

# NEW CUT ROAD WATER EXTENSION

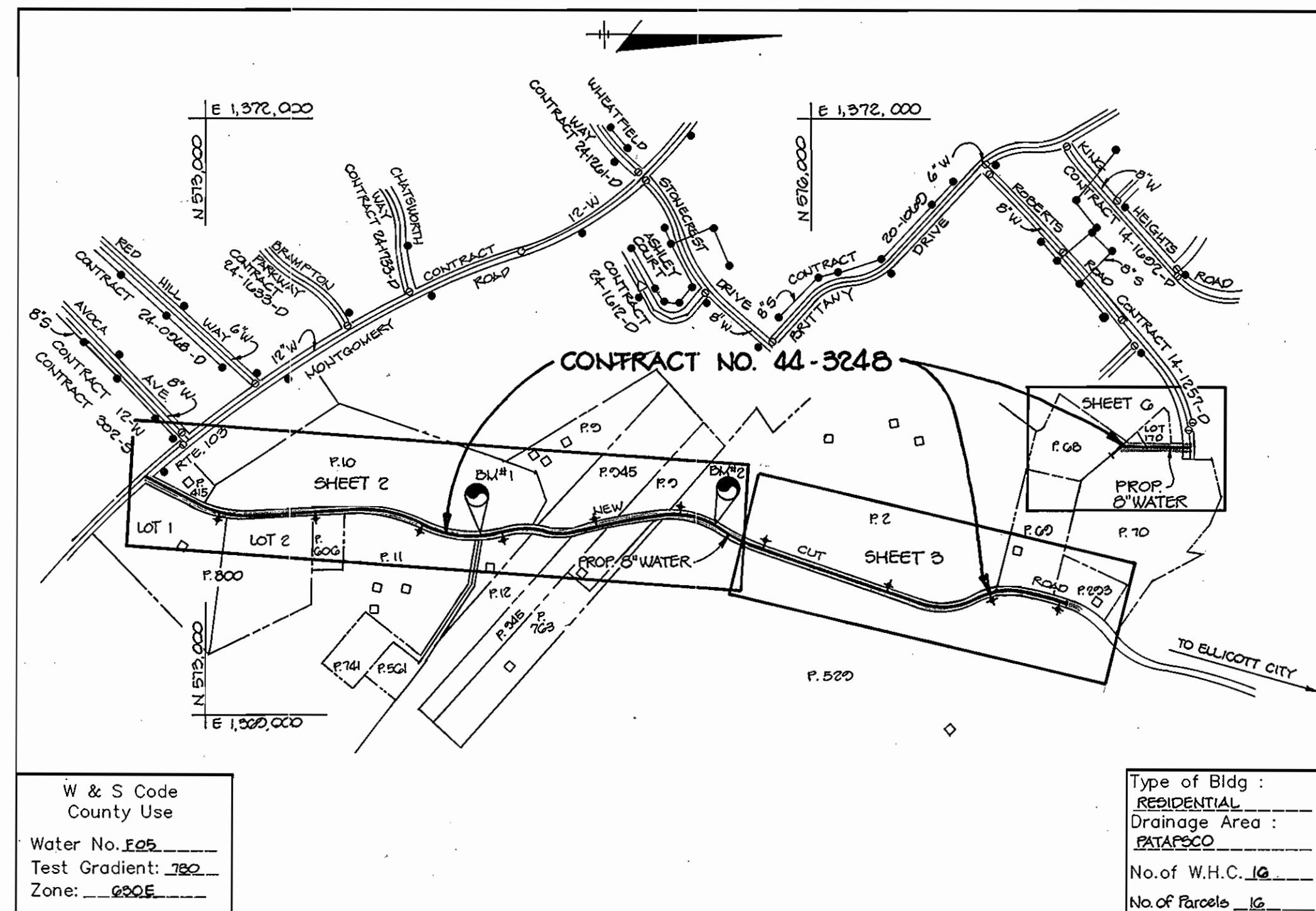
## CAPITAL PROJECT W-8193

### CONTRACT NO. 44-3248

### 2nd ELECTION DISTRICT

AS-BUILT  
ws/1 New Cut Rd. H2O ext. C.P. # W-8193  
3248

QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER
8" WATER	5970 LF			
6" WATER	140 LF			
6" FIRE HYDRANT	10 EA			
12"x8" TB & V	1 EA			
8" VALVE	4 EA			
6" VALVE	10 EA			
8" CAP	2 EA			
8"x6" TEE	10 EA			
AIR RELEASE VALVE & MANHOLE	2 EA			
1" WHC	204 LF			
8"x8" TB & V	1 EA			
3/4" WHC	40 LF			
BLOWOFF	1 EA			
NAME OF UTILITY CONTRACTOR :				
CHECKBOX				
AS-BUILT DATE				
SURVEY AND DRAFTING DIVISION				



#### GENERAL NOTES

- Approximate location of existing mains are shown. The contractor shall take all necessary precautions to protect existing mains and services and maintain uninterrupted supply. Any damage incurred shall be repaired immediately to the satisfaction of the Engineer at the Contractor's expense.
- All horizontal controls are based on Maryland State Coordinates.
- All vertical controls are based on U.S.G.S. data.
- All pipe elevations shown are invert elevations unless otherwise noted on plans.
- Clear all utilities by a minimum of 6". Clear all poles by 2'-0" minimum or tunnel as required. The owner has contacted the utility companies and has made arrangements for bracing of poles as shown on the drawings. In the event the contractor's work requires the bracing of additional poles, any cost incurred by the owner for bracing of additional poles or damages shall be deducted from money owed the contractor. The contractor shall coordinate with the utility companies to schedule the bracing of the poles.
- For details not shown on the drawings, and for materials and construction methods use Howard County Design Manual, Volume IV, Standard Specifications and Detail for Construction. (Latest Edition). The contractor shall have a copy of Volume IV on the job.
- Where test pits have been made on existing utilities, they are noted by the symbol at the location of the test pit. A note or notes containing the results of the test pit or pits is included on the drawings. Existing utilities in the vicinity of the proposed work for which test pits have not been dug shall be located by the contractor two weeks in advance of construction operations at his own expense.
- Contractor shall notify the following utilities companies or agencies at least five working days before starting work shown on these plans:
 

American Telephone and Telegraph	655-3808
Baltimore Gas & Electric Co. Trouble Shooting	228-2040
State Highway Administration	531-5533
Baltimore Gas & Electric Co. Contractor Services	850-4620
Baltimore Gas & Electric Co. Underground Damage Control	787-9068
Miss Utility	1-800-257-7777
Colonial Pipeline Co.	795-1390
Bureau of Utilities, Howard County Department of Public Works	313-4900
Chesapeake & Potomac Telephone Co.	997-8505
- Trees and shrubs are to be protected from damage to maximum extent. Trees and shrubs located within the construction strip are not to be removed or damaged by the contractor.
- Contractor shall remove trees, stumps and roots along line of excavation. Payment for such removal shall be included in the unit price bid for construction of the main.
- All water mains to be D.I.P. Class 52 unless otherwise noted.
- Tops of all water mains to have a minimum of 3-1/2' cover unless otherwise noted.
- Valves adjacent to tees shall be strapped to tees.
- All fittings shall be buttressed or anchored with concrete in accordance with the Standard Details unless otherwise provided for on the drawings.
- Fire hydrants shall be set to the bury line elevations shown on the drawings. All fire hydrants shall be strapped and buttressed with concrete in accordance with Standard Details. Soil around the fire hydrant shall be compacted in accordance with Section 1000 and 1005 of the Standard Specifications.
- The contractor shall not operate any water main valves on the existing water system.
- All water house connections shall be for inside meter setting unless otherwise noted on plans or in specifications.
- Topography provided by Riemer Muegge & Associates, Inc., November, 1992.
- The 100 year Floodplain is from the Howard County Watershed Study, Tiber-Hudson Drainage Basin.
- The contractor shall notify the Bureau of Highways, Howard County, at (410) 318-2450 at least five working days before any open cut or any County road or boring/jacking operation in County roads for laying water/sewer mains or house connections. The approval of these drawings will constitute compliance with DPW requirements per Section 18.114(6) of the Howard County Code.
- Denotes soil boring. See specifications for soils report as prepared by E261.
- Length of open trench is limited to three pipe lengths or that which will be backfilled and stabilized in one work day, whichever is shorter.
- Coordinates for PC's, PT's, fire hydrants, manholes, etc. based on NAD83 datum are published in Field Book #263.

#### BENCH MARKS

B.M. #1 ELEV. 442.83  
RAILROAD SPIKE IN 6" POLE #05180  
WEST SIDE NEW CUT ROAD 50' NORTH  
OF T.P. #5.

B.M. #2 ELEV. 402.83  
RAILROAD SPIKE IN 6" POLE #05165  
WEST SIDE NEW CUT ROAD 70' NORTH  
OF T.P. #5.

<p>BY THE DEVELOPER :</p> <p>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 DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.</p> <p><i>James M. Zelnick</i> 1/03 5/20/93 DATE</p> <p>U.S. SOIL CONSERVATION SERVICE</p>	<p>BY THE ENGINEER :</p> <p>I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.</p> <p><i>Arthur E. Muegge</i> ENGINEER DATE</p> <p><i>James M. Zelnick</i> 1/03 5/20/93 DATE</p> <p>HOWARD SOIL CONSERVATION DISTRICT</p>
<p>THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.</p>	<p>THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.</p>
<p>SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 210 OF THE SPECIFICATIONS.</p> <p><i>James M. Zelnick</i> 1/03 5/20/93 DATE</p> <p>HOWARD SOIL CONSERVATION DISTRICT DEVELOPER</p>	

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

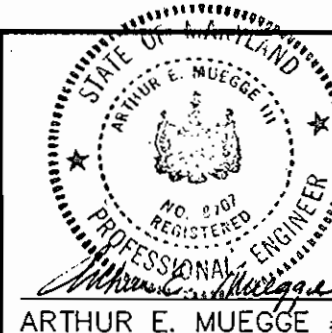
*James M. Zelnick* 5/20/93  
DIRECTOR OF PUBLIC WORKS DATE

*Robert M. Buehler* 5-25-93  
CHIEF, BUREAU OF UTILITIES DATE

*James M. Zelnick* 5-26-93  
CHIEF, BUREAU OF ENGINEERING DATE

*Arthur E. Muegge* 5-14-93  
CHIEF, WATER/SEWER DESIGN DIVISION DATE

RIEMER MUEGGE & ASSOCIATES, INC.  
A Land Planning, Engineering and Consulting Firm  
8818 Centre Park Drive • Suite 200 • Columbia, Md 21045  
410-997-8900 FAX : 410-997-9282



DES: GJR			
DRN: DAM			
CHK: JDP			
DATE: 1-20-93	BY	NO.	
	REVISION	DATE	

TITLE SHEET

600' SCALE MAP NO. 22121 BLOCK NO. 117

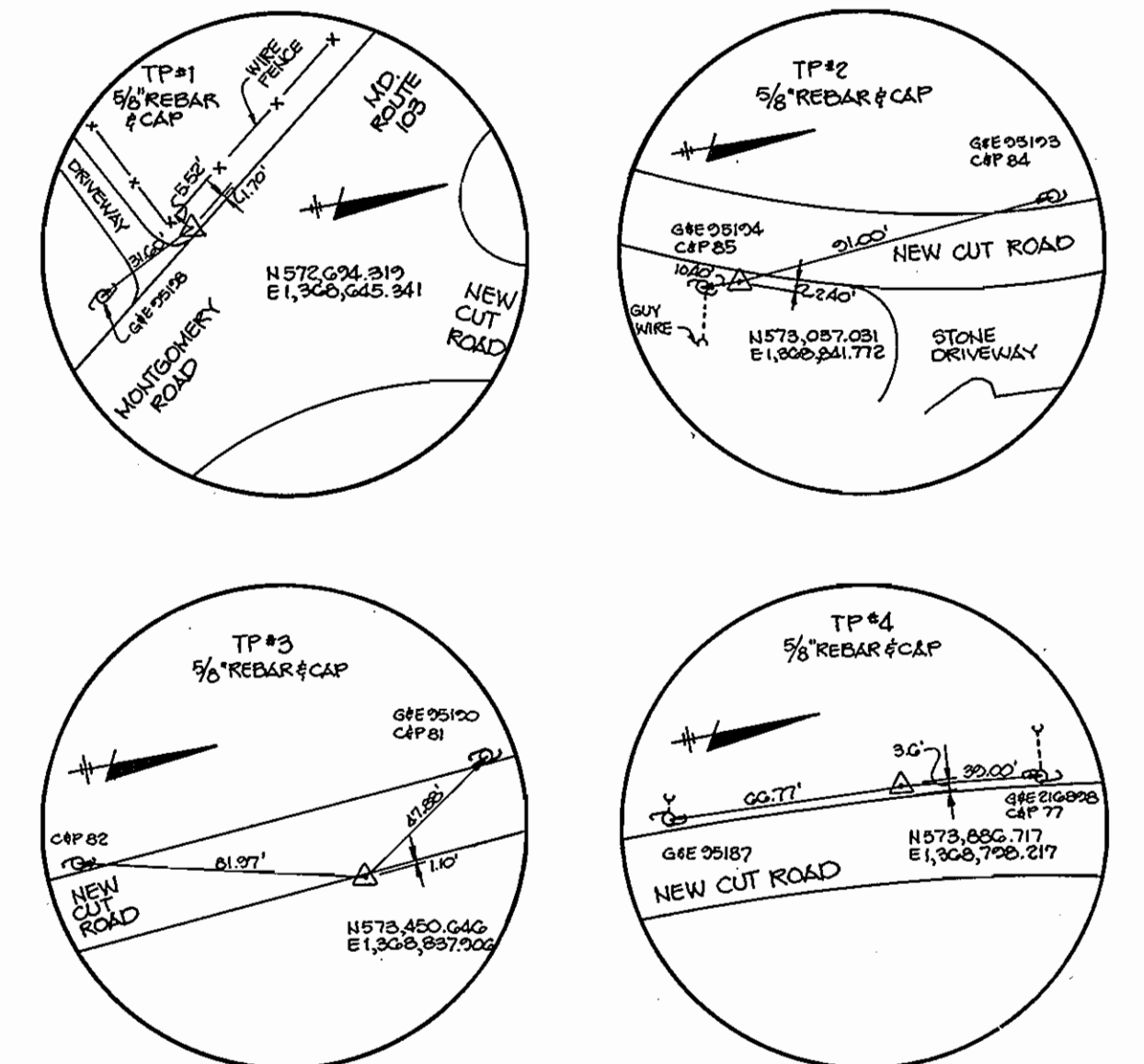
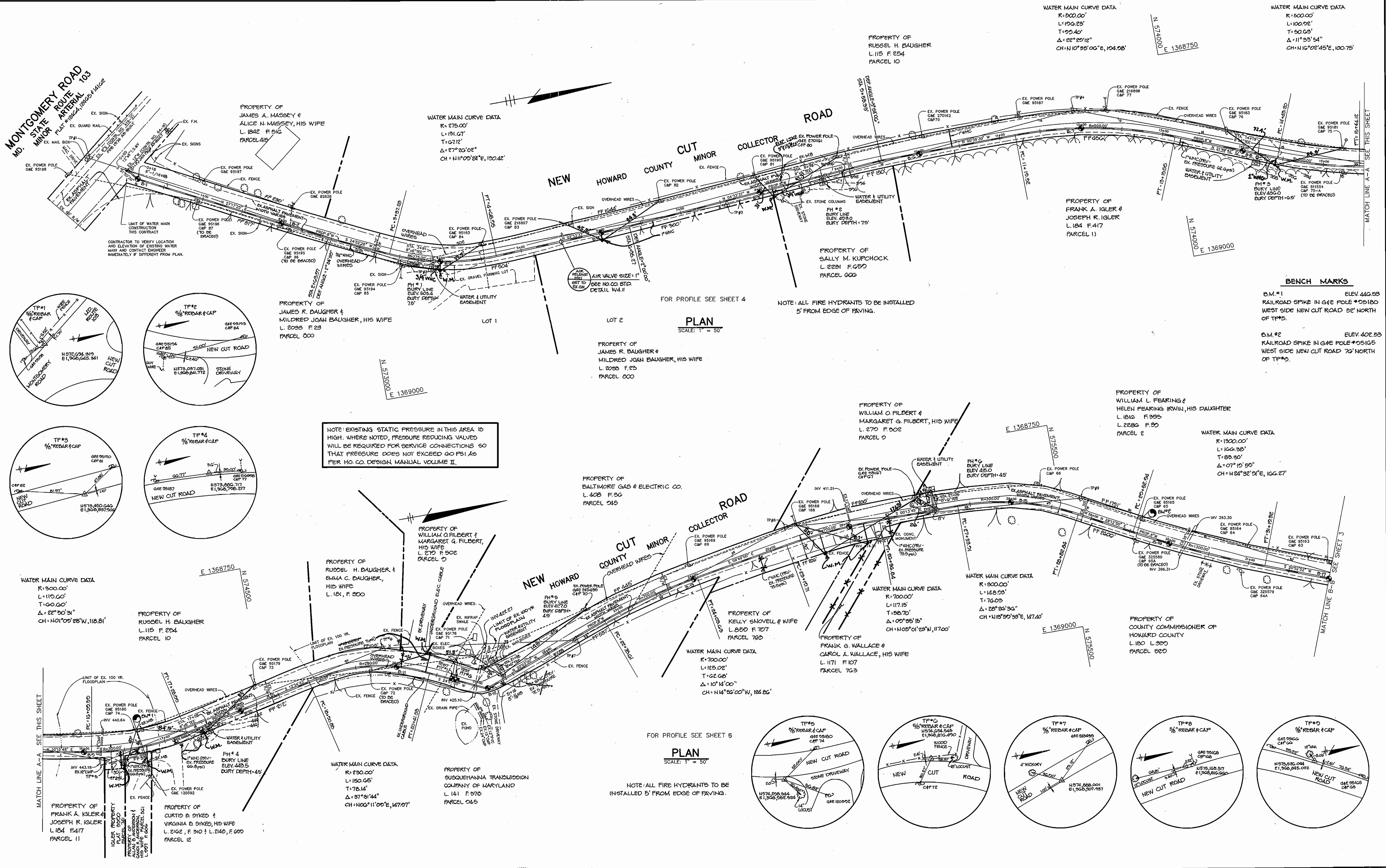
NEW CUT ROAD WATER EXTENSION  
CAPITAL PROJECT W-8193  
CONTRACT NO. 44-3248  
2nd ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 1 OF 6

AS-BUILT

3248 ws/2 New Cut Rd. H2O ext. C.P.# W-8193

AS-BUILT



NOTE: EXISTING STATIC PRESSURE IN THIS AREA IS HIGH. WHERE NOTED, PRESSURE REDUCING VALVES WILL BE REQUIRED FOR SERVICE CONNECTIONS SO THAT PRESSURE DOES NOT EXCEED 60 PSI AS PER HO. CO. DESIGN MANUAL VOLUME II.

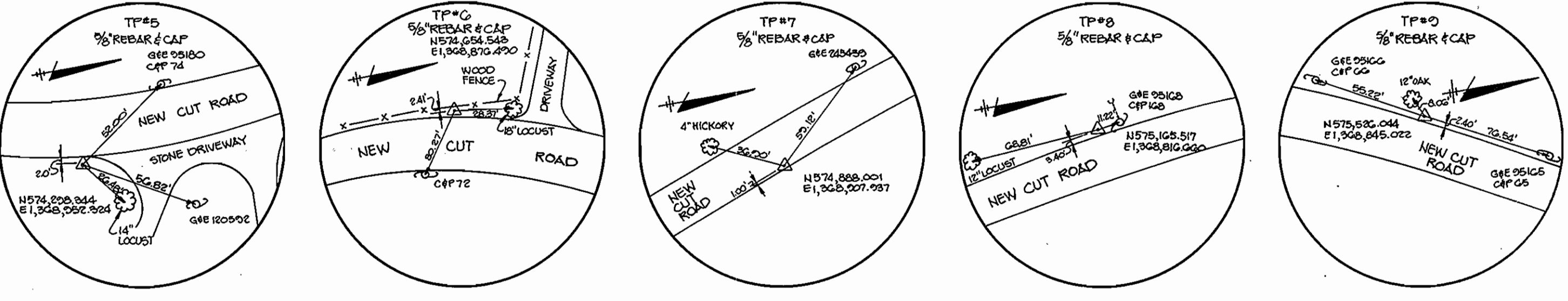
WATER MAIN CURVE DATA  
 R=300.00'  
 L=110.00'  
 T=60.00'  
 Δ=22°30'31"  
 CH=N01°09'28"W, 110.81'

PROPERTY OF  
 RUSSEL H. BAUGHER  
 L.115 F.254  
 PARCEL 10

WATER MAIN CURVE DATA  
 R=230.00'  
 L=150.05'  
 T=78.14'  
 Δ=37°31'44"  
 CH=N00°11'00"E, 147.07'

PROPERTY OF  
 SUSQUEHANNA TRANSDUCION  
 COMPANY OF MARYLAND  
 L.141 F.070  
 PARCEL 24.5

FOR PROFILE SEE SHEET 5  
**PLAN**  
 SCALE: 1" = 50'  
 NOTE: ALL FIRE HYDRANTS TO BE INSTALLED 5' FROM EDGE OF PAVING.



WATER MAIN CURVE DATA  
 R=1300.00'  
 L=100.30'  
 T=83.30'  
 Δ=07°10'50"  
 CH=N24°32'51"E, 100.27'

PROPERTY OF  
 COUNTY COMMISSIONER OF  
 HOWARD COUNTY  
 L.180 L.300  
 PARCEL 520

PROPERTY OF  
 FRANK G. WALLACE &  
 CAROL A. WALLACE, HIS WIFE  
 L.1171 F.107  
 PARCEL 70.3

WATER MAIN CURVE DATA  
 R=700.00'  
 L=117.15'  
 T=58.70'  
 Δ=09°35'15"  
 CH=N05°01'25"W, 117.00'

WATER MAIN CURVE DATA  
 R=700.00'  
 L=125.02'  
 T=62.66'  
 Δ=10°14'00"  
 CH=N14°52'00"W, 125.86'

PROPERTY OF  
 BALTIMORE GAS & ELECTRIC CO.  
 L.408 F.86  
 PARCEL 24.5

PROPERTY OF  
 RUSSEL H. BAUGHER &  
 BUNIA C. DAUGHER,  
 HIS WIFE  
 L.124, F.200

PROPERTY OF  
 WILLIAM O. FILBERT &  
 MARGARET G. FILBERT,  
 HIS WIFE  
 L.270 F.502  
 PARCEL 2

PROPERTY OF  
 WILLIAM L. FEARING &  
 HELEN FEARING IRWIN, HIS DAUGHTER  
 L.1816 F.935  
 L.2280 F.930  
 PARCEL 2

WATER MAIN CURVE DATA  
 R=1300.00'  
 L=100.30'  
 T=83.30'  
 Δ=07°10'50"  
 CH=N24°32'51"E, 100.27'

PROPERTY OF  
 WILLIAM O. FILBERT &  
 MARGARET G. FILBERT, HIS WIFE  
 L.270 F.502  
 PARCEL 2

PROPERTY OF  
 KELLY SNOVELL & WIFE  
 L.850 F.707  
 PARCEL 70.5

PROPERTY OF  
 JAMES R. DAUGHER &  
 MILDRED JOAN DAUGHER, HIS WIFE  
 L.2055 F.23  
 PARCEL 000

FOR PROFILE SEE SHEET 4  
**PLAN**  
 SCALE: 1" = 50'

NOTE: ALL FIRE HYDRANTS TO BE INSTALLED 5' FROM EDGE OF PAVING.

PROPERTY OF  
 JAMES R. DAUGHER &  
 MILDRED JOAN DAUGHER, HIS WIFE  
 L.2055 F.23  
 PARCEL 000

PROPERTY OF  
 JAMES A. MASSEY &  
 ALICE N. MASSEY, HIS WIFE  
 L.1842 F.516  
 PARCEL 415

WATER MAIN CURVE DATA  
 R=275.00'  
 L=131.07'  
 T=62.12'  
 Δ=27°20'02"  
 CH=N11°09'28"E, 130.42'

PROPERTY OF  
 RUSSEL H. BAUGHER  
 L.115 F.254  
 PARCEL 10

WATER MAIN CURVE DATA  
 R=300.00'  
 L=100.00'  
 T=60.00'  
 Δ=22°30'12"  
 CH=N10°35'00"E, 104.08'

WATER MAIN CURVE DATA  
 R=500.00'  
 L=100.00'  
 T=60.00'  
 Δ=11°33'54"  
 CH=N10°02'45"E, 100.75'

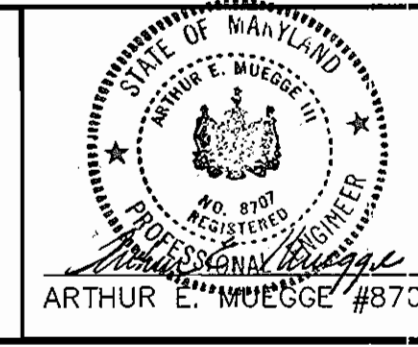
**BENCH MARKS**

B.M.#1 ELEV. 446.53  
 RAILROAD SPIKE IN G&E POLE #05180  
 WEST SIDE NEW CUT ROAD 52' NORTH  
 OF TP#5.  
 B.M.#2 ELEV. 402.53  
 RAILROAD SPIKE IN G&E POLE #05165  
 WEST SIDE NEW CUT ROAD 72' NORTH  
 OF TP#5.

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

James A. Massey 5-26-93  
 DIRECTOR OF PUBLIC WORKS DATE  
 Robert B. Berman 5-25-93  
 CHIEF, BUREAU OF UTILITIES DATE  
 Raymond B. Berman 5-26-93  
 CHIEF, BUREAU OF ENGINEERING DATE  
 O. J. Donlin 5-14-93  
 CHIEF, WATER & SEWER DESIGN DIVISION DATE

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 8818 Centre Park Drive • Suite 200 • Columbia, Md 21045  
 410-997-8900 FAX: 410-997-9282



DES: CJR					
DRN: DAM					
CHK: JDP					
DATE: 1-28-93	BY	NO.	REVISION	DATE	

PLAN OF A WATER MAIN

NEW CUT ROAD WATER EXTENSION  
 CAPITAL PROJECT W-8193  
 CONTRACT NO. 44-3248  
 2nd ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
 SHEET 2 OF 2

AS-BUILT 9/19/94

3248 ws/3 New Cut Rd. H2O ext. C.P.# W-8193

AS-BUILT

NOTE: EXISTING STATIC PRESSURE IN THIS AREA IS HIGH. WHERE NOTED, PRESSURE REDUCING VALVES WILL BE REQUIRED FOR SERVICE CONNECTIONS SO THAT PRESSURE DOES NOT EXCEED 60 PSI AS PER HO. CO. DESIGN MANUAL VOLUME II.

NOTE: ALL FIRE HYDRANTS TO BE INSTALLED 5' FROM EDGE OF PAVING.

BENCH MARKS

BM #3 ELEV 502.20  
RAILROAD SPIKE IN B&O POLE #35147 ON WEST SIDE NEW CUT ROAD 30' WEST OF TP#13.  
BM #4 ELEV 547.61  
RAILROAD SPIKE IN B&O POLE #35141 ON EAST SIDE NEW CUT ROAD 185' NORTH OF TP#15.

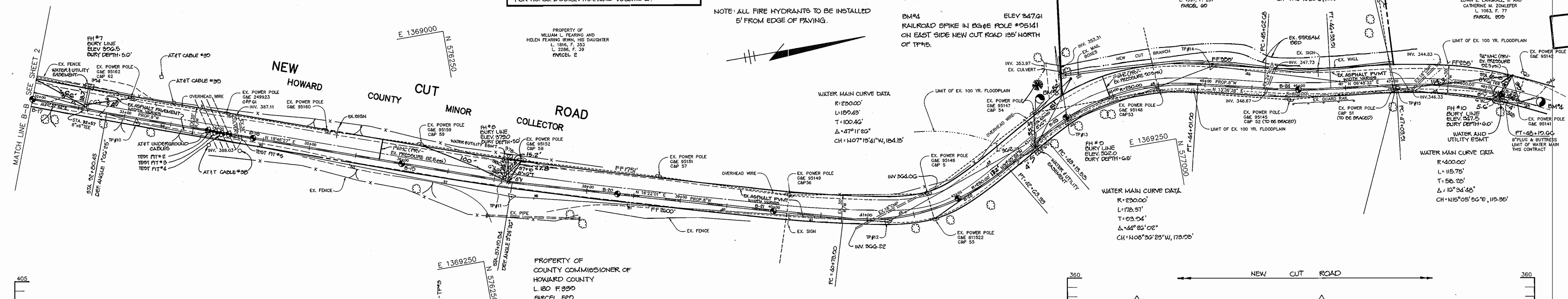
WATER MAIN CURVE DATA

WATER MAIN CURVE DATA  
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L=71.29'  
T=35.66'  
Δ=00°28'00"  
CH=N 107°12'35"E, 71.10'

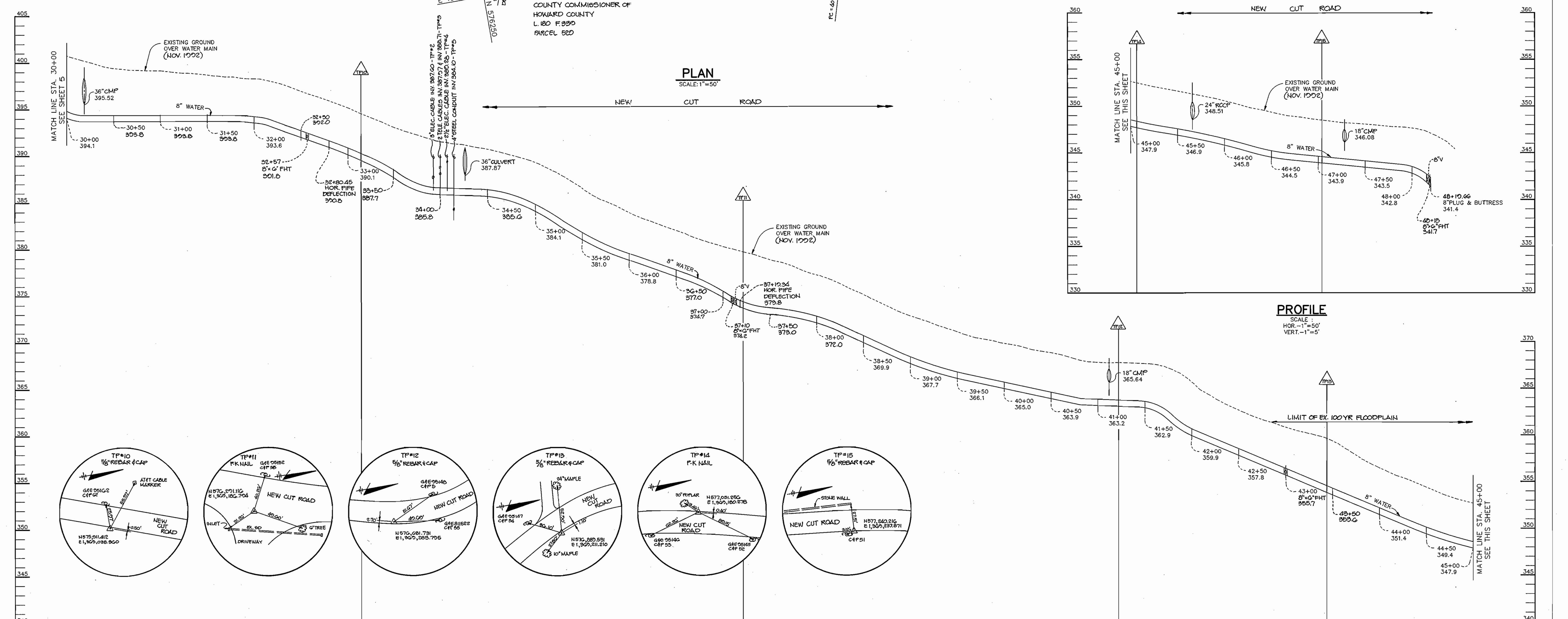
WATER MAIN CURVE DATA  
R=2300.00'  
L=180.46'  
T=100.46'  
Δ=47°11'00"  
CH=N 07°15'41"W, 184.15'

WATER MAIN CURVE DATA  
R=2300.00'  
L=172.31'  
T=93.04'  
Δ=44°02'02"  
CH=N 08°30'25"W, 173.05'

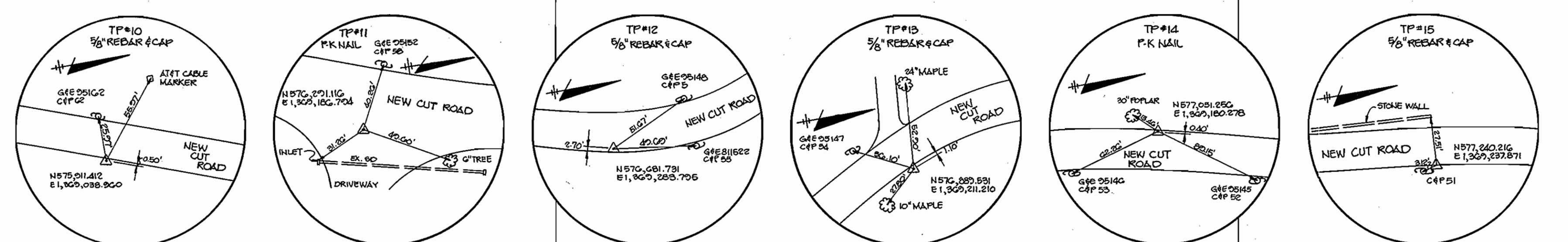
WATER MAIN CURVE DATA  
R=4000.00'  
L=115.75'  
T=56.22'  
Δ=10°34'48"  
CH=N 15°05'50"E, 115.35'



PLAN SCALE: 1"=50'



PROFILE SCALE: HOR.-1"=50' VERT.-1"=5'



PROFILE SCALE: HOR.-1"=50' VERT.-1"=5'

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

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410-997-8900 FAX: 410-997-9282

ARTHUR E. MUEGGE #8707

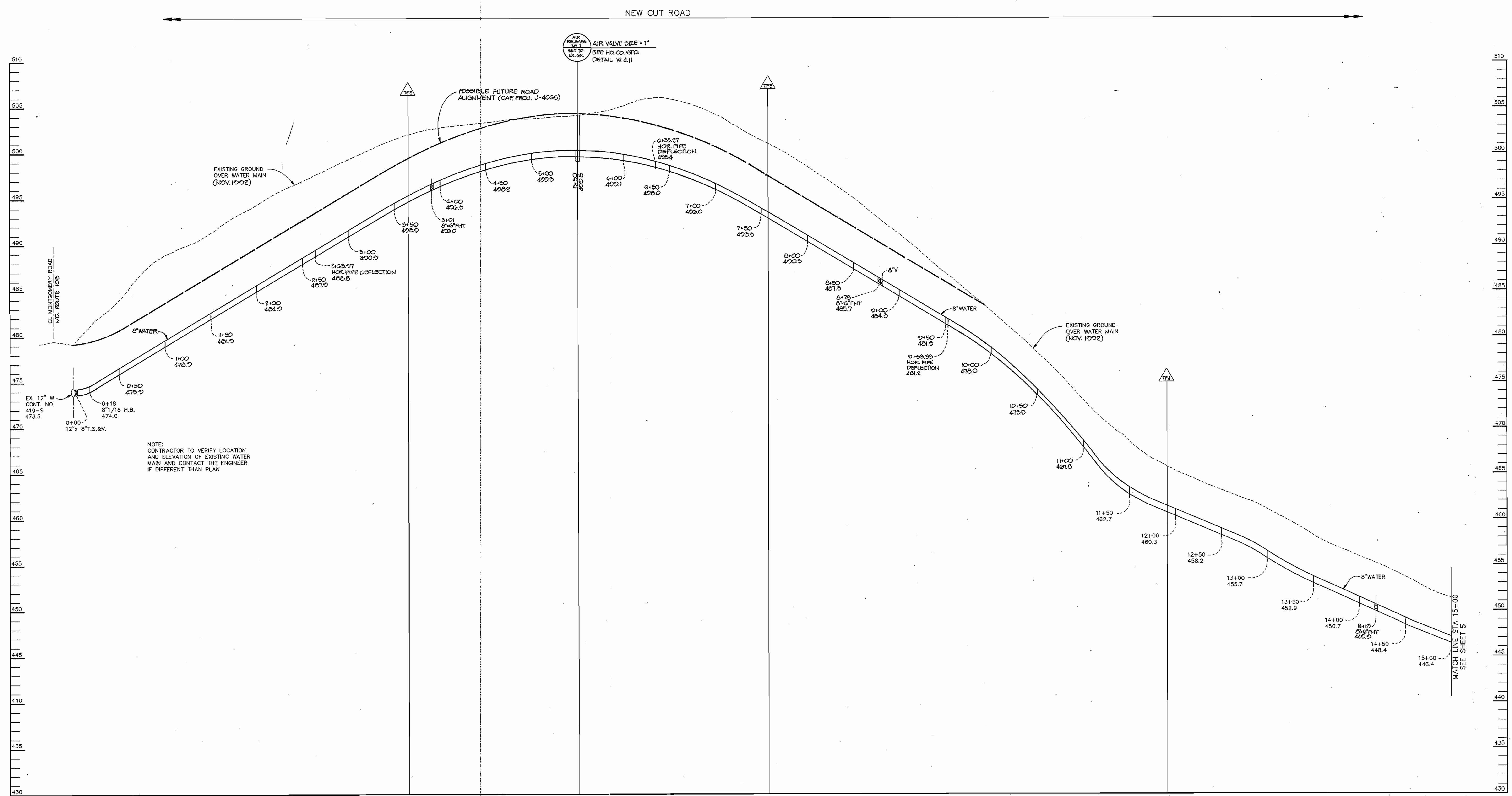
DES: CJR  
DRN: DMW/DES  
CHK: JDP  
DATE: 1-20-03

NEW CUT ROAD WATER EXTENSION  
CAPITAL PROJECT W-8193  
CONTRACT NO. 44-3248  
2nd ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 3 OF 6

600' SCALE MAP NO. 25 & 31 BLOCK NO. 10 & 17

3248 ws/4 New Cut Rd. H<sub>2</sub>O ext. C.P.# W-8193 AS-BUILT

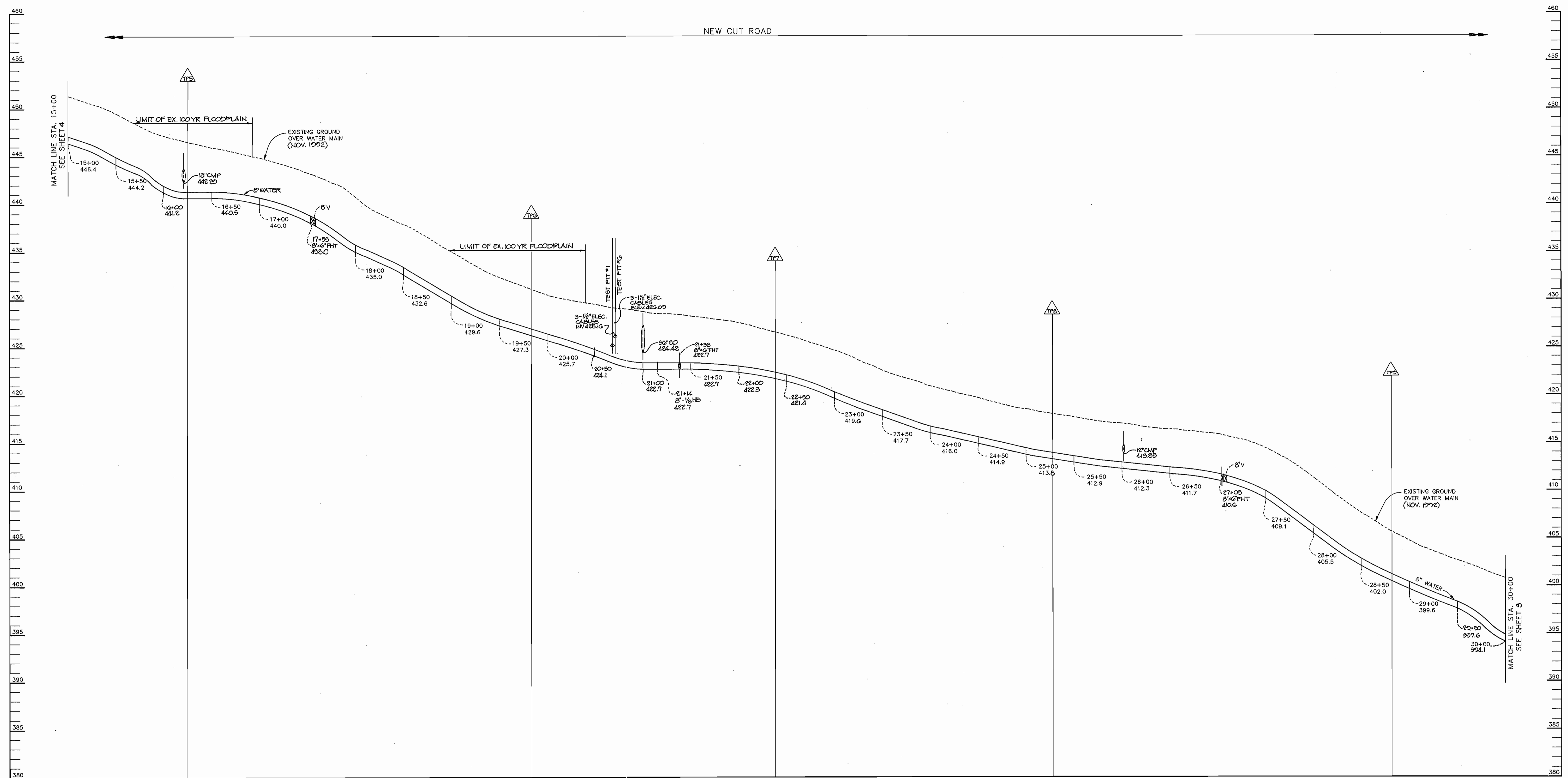


**PROFILE**  
 SCALE:  
 HOR. - 1" = 50'  
 VERT. - 1" = 5'

<b>DEPARTMENT OF PUBLIC WORKS</b> HOWARD COUNTY, MARYLAND Director: <i>[Signature]</i> 5/26/93 Chief, Bureau of Utilities: <i>[Signature]</i> 5-25-93		<b>RIEMER MUEGGE &amp; ASSOCIATES, INC.</b> A Land Planning, Engineering and Consulting Firm 8818 Centre Park Drive • Suite 200 • Columbia, Md 21045 410-997-8900 FAX: 410-997-9282 Chief, Water & Sewer Design Division: <i>[Signature]</i> 5-11-93		DES: CJR DRN: MAD/OBS CHK: JDP DATE: 1-28-93		<b>PROFILE OF A WATER MAIN</b> 600' SCALE MAP NO. 25-201 BLOCK NO. 10 & 17		<b>NEW CUT ROAD WATER EXTENSION</b> CAPITAL PROJECT W-8193 CONTRACT NO. 44-3248 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND		SCALE AS SHOWN SHEET 4 OF 6
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AS-BUILT

3248 ws/5 New Cut Rd. H<sub>2</sub>O ext. C.P.# W-8193



PROFILE  
SCALE  
HOR. - 1"=50'  
VERT. - 1"=5'

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*James J. ...* 5/26/93  
DIRECTOR OF PUBLIC WORKS DATE

*... 5-24-93*  
CHIEF, BUREAU OF ENGINEERING DATE

*... 5-14-93*  
CHIEF, WATER & SEWER DESIGN DIVISION DATE

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A Land Planning, Engineering and Consulting Firm  
8818 Centre Park Drive • Suite 200 • Columbia, Md 21045  
410-997-8900 FAX : 410-997-9282



DES: CJR				
DRN: DBS				
CHK: JDP				
DATE: 1-28-93	BY	NO.	REVISION	DATE

PROFILE OF A WATER MAIN

NEW CUT ROAD WATER EXTENSION  
CAPITAL PROJECT W-8193  
CONTRACT NO. 44-3248  
2nd ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 5 OF 6

