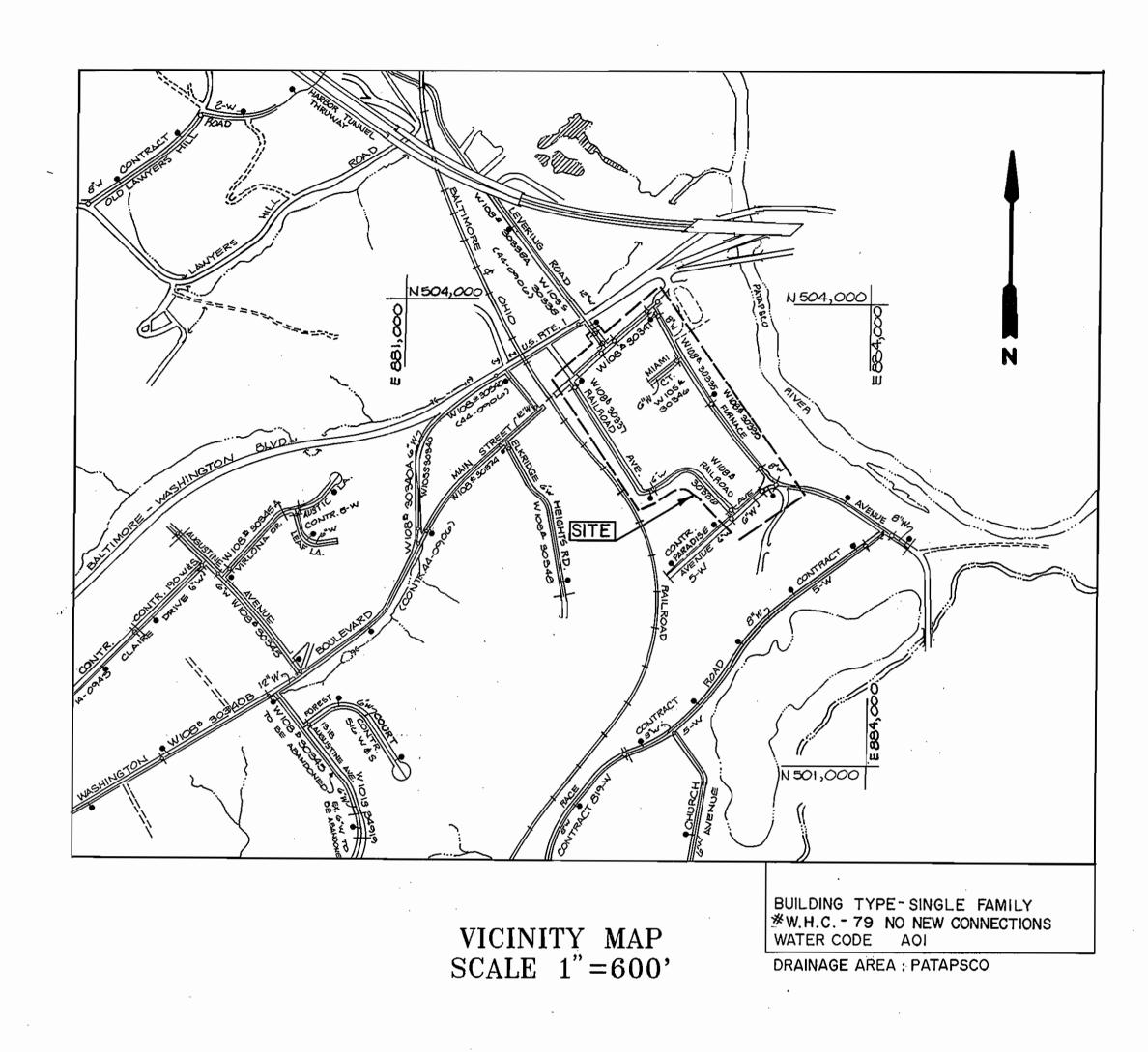
	S		
ITEM	BID	AS-BUILT	MATERIAL/SUPPLIER
CLEAN & LINE UNLINED 6 WATER MAIN	2,345	2,235	CEMENT TYPE II / ALLENTOWN CEMENT CO., GROUT SAND / FOSTER DIXIANA
CLEAN & LINE UNLINED 8" WATER MAIN	2,420	2,342	11
2" TEMPORARY BY-PASS	LUMP SUM		TEMPORARY INSTALLED & REMOVED
4"TEMPORARY BY-PASS & FIRE HYDRANT	LUMP SUM		
REPLACE EXIST. 6" VALVE	5	5	KENNEDY / MUNICIPAL & CONTRACTOR
REPLACE EXIST. 8" VALVE	5	7	KENHEDY / M & C
PROVIDE NEW FIRE HYDRANT & VALVE	1	1	KENNEDY / M & C
REPLACE EXIST. FIRE HYDRANT & VALVE	5	5	KENNEDY / M & C
REPLACE EXISTING IO" VALVE	1	. 1	KENNEDY/ M & C
INSTALL 8"x 8" TEE	I	1	GRIFFIN / M & C
PROVIDE NEW 8" VALVE	1	1	KENNEDY/ M + C
INSTALL 8" WATER MAIN	50 L.F.		GRIFFIN / M & C
INSTALL 3" BLOWOFF	2	2	GRIFFIN / MIC
LG SECTION 5G35 FURACE AVE.	L.S.	1	
			,

SHT. NO. LIST OF DRAWINGS

- I VICINITY MAP & GENERAL NOTES
- 2 PLAN OF WATER MAINS
- 3 PIPING DETAILS



GENERAL NOTES

- 1. APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN AN UNINTERRUPTED SUPPLY, ANY DAMAGE INCURRED TO SAID MAINS AND SERVICES SHALL BE IMMEDIATELY REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 2. ALL HORIZONTAL AND VERTICAL CONTROLS ARE BASED ON MARYLAND STATE DATUM AS ADOPTED BY HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
- 3. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- 4. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS: BALTIMORE GAS & ELECTRIC COMPANY - CONTRACTOR SERVICES 850-4620. BALTIMORE GAS & ELECTRIC COMPANY - UNDERGROUND DAMAGE CONTROL 859-9004 BALTIMORE GAS & ELECTRIC COMPANY-TROUBLESHOOTING 298-9001
- C & P TELEPHONE CO. 1-800-257-7777 COLONIAL PIPELINE COMPANY 795-4444 HOWARD CABLE TELEVISION 461-7017 MISS UTILITY 1-800-257-7777 HOWARD COUNTY BUREAU OF UTILITIES 313-4900
- 5. CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES, CLEAR ALL POLES BY A MINIMUM OF TWO FEET, OR TUNNEL AS REQUIRED.
- 6. FOR DETAILS NOT SHOWN ON THE DRAWINGS AND FOR MATERIALS AND CONSTRUCTION METHODS SEE HOWARD COUNTY DESIGN MANUAL VOLUME IV. STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
- 7, VEGETATIVE AND STRUCTURAL SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED PER ARTICLE 219 DF THE STANDARD SPECIFICATIONS AND THE REQUIREMENTS OF THE MARYLAND STANDARDS AND SPECIFICATIONS OF SOIL EROSION AND SEDIMENT CONTROL DATED 1983 OR LATER REVISIONS.
- 8. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- 9. SHUTDOWNS SHALL BE COORDINATED WITH THE BUREAU OF UTILITIES AT LEAST 48 HOURS IN ADVANCE.
- 10.EXISTING UTILITY INFORMATION SHOWN ON THESE PLANS IS PROVIDED SOLELY FOR THE CONTRACTOR'S CONVENIENCE AND IS NOT GUARANTEED TO BE ACCURATE OR COMPLETE.

ELKRIDGE WATER MAIN IMPROVEMENTS

CAPITAL PROJECT W-8171 CONTRACT NUMBER 44-3126 HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS

ENGINEER'S CERTIFICATION

I certify that this plan for erosion and sediment control represents a practical and workble plan based on my personal knowledge of the site conditions and that t was prepared in accordance with the requirements of the Howard Soil Conservation District.

Tillian R Dhuse Date: 6/20/91 JOHN E. HARMS, JR. & ASSOCIATES, INC. CONSULTING ENGINEERS PASADENA, MD.21122 P.O. BOX 5

DEVELOPER'S CERTIFICATION

"I/WE certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project."

BURKALLOF ENGINEERING

DEPARTMENT OF PUBLIC WORKS

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND

IRECTOR OF PUBLIC WORKS DATE CHIEF BUREAU OF ENGINEERING ACT DATE

HIEF, BUREAU OF UTILITIES DATE

CHIEF UTILITY DESIGN DIVISION

DATE

JOHN E. HARMS, JR. & ASSOCIATES INC. CONSULTING ENGINEERS P.O. BOX 5 PASADENA, MARYLAND 21122 (301) 647-6000



]	DATE: 5/91	BY	NO	3	REVISION	DA
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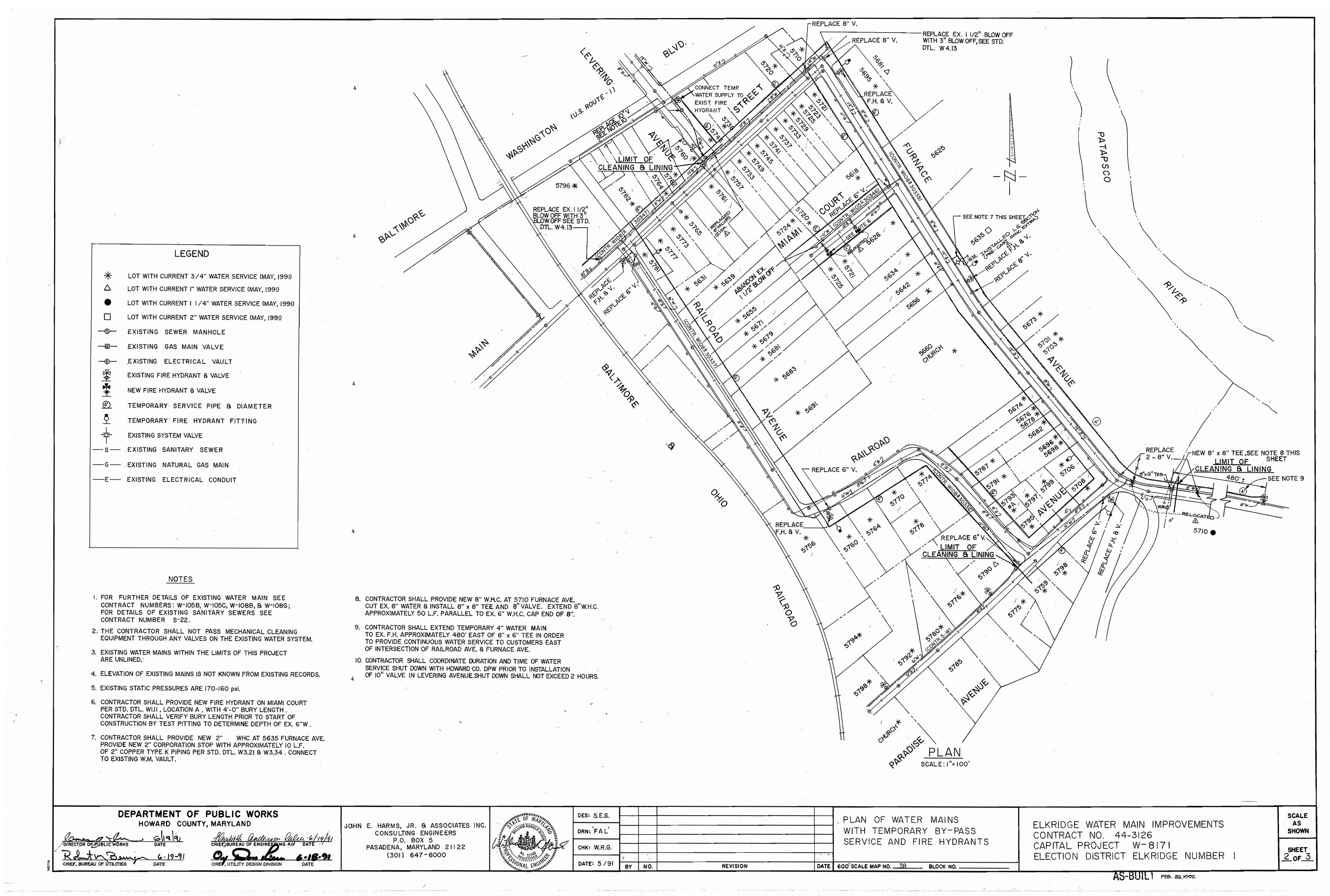
VICINITY MAP & GENERAL NOTES

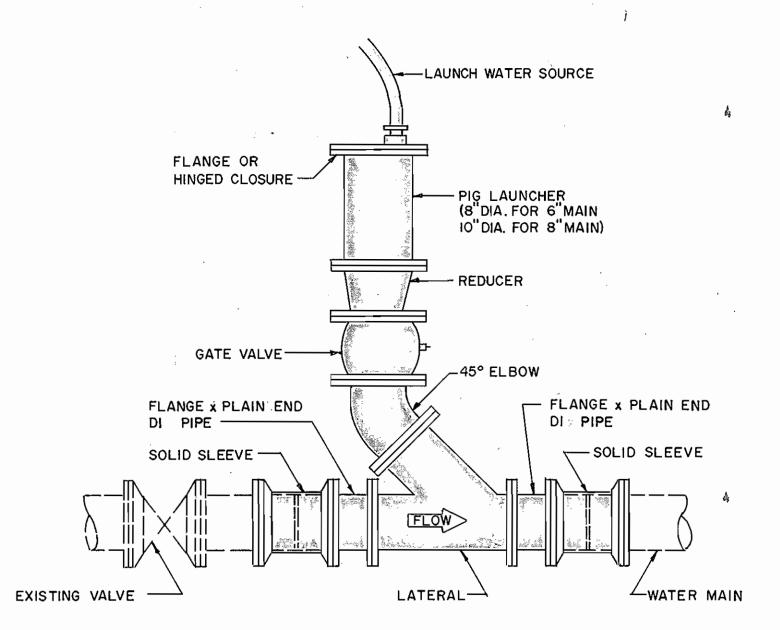
600' SCALE MAP NO. 38 BLOCK NO.

ELKRIDGE WATER MAIN IMPROVEMENTS CONTRACT NO. 44-3126 CAPITAL PROJECT W-8171 ELECTION DISTRICT ELKRIDGE NUMBER SCALE AS SHOWN

SHEET

<u>lof 3</u>





TYPICAL LAUNCHING DEVICE FOR HYDRAULIC PIPELINE CLEANING (PIGGING)

NOT TO SCALE

SEQUENCE OF INSTALLATION

- I. CUT PIPELINE & INSTALL LAUNCHER W/SLEEVES.
- PERFORM PIGGING OPERATION.
- 3. REMOVE LAUNCHER & INSTALL REPLACEMENT LINE SIZE DI PIPE SECTION W/SLEEVES.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

JOHN E. HARMS, JR. & ASSOCIATES INC.

CONSULTING ENGINEERS

P.O. BOX 5

PASADENA, MARYLAND 21122

(301) 647-6000



D.	DATE:	BY	NO.	REVISION	DATE	600' SCALE MAP NO	BLOCK NO
	DATE:						
	снк: W.R.G.						
	DRN: 'FAL'						
	<i>DES.</i> 3.E.3.					PIPING	DETAIL
	DES: S.E.S.						

DETAILS.

ELKRIDGE WATER MAIN IMPROVEMENTS CONTRACT NO. 44-3126 CAPITAL PROJECT W-8171 ELECTION DISTRICT ELKRIDGE NUMBER SCALE AS SHOWN

SHEET 3 OF 3