

WISCONSIN LAND INFORMATION
PROGRAM

RECOMMENDATIONS AND
REQUIREMENTS FOR COUNTY-WIDE
PLANS FOR LAND RECORDS
MODERNIZATION

Wisconsin Land Information Board
Wisconsin Department of Administration
Division of Energy and Intergovernmental Relations
P.O. Box 7868
Madison, Wisconsin 53707-7868
(608) 267-2707

(Standard)

WISCONSIN LAND INFORMATION PROGRAM

RECOMMENDATIONS AND REQUIREMENTS FOR COUNTY-WIDE PLANS FOR LAND RECORDS MODERNIZATION

January, 1991

I. INTRODUCTION

A. Overview of the Wisconsin Land Information Program

The Wisconsin Land Information Program ("Program") was created in 1989 Wisconsin Act 31. Act 31 also created the Wisconsin Land Information Board ("Board") and gave it the authority and the responsibility to implement the Program. 1989 Wisconsin Act 339 provided the funding mechanism for the Program and refined the policy instruments for its implementation. Taken together these pieces of legislation provide the framework and the context for the Program.

A copy of the statutes that directly pertain to the Program are attached. Also attached is the Board's Interpretation of the Enabling Legislation, 1989 Acts 31 and 339. Both the statute and its interpretation should be fully understood prior to reading this document. This document, its requirements and recommendations, are deeply rooted in the statutes and the legislative and gubernatorial intent in the Acts creating this Program. Numerous other statutory provisions have an effect on this Program and local governmental operations. These statutes must also be considered as an integral part of the planning process.

The objective of the Program is to facilitate the development of land information systems in the State of Wisconsin that are integrated, vertically and horizontally. This is not to suggest the creation of a single, centralized land information system. Rather, the intent is the development of a decentralized confederation of systems where those with existing land records responsibilities would continue to collect, maintain and keep custody of land information. Other organizations at the local, county, state and federal levels and the private sector would have access to this information through a series of formal and informal data sharing arrangements.

B. County Participation in the Wisconsin Land Information Program

It is the intent of the Board to afford each County the widest possible latitude in its interpretation of land records modernization and the development and implementation of the County-Wide Plan. However, this intent must be balanced by the need for the effective use of public funds for programs which are consistent, efficient and which will ultimately be able to contribute to a fully confederated network of land information systems. With these objectives in mind, the Board has structured the Plan format and its components in a way so as to focus Program requirements on current, statutorily defined County responsibilities. In this fashion, no new activities or programs need be undertaken by a County, unless it chooses to do so on its own. An approved County-Wide Plan represents an agreement between the County and the Board. This agreement is designed to facilitate the Program objectives of land records modernization and the integration of land information.

The County-Wide planning process is one of the means available to meet the objectives of the Program. This planning process is not directed toward the needs of the Board. Rather, the planning process should be driven by the needs, priorities and circumstances as they exist in each participating County. The planning process should be viewed by the County as a tool to evaluate and improve land records and information systems within the County.

County participation in the Program entitles the County to retain a portion of the increased recording fees collected at registers of deeds offices and to be eligible to apply for Grants-In-Aid for itself or any other local governmental unit within its boundaries. Participating counties may also avail themselves of resources, expertise and guidance from the Board. Qualification for

Participation in the Program is based, in part, on the County Land Information Office preparing and receiving approval from the Board of its *County-Wide Plan for Land Records Modernization*. Sec. 59.88 (3) (b) and 59.88 (5) (b) Stats.

C. Primary Definitions

Within the statutory framework of the Program, there are two primary concepts, "*Land Records Modernization*" and "*Integration*". Although not explicitly defined in the statutes, the phrase "Land Records Modernization" is very significant within the context of the Program. Given the tenor of the statute and the legislative history, Land Records Modernization means the undertaking and process by which Land Information can ultimately be shared and integrated through the implementation of automated Land Information Systems.

The concept of "Integration" is one where information that is housed in one department or jurisdiction will be able to be shared with other departments and jurisdictions at every level of government, utilities and the private sector. This confederation of systems will be independently developed and operated and will be linked by formal and informal data sharing arrangements.

Within this context, "Land Information" is the particular *Characteristic* concerning land that is described and/or displayed. Sec. 16.967 (1) (b) Stats. "Land Records" are the *Medium* in which Land Information is stored. Sec. 16.967 (1) (b) Stats. "Land Information Systems" are the *Means* by which Land Information is organized and managed in an orderly fashion. Sec. 16.967 (1) (c) Stats. Finally, for the purposes of this Program, "Local Governmental Unit" means a city, village, town, regional planning commission, special purpose district or local governmental association, authority, board, commission, department, independent agency, institution or office. Sec. 59.88 (1) (c) Stats.

II. PRINCIPLES FOR LAND RECORDS MODERNIZATION

The following principles for land records modernization have been adopted by the Board to serve as the framework for meeting Program objectives. Similarly, these concepts should serve as the framework for the development of County-Wide Plans. The Board envisions and intends that Land Information Systems developed through the Wisconsin Land Information Program will be:

A. Multi-Participant and Multi-Purpose

Land information systems that will be developed through the Program are intended to be multi-participant and multi-purpose. In Wisconsin, this will be accomplished through the creation of a land information network. This network will consist of a confederation of independent, automated, information systems operating at all levels of government and in the private sector. Land Information of known quality will be able to be transferred between systems using standardized methods and protocols.

B. Focused on Information

A primary objective of the Program is the organization and sharing of Land Information. It must be recognized that these are "*data-driven systems*" and are not hardware or software dependent. This dramatically alters the connotation of the term "system". Information is the critical component of the system and, as a consequence, the technical specifications are focused on the data.

C. Independent of Specific Technology

The confederation of land information systems will exist as a set of independently held databases residing on a variety of computer hardware and software configurations. The emphasis is on the information contained within the system and not on the technical details of the computing environment. For example, there is no requirement that qualification for an approved Plan is dependent upon the purchase and adoption of any specific technology or computer system.

D. Evolutionary

The Board recognizes that the accomplishment of the Program intentions will be evolutionary. This preserves investments in existing land records modernization programs and provides a framework and direction for future programs.

E. Encompasses Many Types of Land Information Activities

Land Information, as defined by Act 31, encompasses most of the data collected and used by public agencies. To simplify standards development and set modernization activity priorities, the Board has defined the following "*Land Information Activities*". These activities relate directly to the "*Foundational Elements*" for County-Wide Plans. The Foundational Elements are listed in Section III, D, 1. This is not an exhaustive list and there is no priority of any one activity intended by location on the list:

1. **Agricultural Planning And Management;**
2. **Forest Management;**
3. **Geodetic Reference Framework and Base and Image Mapping;**
4. **Historical and Archaeological Management;**
5. **Infrastructure And Facility Management;**
6. **Land Records Management;**
7. **Land Use Planning and Zoning Administration;**
8. **Natural Resource Planning And Management;**
9. **Public Administration And Planning; and**
10. **Real Estate Taxation Management.**

Each of these activities contain spatial and non-spatial data. Other Land Information Activities may be applicable to the Program.

F. Geographically Based

In order that data be useful, the location of all spatial data shall be described in such a way as to establish its true position on the surface of the earth within some known degree of confidence. This means that all coordinate values must relate to real world or geographic locations and not map locations. Any spatial data that is generated should state and

document the level of accuracy. Three primary methods of location are used in describing the position of spatial Land Information:

1. Geographic Coordinates. Examples: Latitude and Longitude, State Plane Coordinates, Universal Transverse Mercator, etc.
2. Public Land Survey System.
3. Parcel Legal Descriptions.

G. Reliant Upon Public to Public and Public to Private Partnerships

Public to Public and Public to Private Partnerships form an integral part of a modern Land Information System. Counties are encouraged to establish formal and ad hoc relationships among their own departments and with other governmental entities such as cities, villages, towns, regional planning commissions, special purpose districts, state and federal agencies. The private sector, particularly utilities, are important participants and should be included in this process.

H. Based on Democratic Principles

Programs established in support of land records modernization shall be based on democratic principles consistent with the tradition of good government in Wisconsin. Particular attention should be paid to open, public access to information, governmental responsiveness to the public, equitable treatment of all individuals, and protection of an individual's right to privacy.

III. COUNTY-WIDE PLAN FORMAT AND CONTENT

The County-Wide Plan ("Plan") is a tool for the County to evaluate, analyze and strategically plan for the improvement of land records, land information and land information systems over time. The complexity and detail of the Plan is, in large measure, up to the County. However, the Board has been given statutory authority to direct and supervise the Program and to prepare guidelines to coordinate the modernization of land records and land information systems. To facilitate meeting the objectives of the Program, the Board is requiring that Plans have a standard format and must address certain central issues. It should be understood that what is required is a standard format for Plans, not standard plans or standard planning processes. In this fashion, counties may address their own needs and priorities in the Plan and the planning process.

The following provides an outline detailing the minimum elements that must be included in the Plan in order to be approved by the Land Information Board. These elements are followed by a brief explanation of what is to be included under these headings. The County may expand on the format and may include as much detail as it needs to make the planning process useful to the County and other participants in the Program at the local level. It should be noted that the County-Wide Plan may be a dynamic document and process. Counties are encouraged to update and revise Plans where appropriate to the needs of the County. All Plans shall have four sections, organized as follows:

INTRODUCTION

The Introduction shall identify the participants in the planning process and the form of the Land Information Office. Identification includes a listing of all the departments, agencies, utilities and other private sector participants in the planning process. The Introduction includes the name, address and phone number of the designated Land Information Office or the contact person for the Land Information Office.

B. CURRENT ACTIVITIES AND INVENTORY

An essential element to the planning process is an inventory and assessment of the current status of land records, land information and land information systems within the County. An attempt should be made to contact all local officials with land records responsibilities, including the federal, state and the private sectors. The assessment component may be a formal user needs assessment. Alternatively, the assessment may be an informal evaluation of the current status of land records in the County and an identification of the needs and priorities of the County. This inventory must include a history of budget expenditures for land records modernization projects. A synopsis of budget items for the last three years satisfies this requirement. The purpose of this inventory is to enable those preparing the Plan to devise a thoughtful Program implementation strategy from an informed perspective.

C. GOALS AND OBJECTIVES

The County-Wide Plan shall include a statement of the goals and objectives of the participants in the Program at the local level. These goals and objectives include those of all participants in the Program such as other local governments, utilities and other private sector participants. The central theme of any successful Plan is a set of goals that emphasize coordination and cooperation within and between local governments and the private sector. The planning horizon for land records modernization must be identified in this section. The minimum planning horizon is five years. The Plan may incorporate a planning horizon that is much longer if the needs, priorities and resources of the participants warrant. The goals should be specific as to what the participants hope to accomplish within the full time frame of the planning horizon. The goals should be achievable and consistent with other parts of the Plan and the statutes.

D. MODERNIZATION AND IMPLEMENTATION PLAN

This section details the required focus for the Plan. In addition, it identifies the various standards that the Board will apply in the evaluation of the Plan. This section is composed of four parts, 1. Foundational Elements, 2. Standards, 3. Data Interchange Standards, and 4. Administrative Standards. Each section defines different components and minimum levels of activity that will result in a Plan that will be approved by the Wisconsin Land Information Board. It is the Board's conviction that adherence to these Requirements and Recommendations will effect the objectives of the Program, namely land records modernization and systems integration.

1. Foundational Elements

Program success, both from a state and local perspective, is dependent upon a focus for Program activities. In addition, public benefits will accrue earlier once all participating counties have achieved a standard or minimum level of modernization. As a result, the Board has placed the highest priority on each of the following land records modernization elements. In order for a Plan to be approved by the Board, it must address each of the "*Foundational Elements*" that follow.

Each of the Foundational Elements must be fit within the planning horizon of the County-Wide Plan. Again, the minimum planning horizon is five years. Recognizing that the circumstances, resources and priorities of each County differ, the length of the planning horizon may be determined by the participants to the Plan based on their own preferences, resources and needs for modernization projects over time. For example, the County may elect to undertake one or more of the Foundational Elements in the first few years of its Plan and defer other Elements until later years.

Foundational Elements a through e are technical and statutory elements that are addressed in Act 31. Foundational Elements f through h relate to institutional and implementation issues that must be addressed in order to make the Plan and the planning process successful.

- a. **Geographic Frameworks.** These frameworks include Public Land Survey Monumentation and Coordinate and Elevation Determination;
- b. **Parcels;**
- c. **Wetlands Mapping;**
- d. **Soils Mapping;**
- e. **Zoning Mapping;**
- f. **Institutional Arrangements;**
- g. **Communications, Education and Training; and**
- h. **Public Access Arrangements.**

Additional activities and programs may be included in each Plan. A list of potential qualifying activities is included in Appendix A. The list in Appendix A is a representative sample of the kinds of modernization activities which may be included in the Plan. It is intended to be suggestive of the kinds of specific programs which can be constructed and is not an exclusive or exhaustive list. An activity that is proposed to be undertaken in the Plan, whether on the list or not, must be accompanied by a description of its relationship to the Foundational Elements.

For each of the Foundational Elements and Additional Potential Activities listed in Appendix A that may be pursued, the Plan must also address the following:

- a. A description of activity or program, including the source and nature of automated land information;
- b. Relationship of the activity or program to other modernization activities or programs;
- c. Status of the activity or program, including status to date and estimated completion date; and
- d. The anticipated benefits of any programs or projects.

2. **Standards**

Associated with each Foundational Element is a set of Standards. Because there are many methods used across the range of Land Information Activities, it is crucial that standardized methods of evaluating and exchanging this information be adopted. This is to ensure that information that is shared can be relied on by others with respect to data accuracy and understanding. This list of Standards represents a minimum set of qualifying criterion, not a broad enumeration of all possible standards. These Standards must be observed in both the Plan and its implementation as a condition of the County's participation in the Program. Depending on the type, purpose and use of the information, these Standards may be superseded by other standards established by statute.

a. **Geographic Frameworks.**

Two of the principles of land records modernization are that these systems are focused on information and that spatial data must be related to geographic locations. Therefore, every land records modernization program must have a plan for collecting and organizing base geographic information. There are three primary categories of base geographic information which must be addressed. This collection of base geographic data may be called a Base Map.

1. **Geodetic Reference Systems.** All geographic coordinates must be based on legislatively established datums or related to legislatively established datums through Federal Geodetic Control Committee approved mathematical or statistical procedures. Chapter 236.18 defines the current Wisconsin coordinate system and datum.
2. **Public Land Survey System Corners.** There are two activities for Public Land Survey System corners which are related to Geographic Frameworks, remonumentation and coordinate values. These two activities should be considered together. No remonumentation activities may be undertaken without establishing coordinate values on the resulting monument. Conversely, activities to establish coordinate values on existing monuments must include filing a monument record.
 - a. Public Land Survey System corner remonumentation is guided by Sec. 59.63 (1) and 60.84 (3) (c) Stats. The records of remonumentation are guided by Sec. 59.635 (B) Stats. and Wis. Adm. Code, AE 7.08(2).
 - b. Coordinate values established on section and quarter section corners must meet or exceed Federal Geodetic Control Committee Third Order Class I standards.
3. **Geographic Control Data.** To support the mapping and management of other foundational elements, control data coordinate and elevation values must meet or exceed Federal Geodetic Control Committee Third Order, Class II standards. All other man made and natural resource features such as traveled ways, shoreline, river banks, fence lines, buildings, and improvements shall meet National Map Accuracy Standards. This base geographic data can be collected from maps, aerial photos, and other media to establish coordinates and elevations on these features.

b. **Parcels**

Parcels are areas of land which can be described by boundaries or lines forming closed geometric features or polygons. Parcels are generated for many purposes including property taxation, determination of interests of ownership in land, zoning regulation, and land use. There are four distinct categories of data related to parcels.

1. The first category is Cadastral or Legal Evidence. These data are the legal building blocks of the spatial representation of land ownership. Examples are remonumentation records and

measurements, deed and plat measurements, and other survey information.

2. The second category is Parcel Boundaries. A collection of parcel boundaries forms a parcel. There are two types of procedures to produce parcel boundaries.
 - a. The first type of parcel boundary is collected from legal records and geographic base data. Each boundary is referenced to its source document. It is possible for parcels formed from this type of boundary description to have significant overlaps and gaps with neighboring parcels. The gaps and overlaps of neighboring parcels shall be shown or disclosed with this type of parcel boundary collection. Resolution of single parcel mis-closures and gaps and overlaps of neighboring parcels is encouraged through whatever means are available including assessor plats.
 - b. The second type of parcel boundaries are collected from generalized representations of boundaries, shapes, and locations. This type of boundary collection represents a wide range of precision and resolutions.
3. The third category is Parcel Administration. Examples of parcel administration include, topological data structures, attaching evidence of title to areas of land, zoning classification, attaching property tax and assessment files to areas of land, and other administrative details. The type of parcels administered, how their boundaries are collected, and what they can and cannot be used for shall be clearly stated. Parcels may include information related to registers of deeds records such as tract indexing systems that meet or exceed the requirements set forth in Sec. 59.55 Stats.
4. The fourth category is Parcel Identification. For both internal and external uses, each parcel of land shall have a unique parcel identification number assigned to it. Automated maps in land records modernization make it possible to easily identify where parcels are in relationship to Public Land Survey System township, range, section, quarter section, and sixteenth section. All parcel identification schemes must relate, at the minimum, to the quarter section of the Public Land Survey System. The functionality of sixteenth section identification is optional and may be met with a geo-code parcel identifier or by relationship to tables of geo-code attributes. Section III D 3 c, Data Interchange Standards, defines the specific standards for parcel identification systems. Appendix B contains a geo-code parcel identification method for both manual and automated methods.

c. **Wetlands Mapping**

County Wetland Maps shall be based on the statutorily defined Department of Natural Resources Wetlands Map, pursuant to Sec. 23.32, Wis. Stats.

d. **Soils Mapping**

Modern County Soil Surveys shall be based upon, compatible with and accurate to the level of the U.S. Soil Conservation Service Maps.

e. **Zoning Mapping**

Zoning Maps of the County shall reflect a compilation of the existing local governmental zoning on a county-wide basis.

f. **Institutional Arrangements**

The Plan must describe all Institutional Arrangements the County has entered into and plans to enter into in the development, implementation and maintenance of the County-Wide Plan. This description should include a listing of all actual and potential participants in the planning process. In addition, the nature of the relationships and responsibilities shall be disclosed. This should include both formal and informal agreements. In describing these relationships, it will be adequate to simply attach a copy of any agreements that have been entered into as an attachment to the Plan.

g. **Communications, Education and Training**

The Plan shall describe, in as much detail as is appropriate, the County's strategy for communication, education and training concerning the County's land information system.

h. **Public Access Arrangements**

The Plan shall describe, in as much detail as is appropriate, the County's strategy for providing public and private access to the various records as they are modernized. This should include discussion of system security and preservation of an individual's right to privacy.

3. **Data Interchange Standards**

The standards enumerated above for the Foundational Elements are "Content Driven" standards. Data Interchange Standards fall into two categories, informal standards and formal standards.

a. **Informal Data Interchange Standards.** Informal exchange standards are simply those methods and formats for exchange that can be agreed upon between two or more entities that are sharing data. Informal standards are relatively uncomplicated. For the present time, informal standards serve as the primary means by which data integration and sharing will occur.

b. **Formal Data Interchange Standards.** Formal exchange standards may be based on the Spatial Data Transfer Specifications that are presently in development by the U.S. Geological Survey. These standards will be considered and evaluated by the Board, in one form or another, as they become available.

The Board has adopted one set of Data Interchange Standards with respect to unique parcel identification numbering systems.

- c. **Parcel Identification Numbers.** For both internal and external uses, each parcel of land shall have a unique parcel identification number assigned to it. This numbering system is divided into three distinct components. The components that have mandatory formats are identified in Part I and Part II respectively and are explained below. The optionally formatted components are described in Part III. When parcel information is formally shared, parcel numbers shall be in the following field format which is composed of 13 numbers and characters that are in a mandatory format and 5 optionally formatted numbers and characters. All components are mandatory.

PART I. Part I codes identify both the county and minor civil division in which the parcel lies. These codes may be associated or related to the parcel in several ways. For example, the codes may appear as part of other relational tables, at the top of headers to ranges of parcel numbers, as prefixes or suffixes to parcel identifiers, or as geo-processing relationships using geographic information system software.

2 Digits. The first two digits are the County Code as defined by the 1990 Wisconsin Department of Revenue, *Property Assessment Manual*.

3 Digits. The next three digits are the Municipal Code as defined by the 1990 Wisconsin Department of Revenue, *Property Assessment Manual*.

PART II. Part II is a parcel location identification system that utilizes the Public Land Survey System to ascertain the position of the parcel within a specific Quarter Section. Some areas of the State are not part of the Public Land Survey System. For those parcels not covered by the Public Land Survey System, the Board will provide specific codes at a later date to define Part II parcel location identifiers.

1 Digit. The next digit defines whether the parcel lies east or west of the 4th Principal Meridian. Those parcels that lie east of the 4th Principal Meridian are denoted by the number 4. Those that lie west of the 4th Principal Meridian are denoted by the number 2. Those parcels not covered by the Public Land Survey System may be denoted by the number 0.

2 Digits. The next two digits define the Township north of the baseline. For parcels not covered by the Public Land Survey System, the content of these two digits identifying the Township may be alphanumeric to indicate the lack of coverage by the Public Land Survey System. These alphanumeric codes will be provided by the Board upon request at a later date.

2 Digits. The next two digits define the Range. For parcels not covered by the Public Land Survey System, the content of these two digits identifying the Range may be alphanumeric to indicate the lack of coverage by the Public

Land Survey System. These alphanumeric codes will be provided by the Board upon request at a later date.

2 Digits. The next two digits define the Section.

1 Digit. The final digit defines the Quarter Section by Northeast = 1, Northwest = 2, Southwest = 3, and Southeast = 4. If the Quarter Section is unknown or otherwise unavailable, it shall be denoted by the number 0.

PART III. An optional format for specific parcel identification is as follows:

1 Digit. The first optional digit defines the Quarter-Quarter Section by Northeast = 1, Northwest = 2, Southwest = 3, and Southeast = 4. If the Quarter-Quarter Section is unknown or otherwise unavailable, it shall be denoted by the number 0.

3 or 4 Digits. The final three or four optional digits may be used to define a specific parcel identifier within this parcel identification numbering system. Whether three or four digits are used is also optional. If these optional numbers are used, the Quarter-Quarter Section code must also be used to maintain a standard format.

All delimiters, e.g., commas, dashes and spaces, must be removed before information is shared. It should be noted that this standard does not affect existing, internal parcel identification systems. This standard does not govern any informal data sharing agreements. Instead, this standard refers, at a minimum, to the employment of the above field format in formal data exchange settings. See Appendix B for further explanation and an example of this numbering system.

4. Administrative Standards

The County-Wide Plan represents an agreement between the County and the Wisconsin Land Information Board. This agreement is intended to effectuate the objectives of the Program as embodied in the enabling legislation. A copy of the Board's interpretation of the enabling legislation is attached. In order for a County's Plan to be approved, the Board and the County agree and consent as follows:

- a. The County agrees to observe and follow the statutes relating to the Wisconsin Land Information Program and other relevant statutes. A copy of the Program statutes are attached hereto and made part hereof;
- b. The County agrees to permit the Wisconsin Land Information Board access to books, records and projects for inspection and audit upon reasonable notice by the Board;
- c. The County agrees to provide an annual status report of Plan progress and to update the Plan at the end of five years; and
- d. The Board agrees to provide technical assistance to the County.

- e. The Board agrees to maintain and distribute an inventory of land information and land information systems for the state.
- f. The Board agrees to review and, where appropriate, approve Plans and to provide guidance to counties with respect to Plan development. In addition, the Board agrees to review and, where appropriate, approve updates and revisions to County-Wide Plans.
- g. Board approval of a County-Wide Plan confers certain benefits on local government within the County, including continued participation in the Program and eligibility to make application for Grants-In-Aid.
- h. The Board agrees to review Grants-In-Aid project applications and to provide guidance to counties with respect to the development of such applications.
- i. The Board agrees to provide participating counties with an annual report regarding the status of the Wisconsin Land Information Program and the activities of the Board.
- j. A County will be entitled to retain increased recording fees upon designation of a Land Information Office provided that within two years of the designation it submits a County-Wide Plan to the Board which is approved. Board approval of the County-Wide Plan also enables the County to apply for Grants-In-Aid for itself or any other local unit of government within its borders.

APPENDIX A

List of Additional Potential Activities

With the exception of the category, "Land Records Modernization Planning", the following List of Potential Activities corresponds directly to Land Information Categories set out in Section II E. It should be clear that there is an explicit dependency between these potential activities and the set of standard Foundational Elements. All Foundational Elements must be addressed by the Plan. For any "Additional Activity", whether on this list or not, a statement must be made directly describing the relationship between the proposed Additional Activity and the Foundational Elements. Every Additional Activity must further one or more Foundational Elements to an acceptable activity in pursuit of Land Records Modernization. Please note that there is no priority intended for any category or sub-category by its location on the list.

1. **Agricultural Planning and Management.** Required Foundational Elements: Parcels, Wetlands Mapping, Soils Mapping, Institutional Arrangements, Communication, Education and Training, Public Access Arrangements.
 - a. Soil Erosion and Mitigation Monitoring and Planning
 - b. Food Security Act Conservation Provisions
 - c. Pesticide and Herbicide Management
 - d. Conservation Reserve Program Eligibility
 - e. Farmland Preservation Program Eligibility
 - f. Etc.

2. **Forest Management.** Required Foundational Elements: Parcels, Wetlands Mapping, Soils Mapping, Zoning Mapping, Institutional Arrangements, Communication, Education and Training, Public Access Arrangements.
 - a. Forest Tax Fund Coordination
 - b. Fire Protection
 - c. Disease Control
 - d. Forest Inventories
 - e. Etc.

3. **Geodetic Reference Framework and Base and Image Mapping.** Required Foundational Elements: Geographic Reference Frameworks, Institutional Arrangements, Communication, Education and Training, Public Access Arrangements.
 - a. Public Land Survey System Remonumentation;
 - b. Densification
 - c. Coordinates and Elevations
 - d. Maintenance Mapping
 - e. Aerial Photography and Orthophotography
 - f. Digital Conversion
 - g. Topographic Mapping
 - h. Etc.

4. **Historical and Archaeological Management.** Required Foundational Elements: Parcels, Institutional Arrangements, Communication, Education and Training, Public Access Arrangements.
 - a. Archaeological and Historical Sites
 - b. Historical Inventories
 - c. Etc.

5. **Infrastructure and Facility Management.** Required Foundational Elements: Parcels, Institutional Arrangements, Communication, Education and Training, Public Access Arrangements.
 - a. Transportation Networks
 - b. Utility Networks
 - c. Site Analysis
 - d. Underground Storage
 - e. Solid Waste
 - f. Building Permits
 - g. Etc.

6. **Land Records Management.** Required Foundational Elements: Parcels, Institutional Arrangements, Communication, Education and Training, Public Access Arrangements.
 - a. Media Conversion
 - b. Document Preservation
 - c. Tract Indexing
 - d. Assessor's Plats
 - e. Certified Survey Maps
 - f. Public and Private Survey Record
 - g. Etc.

7. **Land Records Modernization Planning.** Required Foundational Elements: Geographic Frameworks, Parcels, Wetlands Mapping, Soils Mapping, Zoning Mapping, Institutional Arrangements, Communication, Education and Training, Public Access Arrangements.
 - a. Planning
 - b. Systems Configuration
 - c. Management and Management Strategies
 - d. Requests for Proposals for Hardware and Software Purchases
 - e. User Needs Assessments
 - f. Training
 - g. Education
 - h. Etc.

8. **Land Use Planning and Zoning Administration.** Required Foundational Elements: Parcels, Wetlands Mapping, Soils Mapping, Zoning Mapping, Institutional Arrangements, Communication, Education and Training, Public Access Arrangements.
 - a. Land Use
 - b. Shore Line
 - c. Flood Plain
 - d. Etc.

9. **Natural Resource Planning and Management.** Required Foundational Elements: Parcels, Wetlands Mapping, Soils Mapping, Zoning Mapping, Institutional Arrangements, Communication, Education and Training, Public Access Arrangements.
 - a. Recreation and Parks
 - b. Non-Point Pollution
 - c. Ground Water Contamination
 - d. Mining
 - e. Waterways
 - f. Etc.

10. **Public Administration and Planning.** Required Foundational Elements: Parcels, Zoning Mapping, Institutional Arrangements, Communication, Education and Training, Public Access Arrangements.
 - a. Demographic Analysis
 - b. School District Determinations
 - c. Redistricting/Election Districts
 - d. Land Use Planning
 - e. Public Safety
 - f. Public Notice
 - g. Etc.

11. **Real Estate Taxation Management.** Required Foundational Elements: Parcels, Institutional Arrangements, Communication, Education and Training, Public Access Arrangements.
 - a. Assessment
 - b. Equalization
 - c. Etc.

A statement of coordination with the preceding Foundational Elements shall be included for each Additional Activity included in the Plan, whether on this list or not.

APPENDIX B

Unique Parcel Identification Numbering System

One Data Interchange Standard requires the use of a unique parcel identification number in formal data sharing arrangements. Counties are not necessarily required to adopt this numbering system for internal purposes. Furthermore, this numbering system does not necessarily apply to all data sharing arrangements. For example, where two or more entities are sharing information on an informal basis, they may adopt any numbering system that is acceptable to them. The numbering system adopted in the Data Interchange Standards makes use of several common numbering system elements so that it is reasonably adaptable to most parcel identification schemes.

This parcel identification numbering system adopts certain components of the Wisconsin Department of Revenue parcel numbering system as set forth in the 1990 Department of Revenue, *Property Assessment Manual*. It is also tied to the Public Land Survey System. There are several areas in the State that are not covered by the Public Land Survey System, e.g., original French land grants and Indian claims. In these instances, the Board will provide specific codes for the content of the Township and Range numbers that will be alphanumeric to show that the area is not part of the Public Land Survey System. For present purposes however, parcels not covered by the Public Land Survey System may be flagged by using the number 0 for the code for the area east or west of the 4th Principal Meridian.

This numbering system is comprised of 13 numbers that are in a mandatory format and 5 optionally formatted numbers and characters. All components are mandatory, but there is some flexibility built into the system as described below. This numbering system does not use any delimiters, e.g., dashes, spaces or commas, when parcel information is exchanged. This numbering system is divided into three distinct components. Two components have a mandatory format and the other has an optional format. The components that have a mandatory format are identified as Part I and Part II respectively and are explained below. Optionally formatted components are described in Part III. When parcel information is formally shared, parcel numbers shall adopt a standard field format which is composed of 13 mandatory numbers and characters and 4 or 5 optionally formatted numbers and characters. All mandatory fields must be used. The following provides a description of this numbering system and gives an example of its use. This field format should be organized and sequenced as follows:

PARCEL IDENTIFICATION NUMBERS WITH A MANDATORY FORMAT

PART I. Part I codes identify both the county and minor civil division in which the parcel lies. These codes may be associated or related to the parcel in several ways. For example, the codes may appear as part of other relational tables, at the top of headers to ranges of parcel numbers, as prefixes or suffixes to parcel identifiers, or as geo-processing relationships using geographic information system software.

- | | |
|----------|--|
| 2 Digits | County Code. This County Code is defined by the 1990 Department of Revenue, <i>Property Assessment Manual</i> . |
| 3 Digits | Municipal Code. This Municipal Code is defined by the 1990 Department of Revenue, <i>Property Assessment Manual</i> . |

PART II. Part II is a parcel location identification system that utilizes the Public Land Survey System to ascertain the position of the parcel within a specific Quarter Section. Some areas of the State are not part of the Public Land Survey System. For those parcels not covered by the Public Land Survey System, the Board will provide specific codes at a later date to define Part II parcel location identifiers.

- 1 Digit **Area East or West of the 4th Principal Meridian.** Those parcels that lie east of the 4th Principal Meridian are denoted by the number 4. Those west of the 4th Principal Meridian are denoted by the number 2. Those parcels not covered by the Public Land Survey System may be denoted by the number 0.

- 2 Digits **Township.** These numbers define the Township north of the base line. For parcels not covered by the Public Land Survey System, the content of these two digits may be alphanumeric to indicate the lack of coverage.

- 2 Digits **Range.** These numbers define the Range in which the parcel lies. For parcels not covered by the Public Land Survey System, the content of these two digits may be alphanumeric to indicate the lack of coverage.

- 2 Digits **Section Number.** These numbers define the Section.

- 1 Digit **Quarter Section.** This Digit defines the Quarter Section by Northeast = 1, Northwest = 2, Southwest = 3, and Southeast = 4. If the Quarter Section is unknown or otherwise unavailable, it shall be denoted by the number 0.

PARCEL IDENTIFICATION NUMBERS WITH AN OPTIONAL FORMAT

PART III. The following 4 or 5 digits are numbers that may adopt an optional format in the parcel identification numbering system. These optionally formatted numbers may be arranged as follows:

- 1 Digit **Quarter-Quarter Section.** This Digit defines the Quarter-Quarter Section by Northeast = 1, Northwest = 2, Southwest = 3, and Southeast = 4. If the Quarter-Quarter Section is unknown or otherwise unavailable, it shall be denoted by the number 0.

- 3 or 4 Digits **Parcel Identifier.** The final three or four optional digits may be used to define a specific parcel identifier within this parcel identification numbering system. Whether three or four digits are used is also optional. If these optional numbers are used, the Quarter-Quarter Section code must also be used to maintain a standard format.

AN EXAMPLE OF THE PARCEL NUMBERING SYSTEM

The following is an example of the parcel numbering system for a parcel located in Calumet County, Town of New Holstein, Section 13, T17N, R20E, SE1/4 of the NE1/4 is numbered as follows:

08012 These codes, i.e., County and Municipal Codes, must be associated or related to the parcel identifier through relational tables, headers, prefixes, suffixes or other devices.

08 = County Code

012 = Municipal Code

4172013140000

4 = East of the 4th Principal Meridian

17 = Township north of base line

20 = Range Number

13 = Section Number

1 = Quarter Section

4 = Optional Quarter-Quarter Section Number

0000 = Optional Parcel Identifier

January, 1991
(8.14.91)
(b\m4)