



# CITY OF WASILLA

290 E. HERNING AVE.  
WASILLA, ALASKA 99654-7091

## COUNCIL MEMORANDUM NO. 95-24

From: Deputy Administrator  
Date: February 23, 1995

### SUBJECT: WATER & SEWER MAIN CROSSINGS - PARKS HIGHWAY

The City is in the final design stages for reconstruction and improvements for the Hallea Lane LID paving project including the placement of a Water Main stub prior to paving.

The City has also entered into an engineering design contract for Water & Sewer Main extension to the Alternative School Site proposed at Deskas Street (aka West Parks Highway Water/Sewer Extension).

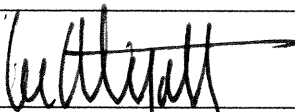
The State DOT/PF has issued an RFP for the Parks Highway pavement improvement project from M.P. 44, at Lucus Road, to M.P.52 at the Big Lake Road. They expect to complete this project sometime this summer.

The economic opportunity to trench and connect the existing north side and south side mains across the Parks Highway R/W, prior to paving, exists now. Once the Parks Highway project is paved it will be economically difficult to extend water/sewer service to the west on the north side and to the south side of the Parks Highway.

Without having a completed hydraulic analysis of both the Water and Sewer distribution and collection systems it is extremely difficult to predict costs associated with actual installation of properly sized lines for the proposed sewer/water crossings. It is our proposal to place conduit at this time for the future placement of properly sized lines for the water/sewer extensions.

We have received engineering estimates for a combination of alternatives in providing the conduit crossings for this timely project. They range from a low of \$34,561 for a sewer line conduit crossing at Deskas Street to a combination sewer/water conduit crossing at Hallea Lane in the amount of \$135,785. A combination of the sewer conduit crossing at Deskas plus the water line conduit crossing only at Hallea would cost approximately \$102,453, and quite possibly (pending a completed system wide hydraulic analysis) the three conduit crossings at both locations would be required at an approximate cost of \$170,346. Please see attached letter.

Recommendation: (1) Council approval to set the accompanying Ordinance Serial No. 95-16 for Public Hearing on March 13, 1995.

  
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Lee A. Wyatt  
Deputy Administrator

Area Code (907)

Administration  
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Clerks Office  
Ph: 373-9065  
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Museum  
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Planning  
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Ph: 373-9077  
Fx: 373-9061

Public Works  
Ph: 373-9095  
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\_\_\_\_\_  
Ph: \_\_\_\_\_  
Fx: \_\_\_\_\_



# GILFILIAN ENGINEERING & ENVIRONMENTAL TESTING, INC.

Professional Environmental Consultants

2605 Denali Street, Suite 203 □ Anchorage, Alaska 99503-2749  
Tel: (907) 277-2021 □ Fax: (907) 274-8683

RECEIVED

FEB 23 1995

City of Wasilla, Alaska

February 22, 1995

Mr. Lee Wyatt  
City Administrator  
City of Wasilla  
290 E. Herring Avenue  
Wasilla, Alaska 99687

RE: Cost Estimates for Parks Highway Crossings at Hellea Lane and Deskas Street

Dear Mr. Wyatt:

In response to your request on February 21, 1995, Gilfilian Engineering & Environmental Testing, Inc. (GE<sup>2</sup>T) has completed preliminary cost estimates for development plans to extend the water and sewer system via conduit crossings of the Parks Highway near Deskas Street and Hellea Lane. This estimate was prepared with the intent to complete the crossings during the proposed upgrade of the Parks Highway, which is scheduled by the Alaska Department of Transportation and Public Facilities (ADOT&PF) for this summer, 1995. The cost estimates include a preliminary budget construction, PS&E engineering (preparation of plans, specifications and estimates) and City administrative cost.

The cost estimates, presented herein, are for two (2) crossings that are shown on the attached map and include: providing 18-inch diameter steel pipe crossing at the Parks Highway near Deskas Street to accommodate a future sewer main extension (of unknown size) and a second crossing involving two (2) 18-inch diameter steel pipe conduits crossing the Parks Highway near Hellea Lane to provide for both sewer and water main extensions. GE<sup>2</sup>T believes that the 18-inch diameter conduits would be adequately sized to handle the City's future needs; however, if other utilities request use of these conduits a larger diameter conduit would be necessary. It should be understood that these estimates are for the installation of a conduit to be use to provide access for a future sewer or water main crossing and does not include the cost for the sewer or water main installation.

## Crossing No. 1 - Deskas Street

This cost estimate is for the crossing of the Parks Highway at Deskas Street on the west end of Spenard Building Supply. The 18-inch diameter steel pipe conduit is assumed to be installed in an open trench excavation. This estimate also assumes the following conditions: there are no utility conflicts; no permitting required by the ADEC and ADOT&PF; no high ground water problems; and that minimal amount of engineering design and construction inspection would be required.

Excavation and Embankment	200 LF @ \$25/LF	\$5,000
Furnish Trench Backfill, Type I	60 T @ \$6.75/T	405
Disposal of Unusable or Surplus Materials	300 CY @ \$6.00/CY	2,040
Remove and Replace Existing Asphalt Concrete	200 SY @ \$12/SY	2,400
Mechanical Compaction	200 LF @ \$3.50/LF	700

Furnish and Install 18" Steel Pipe	200 LF @ \$60.00/LF	12,000
Miscellaneous Materials	\$2,500	2,500
	Total Construction Estimate	\$25,045
Engineering (15%)		3,756
	Subtotal	\$28,801
Contingency (15%)		4,320
City Administration (5%)		1,440
	<b>Total</b>	<b>\$34,561</b>

### Crossing No. 2 - Hellea Lane

This proposal provides for both a water and sewer mains crossing of the Parks Highway near the intersection of the Hellea Lane and Parks Highway. GE<sup>2</sup>T has proposed two (2) 18-inch diameter steel pipe in this location so that both the water and the sewer can cross the Parks Highway independently of one another and at different construction periods. This option extends completely across the Parks Highway and provides for a boring beneath of the Alaska Railroad to terminate the crossings within the City right-of-way at Hellea Lane.

Based on our preliminary review of the proposed crossing location, the existing utilities and the highway upgrade with the signalization of Hellea Lane place the aboveground and below ground utilities in a very small area. The following cost estimate assumes that there are no utilities conflict in this area and there would be no additional permitting by the ADEC and ADOT&PF.

Excavation and Embankment	200 LF @ \$40/LF	\$8,000
Furnish Trench Backfill, Type I	120 T @ \$6.75/T	810
Disposal of Unusable or Surplus Materials	300 CY @ \$6.00/CY	2,040
Remove and Replace Existing Asphalt Concrete	400 SY @ \$12/SY	4,800
Mechanical Compaction	400 LF @ \$3.50/LF	1,400
Furnish and Install 18" Steel Pipe	200 LF @ \$60.00/LF	12,000
Road Boring with Materials ( <i>UNDER RAILS</i> )	200 LF @ \$325/LF	65,000
Miscellaneous Materials	\$10,000	10,000
	Total Construction Estimate	\$104,050
Engineering (10%)		10,405
	Subtotal	\$114,455
Contingency (15%)		17,168
City Administration (4%)		4,162
	<b>Total</b>	<b>\$135,785</b>

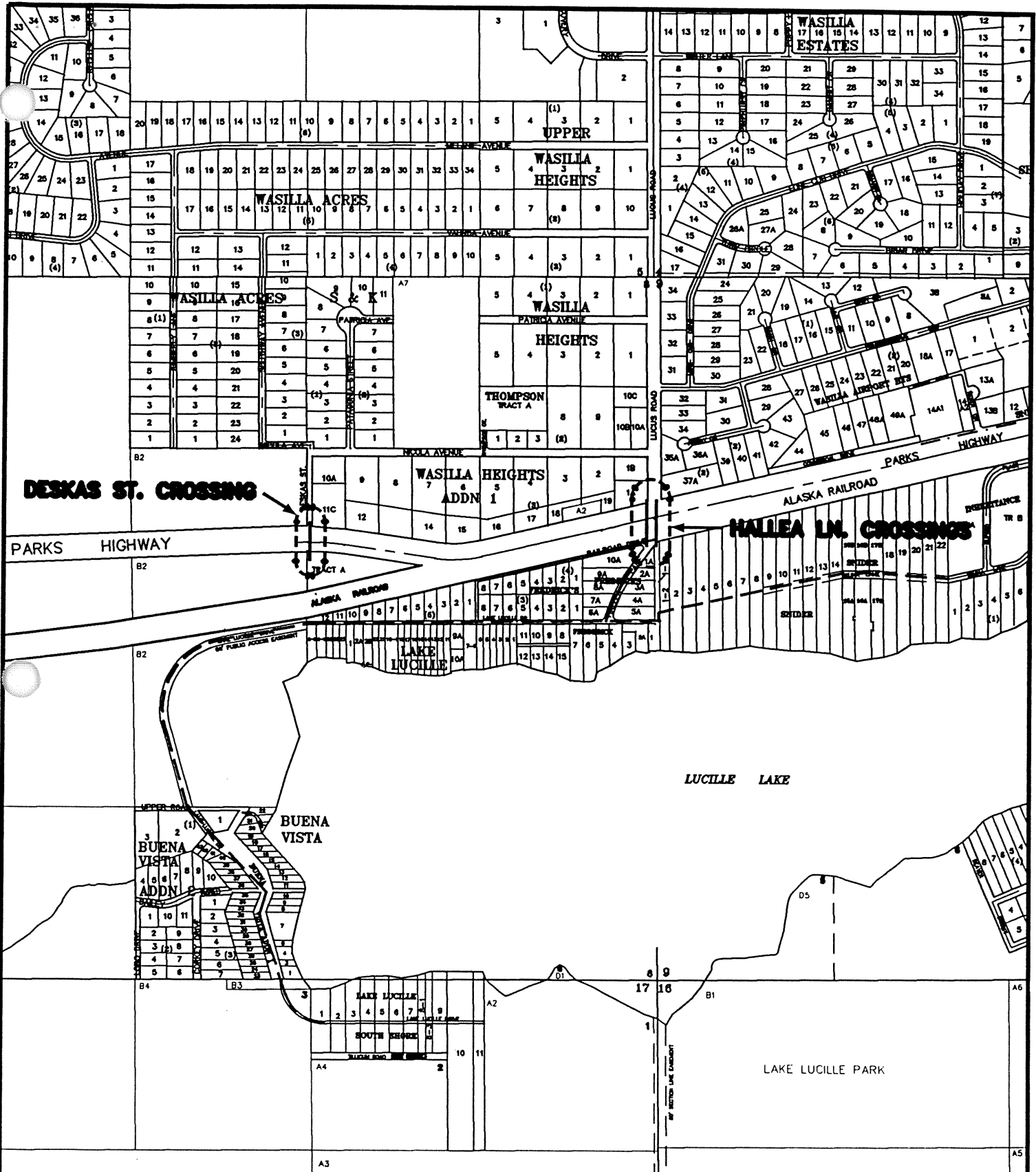
The preliminary cost estimate for the above alternatives are based on typical costs for past capital improvement projects and minimum pay rates required by the Alaska Department of Labor. It should also be understood that this estimate was based on the use of existing mapping and information of record. If you have any questions regarding these preliminary cost budgets and their proposed intended use do not hesitate to call me at 277-2021.

Sincerely,



C. Peter Curtis  
Senior Engineering Specialist

Attachment: Map of Proposed Crossing



CITY OF WASILLA - WEST PARKS HWY - WATER and SEWER EXTENSION

GILFILIAN ENGINEERING &  
 ENVIRONMENTAL TESTING, INC.

2605 Denali St., Suite 203, Anchorage, Alaska 99503-2749

SCALE: 1"=1000'

DATE: 2/22/95

GEI PROJECT NO. 95014