

SHEET INDEX	
NO	DESCRIPTION
1	TITLE SHEET
2	PLAN OF A WATER MAIN
3	PROFILES OF WATER MAINS

WATER EXTENSION

TROY HILL CORPORATE CENTER

PARCEL A-25

1st ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

CONTRACT NO. 44-3941-D

BENCHMARKS

BM#1 ELEV. 172.646
 HOWARD COUNTY SURVEY CONTROL : 2445005
 N 494589.822 E 869841.619

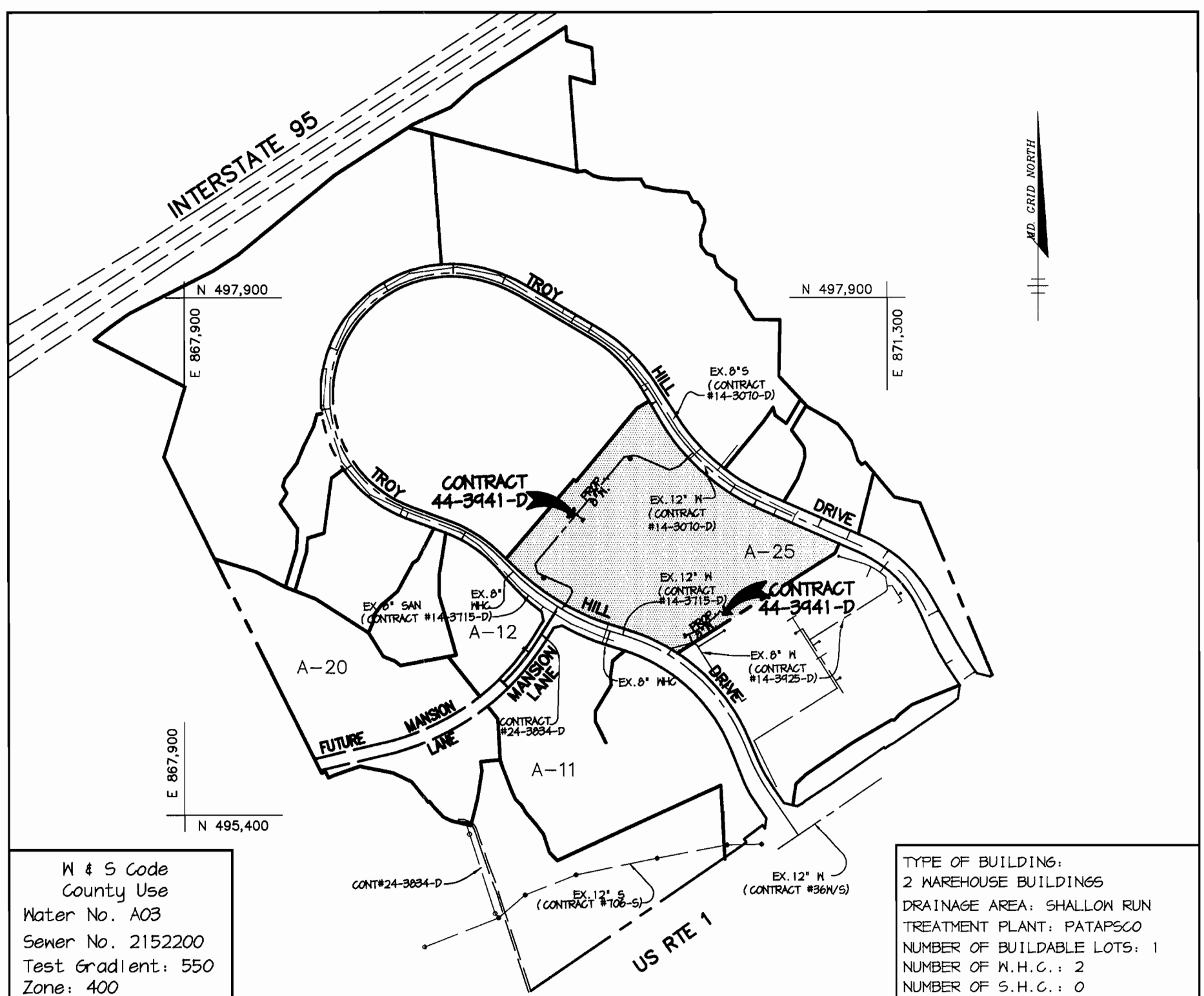
BM#2 ELEV. 198.344
 HOWARD COUNTY SURVEY CONTROL : 2445006
 N 493030 E 868100

(COORDINATES ARE NAD27)

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.
- 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 utility companies or agencies at least five working days before starting work shown on these plans:

State Highway Administration	531-5533
Baltimore Gas & Electric Co. Contractor Services	850-4620
Baltimore Gas & Electric Co. Underground Damage Control	787-0668
Miss Utility	1-800-251-7111
Colonial Pipeline Co.	745-1340
Bureau of Utilities, Howard County Department of Public Works	313-4400
- 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 restrained 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.
- Contractor is solely responsible for construction means, methods, techniques, sequences, procedures, and safety precautions and programs.
- The fire hydrant shall be installed as per standard detail H.1.1.1.
- Fire hydrants will be located 3' FROM BACK OF CURB unless otherwise noted.
- For sprinkler systems, all townhomes or multi-family dwelling units should have a minimum of 1" connection with a 3/4" meter.
- The contractor shall notify the Bureau of Highways, Howard County, at (410) 313-7450 at least five (5) working days before any open cut of 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 DPN requirements per Section 18.114(a) of the Howard County Code.
- Howard County DPN is hereby granted permission to access private lots shown on these plans in order to maintain public water and sewer house connections at the curb stops and/or cleanouts.



VICINITY MAP
SCALE : 1"=600'

QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER
8" WATER	1718 LF			
6" WATER	88 LF			
FIRE HYDRANTS	5 EA.			
6" VALVES	5 EA.			
8" VALVES	4 EA.			

NAME OF UTILITY CONTRACTOR :

Sediment control measures for this contract will be implemented in accordance with Section 219 of the Specifications and as shown on SDP-01-82

Review for Howard Soil Conservation District and meets technical requirements.

Jim Mays 1/24/01
NATURAL RESOURCES CONSERVATION SERVICE DATE

This plan is approved for subdivision and sediment control by the Howard Soil Conservation District.

John R. Rohlfstedt 1/24/01
HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND
<i>R. H. ...</i> 1-19-01 CHIEF, BUREAU OF UTILITIES DATE	<i>...</i> 1/25/01 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

RIEMER MUEGGE
a division of
Patton Harris Rust & Associates, pc
ENGINEERS • SURVEYORS • PLANNERS
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
8818 Curtis Park Drive, Columbia, MD 21046 • tel 410.897.2800 fax 410.897.2882
F:\PROJECT\00239\HS1.DWG

ARTHUR E. MUEGGE #8707

DES: DAM	
DRN: KEV	
CHK: CJR	
DATE: 1/17/01	
BY NO.	REVISION
	DATE

TITLE SHEET	
600' SCALE MAP NO. 37	BLOCK NO. 18

TROY HILL CORPORATE CENTER
PARCEL A-25
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT 44-3941-D

SCALE AS SHOWN
SHEET 1 OF 3

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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Arthur E. Muegge
CHIEF, BUREAU OF UTILITIES

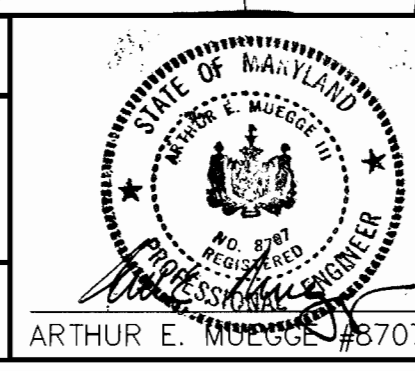
1-19-01
DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

William J. ...
CHIEF, DEVELOPMENT ENGINEERING DIVISION

1/25/01
DATE

RIEMER MUEGGE
Patton Harris Rust & Associates, pc
ENGINEERS • SURVEYORS • PLANNERS
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
8818 Centre Park Drive, Columbia, MD 21046 • tel 410.987.8800 fax 410.987.8882
F:/PROJECT/00239/PG4.DWG



DES: DAM	BY NO.	REVISION	DATE
DRN: KEV			
CHK: CJR			
DATE: 1/17/01			

PLAN OF WATER MAINS

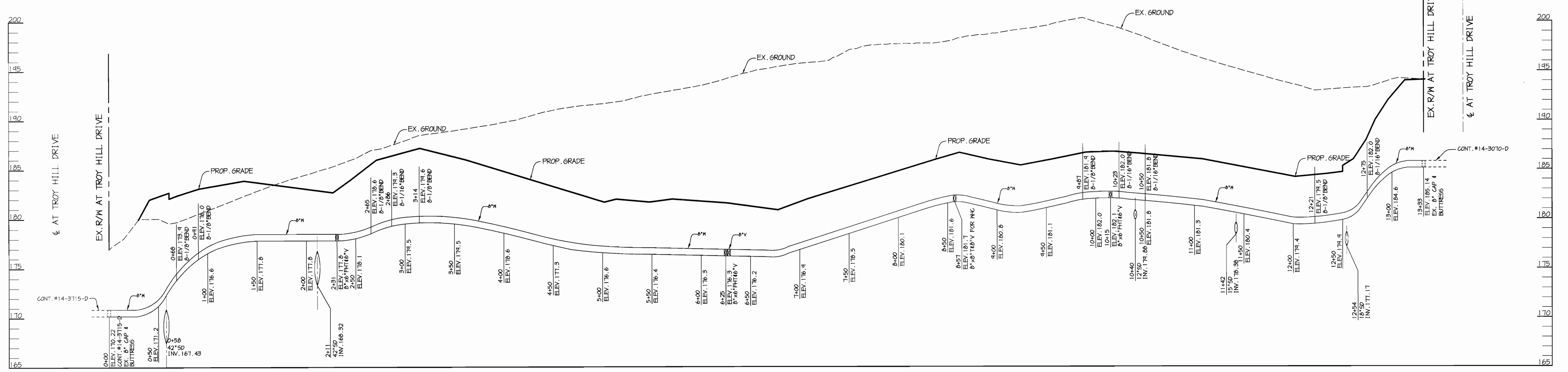
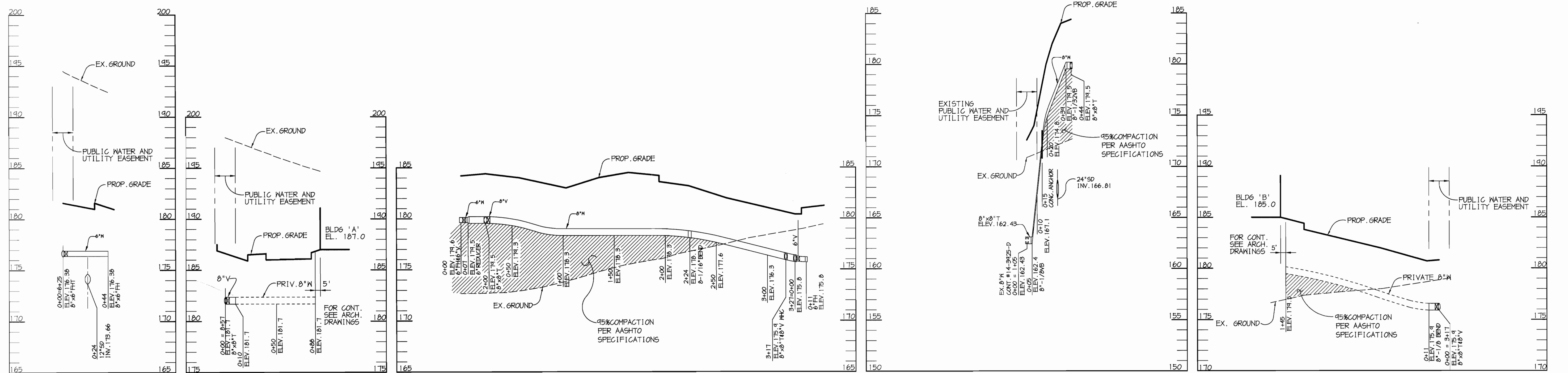
600' SCALE MAP NO. 37 BLOCK NO. 18

**TROY HILL CORPORATE CENTER
PARCEL A-25**
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT 44-3941-D

SCALE AS SHOWN

SHEET 2 OF 3

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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Richard Dunning
CHIEF, BUREAU OF UTILITIES
DATE: 1-19-01

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

Arthur E. Muegge
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 1/25/01

RIEMER MUEGGE
a division of:
Patton Harris Rust & Associates, PC
ENGINEERS & SURVEYORS & PLANNERS
LANDSCAPE ARCHITECTS & ENVIRONMENTAL SPECIALISTS
8918 Centre Park Drive, Columbia, MD 21046 • tel 410.987.2822 fax 410.987.2828
F:\PROJECT\00239\M55.DWG

ARTHUR E. MUEGGE #8707

DES: DAM				
DRN: KEV				
CHK: CJR				
DATE: 1/17/01				
BY	NO.	REVISION	DATE	

PROFILES OF WATER MAINS

600' SCALE MAP NO. 37 BLOCK NO. 18

**TROY HILL CORPORATE CENTER
PARCEL A-25**
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT 44-3941-D

SCALE AS SHOWN
SHEET 3 OF 3

SHEET INDEX	
NO	DESCRIPTION
1	TITLE SHEET
2	PLAN OF A WATER MAIN
3	PROFILES OF WATER MAINS

WATER EXTENSION

TROY HILL CORPORATE CENTER

PARCEL A-25

1st ELECTION DISTRICT


HOWARD COUNTY, MARYLAND

CONTRACT NO. 44-3941-D

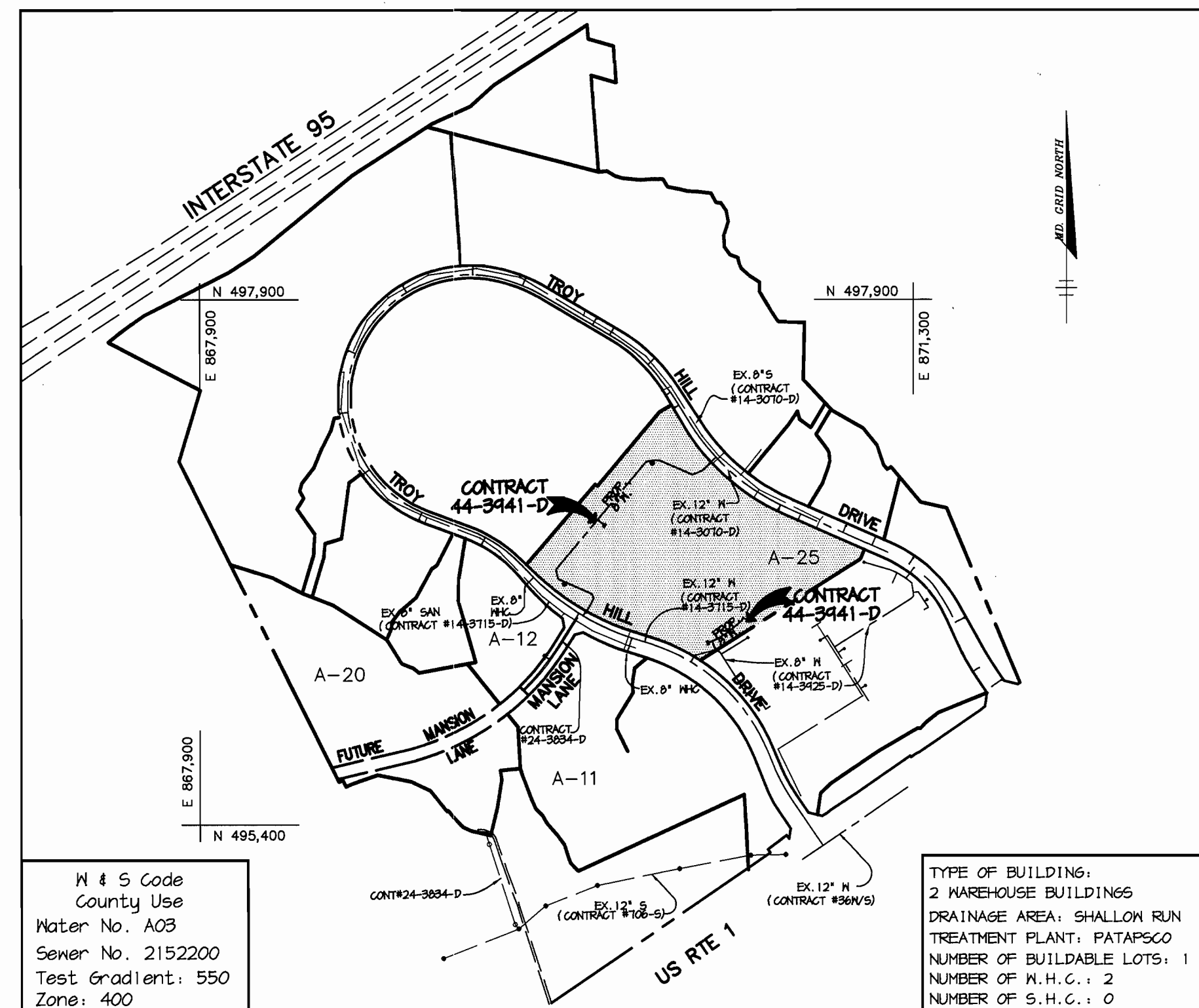
BENCHMARKS

BHM1 ELEV. 172.646
 HOWARD COUNTY SURVEY CONTROL : 2445005
 N 494804.822 E 864841.614
 BHM2 ELEV. 148.344
 HOWARD COUNTY SURVEY CONTROL : 2445006
 N 493030 E 866100
 (COORDINATES ARE NAD27)

GENERAL NOTES


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- All vertical controls are based on U.S.G.S. data.
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Baltimore Gas & Electric Co. Underground Damage Control	787-4068
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Bureau of Utilities, Howard County Department of Public Works	313-4400
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- The fire hydrant shall be installed as per standard detail W.I.111.
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- The contractor shall notify the Bureau of Highways, Howard County, at (410) 313-7450 at least five (5) working days before any open cut of 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(a) of the Howard County Code.
- Howard County DPW is hereby granted permission to access private lots shown on these plans in order to maintain public water and sewer house connections at the curb stops and/or cleanouts.



VICINITY MAP
SCALE : 1"=600'

QUANTITIES

ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER
8" WATER	1718 LF			
6" WATER	80LF 			
FIRE HYDRANTS	5 EA.			
6" VALVES	5 EA.			
8" VALVES	4 EA.			

NAME OF UTILITY CONTRACTOR :

Sediment control measures for this contract will be implemented in accordance with Section 219 of the Specifications and as shown on SDP-01-82

CHECKBOX
 AS-BUILT DATE
 SURVEY AND DRAFTING DIVISION

Review for Howard Soil Conservation District and meets technical requirements.

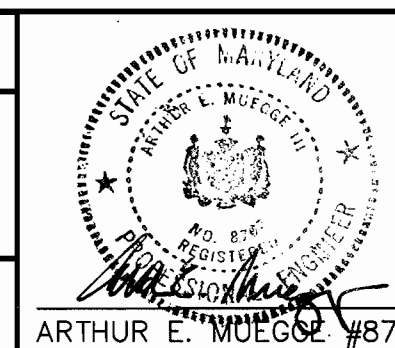
Jim Mauer 1/24/01
 NATURAL RESOURCES CONSERVATION SERVICE DATE


This plan is approved for erosion and sediment control by the Howard Soil Conservation District.

John R. Roberts 1/24/01
 HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND
<i>R. H. Berman</i> 1-19-01 CHIEF, BUREAU OF UTILITIES DATE	<i>Arthur E. Muegge</i> 1/25/01 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

RIEMER MUEGGE
 a division of
Petton Harris Rust & Associates, pc
 ENGINEERS • SURVEYORS • PLANNERS
 LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
 8819 Centre Park Drive, Columbia, MD 21046 • tel 410.987.8800 fax 410.987.8892
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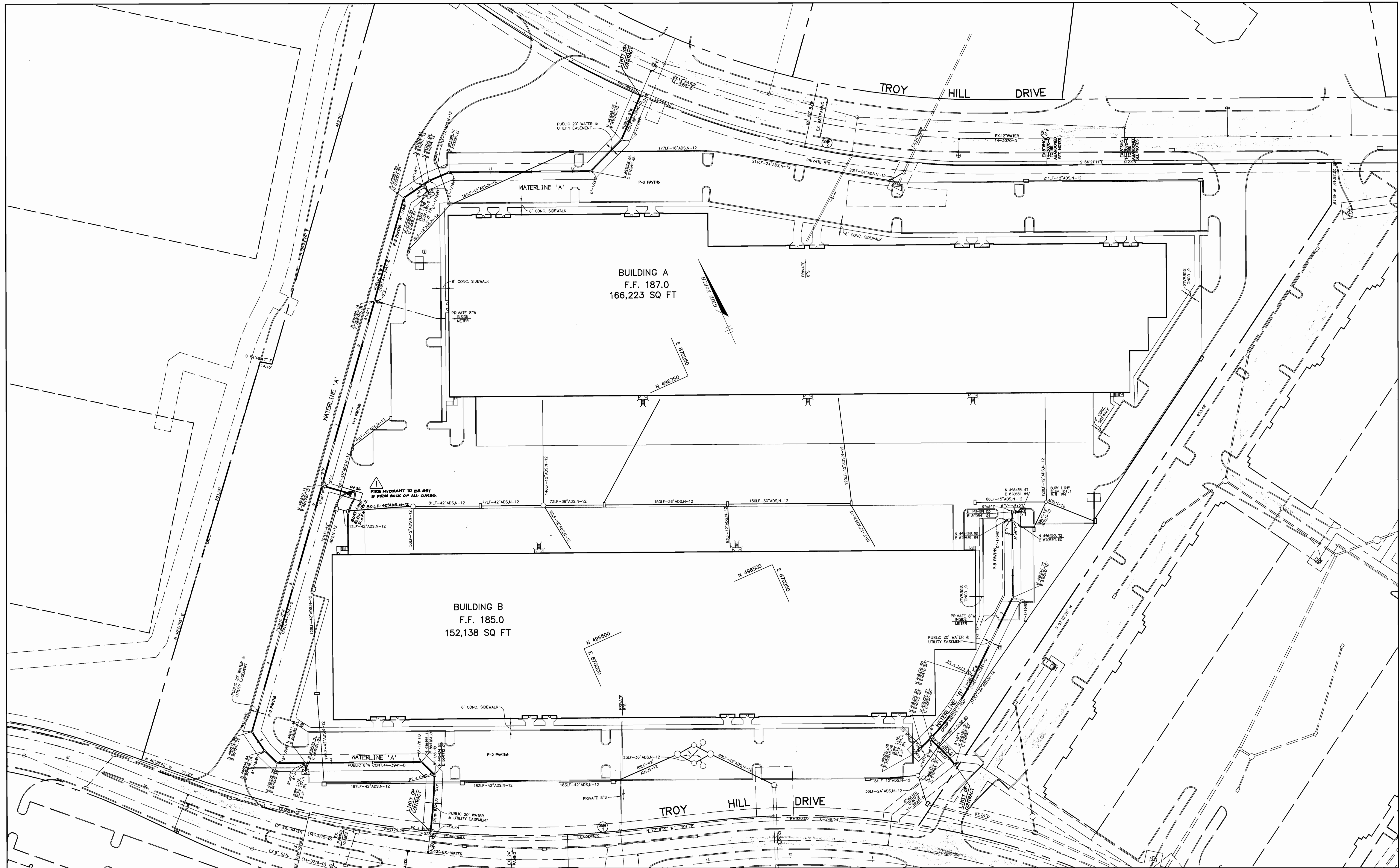


DES: DAM			
DRN: KEV			
CHK: CJR			
DATE: 1/17/01	CJK 	MODIFIED QUANTITIES	11-16-01
BY NO.		REVISION	DATE

TITLE SHEET	
600' SCALE MAP NO. 37	BLOCK NO. 18

TROY HILL CORPORATE CENTER
 PARCEL A-25
 1st ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 CONTRACT 44-3941-D

SCALE AS SHOWN
 SHEET 1 OF 3



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

RIEMER MUEGGE
Patton Harris Rust & Associates, pc
ENGINEERS • SURVEYORS • PLANNERS
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
8818 Carver Park Drive, Columbia, MD 21046 • Tel: 410.267.2800 Fax: 410.267.2802
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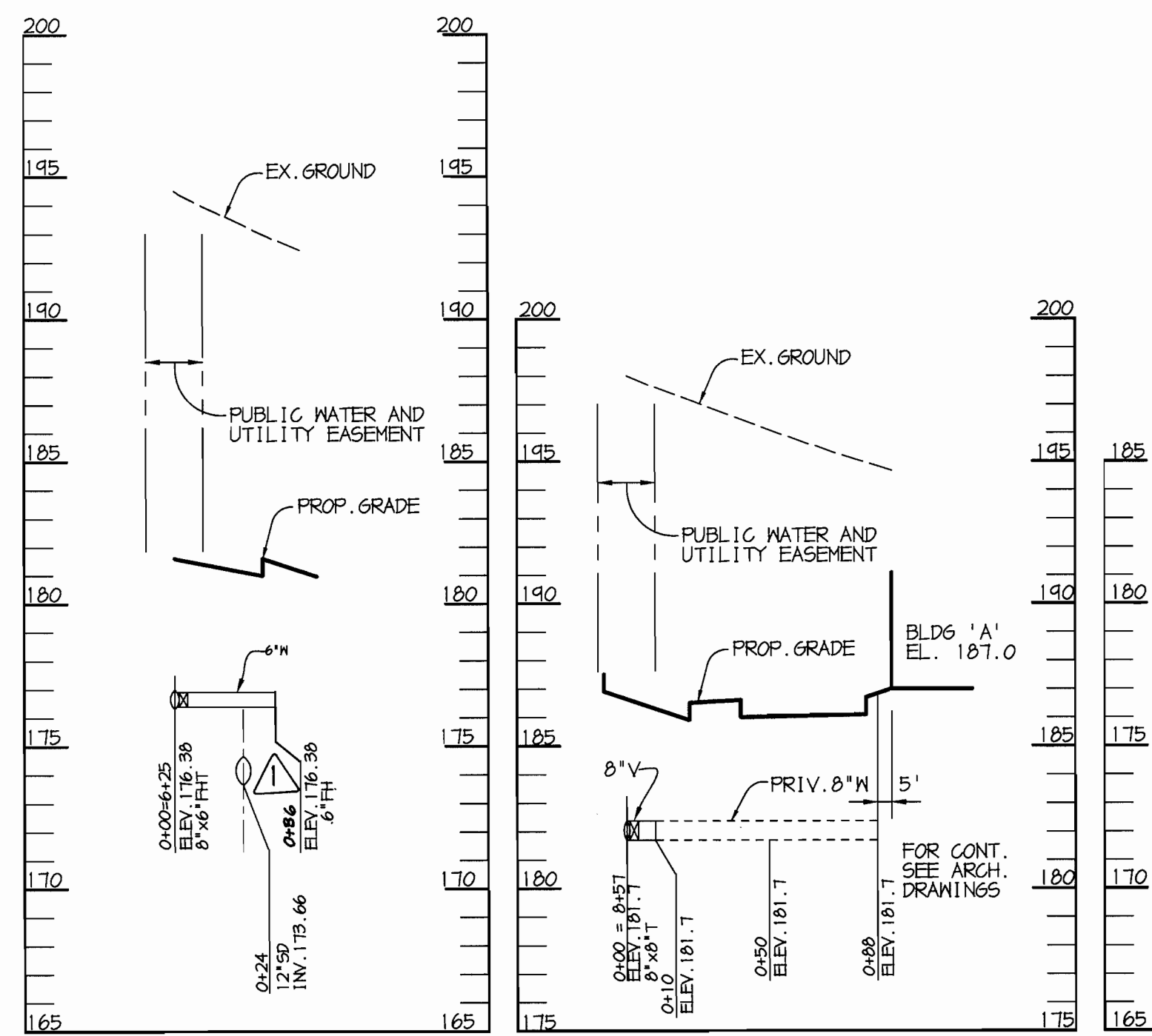
DES: DAM			
DRN: KEV			
CHK: CJR			
DATE: 1/17/01			
BY: NO.	MODIFIED FIRE HYDRANT LOCATION	11-16-01	
	REVISION	DATE	

PLAN OF WATER MAINS

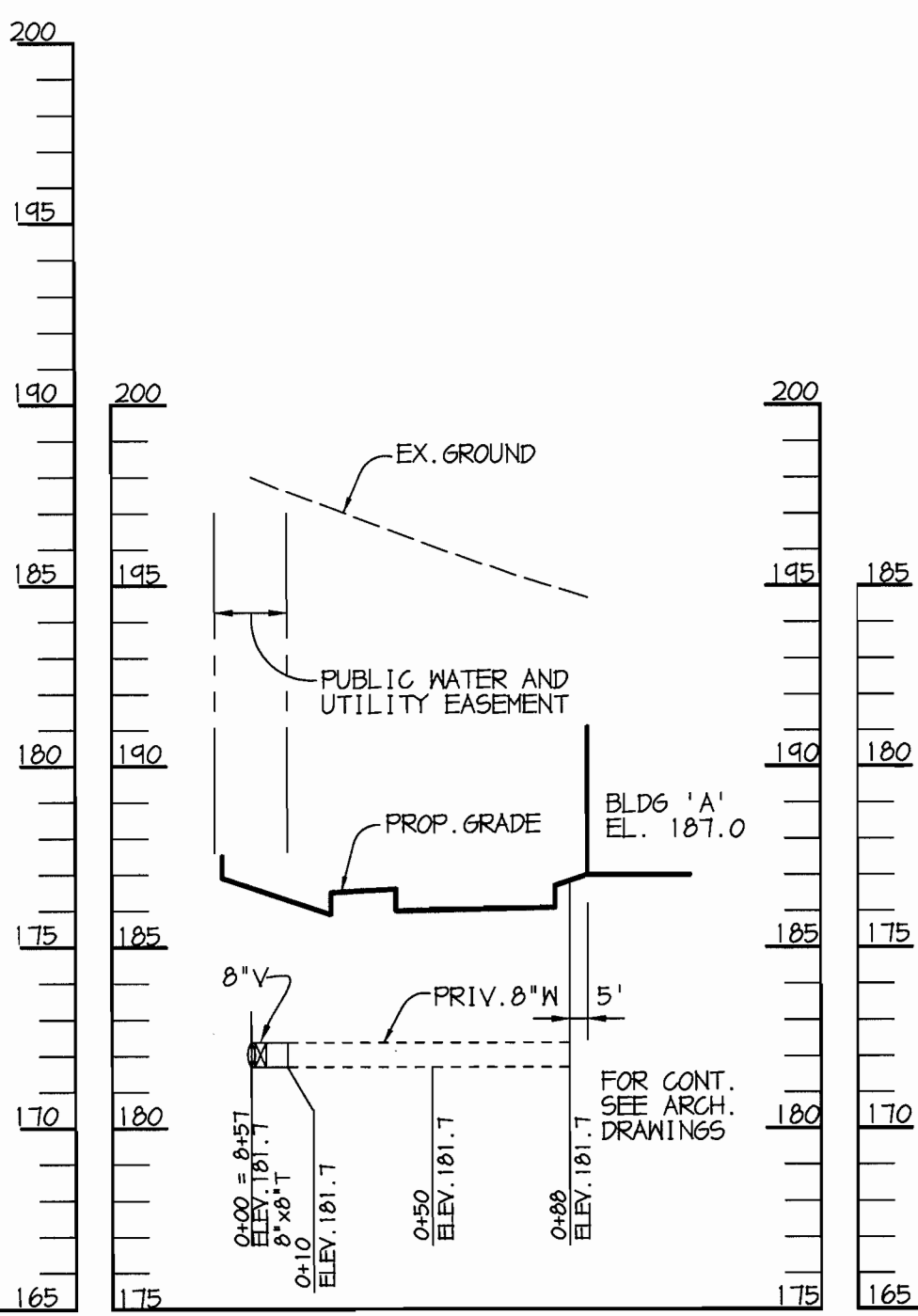
600' SCALE MAP NO. 37 BLOCK NO. 18

TROY HILL CORPORATE CENTER
PARCEL A-25
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT 44-3941-D

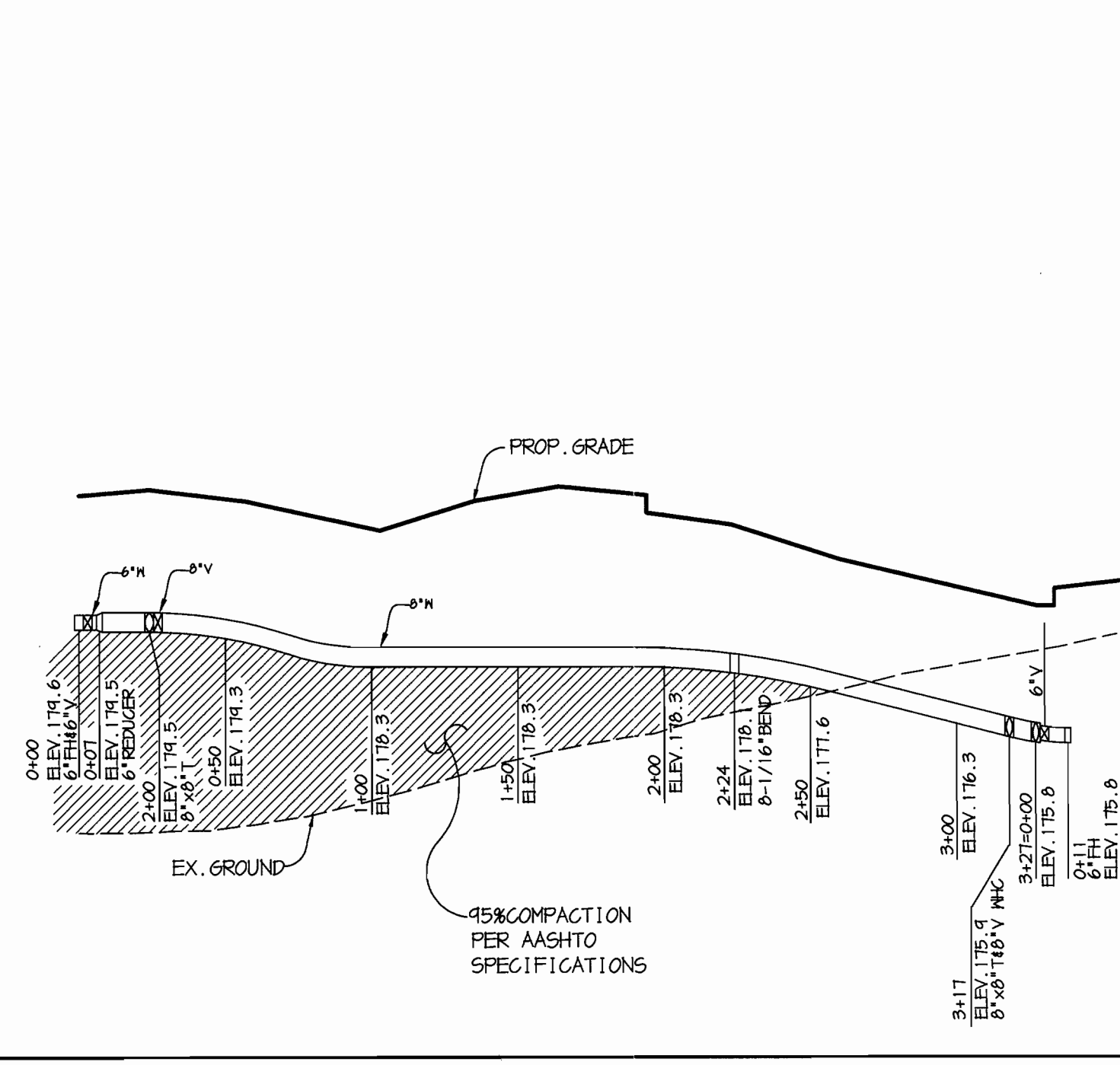
SCALE AS SHOWN
1" = 50'
SHEET 2 OF 3



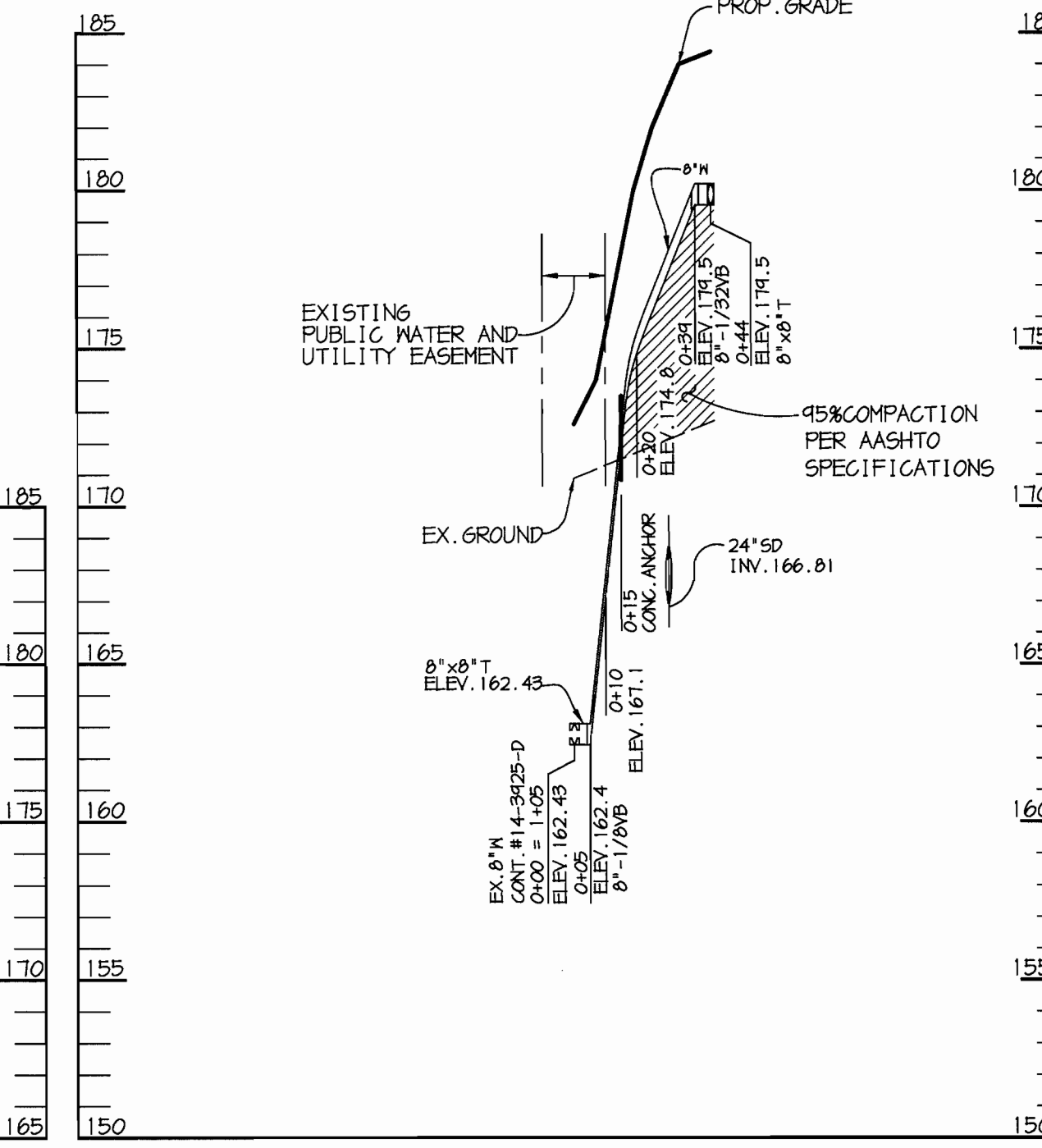
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VERT. - 1"=5'



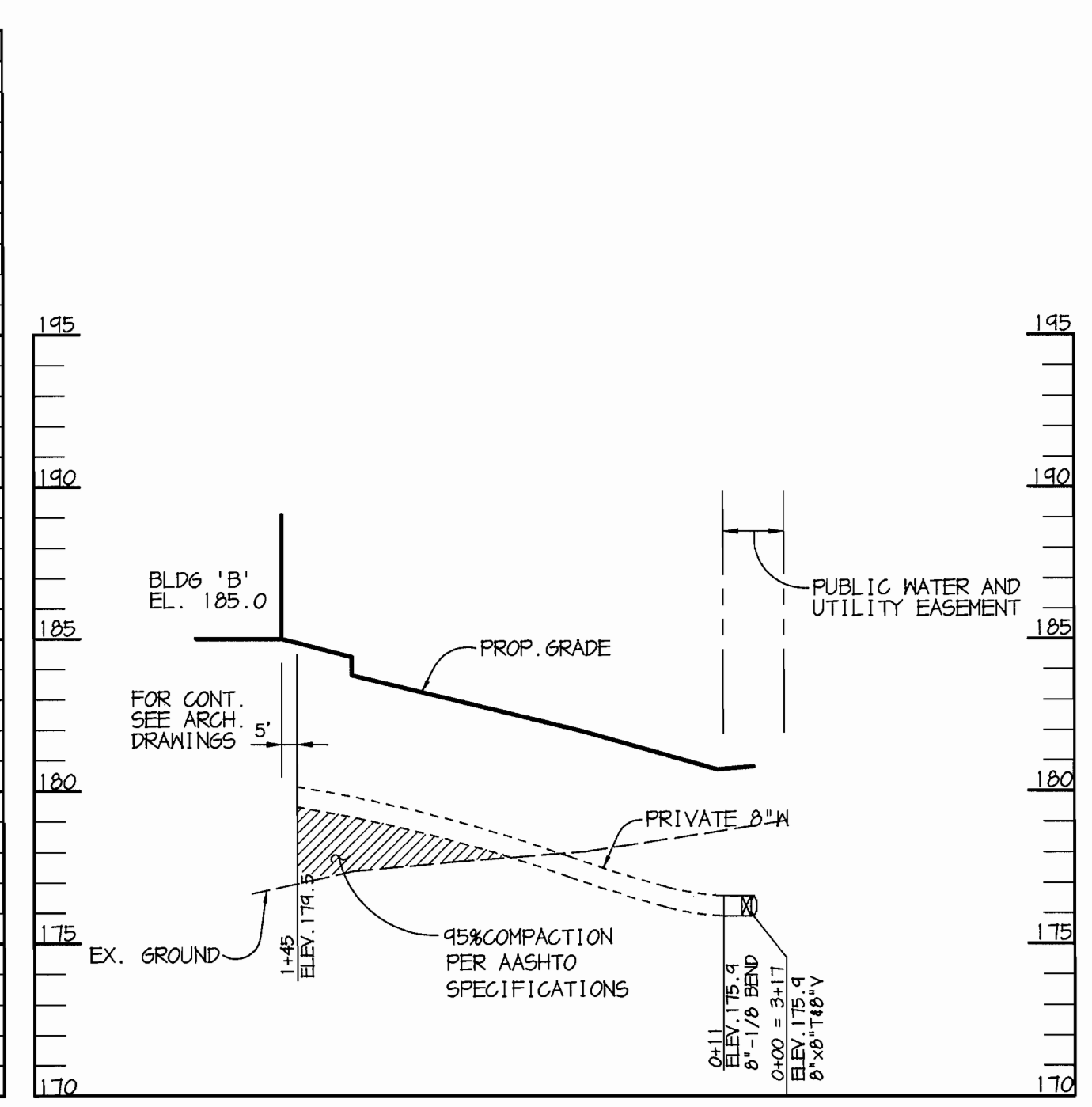
PROFILE
SCALE:
HOR. - 1"=50'
VERT. - 1"=5'



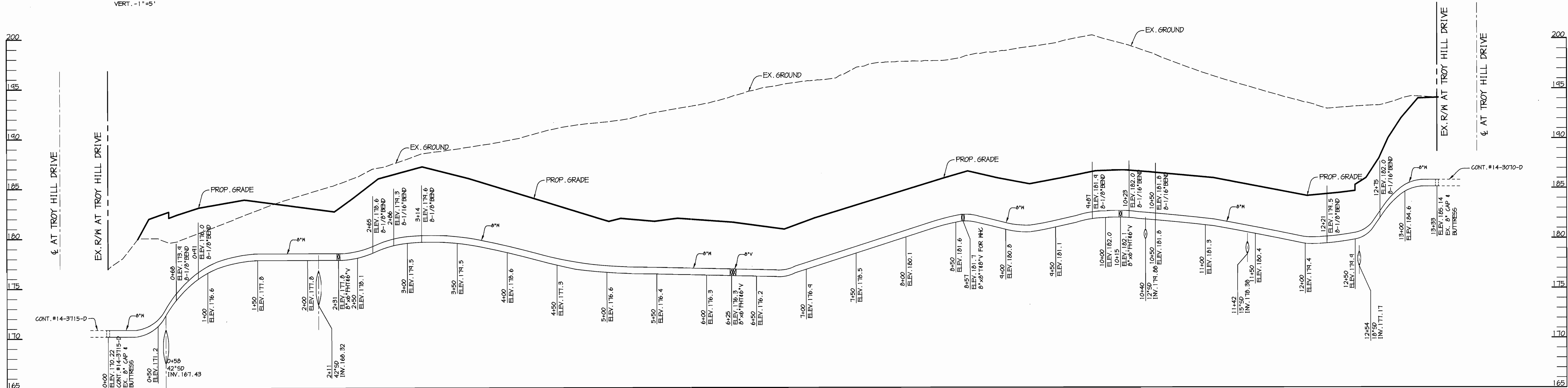
PROFILE WATERLINE "B"
SCALE:
HOR. - 1"=50'
VERT. - 1"=5'



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



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



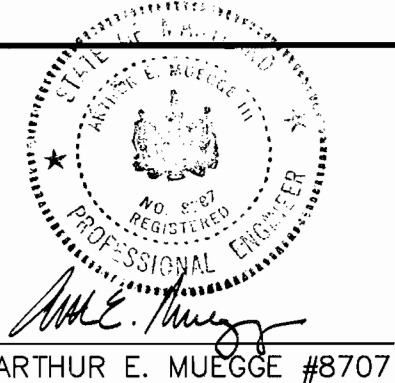
PROFILE
SCALE:
HOR. - 1"=50'
VERT. - 1"=5'

F:\PROJECT\00239\MS.dwg Wed Jan 17 12:35:29 2001 RIEMER MUEGGE & ASSOCIATES, INC.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Robert S. ...
CHIEF, BUREAU OF UTILITIES
DATE: 1-19-01

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
Arthur E. Muegge
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 1/25/01

RIEMER MUEGGE
a division of:
Pattin Harris Flust & Associates, pc
ENGINEERS & SURVEYORS & PLANNERS
LANDSCAPE ARCHITECTS & ENVIRONMENTAL SPECIALISTS
2818 Centre Park Drive, Columbia, MD 21046 • Tel: 410.387.2800 Fax: 410.387.2822
F:\PROJECT\00239\1055.DWG



DES: DAM	
DRN: KEV	
CHK: CJR	
DATE: 1/17/01	
BY: NO.	
REVISION	
CJR	MODIFIED FIRE HYDRANT PROFILE 11-16-01
NO.	DATE

PROFILES OF WATER MAINS
600' SCALE MAP NO. 37 BLOCK NO. 18

TROY HILL CORPORATE CENTER
PARCEL A-25
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT 44-3941-D

SCALE AS SHOWN
SHEET 3 OF 3