the community following GPS measurement.

3. Please note that the base map will need corrections, including the addition of missing roads and the updating of road names. These base maps are based on U.S. Geological Survey (USGS) 7.5 minute series maps, some of which have not been updated in many years. One purpose of the statewide E9-1-1 addressing effort is to correct these base maps with current information.
4. As mentioned, the second copy of the map should be marked up with all the final changes, including official road names, and sent to OGIS. This copy must be marked up according to the instructions that accompany the map. (See Step 3d on page 41.)
5. To request a second base map and provide or confirm the name, address, and phone number of a designated local contact person (most likely the Addressing Committee leader), please call or write:

OGIS Project Manager
Maine Office of Geographic Information Systems
145 SHS
Augusta, ME 04333-0145
287-8087



2a. Develop addressing standards.

1. Communities should determine their addressing standards that will define how new physical addresses will be created through the E9-1-1 addressing process. They will also define how the addresses will be assigned in the future and how the address records will be maintained. These standards should result in physical addresses that are clear and consistent. Otherwise confusion during an emergency response could delay the arrival of help.
2. Addressing standards should be easy to explain and be flexible enough to accommodate growth throughout the community. If the standards are set properly, new physical addresses will become permanent and need not change.
3. Some communities may already have developed areas where physical addresses are already in use, such as in the downtown district or village. If so, the community must decide if it wishes to use these existing addresses to set the addressing standards for the entire community. Please see page 14 to determine if existing addresses should be used to set addressing standards.
4. Existing physical addresses that are consistent and allow room for growth, even though they may not exactly match the E9-1-1 guidelines, may be used to set community-wide addressing standards. This will avoid having to renumber the entire community. Please call the E9-1-1 Database Manager if you have any questions on this issue.

5. When establishing addressing standards, please consider the following:

A. Road naming standards determine how existing roads and new roads are named, including private roads and fire lanes.

- Communities should consider the elimination of duplicate or similar-sounding road names and roads with multiple names. Why? If certain road names are currently causing confusion during the dispatch of emergency services, they will continue to be a problem, because E9-1-1 service only displays the caller's address on a screen at a call answering center. It does not change the dispatching of the address information over the radio, where background noise, radio static, and people working under stress sometimes lead to miscommunication and human error.
- Fire roads should be named. One reason is that an address using a fire road number, such as "25 Fire Lane 35," could have its numbers reversed and be reported as "35 Fire Lane 25" when confirming the location of an emergency. Second, the U.S. Postal Service cannot guarantee that such a fire road address can be used as a mailing address because of automated sorting difficulties. As a result, a resident with a fire road address might wind up with two addresses, a physical address for E9-1-1 and a rural route address for mail delivery. Having two addresses is obviously not recommended, because it adds a potential opportunity for confusion during an emergency call.
- Numbered roads, such as State Route 202, should be named for the same reason as fire roads. Please note that locally naming a state route does not change its official state number designation.
- Please see Appendix C on page 64 for a comprehensive list of road naming recommendations.

B. Numbering origin designates the point, location, or direction from which numbers begin to ascend.

- Some communities use the center of the municipality or central business district, where their main fire station is located, as their starting point. In more distant parts of town, that end of the road closest to the center of town becomes the numbering origin for that road.
- Other communities use borders with adjacent towns as a numbering origin, having numbers ascend easterly from their western border and northerly from their southern border, for example.
- The numbering origin could also be a main road running across a community, with the numbers ascending on roads as they branch off from this main road. The numbering origin should not, however, be in the middle of a road.
- Wherever numbers begin to ascend should be consistent throughout the community. Consider such factors as existing numbering directions (if any), the numbering pattern on roads shared with neighboring communities, and the direction from which emergency services respond.

C. Numbering interval is the standard interval in feet used to assign consecutive property numbers along a road, regardless of whether or not a structure is at every interval. The recommended numbering interval for most of Maine is 50 feet.

- The use of a 50-foot interval for assigning property numbers is recommended because it provides sufficient room to assign unused numbers to future structures built between existing ones. This avoids having to renumber the entire road or adding letters to newly-assigned property numbers, which has happened in some Maine communities that have used a larger interval.
- The 50-foot interval is also being adopted by most communities in Maine. As such, emergency responders crossing municipal boundaries will often find the same interval used in adjacent communities and be able to estimate a caller's location by applying the same standard to their odometer reading.

- Please remember that a 50-foot numbering interval only produces just over 200 numbers per mile. This means a road will have to be over five miles long for a property on it to be assigned a four-digit number.
 - It may be necessary to use different intervals within a community. While 50 feet may be used for much of a town, a 10- or 25-foot interval may be needed in more populated village areas or with tightly clustered camps along ponds.
 - A road may need two different numbering intervals because of different structure densities in different sections. For example, a road that begins in the village area may need a 25-foot interval, while a 50-foot interval can be applied to the more rural parts of that road. Any numbering interval change should occur only at a road intersection, if at all possible.
 - Only in extreme rural areas should a community consider using an interval greater than 50 feet. Even in these areas, there may be a road or a section of road where structures are packed closely together, such as along ponds. In this case, the interval will need to be smaller on that road or section of road.
 - Communities are strongly advised not to base their numbering interval on the minimum frontage requirement for lots or parcels. By assigning only one number per lot, a community could face future numbering problems if more than one dwelling is later permitted to be built or placed on a lot.
- D. Odd and even side determines which side of the road will be assigned odd numbers and which will be assigned even numbers, as numbers ascend from the numbering origin.
- The recommended standard is that odd numbers be assigned to structures on the right side of the road and even numbers to the left, as numbers ascend from the numbering origin.
 - If, however, part of a community has been previously numbered in the opposite fashion, then that standard should be maintained for consistency throughout the community.

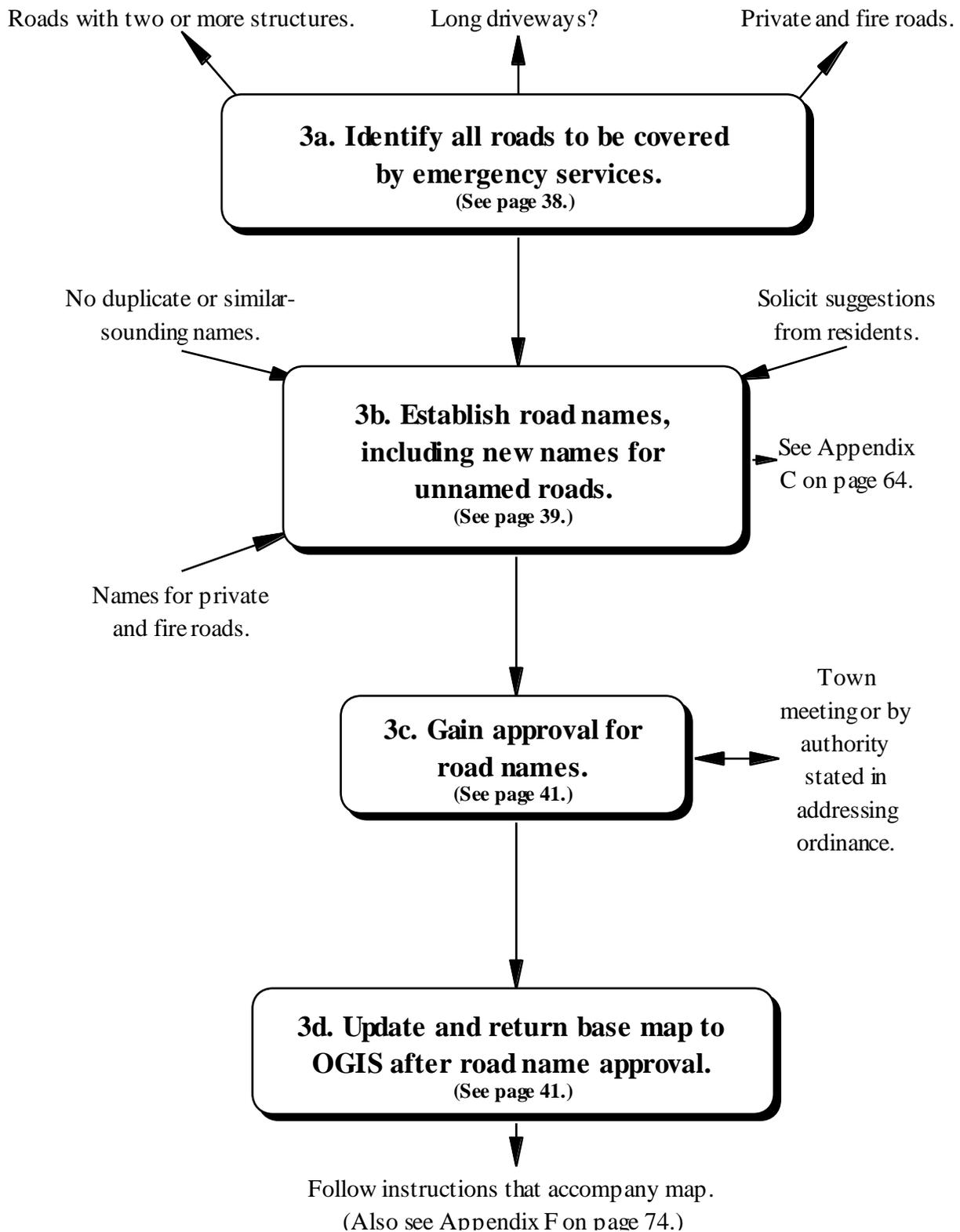
E. Property numbering standards establish how numbers are assigned for apartments, businesses, circular streets, condominiums, cul-du-sacs, corner lots, duplexes, islands, mobile home parks, shopping malls, and other special situations.

- Please note that communities using OGIS support need not manually assign property numbers. New numbers will be calculated by a computer using a structure's GPS location and the community's designated numbering interval, numbering direction, and odd/even side of the road.
- These calculated addresses will be displayed on an address map provided to the community. Upon receipt of their maps, communities will be asked to review the calculated property numbers and make choices about ambiguous addresses, such as corner lots, using their property numbering standards.
- Please see Appendix D on page 68 for a comprehensive list of property numbering recommendations.

2b. Enact an addressing ordinance.

1. Enacting an addressing ordinance provides several advantages: 1) the local addressing authority will be identified, 2) addressing standards (numbering direction, numbering interval, odd/even sides, road naming, etc.) will be established, 3) the process for assigning new road names and property numbers will be determined, and 4) the Addressing Committee will have the necessary standards to proceed with its tasks.
2. Every Maine municipality has the legal authority to create physical addresses by naming roads and numbering properties. This authority is granted under Municipal Home Rule Powers as provided for in Article VIII, Part 2, Section 1 of the Constitution of the State of Maine and Title 30-A M.R.S.A. Section 3001.

3. Municipal addressing authority can be exercised simply by approving road name changes at a town meeting. A town meeting could also approve an addressing ordinance that establishes addressing standards, approves road names, and reserves the right to approve new road names at future town meetings. Another option is for the town meeting to pass an ordinance that includes the addressing standards and delegates the authority to name roads and assign property numbers to elected officials, or a designated municipal employee or an Addressing Committee.
4. Plantations will have E9-1-1 addressing authority granted under Title 30-A M.R.S.A. Section 7062, effective in mid-September, 1997. In 1996, Counties were granted the authority to address their unorganized territories under Title 30-A M.R.S.A. Section 7501 Sub-section 8. For plantation and county addressing authority to become effective, an addressing ordinance must be enacted.
5. To be enacted, the local legislative body of the community must approve an addressing ordinance. For most of Maine's municipalities and all plantations, this will be the town meeting. For chartered municipalities, this could be the city or town council, if the local charter empowers the council to be the local legislative body. County Commissioners must pass an addressing ordinance to establish their addressing authority for unorganized territories within their counties.
6. Many communities delegate the authority to name roads and number properties to their selectmen, town council, or a municipal official in their addressing ordinance. This allows new road names to be approved and property numbers to be assigned in a manner stated in the ordinance, rather than waiting for an annual or special town meeting.
7. Please see Appendix B on page 60 for a sample addressing ordinance. A copy is also available as a computer file by calling the E9-1-1 Bureau at 287-9911. An addressing ordinance should include a community's addressing standards, as determined in Step 2a, and the process for assigning and maintaining addresses.



3a. Identify all roads to be covered by emergency services.

1. Using a base map from OGIS, the Addressing Committee should identify all roads, public and private, to be covered by emergency services. As noted earlier, there will likely be many roads missing from the base map. Missing roads to be covered by emergency services should be sketched on the map following the accompanying instructions. (Please see Appendix E on page 73 for a sample base map and Appendix F on Page 74 for a duplicate set of the instructions.)
2. It is recommended that any navigable road be included if it has two or more permanent structures served by emergency services. This includes fire roads or any roads with seasonal camps, commercial buildings, or any structure that may have a telephone installed.
3. Include roads that have structures without telephones. Why? Because emergency responders may need to find a building whose occupant has called from another residence, as now happens. Also, with cellular phones increasing in use and plans underway to provide location information for cellular phones, it is suggested that all year-round or seasonally occupied structures be addressed, regardless of their current telephone situation.
4. A long driveway with only one house should be considered for inclusion, regardless of length, if the potential exists to erect additional houses or other structures along that driveway. This may avoid possible re-addressing later.
5. Please note that private roads named and signed by a community do not automatically become a publicly-maintained way. Likewise, mail delivery on named private roads will not necessarily occur.
6. Once all roads have been identified, the Addressing Committee should compile an alphabetical list of all existing road names. This will assist in the naming or re-naming of roads and will also help identify any current or proposed duplicate or similar-sounding road names.

3b. Establish road names, including new names for unnamed roads.

1. Each road, public or private, should have a unique name and retain the same name throughout its entire length. Roads that are part of the emergency road network but are currently unnamed should be named. Please remember that naming a private road does not imply it will become a publicly maintained way.
2. If a road must be named or re-named, allow the residents on public roads and the owners of private roads, including those who live out of state, the opportunity to suggest a new name. This will lessen opposition to the change when it comes time for seeking road name approval. Communities with public roads to re-name should also solicit suggestions from the local historical society or longtime residents.
3. There should be no duplication of road names. Duplicate names (e.g., Pine Road and Pine Lane) or similar-sounding names (e.g., Beach and Peach, Lynwood and Linwood, Morgan Road and Morgan Hill Road, etc.) often create confusion during emergency situations. Using an alphabetical list helps identify existing road name duplications and avoid duplications when new names are proposed.
4. If certain road names are currently causing confusion during the dispatch of emergency services, they will continue to be a problem under E9-1-1 as well. Why? Because E9-1-1 service only displays the caller's address on a screen at a call answering center. It does not change the dispatching of the address over the radio, where background noise, radio static, and people working under stress sometimes lead to miscommunication and error.
5. As discussed in Step 1b, a postmaster may ask a town to eliminate a duplicate road name if the town completely shares the same zip code with another town. If not possible, duplicate road names must not share duplicate number ranges.
6. Numbered roads, such as fire lanes, should be named for the same reason as other roads and to eliminate the possibility of numbers being switched accidentally when two numbers appear in an address, such as "25 Fire Lane 35" being dispatched or heard as "35 Fire Lane 25."

7. Also note that existing fire road numbering schemes are not suitable for use as mailing addresses because of difficulties in automated mail sorting with the Postal Service. Therefore, if a community chooses not to name its fire roads and use fire road numbers for physical addresses, residents on those roads might have two addresses -- a physical address for emergencies and a rural route address for mail delivery. This situation is not recommended because of the potential confusion this might create in an emergency.
8. Some communities are reluctant to eliminate their fire road numbering system by naming fire roads. To provide a transition to the new names, some communities place the new road name signs over the fire road number signs. This allows for the gradual association of fire road numbers to their new names. Also, some dispatch centers maintain a computer database of local information that could quickly provide a cross-reference from a fire road number to a road name or vice versa.
9. In naming fire roads, some communities have used themes, such as plants, trees, wildlife, or historic persons. For example, tree names (Apple, Birch, Cherry, Dogwood, Elm, Fir, etc.), are used to name those fire roads that lead to a particular body of water. By naming roads in an alphabetical sequence, communities can create a sequential set of alphabetical names to replace a sequential set of fire road numbers.
10. The re-naming of roads is frequently the biggest political challenge for Addressing Committees. Many people are reluctant to have their road names changed for a variety of reasons, not the least of which is simple resistance to change. Committees can lessen resistance by educating residents on the need for changing confusing road names and by asking affected residents to suggest new road names. In the final analysis, however, approval of road names at a town meeting or by the process stipulated in an addressing ordinance does constitute the community's authority to name roads, public and private.
11. For a comprehensive list of road naming guidelines, please see Appendix C on page 64.

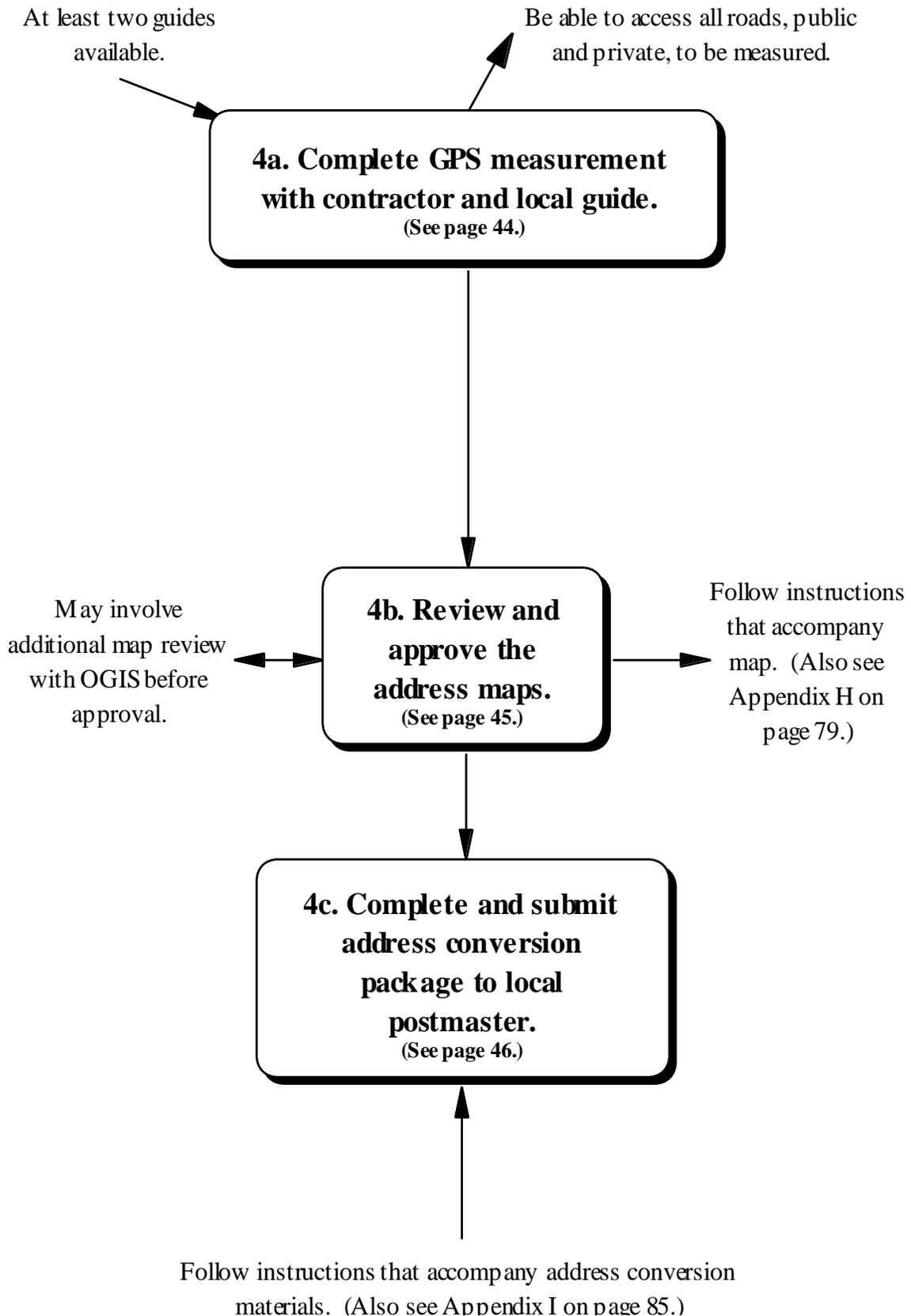
3c. Gain approval for road names.

1. To become official, all road names, existing and new, must be approved either by a vote at town meeting or by the addressing authority designated in the addressing ordinance. A moratorium on any road name changes should begin at that time.
2. If an addressing ordinance has not yet been approved, some communities have placed the road name approval article on their town meeting warrant just ahead of the addressing ordinance article. Voters can then approve the wholesale road name changes, while the designated addressing authority (the selectmen, council or some municipal official) can approve any future road name additions or changes.
3. Again, communities that have solicited road name suggestions from affected residents and property owners should encounter less opposition to any changes when seeking official approval.
4. If a road naming article fails at town meeting, continue with the addressing process. It is important to understand that every community in Maine will be asked to provide official addresses for the E9-1-1 system. It is only a question of the quality of addresses a community will provide.

3d. Update and return base map to OGIS after road name approval.

1. Only after all road names have been officially approved should the second base map be updated and returned to OGIS. (In some cases, a community may be asked to return its base map before all names are officially approved, but only do so if specifically requested by OGIS. Road names must eventually be approved to complete the addressing process.)
2. Please follow all the instructions carefully for updating the base map and providing the requested information. Please see Appendix F on page 74 for a duplicate set of instructions.

3. It is very important that all roads to be covered by emergency services are shown on the map. Roads that are not sketched on the map will not be measured by GPS and will not be added to the address map. Adding them later will delay the process.
4. It is very important to send all the information requested in the instructions. This includes an official letter from the community stating that the community has approved all road names shown on the map. The letter must also include the name and phone number of at least two local guides who can ride with a contractor during GPS measurement.
5. When OGIS receives the base map and information, it will check the materials for neatness and completeness. Any missing information will be requested before proceeding with GPS measurement. Illegible maps will be returned. Once all the information is complete, OGIS will send the map to a contractor, who will then call the designated local guide to set a date to begin measurement.
6. A local guide is needed to ride with the contractor to point out all structures, town boundaries, missing roads, hydrants, and free-standing pay telephones. Recommendations for local guides include the Addressing Committee leader or member, a fire chief or assistant chief, a road commissioner, tax assessor, or anyone who is very familiar with the road network of the community.
7. Whoever is chosen should know the location of all roads and the location of every dwelling within the community. A local guide is required to ride with the contractor until all GPS measurements are complete, a task perhaps taking several days. At least two guides must be designated to insure that someone is always available to ride with the contractor.
8. It is important to understand that there may be a large time interval between submitting an updated base map to OGIS and the scheduling of GPS measurement. The GPS schedule is determined by many factors, the most important of which is the E9-1-1 Bureau's master schedule for statewide addressing support.



4a. Complete GPS measurement with a contractor and local guide.

1. Global Positioning System, or GPS, measurement involves a contractor driving down every road in the community to locate every structure that will have a property number assigned to it. The contractor will use a computer and a GPS unit to mark the position of each structure and assign a unique coordinate to it. The contractor will also measure the location of missing roads sketched on the base map, along with fire hydrants and free-standing pay telephones, if their location is known. Pay phones attached to buildings need not be located.
2. Unless their addresses are to be changed, structures with existing physical addresses will not be located by GPS, because there is no need to calculate addresses for them. Missing roads and structures with rural route addresses will be measured, however.
3. A local guide must ride with the contractor at all times to insure that no structure or road is missed during GPS measurement. Local guides are expected to ride with the contractor until a community's measurement is completed, a process taking a few days depending on the number of structures and missing roads to measure.
4. Local guides should possess the keys needed to unlock any gated roads to insure that all missing roads are measured. Guides are encouraged to maintain a log book to note the name of each road and property owner for the structure measured. This log book can then be used to assist in linking a new address to a property owner's current address.
5. It is essential that more than one local guide be available. This will insure that at least one guide is always present to ride with the contractor. The unavailability of a local guide to ride with the contractor will cause the postponement of the community's GPS measurement.
6. After completing the field work, the contractor will send the data to OGIS. After checking the data, OGIS will produce one or more address maps showing the community's entire emergency road network and an address point and property number for each structure.

7. If a community has measured its structures using a Postal Service vehicle or other means and assigned addresses based on those measurements, but has yet to convert those addresses with the post office, skip Steps 4a and 4b and proceed to Step 4c.

4b. Review and approve the address maps.

1. Address maps display address points representing each structure that was located by GPS measurement. Each point will have a property number next to it. A computer calculates these property numbers using the structure's GPS location and the numbering origin, numbering interval, and odd/even side of the road designated by the community. Once the maps are created, OGIS will send one or more address maps to the community for review.
2. Upon receipt of the address maps, the community must review the maps for corrections. As in any technical process, there will be errors, such as some address points being on the wrong side of the road. A full set of review instructions will accompany the maps. (Please see Appendix G on page 78 for a sample address map and Appendix H on Page 79 for a duplicate set of review instructions.)
3. If part of an address map is too cluttered, such as a congested village area, and a blown up section of that area was not provided, please request one from OGIS at 287-6153.
4. In checking the address map for errors, please follow the instructions carefully. This will be the only major opportunity to correct the maps.
5. It is important that the map be as close to 100% accurate as possible before the community approves it. To accomplish this may require driving the roads to check the information shown. Please note any map errors on the map and the edit sheet that accompanies the instructions.

6. If address points are missing, mark their approximate location on the map using the map's tick marks or a vehicle's odometer. Pacing on foot may also serve as a guide. Then manually calculate a property number for the point based on the numbering interval. (Note: a contractor will not return to collect missing points. These addresses must be added manually to the address conversion list.)
7. When the review is complete, send the maps and edit sheet back to OGIS. It will correct the errors and return update maps to the community for final approval. The final address maps should show a town's entire official road network with correct road names. Structure points with property numbers will also appear on the final map to the extent that they can be corrected by OGIS.
8. Please understand that address maps are only a tool to create new addresses based on a simple addressing standard. If a community chooses to use a non-standard numbering scheme, its "customized" addresses will not appear on the final address maps. Communities will have to add these addresses manually to the maps.
9. OGIS must receive final approval of the address maps before sending the address conversion materials to the community.

4c. Complete and submit an address conversion package to local postmaster.

1. Upon approval of the final address map, OGIS will send a set of address conversion materials. These materials include:
 - A final addressing map
 - A set of mylar tax map overlays
 - An addressing conversion list (also available as a computer file)
 - An alphabetical list of road names with address ranges
 - A set of instructions for completing the address conversion package.

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2. Follow the instructions carefully to complete the address conversion package. If any of the above items are missing, please call OGIS at 287-6153. (Please see Appendix I on page 85 for a duplicate set of address conversion instructions.)
 3. With the address conversion materials, match each new physical address with the corresponding name, tax map and plot number, and current local address of the property owner. This is done by placing the mylar maps on top of tax maps to show the location of address points within tax plots. Completing the address conversion list will link new physical addresses to existing local addresses. (Please see Appendix J on page 90 for a sample conversion list.) If the local guide maintained a log of property owner and address point information during GPS measurement, this log can assist in matching new and current addresses.
 4. The local postmaster can provide a list of current delivery addresses to help insure that each new physical address is linked to an accurate existing address. To receive this list, a community official must sign a letter of confidentiality certifying that the postal addresses will be used only for E9-1-1 addressing purposes.
 5. With their tax records and the postal addresses, a community will be able to match every current address for property owners and tenants. The key is to establish an old-to-new address link for every structure in the community, and not necessarily to a person. Once the list is completed, communities need not worry about adding telephone numbers or maintaining an ongoing list of tenants, since the E9-1-1 Service Provider will access telephone company records to link a telephone number to a specific physical address for a structure.
 6. Please note that residents using post office boxes will continue to use them as mailing addresses. Communities should assign physical addresses to their structures for emergency purposes.
 7. In matching new and old addresses, a community should double check the accuracy of its work. Creating new addresses is time consuming enough without having to do it over because of carelessness. Also, having to inform residents of additional changes after they are using their new addresses will certainly not be appreciated.

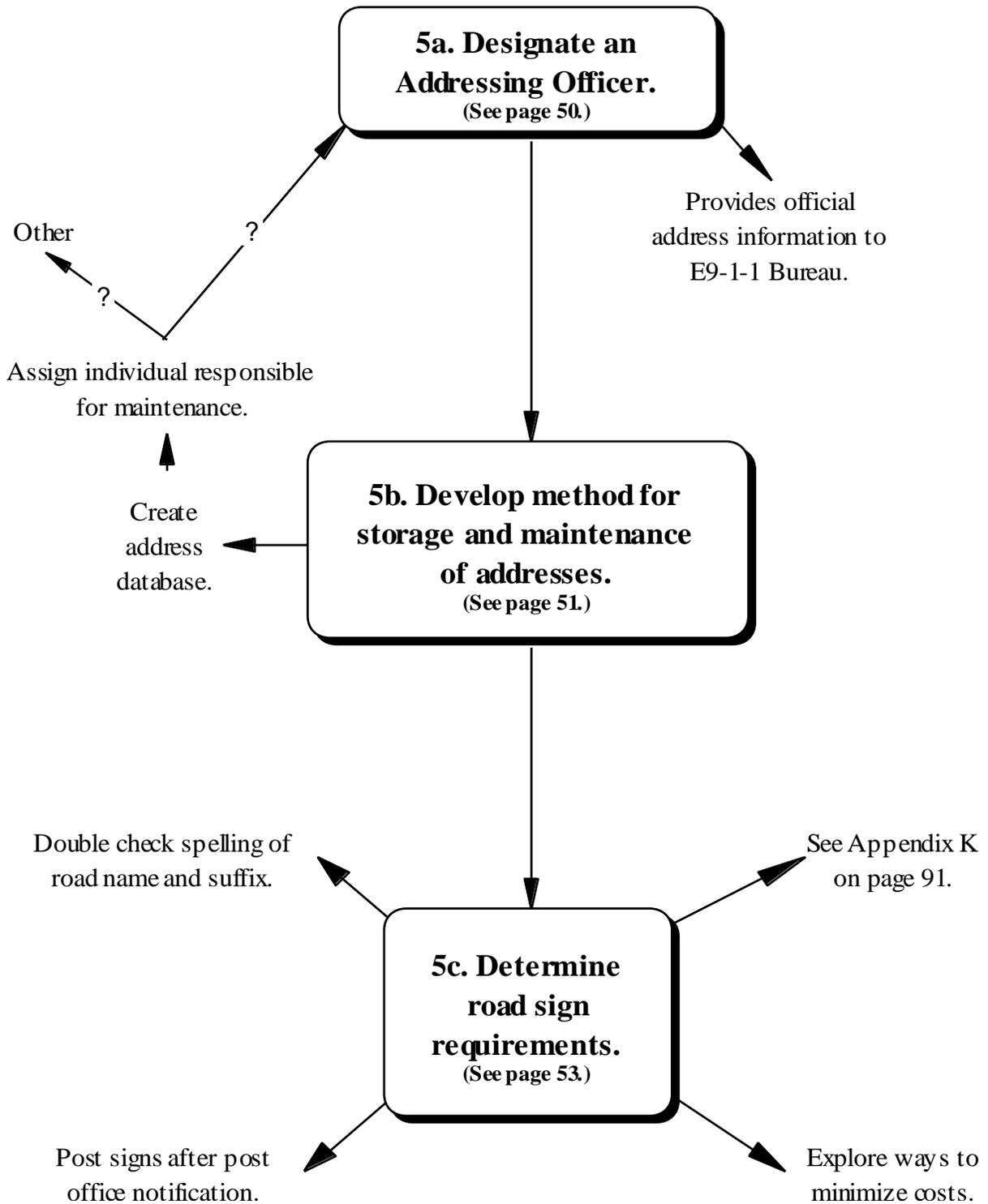
8. Once the conversion list is complete and the road range list is carefully checked for accuracy, the community can then complete and submit the address conversion package to the local postmaster. This package consists of:
 - An old-to-new address conversion list showing the name, old address, and new address for all residents.
 - A verified alphabetical listing of official road names with number ranges.
 - An intersection range map.
 - An official letter from the municipality or county stating that the address conversion list is official, complete, and final.

9. Please follow the instructions carefully in completing the conversion package.

10. The community is responsible for providing an intersection range map, available from OGIS, to the local postmaster. This will insure that if a community makes any changes to road names, numbering directions, or address ranges during the address conversion process, those changes will be updated with OGIS before an intersection range map is generated. If a community has not completed the OGIS addressing process or has completed the process with a private contractor, then the community is responsible for providing this intersection range map.

11. The local postmaster will review and process the conversion package and then send it to the Postal Service District Office in Portland for further processing. This Postal Service processing will take approximately 45 to 60 days. Providing the postmaster with the conversion list sorted by current postal addresses will speed post office processing.

12. Any address changes made after submitting the original address conversion package to the post office must be processed following these same instructions. If there are simple changes to an address on an existing road, a new address conversion list and town letter are required by the post office. If any change is made to addresses that affects an existing road name, address range, or numbering direction, the full package must be submitted, including a new intersection range map. If these changes are provided to OGIS, they can update its records and provide a new intersection range map to the community.



5a. Designate an Addressing Officer.

1. Each municipality and plantation should designate an Addressing Officer, if it has not already done so. The Addressing Officer is responsible for approving and providing address information to the E9-1-1 Bureau and must have signature authority on behalf of the community for doing so. County Commissioners with populated unorganized territories should also designate an Addressing Officer for their county. Please see Appendix M on page 94 for more information on Addressing Officers.
2. An Addressing Officer must be designated on an official form. In early 1997, the E9-1-1 Bureau sent this form to the chief elected or administrative officer in every community and to counties with territories. If this form has not yet been returned, please do so immediately. If an additional form is needed, please call the E9-1-1 Bureau at 287-9911.
3. Specifically, the Addressing Officer is responsible for:
 - Providing an old-to-new address conversion list to the E9-1-1 Bureau.
 - Approving and providing correct road name and number range information.
 - Indicating the community's Emergency Service Zone(s), or ESZs.
 - Providing updates on changes to address ranges and ESZs as they occur or provide verification at least annually.
 - Resolving any discrepancies that arise with any addressing information in the E9-1-1 databases.
4. In the community, other responsibilities of the Addressing Officer might include:
 - Answering citizen questions about addressing.
 - Monitoring local development activities for the creation of new roads and subdivisions to assign new addresses.
 - Calculating property numbers.
 - Updating the community's address database as needed.

5. How is the Addressing Officer different from the leader of the Addressing Committee? The committee leader, who organized and managed the addressing process, may be a local resident but not a municipal official. The leader may be a municipal official, but the community might wish to assign the responsibility to another position. In many instances, however, the Addressing Committee leader and Addressing Officer may be one in the same. Whoever is designated, the Addressing Officer must be an individual, elected, administrative, or otherwise, who has authority to approve and provide address information on behalf of the community or county to the E9-1-1 Bureau.

6. The Addressing Officer may be a different individual from the one whom actually maintains the addressing database, such as the town or county clerk. He or she might also not be the one who issues new addresses for a municipality or county, such as an assessor, code enforcement officer, or clerk. The Addressing Officer is the one, however, who is responsible for officially providing all address information to the E9-1-1 Bureau.

5b. Develop method for storage and maintenance of addresses.

1. The community should create a database to store and maintain address information. Having a computer database allows a community to accomplish this task more easily. It can speed the address conversion process with the post office by sorting the address conversion list by current mailing addresses. It also allows the easy transfer of address information to the E9-1-1 Bureau.

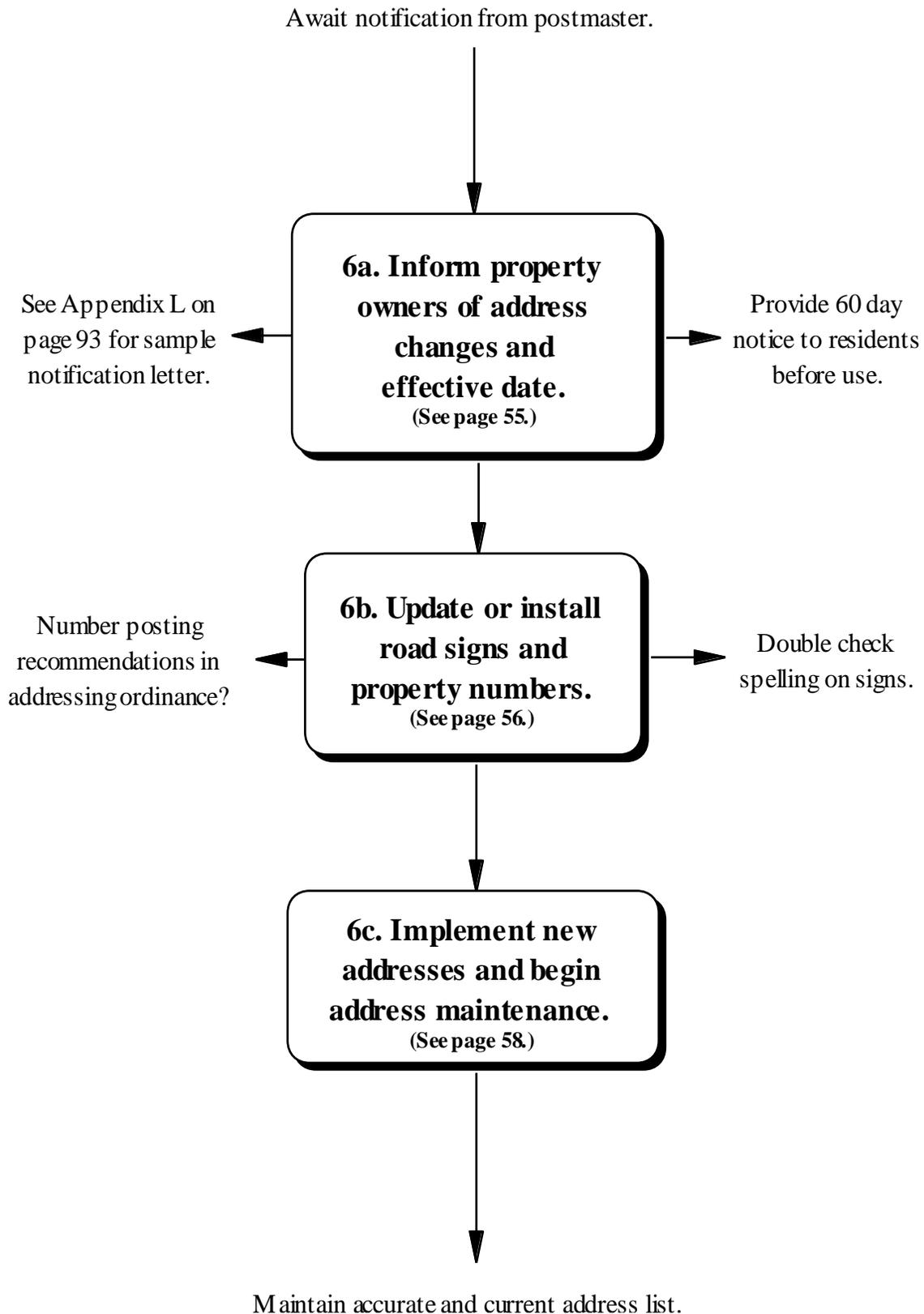
2. Some communities use their computerized tax or assessment program to store and maintain address information. Others use a simple computer database or spreadsheet program. However accomplished, a computerized record makes tracking and maintaining addresses much easier than a manual system. Please remember that the initial address conversion list provided by OGIS is available as a computer spreadsheet or database. Those communities without a computer should neatly maintain their address files on paper.

Step Five: Develop Address Maintenance Method and Road Sign Requirements (cont'd)

3. At a minimum, the basic address information to be stored should include the following. For computer records, the recommended maximum number of characters in certain data fields is indicated in parentheses.
 - a. New property number (8 characters)
 - b. Pre-directional (N, W, etc.)
 - c. New road name, suffix (RD, AV, ST, etc.), and post-directional (S, E, etc.), if any (a total of 48 characters for all three)
 - d. Property owner name
 - e. Tax map and plot number or equivalent identifier number
 - f. Old local address
4. The individual responsible for maintaining the address database will vary from community to community. It is certain, however, that if someone does not maintain the new address information, the effort to create the addresses may be wasted. Address changes or additions to the database should be prompt and consistent.
5. In some communities, the individual assigned to maintain the addressing database is the same person who is responsible for other town matters. This could be the town clerk, town manager, tax assessor, code enforcement officer, a planning board member, or the director of emergency planning. Whoever is responsible for maintaining address information should insure that the address database is secure and that a duplicate paper or computer file is created for storage away from hazard or loss.
6. The time required to maintain address information will vary. It is very important to remember, however, that address information must be kept current and accurate if it is to remain reliable for use with the E9-1-1 system.
7. Please see Appendix N on page 96 for address maintenance guidelines.

5c. Determine road sign requirements.

1. After submitting the address conversion package to the local postmaster, the Addressing Committee should work with local officials to determine the number of road signs needed. To insure that emergency responders can quickly locate a 9-1-1 caller, it is recommended that all roads have signs. Also consider placing a sign at a municipal boundary, if a road name changes at that point.
2. While road signs are a direct expense for a community, there are ways to reduce their cost. These include the donation of materials and labor by local citizens, civic organizations, or businesses. In some cases, communities may need to erect only a few new signs, the cost of which may be included in a community's budget.
3. Road signs are available from commercial sources. As of this writing, three county sheriff's offices are also producing road signs through jail industry programs at a reduced cost. A community does not have to be located within any of these counties to purchase signs. Please call the following individuals for more information:
 - Lt. Cynthia Gardner, Knox County Sheriff's Office, 594-0430 or 594-0432
 - Lt. Brian Lawrence, Lincoln County Sheriff's Office, 882-7332 or 882-6576
 - Sgt. Ty Babb, Penobscot County Sheriff's Office, 947-4585
4. Before ordering road signs from any source, be sure to double check the correct spelling of the road names and their suffixes (RD, AV, DR, etc.). Please see Appendix K on page 91 for road sign guidelines and note the changes regarding road sign letter sizes.
5. To reduce any possible confusion, road signs should not be posted until the local post office has notified the community that its new addresses have been adopted by the Postal Service.



6a. Inform property owners of address changes and effective date.

1. Only after notification from the local postmaster that the Postal Service has adopted the new addresses should a community inform residents. It is strongly recommended that communities do not inform residents or businesses of their new addresses before this official notification. People using their new addresses prematurely cause confusion with public safety officials in responding to emergencies. This also causes difficulties with mail delivery if the new addresses are used before they are officially in the Postal Service national database.
2. A sample notification letter is found in Appendix L on page 93. Along with the new address, the letter should include the effective date for using the new addresses, which should be at least 60 days after the date the letter is mailed. (The local post office will confirm with the community the actual date to begin using the new addresses.) This will allow time for the addresses to be in use with the national Postal Service database and for residents to inform magazine publishers, banks, utilities, family members, friends, and others of their address changes.
3. The notification letter should explain that completion of the addressing process does not necessarily mean that E9-1-1 service is immediately available. It should also mention that mail sent to old addresses will be delivered for an extended period of time, not to exceed one year.
4. Other issues could be mentioned in the letter as well. One is to tell residents to stop using their old RR or HCR box numbers when they begin using their new addresses. Another is to state which new address applies to which property for owners with multiple properties. A third might be to remind residents to clearly post their new number on their mailbox, front door, end of driveway, or wherever the community has designated in its addressing ordinance.
5. Finally, residents using post office box numbers should be reminded that they will continue to use them for mailing addresses. Their new physical addresses will be used to verify their location in emergencies and for utility service locations and commercial delivery services, among others.

6. To reduce costs, some communities print their letters in such a way to use the name and address on the letter with a window envelope, eliminating the need for mailing labels. They have also discussed other ways to reduce mailing costs with their local postmaster.
7. The Postal Service does not automatically provide communities with Zip+4 codes for their new addresses once they have completed their processing. For this reason, residents desiring to learn the Zip+4 code for their new addresses should call their local post office upon receipt of their community's notification letter.
8. A computer file containing all converted addresses with Zip+4 codes is available following address conversion by the Postal Service. If interested in obtaining this file, please call the E9-1-1 Bureau at 287-9911.
9. Finally, the community should create and provide a cross reference list of old-to-new road names to its emergency services and dispatch centers, prior to the effective change-over date.

6b. Update or install road signs and property numbers.

1. Before the effective date for new addresses, install any needed road signs. Road signs and property numbers are the important final links in any emergency calling system. Without them, emergency responders may not be able to quickly locate a 9-1-1 caller's property.
2. Before installing any road signs, a community must call DIG SAFE (toll free at 888-344-7233). This is required under Maine state law to insure that no underground pipes, cables, or wires will be damaged or cut during sign installation. For further information on a community's responsibilities under the "Dig Safe" law (Title 23 M.S.R.A. Section 3360-A), please call the Maine Local Roads Center at 287-2152.
3. The erection of "illegal" road signs, that is, signs not meeting community standards, should be dealt with in the addressing ordinance, should this issue be of concern.

4. When the new addresses become effective, residents should post their new property numbers. To insure that their numbers will be visible, residents should be encouraged to post them as follows:
 - First preference should be to put a number on the front of the structure where it is clearly visible from the road.
 - The mailbox should be marked with the property number if the box is in front of and on the same side of the road as the structure.
 - When a mailbox is not in front of the structure, a number should be displayed on the mail box and the structure, if it is visible from the road.
 - If the structure is not visible from the road and no mailbox is beside the driveway leading to the structure, a sign or number post should be erected to display the number.
 - Mail boxes at the end of private roads should display the property number and road name to avoid confusing emergency responders who see property numbers that might appear to be out of sequence along a road.
 - In Maine, it is very important that any posted number be placed high enough not to be obscured by snow during an average winter.
 - Property owners using post office boxes for mailing addresses should also be encouraged to post their property numbers in a manner suggested above, so their physical address number will be visible in an emergency situation.

5. Road sign theft has become an issue of growing concern, with some communities experiencing a rash of road sign thefts after posting new road signs. Reduce thefts by educating citizens on the vital importance of road signs to the emergency response system. Stress that without road signs, responders may lose precious seconds or minutes in reaching those in need of help. Other measures to reduce theft or vandalism include buying signs with tamper-resistant hardware and aluminum blades.

6c. Implement new addresses and begin address maintenance.

1. Beginning with the effective date for the use of new addresses, the community should maintain an accurate and complete old-to-new address list. This requires an address database, a means to easily add and maintain address information, and a person responsible for doing so. Please see Step 5b on page 51 for more suggestions on this process.
2. Address maintenance guidelines are found in Appendix N on page 96. At all times, the community should insure that its address database is well maintained and secure from hazard or loss.
3. As the implementation date for E9-1-1 service nears, the E9-1-1 Bureau will contact the community's Addressing Officer to request official address information. This information will consist of the old-to-new address list for every structure in the community, an alphabetical road list with number ranges, and the community's Emergency Service Zone(s). In the fall of 1997, the E9-1-1 Bureau is planning to send Addressing Officers a complete set of instructions and forms for providing the requested information.
4. By continually maintaining their address information, communities will provide the most accurate address information for the E9-1-1 databases. Please note that communities do not have to track the name of tenants living at particular addresses. It is more important to maintain an accurate list of old-to-new property addresses, which will be used to update telephone subscriber information by the E9-1-1 Service Provider.
5. Finally, please remember that linking accurate physical addresses to telephone numbers is the heart of E9-1-1 service. Under this service, callers dialing 9-1-1 will have their telephone numbers and physical addresses automatically appear on a call answering center's computer screen. With this location information, road signs, and posted property numbers, emergency responders should be better able to quickly locate someone in need of law enforcement, fire, or medical assistance.

Dear Resident,

The town of _____ is responding to a referendum approved by Maine voters to establish statewide Enhanced 9-1-1 service. This service will be used by residents to call for law enforcement, fire, and emergency medical services by simply dialing 9-1-1 on the telephone and requesting the appropriate emergency assistance.

The service is called Enhanced 9-1-1 because it displays the address of the caller on a computer screen at a call answering center. If a caller is hysterical, becomes unconscious, or hangs up, the answering center will know exactly where to send help. Those unfamiliar with their location or who not speak English, such as out-of-state visitors, will also benefit.

To provide the exact location of a caller, each telephone number must be linked to a physical address. A physical address is a permanent, unique address that clearly identifies where a property is located, such as 453 North Road or 98 Pine Lane. A rural route mailing address, such as RR1 Box 889, is not considered a physical address.

Creating physical addresses requires naming all roads with unique names and assigning numbers consistently to all properties. Once the road names and property numbers are assigned and adopted by our community, the new physical addresses will be used primarily for Enhanced 9-1-1 service. These addresses will also be used by mail delivery carriers, utilities, delivery services, and others.

Recently, our community established an Addressing Committee to create the physical addresses recommended for Enhanced 9-1-1 service. The committee will be holding public meetings and contacting residents to seek their comments during this addressing process. Citizen suggestions will specifically be sought in the renaming of roads, if necessary, to eliminate duplicate or similar-sounding road names and to name all public and private roads, including fire roads, that are currently unnamed.

If you have any questions or wish to volunteer to assist addressing efforts, please call any of the Addressing Committee members listed below.

(Note: This sample ordinance is generic and cannot cover all possible circumstances or issues for every community. Communities should modify this ordinance for their own local needs. Plantations and counties should call the ESCB to obtain a separate sample ordinance.)

Section 1. Title

This ordinance will henceforth be known as the "Addressing Ordinance."

Section 2. Purpose

The purpose of this ordinance is to enhance the easy and rapid location of structures by law enforcement, fire, rescue, and emergency medical services personnel in the municipality of _____.

Section 3. Authority

This ordinance is adopted pursuant to and consistent with Municipal Home Rule Powers as provided for in Article VIII, Part 2, Section 1 of the Constitution of the State of Maine and Title 30-A M.R.S.A. Section 3001.

Section 4. Administration

This ordinance shall be administered by the _____ (*selectmen, town or city council, tax assessor, code enforcement officer, town meeting, or other individual or entity*) who/which is/are authorized to and shall assign road names and numbers to all properties, both on existing and proposed roads, in accordance with the criteria in Sections 5 and 6. The _____ (*designated addressing authority stated above or another designated individual*) shall be responsible for maintaining the following official records of this ordinance:

- a. A municipal map(s) for official use showing road names and numbers.
- b. An alphabetical list of all property owners as identified by current tax records, by last name, showing the assigned numbers.
- c. An alphabetical list of all roads with property owners listed in order of their assigned numbers.

The _____ (*selectmen or councilors*) shall designate an Addressing Officer, who is responsible for and authorized to provide all required addressing and database information to the state agency responsible for the implementation of Enhanced 9-1-1 service. The _____ (*selectmen or councilors*) may designate _____ (*a selectmen or councilor*) as the Addressing Officer.

Section 5. Naming System

All roads that serve two or more structures shall be named regardless of whether the ownership is public or private. A "road" refers to any highway, road, street, avenue, lane, private way, or similar paved, gravel, or dirt thoroughfare. A road name assigned by the municipality shall not constitute or imply acceptance of the road as a public way.

The following criteria shall govern the naming system:

- a. No two roads shall be given the same name (ex. Pine Road and Pine Lane).
- b. No two roads shall have similar-sounding names (ex. Beech Lane and Peach Lane).
- c. Each road shall have the same name throughout its entire length.

Section 6. Numbering System

The following criteria shall govern the numbering system:

- a. Numbers shall be assigned every 50 (fifty) feet along both sides of the road, with even numbers appearing on the left side of the road and odd numbers appearing on the right side of the road, as the numbers ascend. *(A 25 or 10-foot interval may be applied in more densely structured areas.)*
- b. All number origins shall begin from _____ *(the center of town, a particular town border, a particular compass direction, etc.)* or that end of a road closest to the designated origin. For dead end roads, numbering shall originate at the intersection of the adjacent road and terminate at the dead end.
- c. The number assigned to each structure shall be that of the numbered interval falling closest to the front door or the driveway of said structure if the front door cannot be seen from the main road.
- d. Every structure with more than one principle use or occupancy shall have a separate number for each use or occupancy, i.e. duplexes will have two separate numbers; apartments will have one road number with an apartment number, such as 235 Maple Road, Apt 2.

Section 7. Compliance

All owners of structures shall, by the date stipulated in Section 9, display and maintain in a conspicuous place on said structure, assigned numbers in the following manner:

- a. Number on the Structure or Residence. Where the residence or structure is within 50 (fifty) feet of the edge of the road right-of-way, the assigned number shall be displayed on the front of the residence or structure in the vicinity of the front door or entry.
- b. Number at the Road Line. Where the residence or structure is over 50 (fifty) feet from the edge of the road right-of-way, the assigned number shall be displayed on a post, fence, wall, the mail box, or on some structure at the property line adjacent to the walk or access drive to the residence or structure.
- c. Size, Color, and Location of Number. Numbers shall be of a color that contrasts with their background color and shall be a minimum of four (4) inches in height. Numbers shall be located to be visible from the road at all times of the year.
- d. Proper number. Every person whose duty is to display an assigned number shall remove any different number which might be mistaken for, or confused with, the number assigned in conformance with this ordinance.
- e. Interior location. All residents and other occupants are requested to post their assigned number and road name adjacent to their telephone for emergency reference.

Section 8. New Construction and Subdivisions

All new construction and subdivisions shall be named and numbered in accordance with the provisions of this ordinance and as follows:

- a. New Construction. Whenever any residence or other structure is constructed or developed, it shall be the duty of the new owner to obtain an assigned number from _____ (*the designated addressing authority stated above or another designated individual*). This shall be done at the time of the issuance of the building permit.
- b. New Subdivisions. Any prospective subdivider shall show a proposed road name and lot numbering system on the pre-application submission to the _____ (*Planning Board, etc.*). Approval by the _____ (*Planning Board, etc.*),

after consultation with _____ (*the designated addressing authority stated above or another delegated individual or board*), shall constitute the assignment of road names and numbers to the lots in the subdivision. On the final plan showing proposed roads, the applicant shall mark on the plan, lines or dots, in the center of the streets every _____ feet so as to aid in the assignment of numbers to structures subsequently constructed.

Section 9. Effective Date

This ordinance shall become effective as of _____ (date). It shall be the duty of _____ (*the designated addressing authority stated above or another designated individual*) to notify by mail each property owner and the U.S. Postal Service of their new address at least 60 (sixty) days prior to the effective date of its use. It shall be the duty of each property owner to comply with this ordinance, including the posting of new property numbers, within 60 (sixty) days following notification. On new structures, numbering will be installed prior to final inspection or when the structure is first used or occupied, whichever comes first.

Section 10. Enforcement

(This section is optional. If included, it should designate the individual responsible for enforcing the provisions of this ordinance and state the penalties, if any, for violations.)

When developing road naming standards, please consider the following recommendations:

1. Every distinct road with two or more dwellings should be given a separate, unique name. This includes all fire and private roads.
2. Each road should have one -- and only one -- correct name. A named road should be essentially continuous, without gaps.
3. Road names should only change when there is a substantial intersection, or at municipal boundaries.
4. When needing to name a road with two names in different sections, the name of the road that is used for the longest distance or is most heavily traveled should be kept.
5. A long driveway with only one house at its end might be named if the potential exists to erect additional structures along that driveway.
6. There should be no duplicate road names, such as Pine Road and Pine Lane.
7. There should be no similar-sounding road names, such as Beach Avenue and Beech Avenue, Main Street and Maine Street, or Apple Hill Road and Apple Road.
8. Road names should be assigned based on traffic patterns. When a road forks into two roads, the fork with the higher traffic volume should continue the same name.
9. If a road has more than one branch at the end, use separate names for the multiple branches.
10. Roads should have a name and not be identified by a route number. Exception: The only state or U.S. highway route number recommended to be used as a road name is U.S. Route One.
11. Avoid special characters, such as hyphens, apostrophes, periods, or decimals, in road names.

12. When having to re-name roads with similar-sounding names, consider the following:

- The road with a name of historical significance should have its name retained.
- The road with the most properties on it, and thus a name change would affect a greater number of residents, should retain its name.
- The road that has retained its name for the longest time or has been consistently signed for the longest time should retain its name. The same would be true for a road with a more descriptive name.

13. When naming roads that connect two other roads but have a middle section that is closed permanently or is impassable at certain times of year, consider the following options:

- Retain the current name for one end of the road and assign a different name to the other end of the road.
- Retain the same name at each end of the road and assign two-digit numbers to properties along one end of the road and three-digit numbers to properties along the other end. If this option is chosen and the potential exists to further develop the road in the future, lay out the numbers to insure that there is no possibility of having any three-digit numbers at the two-digit end and vice versa.
- Assign a pre-directional to each end of the road, such as North Mountain Road and South Mountain Road.

14. When renaming roads in a community with a significant summer population, send notices to seasonal residents, giving them an opportunity to mail in their road name suggestions within 30 days.

15. Use themes, such as wildlife, trees, or historic persons, to name unnamed roads, such as fire roads. Use a specific theme to name fire roads leading off a specific main road or around a specific body of water.

16. Roads within multi-structure complexes (e.g., business campus, multi-unit apartment complex) should be named and each structure individually addressed.

17. Keep road names short. They are easier to remember.

18. When naming new roads, consider the following suggestions road suffixes:

- Avenue = A thoroughfare running principally in a north-south direction (or could be east-west depending on how "street" is defined).
- Circle = Short road that returns to itself; circular or semi-circular roads.
- Court = Permanently closed road such as a cul-de-sac; dead-end road, usually under 1,000 feet in length; or horseshoe-shaped road.
- Lane = Fire road or private road.
- Loop = Short drive that begins and ends on the same road.
- Road = Most common designation for a secondary thoroughfare; generally indicates a heavily traveled route.
- Street = Usually found in downtown or more congested areas; run principally in an east-west direction (or could be north-south depending on how "avenue" is defined).

19. Every official road name should have a corresponding standard suffix that complies with Maine E9-1-1 database standards. On the following page is a list of recommended road suffix abbreviations.

Road Name Suffix Abbreviations

ALLEY	ALY	FORK	FRK	PIER	PR
ANNEX	ANX	FORT	FT	PIKE	PKE
AVENUE	AV	FREEWAY	FRWY	PINES	PNES
BEACH	BCH	GARDEN(S)	GDNS	PLACE	PL
BEND	BND	GLEN(S)	GLN(S)	PLAZA	PLZ
BLUFF	BLF	GREEN(S)	GRN(S)	POINT	PT
BOULEVARD	BLVD	GROVE(S)	GRV(S)	PROMENADE	PROM
BRANCH	BR	HARBOR	HBR	REST	RST
BROOK	BRK	HAVEN	HVN	RIDGE	RDG
BYPASS	BYP	HEIGHTS	HTS	ROAD	RD
CAPE	CPE	HIGHWAY	HWY	ROADWAY	RDWY
CAUSEWAY	CSWY	HILL(S)	HL(S)	ROUTE	RT
CENTER	CTR	HOLLOW	HOLW	ROW	ROW
CIRCLE	CIR	INLET	INLT	RUN	RUN
CONCOURSE	CONC	JUNCTION	JCTN	SHORE(S)	SHR(S)
CORNER	COR	KNOLL	KNL	SPRING(S)	SPG(S)
COURT	CT	LANDING	LNDG	SQUARE	SQ
CROSSING	CRSG	LANE	LN	STATION	STA
COVE	CV	LOCK(S)	LCK(S)	STREAM	STRM
CREEK	CRK	LODGE	LDG	STREET	ST
CREST	CRST	LOOP	LOOP	SUMMIT	SMT
CRESCENT	CRES	MALL	MALL	TERRACE	TERR
CROSSING	XING	MANOR(S)	MNR(S)	THRUWAY	THRWY
DALE	DL	MEADOW(S)	MDW(S)	TRACE	TRCE
DEPOT	DEP	MILLS	MLS	TRAIL	TRL
DIVIDE	DV	MOUNTAIN	MTN	TURNPIKE	TRNPK
DRIVE	DR	NECK	NCK	VALLEY	VLY
ESPLANADE	ESPLND	ORCHARD	ORCH	VIEW	VW
ESTATES	ESTS	OVAL	OVAL	VILLAGE	VLG
EXPRESSWAY	EXPWY	PARK	PARK	VILLE	VL
FALLS	FLS	PARKWAY	PKY	VISTA	VIS
FIELD(S)	FLD(S)	PASS	PS	WALK	WLK
FOREST	FRST	PATH	PATH	WAY	WY

Property numbering standards determine how numbers are applied consistently throughout the community. The address map created by GPS measurement will assign property numbers automatically. The numbering standards set by the community determine how those numbers are calculated and how numbers are assigned in ambiguous situations.

Some portions of communities may already be physically addressed. (Please see page 14 to determine if your community's current address standards are compatible with E9-1-1 guidelines.) If existing standards are used, any new numbers assigned should be compatible and consistent with these standards.

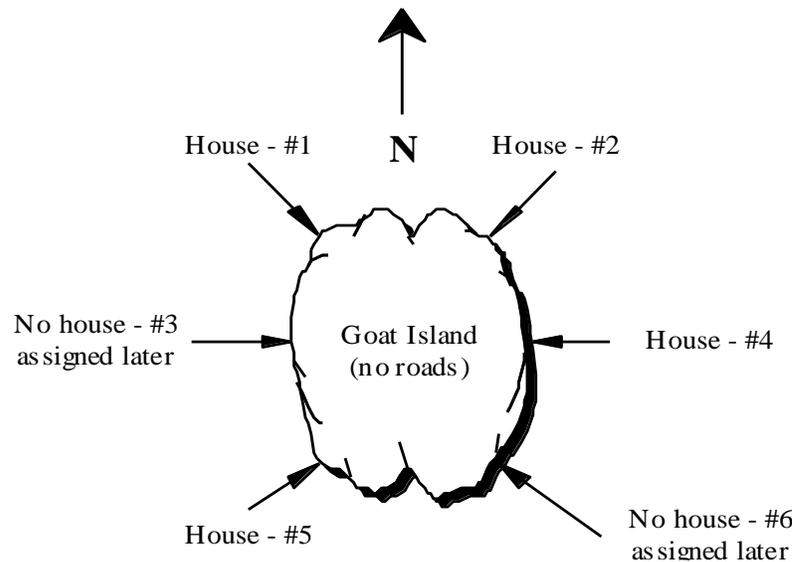
In general, numbering standards should include the following:

1. Property numbers should begin from the numbering origin and ascend in consecutive numerical sequence, e.g., 1-2-3-4-5-6-etc..
2. Odd numbers should be assigned to structures on the right side of the road and even numbers to the left, as numbers ascend from the numbering origin. If part of the community is already physically addressed in the opposite fashion, however, then that scheme should be continued to maintain consistency.
3. There should be no fractional addresses (34½ Ash St), alphanumeric address numbers (123A Main St), nor hyphenated address numbers (41-656 Bell St).
4. For a variety of reasons, old rural route box numbers should not be used for new property numbers.
5. Numbers should be assigned based on a standard numbering interval, such as 50 feet, regardless of whether there is an existing structure for every number or whatever is the minimum road frontage requirement. This provides unused numbers to be assigned to future structures built between existing ones.
6. When a road can be accessed by two different adjoining roads, numbering should begin at that entrance which emergency responders are most likely to enter. Numbers will then ascend as responders search for a location.

Recommendations for specific numbering situations are below. The general logical order of address elements should follow Postal Service conventions: road number, pre-directional (if any), primary road name, suffix, post-directional (if any), and secondary number (if any), e.g., 100 W. Main St, Apt 201.

- **Apartments**: Assign a primary road address, with numbers (not letters) as secondary location indicators, e.g., 111 Main St, Apt 1. Use apartment numbers to indicate the floor location, e.g., Apt 303 (or 3C) is the third apartment on the third floor.
- **Circular roads**: Numbering should begin at the point where emergency responders are most likely to enter the road, so numbers will ascend as responders search for a location. Where there is no obvious end with greater traffic flow, it is recommended that the starting point be selected at the end closer to the designated numbering origin. Whatever method is selected, apply it consistently within the community. See drawing on page 71.
- **Condominiums**: Assign addresses as though they were apartments or individual houses along a road.
- **Corner lots**: Assign a number according to where the front door faces the road. There may be instances, however, when a corner lot might be numbered based on its driveway, if it made more sense from an emergency responder perspective. See drawing on page 71.
- **Cul-de-sacs**: Those without buildings in the center portion should be numbered as if the center line of the street bisects the cul-de-sac with odd numbers on the right and even numbers on the left. The numbers meet at the far end of the center area. See drawing on page 72.
- **Duplexes**: Assign two separate numbers or address as with apartments.

- **Islands:** On river, lake, or coastal islands with roads, properties should be numbered as any area with roads. On islands without roads, properties can be numbered as follows: Pick a compass point on the island, 0 degrees North for example. Assign odd addresses to lots on the west side of the island, with numbers ascending towards the south. Assign even numbers to lots on the east side, with numbers also ascending towards the south. Use the minimum water frontage requirement for lots on the island as a numbering interval to leave room for additional structures to be built on vacant lots. The road name will be that of the island, resulting in an address such as “4 Goat Island.” If an island does not have a name, consider naming it as a formerly unnamed road might be.



- **Mobile home parks:** The park can be assigned one address on the main road, followed by a numeric unit or lot number for the individual homes, such as an apartment building would be numbered. Another option would be to name all the roads and number all the homes within the park, as any property would be numbered on any road. See drawing on page 72.
- **Office suites:** Numbers should be assigned with a primary road address, followed by a numbered (not lettered) secondary location indicator, e.g., 325 Memorial Drive, Suite 312. Suite numbers should also be used to indicate which floor location.
- **Shopping center:** Numbers can be assigned to businesses within the range available to the property.

Circular Roads

Circular roads should begin numbering at the lowest numbered intersection. The outside of the circle should be numbered first, based on the numbering interval. The inside is then numbered to match with the outside. This may result, in some cases, with fewer numbers on the inside and with some gaps in the inside numbers.

Corner Lots

When assigning numbers to corner lots, use the front door. When the front door is obscured or if the structure is best reached for emergency purposes by the driveway, assign the property number based on where the driveway falls on the road.

Cul-de-sacs

Cul-de-sacs require applying guidelines for both dead-end roads and circular roads. The numbering should begin from the intersection. Once in the cul-de-sac, numbers proceed odd around one side of the circle and even around the opposite side to the far side of the circle. When a structure occurs in the middle of the circle, number that structure in a way that best fits, such as according to where the front door faces.

Mobile Home Parks

Mobile home parks can be numbered just like apartments. The difference is that mobile home parks will be designated by Lot # instead of Apt #. The full address, therefore, would be 235 Acadia Road, Lot 17. An alternative is to name the road in the park and number the homes as single family dwellings, such as 17 Forest Lane.

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Start with two copies of the base map. Call OGIS at 287-6153 if you need a second copy. Use one copy as a working map. Use the second copy as the final version to be marked up **with the officially approved road names** following the instructions below. Send the map and other requested information to OGIS. To complete these instructions, you will need a pink, yellow, and green highlighter. Other colors may be used as long as it is indicated on the map which color is used for what task.

_____ Step One: Add missing roads.

- A. Any road, public or private, including fire roads, with two or more structures should be part of the emergency road network and shown on the map.
- B. In #2 pencil, sketch in the approximate location of any road that is part of the road network, but which does not appear on the OGIS map. Use a green highlighter to indicate a public road and a pink highlighter to indicate a private road. A contractor will measure these roads using GPS (satellite receiver) equipment.
- C. Make notes either on the maps or on a separate sheet of paper briefly describing the location of the missing roads to help the contractor find them. (For example, "gravel road, one mile past Bill's Variety, beside white barn.")

_____ Step Two: Highlight private and non-emergency roads already on the map.

- A. Using a pink highlighter, highlight any private road that is part of the emergency road network and already shown on the map.
- B. Using a yellow highlighter, highlight any non-emergency road on the map, such as a private drive serving one house, an abandoned road, or a logging road or trail.

Step Three: Indicate correct road names.

- A. To insure correctness, review all road names shown on the map. All road names listed on the map must be official road names. Please do not return the map to OGIS until the community has officially approved all road names.
- B. Using a #2 pencil, correct or add road names to the map. Cross out incorrect names and clearly print the correct name on the road line or off to one side with an arrow pointing to the road. (Only do this for roads that are part of the community's emergency road network.)
- C. When naming roads, observe the recommendations in the Addressing Guidebook. Using an alphabetical list of road names helps identify duplicate or similar-sounding road names.
- D. For congested areas on the map, include any additional maps, subdivision plats, or lake plans when returning the base map to OGIS. These may help indicate correct road names. Local planning boards are an excellent source for these materials.

Step Four: Designate a numbering origin and numbering interval.

- A. Clearly indicate a numbering origin on the map. Property numbering will ascend from this point. (The numbering origin should be listed in an addressing ordinance or standards.) Indicate numbering direction along any road where it may be unclear. In the next set of maps, this numbering origin or direction will be used to consistently assign numbers to all properties. Note: These numbers will be automatically assigned by an OGIS computer following GPS measurement.
- B. Indicate the numbering interval (50 feet, 25 feet, etc.) for all roads. If the interval changes on any road or section of a road, please note the change at intersections only.
- C. Unless otherwise indicated, odd numbers will be placed on the right side of roads and even numbers on the left, as the numbers ascend.

_____ Step Five: Send all of the following materials and information to OGIS.

1. A cover letter stating that the community has officially approved all road names on the map and the names and telephone numbers of at least two local guides to ride with the GPS contractor.
2. The base map, marked as instructed above. Please use the attached checklist to insure that the map has been properly marked.
3. Any additional maps, plats, plans, or sketches giving details of road naming, if helpful.
4. A copy of the index to the community's tax maps and what scale each tax map is drawn to, for example, 1 inch = 500 feet, 1 inch = 400 feet, etc..

Mail these materials to: OGIS Project Manager
Maine Office of Geographic Information Systems
145 SHS
Augusta, ME 04333-0145

Or deliver to: Maine Office of Geographic Information Systems
26 Edison
Augusta, ME

For additional information or questions on map updating, please call the OGIS Project Manager at 287-8087.

OGIS Base Map and Information Checklist

Please be sure to check the following before sending the base map to OGIS.

- _____ All missing roads that are part of the emergency road network are drawn in.
- _____ All roads are clearly marked with their official road names.
- _____ Roads are color coded with highlighter to show public, private, and non-E9-1-1 roads.
- _____ Numbering origin or numbering directions are clearly indicated on the map.
- _____ The numbering interval is indicated for all roads. Changes in interval on a road are noted at intersections.
- _____ The odd- and even-numbered sides of the road are noted.
- _____ All roads crossing into or from an adjacent town and sharing the same name are indicated. If numbering from the adjacent town is to be continued into your town, this is also indicated.
- _____ Tax map index and scales are included in your materials.
- _____ The names and telephone numbers of at least two local guides are included in the cover letter.

Please see the accompanying instructions if you have any questions or call OGIS at 287-8087.

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Enclosed is an address map of your town that incorporate the GPS measurement recently undertaken. Selected enlargements are included, if needed. The map(s) should show the following:

- All roads to be served by your emergency service providers.
- The correct names for these roads.
- Tick marks every _____ feet along the roads.
- All points collected by GPS measurement with an address assigned to them. These points represent residential, public, or commercial buildings, driveways, dry hydrants, and free-standing telephone booths.

Please note that these dots do not represent exact locations. They are points taken in the road in front of a structure or at the driveway entrance to a structure and represent address points.

Red dots represent residential structures, green dots are driveways, dark blue dots are public buildings, light blue dots are commercial buildings, and black dots are other points, such as dry hydrants and telephone booths.

Shown beside each dot is a number that represents an address assigned by a computer. These addresses were calculated from the structure's GPS location and the numbering direction, numbering interval, and odd/even side of the road designated by your community.

While the technical process that produced the map(s) should show most everything correctly, it is not perfect. There may be some errors.

Therefore, please complete the attached checklist when reviewing the address maps.

- Please review the maps very carefully for any errors or omissions.
- It is very important that you spend the time necessary for a very thorough and detailed review of the address maps.
- This will be your only major opportunity for revisions before the address conversion materials, including mylar maps and address conversion lists, are sent to you.
- When undertaking your review, corrections can be noted individually on the maps, as suggested in the checklist instructions below. Or, it may be more helpful to identify the correction with a number and then list the number and a full explanation of the correction on the enclosed error correction form.
- If you have any questions during your review, please call OGIS at 287-8087.

Upon completion of your review, please return the corrected address maps to:

OGIS Project Manager
Maine Office of Geographic Information Systems
145 State House Station
Augusta, ME 04333-0145

or deliver to: Maine Office of Geographic Information Systems
26 Edison Drive
Augusta, ME

Following correction of the maps, final versions will be returned to your community for approval. Upon final approval, address conversion materials will be sent to enable you to continue the process outlined in the Addressing Guidebook.

Thank you for your cooperation.

Checklist for Address Map Review

____ 1. Check to insure that all the roads which are part of your town's emergency road network are shown on the map.

- A. To do this, compare all the roads on the new address map with the roads on your original base map, using the working copy of the base map you kept. Especially check to see that all the missing roads sketched in on the base map are now on the new maps.
- B. If there are any roads still missing, please sketch them on the address map in pencil and clearly print the name of the road next to it.
- C. Note: If roads are missing which you HAD marked on the original base map to be added, OGIS will have them re-measured as soon as possible. If roads are missing which you HAD NOT marked on the original base map, OGIS will add them to a list of roads to be measured when a GPS contractor is scheduled for your area in the future.

____ 2. Check that all the road names on the address maps are correct.

- A. To do this, look at each road name carefully to see if it is spelled correctly, has the correct suffix (RD, DR, AV, etc.), and is associated with the road's entire length.
- B. If there are any road names that are incorrect, cross out the incorrect name and clearly print the correct name in pencil.

___ 3. Check the road numbering direction for each road.

- A. To do this, review your town's numbering origin or direction and then review the numbering direction on each road in accordance with the town's standard. Please also check the numbering direction on roads shared with adjacent towns.
- B. If a road is not numbered in the correct direction, mark the correct direction in pencil with an arrow alongside the road and add a note that says "reverse direction."

___ 4. Check the numbering interval, represented by tick marks, on each road.

- A. You should refer to your retained copy of the original base map to see if any roads, or portions of roads, were marked with a different numbering interval.
- B. If an entire road or part of a road needs a different numbering interval, mark this on the map and note it. Example: A road along the lake shore has camps very close together where a 50 foot interval for numbering may not work. Mark in pencil that part of the road in question and add a note that says "use 10 foot interval here."

___ 5. Check to insure that each structure is properly represented by an address point.

- A. To do this, drive your town's roads with the address map. While this may be time-consuming, it will insure that your final address map is accurate. You might also use the log maintained by the local guide during GPS measurement.
- B. This point check will require two people, one to drive and another to take notes and review the map. By copying the map in 8.5" x 11" sections, it will better fit on a clipboard.

- C. Check for points that might be on the “wrong” side of the road. Usually, if this is the case, the entire road will have its points reversed. Mark those points on the “wrong” side of the road with a highlighter and add a note in pencil that says "buildings are reversed here."
- D. Check for points that might be missing. There may be a building that exists on a road, but there is no point to represent it on the address map.
- E. If a point is missing, mark on the map the approximate location of the structure, using the map's tick marks and your vehicle's odometer as a guide. Pacing the distance on foot may be another option to measure the location of the structure on the map. See the attached example.
- F. Once a missing point is placed on the map, you should be able to manually calculate a number for it based on the numbering interval. Later, you can then add this address to the address conversion list. (Note: A GPS contractor will not be returning to collect these missing points, unless the points are on a road missed during GPS measurement. See Step 1 above.)

6. Designate the preferred computer format, if desired, for the address conversion list.

- A. The options are a spreadsheet or database. Call OGIS at 287-6153 if you have any questions.
- B. A computer version of the conversion list will make it easier to add or change information and will speed Postal Service processing time if the list can be easily sorted.
- C. More detailed instructions on this conversion list are included in the Address Conversion Package instructions.

Addressing Map Error Correction Form

Date: _____

Please list any errors found on your addressing maps and return this form with the maps to OGIS at the address above. Corrected address maps will then be sent to your community for final approval. Thank you.

Example: 1. Switch numbering of points circled to opposite side of Phillips Rd.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____

May 1997

Enclosed are the instructions for completing the E9-1-1 Address Conversion Package for submission to the local postmaster.

For those communities participating in the E9-1-1 addressing process, completing the Conversion Package requires a set of materials from the Maine Office of Geographic Information Systems (OGIS). These materials include: (1) a final addressing map, (2) a set of mylar tax map overlays, (3) an address conversion list, (4) a road name and number range list, and (5) a set of these instructions. If you are missing any of the first four items, please call OGIS at 287-6153.

With these materials, a community can convert existing addresses to new physical addresses for use with the E9-1-1 system and the Postal Service. This process requires completing and submitting to the local postmaster the E9-1-1 Address Conversion Package. This package consists of four items:

- (1) An old-to-new address conversion list.
- (2) A road name and number range list.
- (3) An intersection range map.
- (4) A cover letter from the municipality or county.

Please follow the attached checklist to complete the E9-1-1 Address Conversion Package.

If you have any questions regarding these instructions, please call:

Maria Jacques, Enhanced 9-1-1 Database Manager, 287-9911, or

Paul Shinay, Addressing Systems Manager, U.S. Postal Service, 828-8503.

Checklist for Completing the E9-1-1 Address Conversion Package**____ 1. Complete the address conversion list.**

- A. Before starting, be sure that your community's records contain the most current mailing addresses. Your local postmaster can provide a copy of current postal customer addresses when a town or county official signs a letter from the post office certifying that the information will only be used for E9-1-1 addressing purposes. (This is done to protect the confidentiality of the information.)
- B. Using the mylar overlays with tax maps, tax records, and the address conversion list provided by OGIS, match each new physical address with a property owner name and current local address.
- C. Add any missing physical addresses to the list. Examples include an address manually calculated for a missing point on the address map or additional addresses created for individual units in apartment buildings. Incorrect addresses changed on the address map should also be corrected on the list.
- D. The address conversion list should contain a name and current address for each new physical address on the list. Using the postal delivery list from the local postmaster will insure that each existing postal customer has a current address linked to a new physical address. The address conversion list is not complete until every current address is linked to a new physical address.
- E. Note: Residents using post office box numbers will continue to use them for their mailing addresses. Their structures, however, should have a physical address assigned to them for E9-1-1 service. Also, the address conversion list should not contain any telephone numbers. They will be provided by telephone companies when the E9-1-1 database is created.
- F. If a community used a computer spreadsheet or database to complete its address conversion list, sort the list in rural route and box number order before giving it to the local postmaster. This will greatly reduce the amount of processing time at the local post office.

2. Review the road name and number range list.

- A. Be sure that each road has a name and that all names have been officially approved by the town or county. Check to insure the correct spelling of each road name and its correct suffix (RD, ST, DR, LN, etc.).
- B. The high number on a road's number range should be the highest potential number on the road based on the community's numbering interval, regardless of whether or not there is a structure at each number.
- C. Any changes made to official road names and suffixes or number ranges on the address conversion list must also be made on the road name and number range list to insure that the two lists agree.
- D. Note: Any changes to (1) a road name, (2) a number range, or (3) a road's numbering direction must also be submitted to OGIS on the road name list when requesting an intersection range map.

3. Request an intersection range map from OGIS.

- A. Following completion of the address conversion list and road name list, request an intersection range map from OGIS (287-6153). This map shows all roads, correct road names, and the low and high property numbers between every intersection on each road. This map is required by the U.S. Postal Service to complete its conversion process.
- B. Again, any changes made to (1) a road name, (2) a number range, or (3) a road's numbering direction during completion of the address conversion list must be sent to OGIS when requesting an intersection range map. All changes must be submitted to OGIS on a corrected copy of road name list.
- C. Once OGIS has received the corrected road name list, it will update its address map files with the corrected information and then send the intersection range map to the community.

_____ 4. Write a cover letter from the municipality or county.

- A. The letter must be written on official letterhead from the municipality or county stating that the address conversion list is official, complete, and final.
- B. The letter must be signed by either a municipal or county official (selectmen, manager, commissioner, etc.) or the municipal or county Addressing Officer.
- C. This letter is important to insure that the community has carefully approved all of its new addresses.

_____ 5. Assemble and submit the E9-1-1 Address Conversion Package to the local postmaster.

- A. The Address Conversion Package consists of four items:
 - (1) An old-to-new address conversion list.
 - (2) A road name and number range list.
 - (3) An intersection range map.
 - (4) An official letter from the municipality or county stating that the address conversion list is official, complete, and final.
- B. All items must be included to consider the package complete.
- C. Communities that did not participate in the OGIS addressing process or withdrew at some point are responsible for providing all the required items. Any community that used a private contractor for addressing should contact its contractor for the above materials.
- D. After submitting the address conversion package, wait for official word from your local postmaster that the addresses have been adopted by the Postal Service for use as mailing addresses. This process should take 45 to 60 days. Please refer to the guidebook and following page for information on the next steps.

After Submission of the E9-1-1 Address Conversion Package

1. ***Inform residents of their new addresses only after receiving official word from your local postmaster.*** Providing new addresses to residents before official notification will result in some people using their new addresses immediately. This will cause confusion with public safety officials in responding to emergencies. It will also cause difficulties in mail delivery when the new addresses are used before they are officially part of the Postal Service system.

2. ***Do not post any new road signs until the community is ready to begin using the new addresses.*** The best time is after notification from the local postmaster and before the official date for new address use by the community.

3. ***Maintain an accurate address conversion list.***
 - This list will be used by the E9-1-1 Bureau and the E9-1-1 Service Provider to match the new addresses to telephone number subscribers. There will be a time delay from when the community first uses its new addresses and the E9-1-1 Bureau requests the address information. While waiting for this request, the community should assign and enter new addresses to its list.

 - Keeping the list accurate requires a means to easily update or add address information and designating a person responsible for doing so. Computers are very helpful in this task. If a community did not use a computer to create the address conversion list but now wishes to have a computer file following Postal Service conversion, please contact the ESCB (287-9911) with your request.

 - In most communities, the designated Addressing Officer is the person responsible for insuring that address information is kept current and protected from loss or hazard.

 - Note: Any future postal address changes made by a community after submission of the original E9-1-1 Address Conversion Package must be submitted to the local postmaster using these instructions.

Thank you for your cooperation.

Installing road signs is one of the final, and more important tasks in addressing. To assist both emergency service personnel and the general public, signs must be visible and maintained. A frequent complaint about road signs is that snow banks or vegetation often hides them. Annual trimming or minor maintenance can eliminate this problem.

There are several varieties of signs that are available for public road use. The most suitable is the green background with reflective white lettering. It is important to insure that letters are tall enough and thick enough to be easily seen day or night. Proper height is also very important.

Listed below are the recommended standards concerning the size, placement, materials, colors, and lettering for road signs. They are based on the Manual on Uniform Traffic Control Devices (MUTCD), which is the recommended standard for all public agencies, including municipalities, the Maine Department of Transportation, and the U.S. Department of Transportation, Federal Highway Administration.

Size: Recent changes to the MUTCD list a new recommended size for lettering on road name signs. As of January 9, 1997, the MUTCD recommends six (6) inch high uppercase letters and four and one-half (4½) lowercase letters for street names and three (3) inch letters for supplemental lettering (e.g. ST, AV, RD, etc.) or section of a city (e.g. NW, SE). However, for local roads with speed limits of 25 mph or less, the MUTCD allows for the continued use of four (4) inch uppercase letters for street names with two (2) inch lowercase letters for supplemental lettering.

If six (6) inch letters are used, then a nine (9) inch high blade in lengths of 24, 30, 36, or 42 inches are available. If four (4) inch letters are used, then a six (6) inch high blade in similar lengths are available.

Note: Existing road signs using four (4) inch high letters on roads with speed limits above 25 mph do not have to be immediately replaced. The new MUTCD guidelines state that the compliance date for using six (6) inch high letters is the year 2012 or whenever an existing sign is replaced within the next 15 years. Each community must decide if and when it adopts the new recommended standards for letter size.

Placement: In business districts and on principal arteries, road name signs should be placed at least on diagonally opposite corners so that they will be on the far right-hand side of the intersection for traffic on the major street. They should be mounted with their faces parallel to the streets they name. In residential districts, at least one road name sign should be mounted at each intersection. In rural districts, signs should be placed to identify important roads not otherwise marked.

On intersection approaches, a supplemental road name sign may be erected separately or below an intersection-related warning sign. When combined with a yellow diamond sign, the color should be a black message on a yellow background.

The preferred mounting method for road signs is post top-mounting brackets. Hardware for mounting signs to posts should be subsidiary to other items. The minimum vertical clearance should be eight (8) feet to the bottom of the sign for post top-mountings.

Road name signs can be mounted on top of another sign, such as a STOP sign. Recent changes to the MUTCD allow municipalities this option, as long as the visibility of the two signs, especially the STOP sign, is not compromised.

Colors: The signs should be reflectorized. The letters and background shall be of contrasting colors and should have white letters and border on a green background.

Lettering: Letters should conform with the standard alphabets for highway signs printed by the Federal Highway Administration, such as ST, RD, LN, CT, AV, CR, etc.. Conventional abbreviations are acceptable except for the road name itself.

Materials: The most commonly used material for blades is either extruded aluminum with a 0.25 inch flange thickness and a 0.090 inch web (min.) or flat sheet aluminum with a minimum thickness of 0.125 inches. Other materials, such as fiberglass, can be used, if they achieve the same level of visibility and durability.

Before installing any road signs, a community must call DIG SAFE (toll free at 888-344-7233). For additional information on a community's responsibilities under Maine's "Dig Safe" law, please call the Maine Local Roads Center at 287-2152.

Dear Resident,

The town of _____, in cooperation with the U.S. Postal Service, has assigned new addresses to all residences and businesses in our town. These new addresses will be used in conjunction with the coming E9-1-1 service, which links each telephone number to a physical address easily located by emergency responders.

As of _____ (date - at least 60 days after the mailing of letter), your new address will be:

(address)

Please note that the assignment of your new address does not mean that E9-1-1 service is immediately available. The start up date for E9-1-1 service in Maine will be officially announced at a later time.

All new addresses were created in accordance with the town's addressing ordinance passed on _____ (date). This ordinance stipulated that a number be assigned to every 50 foot section along your road, with odd numbers on the right and even on the left.

The number assigned to your home or business should be displayed prominently on your mailbox and on your front door to assist emergency services and the post office in finding you. In addition, utilities, delivery services, and others will use the new addresses for more effective service.

You are requested to notify correspondents, utility companies, publishers, and others of your new address. We suggest that you post your new address on or near your telephone so that you or others can confirm your location in an emergency.

For an appropriate time, mail with your old address will continue to be delivered.

We appreciate your cooperation and thank all the people who helped with the addressing project.

Under E9-1-1 Bureau rules, the Addressing Officer is responsible for:

- Providing an old-to-new address conversion list to the E9-1-1 Bureau to link the new addresses to telephone subscriber information.
- Approving and providing correct road name and address range information.
- Indicating the community's Emergency Service Zone(s), or ESZs.
- Providing updates on changes to address ranges and ESZs as they occur or provide verification once a year at a minimum.
- Resolving any discrepancies that arise with any addressing information in the E9-1-1 databases.

The basis for these responsibilities is found in the following excerpt from the operating rules adopted by the E9-1-1 Bureau in 1996, pursuant to 25 M.R.S.A. § 2926. These sections explain the responsibilities for municipalities and Addressing Officers regarding updating E9-1-1 address database information. A more detailed set of instructions and forms for providing updated address information to the E9-1-1 Bureau will be sent to Addressing Officers in the fall of 1997.

§6. Procedures for developing and maintaining address and routing databases.

1. Address and Routing Database Development.

A. Physical addresses. Each municipality participating in the E-9-1-1 system shall provide the Bureau with a list of accurate physical addresses for all published residential and business telephone subscribers and coin-telephones within its municipal boundaries. These addresses shall be linked with corresponding telephone numbers in telephone companies' customer service databases.

B. Master Street Address Guide. Each municipality participating in the E-9-1-1 system shall provide the Bureau with accurate road names, number ranges, and emergency service zones (ESZ) for the purpose of creating the Master Street Address Guide (MSAG). The MSAG shall be used to route 9-1-1 calls to the proper PSAP and display the correct ANI/ALI information.

2. Address and routing database maintenance.

A. Municipal maintenance. After establishment of the MSAG, each municipality participating in the E-9-1-1 system shall continue to verify the accuracy of the routing information contained in the MSAG and to advise the Bureau, on an as-occurred basis, of any changes in road names, the establishment of new roads, changes in address numbers used on existing roads, closing and abandonment of roads, changes in police, fire, emergency medical service or other appropriate agencies, jurisdiction over any address, annexations and other changes in municipal and county boundaries, incorporation of new communities or any other matter that will affect the routing of 9-1-1 calls to the proper PSAP.

B. Routing database maintenance. The Service Provider shall make every reasonable effort to update the MSAG and routing databases on a daily basis so that the number of records "not found" shall not exceed one percent of the total number of database lookups per quarter.

§7. Procedures for cooperation and coordination with telephone utilities and municipalities for implementation.

1. Municipal Coordinator. Each municipality participating in the E-9-1-1 system shall designate an individual to serve as its Municipal Coordinator (Addressing Officer) for all issues involving the development and maintenance of address information for the E-9-1-1 addressing and routing databases.

2. Database maintenance. Each Municipal Coordinator (Addressing Officer) shall notify the Bureau and Service Provider of any changes, deletions and additions to the MSAG on an as-occurred basis. The Service Provider shall update the MSAG within 24 hours of notification by a municipality. Each municipality shall review the MSAG yearly, at a minimum, to ensure accuracy of the data and the emergency service zones.

Below are recommendations for maintaining an addressing system. Because each community's addressing procedures may differ, communities may want to tailor these recommendations to meet their needs.

1. When a request is made for an address assignment, the property's approximate location should be obtained, along with any identifying structures or landmarks that may help locate the new structure or property requiring the address.
2. Requests should be handled the same day they are received, whenever possible.
3. Properties that can be located by verbal description on address maps may be addressed over the phone using tick marks showing the numbering interval. However, care should be taken when using this method. To assign an address by phone, town officials must know the physical location of the property, surrounding landmarks, the addresses next door or across the street. Addresses that cannot be handled by phone should be assigned by driving to the location and taking linear measurements.
4. When an address is assigned, all appropriate municipal departments and the local post office should be notified.
5. When a new address is assigned and notifications are complete, the town's address map and address database should be updated immediately.
6. Depending on the level of activity during the year, or at least once each year, updated maps should be distributed to the agencies using them. Map users might be local emergency service providers, as well as tax collectors and other town agencies.
7. Other activities, such as updating dispatching databases, voter registration files, jury lists, and land/tax information systems, might be maintained by the same individual(s) responsible for updating the address database.