



CITY OF WASILLA

290 E. HERNING AVE.
WASILLA, ALASKA 99687
PHONE: (907) 373-9050
FAX: (907) 373-0788

INFORMATION MEMORANDUM NO. 90-23

TO: Council

FROM: Deputy Administrator

DATE: August 8, 1990

RE: Sewer Main Line Extension

The staff received a request from a homeowner in Shadowood Valley Subdivision to investigate extension of the sewer system. The on-site system had failed and the cost to replace the leach field was estimated to be \$12,000 to \$15,000. We are aware of other property owners in the area who have experienced similar problems.

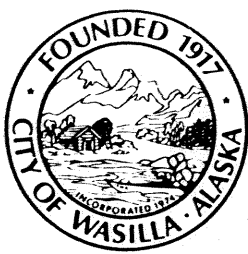
The enclosed cost estimate was prepared as preliminary to a canvass of interest for an assessment district. The project as initially developed would serve 17 lots. It was evident that the sewer main line location would conflict with water wells so a cost estimate for water main extension was prepared.

The projected cost for sewer main extensions is over \$25,000 per lot. This means that without grant assistance, this and other future extensions are probably not practical. The situation is similar for other utility extensions and road improvements because of the low density of properties in comparison to the lineal feet of projects (large lots).



Robert E. Harris
Deputy Administrator

REH/sbh

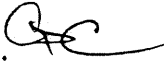


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MEMORANDUM

TO: Bob Harris
City Administer

FROM: C. Peter Curtis 
Assistant City Engineer

DATE: August 3, 1990

SUBJECT: Shadowood Valley Unit 1 Preliminary Cost Estimate
for Water and Sewer Assessments
W.O. No. 90-13 (Doc. No. WO9013:PC)

This memo is in response to Work Order G90-13 dated July 20, 1990. We have completed a preliminary cost estimate to extend the City "STEP" sewer system and water supply system into Shadowood Valley Unit 1. This cost estimate has been separated into two different tasks to simplify the cost and to better enable you to separate the two projects. Both these estimates include all the cost associated with the engineering design, construction, contract administration, and City administration to perform all the work required to complete the two main extensions. It should be noted that these estimates do not include the cost associated with the construction of individual water and sewer services unless described as a well-sewer conflict.

The first task includes the installation of approximately 900 lineal feet of 6-inch HDPE sewer pipe down Nelson Avenue from Lucille Street and then up Greybark Drive to Foothills Circle. This 6-inch main will have two 2-inch laterals providing sewer service to the residences along Foothills and Greybark Circle. Please refer to the attached sketch.

This preliminary sewer extension was estimated without a complete field survey, therefore, some assumptions had to be made. These assumptions are that approximately 50% of all the developed lots will have a well-sewer conflict if the main is constructed. Five of these conflicts will need to be resolved by relocating the private wells and connecting this lot to the City sewer. The other four lot conflicts can be addressed by double piping the sewer main beyond the well protection radii.

Memo to Bob Harris
Shadowood Valley Unit 1
Preliminary Cost Estimate
Page 2, August 3, 1990

The sewer extension has been broken down as follows:

Preliminary Sewer Main Extension Estimate

Sewer Extension without City Water Extension

1. Trench Excavation & Backfill	2,750 LF @ 20.50	\$ 56,375.00
2. Bedding Material	2,750 LF @ 2.50	\$ 6,875.00
3. Classified Fill	2,000 CYS @ 2.75	\$ 5,500.00
4. Disposal of Unsuitable Mat'l	2,500 CYS @ 3.25	\$ 8,125.00
5. 6' Dia. Vaults	7 EA @ 7,000	\$ 49,000.00
6. 4' Dia. Vaults	2 EA @ 4,500	\$ 9,000.00
7. 6" Dia. Uninsulated HDPE	2,050 LF @ 15.50	\$ 35,875.00
8. 2" Dia. Insulated HDPE	720 LF @ 25.25	\$ 18,180.00
9. Well, Sewer Conflicts Private Well & Sewer Relocation	5 EA @ 16,000	\$ 80,000.00
10. Double Wall 6" Main	500 LF @ 14,75	\$ 7,375.00
11. In-line Clean-outs 6"	3 EA @ 1,950	\$ 5,850.00
12. In-line Clean-outs 2"	2 EA @ 1,500	\$ 3,000.00
13. Pigging Ports 6"	4 EA @ 2,950	\$ 11,800.00

Preliminary Construction Estimate \$296,955.00

Engineering Design & Contract Administration \$ 59,000.00
Contingency (15%) \$ 44,500.00

Engineering & Construction Subtotal \$400,455.00

City Administration \$ 20,000.00

Legal Fees, Advertising & Printing \$ 12,000.00

Total Preliminary Estimate \$432,455.00
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The second task includes the extension of a 10-inch water main from the intersection of Nelson and Greybark Drive up Greybark Drive to Foothills Circle. This 10-inch main will have two 8-inch laterals going off it to provide water service to both Greybark Circle and Foothills Circle. This estimate also includes five fire hydrants and valving for future expansions. The water main extension preliminary estimate has been broken down as follows:

Water Main Extension Preliminary Estimate

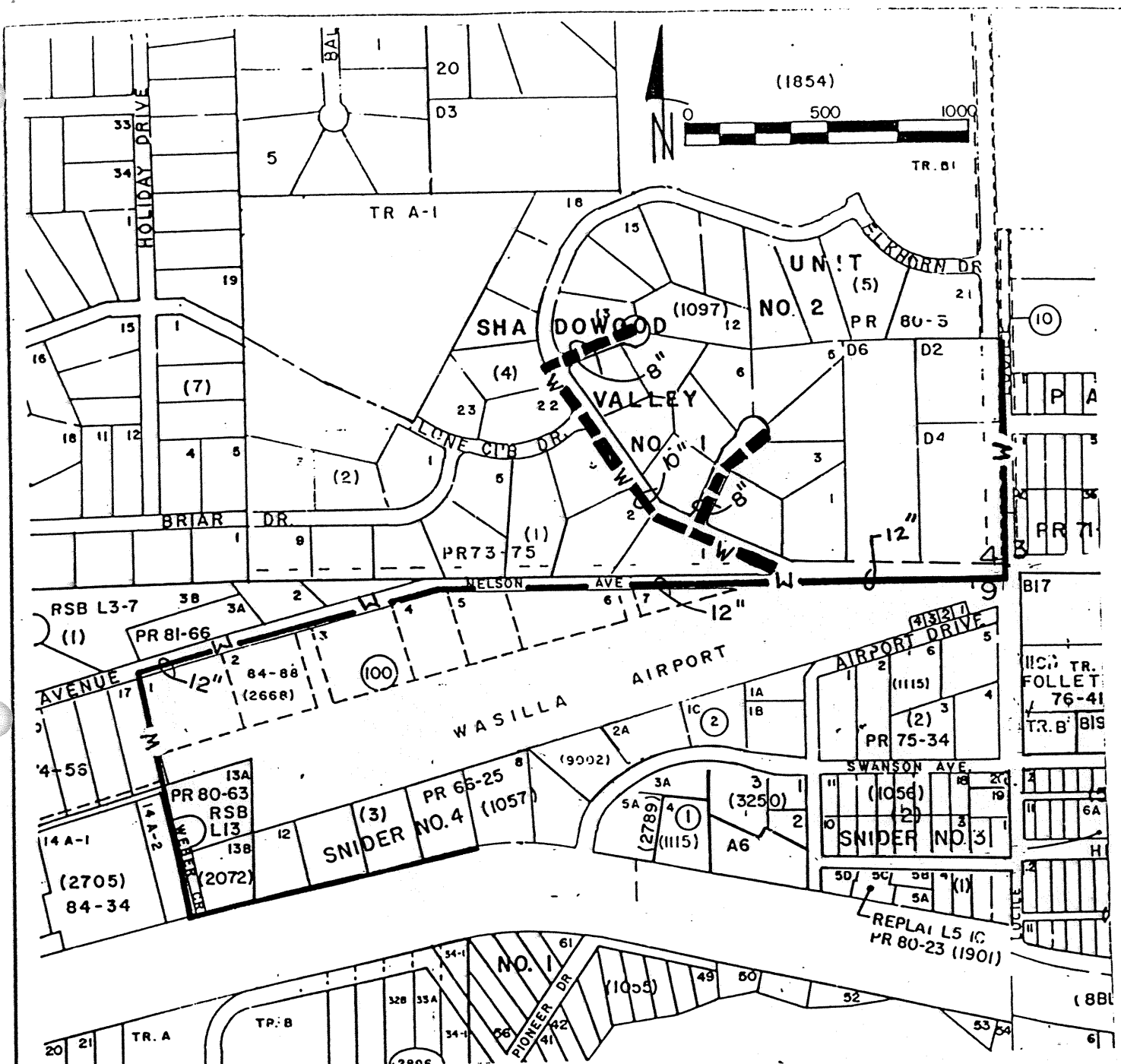
1. Trench Excavation & Backfill	1,870 LF @ 20.50	\$ 38,335.00
2. Classified Fill	1,700 CYS @ 2.75	\$ 4,675.00
3. Disposal of Unsuitable	2,000 CYS @ 3.25	\$ 6,500.00
4. 10" DIP	1,150 LF @ 42.00	\$ 48,300.00
5. 8" DIP	720 LF @ 32.50	\$ 23,400.00
6. 10" Gate Valves	5 EA @ 1,800	\$ 9,000.00
7. 8" Gate Valves	4 EA 1,500	\$ 6,000.00
8. Fire Hydrants	3 EA @ 4,500	\$ 13,500.00
9. Air Release Valve	21 EA @ 1,200	\$ 2,400.00
10. Bedding Material	1,870 LF @ 2.50	\$ 4,675.00

	Preliminary Construction Estimate	\$156,785.00
	Engineering Design and Contract Administration	\$ 31,500.00
	Contingency (15%)	\$ 23,500.00



	Engineering & Construction Subtotal	\$211,785.00
	City Administration	\$ 10,500.00
	Legal Fees, Advertising & Printing	\$ 6,500.00

	Total Preliminary Estimate	\$228,785.00
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It should be understood that these preliminary estimates are to be used only for budget planning purposes for City Capital Improvement Projects (CIP) and that these costs may be reduced or increase once the final design has been completed.



LEGEND

-  EXISTING WATER MAIN
-  PROPOSED WATER MAIN

**PROPOSED WATER EXTENSION TO
SHADOWOOD VALLEY NO. 1**



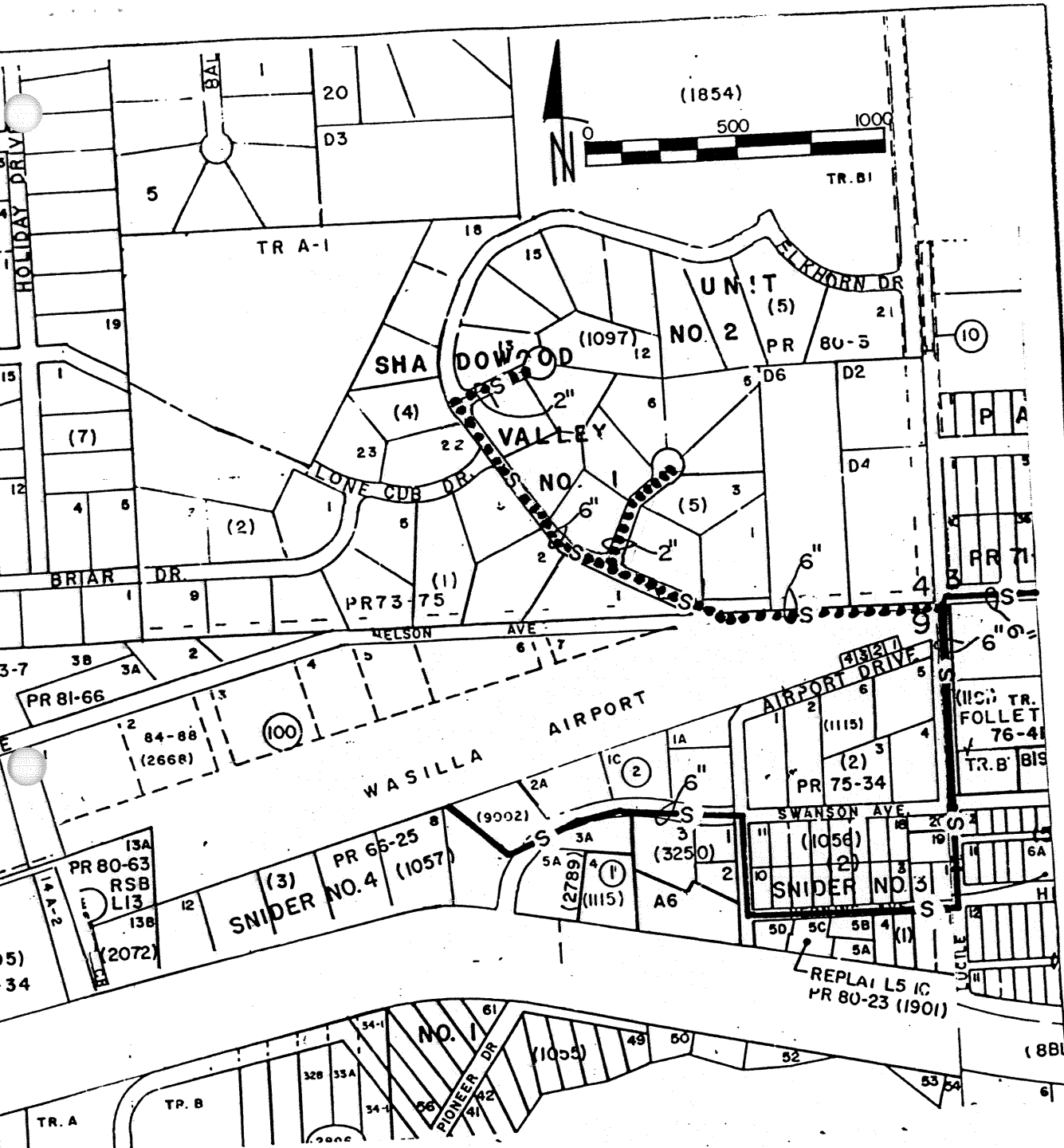
Gilfillan Engineering, Inc.

Bob Gilfillan, P.E. P.O. Box 871868, Wasilla, Alaska 99687 (907) 376-3005

P.N.: W.O. G90-13

DATE: 8/2/90

SCALE: 1" = 500'



LEGEND

- S ——— EXISTING PRESSURE SEWER
- S PROPOSED PRESSURE SEWER

**PROPOSED SEWER EXTENSION TO
SHADOWOOD VALLEY NO. 1**

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