

# SCHOOL PROPERTY ACCOUNTING



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#### INTRODUCTION

In 1959 a committee of Iowa educators was appointed to develop a system of school property accounting for Iowa schools. With very minor changes, the committee adopted the system contained in Handbook III of the State Educational Record and Reports series published in the same year by the U. S. Office of Education.

This accounting system was described in the Handbook Property Accounting for Iowa schools, which was published in 1965 by the State Department of Public Instruction and distributed to all high school districts in Iowa.

The State Board of Public Instruction approved of the Iowa system of school property accounting and set July 1, 1970 as the date upon which it is to become compulsory in all public school districts in Iowa.

Many individuals shared in the development of U. S. Handbook III. They were local and State school officials, members of such organizations as the American Association of School Administrators, the Association of School Business Officials of the United States and Canada, the Council of Chief State Officers, the National Council on Schoolhouse Construction and the National School Board's Association, Inc.

Because Handbook III was developed through nationwide cooperation of a substantial cross section of persons concerned with public schools, it may be accepted as establishing standards for educational terms and definitions. General use of these standardized terms will result in uniform interpretation of educational statistics through out the country.

Caution: Do not confuse "Property Accounting" with "Financial Accounting". "Property Accounting" summons to mind the word "inventory", while "Financial Accounting" refers to "money". "Financial Accounting" describes methods of preparing and recording budgets, accounting for receipts, disbursements and balances in the schoolhouse fund, general fund and other special funds which may be maintained by the school district. "Property Accounting" deals with areas, uses, costs and quantities of school sites, school buildings and movable equipment.

The codes used for the two accounting systems have different functions, so are entirely unrelated.

#### GENERAL STATEMENT

The purpose of this manual is to present step by step instructions for implementing property accounting in a local school district. It should be used in conjunction with the handbook, <u>Property Accounting for Iowa Schools</u>, published in 1965 by the State Department of Public Instruction (or U. S. Office of Education, Handbook III, of the State Educational Records and Report Series). <sup>1</sup> The definitions quoted will be from the handbook.

The system of School Property Accounting presented in the Iowa Handbook provides answers to questions on what information to keep and how to keep it for three classifications of school property: (1) Sites, (2) Buildings and, (3) Movable Equipment.

The implementation of Property Accounting for the first time by a school board falls into two distinct phases, namely, (1) making complete records of property on hand at the time the project is begun and (2) recording new acquisitions, disposals and transfers of property as they occur in order that an upto date running inventory may be available upon demand.

The first phase may be time consuming if there are few or no existing records, but when once completed this phase never needs to be repeated. The second is a continuing responsibility.

Recording of property on hand at the time the project is in progress, is treated in this manual in the same order as in the handbook beginning with (1) sites, following with (2) buildings and (3) equipment.

The second phase, a discussion of programs for recording acquisitions, transfers and disposals of property will follow. The final section will discuss the use of electronic data processing equipment in the field of school property accounting.

Administrators planning to initiate school property accounting should appoint a person to direct the project. The amount of time required to complete the project will depend upon the size of the school system.

<sup>1</sup> Reason, Paul L. and Tankard, George G. Jr., <u>Property</u> <u>Accounting for Local and State School Systems. U. S. Department</u> of Health, Education and Welfare. Administrators also will need to decide whether the project staff is to do all of the work, or if teachers and other district employees are to be enlisted to furnish part of the original data. If a large enough staff of persons familiar with the handbook system of accounting is assigned to the project to gather all of the original data, the following advantages can be expected to accrue:

- A. The total number of "man hours" required will be decreased because -
  - 1. It will not be necessary to spend time writing, duplicating, assembling and distributing special forms and instructions to a large number of professional district employees who will be called upon to do the data gathering.
  - 2. Project staff members, principals, teachers and others will not have to spend time in meetings called to explain the project.
  - 3. Trained persons will be able to gather the data faster.
  - 4. The project staff will spend less time calling or visiting schools to obtain corrections, additional facts or clarifications of the reports, because data gathered by trained persons will be-

| a. | more | accurate |
|----|------|----------|
| b. | more | complete |
| с. | more | uniform  |

- B. Descriptions will be more detailed and uniform when prepared by staff members. Codes necessary for use with electronic equipment will be more complete.
- C. Cooperation between faculty members and the project staff will be less strained because busy teachers and administrators will not be asked to complete an extra report.

Another decision the administration must make before starting the actual work of implementing the property accounting system is to decide upon the method by which the property data are to be processed and select types of reporting forms adaptable to that method.

Whether school property data are to be processed manually or electronically the method of gathering and recording the original data will be substantially the same. If electronic equipment is to be used, the data will be punched into cards, and from there on, the procedures will be different.

Illustrated in the handbooks are sample forms which show how the standard property accounts might be utilized by a school district in maintaining its property records. The format of record forms may be varied to suit the needs of individual districts, but for items of information that need to be comparable among districts, the standardized accounts and terminology should be used.

Some school boards have arranged with professional accounting and appraising firms to prepare their property accounting records. These reports appear to meet the requirements of the handbook.

#### PHASE ONE

#### Accounting for Property on Hand

#### A. <u>Sites</u>

Definition - "A site is a piece of land and all improvements to it other than structures".

Evidence encountered in pilot property accounting projects in several lowa schools indicates that school administrators often do not have available a systematic record of real estate holdings.

There are two types of information about sites that administrators should have readily available. They are (1) those data which are comparable among districts, and (2) those which are of local interest only. The former consists of such items as (a) use of site (b) area of site (c) original cost of site and (d) the cost of improvements to site. This type of information is needed for planning by local school officials and for state and national statistics. The second type which does not have meaning outside the local district are such things as (a) name of site (b) its location (c) legal description (d) information about deeds and (e) abstracts.

If these data have never been assembled into a usable document, the property accounting director may need to do considerable research. Abstracts and deeds may be in a vault at headquarters or in a rented safety deposit box.

If these sources do not produce the desired data the research may have to extend to the county recorder's office, and possibly to a search of ledgers and/or minutes of school board meetings. When found, deeds should provide the information from which area can be computed, but due to the common practice of listing the consideration as "\$1.00 and other valuable consideration," the price often can only be estimated from that source by noting the amount of revenue stamps attached. Areas of sites should be listed to the nearest one-tenth of an acre.

The handbook illustrates two types of forms for recording the site information. The first, illustrated on pages 65 and 66 of the Iowa handbook (forms DPI 2100 and 2101) are on sale at commercial suppliers in the form of a 9 by 12 file folder. A folder would be completed for each site. Other documents pertaining to this site, such as a copy of deeds, and building records can be filed in the folder. The other type ( pages 82 and 83) are columnar in style.

Improvement to sites consist of initial and additional work (other than for buildings) performed upon the site and its adjacent ways after acquisition by the school district. It may involve such things as grading, landscaping, seeding, planting shrubs and trees, (costs of excavation, fill and back fill for construction of buildings belong under <u>cost</u> of <u>building</u>) constructing new sidewalks, roadways, overpasses, retaining walls, sewers, storm drains, water mains, field hydrants and sprinkling systems; furnishings, <u>for</u> <u>the first time</u>, playground apparatus built into the grounds flag poles, gateways, fences and demolition work.

Costs of improvements to site also includes cost of any special assessments against the school district for capital improvements on or off the site, such as streets, curbs and drains on or adjacent to the site and any easements involved.

In the absence of other sources of information, such as ledgers showing expenditures for improvements to sites, property accounting personnel may need to search through board minute books.

#### B. Buildings

Definition - " A building is one continuous structure which may or may not be connected with other structures by passageways. It includes the building itself and the plumbing, sanitary, heating, ventilating, mechanical and electrical work, lockers, cabinets and shelves which are built into the building." The committee which developed the Iowa handbook felt that when two or more structures are attached, local school officials should be free to decide whether records would be more useful to them if separate accounting records were maintained for each structure or if it were treated as being a single building, accounted for on a single building record.

A school building provides space to accommodate a variety of functions such as instruction, administration, maintenance, operation, storage or heating.

A building is classified according to the major function carried on in it. For instance, if the superintendent and principal, and other administrative personnel have offices in a building which is primarily a high school, the building would be classed as an instructional building rather than an administration building.

According to the handbook, four major captions of school building accounting are:

- 1. Use of building.
- 2. Ownership of building.
- 3. Construction data, including costs.

4. Size of building.

Rather than devote space in this manual to a detailed review of all phases of school building accounting as described in the handbook, the discussion here will be directed toward the explanation of those points that have seemed to give trouble in the past.

#### 1. Use of Building (211 and 217)

There is no confusion about the use of a building if it houses a school, but what is meant by "Supporting Services", is not so well understood.

> Definition: "Supporting Services consist of activities of a school district that are not limited to one school plant".

A supporting service building therefore would be one whose principal use is to house such activities as district administrative offices, maintenance services, warehouse services, bus garages, repair shops, residences for professional or service employees and other buildings whose function is to serve more than a single school plant.

#### 2. Ownership (212).

# Until recently all school buildings were owned outright by the district. Now Dt is legal for a district to enter into a lease-purchase agreement with a private company. The handbook has provisions for this type of ownership. (212.2)

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#### 3. Construction

Dates of contract, acceptance of building and of disposal should be noted on a record.

#### a. Type of building construction (216).

The handbook designations in this section are 216.1 Fire-Resistive; 216.2 Semi-Fire-Resistive; 216.3 Combustible and 216.4 Mixed Construction. Some specialists in building construction regard this as being "Fire-rating", rather than "Type of construction" but until there is general agreement for a change of designation, the handbook term will be used.

#### b. Availability of building (218).

This caption probably will seldom be used, because most school officials will wait until a building is completed before completing the accounting record for it.

#### c. Cost of building (230).

These expenses are paid out of the school house fund. Being rather large and concentrated in a relatively short period of time they should be easily obtained.

#### 4. Size of Building (Floor Areas - 220).

If blueprints showing a building as now standing are available, areas can be obtained from them, otherwise the property accounting staff will have to measure the building. Blueprints provide the best possible source from which to obtain the dimensions of buildings. If there are no blueprints, or those that are available have not been revised to show all changes, such as, remodeling or additions that have been made, property accounting staff members will be forced to make actual measurements of the building. A 100 ft. steel tape is a convenient instrument for this purpose.

Two types of measurements are listed in the handbook.

a. Gross area: Gross area is found by measuring the outside surface of the building. It is the sum of the areas of all floor levels. Include mezzanines, balconies to the extent of their actual floor area. In case an auditorium or gymnasium extends through the next floor above, the area of that floor will be reduced by the amount of area that has no floor space on that level. Exclude all unroofed areas and unenclosed roofed-over areas such as exterior balconies or porches. The area of passageways enclosed with similar type and quality of construction as the building proper, and of tunnels with clear standing head room of at least 6 feet 6 inches are included in the gross area of a building. See Code 221 for additional definitions of unusual areas.

> Definition of basement (221.1): "The area in square feet of any floor that is below grade level on all sides and has clear standing room of at least six feet six inches."

Definition of first floor (221.2) "The area in square feet of the first floor, beginning at the bottom of the building that is at or above grade level along at least one entire side and has clear standing head room of at least six feet six inches."

See Code # 221.1 and 221.2 for definitions of "below grade level" and "at or above grade level".

b. Area of interior spaces: Obtain these measurements from blue prints or by actually measuring rooms, halls, etc. The sum of the measurements of all inside areas should approximate the gross area less the thickness of the walls.

When measuring an instructional area, include in the area of the room the area of all ad-

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juncts to the room.

Definition of adjunct: "An area that opens into and serves another facility in a building". Examples: A teachers wardrobe, a pupils cloak room, a toilet for the use of a room only, such as off a kindergarten room or an office.

The major portion of school buildings are instruction areas. (240)

a. <u>Regular class rooms (241.1)</u>. Definition: "A regular classroom is a classroom designed, or adapted in such a manner that it can be used to house any class that does not require special built-in equipment tailored to specific needs".

For local identification purposes, school authorities may designate a room as an English room, history room or a typing room, but unless there are built-in features fitting it specifically for a subject, for accounting purposes it is a "regular" class room.

- b. <u>Special class rooms (241.2</u>). By contrast to "regular class rooms", special class rooms have special built in equipment fitting them for specific subjects. Examples of such rooms are: Kindergarten room, Home Economics room or Music room.
- c. Administration areas in building (250).Kinds include:
  - 1. Superintendents Office
  - 2. Principals Office
  - 3. Guidance Area
  - 4. Health Service
- d. <u>Circulation areas in building (260</u>).Another word for halls, and stairways for general traffic. This <u>does not</u> include corridors or stairs within a suite of offices, or a stairway to a furnace room, or from an auditorium floor to the stage, or dressing room.

Other types of areas should be self-explanatory.

e. Service systems (280). This section should

cause no difficulty. The forms are designed so that the types of service systems are indicated by a check mark. Service systems include type of heating system including the fuel used, cooling system, ventilating system, water supply, sewer system, communication system and fire protection.

#### C. Movable Equipment

A school district has many more items of movable equipment for which to account, than it has sites and buildings combined. Furthermore accounting for equipment is a recurring process, but when all site and building data are once recorded, no new entries will need to be made until the district incurs expense for improving sites or acquiring additional land, constructing new buildings or extensive remodeling of present structures.

Apparently school officials have regarded equipment inventories as being more useful as administrative tools than records of site and building data, because most schools do maintain some sort of annual inventory of equipment. It is probable that many of these meet all specifications of the handbook.

Two distinctions should be kept in mind when dealing with equipment. The first is the distinction between built in equipment and movable equipment.

Definition: "Movable equipment consists of equipment items that are transportable from one location to another <u>without</u> appreciable damage or change to the location from which they are removed or to the location where they are installed".

Refer back to the definition of "building" in (B) above.

Although the distinction between built-in and movable equipment usually is obvious, there are instances where there may be less certainty.

These may be such things as dishwashers installed in the school lunch kitchen. Even though attached to water pipes they are considered movable. In the same category are science tables with sinks, gas and water connections, which can be removed with out damage to the room. On the other hand, sinks in homemaking classrooms built into unit kitchens, or in built-in work spaces in classroom will be classed as "built-in". Pupil desks, are treated as being equipment even though they may be attached to the floor by screws. The second distinction that needs to be kept in mind, is the distinction between equipment and supplies. School officials will need to keep records of supplies on hand, as well as equipment inventories but there should be separate records for each category.

Accounting for supplies is not treated in the property accounting handbook.

In the Iowa Property Accounting Handbook several criteria for distinguishing between supplies and equipment are listed on page 50. Also, beginning on page 52 is a rather complete list of items, which indicates equipment by a letter E and supplies by a letter S.  $^2$ 

The handbook establishes two methods of control for equipment accounting which are (1) unit control and (2) group control.

1. Unit Control (310)

Definition: "Unit control means that a piece of equipment is accounted for as a single unit, and it retains its separate identity in the records".

In the handbook, on page 42, are listed criteria for unit control equipment.

Most items under unit control have serial numbers. However, an administrator may account for all kinds of equipment under unit control, if an individual record is desired for each piece of equipment. As an illustration; although folding chairs, ordinarily would be accounted for together in a group, it is permissable, if desired, to make and retain a separate record for each chair.

2. Group Control (320)

Definition: "Group control means that equipment items which are the same with respect to function, material, shape and size are accounted for as a group rather than as single units. That is, the individual piece of equipment loses its identity as such and is one of a group".

<sup>2</sup> Also published in Department of Public Instruction Research Bulletin No. 1000, entitled <u>Uniform Financial Accounting</u> for Iowa Schools, beginning page 107. On page 46 of the handbook is a discussion of group control including criteria.

An illustration of group control would be 100 pupil desks which are all the same. One record could be kept on the group. In making records of equipment on hand at the time the inventory is being taken, administrators may prefer to make separate records for the number of pieces of a given equipment group in a room. In recording newly acquired equipment, some authorities define a group as "equipment bought at the same time and at the same price".

The forms illustrated in the handbook are substantially the same for unit control and group control methods.

#### 3. Ownership (312.8 and 322.8)

The handbook has provision for equipment which is:

- a. district owned which will cover most equipment.
- b. other public ownership such as state or federally owned.
- c. non-publicly owned: This is a growing field which includes such equipment as electronic data processing equipment, household appliances furnished to homemaking classes and driver education cars furnished by dealers on a lease contract with title remaining with the suppliers.

#### PROGRAMS FOR UPDATING PROPERTY ACCOUNTING RECORDS

#### SITES AND BUILDINGS

Although sites and buildings represent the largest single investments made by a school district, the number of transactions is relatively small when compared with the number of entries required to account for such expenditures as payroll, purchases of equipment and supplies.

When once recorded, no new entries will be made until more land is bought, or expenditures made for improvements of currently owned sites or new construction of buildings.

No new forms are suggested for updating site and building records. The new entries can be made on the regular source document. For manual type forms such as those illustrated beginning on page 65 of the handbook, there are spaces enough to make entries for several additions. A new record should be set up for purchase of new sites and for construction of new buildings. In either case the updated record will be shown on the summary cards. For electronic methods, new cards must be punched for each new transaction, whether on currently owned sites or buildings or property which is newly acquired. The updating will be done by computer and be recorded on the next printout.

#### EQUIPMENT

Updating equipment inventories, unlike site and building records, is nearly a continuous process. Consequently, updating equipment records demands more precise discussion.

For purposes of maintaining running equipment records the administration must decide:

- 1. What person is to initiate the record for incoming merchandise.
- 2. Whether equipment inventories are to be maintained by room or by building.
- 3. How often the administrators want a summary showing equipment on hand.
- 4. Whether identification tags are to be used.
- 5. The type of source document to be used. Some possibilities are:

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- a, purchase order
- b. invoice

c. pre-printed form

d. pre-printed punched card

Probably, the preferable type would be a printed form. It could be in as many copies as needed for the persons who will need to have access to the information. These forms could be in pads with different colored paper. If desired, the bottom copy of each group could be cardboard to facilitate filing at the school. The format should be designed so that there are spaces for all necessary data, including, the building, room, number of units, description, price and, when electronic equipment is used, space for the ten digit AEDS Code.

Purchase order forms have these same advantages and could be used except for the fact that often parts of an order are shipped at different times.

Invoices may be used. The clerk will write on the invoices, the necessary information about assignment and make phot copies of the invoice to be delivered to all persons.

Pre-printed punched cards may be used. The clerk will write out the assignment data in correct spaces on the card. Figure D-1 illustrates how a punched card might be printed to serve as a source document for equipment accounting. The outline at the bottom shows the fields of the card into which the data will be punched.

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A district ordering cards printed for their own use would not need a space for "District" number. This field could be used for additional data.

School administrators must establish policies concerning equipment inventory on the following questions:

- 1. Are inventories to be kept by room or by building?
- Note: For the remainder of this discussion, it will be assumed that inventories are to be kept, by room. Schools keeping records by building only, will be able to eliminate one step in each process involving receipts and transfers of equipment.
  - 2. How often are transfers to be posted involving transfers
    - a. from one room to another within the same building? b. from one building to another?
  - 3. How many times a year, complete inventories are to be prepared?

#### ACCOUNTING FOR NEWLY ACQUIRED EQUIPMENT

Upon receipt of a shipment of equipment, the clerk will:

- 1. Check the shipment against the purchase order and, the invoice to make sure that the quantity, and description correspond.
- 2. Fill out a source document for each different place to which any part of the shipment is assigned, showing:
  - a. Building, and room, if inventory is to be kept by room
  - b. The quantity of each kind of equipment assigned to that building and room.
  - c. Necessary descriptive information.
  - d. If electronic equipment is to be used, affix the ten digit AEDS Code for each different commodity.

When a shipment of equipment is received, the clerk will have to know where it is scheduled to be sent.

He will record on a source document, complete information concerning a consignment of equipment. If the entire shipment does not go to the same place, a document must be prepared giving pertinent data including the number of units assigned to each place. A copy of each will be filed in the property accounting office, and one copy sent to the receiving school or facility, where it will be filed by room.

If electronic equipment is being used the source document will be sent to the key punch operator where a card will be punched for each different item and for each different room that is to receive merchandise. The cards will be duplicated. One copy is filed in the property accounting office, and a second in the office of the receiving school or facility where it will be filed by room.

#### TRANSFERS

A system of registering transfers of equipment from one location to another is essential to the maintenance of a continuous property accounting record. Although major movements of equipment should be recorded at the time of the transfer, no one could afford the time it would take to make a record each time a desk, chair or a globe was moved from one classroom to another in the same building. Accounting for these movements should be done just before an inventory is to be prepared.

When a transfer of equipment takes place, a record of it is made at the property accounting office. A special form or card may be used for this purpose, or a notation may be made on the record of the losing room and a new record made for the receiving room. From this point on, the accounting processes for transfers are the same as for new acquisitions.

Accounting for transfers involving equipment under unit control is easily accomplished because each document is the record of a single unit of equipment. Such a transfer can be effected by moving the record from the file of the losing room to the room receiving the equipment and notifying the property accounting office.

When an allocation consists of several units of identical equipment and a part of it is transferred, new records will have to be made for the room from which equipment is being transferred, the new card will show the number of units of the group that remains in the room after the transfer and the card for the room to which the equipment is transferred will show the number of units being transferred. If equipment is disposed of instead of being moved to another location in the system, records for the room from which it is taken will be handled the same as another transfer. Records for the equipment disposed of may be thrown away, or filed in a "dead" file if the administration prefers to retain the record.

#### INVENTORIES

When data on all newly acquired equipment and all transfers are on file in the property accounting office, an inventory can be produced at any time the administration calls for one. When computation is to be done manually, data for each room will be taken from the file and transferred to a summary sheet. Many kinds of information may be tabulated from these room inventories.

Electronic equipment gives school officials a more versatile tool. With the punched cards sorted by building and by room the computer can be programmed to print out inventories showing the number of different items, the number and value of each, for every room, for each building and for the entire district.

A variety of tabulations can be produced by sorting the cards on different columns. For instance, by sorting according to the classification code, a list could be produced to show the number and value of any one kind of equipment for an entire district or for each building.

#### PROPERTY ACCOUNTING BY ELECTRONIC METHOD

An increasing number of industrial companies, banks, hospitals, educational institutions, county and state offices have electronic data processing equipment. In many instances, these organizations can spare machine time to do work for others on a contract basis. The Information Center at the University of Iowa offers many kinds of service to the schools of Iowa.

With this type of service becoming available to all schools, school officials should become familiar with its capabilities, regardless of the size of their school systems.

Beginning on page 79 of the handbook is a general statement about machine accounting followed by specimens of card layouts that could be used for source documents.

To initiate electronic methods of processing data, information is punched into cards. The cards are designed with a certain number of spaces into which a digit, a letter, or a character may be punched (IBM cards have 80 columns). Some of these columns must be used to identify the card number, the school district number, the site number, school number and in some instances the room number, which places further limitation on the number of columns available for data. Consequently, to conserve card space, wherever possible, data should be represented by a short code.

Codes in the handbook contain a minimum of three digits and some have as many as six digits. A new code was developed for punched cards by listing each category of property in the ascending order of the handbook code. The list was numbered consecutively beginning with 1. These numbers were used as a new code (Page 85). For instance a house for a superintendent is code number 211.208 in the handbook, but becomes 19 by the new code. This same system was used to establish codes for the entire handbook.

Because of the limited amount of space for information that can be punched into each card, it was impractical to try to match a punched card with each card in the set illustrated beginning page 73 in the handbook. In that set there are six forms suggested for original entry and ten summary cards.

During 1967, a research project in property accounting was conducted in the Cedar Rapids Community school district, to implement, test and evaluate the use of electronic data processing equipment in school property accounting. Forms used for recording the data were duplicated by liquid process. Thus revisions could be made as experience dictated, at very small cost. It is possible for a key punch operator to sort out data from forms of most any design and punch them into cards of desired layout, but it is far more convenient for the one who punches and the one who verifies the punching, if the source document has data in the same sequence as the fields on the punched card.

In the course of the project the design of the forms underwent several revisions. The final drafts of these forms correspond with the card formats illustrated below. In this set, there are ten cards, all of these are for original entry. There are no summary cards because summaries are made and printed by the computer.

These card layouts were developed at the Iowa Information Center at the University at Iowa City. The card layouts and the programs for processing data may be obtained from the center.

#### CEDAR RAPIDS PROPERTY ACCOUNTING PROJECT

In this section an attempt will be made to present in "layman's language", how IBM was used to process school property accounting in Cedar Rapids, Iowa.

The first step in implementing property accounting is to gather and record the data. This task is basically the same whether the processing is to be done manually or electronically.

The project staff members manually entered data about sites, buildings and equipment on the home-made "dittoed" forms from which they were punched into cards by Cedar Rapids Community School key punch operators. At the start of the project, the forms used were designed with the same sequence of fields as illustrated in the card layouts, beginning on page 82 in the handbook. The coding system listed for each form in this section of the handbook was used.

#### SITES AND BUILDINGS

Card formats for sites and buildings as finally adopted for punching and processing are illustrated in figures D-2 through D-9.

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CARD O SITES

Figure D-2

D-19

CARD I, SITE IMPROVEMEN'TS



Figure D-7

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#### CARD VI, BUILT-IN EQUIPMENT



Figure D-8





Ledgers at the administration building of the Cedar Rapids District contained records of costs of sites and improvement to sites and areas of sites. A folder was in the file for each site in which were deeds and other information pertinent to the acquisition and preparation of land for district uses. Therefore, no land was actually measured.

Ledgers, also, carried accounts of expenditures for buildings. Blueprints were on hand for most buildings so that measurement of buildings and rooms within the buildings was accomplished in the office. A few older buildings were measured by staff members.

Some of the information required for the detailed sections of cards IV and V were obtained on these visits to the schools, but most of it was obtained from records at the administration building and from a section of the supplemental questionnaire turned in by each teacher.

The Iowa Information Center at the University of Iowa provided analysis and program service. Duplicates were made of site and building cards and sent to Iowa City for processing.

The computer is programmed to print the information from both site cards on the same printout. Information from all building cards is combined in a single printout. (Illustration D-10)

D-21

|     | District                   | No.             | District 1       | Name                 |             |                                    |             | BUILDIN                                | GS     |                     |             |             |
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Printouts of site and building data were brought to Cedar Rapids where project staff members checked them against source documents for errors. The printouts were returned to Iowa City to have the corrections punched and new printouts issued.

Note: Pre-printed forms for all printouts have been prepared at the Iowa Information Center. Copies of the site and building printout forms will be furnished to Iowa schools by the Center. However, because of the large volume of equipment printout forms required, the center will charge actual cost for these.

#### EQUIPMENT

Production of an equipment inventory for a school district is the largest single task confronting a staff undertaking to implement the handbook system of property accounting.

In Cedar Rapids an inventory is required for the equipment in each room in the system. These inventories are prepared and filed toward the end of each school year by teachers, and other district employees. It was the plan for project 6-2836 that the inventory to be developed should continue to be by room.

Data from the inventories filed by school employees were transferred manually by members of the project staff to "dittoed" forms developed by the staff for that purpose.

It was decided to use the same card format for recording all equipment, whether it be the type classified in the handbook as under "Unit Control" or "Group Control".

CARD VIII, EQUIPMENT



The Cedar Rapids administration has not chosen to tag equipment, so the field for tag number is vacant on the Cedar Rapids records.

The field intended for recording the name and description of equipment contains 27 columns. Staff members had to fit the name and descriptive data (including serial numbers, if any) of equipment into this 27 column field. Often, this meant trying to devise understandable abbreviations.

The column entitled "AEDS Equipment Code" is for entering the ten digit code for each kind of equipment, which was devised by the Association for Educational Data Systems. It has little meaning for the average person. The remainder of the card should present no difficulty.

The inventories filed by school employees did not include prices for equipment. To establish reasonable prices, staff members searched through invoices of purchases made during several years, studied school supply catalogues and contacted supervisors and teachers. A price list of the more frequently occurring items was made from information obtained from these sources.

The cards were sorted by the AEDS code. Thus the cards for similar commodities in the entire system were grouped together. The staff separated each group with a rubber band, and attached the suggested price to each bundle. The key punch operator punched the same price into all the cards in each bundle. Items that occurred infrequently were priced and punched individually.

When the prices were all punched, the cards again were sorted, this time by room and school number. The cards were then processed on an IBM 1401 computer.

The computer was programmed to print the data for each room by itself, giving the total number of entries, the total number of items and the value of all equipment in that room. Those same totals were given for a building and in the end, for the entire district.

The printouts were printed on four ply paper. One copy was separated by buildings, and handed out to the building principals at their pre-opening principal's meeting on August 22. Principals were instructed to separate the printout by rooms and ask each teacher or other employee to check the inventory for their room and make changes that were needed to bring it up to date.

When the printouts were returned, property accounting staff members checked entries that had been changed or added to prepare them to be punched into the cards. The chief task was to change codes for equipment for which descriptions were changed and supply codes for newly entered equipment. The printouts were then given to the key punch operators who punched new cards for each change. The staff members then removed the incorrect cards from the deck, and inserted the new ones in the correct sequence.

In the final phase of Project 6-2836, the program for updating inventories outlined in section two (2) of this manual, was put into operation, tested and evaluated. A very large amount of equipment was delivered to the Cedar Rapids Community School District during the summer of 1967. In addition to the customary amount of summer purchases, two new schools, Coolidge Elementary and Kennedy High School were completely furnished.

Data for property accounting records were obtained from the purchasing department. Because a considerable amount of equipment was transferred from other schools in addition to newly purchased equipment an actual inventory was taken in November at the Coolidge elementary school, by a member of the property accounting staff.

When all these new data were punched into cards a new printout was made for the information of the administration.

Explanation of Card Layouts Illustrated on pages 19-20-21-23

- Column 1 on all cards is to record the number of the card in the Property accounting series, zero through nine.
- Column 2 on all cards is for recording the transaction according to the following code 1= acquisition or new record. 2= disposal or deletion of record. 3= replacement or correction of data.
- Columns 3-6 on all cards are for recording the four digit code assigned to Iowa schools by the State Department of Public Instruction.
- Columns 7-9 on all cards are for recording the number of the site in the district. This is a local designation.
- Columns 10-11 on cards 2 through 7 is for identification number for the building on the site.

On the following pages are illustrated six (6) forms developed in the course of Project 6-2836, for the recording of property accounting data. The format corresponds to the principle card layouts illustrated on pages 19-20-21 and 23.

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| Site N | 0   |     | or Facility or         | n Site      |          |                    | Address        |      |                     |                     |          |  |  |  |
| Year   | Mo. | Day | Type or Use            | Owner       | Area     | Esti               | Cost           |      | Deed Recording Data |                     |          |  |  |  |
|        |     |     | of Site                |             | in Acres | or<br>Actu<br>Cost |                | Year | Co.<br>No.          | Volume              | Page     |  |  |  |
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Name of District\_\_\_\_\_\_No.\_\_\_\_

Card 1 Site Improvements

Name of School

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Site Number \_\_\_\_\_\_ or Facility on Site \_\_\_\_\_\_

Address

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| PROPERTY   |  |
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| ACCOUNTING |  |

District Address Site No. Name -Name of School or Facility No.1 Building No. Card 2 Building Header Card

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District

Card 5 Room Card

| Distric             | t                      | Name<br>Name of                       | No.         |   |         |       |             |              |                   |                             | Caro<br>Equi                          | i 8<br>Lpme | nt Card         |            |
|---------------------|------------------------|---------------------------------------|-------------|---|---------|-------|-------------|--------------|-------------------|-----------------------------|---------------------------------------|-------------|-----------------|------------|
| Site No<br>School 1 | No                     | or FaciAddress                        | lity        |   |         |       |             |              |                   |                             |                                       |             |                 |            |
| Room<br>No.         | Tag or<br>Group<br>No. | AEDS<br>Equipment<br>Code             |             | Description   |         | Owner | Life Expcty | No. of Units | Dat<br>Pur<br>Yr. | e of<br><u>chase</u><br>Mo. | Unit<br>Cost                          | -           | · Total<br>Cost | Estimate   |
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