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Real Property Inventory and Management System for Municipal Law Departments

Jeffrey A. Rich*

INVENTORY MANAGEMENT of city-owned real property may be defined as the recording and maintenance of information on the acquisition, identification, location, value, condition, and disposition of each parcel of such property,¹ including the use of this property information for management decisions.

Most cities own thousands or millions of dollars worth of real property. Few, however, have an accurate inventory and management system enabling them to identify and account for their holdings. Just as individuals and corporations want to know what they own in order to obtain a clear picture of their assets, a city must also maintain records to document its financial position.

There are a variety of reasons why a city owns property, the reasons changing with the times. For example, it was popular for municipalities to own public bath houses during the 1920's and 30's.² Now, however, bath houses are nearly extinct, and recreation centers have replaced them.³ The following list suggests many of the modern uses which cities have for real property they own:⁴

Air Rights	Nurseries	Recreation Centers
Airports	Offices	Refuse Disposal
Bridges	Parking	Reservoirs
Cemeteries	Parks	Residue from Freeway
Dwellings	Parkways	Residue from Street
Fire Stations	Playgrounds and	Openings
Garages	Play Fields	River Widening
Golf Courses	Police Stations	Sewerage and Disposal
Greenhouses	Private Businesses	Plants
Health Centers	Pumping Stations	Shops
Hospitals	Purchase in Advance	Storage
Laboratories	of Freeway center	Streets
Light Plants	line determination	Waterfront
Malls	Railroad Slope	Welfare
Markets	Rights	

* B.A., Ohio State Univ.; Second-year student at Cleveland-Marshall Law School; Assistant to the Executive Director, Cleveland Little Hoover Commission; directed and designed real property inventory for the City of Cleveland; summer, 1968.

¹ International City Managers Association, *Municipal Finance Administration*, 422 (6th ed., 1962).

² Interview with Joseph Fratoe, Parks Department Civil Engineer, City of Cleveland, Ohio, in Cleveland, June 5, 1968.

³ *Ibid.*

⁴ Compiled from 1939 Cleveland Property Inventory, updated in Interview with Joseph Frato, *supra* note 2.

Many cities have been accused of owning real property which should be sold, but because of inefficient accounting methods, they are unable to prove or disprove these accusations.⁵ City departments may not be taking full advantage of their property's value. Some departments may not be using their property to its fullest potential. Furthermore, many cities own scattered parcels of residue land, either from freeway or urban renewal building, which should be sold or even given away to put them back on the tax duplicate—a real estate duplicate which, in most large cities, is declining.⁶ Thus, a city's investment in public properties represents a substantial expenditure, one for which adequate records are not only a legal and fiscal control, but also a positive management aid.

Real property may be bought or sold by a resolution of city council,⁷ which resolutions are drawn up in the city law department.⁸ Property inventory records are best kept up to date by closely following city council resolutions. Therefore, real property inventory records are logically located in a municipal law department.

Purpose of Real Property Inventory

The purposes of a real property inventory are: 1) *to balance property to department needs.*⁹ An analysis of real property owned by each city department will reveal any unusually large holdings in excess of present and anticipated departmental needs. Other departments, at the same time, may lack certain real properties which are essential for their operations.

2) *To assist with long-range city planning.*¹⁰ A real property inventory assists in the development of a master plan by showing complete and accurate records of land and buildings owned by a city. These records can be compared with the long-term real property needs of a city, which sometimes indicates that land must be acquired.

3) *Tie all records to one location.*¹¹ Public property inventories bring together all data on ownership, use, location, and identification of city-owned property. Not only does this enable the property manager to respond quickly and accurately to public inquiries about particular

⁵ Interview with Robert E. Walker, Executive Director of the Cleveland Little Hoover Commission, in Cleveland, Ohio, June 3, 1968.

⁶ Governmental Research Institute, Real Estate Taxable Property Valuation, Rep. 87 (February 28, 1966). This report shows that the real estate taxable property valuation for the City of Cleveland decreased by 0.9% from 1956 to 1966. State, ex rel. The Park Investment Co. v. Bd. of Appeals, 1 Ohio St.2d 17, 173, 205 N.E.2d 578 (1965).

⁷ Cleveland, Ohio, Charter, Chap. I, § 1 (1914).

⁸ Id. Chap. XV, § 83 (1931).

⁹ Municipal Finance Administration, *supra* note 1, at 423.

¹⁰ *Ibid.*

¹¹ *Id.*

parcels, but it provides a central record area where city employees may obtain information on their department's holdings. Furthermore, with modern data processing techniques, an instant response to a variety of questions can be obtained. For example, each department may obtain a computer print-out listing of all its property and information about each parcel.

4) *Assure consideration of possible future uses of property.* With the information gathered and available to city officials, they will be able to decide on the best future uses for each parcel. They will be aided by viewing the city's total property portfolio, allowing for a perspective on present and future needs. In order to assemble this information in an orderly fashion, an exact but simple study should be made of all the city's real property. To coordinate the investigation and research, a study director should be appointed.

Identification and Examination of Property Information Sources

The first step in making a property inventory is in the identification and examination of all possible property information sources. The director of the study should be familiar with the available sources and should have a list on which is recorded all the information available from each source.

The sources of property information may be discovered by questioning city employees in various departments. The most valuable information is found in old city property and deed records, city council resolutions, city maps, and departmental records, especially records of those departments deeply involved in real property management, *e.g.*, public properties, law, engineering, urban renewal, and utilities. County records should also be considered. These include the auditor's delinquent tax lists, parcel maps, and assessment records. Properties not assessed may be city-owned. Finally, an examination of the grantee indexes and property deeds at the county recorder's office would be in order.

System Design

After the director of the study is familiar with the available information, his next step is to determine which information should be collected. First, a check should be made of old records of property and an examination of the manner in which other cities have conducted real property inventories should be considered. A list of every type of property information which seems to be important should be made. Next, make copies of the listing of property information and send it to all directors and supervisors working for the city. Later, meet personally with them to discuss needed information and their priorities on real property inventory.

A complete list of all needed information can now be completed, and a record form designed for the information. At this point a decision must be made as to the possible future uses of the information. For example, the information is of use to the property manager and the departments using the property, and will aid them in departmental planning and citizen inquiries. A cross index system to the real property inventory records will be needed if inquiries are to be answered rapidly.

Be certain to choose or create a reference number for each parcel, and make this the first entry on the record form. For example, one might choose the city file deed number, the county auditor's permanent parcel number, or some other number that will be different for each parcel. If a new number is to be created, be certain that each parcel is assigned a different number. By doing this, information can be added to the magnetic tapes or record files by using the reference number first, then the other information.

The next step should be a systems study on how best to obtain the needed information, to which there are several possible approaches. A complex, but efficient method is to identify the work steps involved, and to determine by a pilot test how long each step will take. A PERT chart, i.e., Program Evaluation and Review Technique,¹² may be designed to analyze each step and its interrelation with others. This usually calls for one trained in systems analysis.¹³

A far simpler method, however, is to list on graph paper all needed information vertically and all available records of information horizontally. Referring to the notes taken during the information identification survey, place a check under each source where a particular item of property information is available. If some items of information occur for which no source has been found, consult the various department supervisors until a source can be determined.

At this stage, the information is identified according to its primary origin. Many information items will be available at several locations. It is the study director's function to sort the items available at only one source from those found in several records. The items originating in one volume require the consulting of that volume. However, those items found in several locations should be sorted so as to obtain the maximum amount of information from that source, usually 3 or 4 items, when that source is consulted.

¹² See, International Business Machine, Technical Publications Department, *PERT . . . A Dynamic Project Planning and Control Method*. (Form E20-8067-1). Also William Emory and Powell Niland, *Making Management Decisions*, 193, 196-7, 200, 278 (1968).

¹³ See, Ernst Dale and L. C. Michelson, *Modern Management Methods* 165-82 (1966); also, R. L. Martino, *Project Management and Control*, Vols. I-III (1964).

Each primary record should also be analyzed as to how it is to be entered. Discover what information item needs to be known in order to use this source. For example, use of the Recorder's Office grantee index to obtain the deed volume and page requires knowledge of the date of transaction. To obtain the date of transaction consult the auditor's permanent parcel number and search the parcel map books to find the correct property with its last transaction date.

In order to evaluate the budget and determine the time needed for the inventory project, choose ten or twenty random parcels and make a pilot run to research the information. The study director should choose a person who will later be working on the research and evaluate the problems encountered by going to the different sources and timing each step. Wait until the person is familiar with the source and is working consistently before calculating an average time. For example, if one uses 20 random parcels, let the first 10 be practice, then time the next 10 and find an average time for each. Thus, if the average for step X is two minutes to research one parcel, and there are 100 parcels to be studied, this step will take 200 minutes. For management purposes this means that one person can complete this step in three hours and twenty minutes.¹⁴ After doing this with all the research steps, one will be able to design the most efficient system, including the timing for the research, and will be able to work out a budget to hire the correct number of people for the study. The pilot run should serve as a means to show the study director the correct procedure, step by step, which his research staff will follow. This is efficient management and serves to maximize productivity.

It is well at this stage to consider the possibility of data processing techniques. If data processing is to be used, the final form should be designed after consulting experts in this area. For large cities, a form which can be optically scanned by a computer may be desirable. Most cities, however, will not need, nor can they afford, this method.

One of the most efficient techniques is to design a form, the final copy of which can be typed on a magnetic tape typewriter. This will produce both a finished record copy of the form, and a magnetic tape which is adaptable to computer usage. Machines using paper tape outputs are not advisable because, in the event of a typing error, the tape must be painfully corrected. With a magnetic tape one need only type a correction over the mistake to correct the tape. Additionally, the magnetic tape machines can print a new corrected record copy in a short time.

¹⁴ Emory and Niland, *op. cit. supra* note 12, at 195-96.

Property Research: The Cleveland Study

In order to understand research procedure it is helpful to see how another city has inventoried its real property. Cleveland, Ohio has just completed such an inventory. As a result of the recommendation of the Cleveland Little Hoover Commission, an examination of the management system for the property owned by the city was conducted. No comprehensive or centralized record keeping system for the 3000 parcels owned by the city was found. One man with forty years experience was relied upon as the city's record-keeping system. Moreover, the last inventory had been taken in 1939 and was never updated.

By examining the Cleveland Real Property Record (the form which Cleveland now uses for real property information) one can see that the auditor's permanent parcel number is the reference number. (See the Real Property Record—City of Cleveland, Section I, Part A of the record.)

The Cuyahoga County Auditor, Ralph Perk, gave Cleveland a computer print-out listing of all the city-owned properties as of December, 1967. These were listed by permanent parcel number, the number developed by the auditor in the late 1930's to use for taxing purposes.

The print-out also includes:

- I., C.—Street Name (I., C. refers to the Real Property Record—City of Cleveland)
- I., G.—Subdivision name and number
- I., I.—Sublot number and part
- II., B., D., F.—A few of the assessed values, although most are exempt and therefore the auditor does not have assessment records on them
- III., A., B., C.—Land frontage, depth, and size

Needless to say, this was an excellent beginning. In the property office, two other sources were found: 1) The 1939 Inventory; 2) dead books containing address (I., C.), dates of recording and transaction (I., E. & F.), C.U.R.A. number, i.e., Cleveland Urban Renewal Authority (I., H.), Sublot number (I., I.), City File number (I., J.), Department and Division (I., K., 1 & 2), and Cost Price (II., A., C., E.).

The 1939 inventory cards did not contain the auditor's permanent parcel number. Because this was the reference number, it was needed in order to use the information on the 1939 cards. Using the address shown on the card, the auditor's parcel maps were researched and the permanent parcel number was obtained. The parcel maps also showed present owners. Those properties which had been sold since 1939 were removed from the file. The remaining cards were then ordered by permanent parcel number and used as an information source for the new

REAL PROPERTY RECORD - CITY OF CLEVELAND

I-CROSS REFERENCE INFORMATION:

A. Auditor's Perm. Parcel No. B. Recorder's Vol. - Page

C. Number Street

D. Grantor's Name

E. Date of Transaction F. Date of Recording

G. Subdiv. Name and No. H. C.U.R.A. No.

I. Sublot No. and Part J. City File No.

K. 1. 2. Division
Budget Acct. No. Dept.

II-COST AND ASSESSED VALUE:

A. \$ B. \$ Land Current Assess. Value
C. \$ D. \$ Bldg. Current Assess. Value
E. \$ F. \$ TOTAL

III-LAND SIZE:

A. B. C.
Frontage (ft) Depth (ft) Size (acre/s.f.)

IV-BUILDING FACTORS:

A. B.
Length (ft) Breadth (ft)
C. D. E.
Stories Sq. Ft. Resid. Rooms
F. PERMIT NO.

H. Condition I. Date of Const.
1. Good
2. Average
3. Deteriorating
4. Should be razed

V- PROPERTY FACTORS:

ZONING DISTRICT: Area Height
Use

TOPOGRAPHY IMPROVEMENTS STREET OR ROAD
1. Level 1. City Water 1. Paved
2. High 2. Sewer 2. Semi-improved
3. Low 3. Gas 3. Unimproved
4. Rollings 4. Electricity 4. Paved & Sidewalk
5. Swampy 5. All Utilities 5. Sidewalk

VI- USE:

A. Present: Number
B. Future: Retain, Present Use Sell
 Retain, Other Use Other
 Improved and Sell

VII-REMARKS:

VIII-DIAGRAM AND/OR PHOTOGRAPH:

inventory. About one-fourth of all present city-owned property could be found in these old records.

The deed book information items were transcribed to the auditor's computer print-out list. When this was completed, the 1939 cards were

cross referenced with the print-out. A red check was placed by the parcel numbers on the print-out for which a 1939 inventory card existed. These cards were then copied on a duplicating machine. By using the City Budget, the account number (I, K.) was found for those properties whose department was given in the 1939 records or deed books. Using the print-out and all the information on it from the deed books, a Real Property Record—City of Cleveland form was begun for each parcel. For those parcel numbers which have a red check next to them, the appropriate information from the 1939 inventory record card was copied on the new form.

At the completion of this process, six separate and different stages of remaining work by missing information items were distinguishable:

1) *Date of transaction and date of recording (I., E., F.)*. These are taken to the auditor's parcel map books and searched by parcel number. Opposite each parcel in the books is the owner's name (in this case "Cleveland") and the date of transaction. The map in the parcel book also shows most of the addresses.

2) *Recorder's volume and page (I., B.)*. By using the date of transaction, which is the same or close to the date of recording, the deed volume and page can be identified in the grantee index. Also, the name of the grantor (I, D.) is listed. From a management standpoint, no more than two minutes per parcel should be needed for this step.

3) *Cost Price (II., A., C., and E. and/or Dimensions (III.))*. At this stage, the deed is searched using the volume and page obtained in Stage 2. Information referring to cost, dimensions, and other items can be obtained. A deed can be searched in three and one-half minutes.

4) *Address (I., C.)*. For some parcels researched in step 1, addresses could not be obtained. They can now be found by using street name, subplot number, and approximate location, and by checking in the Engineer's Department where complete address records are kept. By using Hopkins street maps or street plat maps, an address can be researched in about four minutes.

5) *Building Factors (IV.)*. Parcels which may contain a building are searched by address in the building permit and inspection records, at four minutes per parcel.

6) *Zoning District (V.)*. This step may be done in combination with step 1 or by itself. By using the city zoning maps and locating the parcels with the help of the auditor's parcel maps, the zoning districts of area, height, and use are found. If done with step 1, this step should take about two minutes per parcel.

The remaining information, such as (V.) topography, improvements, street or road, and preserve use (VI., A.) can be obtained through the departments or by actual inspection. Assessed value (II., B., D., & F.) may, in a few cases, be available from the auditor, though cities do not usually have exempt property assessed.

Diagrams (VIII.) can be copied from the deed in step 3, or from the various city or auditor map books. Photographs may be taken upon inspection.

At this point a system was devised for efficient researching of needed information. A six stage research path was developed. Each new property form was examined to determine at which stage in the path it would be according to its present state of accumulated information. This requires a simple process of sorting all the forms into six piles, one for each of the above-mentioned stages. Because the piles represent a research path, those in pile one, when researched, will be re-sorted into piles two through six according to the needed information.

The Cleveland study employed three clerical people for twelve weeks to research property. Each parcel averaged about one-half hour of research, including all six stages, before the final typed copy was complete. This does not include an actual physical inspection of each parcel.

Other Types of Property Records

Before going into the recording and indexing system, it should be mentioned that two other types of real property inventory records are possible. First, a map can be made of the city showing each parcel. This can be constructed by using the auditor's maps and locating each parcel number, then transferring the location to a large city map. A map will serve as an excellent perspective and master plan aid. Using step 6 and marking the location on the zoning maps is the recommended method. Another type of property record is a file containing the deed and all other primary sources. This would represent the most comprehensive type of inventory.

Recording and Indexing System

When the real property record sheets have been completed, a final, neatly-typed hard back or cardboard weight copy of the record will be desirable. The record will be referred to many times and should be made to take wear and tear. If data processing is anticipated, use of a magnetic tape machine is highly recommended. A magnetic tape machine will not only produce a neat final copy, but will also provide a magnetic tape record.¹⁵

After the tapes are programmed, the computer can produce a series of print-out indexes. One index for each of the following cross references can be made: address, recorder's volume and page, subdivision

¹⁵ Some magnetic tape machines rent for \$175 to \$240 a month, depending on the type of computer to be used in conjunction with them. A roll of magnetic tape is \$20, and will hold the record of about 80 cards. Thus, the Cleveland study required 40 tapes costing \$800 and requiring one month to type. These tapes, after being entered on the computer, can be used over and over again, or reused by other city departments.

name and subplot number, urban renewal number, city file number, and budget account number. An address index, for example, would consist of all parcels of property listed in alphabetical order by address. Next to the address would be the permanent parcel number. Thus, the address index would say 1826 W. 26th Street, 131-26-4. The latter series of numbers is the permanent parcel number of the property at 1826 W. 26th Street. By looking in the real property inventory records which are filed by permanent parcel number, the 131-26-4 inventory card with all the available information is available.

If the records are put into a computer, a variety of information can be obtained. For example, the computer can tell the value of the land the city owns in a particular area, or print-out all the information about all the fire stations. A recommended data processing technique is to put all the city property information on a disc file, which is akin to a phonograph record. Rather than searching tapes, the computer with a disc file can have instant access to any city property information. Then, for instance, a station with a small TV screen can be set up in the property management office. The manager can then ask the computer questions by typing or dialing the question. The answer will be shown immediately on the TV screen. This is an excellent method to respond to citizen and city hall inquiries.

A less automated method for a rapid information retrieval system can be devised by using punch cards. After the real property record cards are complete, they can be given to a key punch operator. A card can be made for each parcel containing the desired cross reference information, typed as well as punched on the card. For example, eighty characters can be put on each card, which is sufficient for all the Cleveland cross reference information.

After a card has been made for each parcel with all the cross reference information on each card—for example, six different items plus the reference or parcel number—a reproducing punch machine can produce five more identical decks. Counter sorters order each deck by one of the six categories of cross reference information. Each index contains the parcel number or reference number leading to the real property inventory record file and is ordered by a different item of cross reference information.

Although this method does not allow for instant access, the six files of punch cards will result in a fast and accurate method of obtaining information about a parcel. Thus, if only the subdivision name and subplot number are known, by using the subdivision-subplot index, the parcel number of that property can be found. Once the parcel number is known the inventory card can be checked. A copy of the card can be made (and sold) to the interested party. Or, copies of each card can be made and sorted by department and division and sent to the appropriate supervisor, which would give each division its own real property record.

Many possible approaches to recording and indexing are available. Depending on the number of parcels owned, a method of information retrieval can be designed to fit the city. The most important criterion is that the adopted system be able to answer effectively and efficiently questions which the city's legal or financial managers need answered.

Maintenance of Real Property Records

Unless a system to maintain and update the real property inventory is implemented, records will soon be useless. Most municipalities have a 3% to 10% turnover rate each year in real property. Thus, just as Cleveland's 1939 inventory had become useless, its 1968 inventory could also become outdated unless a proper method for updating is consistently followed.

One of the easiest forms of updating once a year is to ask the county auditor for his list of parcels owned by the city. This yearly list can be checked against the property records, and sold parcels can be eliminated while new parcels are researched and added to the file.

Each year the property record manager should visit each site and check his records. The manager may also check for illegal use of the property.¹⁶

An efficient method of updating is suggested in *Municipal Finance Administration*, which recommends that administrative regulations instruct any city department buying real property to report all information to the property manager. He should establish and list the parcels in his property inventory records as previously discussed. Then the budget, appropriation ordinances, and council resolutions will serve as the sources to find purchases and should be watched by the property manager to insure interdepartmental cooperation. Any land or buildings which are given to the city should be acknowledged by city council resolutions and listed on property inventory records. The property manager should work with the purchasing agent in buying real property by supplying information on present city holdings, original cost, and so on.¹⁷ When property is sold its record card will be removed from the file and the magnetic tapes or index system will be adjusted for this change.

Conclusion

Municipal, legal, financial, and properties departments must recognize the need for a complete and accurate real property inventory. After researching the available real property information sources, the study director should compile a list of all the parcels the city owns.

¹⁶ *Municipal Finance Administration*, *supra* note 1, at 428.

¹⁷ *Ibid.*

Also, all supervisors at City Hall should take part in deciding on the needed property information.

Before the actual research begins, a systems analysis must be made to decide the best research method. After data processing capabilities are investigated, a form for record keeping should be designed. When the research is complete and all the records are up to date, a final record is made and provisions for regular updating developed.

Many municipalities have neglected to design a comprehensive and up-to-date real property inventory because it was believed to be too expensive, though the relative cost of the Cleveland study was approximately \$3 to \$5 per parcel. In the last analysis, however, the cost to a city of not having a real property inventory may far exceed the expenditure for the inventory.