

Ralph Sterry

MEMORANDUM

DATE: November 15, 1984
TO: Ralph Sterry, Utilities Superintendent
FROM: Jerry O'Brien, Facility Supervisor, Persigo
SUBJECT: Sewer Rate Evaluation

Ralph,

As per your request for sewer rate evaluation, the information available from this office is as follows:

I. Sanitation Districts

- Central Grand Valley Sanitation District
- Fruitvale Sanitation District
- Grand Junction West Water and Sanitation District
- Orchard Mesa Sanitation District
- Railhead Sanitation District
- Ridges Metropolitan District
- Valley West Sanitation District

A. Cost and Time Estimates Per Year

1. Central Grand Valley Sanitation District (3895)

- a. Cost \$ 61,748.96
 5 lift stations @ \$3,764.80 = \$18,824.00
 O&M time 936 hours X \$45.86 = \$42,924.00
- b. Time 936 hours/year
 25% time for all lift stations maintenance
 45% of one crews time spent=line maintenance
- c. Other _____

2. Fruitvale Sanitation District

- a. Cost \$ N/A

- b. Time N/A

c. Other _____

3. Grand Junction Sanitation District

a. Cost \$ 263,091.92
14 lift stations @ \$3,764.80 = \$52,707.20
O&M time = 3,192 hours X \$65.91 = \$210,384.72

b. Time 3,192 hours/year
65% time for all lift stations
95 % for 1st crew / 50% time for 2nd crew

c. Other the above does not include line replacement.

4. Orchard Mesa Sanitation District (1806)

a. Cost \$ N/A

b. Time N/A

c. Other _____

5. Railhead Sanitation District

a. Cost \$ 2,409.68
½ lift station (Railhead) = \$1,882.40
time = \$527.28

b. Time 8 hours/year

c. Other Grand Junction West = \$2,409.68

½ lift station (Railhead) = \$1,882.40

time = 8 hours/year

6. Ridges Metropolitan District (568)

a. Cost \$ \$3,764.80

one lift station = \$3,764.80

time = \$527.28

b. Time 8 hours/year

c. Other _____

7. Valley West Sanitation District

a. Cost \$ 527.28

time = \$527.28 no lift station

b. Time 8 hours/year

c. Other _____

II. Interceptors

- River Road Interceptor
- Tiara Rado Interceptor
- Goat Draw Interceptor
- Paradise Hills Interceptor
- Independent Avenue Interceptor
- Horizon Drive Interceptor
- Hwy 340 Interceptor
- South Side Interceptor

- Orchard Mesa Interceptor
- C& 3/4 Road Interceptor (CGVSD)
- Fruitvale Interceptor
- Scene School Interceptor (Future)

A. Cost and Time Estimates Per Year

1. River Road Interceptor

a. Cost \$ 6,184.40
Time O&M = \$2,636.40 KMNO₄=\$200.00 Chlorine=\$2,748.00

b. Time 40 hours/year line O&M
Bi-annual line sampling = \$300 - 20 hrs.
Bi-annual flow metering = \$300 - 20 hrs.

c. O&M line maintenance no lift stations

d. Other the above does not include line replacement

2. Tiara Rado Interceptor

a. Cost \$ 4,892.08
Time: O&M = \$527.28 Tiara Rado lift stations = \$3,764.80

b. Time 8 hours/year Line O&M
Bi-annual line sampling = \$300 - 20 hrs.
Bi-annual flow metering = \$300 - 20 hrs.

c. O&M line maintenance and regular operation and maintenance
of one lift station

d. Other the above does not include line replacement.

3. Goat Draw Interceptor

a. Cost \$ 1127.28

Time O&M - \$527.28

b. Time 8 hours/year line O&M

Bi-annual line sampling = \$300 - 20 hrs.

Bi-annual flow metering = \$300 - 20 hrs.

c. O&M line maintenance no lift stations

d. Other the above does not include line replacement.

4. Paradise Hills Interceptor

a. Cost \$ \$1918.20

Time O&M - \$1318.20

b. Time 20 hours/year line O&M

Bi-annual line sampling = \$300 - 20 hrs.

Bi-annual flow metering = \$300 - 20 hrs.

c. O&M line maintenance no lift stations

d. Other The above does not include line replacement.

5. Independent Avenue Interceptor

a. Cost \$ \$863.64

Time O&M - \$263.64

b. Time 4 hours/year line O&M

Bi-annual line sampling = \$300 - 20 hrs.

Bi-annual flow sampling = \$300 - 20 hrs.

8. South Side Interceptor

- a. Cost \$ 1127.28
Time O&M = \$527.28

- b. Time 8 hours/year line O&M
Bi-annual line sampling = \$300 - 20 hrs.
Bi-annual flow metering = \$300 - 20 hrs.

- c. O&M line maintenance no lift stations

- d. Other the above does not include line replacement

9. Orchard Mesa Interceptor

- a. Cost \$ 5419.36
Time O&M - \$1,054.56 Duck Pond lift station = \$3,764.80

- b. Time 16 hours/year line O&M
Bi-annual line sampling = \$300 - 20 hrs.
Bi-annual line sampling = \$300 - 20 hrs.

- c. O&M line maintenance 1-one lift station

- d. Other the above does not include line replacement

10. C& 3/4 Road Interceptor (CGVSD)

- a. Cost \$ 1127.28
Time O&M - \$527.28

- b. Time 8 hours/year Line O&M
Bi-annual line sampling = \$300 - 20 hrs.
Bi-annual flow metering = \$300 - 20 hrs.

- c. O&M line maintenance no lift station

- d. Other the above does not include line replacement.

11. Fruitvale Interceptor

- a. Cost \$ 863.64
 Time O&M \$263.64

- b. Time 4 hours/year Line O&M
Bi-annual line sampling=\$ 300 - 20 hrs.
Bi-annual flow metering=\$ 300 - 20 hrs.

- c. O&M line maintenance no lift station

- d. Other the above does not include line replacement.

12. Scenic School Interceptor (Future) New Capital Project

- a. Cost \$ N/A

- b. Time N/A

- c. O&M _____

- d. Other _____

13. Colorado Avenue Interceptor New Capital Project

III. EQU - Equivalent Residential Unit Single unit providing living facilities for one or more persons including permanent provisions for sleeping and sanitation.

- | | |
|---|---|
| <p>A. <u>Cost Per Unit for All Users-Collections O&M</u>
 $\frac{\\$ 274,225}{25,347} = \\$10.81/\text{EQU}/\text{yr}$ $\frac{\\$274,225}{17,764} = \\$15.44/\text{tap}/\text{yr}$</p> <p>B. <u>Base Rate for Transmission-All Users</u>
 $\frac{\\$ 75,296}{25,347} = \\$2.97/\text{EQU}/\text{yr}$ $\frac{\\$75,296}{17,764} = \\$15.44/\text{tap}/\text{yr}$</p> <p>C. <u>Rate Per EQU for Treatment (7,000 Gal/Mo.)</u></p> <p>1. Flat Rate $\\$ 1,480,000 \div 17,764 = \\$83.31/\text{yr}$</p> <p>2. Multi Users $\\$ 1,480,000 \div 25,347 = \\$58.39/\text{yr}$</p> | <p>Total treatment costs)
 \$1,480,000
 (Approx. 25,347 EQU)
 (Approx. 17,764 taps)
 (Collections O&M)
 \$274,225</p> |
|---|---|

THE ABOVE ESTIMATED FIGURES DO NOT INCLUDE BILLING, ADMINISTRATIVE OR PROJECTED FUTURE NEEDS FOR CAPITAL IMPROVEMENTS.

3. What are these rates based on?
 The above EQU figure is based on $\$2,266,000$ revenue divided by $\$7.45$ service charge divided by 12 months = 25,346 EQU

IV. Redlands

A. Users

1. Presently in Service
- | | | |
|----------------------|---|-----------------|
| a. EQU _____ | } | 1,000 customers |
| b. Multi-Users _____ | | |
2. Potential Users (Presently on Septic Service).
- | | | |
|----------------------|---|---------------|
| a. EQU _____ | } | 500 customers |
| b. Multi-Users _____ | | |

Comments: Not enough information to approximate numbers

V. Industrial Pretreatment Rates - Based on data starting on page 883 of Industrial Pretreatment Ordinance.

November 17, 1984

The rates as outlined in the Approved Industrial Pretreatment Program Manual (see attachment) appear to be all right for now-but should be reviewed one year after complete implementation of the program which would include our fulfilling all the requirements of a new NPDES Permit which is to be written by the State that will include this new program.

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1984 BUDGETED EXPENDITURES

		<u>% of Total</u>
Quality Control	114,884	3.5
Collection System	312,351	9.4
Debt Retirement	579,019	17.6
(879,019 Total less 300,000 from tap fees)		
Engineering	102,206	3.1
Maintenance Construction	510,220	15.5
Treatment	1,414,653	43.0
Lift Stations	52,296	1.6
Billing and Administration	<u>206,000</u>	<u>6.3</u>
TOTAL	3,291,629	100%

1984 EQU MONTHLY SERVICE RATE = 7.45

	<u>% of Total</u>	<u>Amount</u>
Quality Control	3.5	.26
Collection System	9.4	.70
Debt Retirement	17.6	1.31
Engineering	3.1	.23
Construction	15.5	1.16
Treatment	43.0	3.20
Lift Stations	1.6	.12
Billing & Administration	<u>6.3</u>	<u>.47</u>
	100%	\$7.45

Collection System Credit	- .42
C.G.V. Add on Charges	+ <u>3.77</u>
TOTAL	\$10.80

TAPS
 CG.V.S.D. = 3,895
 QM.S.D. = 1,806
 M.M. = 64
 TIARA RADO = 150
 RIDGES = 568
 TOTAL 17,764 as of Nov. 29, 1984

USERS
 782?
 50 VINEYARDS
 50 BLUFFS
 100 LODGE RID
 (1000 USERS)

INDUSTRIAL PRETREATMENT RATES FROM APPROVED PROGRAM

TABLE 10

MONITORING FREQUENCY FOR INDUSTRIES

<u>Type of Industry</u>	<u>Industrial Permittee Sampling and Self- Monitoring Frequency</u>	<u>City Compliance Sampling and Monitoring Frequency</u>
Significant Industrial User*	3 times per year	2 times per year
Industrial User (non-significant, but City will surcharge for excess BOD and TSS)	---	Once per year

* SIGNIFICANT INDUSTRIAL USER is any industrial user of the City's and County's wastewater collection, treatment, and disposal system who:

- (1) Has a discharge flow including sanitary wastes of 25,000 gallons or more per average work day; or who
- (2) Creates or discharges toxic pollutants as defined in Section 25-58(ii) of the City Code; or who
- (3) Is found by the City, Colorado Department of Health, or the U.S. EPA to have significant impact, either singly or in combination with other contributing industries, on the wastewater collection and treatment system, the sludge quality, WWTP effluent, or air emissions generated by WWTP.

INDUSTRIAL USER means any person or source that introduces or discharges wastewater from industrial processes into the WWTW, or any non-domestic user or source regulated under Sections 307(b), (c), or (d) of the Clean Water Act.

INDUSTRIAL WASTES or wastewtaer means the liquid or water-carried wastes from industrial manufacturing or processing, as distinct from domestic or sanitary wastes. The term also includes the trade wastes produced by food processing and bottling plants, food manufacturing plants, slaughtering plants, tallow works, plating works, disposal services, industrial cleaning plants, fertilizer plants, can and track washing operations, commercial laundries and cleaning establishments, cooling plants, industrial plants, factories, feedlots, and chemical treatment installations.

TABLE 11
CITY MANPOWER REQUIREMENTS AND COSTS
FOR COMPLIANCE MONITORING BY THE CITY

<u>I N D U S T R Y</u>	<u>Number of Samples Per Year</u>	<u>PARAMETERS</u>						<u>Cleaning, Preparation, Sample Gathering, Data Review</u>	<u>Manhours Per Sample</u>	<u>Cost Per Sample**</u>
		<u>BOD</u>	<u>TSS</u>	<u>pH</u>	<u>Oil/Grease</u>	<u>Organics*</u>	<u>Metals</u>			
Clymer's Ranch and Livestock	2	x	x		x			x	18.5	\$ 248
Colorado West Dairies	2	x	x		x			x	18.5	248
Corn Construction	2	x	x		x	x		x	26.5	348
Grand Valley By-Products	2	x	x		x			x	18.5	248
Daily Sentinel	2	x	x	x		x	Silver	x	27.6	367
TOTALS (If City analyzes for metals and organics)	<u>10</u>	<u>5</u>	<u>5</u>	<u>1</u>	<u>4</u>	<u>2</u>	<u>1</u>	<u>5</u>	<u>109.6</u>	<u>\$1,459</u>

* Assume 2 organic parameters analyzed.

** Includes City Administration fee for each sample.

TABLE 13

FEE SCHEDULEINDUSTRIAL EFFLUENT SAMPLING AND MONITORING PROGRAM

City of Grand Junction, Colorado

CITY COMPLIANCE MONITORING AND SAMPLING FEES (subject to increase)

<u>Parameter</u>	<u>Estimated Hours</u>	<u>Estimated Fee</u>
BOD	0.5	\$25 each
TSS	0.5	8 each
pH	0.1	4 each
Oil/Grease	2.5	25 each
Ammonia	0.5	10 each
*Organics - Commercial Lab	0.2	70 each
- City Lab	4.0	50 each
*Metals - Commercial Lab	0.1	15 each
- City Lab	1.0	15 each
Laboratory apparatus prepare and cleaning, sample gathering, data review (includes temperature measurement).	15.0	\$140 per sampling
<u>ADMINISTRATION FEE (per sample)</u>		\$50
<u>INDUSTRIAL USER DISCHARGE PERMIT FEE (application or renewal)</u>		\$100

* To be analyzed at commercial laboratory until atomic absorption spectrophotometer and gas chromatograph are available at wastewater plant lab in mid-1984.

authorized employees of the city shall observe all safety rules applicable to the premises established by the company, and the company shall be held harmless for injury or death to the city employees, and the city shall indemnify the company against loss or damage to its property by the city employees and against liability claims and demands for personal injury or property damage asserted against the company, growing out of the gauging and sampling operation, except as such may be caused by negligence or failure of the company to maintain safe conditions as required in article VI, section 25-37. (Ord. No. 1873, § 29, 3-5-80)

Sec. 25-43. Authority of city to enter private properties through which city has easement.

The director and other duly authorized employees of the city bearing proper credentials and identification shall be permitted to enter all private properties through which the city holds a duly negotiated easement for the purposes of, but not limited to, inspection, observation, measurement, sampling, repair and maintenance of any portion of the sewerage system lying within said easement. All entry and subsequent work, if any, on said easement, shall be done in full accordance with the terms of duly negotiated easement pertaining to the private property involved. (Ord. No. 1873, § 30, 3-5-80)

**ARTICLE IX. SERVICE CHARGES,
PERMITS AND COLLECTION PRACTICES**

*CURRENT
CITY
ORDINANCE*

Sec. 25-44. Service charges.

(a) There shall be levied and assessed upon each lot, parcel of land, building or premises having any connection, or eligible for connection under section 25-18 of the Code with the sewer system of the city, monthly sewer service charges or rentals computed by multiplying the E.Q.U. by the following factors, to wit:

- (1) Single-family dwelling = 1.00 EQU.

- (2) Multiple-family dwellings = $0.72 \times$ number of single-family units.
- (3) Hotels and motels:
- No restaurants or kitchen = $0.36 \times$ number of rooms;
 - With kitchenette = $0.43 \times$ number of rooms;
 - With restaurants—use a then add rates from (4) below.
- (4) Restaurants:
- 24-hour operation = $0.21 \times$ number of seats;
 - 12-hour or less operation = $0.14 \times$ number of seats;
 - Bar, no food = $0.04 \times$ number of seats.
- (5) Schools:
- No food or showers = $0.04 \times$ number of student capacity;
 - For cafeterias = add to a $0.02 \times$ number of student capacity;
 - For showers = add to a $0.02 \times$ number of student capacity;
 - Boarding schools = $0.27 \times$ number of student capacity.
- (6) Service stations:
- Without wash rack = 1.00 EQU;
 - With wash rack = $2.3 \times$ number of wash racks.
- (7) Shopping centers and stores = $0.35 \times$ number of thousands of square feet of store space.
- (8) Travel trailer parks and courts = $0.45 \times$ number of trailer parking spaces.
- (9) Churches, assembly halls, theaters and arenas = $0.01 \times$ number of seating capacity.
- (10) Drive-in theater = $0.02 \times$ number of car spaces.
- (11) Factory, warehouses, shops and offices (not including industrial waste) = $0.05 \times$ number of employees.

- (12) Hospitals = $0.89 \times$ number of bed spaces.
- (13) Institutions, nursing homes = $0.36 \times$ number of residences.
- (14) Laundry, coin-operated = $0.90 \times$ number of washing machines.
- (15) Mobile home parks = $0.67 \times$ number of lots or spaces.
- (16) Car wash = $2.3 \times$ number of bays.
- (17) Fast food take out (walk-up or drive-up):
- a. Open 12 or more hours = $0.10 \times$ number of employees;
 - b. Open less than 12 hours = $0.06 \times$ number of employees.

(b) Beginning with the first billings sent out after January 1, 1982, the EQU will be six dollars and ten cents (\$6.10).

(c) No connection shall be made to the city's and county's sewerage system until a permit therefor has been obtained from the building department of the city and a fee of five dollars (\$5.00) paid for such permit.

(d) The cost of connection to the city's and county's sewerage system shall be as provided in section 18-19 of the City Code. The cost therein provided for contemplates that the city will perform the installation of the required laterals. The city engineer may determine that the laterals are to be installed by the proposed connector, in which event, the connection charge may be adjusted by the city engineer to effect a fairness of charge for the connection.

(e) Tank truck operators will be assessed five dollars and fifteen cents (\$5.15) per load for six hundred fifty (650) gallons or less of septic tank waters and wastes at the receiving facility of the waste water treatment plant. Septic tank waters and wastes exclude sand, oil and grease trap cleanings which are prohibited.

(f) Users of the waste water facilities within the city and county shall be charged the same where the services performed for the users are the same. Where services performed are not the same, the

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11-16-84

MEMO DATED APRIL 15, 1983
 FROM KENNETH LAMPERT M.D. MESA CO. HEALTH DEPT.
 RE: DENIAL TO CONTINUE AS IN THE PAST FROM KEN WAESCHE CO. HEALTH
 (SOLID WASTE MANAGEMENT)
 BOARD OF COMMISSIONERS STIPULATES IF REQUEST WAS
 DENIED HAULERS WOULD BE CHARGED 5 CENTS PER GALLON.

A COPY OF THIS MEMO IS ON FILE UNDER -
 TANK HAULERS - MY OFFICE. *KL*

difference in the cost of providing the services shall be determined and the users shall be charged on the basis of the services provided.

(g) The city will determine average numeric criteria for the quality and quantity of sewage collected from residential users. The city will assess a surcharge rate for nonresidential users discharging waters and wastes with quality characteristics greater than the average residential user. Such users will be assessed a surcharge sufficient to cover the costs of treating the higher strength wastes. The surcharge rate structure is subject to revision, when necessary. (Ord. No. 1873, § 31, 3-5-80; Ord. No. 1934, 1-7-81; Ord. No. 2025, §§ 1, 2, 12-2-81)

Sec. 25-45. Connection of property lying two miles outside city.

It is the policy of the city and county to require connections to the city's sewerage system for property lying within two (2) miles of the city limits by arranging for sewage treatment through the city; either by annexation or through powers of attorney to accomplish annexation in the future, as possible. As annexations occur, the ownership of public or sanitary sewers within the annexed area will be transferred to the city. (Ord. No. 1873, § 32, 3-5-80)

Sec. 25-46. Application, approval for connection outside city.

No property outside the city shall be connected to the sewer system of the city until and unless the owner thereof shall submit an application, together with a signed and sworn statement showing the plan, size and type of connection desired and the number of persons who will use the property so connected. Such plans and statement shall be referred to and examined by the city engineer and the plumbing inspector of the city and they shall respectively endorse their approval or disapproval of the same as complying or failing to comply with all of the ordinances, regulations and rules concerning connections with the sewer system of the city. (Ord. No. 1873, § 33, 3-5-80)

Sec. 25-47. Billing, collection of sewer charges.

All sewer charges shall be dated and sent out to users at regular intervals. Such sewer service charges shall be added to and made a part of the water bill, if customers receive water service from the city, or by separate billing if water service is from other than the city. Provisions of the City Code relative to the payment of delinquent water bills shall also apply to delinquent sewer bills in all aspects, including the discontinuance of water service for nonpayment of sewer charges. (Ord. No. 1873, § 34, 3-5-80)

Sec. 25-48. Charges declared lien; collection.

All sewer rental charges shall constitute a lien upon any lot, land, building or premises served and in the event said charges shall not be paid when due, the said service may be disconnected by the city without further notice, by shutting off the water supply therefrom, or the city clerk may certify the charge to the county treasurer to be by him placed upon the tax list for the current year to be collected in the manner other taxes are collected, with ten (10) per cent added thereto to defray the cost of collection; and all laws of the State of Colorado for the assessment and collection of general taxes, including the laws for the sale of property for taxes and redemption of the same shall apply. (Ord. No. 1873, § 35, 3-5-80)

Sec. 25-49. Charge for reconnecting after disconnection for sewer service charge delinquency.

If the sewer service is disconnected by shutting off the water supply, reconnection shall be made only upon the payment of all delinquencies plus a reconnecting charge as provided in section 31-6 of the City Code. (Ord. No. 1873, § 36, 3-5-80)

Sec. 25-50. Disposition, use of sewer revenues.

The funds received from the collection of the charges or rentals authorized by this chapter shall be deposited with the city treasurer and shall be by him deposited in a fund to

be known as the "Sewer Fund" and, when appropriated by the city council and county commissioners, shall be used for the maintenance, operation, extension and improvement of the sewer system, and for interest on and discharging of principal of bonds and other obligations incurred in the acquisition, construction, improvement and extension of the sewer system. (Ord. No. 1873, § 37, 3-5-80)

Sec. 25-51. Reconnection after disconnection for nonpayment of sewer charges.

It shall be unlawful, after sewer service has been disconnected by shutting off the water supply or in any other manner, for any person(s) to reconnect the same without the consent of the city, and any person(s) violating this provision shall be deemed guilty of a misdemeanor. (Ord. No. 1873, § 38, 3-5-80)

Sec. 25-52. Charges in direction of private sewers.

When the course of the private sewer is not the same as the junction piece it must be connected therewith by a curve of not less than eight (8) feet radius, and in all changes of direction, either horizontal or vertical, curved pipe must be used. (Ord. No. 1873, § 39, 3-5-80)

Sec. 25-53. General construction of private sewers.

The inside of every private sewer connecting with a public or sanitary sewer must be smooth and perfectly clean throughout its entire length, and the ends of all pipes not to be immediately used must be securely guarded against the introduction of sand or earth, by brick and cement or other watertight and impervious metal. (Ord. No. 1873, § 40, 3-5-80)

Sec. 25-54. Review of rates and charges.

These rates and charges are established so that each user class pays its proportionate share of the costs of waste water treatment services and the director is hereby directed to annually review the charge structure to assure that

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proportionality between user classes is maintained and to recommend modifications as appropriate. Each user shall be notified annually by the city of the rate and that portion of the user charges which are attributable to waste water treatment services. (Ord. No. 1873, § 41, 3-5-80)

Sec. 25-55. Annual audit.

At the end of each calendar year, an audit shall be made of revenues and disbursements associated with the waste water collection and treatment system. The audit shall be based on a full calendar year and shall be approved and signed by the city clerk. (Ord. No. 1873, § 46, 3-5-80)

Sec. 25-56. Credit for overcharge.

The director may give credit to any utility customer who has been overcharged. The credit must not exceed the intent of this chapter. (Ord. No. 1873, § 47, 3-5-80)

ARTICLE X. INDUSTRIAL COST RECOVERY*

Sec. 25-57. Purpose of article.

(a) The purpose of this article shall be to recover the proportional share of the federal grant from industrial users of the waste water system in accordance with the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500) and the Clean Water Act Amendments of 1972 (P.L. 95-217), wherein industrial users are required to make payments for that portion of the cost of construction of waste water treatment works which is allocable to the treatment of industrial wastes to the extent attributable to the federal share of the cost of construction.

(b) This article will not be implemented nor will industrial cost recovery payments be collected until written direction is

*Editor's note—Section 10 of Ord. No. 1874, adopted March 5, 1980, provided that such ordinance be included in this Code, but did not specify the manner of inclusion, hence codification of §§ 1—8 herein as Art. X, §§ 25-57—25-64, was at the discretion of the editors.

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*NO LONGER
REQUIRED*