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ARAPAHOE



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Max P. Arnold, F.A.S.A., President

Thomas A. Arnold, Associate
Lenny R. Arnold, Associate

August 25, 1983

Lyle C. Kyle, Director
Legislative Council Staff
State Capitol Building
Denver, Colorado 80202

RE: ARAPAHOE COUNTY

Dear Lyle:

We hereby submit the result of the property assessment study for the above named county. This report is divided into eight parts: Summary of Findings; Questionnaire and Office Resource Survey; Market Data Analysis; Property Record Card Audit; Agricultural Audit; Natural Resources Audit; Personal Property Review; and Mobile Home Review.

The findings in these reports are based on the results of an eight month study effort. During the study over 50,000 sales of residential and commercial properties were collected and analysed, along with over 8,000 residential and commercial property record cards which were collected and reviewed. Extensive interviews were conducted with each assessing officer both at the beginning of the project and at the end with numerous personal contacts during the course of the study. In addition, speciality audits were conducted on agricultural and natural resource properties.

These reports are being submitted with one very important and very large caveat; that is virtually none of the counties performed a complete reappraisal. Values were simply arrived at by "factoring" with total disregard to the true appraisal process.

As documentation for this finding, we performed over 8,000 form appraisals using the 1977 manual issued by the state and in addition we completed over 1,000 complete appraisals, also using the state manual. These findings will be contained in the overall management report which we will be submitting to your office. It is our conclusion based on our findings that all but a handful of counties should be ordered to completely reappraise the counties. Unless this is done most counties will simply continue to compound existing imbedded inequities in perpetuity.

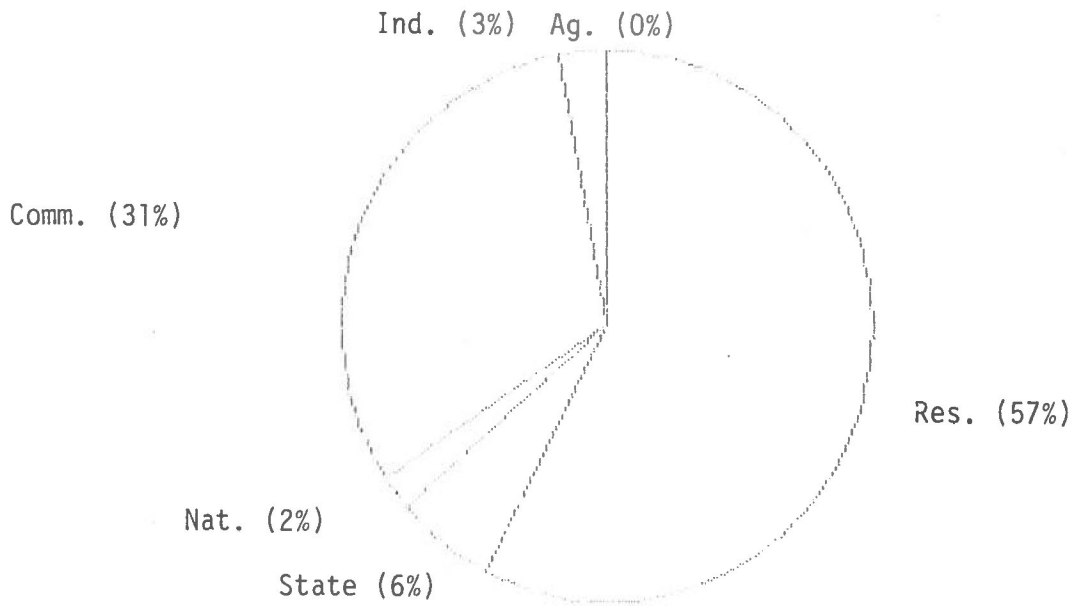
Very truly yours,

MAX P. ARNOLD & ASSOCIATES, INC.

Max P. Arnold, F.A.S.A.

ARAPAHOE COUNTY

1982 TAX BASE



SUMMARY OF FINDINGS

1982 Tax Base

Class as a % of Total Assessed Value

<u>Res</u>	<u>Com</u>	<u>Ind</u>	<u>Agr</u>	<u>Pol Con</u>	<u>Nat Res</u>	<u>State Assd</u>
57	31	3	0	0	2	6

I. Updated all accounts from 1973 base year to 1977 base year.

Yes	No	x
_____	_____	_____

Comments: Mobile Home Properties need to be updated to 1977 levels.

II. Market Data Analysis

	<u>Level</u>	<u>Quality</u>
A. Residential		
Single Family (Overall)	105.80	13.29
Multifamily		
Condominium		
B. Commercial	108.64	25.42
C. Industrial	121.10	40.62

Comment: Residential property assessment levels are above 1977 levels; quality of assessment is good. Commercial property assessments are above 1977 levels of value; quality of assessment is acceptable. Industrial property assessments are above 1977 levels; quality of assessments is unacceptable.

INITIAL QUESTIONNAIRE
(as answered by Assessor)

Information Concerning the Residential Class

Was the Property Tax Administrator's residential appraisal manual (A.H. 513 or any other manuals approved by the Property Tax Administrator) for 1977 used by the assessor in valuing residential property effective January 1, 1983?

Yes x No

If the answer is negative or doubtful a written explanation and the necessary documentation shall be provided.

Were adjustments made to the manuals for local conditions?

Yes x No
Adjustments made for market conditions

If the answer is yes, explain.

Information Concerning Commercial and Industrial Classes

Was the Property Tax Administrator's Commercial and Industrial Appraisal Manual (A.H. 523 or any other manuals approved by the Property Tax Administrator) for 1977 used by the assessor when valuing commercial and industrial property effective January 1, 1983?

Yes x No

Were adjustments made to the manuals for local conditions?

Yes x No

If the answer is yes, explain.

1971 manual adjusted for time

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COUNTY ASSESSORS OFFICE RESOURCES
(Information provided by County Assessor)

I. No. of property parcels by classification

- (A). Residential 117,769
- (B). Commercial 5,154
- (C). Industrial 388
- (D). Agricultural 2,051
- (E). Natural Resources 1,367
- (F). Personal Property 15,171
- (G). Total Number of Parcels 141,900

II. Staffing by Function

- (A). Appraisal 27
- (B). Administrative 5
- (C). Clerical 18
- (D). Automated Data Processing 7
- (E). Other _____

III. Budget of Assessor's Office

- (A). Salaries 1,055,657
- (B). Total 2,291,584

IV. Work Processing

- (A). Manual System Commercial & Industrial
- (B). Automated Data Processing all other functions
 - (1). Hardware Manufacturer IBM
 - (2). Software Resources and Language Oasis-Cobol

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(3). Automated Functions

(i). Appraisal yes

(ii). Accounting yes

(iii). Mapping no

(iv). Inventory partial

(v). Other _____

(4). Centralized System within County yes

(5). Other Features _____

(6). Combined System yes

MARKET DATA ANALYSIS

The contract required Max P. Arnold & Associates to obtain 1975 and 1976 sales of improved and unimproved residential, commercial and industrial properties in each county and the 1977 actual values for the properties. The sales and the 1977 actual values were gathered and analyzed according to the stratification and statistical principles outlined in the contract. From this data a median ratio and a co-efficient of dispersion was developed for improved residential, commercial and industrial property in each county according to the established economic areas. For this report only the overall county figures by economic area by class of properties presented. We can, upon request, develop median and coefficient within price ranges and with years where possible.

The purpose of this market analysis is twofold. The median ratio is an indicator of the level of values in the county as of 1977, and is a function of the relationship between the 1977 actual value as determined by the assessor and the sale price 1975 and 1976. Theoretically the level of value equals 100 (i.e., market data \$20,000; actual value \$20,000). Thus, an overall median ratio of say 115 percent would indicate an over assessment while conversely an overall ratio of 85 percent would indicate an under assessment within a particular class.

The coefficient of dispersion (C.D.) is an indicator of the quality of assessment. The coefficient of dispersion indicates the range of the individual actual values from the median. A low C. D. indicates a high degree of quality or uniformity. Parenthetically, it should be noted that it is quite possible for a county to have either a low or a high level of assessment and at the same time have achieved a high degree of quality (uniformity) of assessment.

Appraisals. As required by the contract, appraisals were to be made in counties where sales data was insufficient to determine the level of value and quality of assessment in a particular class (residential, commercial or industrial) through the market data analysis approach. Where market data is insufficient to arrive at a value the assessor must look to either the cost approach or the income approach to arrive at value. As a practical matter only the cost approach could be used in the smaller counties. Although in the larger counties an income approach may have been used if sufficient data was available.

In addition, although not required under the contract, appraisals were made in those counties where high growth occurred since 1977 and in counties where present economic conditions may have indicated a lower level of value than those that existed in 1977.

MARKET DATA COLLECTION

Economic Areas

Eleven economic areas were identified by assessor - ten areas were neighborhoods within the heavily populated western area of the county and one area for agricultural land east of Gun Club Road was defined.

Market Data Collection

A sales list provided by assessor was used to determine 1975-1976 sales.

Number of Sales Gathered

	<u>Improved</u>	<u>Unimproved</u>
A. Residential		
1. Single Family	7,985*	146
2. Multi-Family	0	0
3. Condominium	0	0
B. Commercial	209	25
C. Industrial	22	0

* Includes Multifamily and condominium properties.

Number of Appraisals Required

Residential: none
 Commercial: none
 Industrial: none

Residential1. Single Family Improved

<u>Econ Area</u>	<u>No. Sales</u>	<u>Median</u>	<u>Adj. Median</u>	<u>C.D.</u>
A	17	102.01	101.72	19.91
B	109	104.85	104.24	15.65
C	172	107.29	106.94	11.61
D	34	100.53	100.53	10.96
E	76	105.04	104.71	9.87
F	38	109.11	107.76	11.98
G	170	105.18	104.87	8.02
H	40	106.61	106.92	9.44
I	134	105.93	105.57	8.29
J	66	107.74	107.72	15.79
K	2	765.66	N/A	N/A
Overall	858*	105.86	105.80	13.29

2. Multi-Family

<u>Econ Area</u>	<u>No. Sales</u>	<u>Median</u>	<u>Adj. Median</u>	<u>C.D.</u>
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ALL RESIDENTIAL SALES INCLUDED IN ONE SORT ABOVE

3. Condominium

<u>Econ Area</u>	<u>No. Sales</u>	<u>Median</u>	<u>Adj. Median</u>	<u>C.D.</u>
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ALL RESIDENTIAL SALES INCLUDED IN ONE SORT ABOVE

* An initial analysis of 927 residential sales was made. Assessor then made adjustments during protest period and provided new values for the 858 accounts reflected above.

Arapahoe

Commercial

<u>Econ Area</u>	<u>No. Sales</u>	<u>Median</u>	<u>Adj. Median</u>	<u>C.D.</u>
A	26	107.81	107.52	23.69
B	43	111.17	110.81	24.33
C	3	139.41	N/A	N/A
D	14	102.71	105.33	22.07
E	5	100.00	N/A	N/A
F	0	N/A	N/A	N/A
G	4	175.63	N/A	N/A
H	7	127.11	127.25	12.31
I	1	85.22	N/A	N/A
J	0	N/A	N/A	N/A
K	0	N/A	N/A	N/A
Overall	103	110.44	108.64	25.42

Industrial

<u>Econ Area</u>	<u>No. Sales</u>	<u>Median</u>	<u>Adj. Median</u>	<u>C.D.</u>
A	5	125.24	N/A	N/A
B	5	128.73	N/A	N/A
C	0	N/A	N/A	N/A
D	0	N/A	N/A	N/A
E	2	121.93	N/A	N/A
F	0	N/A	N/A	N/A
G	0	N/A	N/A	N/A
H	0	N/A	N/A	N/A
I	0	N/A	N/A	N/A
J	0	N/A	N/A	N/A
K	0	N/A	N/A	N/A
Overall	12	126.99	121.10	40.62

PROPERTY RECORD CARD AUDIT

As required by the contract, Max P. Arnold & Associates has reviewed one percent of the improved and unimproved residential, commercial and industrial property record cards in each county for compliance with the 1977 Colorado Manual. The one percent figure was based on one percent of the 1981 parcel count as noted in the 1981 annual report of the Colorado Division of Property Taxation.

It should be noted that in some counties the residential unimproved property cards reviewed were less than the one percent of the 1981 parcel count. In our opinion the number actually collected and reviewed was an accurate representative sample. We have noted if the number of cards of unimproved residential property collected and reviewed was less than one percent.

Improved Property Audit

All improved property record cards were audited to determine if the inventory and data included on the card was sufficient to arrive at a value through cost approach. In addition, for a representative sampling of the cards in each county, we developed a replacement cost new using the 1977 Colorado Manual. In addition, each card was reviewed to determine the last date of physical inspection of the property.

The purpose of the audit was twofold: 1) to determine whether a cost approach could be developed based on the information contained on the cards using any manual and 2) to determine if the data on the cards was reasonably current.

We are aware that in a number of counties the cards had not been updated to show current costs at the time of collection. Therefore, a comparison between costs using the 1977 manual and the 1977 costs arrived at by the assessor was not possible in some cases.

Unimproved Property Audit

Property record cards of unimproved property was reviewed for compliance with the 1977 manual.

PROPERTY RECORD CARD AUDIT

Number of Cards Selected
(Based on 1%)

<u>Res</u> <u>Imp</u>	<u>Res</u> <u>Unimp</u>	<u>Com</u> <u>Imp</u>	<u>Com</u> <u>Unimp</u>	<u>Ind</u> <u>Imp</u>	<u>Ind</u> <u>Unimp</u>
907	26	35	10	2	1

<u>No. Cards Reviewed</u>	<u>Improved</u>	<u>Unimproved</u>
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Residential	0	0
Commercial	0	0
Industrial	0	0

<u>Improved Properties</u>	<u>No. Complete</u>	<u>No. Incomplete</u>
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Residential	0	0
Commercial	0	0
Industrial	0	0

Comments: Due to the format and programming of Arapahoe County's system, we could not use the documents provided to us for pricing using the 1977 manual.

AGRICULTURAL LAND AND IMPROVEMENTS

As requested, we have conducted a 1% audit of agricultural land and improvements in Arapahoe County, Colorado for the purpose of determining the current status of the assessment of said properties.

During an interview the Assessor's staff stated that agricultural land was all classified in 1975 and 1976 with the help of local committees. It was all revalued in 1982 using the most recent ten year averages. Agricultural improvements have all been reinspected over the past two years and valued at the 1977 level from both the Property Tax Administrator's manuals and Marshall Swift.

After the interview, a sampling of 1% of the total number of acres in each of the major land classes, i.e., irrigated farm, dry farm, meadow, grazing and other was pulled from the assessors records. Care was taken to abstract a sample from each of the major production areas in the county. The samples were then compared with U.S. Soil Conservation Service Soil Maps to ascertain the quality of the classifications for assessment purposes. On site field inspections were conducted where necessary.

In conjunction with the land sampling 1% of the agricultural improvements were also pulled from the assessors records to determine the present assessment practices for rural improvements.

As required in State of Colorado Bid No. GB-RFP-149, our findings are as follows:

Arapahoe

1. By utilizing representative field inspections, as well as reviewing records in the assessor's office, the study shall determine if all agricultural lands have been classified according to use.

A. Irrigated farm land

Yes x When 1976 No

B. Dry farm land

Yes x When 1976 No

C. Meadow hay land

Yes x When 1976 No

D. Grazing land

Yes x When 1976 No

E. Orchard land - none

Yes When No

F. Other

Yes x When 1976 No

Remarks

2. Has the assessor maintained an accurate, up-to-date file on commodity prices for farm and ranch products, farm and ranch operating costs (landlord's share), and have both prices and costs been averaged over the required ten-year period?

Yes x No

Remarks

3. Has the 11 1/2 percent capitalization rate been applied correctly?

Yes x No _____

Remarks

4. By utilizing representative field inspections as well as reviewing records in the assessor's office, the study shall determine if all agricultural building improvements not included in the valuation of the agricultural unit (as prescribed by law) are listed on an appraisal card including an accurate, up-to-date description of physical features necessary to appraise the property?

Yes x No _____

Remarks

5. Was the Property Tax Administrator's Commercial and Industrial Manual (Section III on Special purpose Structures for 1977) used by the assessor in valuing agricultural improvements effective January 1, 1983?

Yes x No _____
Marshall Swift and DPT Combined

Remarks

Summary

The Assessor has done a good job of classifying and valuing all agricultural classifications.

NATURAL RESOURCES

As requested, we have conducted a 1% audit of natural resources property located in Arapahoe County, Colorado. These resources fall into the categories of nonmetallic producing (74 acres), nonmetallic nonproducing (217 acres), oil and gas - producing (6,680 acres) and severed minerals - coal (105 acres) and severed minerals - oil and gas (263,480 acres).

To sample these properties, we were allowed to review 1% of the required declaration schedules.

The assessors's office staff reported that they do verify stated production with appropriate state agencies.

As a result of the 1% sample, we find the following:

1. All existing laws, formulas and manuals are being strictly adhered to by the assessor in the valuation of the producing categories.
2. Severed minerals are assessed at \$2.00 per acre.

7. How do you handle taxpayers who do not comply with proper listing of personal property returns?

Priority audit if information submitted does not relate to prior declaration. Best information available is used on declarations with no information submitted

8. Do you charge a penalty to taxpayers who do not file or do not file a proper return?

Yes - on who do not file, audit those that are improper

MOBILE HOME AUDIT QUESTIONNAIRE
(as answered by Assessor)

Recognizing that recent changes in law and regulation have required a new method of valuing mobile homes, we hope you will answer the following questions. With your help, we hope to provide an accurate reflection of the manner in which mobile homes are assessed.

- (1). Are mobile homes being valued in the manner prescribed for 1983 by the Property Tax Administrator?

Yes _____ No x

If answer is no, please answer the next two questions.

- (2). If no, please explain briefly how you are assessing mobile homes.

We used retail price delivered when new times 75% less depreciation times 21%

- (3). If no, do you intend to follow the published guidelines for mobile home valuation in subsequent years?

Yes x No _____

