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PLANNING INFORMATION SYSTEM

PART 1 TRANSPORTATION FACILITIES MANUAL



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IOWA DEVELOPMENT COMMISSION
DES MOINES, IOWA

IOWA STATE HIGHWAY COMMISSION
AMES, IOWA

PLANNING INFORMATION SYSTEM

PART 1

TRANSPORTATION FACILITIES MANUAL

Prepared for the

IOWA DEVELOPMENT COMMISSION

and the

IOWA STATE HIGHWAY COMMISSION

By

HOWARD, NEEDLES, TAMMEN & BERGENDOFF

May, 1967

PLANNING INFORMATION SYSTEM
Part 1 - Transportation Facilities Manual

The Transportation Facilities Manual provides a system of identifying and coding existing streets and highways and of recording data pertaining to these facilities. This manual, together with the other two documents may be used in connection with the preparation of comprehensive and special planning and urban research studies of all kinds. Particular emphasis was placed on the updating of collected information so that basic inventories pertaining to the planning process can be kept current without undue effort or cost.

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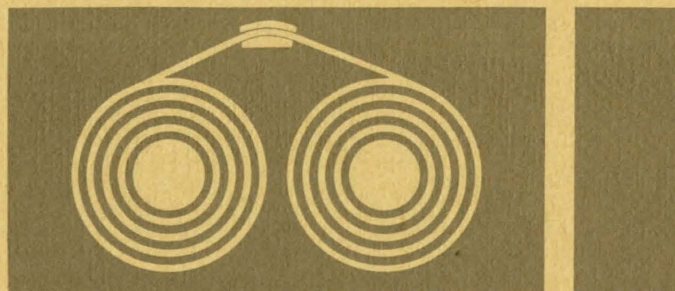
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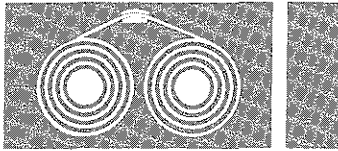
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PREFACE



PREFACE

The technology of maintaining and processing planning data has not progressed to the point that every particle of basic information can be maintained in one central file. For this reason, a total Planning Information System should be broken into clearly definable segments. The segments of the total Planning Information System proposed herein are as follows:

Part I - Transportation Facilities Manual

1. Street, Traffic and Transportation Facilities Inventory

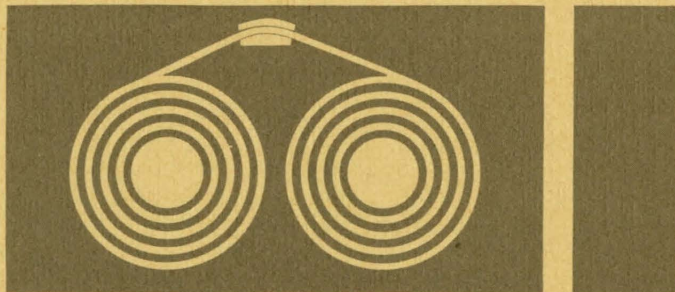
Part II - Planning Data File Manual

1. Land Use Inventory

Part III - Planning Information Manual

1. Community Facilities Inventory
2. Utilities Inventory
3. Economic Base Inventory
4. Population Inventory
5. Financial Capacity Inventory
6. Capital Improvements and Capital Budget Inventory

This manual covers Part I, Transportation Facilities, and provides procedures for a street, traffic and transportation facilities inventory. Parts II and III are covered in separate manuals.



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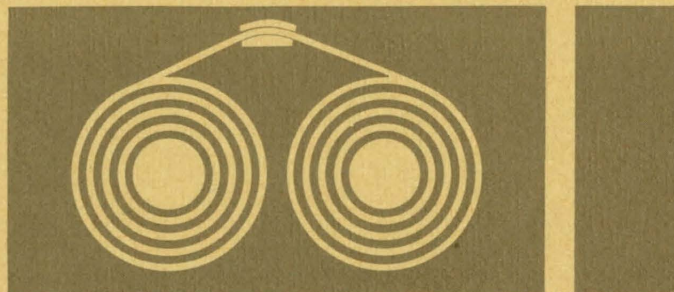
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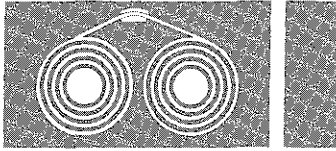
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GENERAL



GENERAL

The purpose of any file is the accumulation of data for future retrieval and reference in a number of different summary types. To identify any basic street and traffic data item it is necessary that a uniform system of identification be established.

A number of various systems have been developed, each with certain advantages and disadvantages. One system has been the identification of each route by a single number and the data along this route identified by stations beginning at some known point. A second system has been the identification of each segment of roadway, such as between intersections.

The system on which this data is collected is based on assigning a unique number to the ends of each roadway segment. This unique number would primarily be assigned to intersections or the end of dead-end streets or roads. Since at the beginning of any inventory it may not be possible to inventory every roadway segment between intersections, a segment may be identified by intersection numbers between major routes, ignoring the intermediate intersections until a later date. This feature is important as new areas are developed and additional intersections introduced.

Even if a complete inventory were completed initially, two occasions may warrant a consideration of an imaginary intersection number. This would be a jurisdiction limit, such as a city limit and the possibility of two roads splitting and returning without an intermediate intersection. If an intermediate intersection number were not introduced at this point, the roadway segment would have an identical identification number. Only one imaginary intersection number would be needed.

The smallest identification would thus be the intersection, and a roadway segment would be the combination of two intersection numbers. To differentiate these

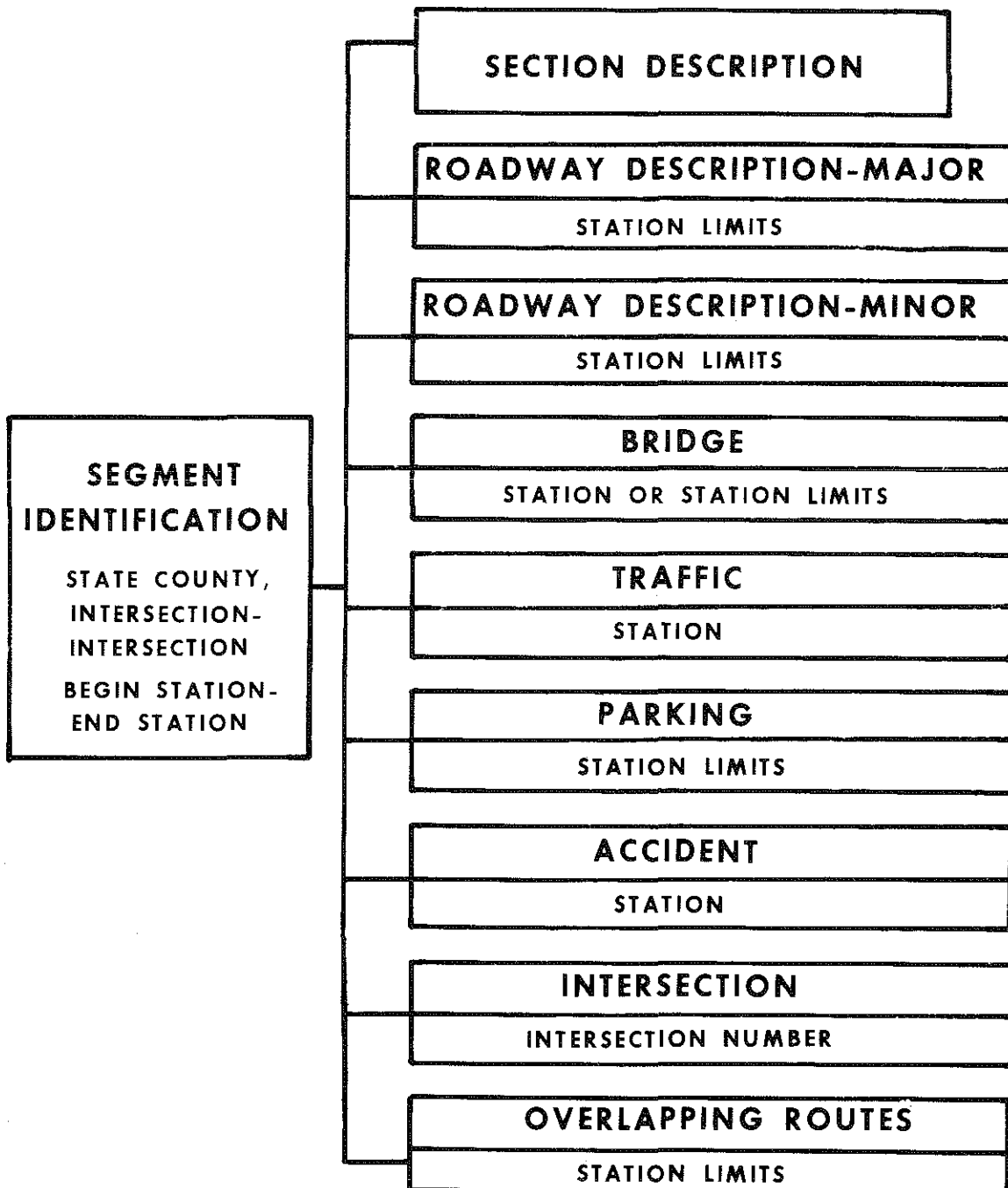
segments from segments in any other part of the State of Iowa, a next higher range of identification is necessary. Since city boundaries are subject to change, the next major identification assigned has been the county. Thus the roadways, segments and intersections within any one county have an individual set of intersection numbers. To identify changes along each or any segment, a station number would be assigned. A "begin station" would always be the first number - intersection number recorded - and the "end station" would be the last intersection number recorded. A begin and end station should equal the section length. With this general identification assigned to each segment any data collected can be identified.

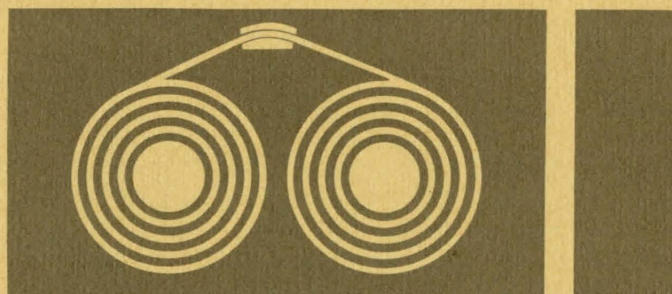
The relationship of the segment identification to the various categories of data is shown schematically on Figure 1. The segment identification is needed with each data item.

Those items considered basic to the Transportation Inventory are marked with an asterisk in the following sections. Two asterisks designate Needs Study items. The card formats are only suggested. A specific inventory may be expedited with different formats, depending upon the source of data.

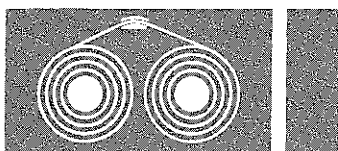
FIGURE 1

Relationship of Segment Identification to Data Items





IDENTIFICATION



IDENTIFICATION

B. IDENTIFICATION

No. Spaces

*1. STATE

2

Use the Geographic Identification Code scheme of 1960 Census of Population and Housing, Iowa PHC (2)-17. The number is 42 for Iowa.

*2. COUNTY

2

Use the Geographic Identification Code scheme of 1960 Census of Population and Housing, Iowa PHC (2)-17.

*3. FIRST INTERSECTION REFERENCE NUMBER

6

Figure 2 shows an example of the method of numbering intersections within each County. This example shows only the major routes, but is applicable to any further expansion of the inventory to include lower classifications of roads and streets. A six-digit number is used to represent an intersection. The first two digits of the intersection number represent the geographical location within the county. This geographical location can be defined by arbitrary grid lines as shown in the example.

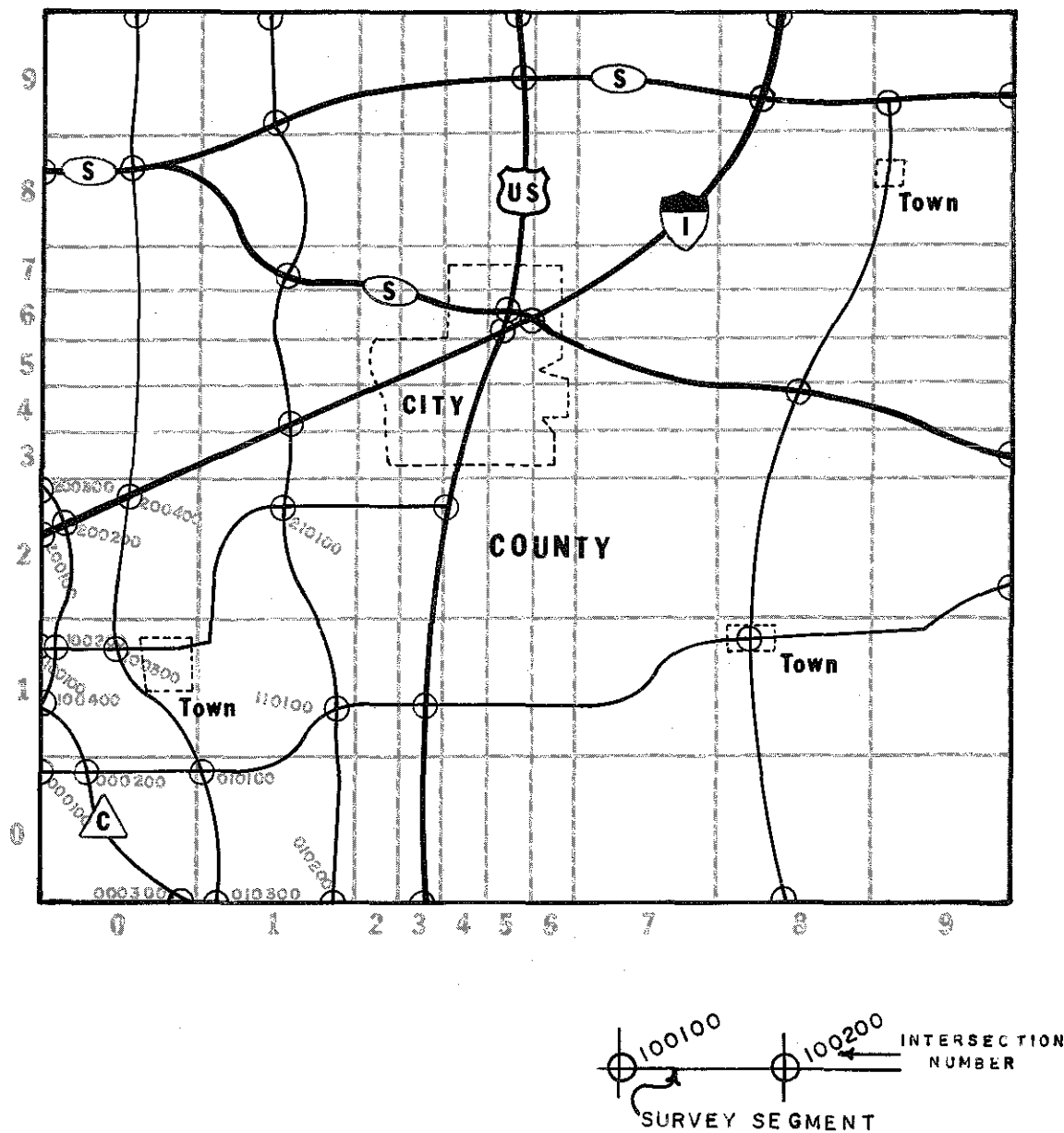
Each county could be divided by nine horizontal and nine vertical grid lines. The spaces between grid lines would be numbered as shown. The first digit of an intersection number would be determined by the two horizontal grid lines between which the intersection falls. Likewise the second digit will be determined by the vertical grid lines. Intersections falling between space number 2 of the horizontal grids and space number 1 between vertical grids will have the identifying number 210000. Each intersection within this area will then be numbered using the third and fourth digits. The fifth and sixth digits will be reserved for future expansion as additional intersections are added to the system. An example of coded intersections are: 210100, 210200, 210300, etc.

Grid lines need not be uniformly spaced. Grid lines passing through larger cities should be more closely spaced

FIGURE 2

EXAMPLE

INTERSECTION NUMBERING SYSTEM



B. IDENTIFICATION

No. Spaces

because the potential number of intersections to be coded within an area may exceed the number of digits available. Spacing of grids should not exceed 1.5 miles in these areas.

As future streets are added they will also be coded into the system. As new intersections are added in existing roads and streets, then existing segments must be re defined and recoded in the file.

*4. SECOND INTERSECTION REFERENCE NUMBER 6

See Item B-3 above.

*5. BEGIN STATION - SUBSECTION CONTROL LINK 3

Express station in miles to the nearest .01 mile. Stationing for each segment will begin with 0.00 at the intersection with the lowest number and increase toward the second intersection. Stations will be used to describe the limits to which the various data items apply.

*6. END STATION - SUBSECTION CONTROL LINK 3

See Item B-5 above.

*7. ADDITION TYPE 1

Code

- (1) Addition - Use for new data which has not been previously coded.
- (2) Review - Use to check for the presence or absence of data in the computer record and to check for changes in a section.
- (3) Correction - Use when new data is to be substituted for data in the computer record.
- (4) Deletion - Use when data in the computer record is to be deleted.

B. IDENTIFICATION

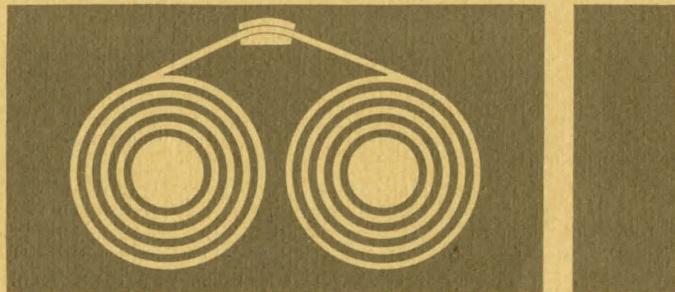
No. Spaces

8. DATA CARD TYPE

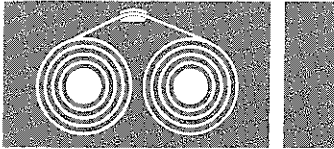
1

Card No. See Figures 3 through 11.

1. Section Description
2. Roadway Data - Major Items
3. Roadway Data - Minor Items
4. Bridge Data
5. Traffic Data
6. Parking Data
7. Accident Data
8. Intersection Data
9. Overlapping Route Data



SECTION DESCRIPTION



SECTION DESCRIPTION

C. SECTION DESCRIPTION (Figure 3)

No. Spaces

1. CENSUS TRACT NUMBER

3

Refer to 1960 Census of Population and Housing, PHC (1).

*2. CITY or PLACE

3

Use the Geographic Identification Code scheme of 1960 Census of Population and Housing, Iowa PHC (2)-17. This system provides a unique number to each city or place within each county. To identify a city within the state both the County Code and the City or Place Code must be used.

*3. POPULATION CLASS

2

Use the Code for Place Size from the Geographic Code scheme of 1960 Census of Population and Housing, Iowa PHC (2)-17.

Code

0	Under 200	
1	200 to	499
2	500 to	999
3	1,000 to	1,499
4	1,500 to	1,999
5	2,000 to	2,499
6	2,500 to	4,999
7	5,000 to	9,999
8	10,000 to	19,999
9	20,000 to	24,999
10	25,000 to	49,999
11	50,000 to	99,999
12	100,000 to	249,999
13	250,000 to	499,999
14	500,000 to	999,999
15	1,000,000 or more	

STREET, TRAFFIC AND TRANSPORTATION FACILITIES INVENTORY

IOWA DEVELOPMENT COMMISSION AND IOWA STATE HIGHWAY COMMISSION

CARD NO. 1 SECTION DESCRIPTION

[illegible]

C. SECTION DESCRIPTION

No. Spaces

4. ZONING - Predominant to both sides

2

Code

- (1) Commercial
- (2) Residential
- (3) Heavy Industrial
- (4) Light Industrial
- (5) Park
- (6) Church or School
- (7) Agricultural
- (8) Unzoned
- (9) Other

****5. PREDOMINANT LAND USE**

1

If approximately equal frontages of different land use types occur on a ~~Control Section~~ ^{link}, use the code for the land use type which results in the most intensive use of the land and has the greatest effect upon use of the facility.

This code is the first digit of the Standard Land Use Code presented in the Standard Land Use Coding Manual, January 1965, by the Urban Renewal Administration of the Housing and Home Finance Agency (Housing and Urban Development) and the Bureau of Public Roads of the Department of Commerce.

C. SECTION DESCRIPTION

Code

(1) RESIDENTIAL

- Household Units
- Group Quarters
- Residential Hotels
- Mobile Home Parks or Courts
- Transient Lodgings
- Other Residential (not elsewhere coded)

(2) MANUFACTURING

- Food and Kindred Products - Manufacturing
- Textile Mill Products - Manufacturing
- Apparel and other Finished Products made from
Fabrics, Leather and similar Materials -
Manufacturing
- Lumber and Wood Products (except Furniture) -
Manufacturing
- Furniture and Fixtures - Manufacturing
- Paper and Allied Products - Manufacturing
- Printing, Publishing and Allied Industries
- Chemicals and Allied Products - Manufacturing
- Petroleum Refining and Related Industries

(3) MANUFACTURING (continued)

- Rubber and Miscellaneous Plastic Products -
Manufacturing
- Stone, Clay and Glass Products - Manufacturing
- Primary Metal Industries
- Fabricated Metal Products - Manufacturing
- Professional, Scientific and Controlling Instruments;
Photographic and Optical Goods; Watches and
Clocks - Manufacturing
- Miscellaneous Manufacturing (not elsewhere coded)

C. SECTION DESCRIPTION

(4) TRANSPORTATION, COMMUNICATION AND UTILITIES

- Railroad, Rapid Rail Transit and Street Railway
Transportation
- Motor Vehicle Transportation
- Aircraft Transportation
- Marine Craft Transportation
- Highway and Street Right-of-Way
- Automobile Parking
- Communication
- Utilities
- Other Transportation, Communication and Utilities
(not elsewhere coded)

(5) TRADE

- Wholesale Trade
- Retail Trade - Building Materials, Hardware and Farm
Equipment
- Retail Trade - General Merchandise
- Retail Trade - Food
- Retail Trade - Automotive, Marine Craft, Aircraft
and Accessories
- Retail Trade - Apparel and Accessories
- Retail Trade - Furniture, Home Furnishings and
Equipment
- Retail Trade - Eating and Drinking
- Other Retail Trade (not elsewhere coded)

(6) SERVICES

- Finance, Insurance and Real Estate Services
- Personal Services
- Business Services
- Repair Services
- Professional Services
- Contract Construction Services
- Governmental Services
- Educational Services
- Miscellaneous Services

C. SECTION DESCRIPTION

No. Spaces

(7) CULTURAL, ENTERTAINMENT AND RECREATIONAL

Cultural Activities and Nature Exhibitions
Public Assembly
Amusements
Recreational Activities
Resort and Group Camps
Parks
Other Cultural, Entertainment and Recreational
(not elsewhere coded)

(8) RESOURCE PRODUCTION AND EXTRACTION

Agriculture
Agricultural Related Activities
Forestry Activities and Related Services
Fishing Activities and Related Services
Mining Activities and Related Services
Other Resource Production and Extraction
(not elsewhere coded)

(9) UNDEVELOPED LAND AND WATER AREAS

Undeveloped and Unused Land Area (excluding
non-commercial Forest Development)
Non-commercial Forest Development
Water Areas
Vacant Floor Areas
Under Construction
Other Undeveloped Land and Water Areas
(not elsewhere coded)

*6. PREDOMINANT ROADWAY SERVICE

1

Code

- (1) Freeway - A facility devoted entirely to the movement of traffic which performs no land service function. This type of facility will always be a multi-lane, divided roadway with full control of access and no crossings at grade.

C. SECTION DESCRIPTION

- (2) Expressway - A facility devoted to the movement of traffic which performs little land service function. This type of facility will be a multi-lane, divided roadway with partial control of access and few crossings at grade.
- (3) Ramp - A roadway connection between a freeway or expressway facility and a surface street or highway; also a connection between a freeway or expressway and another freeway or expressway. It will have full control of access and no crossings at grade.
- (4) Arterial - A roadway which primarily serves through traffic on a continuous route. It may also act as a feeder route for freeway and expressway facilities. Although an arterial is primarily intended to move traffic, it may provide a secondary land service function.
- (5) Collector - A street which serves the dual function of serving internal traffic movements within a specific area and movements from that area to an arterial route.
- (6) Local - A street which primarily provides access to adjacent residential, commercial, industrial or recreational properties.
- (7) Rural - A roadway which serves traffic movements beyond the limits of an urban area.
- (8) Alley - A minor service street which generally provides access to the side or rear of a residential, commercial or industrial property. If alleys are to be included in a system, they must be assigned intersection numbers as are streets and roads.
- (9) Other

C. SECTION DESCRIPTION

No. Spaces

7. TERRAIN

1

Code

- (1) Flat
- (2) Rolling
- (3) Mountainous

*8. CLASSIFICATION

1

Code

- (1) Central Business District - That portion of a municipality in which the dominant land use is for intense business activity. This district is characterized by large numbers of pedestrians, commercial vehicle loadings of goods and people, a heavy demand for parking space and high parking turnover.
- (2) Fringe Area - That portion of a municipality immediately outside the Central Business District in which there is a wide range in type of business activity, generally including small businesses, light industry, warehousing, automobile service activities and intermediate strip development, as well as some concentrated residential areas. Most of the traffic in this area involves trips that do not have an origin or a destination within the area. This area is characterized by moderate pedestrian traffic and a lower parking turnover than is found in the Central Business District, but it may include large parking areas serving that district.
- (3) Outlying Business District - That portion of a municipality or an area within the influence of a municipality, normally separated geographically by some distance from the Central Business District and its Fringe Area, in which the principal land use is for business activity. This district has its own local traffic circulation superimposed on through movements to and from the Central Business District, a relatively high parking demand and turnover, and moderate

C. SECTION DESCRIPTION

No. Spaces

pedestrian traffic. Compact off-street shopping developments entirely on one side of the street are not included in the scope of this definition.

- (4) Residential Area - That portion of a municipality, or an area within the influence of a municipality, in which the dominant land use is residential development, but where small business areas may be included. This area is characterized by few pedestrians and a low parking turnover.
- (5) Rural - Roadway serves a sparsely developed area primarily devoted to agriculture or conservation usage.

9. ACCESS CONTROL

1

Code

- (1) Class I - Interstate System or other fully Controlled Access Highway.
- (2) Class II - Expressway System, a four-laned divided highway with interchanges or separation at major intersections and grade crossings at designated minor public road intersections. Expressway Controlled Access Highway.
- (3) Class III - Planned Controlled Access Highways on which through traffic is given primary consideration.
- (4) Class IV - Planned Controlled Access Highways on which through traffic and land service traffic are given equal consideration.

C. SECTION DESCRIPTION

No. Spaces

*10. ROUTE NUMBER PREFIX

1

Code

- (1) Interstate
- (2) U. S.
- (3) State
- (4) County
- (5) Municipal

*11. ROUTE NUMBER

3

An alternate route with a suffix code 1 through 5 under Item No. 12 below must be coded "5 - Municipal" under Item No. 10 above.

12. ROUTE NUMBER SUFFIX

1

Route suffix codes 1 through 5 may be coded only with routes coded "5 - Municipal" under Item No. 10 above.

Code

- (1) Alternate
- (2) Bypass
- (3) City Route
- (4) Temporary
- (5) Freeway Ramp
- (6) Regular (routes with no suffix)

*13. STREET DIRECTION PREFIX

1

This is used with Street Name, Item 14 below, For example: North Baltimore Street or 72nd Street North.

Code

- (1) North
- (2) Northeast
- (3) East

C. SECTION DESCRIPTION

No. Spaces

- (4) Southeast
- (5) South
- (6) Southwest
- (7) West
- (8) Northwest

*14. STREET NAME 14

*15. STREET NAME SUFFIX 2

Code

- (1) Street
- (2) Avenue
- (3) Road
- (4) Boulevard
- (5) Drive
- (6) Parkway
- (7) Other

*16. STREET DIRECTION SUFFIX 1

Code

- (1) North
- (2) Northeast
- (3) East
- (4) Southeast
- (5) South
- (6) Southwest
- (7) West
- (8) Northwest

*17. DATA STATUS 1

Code

- (1) Existing - Use when the Data Card Type information is for an existing facility.

C. SECTION DESCRIPTION

No. Spaces

- (2) Under Construction - Use when the data is for a facility currently under construction.
- (3) Financed - Use when the data is for a proposed facility which has been programmed for construction and to which funds have been committed.
- (4) Programmed - Use when the data is for a proposed facility which has been officially included in a construction program, but for which no funds have been committed.
- (5) Proposed - Use when the data is for a proposed transportation facility, but which has not officially been included in a construction program.

*18. DATE OF UPDATE

4

Indicates the month and year which the "Data Status" Item No. 17 was recorded or updated. The first two digits will represent the number of the month, and the last two digits the year. Example: January 1967 will be coded 0167.

19. MAINTENANCE RESPONSIBILITY

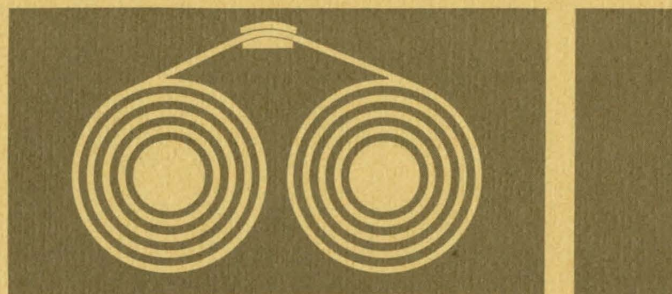
1

Code

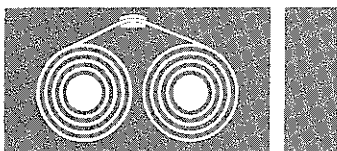
- (1) State
- (2) County
- (3) Municipal
- (4) Federal Agency
- (5) Metropolitan Park District
- (6) Tollway Agency
- (7) Private
- (8) Other

20. STATE CONTROL SECTION

7



ROAD WAY DATA-MAJOR ITEMS



ROADWAY DATA-MAJOR ITEMS

D. ROADWAY DATA - MAJOR ITEMS (Figure 4)

No. Spaces

(Identified by individual begin and end station if not the same as inventory intersection station.)

*1. CROSS SECTION - DATA IDENTIFICATION

1

This will be coded to indicate the portion of the cross section to which subsequent data applies. This, along with subsection station limits, will allow a great deal of refinement of data for facility segments. If an entry is made for data for the left side of a roadway, then a separate entry must be made for data which applies to the right side.

Code (Single Roadway)

- (1) Left side
- (2) Right side
- (3) Both sides

(Divided Roadway)

- (4) Left roadway - left side
- (5) Left roadway - right side
- (6) Right roadway - left side
- (7) Right roadway - right side
- (8) Both roadways - both sides

*2. RIGHT-OF-WAY WIDTH

4

Express the width or average width in feet with the appropriate suffix.

Code

- U. Uniform width - Use a "U" for the suffix. Example: 150U
- A. Variable width - Use an "A" for the suffix. Example: 150A

**3. TOTAL RIGHT-OF-WAY AVAILABLE WITHOUT EXCESSIVE COST

3

Express width in feet. This will allow an office evaluation of whether a street or road can be widened. Determining

STREET, TRAFFIC AND TRANSPORTATION FACILITIES INVENTORY

CARD NO. 8 ROADWAY DATA - MAJOR ITEMS

MEDIAN

D. ROADWAY DATA - MAJOR ITEMS

No. Spaces

what is excessive cost is a judgemental consideration but generally will include the necessity of acquiring major buildings or groups of buildings, or other expensive man-made facilities. Also consider excessive damages which would result from widening.

*4. PAVEMENT SURFACE TYPE

The pavement surface type is indicated in the column "Construction Type Code", Item 10. The first digit of the code indicates the surface type.

*5. PAVEMENT SURFACE WIDTH

6

For segments of pavement of uniform width, the pavement surface width will be recorded in column "Width at Beginning Station" only. For segments of variable width, the width at both the beginning and the end of the segment will be recorded. Separate subsection control links (Items B-5 and B-6) must be established where changes in pavement surface width or type occurs.

If Item D-1 above is coded 1, 2, 4, 5, 6, or 7, the width recorded will be the distance from curb or edge of pavement to the center line of the roadway. If Item D-1 is coded 3, the width will be the distance from curb to curb or edge to edge of pavement, and if coded 8 will be the sum of the widths of the two roadways.

*6. PAVEMENT SURFACE THICKNESS

3

Express the thickness to the nearest one-half (1/2) inch.

*7. PAVEMENT SURFACE AREA

5

Express in square yards. The areas of intersection will not be duplicated. The following criteria will be used in assigning intersection areas to different segments.

- a. Intersection of an inventory facility and one which is not included in the inventory. Use the normal pavement

D. ROADWAY DATA - MAJOR ITEMS

No. Spaces

width through the intersection in calculating the area and assign it to the inventory street. Disregard curb returns.

- b. Intersection of inventory facilities of unequal classification such as a local street and an arterial street. Carry the normal pavement width of the higher classification facility through the intersection and assign it to the proper inventory segments. The area of the lower classification facility will be figured to the edge of through pavement, including curb return areas, and assigned to the proper inventory segments.
- c. Intersection of inventory facilities of equal classification, such as two arterial streets. Assign the area of the intersection equally to each of the segments.
- d. Ramps, intersections, freeways. Include the area of acceleration and deceleration lanes adjacent to through freeway lanes with the ramp areas. Measure to the edge of the through lane. When a freeway lane is added or dropped, include the pavement area with the ramp to the point where the ramp becomes tangent to the freeway.

*8. PAVEMENT SURFACE CONDITION

1

Indicate pavement condition by numerical rating.

Rating
Code

9	Excellent -	New or near-new condition.
6-8	Good -	Minor cracking or spalling or irregularities. Minor roughness causing little discomfort in riding.
3-5	Fair -	Moderate cracking and failures - extensive patching required.

D. ROADWAY DATA - MAJOR ITEMS

No. Spaces

1-2 Poor - Very heavy cracking, deep failures, obvious instability. Very unsatisfactory riding surface.

0 Very Poor - Completely broken up.

*9. PAVEMENT SURFACE CONSTRUCTED 2

Express by using the last two digits of the year.

*10. CONSTRUCTION TYPE CODE 4

Pavement surface and base type will be indicated by the following codes:

Code	Type
0001	A. Primitive road
0002	B. Unimproved road
0010	C. Graded and drained earth road, without special borrow topping.
0011	Graded and drained earth road, with special borrow topping.
	D. Soil-surfaced road:
1000	Without admixture, on earth road not graded and drained
1001	With admixture, on earth road not graded and drained
1010	Without stabilizing admixture, on graded and drained earth road
	With stabilizing admixture, on graded and drained earth road:
	Stabilizing admixture:
1012	Aggregate
1013	Bituminous
1014	Portland cement
1015	Chemical
	E. Gravel or stone road:
2000	Without admixture, on earth road not graded and drained

D. ROADWAY DATA - MAJOR ITEMS

2001	With admixture, on earth road not graded and drained
2010	Without stabilizing admixture, on graded and drained earth road
	With stabilizing admixture, on graded and drained earth road:
	Stabilizing admixture:
2012	Sand-clay
2013	Bituminous
2014	Portland cement
2015	Chemical

F. Bituminous surface-treated road: (mat less than 1" in compacted thickness)

3000	On earth road without admixture, not graded and drained
3001	On earth road with admixture, not graded and drained
3010	On graded and drained earth road without admixture
3011	On graded and drained earth road with admixture
3110	On soil-surfaced road without admixture
3112	On soil-surfaced road with admixture - Aggregate
3113	Bituminous
3114	Portland Cement
3115	Chemical
3210	Gravel or stone road without admixture
3212	Gravel or stone road with admixture - Sand-clay
3213	Bituminous
3214	Portland Cement
3215	Chemical

G. Mixed bituminous road: (mat 1" or more in compacted thickness)

Road Mix	Plant Mix	
4000	4010	On earth road not graded and drained
4001	4011	On graded and drained earth road base

D. ROADWAY DATA - MAJOR ITEMS

Combined thickness of
surface and base

Under 7" or 7" or
7" more 7" more*

4121	4131	4141	4151	Soil-surfaced base without admixture
4122	4132	4142	4152	Soil-surfaced base with admixture - Aggregate
4123	4133	4143	4153	Bituminous
4124	4134	4144	4154	Portland Cement
4125	4135	4145	4155	Chemical
4221	4231	4241	4251	Gravel or stone base without admixture
4222	4232	4242	4252	Gravel or stone base with admixture - Sand-clay
4223	4233	4243	4253	Bituminous
4224	4234	4244	4254	Portland Cement
4225	4235	4245	4255	Chemical

*Or equivalent

Road Mix Plant Mix

4706	4716	Portland cement concrete base (old)
		Portland cement concrete base (new)
4707	4717	Non-reinforced
4708	4718	Reinforced
4805	4815	Brick base; old brick road on non-rigid subbase
4806	4816	Block base, old block road on non-rigid subbase
4807	4817	Brick base; old brick road on Portland cement concrete subbase
4808	4818	Block base; old block road on Portland cement concrete subbase

H. Bituminous penetration road:
(mat 1" or more in compacted thickness)

Bitum. pen. Pen. macad.
surf. treat. wear. surf.,
layers, 1" 2" or more
or more 1 operation

5000	5010	On earth road not graded and drained
5001	5011	On graded and drained earth road base

D. ROADWAY DATA - MAJOR ITEMS

Combined thickness of
surface and base

Under 7" or 7" or
7" more 7" more*

5121	5131	5141	5151	Soil-surfaced base without admixture
5122	5132	5142	5152	Soil-surfaced base with admixture - Aggregate
5123	5133	5143	5153	Bituminous
5124	5134	5144	5154	Portland Cement
5125	5135	5145	5155	Chemical
5221	5231	5241	5251	Gravel or stone base without admixture
5222	5232	5242	5252	Gravel or stone base with admixture - Sand-clay
5223	5233	5243	5253	Bituminous
5224	5234	5244	5254	Portland Cement
5225	5235	5245	5255	Chemical

*Or equivalent

5706	5716	Portland cement concrete base (old)
		Portland cement concrete base (new)
5707	5717	Non-reinforced
5708	5718	Reinforced
5805	5815	Brick base; old brick road on non-rigid subbase
5806	5816	Block base; old block road on non-rigid subbase
5807	5817	Brick base; old brick road on Port. Cem. Conc. subbase
5808	5818	Block base; old block road on Port. Cem. Conc. subbase

Bitum. Sheet Rock I. Bituminous Concrete, sheet asphalt and rock asphalt road
concrete asphalt asphalt (mat 1" or more in compacted thickness)

6001	6011	6021	Graded and drained earth road base
6101	6111	6121	Soil-surfaced base without admixture
6102	6112	6122	Soil-surfaced base with admixture - Aggregate
6103	6113	6123	Bituminous
6104	6114	6124	Portland Cement
6105	6115	6125	Chemical
6201	6211	6221	Gravel or stone base without admixture
6202	6212	6222	Gravel or stone base with admixture - Sand-clay
6203	6213	6223	Bituminous
6204	6214	6224	Portland Cement
6205	6215	6225	Chemical

D. ROADWAY DATA - MAJOR ITEMS

6706	6716	6726	Portland cement concrete base (old)
6707	6717	6727	Portland cement concrete base (new) non-reinforced
6708	6718	6728	reinforced
6805	6815	6825	Brick base; old brick road on non-rigid subbase
6806	6816	6826	Block base; old block road on non-rigid subbase
6807	6817	6827	Brick base, old brick road on Portland Cem. Conc. subbase
6808	6818	6828	Block base; old block road on Portland Cem. Conc. subbase

Reinforcement**

J. Portland cement concrete road:

None	Partial	Full	
			Without bituminous wearing surface:
7001	7011	7021	Graded and drained earth road base
7101	7111	7121	Soil-surfaced base without admixture
7102	7112	7122	Soil-surfaced with admixture - Aggregate
7103	7113	7123	Bituminous
7104	7114	7124	Portland Cement
7105	7115	7125	Chemical
7201	7211	7221	Gravel or stone base without admixture
7202	7212	7222	Gravel or stone base with admixture - Sand-clay
7203	7213	7223	Bituminous
7204	7214	7224	Portland Cement
7205	7215	7225	Chemical
7706	7716	7726	Old Portland Cement concrete base
			With bituminous wearing surface less than 1" thick:
7031	7041	7051	Graded and drained earth road base
7131	7141	7151	Soil-surfaced base without admixture
7132	7142	7152	Soil-surfaced base with admixture - Aggregate
7133	7143	7153	Bituminous
7134	7144	7154	Portland Cement
7135	7145	7155	Chemical
7231	7241	7251	Gravel or stone base without admixture
7232	7242	7252	Gravel or stone base with admixture - Sand-clay
7233	7243	7253	Bituminous
7234	7244	7254	Portland Cement
7235	7245	7255	Chemical
7736	7746	7756	Old Portland Cement concrete base

**Reinforcement

- None - Non-reinforced pavement carries no reinforcing steel. For coding purposes, joint tie-rods, dowels and load transfer devices are not here considered reinforcing steel.
- Partial - Partially reinforced pavement includes marginal and corner reinforcement; also there may be generally distributed reinforcement under 30 pounds per square (100 square feet).
- Full - Fully reinforced pavement will require generally distributed reinforcing steel of not less than 30 pounds per square (100 square feet).

D. ROADWAY DATA - MAJOR ITEMS

Brick	Block	K. and L. Brick (K) or Block (L):
		Without bituminous wearing surface:
8301	8311	Non-rigid base
8706	8716	Old Portland cement concrete base
8707	8717	New Portland cement concrete base, non-reinforced
8708	8718	New Portland cement concrete base, reinforced
		With bituminous wearing surface less than 1" thick:
8321	8331	Non-rigid base
8726	8736	Old Portland cement concrete base
8727	8737	New Portland cement concrete base, non-reinforced
8728	8738	New Portland cement concrete base, reinforced

Digits

1 2 3 4	M. Combination type road:
9 - - -	The first digit (code "9") indicates combination type
9 0 - -	The second digit indicates one of the types comprising the combination type road
9 - 0 -	The third digit indicates the other type comprising the combination type road. The code used for digits 2 and 3 is as follows:
9 0 0 -	Graded and drained earth
9 1 1 -	Soil-surfaced
9 2 2 -	Gravel or stone
9 3 3 -	Bituminous surface-treated
9 4 4 -	Mixed bituminous
9 5 5 -	Bituminous penetration
9 6 6 -	Bituminous concrete, sheet asphalt or rock asphalt
9 7 7 -	Portland cement concrete
9 8 8 -	Brick or block
	The fourth digit indicates the predominating type of base:
9 - - 0	Graded and drained earth
9 - - 1	Soil-surfaced
9 - - 2	Gravel or stone
9 - - 6	Old Portland cement concrete
9 - - 7	New Portland cement concrete
9 - - 8	Old brick or block
9 - - 9	New brick or block

D. ROADWAY DATA - MAJOR ITEMS	No. Spaces
*11. PAVEMENT BASE THICKNESS	3
Express the thickness to the nearest one-half (1/2) inch.	
*12. PAVEMENT BASE CONSTRUCTED	2
Express by using the last two digits of the year.	
*13. SHOULDER SURFACE TYPE	1
Code	
(1) Portland Cement Concrete	
(2) Plant Mixed Bituminous Concrete	
(3) Road Mixed Bituminous Concrete	
(4) Bituminous Penetration	
(5) Bituminous Seal Coat	
(6) Brick or Block	
(7) Gravel or Stone	
(8) Grass	
(9) Unimproved	
*14. SHOULDER SURFACE WIDTH	3
Express the width or average width in feet with the appropriate suffix.	
Code	
U. Uniform Width - Use a "U" for the suffix. Example: 10U	
A. Variable Width - Use a "A" for the suffix. Example: 10A	
*15. SHOULDER SURFACE THICKNESS	3
Express the thickness to the nearest one-half (1/2) inch.	
*16. SHOULDER SURFACE CONDITION	1
Indicate the condition of shoulder surface by the numerical rating.	

D. ROADWAY ITEMS - MAJOR ITEMS

No. Spaces

Rating
Code

- | | | |
|-----|-------------|--|
| 9 | Excellent - | New or near-new condition |
| 6-8 | Good - | Light cracking or spalling |
| 3-5 | Fair - | Moderate cracking and failures,
minor rutting. Patching required. |
| 1-2 | Poor - | Heavy cracking, deep failures,
obvious instability, deep rutting. |
| 0 | Very Poor - | Completely broken up. |

*17. MEDIAN TYPE

1

Code

- (1) Raised - Uniform Width
- (2) Raised - Variable Width
- (3) Depressed - Uniform Width
- (4) Depressed - Variable Width
- (5) Surface Level - Uniform Width
- (6) Surface Level - Variable Width
- (7) Other
- (8) None

*18. MEDIAN WIDTH

4

Express the width or average width in feet with the appropriate suffix.

Code

- U. Uniform Width - Use a "U" for the suffix. Example: 16U
- A. Variable Width - Use a "A" for the suffix. Example: 16A

No. Spaces

1

- (1) Portland Cement Concrete
- (2) Bituminous
- (3) Grass
- (4) Gravel or Stone
- (5) Other
- (6) Unsurfaced

1

Rating
Code

9	Excellent -	New or near-new condition
6-9	Good -	Light cracking or spalling
3-5	Fair -	Moderate cracking and failures. Patching required.
1-2	Poor -	Heavy cracking and failures. Ex- tensive patching or replacement required.
0	Very Poor -	Completely broken up.

1

- (1) Barrier Guardrail
- (2) Concrete Barrier
- (3) Cable
- (4) Fence

D. ROADWAY DATA - MAJOR ITEMS

No. Spaces

- (5) Trees or Shrubs
- (6) Other Type
- (7) None

*22. SURVEY YEAR

2

Express by using the last two digits of the year.

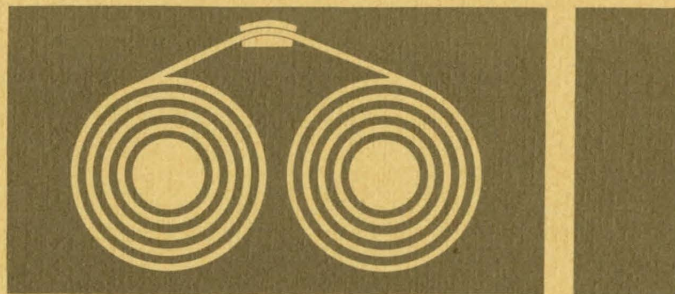
**23. CROSS-SECTION DEFICIENCIES

2

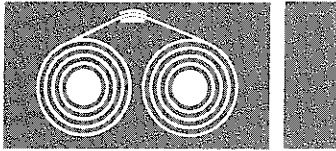
This allows for coding two cross-section deficiencies.
Record the predominant one in the first column and the
secondary one in the second column.

Code

- (1) Valley gutters
- (2) Curbs - adjacent to through high speed traffic lanes
- (3) Distorted crowns
- (4) Inverted crown
- (5) Adverse superelevation
- (6) Insufficient cross slope
- (7) Street car tracks
- (8) Abandoned railroad distortion
- (9) Side ditches - insufficient side ditches to adequately
drain sub-base or sub-grade



ROADWAY DATA- MINOR ITEMS



ROADWAY DATA-MINOR ITEMS

E. ROADWAY DATA - MINOR ITEMS (Figure 5)

No. Spaces

(Identified by individual begin and end station if not the same as inventory intersection station.)

*1. CROSS SECTION - DATA IDENTIFICATION

1

This will be coded to indicate the portion of the cross section to which subsequent data applies. This, along with subsection station limits, will allow a great deal of refinement of data for facility segments. If an entry is made for data for the left side of a roadway, then a separate entry must be made for data which applies to the right side.

Code (Single Roadway)

- (1) Left side
- (2) Right side
- (3) Both sides

(Divided Roadway)

- (4) Left roadway - left side
- (5) Left roadway - right side
- (6) Right roadway - left side
- (7) Right roadway - right side
- (8) Both roadways - both sides

*2. CURB TYPE

1

Code

- | | | |
|--------------------|-------------|--------------|
| (1) Barrier curb | adjacent to | traffic lane |
| (2) Mountable curb | adjacent to | traffic lane |
| (3) Barrier curb | adjacent to | parking lane |
| (4) Mountable curb | adjacent to | parking lane |
| (5) Barrier curb | adjacent to | shoulder |
| (6) Mountable curb | adjacent to | shoulder |
| (7) None | | |

*3. CURB HEIGHT

2

Express the distance from gutter to top of curb in inches.

STREET, TRAFFIC AND TRANSPORTATION FACILITIES INVENTORY

IOWA DEVELOPMENT COMMISSION AND IOWA STATE HIGHWAY COMMISSION

CARD NO. 3 ROADWAY DATA - MINOR ITEMS

[illegible]

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
KANSAS CITY DES MOINES NEW YORK



E. ROADWAY DATA - MINOR ITEMS

No. Spaces

*4. CURB WIDTH

2

Express width at base in inches.

**5. CURB CONDITION

1

Rating
Code

9 Excellent - New or like-new condition

6-8 Good - Minor cracking or spalling. Normal
 maintenance will correct.

3-5 Fair - Moderate cracking and failures.
 Requires special repairs

1-2 Poor - Very heavy cracking. Extensive
 repairs or rebuilding required.

0 Very Poor - Completely broken up. Rebuilding
 required.

6. YEAR CURB CONSTRUCTED

2

Express by using last two digits of the year.

*7. SIDEWALK TYPE

1

Code

- (1) Portland Cement Concrete
- (2) Bituminous Concrete
- (3) Bituminous Surface Treatment
- (4) Brick or Block
- (5) Gravel or Stone
- (6) None

*8. SIDEWALK WIDTH

2

Express the width to the nearest one (1) foot.

No. Spaces

1

1

3

1

E. ROADWAY DATA - MINOR ITEMS

No. Spaces

**13. ADEQUACY OF DRAINAGE

1

Rating Code		Curb Section	Open Section
9	Excellent	Inlets and pipes observed to be in good shape. No flooding observed.	Ditches and structures clean and in good repair. No flooding observed.
6-8	Good	Inlets and pipes observed to be in good shape. Possibly some cleaning or repair required. Some ponding observed.	Ditches and structures generally in good shape. Some repair, regrading or cleaning needed. Some ponding observed.
3-5	Fair	Extensive or frequent flooding observed due to condition of storm sewer system.	Extensive or frequent flooding and standing water observed. Structure needing some repairs.
1-2	Poor	Extensive or frequent flooding. Very extensive maintenance required.	Extensive or frequent flooding due to poor condition of ditches and structures. Extensive maintenance required.
0	Very Poor	Extensive flooding observed due to condition of structures. No further maintenance recommended. Reconstruction needed.	Extensive flooding observed due to inadequate ditches, etc. Structures in such poor condition that replacement is recommended.

E. ROADWAY DATA - MINOR ITEMS

No. Spaces

*14. ROADWAY CULVERT TYPE (less than 20' span)

1

Code

- (1) Concrete Pipe
- (2) Metal Pipe
- (3) Concrete Box
- (4) Other

15. NUMBER OF IDENTICAL CULVERT SIZES

2

*16. CULVERT SHAPE

1

Code

- (1) Round
- (2) Arched
- (3) Elliptical
- (4) Square
- (5) Rectangular
- (6) Other

*17. CULVERT SIZE

6

a. Express the diameter of circular pipes and the equivalent diameter of arched and elliptical pipes in inches.

Example: 000072 (72")

b. Express the width and height of square and rectangular culvert openings to the nearest 0.5 foot.

Example: 085100 (8.5' x 10.0')

18. MANHOLES

1

Code

- (1) In pavement
- (2) Within R/W
- (3) None

E. ROADWAY DATA - MINOR ITEMS

No. Spaces

19. SEWERS - Storm & Sanitary

1

- (1) Under pavement
- (2) Within R/W
- (3) None

20. UNDERGROUND UTILITIES

1

Code

- (1) Under pavement
- (2) Within R/W
- (3) None

21. OVERHEAD UTILITIES

1

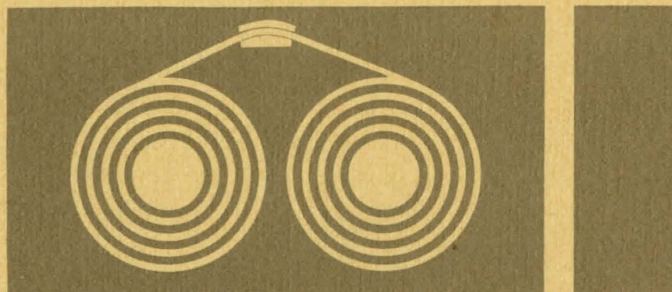
Code

- (1) Over pavement
- (2) Within R/W
- (3) None

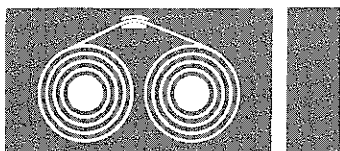
*22. SURVEY YEAR

2

Express by using the last two digits of the year.



BRIDGE DATA



BRIDGE DATA

F. BRIDGE DATA (Figure 6)

No. Spaces

Located by begin and end station if inventory roadway over. Single station if inventory roadway under.

*1. CROSSING TYPE

1

Code

- (1) Inventory Roadway Over
- (2) Inventory Roadway Under

2. BRIDGE OWNERSHIP

1

Code

- (1) State
- (2) County
- (3) Township
- (4) Municipal
- (5) Metropolitan Park District
- (6) Federal Agency
- (7) Tollway Agency
- (8) Railroad
- (9) Private
- (0) Other

*3. CROSSING FACILITY

1

The type facility which crosses over or under the inventory roadway.

Code

- (1) Roadway
- (2) Tollway
- (3) Railroad
- (4) Pedestrian
- (5) Waterway
- (6) Tunnel
- (7) Other

F. BRIDGE DATA

No. Spaces

*4. LEFT OR RIGHT ROADWAY

1

For bridges on divided roadways which involve separate structures, indicate the one to which the subsequent bridge data applies. A separate entry must be made for each structure. Left and right will be determined by looking from the lower intersection number to the higher.

Code

- (1) Left Roadway
- (2) Right Roadway
- (3) Not Separate Structures

*5. NUMBER OF SPANS

2

*6. NUMBER OF TRAFFIC LANES

1

Enter number of traffic lanes on inventory road.

*7. OVERALL BRIDGE WIDTH

3

The total width from outside to outside of the structure to the nearest 0.5 foot.

*8. BRIDGE ROADWAY WIDTH

3

The distance from face of curb to face of curb to the nearest 0.5 foot.

*9. BRIDGE LENGTH

4

Express the length in feet.

*10. PEDESTRIAN WALKWAYS

1

Code

- (1) Right
- (2) Left

F. BRIDGE DATA

No. Spaces

- (3) Both Sides
- (4) None

*11. BRIDGE TYPE

1

Code

- (1) Arch
- (2) Beam
- (3) Suspension
- (4) Truss
- (5) Slab
- (6) Frame
- (7) Girder
- (8) Other

*12. BRIDGE DESCRIPTION

1

Code

- (1) Simple Span
- (2) Continuous
- (3) Deck
- (4) Thru
- (5) Movable
- (6) Other

*13. SUPERSTRUCTURE MATERIAL

1

Code

- (1) Concrete
- (2) Steel
- (3) Timber
- (4) Stone
- (5) Other

F. BRIDGE DATA

No. Spaces

*14. DECK SURFACE

1

Code

- (1) Concrete
- (2) Asphalt
- (3) Wood
- (4) Steel
- (5) Brick
- (6) Railroad
- (7) Other

*15. MINIMUM HORIZONTAL CLEARANCE

3

The distance between the edge of inventory roadway and the nearest lateral obstruction to the nearest 0.5 foot.

*16. MINIMUM VERTICAL CLEARANCE

3

The distance between the inventory roadway surface and the lowest overhead obstruction to the nearest 0.1 foot.

*17. DESIGN LOAD LIMIT

3

Express the design load limit in tons

*18. POSTED LOAD LIMIT

3

Express the posted load limit in tons.

*19. YEAR CONSTRUCTED

2

**20. SUBSTRUCTURE CONDITION

1

Rating
Code

- 9 Excellent - All concrete very sound with no spalls or cracks.

F. BRIDGE DATA

No. Spaces

6-8	Good -	Concrete appears to be in sound condition and no evidence of any cracking or moisture problems.
3-5	Fair -	Only minor spalling or deteriorated areas in the substructure.
1-2	Poor -	Some deterioration of the substructure units due to either spalling or moisture requiring repairs within a reasonable period of time.
0	Very Poor -	Any substructure showing considerable deterioration of the concrete. This deterioration would indicate that without immediate repairs, there would be likelihood of further deterioration due to either moisture or stress and a possibility of ultimate failure.

**21. SUPERSTRUCTURE CONDITION

1

Rating
Code

9	Excellent -	No rusting or corrosion of steel members. Concrete members to be in sound condition with no spalls or cracks.
6-8	Good -	Condition of the paint on steel members is satisfactory. There is lack of moisture entrapment on any of the members. Concrete members to be in sound condition with only minor spalls or cracks.
3-5	Fair -	Minor rusting or corrosion of steel members or minor spalling and cracking of concrete members.

F. BRIDGE DATA

No. Spaces

- | | | |
|-----|-------------|---|
| 1-2 | Poor - | Some corrosion of steel members or spalling and cracking of concrete members is in evidence. Repairs would be required in the immediate future. |
| 0 | Very Poor - | Critical corrosion of steel members or excessive spalling and cracking of concrete members. Immediate repairs are required. |

**22. DECK CONDITION

1

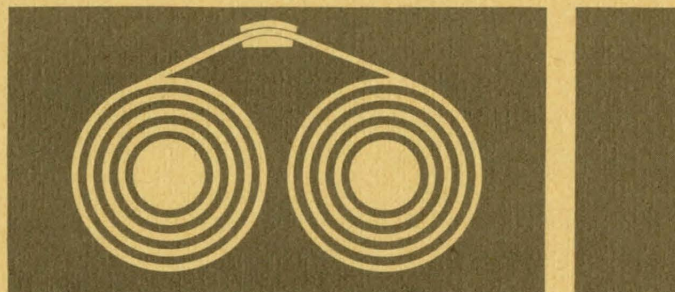
Rating
Code

- | | | |
|-----|-------------|---|
| 9 | Excellent - | No cracking or leaching nor spalling nor discoloration in evidence. Concrete to appear sound and without signs of distress in any location. |
| 6-8 | Good - | Very minor cracking or leaching and without evidence of any discoloration or probable deterioration of the concrete. |
| 3-5 | Fair - | Normal cracking and leaching of the deck slab. Only minor spalls visible. |
| 1-2 | Poor - | Considerable spalling and leaching with indication that replacement will probably be required in the near future. |
| 0 | Very Poor - | Excessive cracking, spalling, leaching or discoloration of the deck. Immediate repairs are required. |

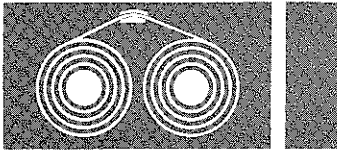
*23. SURVEY YEAR

2

Use the last two digits of the year.



TRAFFIC DATA



TRAFFIC DATA

G. TRAFFIC DATA (Figure 7)

No. Spaces

*1. LEFT OR RIGHT SIDE

1

This will be coded to indicate to which side of a single roadway or to which roadway of a divided facility the Subsequent data applies.

Code

- (1) Left Side or Left Roadway
- (2) Right Side or Right Roadway
- (3) Both

*2. TRAFFIC OPERATION

1

Code

- (1) One-way
- (2) Two-way

3. TRAFFIC ENFORCEMENT

1

Code

- (1) State
- (2) County
- (3) Municipal
- (4) Federal
- (5) Other

*4. THROUGH TRAFFIC LANES

1

Number of thru lanes only, exclusive of parking lanes.

5. MAXIMUM SPEED LIMIT

6

Express in miles per hour with the appropriate suffix.

- a. Daytime - Use suffix D.
- b. Night - Use suffix N.
- c. Day and Night - Use suffix DN

Example: 65D60N or 060DN

STREET, TRAFFIC AND TRANSPORTATION FACILITIES INVENTORY

IOWA DEVELOPMENT COMMISSION AND IOWA STATE HIGHWAY COMMISSION

CARD NO. 5 TRAFFIC DATA

[illegible]

HOWARD. NEEDLES, TAMMEN & BERGENDOFF
KANSAS CITY **DES MOINES** **NEW YORK**



G. TRAFFIC DATA	No. Spaces
6. TRAFFIC VOLUME COUNT	5
Express the total recorded volume.	
7. LENGTH OF TRAFFIC COUNT	2
Express in number of hours.	
8. TIME OF TRAFFIC COUNT	4
Denote beginning and ending hours based on a 24-hour clock.	
Example: 1:00 a.m. = 01; 3:00 p.m. = 15	
9. DATE OF TRAFFIC COUNT	6
Denote day, month and year. Example: June 15, 1966 = 061566	
10. REDUCED SPEED ZONES	2
Number of reduced speed zones for schools, hospitals, etc.	
11. TRAFFIC SIGNS	6
Indicate the number of signs and their general type with the appropriate suffix.	
a. Regulatory - Gives notice of laws or regulations. Their disregard is punishable as a traffic violation. Use suffix "R".	
b. Warning - Calls attention to a potentially hazardous condition. Use suffix "W".	
c. Guide - Shows route designations, distances or other general information. Use suffix "G".	

G. TRAFFIC DATA

No. Spaces

*12. INTERMEDIATE TRAFFIC SIGNALS - TYPE

1

Code the type of mid-block or non-intersection traffic signals. All signals at intersections will be recorded under Intersection Data. If more than one mid-block signal occurs in a segment, a separate entry will be made for each.

Code

- (1) Pretimed
- (2) Traffic-Adjusted
- (3) Traffic Actuated
- (4) Pedestrian Actuated
- (5) Flasher
- (6) Lane - direction - control
- (7) Other

*13. INTERMEDIATE TRAFFIC SIGNALS - SERVICE

1

Code the type of service provided by the mid-block or non-intersection traffic signals. If more than one mid-block signal occurs in a segment, a separate entry will be made for each.

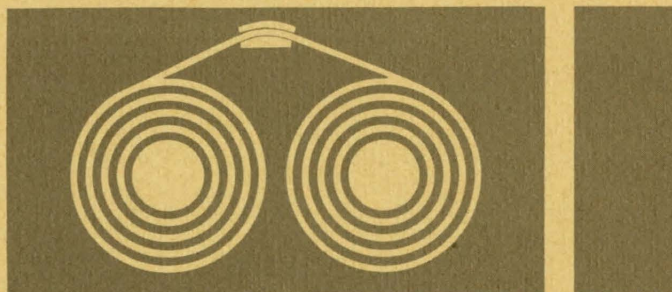
Code

- (1) Pedestrian
- (2) Fire Station
- (3) Shopping Center
- (4) Caution
- (5) Other

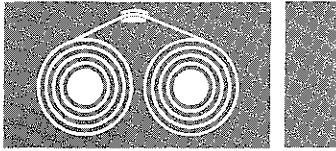
*14. SURVEY DATE

4

List the month and last two digits of the year.



PARKING DATA



PARKING DATA

H. PARKING DATA (Figure 8)

No. Spaces

*1. LEFT OR RIGHT SIDE

1

This will be coded to indicate to which side of a roadway or to which roadway the subsequent data applies. Left and right will be determined by looking from lower intersection number to the higher.

Code (Single Roadway)

- (1) Left side
- (2) Right side
- (3) Both sides

(Divided Roadway)

- (4) Left roadway - left side
- (5) Left roadway - right side
- (6) Right roadway - left side
- (7) Right roadway - right side
- (8) Both roadways - both sides

*2. PARKING LANES

3

List number of roadway lanes devoted either partially or exclusively to parking and their width in feet.

*3. TYPE OF PARKING

Code

- (1) Parallel
- (2) Angle - 30°
- (3) Angle - 45°
- (4) Angle - 60°
- (5) Perpendicular
- (6) Center of street
- (7) No Parking

4. PARKING METERS

9

List total number of parking meters.

FIGURE 8

STREET, TRAFFIC AND TRANSPORTATION FACILITIES INVENTORY

IOWA DEVELOPMENT COMMISSION AND IOWA STATE HIGHWAY COMMISSION

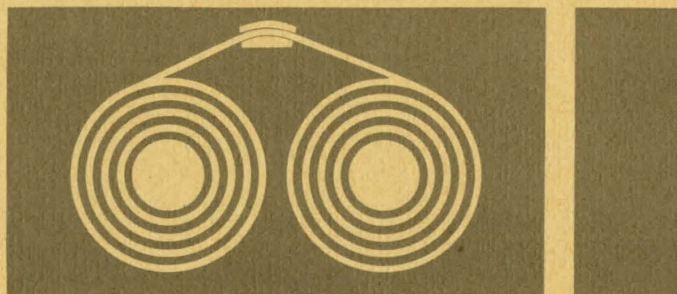
CARD NO. 6 PARKING DATA

IDENTIFICATION														PARKING DATA																			
STATE		COUNTY		FIRST INTERSECTION REFERENCE NUMBER		SECOND INTERSECTION REFERENCE NUMBER		BEGIN STATION SUBSECTION CONTROL LINK (NEAREST .01MILE)		END STATION SUBSECTION CONTROL LINK (NEAREST .01MILE)		ADDITION TYPE		DATA CARD TYPE		LEFT OR RIGHT SIDE		PARKING LANES		TYPE OF PARKING		PARKING METERS		PARKING SPACES		PARKING PROHIBITIONS		PARKING REGULATIONS DRIVEWAY ENTRANCES		SURVEY DATE (MONTH, YEAR)			
1		1		1		1		1		1		1		1		1		1		1		1		1		1		1		1		1	
2		2		2		2		2		2		2		2		2		2		2		2		2		2		2		2		2	
3		3		3		3		3		3		3		3		3		3		3		3		3		3		3		3		3	
4		4		4		4		4		4		4		4		4		4		4		4		4		4		4		4		4	
5		5		5		5		5		5		5		5		5		5		5		5		5		5		5		5		5	
6		6		6		6		6		6		6		6		6		6		6		6		6		6		6		6		6	
7		7		7		7		7		7		7		7		7		7		7		7		7		7		7		7		7	
8		8		8		8		8		8		8		8		8		8		8		8		8		8		8		8		8	
9		9		9		9		9		9		9		9		9		9		9		9		9		9		9		9		9	
10		10		10		10		10		10		10		10		10		10		10		10		10		10		10		10		10	
11		11		11		11		11		11		11		11		11		11		11		11		11		11		11		11		11	
12		12		12		12		12		12		12		12		12		12		12		12		12		12		12		12		12	
13		13		13		13		13		13		13		13		13		13		13		13		13		13		13		13		13	
14		14		14		14		14		14		14		14		14		14		14		14		14		14		14		14		14	

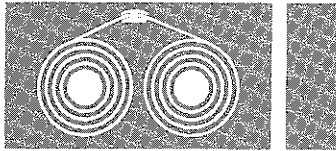
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
KANSAS CITY DES MOINES NEW YORK



H. PARKING DATA	No. Spaces
5. PARKING SPACES	3
List total number of on-street parking spaces.	
*6. PARKING PROHIBITIONS	8
Denote the beginning and ending hours when parking is prohibited, based on a 24-hour clock.	
Example: No Parking 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m. = 07091620	
7. PARKING REGULATIONS (Normal Weekday)	1
Code	
(1) 0 to 30 minutes	
(2) 31 minutes to 1 hour	
(3) Greater than 1 hour and not more than 2 hours	
(4) Other	
8. DRIVEWAY ENTRANCES	2
List total number of driveway entrances. For wide driveway openings consider 0 to 30' as 1 driveway; 31' to 60' as 2 driveways; 61' to 90' as 3 driveways, etc.	
*9. SURVEY DATE	4
List the month and the last two digits of the year.	



ACCIDENT DATA



ACCIDENT DATA

I. ACCIDENT DATA (Figure 9)

No. Spaces

1. ACCIDENT TYPE

10

List appropriate code number for each vehicle, pedestrian or object involved. The location of the accident will be described by the station entered in the "Begin Station" column if it occurred between intersections on a control segment. If the accident occurred at an intersection, it will be described by entering the intersection number in the column "First Intersection Reference Number". If it occurred near the center of the intersection, no entry will be made in column "Second Intersection Reference Number", or in the station columns. If it occurred on a leg of an intersection, that leg will be denoted by entering the next intersection number in the "Second Intersection Reference Number".

Code

- (1) Automobile
- (2) Truck
- (3) Bus
- (4) Pedestrian
- (5) Motorcycle
- (6) Bicycle
- (7) Train
- (8) Animal
- (9) Fixed Object
- (10) Other

2. ACCIDENT CATEGORY

1

Code

- (1) Fixed object
- (2) Run off road
- (3) Rear end
- (4) Turning
- (5) Sideswipe
- (6) Angle
- (7) Head-on
- (8) Vehicle & pedestrian
- (9) Vehicle & train

IOWA DEVELOPMENT COMMISSION AND IOWA STATE HIGHWAY COMMISSION
CARD NO. 7 ACCIDENT DATA

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
KANSAS CITY DES MOINES NEW YORK



I. ACCIDENT DATA

No. Spaces

3. FIXED OBJECT

3

If "Fixed Object" is involved in the accident, indicate the type of appropriate code in the first column and its distance to the nearest foot from curb or edge of pavement in the second. Example: Utility Pole 5' from curb = 505

Code

- (1) Bridge pier or abutment
- (2) Bridge parapet
- (3) Roadway sign - minor
- (4) Roadway sign - major
- (5) Utility pole
- (6) Guard rail
- (7) Fence
- (8) Building
- (9) Other

4. DAY OR NIGHT

1

Record the code to indicate when the accident occurred.

Code

- (1) Day
- (2) Night

5. PAVEMENT CONDITION

1

Indicate by code the condition of the pavement when the accident occurred.

Code

- (1) Dry
- (2) Wet
- (3) Snow-covered
- (4) Ice-covered

I. ACCIDENT DATA

No. Spaces

6. INJURIES

5

List number of injuries to:

Code

- A Vehicle occupants, including driver
- B Pedestrians
- C Motorcycle Riders
- D Bicycle Riders
- E Others

Example: Injuries to 3 vehicle occupants and 1 pedestrian
will be coded - 3A, 1B.

7. FATALITIES

5

List number of fatalities to:

Code

- A Vehicle occupants
- B Pedestrians
- C Motorcycle Riders
- D Bicycle Riders
- E Others

8. PROPERTY DAMAGE

3

List estimated property damage in hundreds of dollars.

9. ACCIDENT LOCATION

1

Code

- (1) Roadway or street
- (2) Roadway or street intersection
- (3) Alley or driveway entrance
- (4) Railroad grade crossing
- (5) Bridge
- (6) Other

I. ACCIDENT DATA

No. Spaces

10. PROBABLE ACCIDENT CAUSE

1

List the one most significant accident cause event.

Code

- (1) Excessive speed
- (2) Following too closely
- (3) Improper passing
- (4) Vehicle or tire failure
- (5) Failure to yield right-of-way
- (6) Disregard of control devices
- (7) Wrong side of road
- (8) All others
- (9) Unknown

11. DRINKING

1

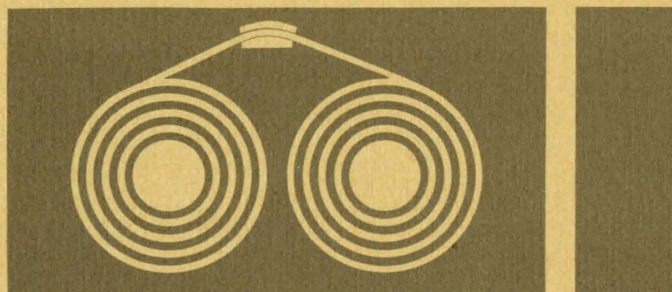
Code

- (1) One or more drivers had been drinking
- (2) Pedestrian had been drinking
- (3) Not stated

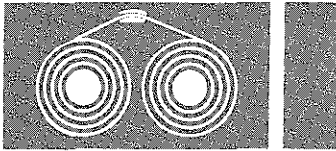
12. ACCIDENT DATE

6

List day, month and last two digits of year.



INTERSECTION DATA



INTERSECTION DATA

J. INTERSECTION DATA (Figure 10)

No. Spaces

Data recorded will be for the intersection as a unit and will be identified by the intersection number which will be recorded in the column "First Intersection Reference Number". For data pertaining to the entire intersection, no "Second Intersection Reference Number" will be recorded. For data items applicable to only one leg of the intersection (Items 3, & 6-10), record the next intersection number in the "Second Intersection Reference Number". Leg data will be recorded looking toward the intersection.

*1. INTERSECTION TYPE

1

Code

- (1) Simple - An intersection with 3 or 4 opposed legs.
- (2) Complex - An intersection with more than 4 legs with offset legs or channelization.

*2. INTERSECTION LEGS

1

List number of intersection legs.

*3. INTERSECTING FACILITY

1

List the smallest code number (highest type facility) for the facility which intersects the inventory route.

Code

- (1) Freeway
- (2) Expressway
- (3) Ramp
- (4) Arterial Street
- (5) Service Street
- (6) Railroad
- (7) Other

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
KANSAS CITY DES MOINES NEW YORK

J. INTERSECTION DATA

No. Spaces

4. TRAFFIC CONTROL JURISDICTION

1

- (1) State
- (2) County
- (3) Municipal
- (4) Federal agency
- (5) Private
- (6) Other

*5. TYPE OF TRAFFIC CONTROL

1

Code

- (1) Pretimed signal
- (2) Traffic-Adjusted Signal
- (3) Traffic Actuated Signal
- (4) Pedestrian Actuated Signal
- (5) Flasher Signal
- (6) Four-way Stop Sign
- (7) Minor Street Stop Sign
- (8) Minor Street Yield Sign
- (9) No Control

*6. LEFT TURN MOVEMENTS

1

Code

- (1) Prohibited
- (2) Restricted
- (3) Permitted

*7. RIGHT TURN MOVEMENTS

1

Code

- (1) Prohibited
- (2) Restricted
- (3) Permitted

J. INTERSECTION DATA

No. Spaces

*8. BUS LOADING ZONES - LOCATIONS - APPROACH LEG 1

Code

- (1) Nearside
- (2) Farside
- (3) Mid-block

*9. ADDED LEFT TURN LANES 1

List number of lanes for each leg.

*10. ADDED RIGHT TURN LANES 1

List number of lanes for each leg.

*11. RAILROAD GRADE CROSSINGS 8

- a. Name of railroad - Use code numbers to identify the specific railroad.
- b. Number of tracks - List the total number of tracks at the roadway crossing.
- c. Number of trains - List the approximate number of trains per day.
- d. Speed of trains - List the approximate maximum speed of trains at the crossing.

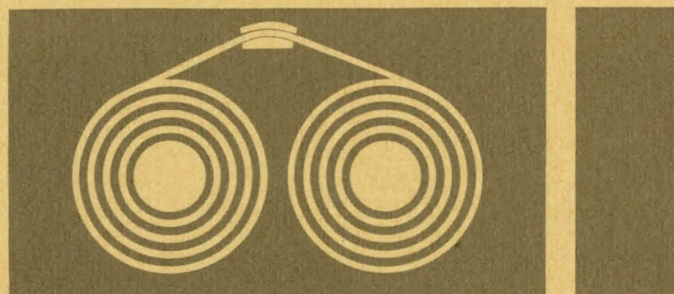
*12. RAILROAD GRADE CROSSING PROTECTION 1

Code

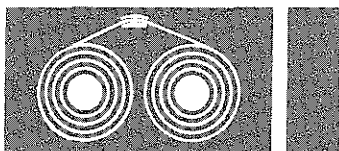
- (1) Gates
- (2) Signals
- (3) Watchman
- (4) Crossbucks
- (5) Other

*13. SURVEY DATE 4

List month and last two digits of year.



OVER LAPPING ROUTE DATA



OVERLAPPING ROUTE DATA

K. OVERLAPPING ROUTE DATA

No. Spaces

Cards will be prepared to indicate overlapping route data. Data entered on Cards 1 thru 8 will not be duplicated for these overlapping functions. The limits to which this overlapping data is applicable will be defined by station limits.

*1. STATE

2

If the overlapping data to be coded is applicable to a state other than Iowa, enter the state code from the 1960 U.S. Census of Population and Housing, Iowa PHC (2)-17.

*2. COUNTY

2

If the overlapping data to be coded applies to a county other than the one to which the primary data applies, enter the county code from the 1960 U. S. Census of Population and Housing, Iowa PHC (2)-17.

*3. CITY OR PLACE

2

If the overlapping data is applicable to a city or place other than the one to which the primary data applies, enter the Place code from the 1960 U. S. Census of Population and Housing, Iowa PHC (2)-17.

*4. ROUTE NUMBER

5

If the overlapping data applies to an overlapping route number, enter the overlapping route number along with appropriate prefix and suffix.

Prefix Code

Suffix Code

- (1) Interstate
- (2) U. S.
- (3) State
- (4) County
- (5) Municipal

- (1) Alternate
- (2) Bypass
- (3) City Route
- (4) Temporary
- (5) Freeway Ramp
- (6) Regular (routes with no suffix)

STREET, TRAFFIC AND TRANSPORTATION FACILITIES INVENTORY

CARD NO. 8 OVERLAPPING ROUTE DATA

[illegible]

K. OVERLAPPING ROUTE DATA

No. Spaces

*5. MAINTENANCE RESPONSIBILITY

1

If the overlapping function is maintenance responsibility, enter the appropriate code below along with corresponding code, if applicable, under Item K-1, K-2 or K-3 above.

Code

- (1) State
- (2) County
- (3) City
- (4) Federal Agency
- (5) Metropolitan Park District
- (6) Tollway Agency
- (7) Private
- (8) Other

*6. BRIDGE OWNERSHIP

1

If the overlapping function applies to bridge ownership, enter the appropriate code below along with corresponding code, if applicable, under Item K-1, K-2 or K-3 above.

Code

- (1) State
- (2) County
- (3) Township
- (4) Municipal
- (5) Metropolitan Park District
- (6) Federal Agency
- (7) Tollway Agency
- (8) Railroad
- (9) Private
- (0) Other

*7. TRAFFIC ENFORCEMENT

1

If the overlapping function applies to traffic enforcement, enter the appropriate code below along with corresponding code, if applicable, under Item K-1, K-2 or K-3 above.

K. OVERLAPPING ROUTE DATA

Code

- (1) State
- (2) County
- (3) Municipal
- (4) Federal Agency
- (5) Private
- (6) Other

