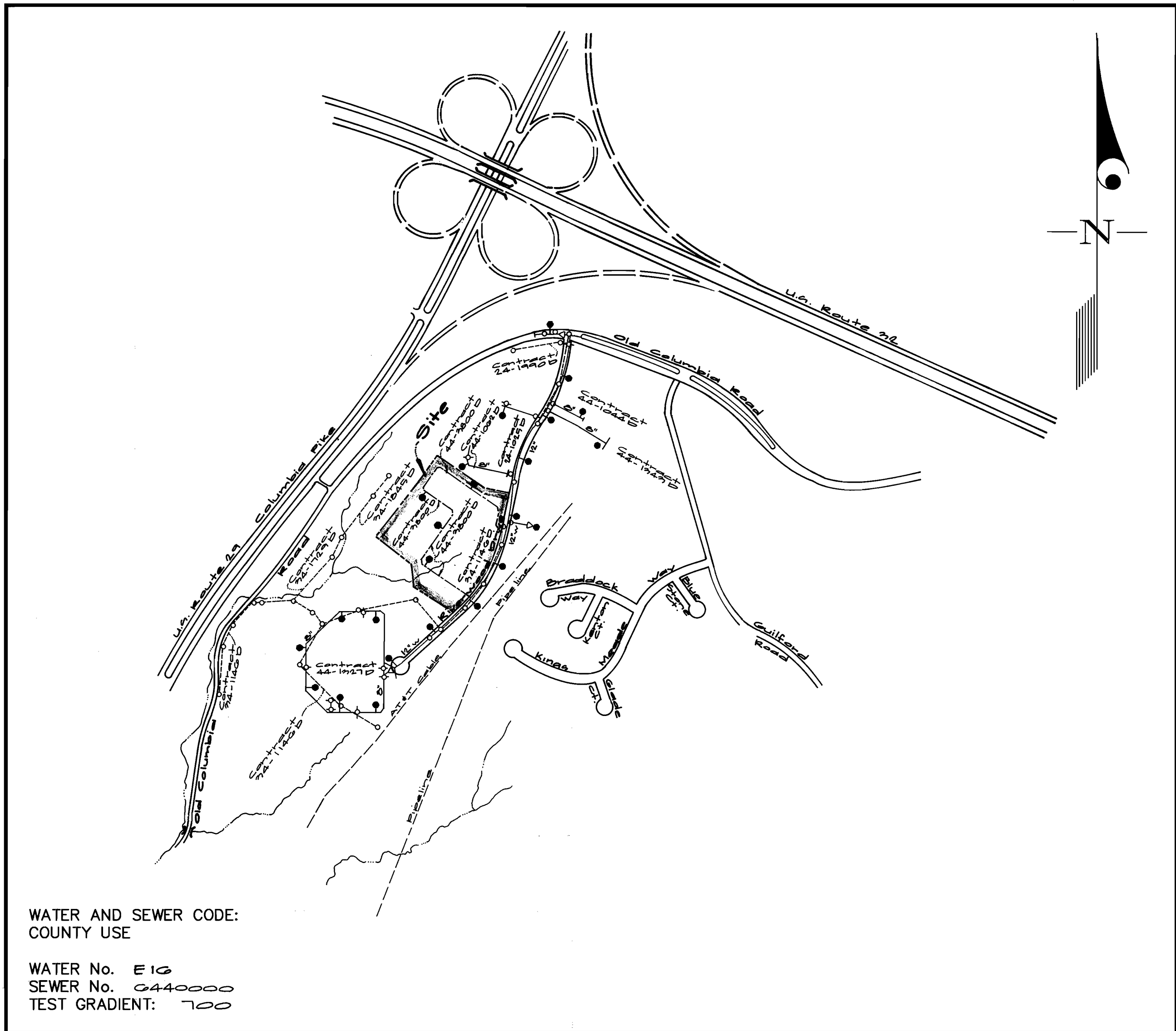


QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
6" W	196'			
8" W	1970'			
F.H.	4			
F.H.T.	4			
8" x 6" Tee	3			
12" x 8" Tee	1			
6" V	3			
8" V	1			
NAME OF UTILITY CONTRACTOR:				
SURVEY AND DRAFTING DIV.		CHECKBOX:	AS-BUILT DATE:	

TYPE OF BUILDING	<u>Office / Research + Dev.</u>
NUMBER OF UNITS	<u>3</u>
NUMBER OF S.H.C.'s	<u>None</u>
NUMBER OF W.H.C.'s	<u>3</u>
DRAINAGE AREA	<u>Middle Patuxent</u>
TREATMENT PLANT	



WATER AND SEWER CODE:
COUNTY USE

WATER No. E 16
SEWER No. 0440000
TEST GRADIENT: 1.00

VICINITY MAP
SCALE: 1"=600'

CONTRACT No. 44-3800-D

HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS

GENERAL NOTES

- PART I
- 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 [North American Datum 1983 (NAD '83)].
 - 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 (P) 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 (5) working days before starting work shown on these plans:

State Highway Administration	531-5533
BGE Contractor Services	850-4620
BGE Under Ground Damage Control	787-9068
Miss Utility	1-800-257-7777
Colonial Pipeline Co.	795-1390
Howard County Department of Public Works Bureau of Utilities	313-4900
 - 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.
 - The contractor shall notify the Bureau of Highways, Howard County, at (410) 313-2450 at least five (5) working days before any open cut of any County road or boring/jacking operation on County roads for laying water/sewer mains or house connections. The approval of these drawings will constitute compliance with DPW requirement per Section 18.114(a) of the Howard County Code.

- PART II - WATER
- 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 the 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.
 - For sprinkler system for all townhomes or multi-family dwelling units should have a minimum of 1' connection with a 3/4" meter.

- PART III - SEWER
- All sewer mains shall be DIP and P.V.C. unless otherwise noted.
 - All manholes shall be 4' - 0" inside diameter unless otherwise noted.
 - Force mains shall be D.I.P. only.
 - Manholes shown with 12" and 16" walls are for brick manholes only. Manholes designated W.T. in plan and profile shall have watertight frame and covers, Standard Detail G5.52. Where watertight frame and cover is used, set top of frame 1'-6" above finished grade unless otherwise noted on drawings.
 - House(s) with the symbol "C.N.S." indicates that cellar cannot be served.

Sediment Control Measures will be implemented in accordance with Section 219 of the Specifications & with Road Drawings Plans 200-202; Drawings 200-215 for Sediment & Erosion Control.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT

John R. Robertson 9/29/99
SIGNATURE DATE

U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

APPROVED:

Debra Simmons 9/29/99
DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert W. Beinger 9-27-99
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

Debra Simmons 10/1/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DES. REV.	PLM.					
DRN.	FMM					
CHK.	DEV					
DATE: 9-99	BY: NO	REVISION	DATE	600' SCALE MAP NO. 41	BLOCK NO. 12	

Cover Sheet

Rivera Corporate Park
Section 1, Area 2
Parcel B

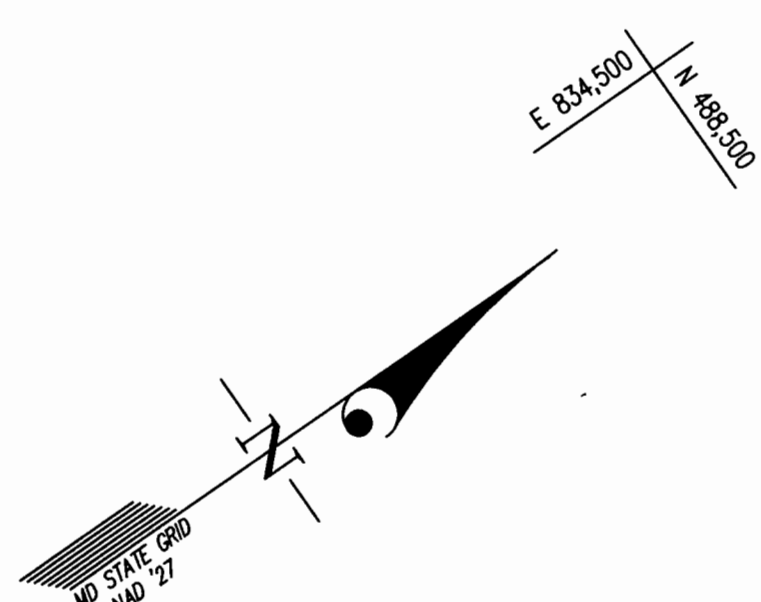
Contract No. 44-3800 D

5th Election District
Howard County, Maryland

GLW FILE No.
99070

SCALE AS SHOWN

SHEET 1 OF 3



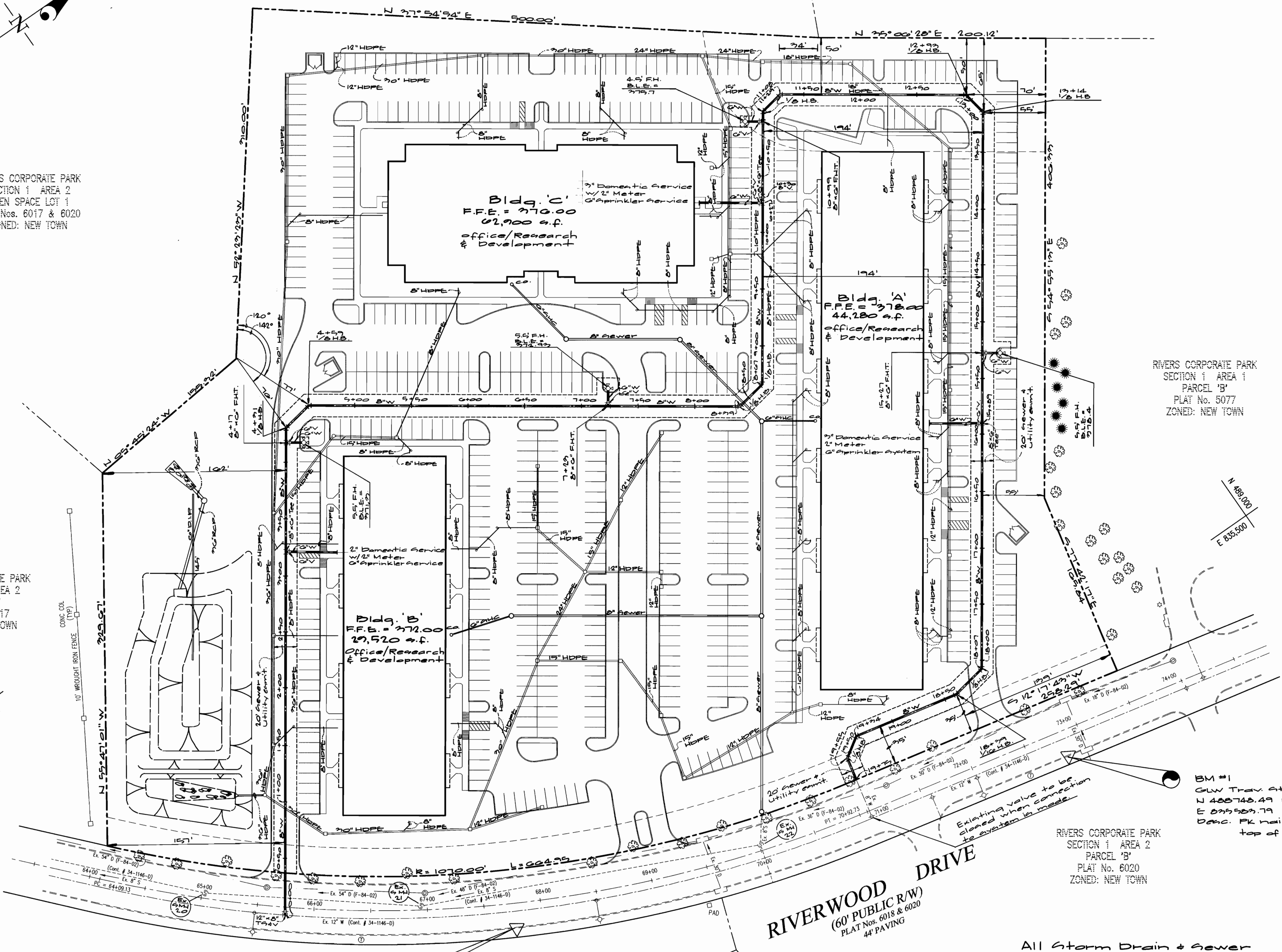
RIVERS CORPORATE PARK
SECTION 1 AREA 2
OPEN SPACE LOT 1
PLAT Nos. 6017 & 6020
ZONED: NEW TOWN

N/F PROPERTY OF
HOWARD L. WESSEL, et al
L. 388 F. 41
ZONED: R-20

RIVERS CORPORATE PARK
SECTION 1 AREA 2
OPEN SPACE LOT 1
PLAT Nos. 6017 & 6020
ZONED: NEW TOWN

RIVERS CORPORATE PARK
SECTION 1 AREA 2
PARCEL 'A'
PLAT No. 6017
ZONED: NEW TOWN

RIVERS CORPORATE PARK
SECTION 1 AREA 1
PARCEL 'B'
PLAT No. 5077
ZONED: NEW TOWN



BM #2
GLW Trav. Sta. 907
N 488259.09 Elev. 270.91
E 833428.24
Desc. PK nail in
top of curb.

BM #1
GLW Trav. Sta. 900
N 488748.49 Elev. 277.99
E 833528.79
Desc. PK nail in
top of curb.

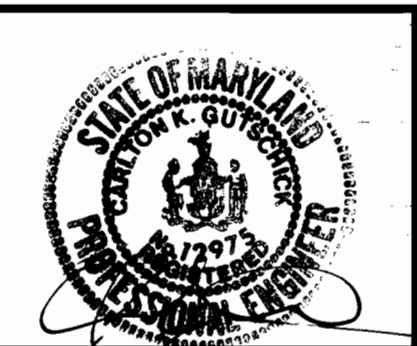
RIVERWOOD DRIVE
(60' PUBLIC R/W)
PLAT Nos. 6018 & 6020
44' PAVING

All Storm Drain & Sewer
Shown on Site is Private

DEPARTMENT OF
PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Robert M. Reisinger 9-27-99
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF
PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
Michael J. Danvers 10/1/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20886
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

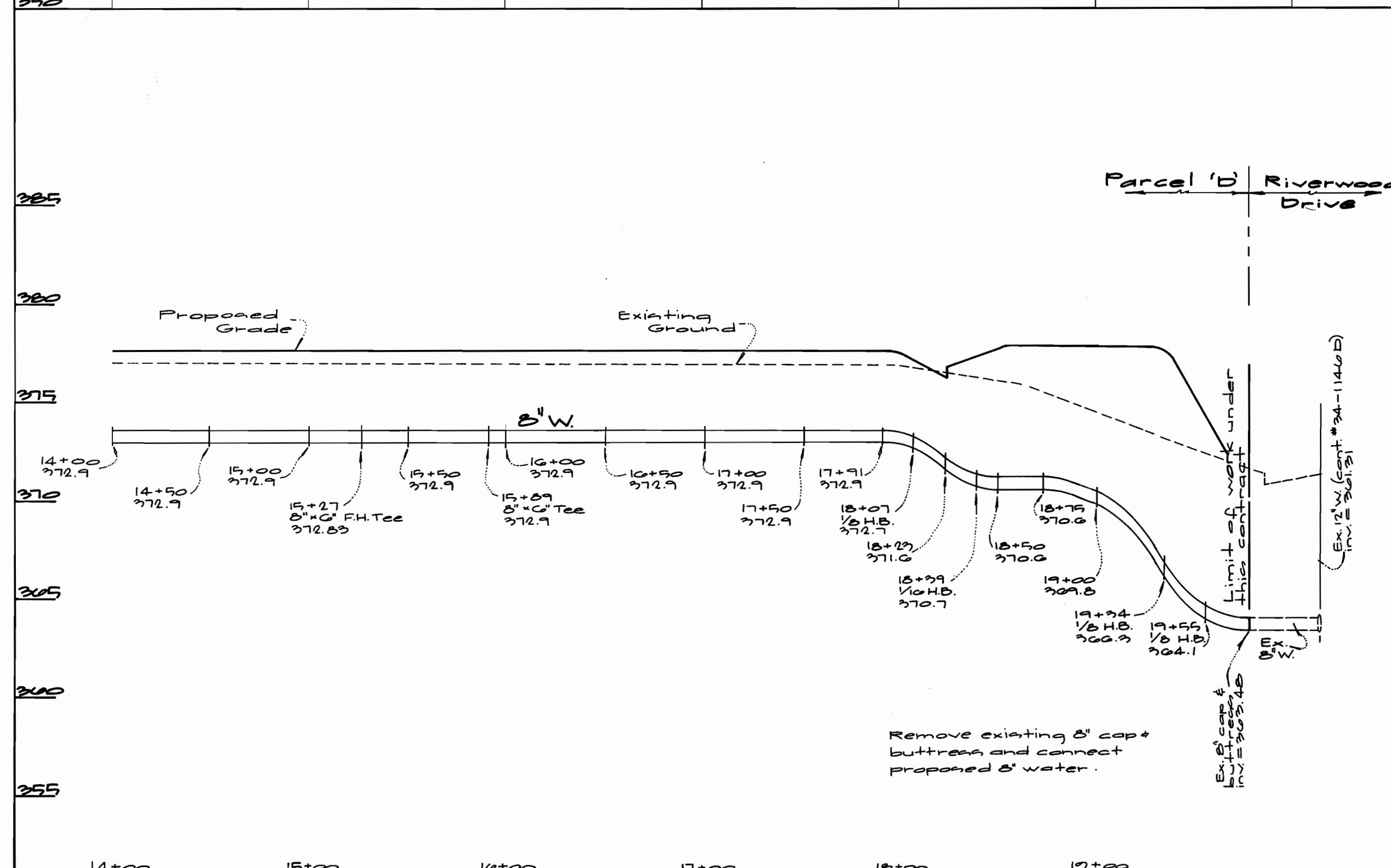
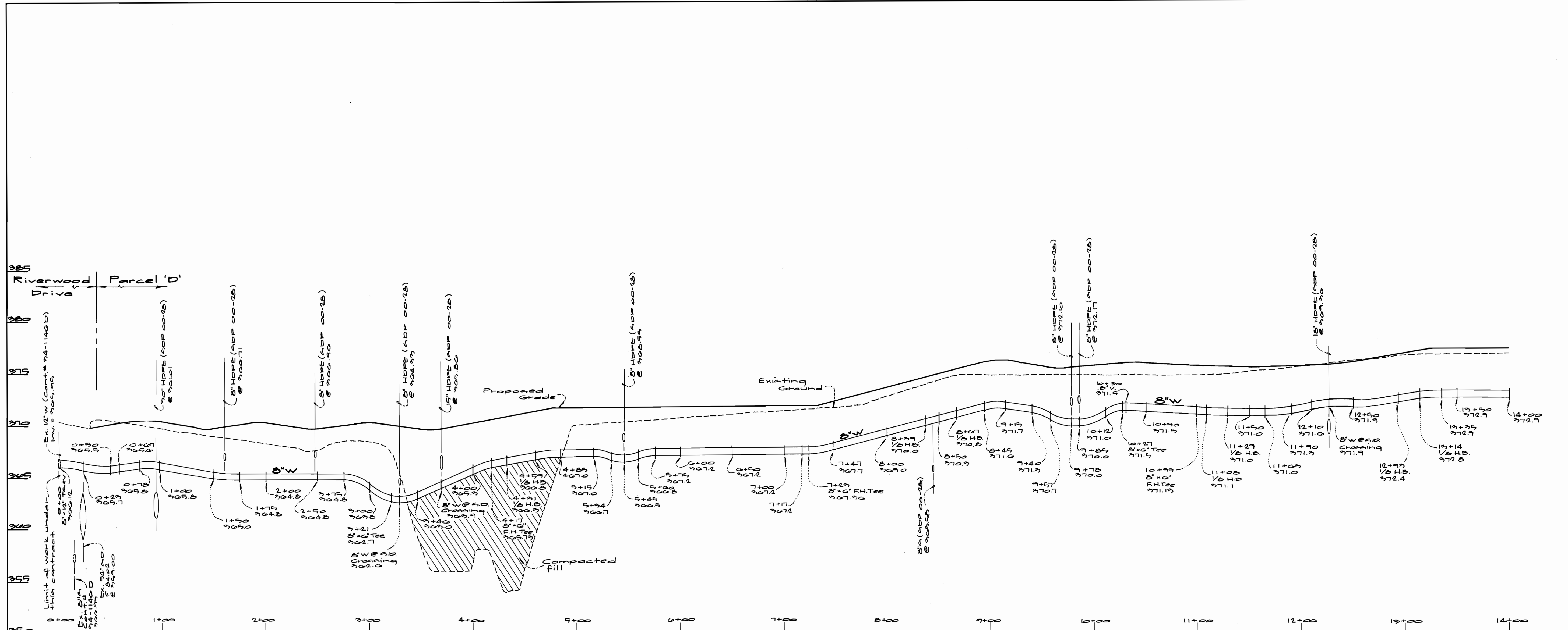


DES: DEV/EMM					
DRN: FMM					
CHK: DEV					
DATE: 9-99	BY	NO	REVISION	DATE	

Water Plan
Scale: 1" = 50'
600' SCALE MAP NO. 41 BLOCK NO. 12

Rivers Corporate Park
Section 1 Area 2
Parcel 'B'
Contract No. 44-9800-b
5th Election District
Howard County, Maryland

SCALE AS SHOWN
SHEET 2 OF 3

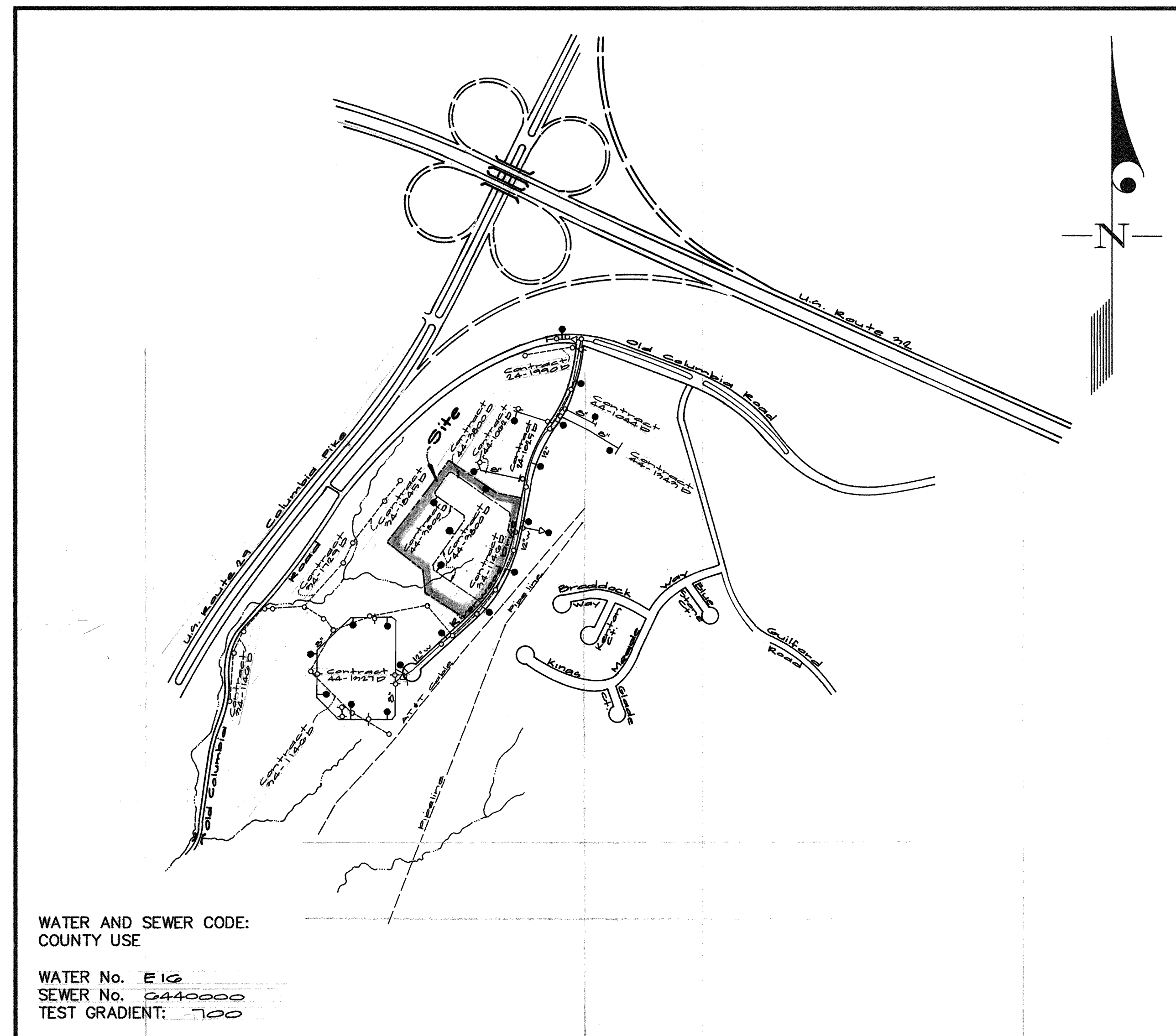


Department of Public Works Howard County, Maryland Robert W. Beaman Chief, Bureau of Utilities 9-27-99 Date	Department of Planning & Zoning Howard County, Maryland [Signature] Chief, Development Engineering Division 10/1/99 Date	GW GUTSCHICK LITTLE & WEBER, P.A. ENGINEERS, PLANNERS, SURVEYORS 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK BURTONSVILLE, MD. 20866 (301) 421-4024	DES: DEV/ FMM DRN: FMM CHK: DEV DATE: 9-99 BY: NO.	REVISION DATE	600' SCALE MAP NO. <u>41</u> BLOCK NO. <u>12</u>	Rivera Corporate Park Section 1, Area 2 Parcel 'D' Contract No. 44-9800-B 5th Election District Howard County, Maryland	SCALE AS SHOWN SHEET 2 OF 2
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ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
6" W	190'	191.8' LF	CL. 52 DIP	Atlantic States / U.S. Filter
8" W	177.6'	178.7' LF	CL. 52 DIP	Atlantic States / U.S. Filter
F.H.	4	4 EA.		Centurion Mueller Co. / U.S. Filter
F.H.T.	4	4 EA.		Centurion Mueller Co. / U.S. Filter
8" x 8" Tee	3	3 EA.	M.I. HYDR.	Union Foundry / U.S. Filter
12" x 8" Tee	1	1 EA.	M.I. HYDR.	Mueller Co. / U.S. Filter
G.V.	3	3 EA.	Gate Valve	Mueller Co. / U.S. Filter
B.V.	1	1 EA.	Gate Valve	Mueller Co. / U.S. Filter
Private Sewer				
8" PVC Sewer	180 L.F.	178 L.F.	SDR 35	J.M. Manuf. Inc. / U.S. Filter
6" PVC Sewer	156 L.F.	146 L.F.	SDR 35	J.M. Manuf. Inc. / U.S. Filter
4' Manhole	6 EA.	6 EA.	Precast	Atlantic Conc. / Atlantic Conc.

NAME OF UTILITY CONTRACTOR: C.J. Miller

SURVEY AND DRAFTING DIV. CHECKBOX: AS-BUILT DATE: As-Built: E.P.A. ENG. INC./RW



WATER AND SEWER CODE: COUNTY USE

WATER No. E16
SEWER No. G440000
TEST GRADIENT: 700

VICINITY MAP
SCALE: 1"=600'

TYPE OF BUILDING	Office / Research + Dev.
NUMBER OF UNITS	3
NUMBER OF S.H.C.'s	None
NUMBER OF W.H.C.'s	3
DRAINAGE AREA	Middle Patuxent
TREATMENT PLANT	

GENERAL NOTES

- PART I
- 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 [North American Datum 1983 (NAD '83)].
 - 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 (5) working days before starting work shown on these plans:
 - State Highway Administration 531-5533
 - BGE Contractor Services 850-4620
 - BGE Under Ground Damage Control 787-9068
 - Miss Utility 1-800-257-7777
 - Colonial Pipeline Co. 795-1390
 - Howard County Department of Public Works Bureau of Utilities 313-4900
 - 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.
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- PART II - WATER
- 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.
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 - 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 the 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.
 - For sprinkler system for all townhomes or multi-family dwelling units should have a minimum of 1' connection with a 3/4" meter.
- PART III - SEWER
- All sewer mains shall be DIP and P.V.C. unless otherwise noted.
 - All manholes shall be 4' -0" inside diameter unless otherwise noted.
 - Force mains shall be D.I.P. only.
 - Manholes shown with 12" and 16" walls are for brick manholes only.
 - Manholes designated W.T. in plan and profile shall have watertight frame and covers, Standard Detail G5.52. Where watertight frame and cover is used, set top of frame 1'-6" above finished grade unless otherwise noted on drawings.
 - House(s) with the symbol "C.N.S." indicates that cellar cannot be served.

CONTRACT No. 44-3800-D

HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS

AS-BUILTS

Sediment Control Measures will be implemented in accordance with Section 219 of the Specifications & with Road Drawings Plan 90P-20-28; Drawings sub. B-15 for Sediment & Erosion Control.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT

John K. Roberts 9/29/99
U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE

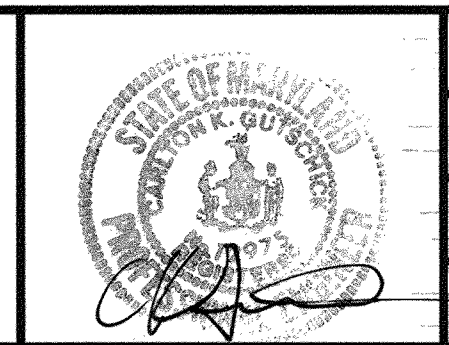
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

APPROVED: Debra Simmons 9/29/99
HOWARD S.C.D.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Robert M. Deinger 9-27-99
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
10/1/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20886
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

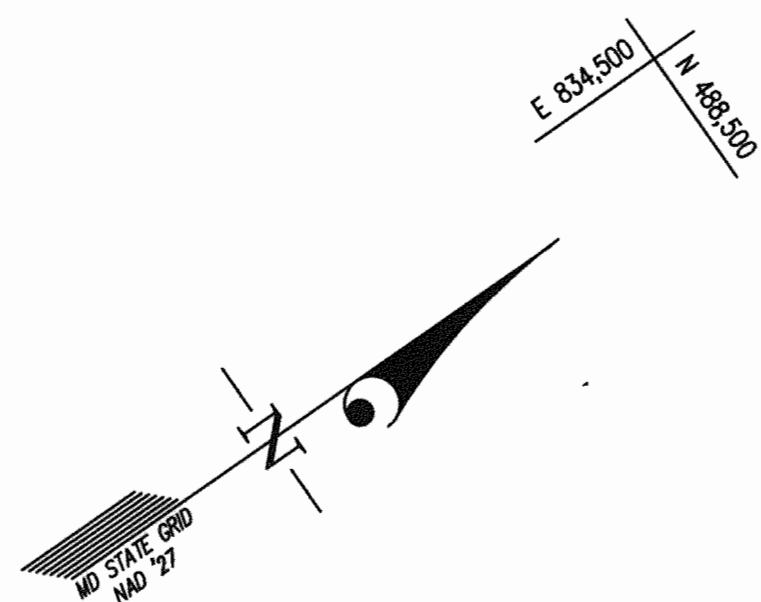


DES: DEW					
DRN: EMM					
CHK: DEW					
DATE: 9-99	BY: NO	REVISION	DATE	600' SCALE MAP NO. 41	BLOCK NO. 12

Cover Sheet

Rivera Corporate Park
Section 1, Area 2
Parcel B
Contract No. 44-3800 D
5th Election District
Howard County, Maryland

GLW FILE No. 99070
SCALE AS SHOWN
SHEET 1 OF 2

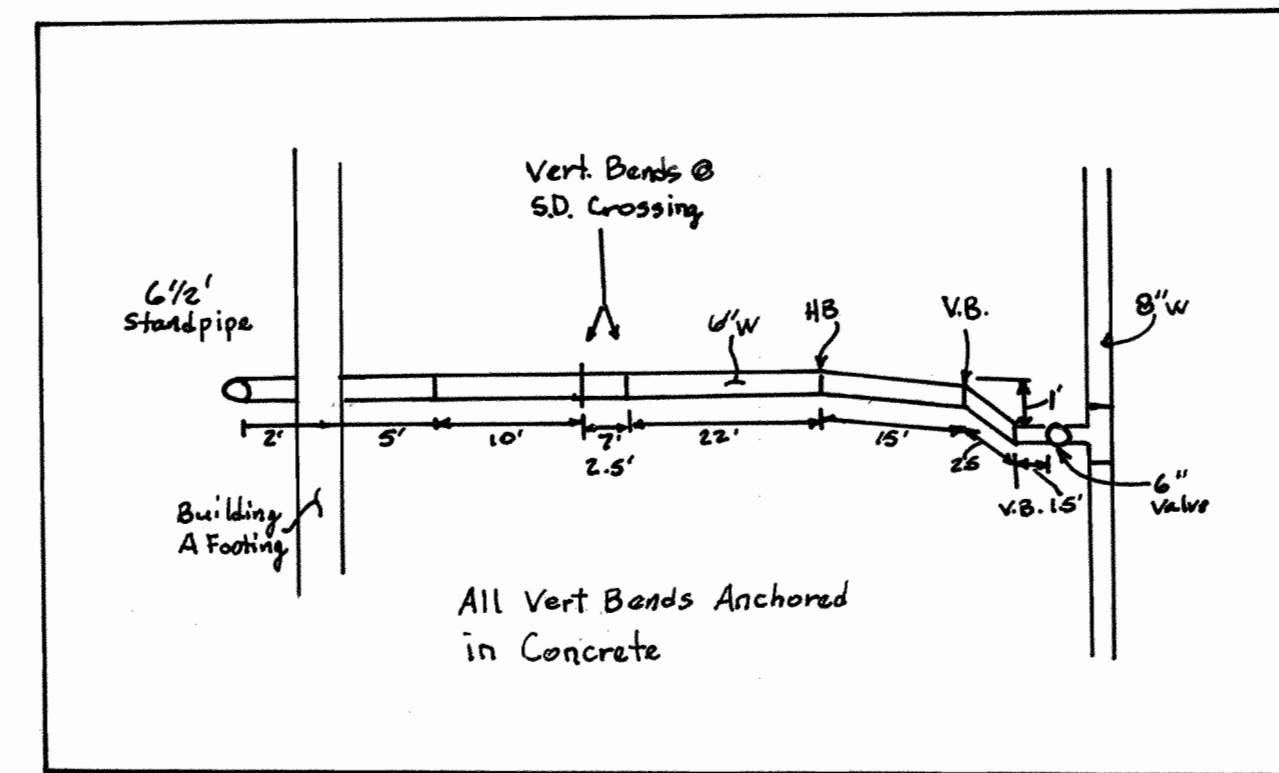
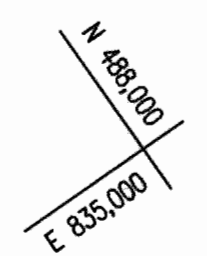


RIVERS CORPORATE PARK
SECTION 1 AREA 2
OPEN SPACE LOT 1
PLAT Nos. 6017 & 6020
ZONED: NEW TOWN

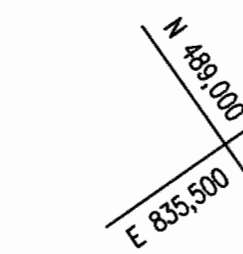
N/F PROPERTY OF
HOWARD L. WESSEL, et al
L. 398 F. 41
ZONED: R-20

RIVERS CORPORATE PARK
SECTION 1 AREA 2
OPEN SPACE LOT 1
PLAT Nos. 6017 & 6020
ZONED: NEW TOWN

RIVERS CORPORATE PARK
SECTION 1 AREA 2
PARCEL 'A'
PLAT No. 6017
ZONED: NEW TOWN



RIVERS CORPORATE PARK
SECTION 1 AREA 1
PARCEL 'B'
PLAT No. 5077
ZONED: NEW TOWN



BM #1
GLW Trav. Sta. 900
N 488748.49 Elev. 777.77
E 877508.79
Desc. PK nail in
top of curb.

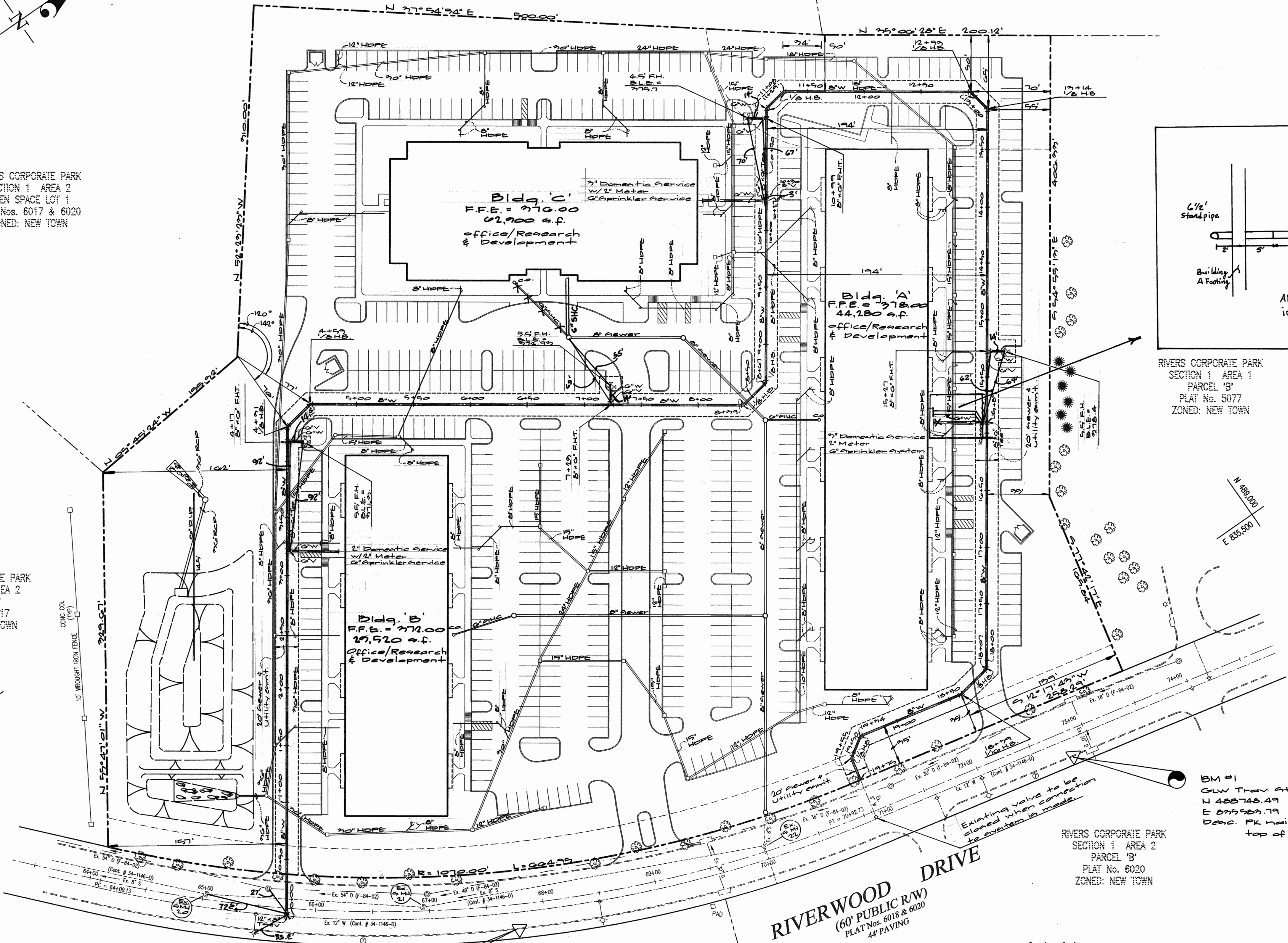
RIVERS CORPORATE PARK
SECTION 1 AREA 2
PARCEL 'B'
PLAT No. 6020
ZONED: NEW TOWN

All Storm Drain & Sewer
Shown on Site is Private

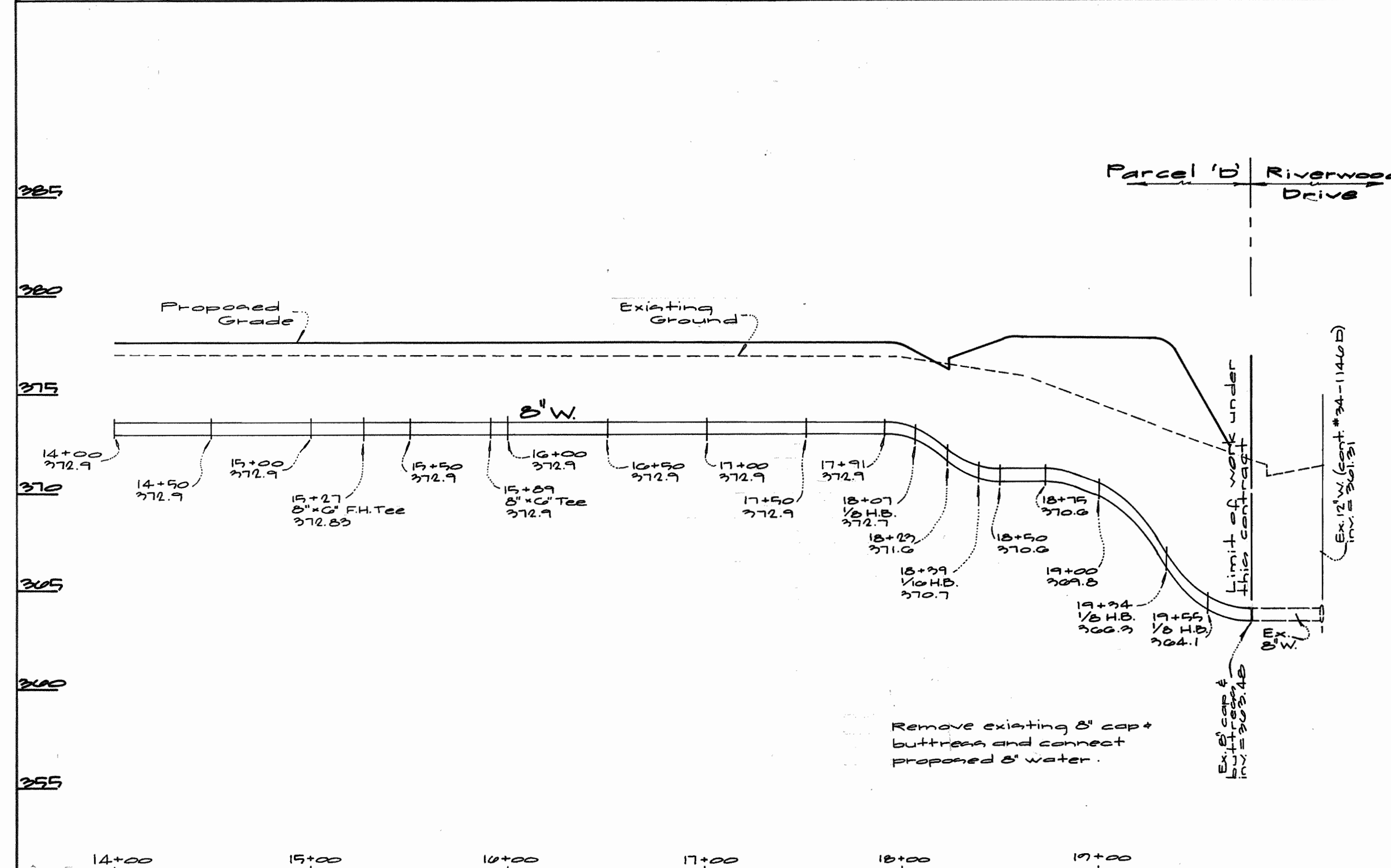
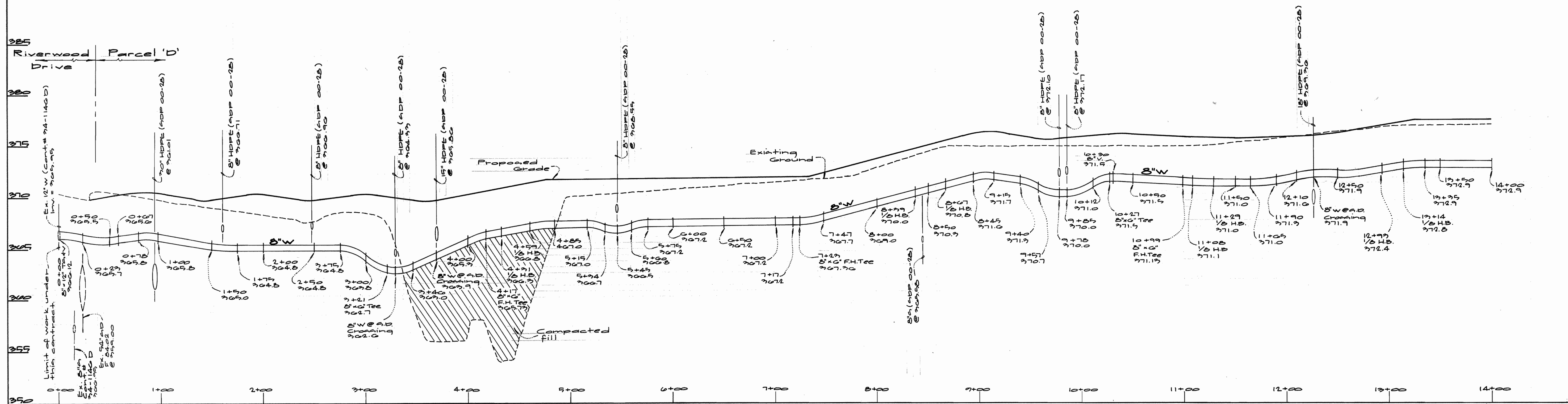
BM #2
GLW Trav. Sta. 907
N 488259.09 Elev. 770.91
E 877428.24
Desc. PK nail in
top of curb.

RIVERS CORPORATE PARK
SECTION 1 AREA 2
PARCEL 'C-1'
PLAT No. 11730
ZONED: NEW TOWN

RIVERWOOD DRIVE
(60' PUBLIC R/W)
PLAT Nos. 6018 & 6020
44' PAVING



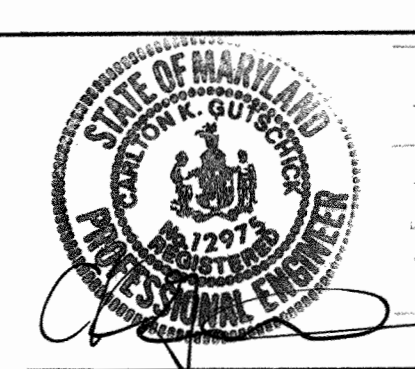
<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>Robert W. Benson</i> 9-27-99 CHIEF, BUREAU OF UTILITIES DATE</p>	<p>DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND</p> <p><i>John J. ...</i> 10/1/99 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE</p>	<p>GLW GUTSCHICK LITTLE & WEBER, P.A. CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS 3909 NATIONAL DRIVE - SUITE 250 - BURTONTOWN OFFICE PARK BURTONTOWN, MARYLAND 20866 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186</p>		<p>DES: DEV DRN: EMM CHK: DEV DATE: 9-99</p> <p>BY NO REVISION DATE</p>	<p>Water Plan Scale: 1" = 50'</p> <p>600' SCALE MAP NO. 41 BLOCK NO. 12</p>	<p>Red Line As-Built / E.B.A. Eng. Inc. / REW</p> <p>Rivers Corporate Park Section 1 Area 2 Parcel 'B' Contract No. 44-3800-b 5th Election District Howard County, Maryland</p> <p>SCALE AS SHOWN SHEET 2 OF 2</p>
--	---	--	--	---	---	--



Department of Public Works
 Howard County, Maryland
 Robert W. Beaman, Chief, Bureau of Utilities
 Date: 9-27-99

Department of Planning & Zoning
 Howard County, Maryland
 Chief Development Engineering Division
 Date: 10/1/99

GW GUTSCHICK LITTLE & WEBER, P.A.
 ENGINEERS, PLANNERS, SURVEYORS
 3009 NATIONAL DRIVE SUITE 250 BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MD 20866
 (301) 421-4024



DES: DEV./E.M.M.	
DRN: E.M.M.	
CHK: DEV.	
DATE: 9-99	
BY: NO.	
REVISION	
DATE	

Water Profiles
 scales: 1" = 50' horiz.
 1" = 5' vert.

600' SCALE MAP NO. 41 BLOCK NO. 12

Rivera Corporate Park
 Section 1, Area 2
 Parcel 'D'
 Contract No. 44-7800-B
 5th Election District
 Howard County, Maryland

SCALE AS SHOWN
 SHEET 2 OF 3