

HB

146

COMMITTEE REPORT

HOUSE

FURTHER: FINANCE

1/23/83

Date: 2-11-83

Mr. Speaker:

The Committee on C & RA has had RB 146

An Act making special appropriations for payment as grants to the City of Wasilla for a sewage system and septic treatment plant; and providing for an effective date.

under consideration and reports it back as follows:

- do pass do not pass
- do pass with attached amendments(s)
- replace with CS for RB 146 same title
 new title
- and recommends _____
- AND attaches a "Letter of Intent" New Fiscal Note
 Zero Fiscal Note Attached
- reports it back without recommendation
- referred to the _____ Committee

MEMBERS SIGNING
DO PASS

MEMBERS HAVING
OTHER RECOMMENDATIONS:

CHAIRMAN

Introduced: 1/28/
Referred: Community & Regional
Affairs and Finance

Funding Information

General Fund \$1,138,500
Other Funds -0-
\$1,138,500

1 IN THE HOUSE

BY LACHER AND LARSON

2

HOUSE BILL NO. 146

3

IN THE LEGISLATURE OF THE STATE OF ALASKA

4

THIRTEENTH LEGISLATURE - FIRST SESSION

5

A BILL

6

For an Act entitled: "An Act making special appropriations for payment as grants to the City of Wasilla for a sewage system and septic treatment plant; and providing for an effective date."

7

8

9

10 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

11

* Section 1. The sum of ^{31,178,500}~~978,500~~ is appropriated from the general fund for payment as a grant to the City of Wasilla for the construction of a sewage system and acquisition of easements necessary for the sewage system.

14

* Sec. 2. The sum of ^{185,786}~~160,000~~ is appropriated from the general fund for payment as a grant to the City of Wasilla for the construction of an innovative alternative septic treatment plant as a demonstration project for innovative alternative methods of septic treatment.]

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* Sec. 3. The appropriations made by this Act shall be disbursed in accordance with AS 37.05.315 - 37.05.319.

19

20

* Sec. 4. This Act takes effect immediately in accordance with AS 01.-

21

10.070(c).

Alaska State Legislature

REPRESENTATIVE
BARBARA LACHER
P.O. BOX 478
PALMER, ALASKA 99645
907)376-4215



WHILE IN JUNEAU
POUCH V
JUNEAU, ALASKA 99811
907)465-4894

House of Representatives

May 2, 1983

Gene Rehfield
Division of Municipal Grants
Department of Environmental Conservation
Mail Stop 1800
Juneau, AK 99811

Dear Mr. Rehfield,

Enclosed is a copy of a cost breakdown for HB 146 which was heard in the Community and Regional Affairs Committee last month. If I can be of any further assistance, please feel free to contact my office again.

Sincerely,

A handwritten signature in cursive script, appearing to read "Barbara Laoney".

Barbara Laoney
Representative
District 16

BL/sr

Alaska State Legislature



Barbara Lacher, Chairman
 Mae Tischer, Vice-Chairman
 Randy Phillips
 Milo Fritz
 Don Clocksin
 Jack McBride
 Mike Szymanski

Room 104
 State Capitol
 Juneau, Alaska 99811

 Pouch V
 Juneau, Alaska 99811

House of Representatives Committee on Community & Regional Affairs

TO: House C & R A Committee
 FROM: Representative Barbara Lacher
 SUBJECT: HB 146
 DATE: March 7, 1983

The City of Wasilla has been working with the Department of Environmental Conservation and federal environmental protection agencies since 1978 in planning a city wastewater treatment facilities system. The preliminary planning is completed and public hearings have been conducted. Final design is to be completed by July 1983, and the project ready for bid by October, 1983.

Total project costs which are eligible for grant participation are \$8,000,115. Funding sources are as follows:

| | FEDERAL E.P.A. | STATE D.E.C. | CITY ASSESSMENTS | TOTALS |
|---------------------------|------------------------------------|------------------------------------|------------------------------------|-----------------------------------|
| Laterals | <u>0</u> (0%) | <u>1,338,975</u> (50%) | <u>1,338,975</u> (50%) | <u>2,677,950</u> (100%) |
| Collector | <u>3,078,080</u> (75%) | <u>513,180</u> (12.5%) | <u>513,180</u> (12.5%) | <u>4,105,440</u> (100%) |
| Small Diam. | <u>719,950</u> (85%) | <u>63,525</u> (7.5%) | <u>63,525</u> (7.5%) | <u>847,000</u> (100%) |
| Sewage Treatment Plant | <u>314,265</u> (85%) | <u>27,730</u> (7.5%) | <u>27,730</u> (7.5%) | <u>369,725</u> (100%) |
| TOTALS | <u>4,113,295</u> (51.6%) | <u>1,943,410</u> (24.2%) | <u>1,943,410</u> (24.2%) | <u>8,000,115</u> (100%) |

The cost to owners of property adjacent to the sewer system will be assessed, on the average, about \$1,153,100 per 50 feet of property frontage and monthly service charges will be less than \$20 per month.



Official Business

Alaska State Legislature

House of Representatives

Committee on

Community & Regional Affairs

Pouch V
State Capitol
Juneau, Alaska 99811

Bill would help Wasilla

JUNEAU—A bill to increase the state's share of payments to communities for water supply, sewage and solid waste facilities to 75 percent is in the finance committee of the legislature.

Sponsoring the bill is Sen. Jay Kerttula, D-Palmer; Frank Ferguson, D-Kotzebue, and Joe Josephson, D-Anchorage.

The bill ups the state

participation in funding from 50 percent, as funds are available, of costs not financed by the federal government on projects started after July 1, 1983.

Where federal funds are involved, state grants cannot exceed the difference between federal input and 87.5 percent of the eligible costs.

If the project is a solid waste facility to be used

for resource recovery, the state can grant a municipality up to 85 percent of eligible costs.

Locally, the bill might prove beneficial for two sewage projects in the works for Wasilla. That city is developing plans for an innovative waste water treatment project as well as a sewage treatment facility.

STATE OF ALASKA 1984 LEGISLATIVE SESSION
FISCAL NOTE

Revision Date: 12/29/83

REQUEST

Bill/Resolution No.: HB 146 CS
 Title: Wasilla Sewage System/
SP Appropriation Rec ID 291
 Sponsor: CRA Committee
 Requestor: Jay Hogan
 Date of Request: 12/16/83

FISCAL DETAIL

Agency Affected: Community & Regional Affairs
 Program Category Affected: Development
 BRU, Program or Subprogram(s) Affected: _____

EXPENDITURES/REVENUES: (Thousands of Dollars)

| | FY 84 | FY 85 | FY 86 | FY 87 | FY 88 | FY 89 |
|-----------------------|-----------------------|-------|-------|-------|-------|-------|
| OPERATING | | | | | | |
| 100 PERSONAL SERVICES | | | | | | |
| 200 TRAVEL | | | | | | |
| 300 CONTRACTUAL | | | | | | |
| 400 SUPPLIES | | | | | | |
| 500 EQUIPMENT | | | | | | |
| 600 LAND & STRUCTURES | | | | | | |
| 700 GRANTS, CLAIMS | | | | | | |
| 800 MISCELLANEOUS | | | | | | |
| TOTAL OPERATING | No fiscal impact DCRA | | | | | |
| CAPITAL | No fiscal impact DCRA | | | | | |
| REVENUE | No fiscal impact DCRA | | | | | |

FUNDING: (Thousands of Dollars)

| | | | | | | |
|---------------|--|--|--|--|--|--|
| GENERAL FUND | | | | | | |
| FEDERAL FUNDS | | | | | | |
| OTHER | | | | | | |
| TOTAL | | | | | | |

POSITIONS:

| | | | | | | |
|-----------|--|--|--|--|--|--|
| FULL-TIME | | | | | | |
| PART-TIME | | | | | | |
| TEMPORARY | | | | | | |

SOURCE OF FUNDS TO OFFSET FISCAL IMPACT OF BILL:

ANALYSIS: Attach a separate page for analysis

Prepared By: Mar Winagay Phone: 465-4750
 Division: Municipal & Regional Assistance Date: 12/29/83
 Approved by Commissioner: [Signature] Date: 12/29/83
 Agency: Community and Regional Affairs

Distribution (by Agency preparing fiscal note):

- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)

12/1/83

STATE OF ALASKA 1984 LEGISLATIVE SESSION
FISCAL NOTE

Revision Date: 12/29/83

Bill/Resolution No.: HB 146 CS (CRA)

Title: Wasilla Sewage System/SP

Appropriation Rec ID 291

ANALYSIS:

Assumptions:

AS 37.05.315 - .319 programs are administered by the Department of Administration. As a result DCRA would not be fiscally impacted though the legislation could be helpful to the municipality.

Positions:

Other Expenditures:

Funding:

Section Cost Analysis:

Computations:

Economic Impact:

Impact on Local Government:

Attachments

STATE OF ALASKA

DEPT. OF COMMUNITY & REGIONAL AFFAIRS

OFFICE OF THE COMMISSIONER

BILL SHEFFIELD, GOVERNOR

POUCH B
JUNEAU, ALASKA 99811
PHONE: (907) 465-4700

225 CORDOVA STREET - BLDG B
ANCHORAGE, ALASKA 99501
PHONE: (907) 264-2294

March 11, 1983

POSITION PAPER

RE: CSHB 146

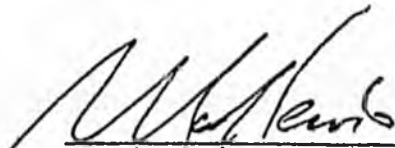
SPONSOR: Representatives Lacher and Larson

Program Effects of Bill

This bill would provide special appropriations of \$1,178,000 or a sewage system and \$185,786 for a septic treatment plant as grants to the City of Wasilla.

Comments

Governor Sheffield has established a process for review and assignment of priorities for capital grants on a statewide basis. Requests from the City of Wasilla for \$987,500 for sewers and \$80,000 for septic treatment have been included in that process. With this process in place, the Department believes that an alternative to individual appropriations bills exists and should be considered by the Legislature.


Mark Lewis, Commissioner

STATE OF ALASKA
FISCAL NOTE

Revision Date _____, 1983

I. REQUEST

Bill/Resolution No.: CSHB 146
 Title: Grant to Wasilla for sewers
 Sponsor: Rep. Lacker & Larson
 Requestor: House C&RA

II. FISCAL DETAIL.

Agency Affected: Dept. of Administration
 Program Category Affected: Development
 BRU, Program of Subprogram(s) Affected: _____

EXPENDITURES/REVENUES: (Thousands of Dollars)

| | FY 83 | FY 84 | FY 85 | FY 86 | FY 87 | FY 88 |
|-------------------------|-------|-------|-------|-------|-------|-------|
| OPERATING | | -0- | -0- | -0- | | |
| 100 PERSONAL SERVICES | | | | | | |
| 200 TRAVEL | | | | | | |
| 300 CONTRACTUAL | | | | | | |
| 400 COMMODITIES | | | | | | |
| 500 EQUIPMENT | | | | | | |
| 600 LAND & STRUCTURES | | | | | | |
| 700 GRANTS, CLAIMS, ETC | | | | | | |
| TOTAL OPERATING | | -0- | -0- | -0- | | |
| CAPITAL | | -0- | -0- | -0- | | |
| REVENUE | | | | | | |

FUNDING: (Thousands of Dollars)

| | | | | | | |
|------------------------|--|--|--|--|--|--|
| GENERAL FUND | | | | | | |
| FEDERAL FUNDS | | | | | | |
| OTHER (Specify Source) | | | | | | |

POSITIONS:

| | | | | | | |
|-----------|--|--|--|--|--|--|
| FULL-TIME | | | | | | |
| PART-TIME | | | | | | |
| TEMPORARY | | | | | | |

III. SOURCE OF FUNDS TO OFFSET FISCAL IMPACT OF BILL:

Sponsor does not indicate

IV. ANALYSIS: Attach a separate page for any Analysis

Prepared By: Richard Rainery
 Division: Commissioner's Office
 Approved by Commissioner: [Signature]
 Department: Community & Regional Affairs

Phone: 465-4703
 Date: 3/11/83
 Date: 3/11/83

Distribution:

Original to Legislative Finance
 Copy to Office of Management and Budget (for Legislature introduced bills)
 Copy to Department (for Governor introduced bills)
 Copy to Sponsor
 Copy to Requestor (if different from Sponsor)

3/8/83

FISCAL NOTE CS HB 146

The Department of Administration would administer this grant. No fiscal impact on this Department.

STATE OF ALASKA

DEPT. OF COMMUNITY & REGIONAL AFFAIRS

OFFICE OF THE COMMISSIONER

BILL SHEFFIELD, GOVERNOR

- POUCH B
JUNEAU, ALASKA 99811
PHONE: (907) 465-4700
- 225 CORDOVA STREET - BLDG B
ANCHORAGE, ALASKA 99501
PHONE: (907) 264-2294

March 8, 1983

POSITION PAPER

RE: HB 146

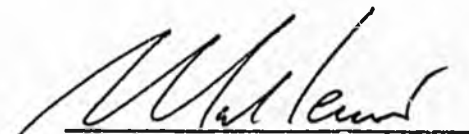
SPONSOR: Representatives Lacher and Larson

Program Effects of Bill

This bill would provide special appropriations of \$978,500 for a sewage system and \$160,000 for a septic treatment plant as grants to the City of Wasilla.

Comments

Governor Sheffield has established a process for review and assignment of priorities for capital grants on a statewide basis. Requests from the City of Wasilla for \$987,500 for sewers and \$80,000 for septic treatment have been included in that process. With this process in place, the Department believes that an alternative to individual appropriations bills exists and should be considered by the Legislature.


Mark Lewis, Commissioner

STATE OF ALASKA
PRELIMINARY STATEMENT OF FISCAL IMPACT

Bill No: HB 146 Date on Bill: 1/28/83
 Title: Special appropriations for grants to City of Wasilla for sewage system
 Sponsor: Representatives Lacher and Larson
 Requestor: House Community & Regional Affairs Committee

1. Estimated fiscal impacts on: Department of Community & Regional Affairs

a. Expenditures:

(Thousands of Dollars)

| | FY 83 | FY 84 | FY 85 | FY 86 |
|-----------|-------|-------|-------|-------|
| Capital | | =0- | -0- | -0- |
| Operating | | -0- | -0- | -0- |
| Total | | -0- | -0- | -0- |

b. Revenues:

| | | | | |
|---------|--|--|--|--|
| Revenue | | | | |
|---------|--|--|--|--|

2. Source of funds to offset fiscal impact of bill:

Sponsor does not indicate

3. Assumptions:

The Department of Administration would administer this grant. No fiscal impact on this Department.

4. Disclaimer:

This statement has not been reviewed by the OMB in the Office of the Governor. It therefore does not represent the final estimate of fiscal impact.

Prepared By: Richard Rainery *RR* Phone: 465-4703
 Division: Commissioner's Office Date: 3/8/83
 Approved by Commissioner: *Matthew* Date: 3/9/83
 Department: Community & Regional Affairs

5. Distribution:

- Original to Legislative Finance
- Copy to OMB
- Copy to Sponsor
- Copy to Requestor

2/15/83

Alaska State Legislature



Barbara Lacher, Chairman
Mae Tischer, Vice-Chairman
Randy Phillips
Milo Fritz
Don Cloeksin
Jack McBride
Mike Szymanski

Room 104
State Capitol
Juneau, Alaska 99811

Pouch V
Juneau, Alaska 99811

House of Representatives Committee on Community & Regional Affairs

TO: House C & R A Committee
FROM: Representative Barbara Lacher
SUBJECT: HB 146
DATE: March 7, 1983

The City of Wasilla has been working with the Department of Environmental Conservation and federal environmental protection agencies since 1978 in planning a city wastewater treatment facilities system. The preliminary planning is completed and public hearings have been conducted. Final design is to be completed by July 1983, and the project ready for bid by October, 1983.

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The cost to owners of property adjacent to the sewer system will be assessed, on the average, about \$1,153,100 per 50 feet of property frontage and monthly service charges will be less than \$20 per month.

In addition to project costs which are eligible for grant participation, the City of Wasilla is confronted with a requirement for \$1,178,500 of non-grant-eligible cost, funding for which must be firmly identified prior to state and federal commitment of grant funds. These non-grant eligible costs are as follows:

| | |
|---|---------------------|
| Purchase of treatment plant site | |
| Right-of-way for trunk and collector construction | |
| Construction across Parks Highway | |
| Engineering and Administration | |
| Topography mapping | \$ 200.000 |
| | <u>\$ 1,178,500</u> |

For the past four years, the City of Wasilla has committed a considerable amount of scarce resources to this project and public hearings have indicated strong public support; however, the requirement for \$1,178,500 "up front" funding is beyond the capability of the City. For this reason, the City of Wasilla respectfully requests the assistance of the Alaska State Legislature.

COVER SHEET

FEB 17 1983

12 PAGES & 1 COVER SHEET

FROM CITY OF WASILLA

TO

SEN KERTTULA 465-3771

COPIES TO

~~REP. LACHER~~ 465-4894

REP. LARSON 465-3727

MAT-SU LIO

THE FOLLOWING DOCUMENT(S) MAY NOT FILM
LEGIBLY BECAUSE OF POOR QUALITY OF THE
ORIGINAL.

Page 1 of 12
CITY OF WASILLA, ALASKA, LEGISLATIVE PRIORITIES

CAPITAL IMPROVEMENT PROJECTS 1983

WASILLA SEPTIC TREATMENT FACILITY

PRIORITY : 2

PROJECT DESCRIPTION:

As an intermediate and immediate measure to provide a short term solution to the problems created by (1) a population increase and (2) its resulting impacts, and (3) on-site seepage treatment facility to serve its community. The Houston seepage treatment facility, when it is on-line, will not have the capacity to serve Wasilla in addition to the rest of the Borough.

There are no seepage treatment facilities in the Mat-Su Borough in use at the present time. Seepage is hauled to Anchorage for disposal. During late 1982, the two active sewage pumping services were contacted to determine the present quantities of seepage produced in the Borough. Approximately 2.9 million gallons of sewage was produced this year within the Borough with a substantial quantity increase occurring in the immediate future. The proposed seepage treatment facility at Houston has a design capacity of 2.5 million gallons.

The City of Wasilla must include a seepage treatment facility in its capital improvements plan programming since the Houston facility will not be able to accept the increased load anticipated from the regularly pumped septic tanks within the Wasilla area.

TIME TABLES FOR PROJECTS COMPLETION:

Attached is a time line schedule for the project. Estimated project commencement will begin during the first of the 1984 year.

BUDGET AND SOURCE:

Legislative or other State assisted funding in the amount of \$185,786.00 is required to cover those costs as attached.

OPERATION AND MAINTENANCE COSTS:

It shall be necessary for the City of Wasilla to establish a user fee for the operation and maintenance of the project. Additionally, this project shall "dovetail" with Priority #1-Wasilla Sewage Collection and Treatment Facility with its overall intent to act as an interim measure and serve the immediate needs of the community.

IMPACT ON THE
ECONOMIC DEVELOPMENT
OF THE COMMUNITY:

There will be a positive impact on the economic development of the community. The cost of residential, commercial, and industrial property development shall be lower due to lack of need for sewage pumping and hauling to Anchorage.

LOCAL EMPLOYMENT
EFFECTS:

Local employment will be created for this project during the planning, design and construction phases as well as after the system goes on line in the form of operation and maintenance. The real benefits of this type of development as the State readily sees is its provision of needed infrastructure for the stable and productive growth of private sector employment security.

IMPACT ON THE
MAINTENANCE OF
LIFE, HEALTH AND
SAFETY:

The City of Wasilla is experiencing a growth rate of 15% to 30% annually. With this, housing development has brought an increase of on-site sewage disposal systems. The City's water is taken from wells and provided to part of the community through a distribution network. This combined with a high water table has created a sensitive environment, including two lakes, which will be negatively impacted through the potential pollution emanating from on-site sewage disposal in a high water table.

SUPPORTING
DOCUMENTATION:

Attached to this narrative is the Matanuska-Susitna Borough's statement of support. The project has also been cited as supported and needed by other Borough, State and Federal reports and findings.

CONTACT:

Michael John Tavello, Administrative Officer,
P.O. Box 430, Wasilla, AK 99687
(907) 376-5227/ 376-3893

PLAN OF STUDY
PROPOSED SEPTIC TREATMENT FIELD DEMONSTRATION PROJECT

On July 2, 1982, the existing EPA Facilities Planning Grant for the City of Wasilla was increased to provide for an additional planning effort in order to produce an acceptable facilities plan. A copy of the Plan of Study for that effort is attached hereto (Appendix A). Items A, B, C, E and F in that Plan of Study which are required for a POS have not changed and will be incorporated into this POS by reference. This POS will address items D, G and H as required by the EPA Construction Grants Program.

D. An amendment to the previous grants for Facilities Planning for the study area is necessary for the following reasons:

The additional planning effort funded by the July 2, 1982 increase will emphasize the use of Innovative/Alternative solutions. It is anticipated that the result will include a number of septic tanks which must be pumped and maintained on a regular schedule. The purpose of I/A solutions is to provide facilities that can be operated and maintained at a cost the community can afford. The facilities plan, therefore, must address the problem of septage treatment and disposal. There are no septage treatment facilities in the Mat-Su Borough at the present time. Septage is hauled to Anchorage for disposal. Two pumpers are active in the Borough at the present time. They were each contacted to determine the present quantities of septage produced in the Borough. A-1 (Cesspool Service, the largest, estimates that, on an average, they pump 10,000 gallons per day, five days a week, or 2.6 million gallons per year. P&B Septic Services have pumped 189,000 gallons from January 1st to August 15th of this year. They anticipate that the rate will probably increase during the balance of the year. This translates to approximately 0.22 million gallons per year. The total amount of septage currently produced in the borough, therefore, is approximately 2.9 million gallons per year. That quantity can be expected to increase over the next ten years.

APPENDIX I

A proposed septage treatment facility is scheduled to be built in the Big Lake area. It is anticipated that that facility will be completed during the summer of 1983. It will have a design capacity of 2.5 million gallons. The estimated cost of the facility is \$521,000 for a cost of \$208,400 per million gallon capacity. The designers estimate the O&M costs to be \$16.10 per thousand gallons for the first year of operation.

The Wasilla facilities plan must include septage treatment facilities since the proposed plant at Big Lake will not be able to accept the increased load anticipated from the regularly pumped septic tanks within the Wasilla facility plan boundaries. The proposed plant to be funded by this grant increase employs an Innovative/Alternative solution. The 1981 changes in Public Law 92-500 allow for a field demonstration project for an I/A solution during the planning stage to develop the design parameters and to insure that a full scale project will be economically designed or will not be built if the innovative process does not function as intended. If approved, the increased grant will be used to pay for constructing a facility designed for a target capacity of 2,000 gallons per day or .73 million gallons per year. The 2,000 GPD design target was selected for two reasons. The pumper supplying the septage normally carries 2,000 gallons making it more reliable to expect a 2,000 gallon load per delivery. Also, this size project will be necessary to prevent scale up uncertainties when the full scale project is built. This project will be designed to permit it to be incorporated into the full scale project if practical. The projected capital costs for the facility are estimated to be \$152,000 per million gallons capacity as compared to \$208,400 per million gallon capacity for the Big Lake plant. The estimated operation and maintenance costs will be \$10.74 per 1,000 gallons as compared to \$16.10 per thousand gallons for the Big Lake plant. These costs are for a completely self-contained small facility. Both the capital costs per million gallons and the O&M costs per 1,000 gallons can be expected to be lower for a full size plant since the relationship is not linear.

By combining the septage treatment facility with a sewage treatment plant, such as an aerated lagoon, it is probable that the second stage fluidized bed, the building housing it, and the subsurface disposal system

5012
can be eliminated. The effluent from the first stage solid separation phase would be discharged directly into the sewage treatment plant. This will drastically reduce both the first cost and the O&M costs for pretreating septage since all that will be required will be a series of concrete tanks to settle out the settleable solids.

The proposed plant will consist of a six compartment concrete tank heated and insulated and buried with the top 8" above ground level. The top will serve as the foundation and floor of the building housing the second stage fluidized bed. The tank will have a total capacity of 20,000 gallons. Compartment #1 will act as a flow equalization tank with a capacity of 5,000 gallons. The contents will be pumped at a uniform rate into tanks #2, 3, and 4 which will serve as three septic tanks in series. The effluent from tank 4 will be collected in tank 5 and will be pumped from tank 5 through the second stage fluidized bed reactor. The effluent from the second stage will go into tank 6. Tank 6 will have a dosing siphon chamber which will discharge into a subsurface soil absorption field. Sludge collected in tanks 2, 3 and 4 will be pumped as necessary to a sludge drying bed. The sludge drying bed will have four compartments for flexibility and the dried sludge will be picked-up with a front-end loader and buried in a landfill at the site. The second stage anaerobic fluidized bed has been investigated by EPA. EPA publication 600/2-87-004, dated February, 1982, entitled "Technology Assessment of Anaerobic Systems for Municipal Waste Water Treatment" reports on an EPA sponsored study of the use of an anaerobic fluidized bed to provide secondary treatment for domestic wastes. The anaerobic fluidized bed consists of a vertical tube, in this case two feet in diameter, containing finely divided media, for example ion exchange media, and a pump. The pump is sized to maintain a vertical velocity such that the particles are suspended continuously but the velocity is too low for wash-out. The anaerobic bacteria collect on the surface of the media. The gases produced in this case will be flared. The process is extremely simple and maintenance free since the only piece of equipment is a pump. The anaerobic fluidized bed we propose to use in the study was developed by the Ecotrol Corporation of New York. The chief of research for Ecotrol, Roger Olson, advises that Ecotrol has conducted pilot studies on a number of very strong wastes but never on

6 0 1 4 (1)

septage. The most closely comparable waste was a food processing waste with BOD, suspended solids and COD comparable to those reported for settled septage in the literature. The pilot study was successful for the food processing waste. The reactor will be built by Ecolotrol and shipped to Wasilla for installation in the building. Ecolotrol has offered technical support for the study at no cost. The research engineer from the EPA Research Lab in Cincinnati who was the project engineer for the EPA study described above, Robert Bowker, has also offered technical support. Finally, Dr. Tim Tillsworth, Professor of Sanitary Engineering at the University of Alaska, who has investigated extensively the physical and chemical characteristics of septage in Alaska, has offered technical support.

The demonstration project will be built on land owned by the City of Wasilla and located approximately 1.5 miles southwest of the City center adjacent to the Knik-Goosebay Highway. A site plan with test hole data is attached (Appendix B). The surrounding area is undeveloped and owned by the State.

The success of this system will also be beneficial to the Mat-Su Borough since they will be responsible for funding and operating future septage treatment facilities. They have authorized \$8,000 to partially fund the study. For their \$8,000, they will receive a copy of the report and be kept up-to-date technically on the study. A copy of the agreement is enclosed with this application.

Sampling and testing will be accomplished by subcontract with Mat-Su Test Lab.

Among the objectives of this study are the following:

- 1) The literature contains no reference to septage studies conducted to determine the settleability of the solids over a relatively long period of time. The results reported generally are from Imhoff cone tests of sixty minutes. The material in a septic tank before it is pumped typically includes a settled sludge

layer on the bottom, a scum layer on the top, and a liquid fraction between the two which is the material discharged to the subsurface disposal system in the typical SI-SAS home system. A important part of the study will be to measure the BOD, COD and suspended solids in each of the compartments of the solids separation phase to determine the rate at which solids separation occurs. The concrete tank will be equipped with thermostatically controlled heating pads so that the effect of temperature on settleability can be determined. Finally, a retention time at temperatures in the mesophilic range is expected to enable the solids separation phase to function as an inefficient anaerobic digester. Results of this analysis will impact on the capacity of the second stage reactor.

- 2) Efforts to utilize Municipal aerated lagoons for treatment of septage have failed because of the heavy build-up of solids at the point where septage enters the lagoon. If the settleable solids are removed during the initial solids separation phase, it would be reasonable to believe that the effluent from the solids separation phase could be introduced into a lagoon or other treatment facility without creating a problem. The elimination of the second phase fluidized bed, the building housing it and the subsurface absorption system will drastically reduce the first cost and the O&M costs.
- 3) The study above will also permit the determination of the pattern of settleable solids build-up in the solids separation phase. For example, a five to eight day retention time for the solids separation phase may not be necessary.
- 4) The usefulness of using an anaerobic fluidized bed for the second stage treatment will be determined. For a self-contained facility where the effluent is disposed of in a subsurface soil absorption system, the important parameter is suspended solids. The ability of an anaerobic fluidized bed to reduce suspended solids will be critical. Also, in most of the studies

accomplished to-date by Ecotrol, they have observed a two to three month period after start-up until the methane formers in the column have reached the necessary concentration. If the methane formers can begin to be established in the heated and insulated solids separation tank, it would appear that this start-up period could be reduced.

5) Finally, the subsurface absorption system will be divided in four parts in an effort to determine the suspended solids levels which can be discharged to the drains without damaging the bed.

G. The schedule for completion of each specific task necessary to complete the study has been prepared. Table 1 lists the major tasks, shows their sequencing and the approximate amount of time to complete each one.

H. Table 2 lists the estimated costs for each major task and the total estimated costs.

10015

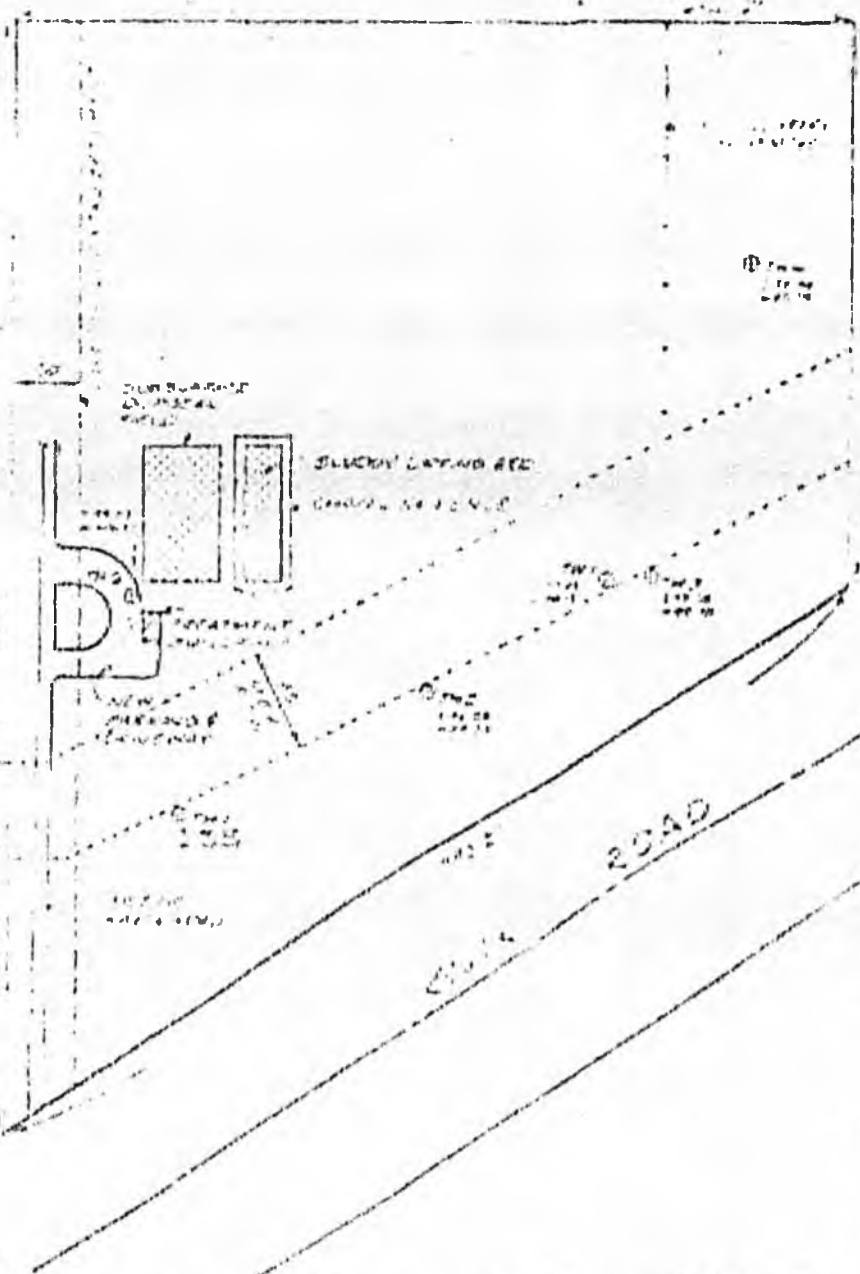
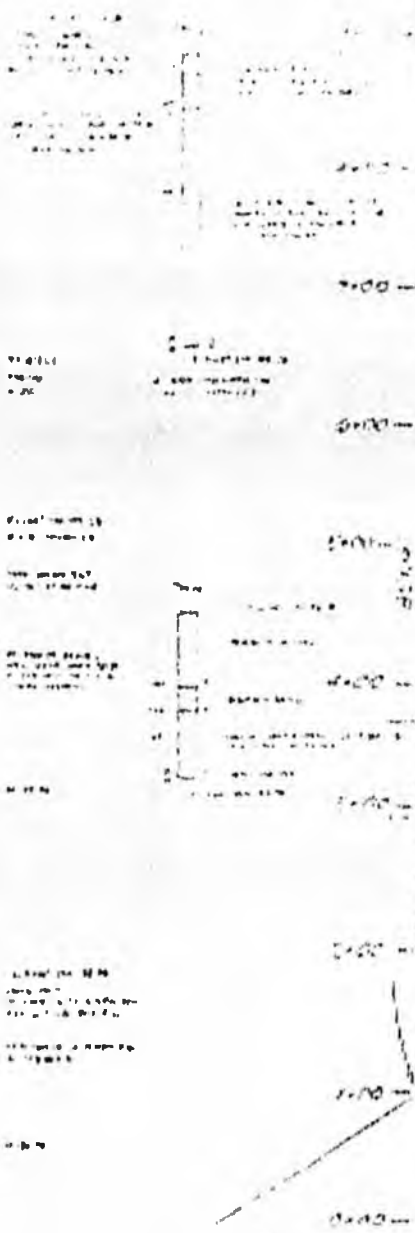
A recap of the costs for the project is as follows:

| | | |
|-------------------------------|-------------|-------------------|
| Design (12%) | | \$ 11,140.00 |
| Soils Investigation | | 2,200.00 |
| Construction | | 110,050.00 |
| Construction Management (5%) | | 4,033.00 |
| Study | | 46,000.00 |
| OSM during Study | | |
| Power | \$ 1,657.00 | |
| *Septage Hauling | 6,500.00 | |
| Total OSM | | \$ 8,157.00 |
| Legal and Administrative (2%) | | 3,540.00 |
| | | <u>185,786.00</u> |
| TOTAL | | |

It is proposed that the city will let six separate contracts for the construction phase which will be prepared by Pohl and Associates. They will be:

| <u>CONTRACT NO.</u> | <u>WORK TO BE DONE</u> | <u>ESTIMATED COST</u> |
|---------------------|-------------------------|-----------------------|
| 1 | Clearing & Sitework | \$ 12,477.00 |
| 2 | Concrete Tank | 13,009.00 |
| 3 | Building | 21,455.00 |
| 4 | 6" Cased Well | 1,182.00 |
| 5 | Fluidized Bed Unit | 44,941.00 |
| 6 | Fencing (6" Chain Link) | 6,977.00 |
| | TOTAL | <u>\$ 100,051.00</u> |
| | Contingency (10%) | <u>10,005.00</u> |
| | | \$ 110,056.00 |

Construction Management will be by Pohl and Associates.



GENERAL NOTES

1. SEE ALL NOTES ON DRAWING.
2. ALL WORK TO BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS AND STANDARD SPECIFICATIONS FOR PUBLIC WORKS, EDITION 1988, AS AMENDED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL, STATE AND FEDERAL AGENCIES.
4. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AT ALL TIMES.
5. ALL UTILITIES SHALL BE LOCATED AND DEPTH MARKED PRIOR TO CONSTRUCTION.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES AND STRUCTURES.
7. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE LOCAL HEALTH DEPARTMENT.
8. THE CONTRACTOR SHALL MAINTAIN RECORDS OF ALL CONSTRUCTION ACTIVITIES AND SUBMIT THEM TO THE LOCAL HEALTH DEPARTMENT UPON COMPLETION OF THE PROJECT.

| NO. | REVISION | DATE | BY |
|-----|----------|------|----|
| | | | |
| | | | |
| | | | |
| | | | |



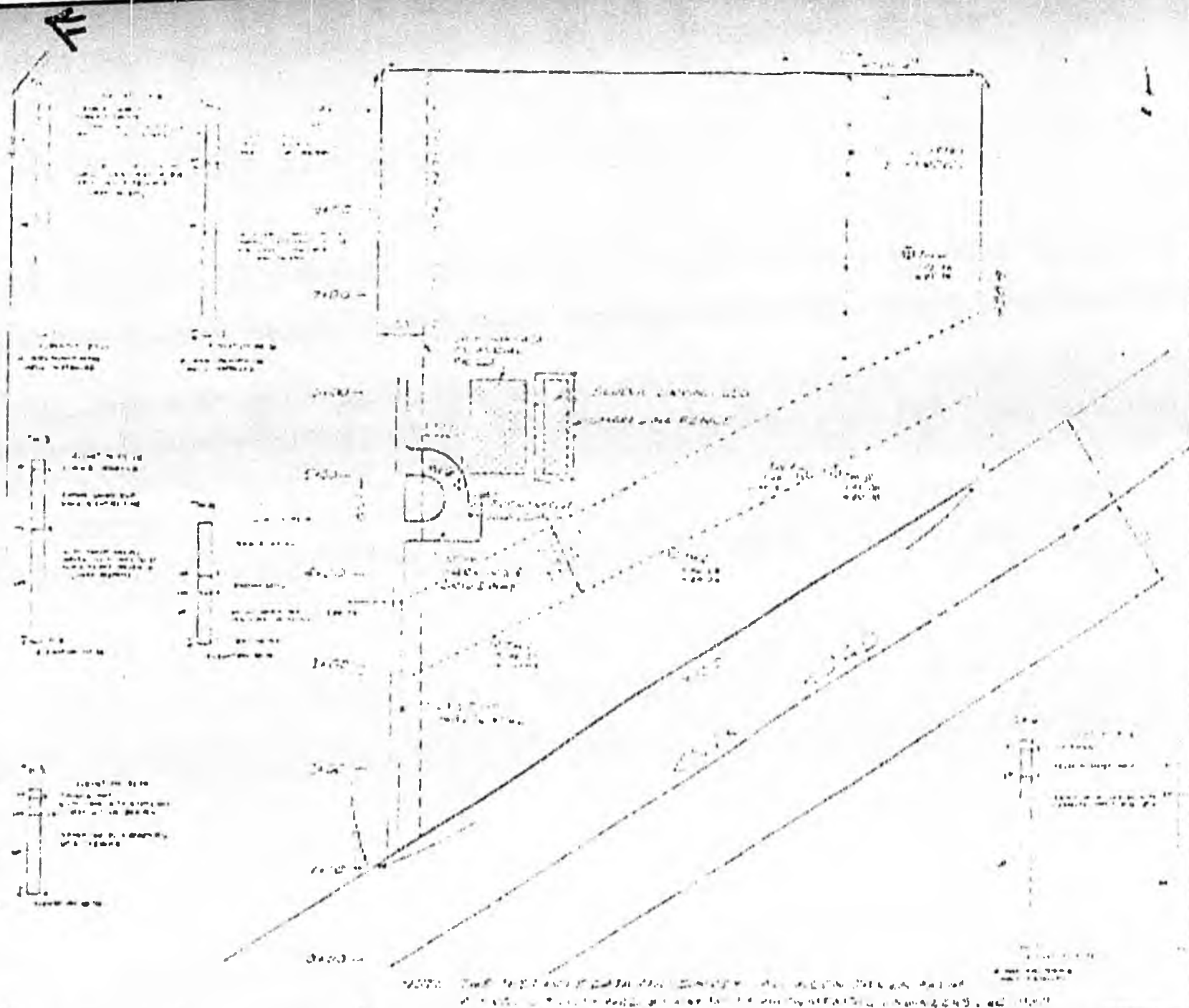
POIG & ASSOCIATES
 4340 BUSINESS PARK BLVD.
 ANCHORAGE, ALASKA 99503

DATE: _____
 DRAWN BY: _____
 CHECKED BY: G.E.P.
 STATE OF ALASKA: _____

WASHILA J. POIG
SEPTAGE TREATMENT DEMONSTRATION PROJECT
SITE PLAN AND SOIL TEST HOLES

Sheet 1 of 1

page 11 of 13 - join to 10 at arlowe



| | | |
|---|---|---|
|  <p>POPE & ASSOCIATES 4700 SOUTHWEST FAIR AVENUE ANCHORAGE, ALASKA 99503</p> | <p>DATE: _____ DRAWN BY: _____ CHECKED BY: <u>CRP</u> SCALE: 1" = 10'</p> | <p>WASILLA, ALASKA SEPTAGE TREATMENT PLANTS SITE PLAN AND SOIL LOG TEST</p> |
|---|---|---|

TABLE 1
SCHEDULE OF TASKS

| <u>TASKS</u> | <u>WEEKS</u> | | | | | | | | | |
|--|--------------|------|------|------|------|------|------|------|------|-------|
| | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| A. Program Management & Administration | XXXX | XXXX | XXXX | XXXX | XXXX | XXXX | XXXX | XXXX | XXXX | XXXX |
| B. Obtain Soils Data | X | | | | | | | | | |
| C. Design Facility | XXX | | | | | | | | | |
| D. Let Construction Contracts | X | X | | | | | | | | |
| E. Construction | | | XXXX | | X | | | | | |
| F. Construction Management | | | | | | | | | | |
| G. Purchase Lab Equipment | X | | | | | | | | | |
| H. Conduct | | | | | XXXX | XXXX | XXXX | XXXX | XXXX | XXXX |
| I. Prepare Report | | | | | | | | | | X XXX |

x - Anticipated Work Weeks

THE PRECEDING DOCUMENT(S) MAY NOT FILM
LEGIBLY BECAUSE OF POOR QUALITY OF THE
ORIGINAL.

Statement made by Guy Wooding, Chairman, Matanuska-Susitna Borough Planning Commission to City of Wasilla, City Council at public hearing on January 13, 1983.

STATEMENT ON ROLE OF CITY OF WASILLA
SEWER SYSTEM WITHIN MATANUSKA-SUSITNA BOROUGH
COMPREHENSIVE PLAN

We understand that the City of Wasilla is considering adoption of A PLAN intended to result in a sewer system for the City of Wasilla.

You should know that a sewer system within the City of Wasilla is a critical and necessary element of the Wasilla Comprehensive Plan approved by the Wasilla City Council and the Matanuska-Susitna Borough Assembly in November, 1982.

The Matanuska-Susitna Borough Planning Department and its consultants DOWL Engineers and Howard, Needles, Tammen, Bergendoff (HNTB), are also very nearly completed with their work on a proposed Borough comprehensive plan and the Planning Commission has had an opportunity to review various portions of the plan.

In our comprehensive planning we have striven for the best of two different worlds:

First, a community with a rural and open aspect which preserves many of the features that make this area look and feel like a part of Alaska, rather than a suburb, and

Second, a community where there are the retail and distribution jobs for local residents, local shopping and local services convenient for everyone. You shouldn't have to go to Anchorage for a day of shopping.

The Comprehensive Plans call for most of the Borough being unsewered, which means larger lot subdivisions, with minimum lot sizes of one acre to a dwelling. Where there is tree cover this large lot type of residential development will result

The City of Wasilla is fortunate in that it is located close to two attractive water bodies--Wasilla Lake and Lake Lucille, but these features which result in a very fine setting also create an immediate probability of water pollution if discharge of sewage is handled on-site.

The fathers of the City of Wasilla recognize that sewers will be necessary if the City of Wasilla is to house substantially more residences and commercial establishments than it does today.

We expect that the Matanuska-Susitna Borough population will triple in next two decades and cannot visualize the mid-Valley portion of the Borough functioning successfully without further filling in and development of the City of Wasilla. We know that this plan is the plan that the City of Wasilla relied upon when the City Council approved a city plan for the City of Wasilla and we know that this is the plan that the Matanuska-Susitna Borough Planning Commission and the Borough Assembly assumed to exist when the plan for the City of Wasilla was adopted by both the City and Borough.

17.44.045 Delegations.

The City Council of the City of Wasilla shall carry out the planning and zoning functions set forth in this chapter within the City. The City Council shall establish by ordinance a City Planning Commission and may delegate to it or other city officials duties and authorities delegated by this chapter.

II. LAND USE MAP AND DISTRICTS

17.44.100 Districts Established.

The City of Wasilla is divided into the following land use districts:

A. Core District.

- (a) corresponds to first phase of water system
- (b) will receive initial sewer service.
- (c) reflects the sector of the community that is the most accessible, has the greatest intensity of development, and is the focus of primary commercial and civic activities
- (d) the boundary of the core district will expand as new sewer or water assessment districts adjacent to the existing core district are approved.

B. Intermediate District

- (a) corresponds to area between the core district and city limits
- (b) planned for eventual public water and sewer service.
- (c) reflects sectors of the community that are served by arterials, have a moderate intensity of development, and contain some commercial, industrial, and community activities
- (d) the boundary of the intermediate district shall expand with annexations to the City of Wasilla.

C. Creekside Estates Special Use District Excluded.

The Creekside Estates Special Land Use District described as the N4NE1/4 Section 15, Township 17 North, Range 1 West, Seward Meridian is excluded from the provisions of this chapter.

17.44.105 Land Use District Map.

The districts described are bounded and defined on an official map dealing with the district areas of Wasilla entitled "Land Use District Map of the City of Wasilla, Alaska." Copies of the map are on file in the offices of the City of Wasilla and the Matanuska-Susitna Borough Planning Department. This map is incorporated as a part of this ordinance as if the districts were described in detail according to written descriptions in the ordinance.

Department of Transportation and Public Facilities. All bids with the names of the bidders and the amounts of the bids, together with all documents pertaining to the award of a contract, shall be made a part of a file or record and retained by the department for three years, unless reproduced by microfilming and these files or records are open to public inspection at all reasonable times. An aggrieved bidder may within five days after an award of contract appeal to the department for hearing, with notice to interested parties, for redetermination and final award in accordance with law.

(b) A contract for professional services shall be awarded in accordance with AS 24.23 or AS 36.98. (§ 4 art IV ch 82 SLA 1955; am § 1 ch 64 SLA 1976; am Executive Order No. 39, § 11 (1977); am § 9 ch 144 SLA 1982)

Effect of amendments. — The 1982 amendment, effective July 22, 1982, designated the former provisions of this section as subsection (a), and in that subsection, added "Except as otherwise provided in AS 37.05.230" to the beginning, deleted "taking into consideration conformity with

the specifications, terms of delivery, and other conditions imposed in the call for bids" from the end of the first sentence, and substituted the present second, third, and fourth sentences for those set out in the main pamphlet. This amendment also added subsection (b).

Article 5. General Provisions.

| | |
|---|---------------------------------|
| Section | Section |
| 315. Grants to municipalities | 318. Exemption from regulations |
| 316. Grants to named recipients | 319. Definitions |
| 317. Grants to unincorporated communities | |

Sec. 37.05.300. Interpretation of AS 37.05.010 — 37.05.330.

Opinions of attorney general. — As to applicability of the chapter to the University of Alaska, see notes under this catchline following chapter heading.

Sec. 37.05.315. Grants to municipalities. (a) When an amount is appropriated or allocated as a grant to a municipality, the Department of Administration shall promptly notify the municipality of the availability of the grant. When the Department of Administration receives an agreement executed by the municipality which provides that the municipality (1) will spend the grant for the purposes specified in the appropriation or allocation; (2) will allow, on request, an audit by the state of the uses made of the grant; and (3) assures that, to the extent consistent with the purpose of the appropriation or allocation, the facilities and services provided with the grant will be available for the use of the general public, the Department of Administration shall pay the grant directly to the municipality. The agreement executed by a municipality under this section shall be on a form furnished by the Department of Administration and shall be executed within 60 days after the effective date of the appropriation or allocation.

(b) An appropriation or allocation for a grant to a municipality for construction of a public facility lapses if substantial, ongoing work on the project has not begun within five years after the effective date of the appropriation or allocation.

(c) In accepting a grant of money for construction of a public facility, a municipality covenants with the state that it will operate and maintain the facility for the practical life of the facility and that the municipality will not look to the state to operate or maintain the facility or pay for its operation or maintenance. This requirement does not apply to a grant of money for repair or improvement of an existing facility operated or maintained by the state at the time the grant is accepted if the repair or improvement for which the grant is made will not substantially increase the operating or maintenance costs to the state.

(d) Not less than 20 percent of a grant shall be paid to a municipality within 10 days of the effective date of the agreement under (a) of this section. The remainder of the grant shall be paid either in monthly installments equal to the amount of grant money the municipality expended in the previous month or in a lump sum as determined by the Department of Administration. (§ 1 ch 156 SLA 1980; am § 1 ch 4 SLA 1982)

Effect of amendments. — The 1982 amendment, effective January 16, 1982, in subsection (a), substituted "amount is appropriated or allocated" for "appropriation is made" in the first sentence, inserted "or allocation" in items (1) and (3) in the second sentence, and added "and shall be executed within 60 days after the effective date of the appropriation or allocation" to the end of the third sentence; redesignated the former fourth and fifth sentences of subsection (a) as subsection (d); inserted "or allocation" in two places in subsection (b); substituted "a" for "each" preceding

"municipality covenants" and "the practical life of the facility and that the municipality" for "its practical life and that it" in subsection (c); added the second sentence of subsection (c); deleted the provisions of former subsections (d), (f), and (g), which may now be found in AS 37.05.316, 37.05.317, and 37.05.318, respectively; and in present subsection (d), added "under (a) of this section" to the end of the first sentence. The substance of the provisions of former subsection (e) may now be found at the end of the third sentence of subsection (a).

Sec. 37.05.316. Grants to named recipients. When an amount is appropriated or allocated to a department as a grant for a named recipient which is not a municipality, the department to which the appropriation or allocation is made shall promptly notify the named recipient of the availability of the grant and request the named recipient to submit a proposal to provide the goods or services specified in the appropriation act, or both, for which the appropriation or allocation is made. At the same time, the department may issue a request for proposals from other qualified persons to provide the same goods or services, or both, in the same area. The department shall contract with the named recipient unless the Office of the Governor, with due regard for any local expertise or experience among those making proposals, determines that an award of the contract to a different party would

better serve the public interest. If the contract is awarded to another party than that named by the legislature, the basis of that action shall be stated in writing at the time the grant is issued and a copy of the written statement shall be sent to the Legislative Budget and Audit Committee. A contract shall be executed within 60 days after the effective date of the appropriation or allocation. The purchase of the goods or services, or both, shall be in accordance with AS 37.05.230(1)(C). (§ 2 ch 4 SLA 1982)

Effective dates. — Section 3, ch. 4, SLA 1982, provides that this section take effect January 16, 1982, in accordance with AS 01.10.07(c).

Editor's notes. — The provisions of this section were formerly contained in AS 37.05.315(d) as it existed prior to the 1982 amendment of that section.

Sec. 37.05.317. Grants to unincorporated communities. When an amount is appropriated or allocated as a grant under this section to an unincorporated community, it shall be disbursed as follows:

(1) Within 45 days after the effective date of the appropriation or allocation, the Department of Community and Regional Affairs shall notify the governing body of the unincorporated community, if any, that a grant is available.

(2) The Department of Community and Regional Affairs shall determine if there is a qualified incorporated entity in the community area that will agree to receive the grant and administer it, subject to terms generally applicable to private grantees. If there is more than one such entity, the Department of Community and Regional Affairs shall select the most qualified and the grant shall be awarded to that incorporated entity for the purposes specified in the appropriation act. However, the Department of Community and Regional Affairs shall give preference to a nonprofit corporation organized by a community for receipt of the grant.

(3) If there is no incorporated entity qualified to receive the grant, the Department of Community and Regional Affairs shall administer the program as specified in the appropriation act directly or through agents or contractors with whom it may contract in the community area. (§ 2 ch 4 SLA 1982)

Effective dates. — Section 3, ch. 4, SLA 1982, provides that this section take effect January 16, 1982, in accordance with AS 01.10.07(c).

Editor's notes. — The provisions of this section were formerly contained in AS 37.05.315(f), which was deleted by the 1982 amendment.

Sec. 37.05.318. Exemption from regulations. Notwithstanding the Administrative Procedure Act (AS 44.62), the Fiscal Procedures Act (AS 37.05), and the Executive Budget Act (AS 37.07), a state agency may not adopt regulations or impose additional requirements or procedures to implement, interpret, make specific, or otherwise carry out the provisions of AS 37.05.315 — 37.05.317 unless required