QUANTITIES						
ITEM	ESTIMATED		A5-BUILT	1		
		QUANTITIES	TYP£	5UPPLIER		
8" SEWER	1,303.32 L.F.					
8" SEWER (D.I.P.)	633.12 L.F.					
4" SEWER	1,326 L.F.					
4" SEWER (D.I.P.)	142 L.F.					
MANHOLES	15 EACH					
Ø" WATER	2,328.75 L.F.					
6" WATER	163.89 L.F.					
4" WATER	273 L.F.					
1-1/2" WATER	134 L.F.					
I" WATER	686 L.F.					
FIRE HYDRANTS	5 EACH					
8" x 8" Tee	1 EACH					
8" x 6" TEE	5 EACH					
8" x 4" TEE	1 EACH					
9° VALVE	2 EACH	"-"				
6" VALVE	5 EACH					
4" VALVE	1 EACH					
0"-1/8 H.B.	2 EACH		_			
9*-1/16 H.B.	4 EACH					
0*-1/32 H.B.	3 EACH		-			
4*-1/32 H.B.	1 EACH					
8" PLUG & BUTTRE55	2 EACH					
6° PLUG & BUTTRESS	1 EACH	-				
4" PLUG & BUTTRESS	1 EACH					
12" X 0" TAPPING SLEEVE & VALVE	2 EACH					
OUTSIDE METER	2 EACH					
SETTING						

* I/WE HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR SEDIMENT AND EROSION CONTROL BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS

POND(W. Kindre) FOR: CORNERSTONE HOLDINGS L.L.C. 05/03/00

ENGINEER'S CERTIFICATION

" ! HEREBY 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.

SIGNATURE OF ENGINEER

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION

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

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AS SHOWN ON THESE PLANS AND ON F99 - 163.

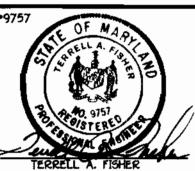
DEPARTMENT OF PUBLIC WORKS

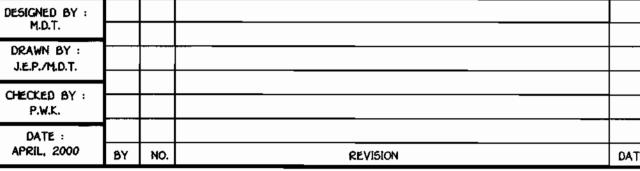
HOWARD COUNTY, MARYLAND

PORCHELDING FOR: GRUEDSTONE HOLDINGS L.L.C. 05/03/00

HOWARD COUNTY, MARYLAND







-STREAM VALLEY LANE

TROY GOLF COURSE -

ROCKBURN VIEW

TO WASHINGTON

BLVD. (US RT. 1)

MARKHAM WOODS

MARSHALEE ESTATES

N 501,000

PLAN REFERENCE NUMBERS:

5 97-06, P 90-16, F 99-163

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. DATUM.

4. ALL PIPE ELEVATIONS ARE INVERT ELEVATIONS.

5. CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2"-0" MINIMUM.

6. FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (1991 AMENDMENTS) THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB SITE.

7. WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL B 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 VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION. ANY DAMAGE TO EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

B. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

> STATE HIGHWAY ADMINISTRATION - (410) 531-5533 BALTIMORE GAS & ELECTRIC CO.. - CONTRACTOR SERVICES - (410) 850-4620 BALTIMORE GAS & ELECTRIC CO.. - UNDER GROUND DAMAGE CONTROL - (410) 767-9068 MISS UTILITY - 1-800-257-7777 COLONIAL PIPELINE CO. - (410) 795-1390

BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - (410) 313-4900 9. 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 THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.

11. ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.

12. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.

T.B. DENOTES TEST BORING.

14. MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.

15. MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G 5.52. 16. WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE

NOTED ON THE PLANS OR IN THE SPECIFICATIONS. HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.

18. ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN

MANHOLES LOCATED WITHIN THE PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAMES AND COVERS,

20. WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED AS TO HAVE ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.

21. ALL WATER MAINS SHALL BE D.I.P., CLASS 52 UNLESS OTHERWISE NOTED.

22. TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2' COVER UNLESS OTHERWISE NOTED.

23. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.

24. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.

25. FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATION SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS (WLII AND W2.13). SOIL AROUND THE FIRE HYDRANT SHALL

BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS. 26. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.

27. ALL D.L.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATIONS C-153; DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH

12-INCH FOR WATER AND OTHER LIQUIDS.

28. THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, ◆ (410) 313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE

BENCHMARK INFORMATION

B.M.*1 - HOWARD COUNTY MONUMENT NO. 37AB ELEV.= 394.74; DESCRIPTION: STAMPED CONC. MONUMENT • SURFACE APPROX. 9' SOUTH OF EDGE OF E.B.L. OF MONTGOMERY ROAD AND 64' WEST OF CENTERLINE OF DRIVEWAY FOR HOUSE .6028 B.M.*2 - HOWARD COUNTY MONUMENT NO. 3788

ELEV.= 373.83; DESCRIPTION: STAMPED CONC. MONUMENT • SURFACE BETWEEN BACK OF GUARD RAIL AND SOUTH EDGE OF CONCRETE WALK FOR ROCKBURN ELEM, SCHOOL, 16.3' FROM AN X-CUT IN THE END POST OF THE GUARDRAIL AND 18.8' FROM THE END OF THE CHAIN LINK FENCE

CONTRACT No. 14-3794-D

VICINITY MAP

SCALE: 1"-600"

TROY GOLF COURSE -

ROCKBURN VIEW

LOTS 4 THRU 35 WATER AND SEWER MAIN EXTENSIONS HOWARD COUNTY, MARYLAND

> CONTRACT NO. 14-3794-D ROCKBURN VIEW LOTS 4 THRU 35 WATER AND SEWER MAIN EXTENSIONS HOWARD COUNTY, MARYLAND

ROCKBURN VIEW

LOTS 4 THRU 35 CONTRACT NO. 14-3794-D FIRST ELECTION DISTRICT

SHEET 1 of 9

SCALE

A5

SHOWN

DEPARTMENT OF PLANNING AND ZONING

FOX HUNT ESTATES

TO ELLICOTT

WATER & SEWER CODE

NUMBER OF LOTS & PARCELS: ____

NO. OF WATER HOUSE CONNECTIONS:

NO. OF SEWER HOUSE CONNECTIONS:

DRAINAGE AREA:

TREATMENT PLANT:

TYPE OF BUILDING: RESIDENTIAL; SINGLE FAMILY DETACHED

PATAPSCO WASTEWATER TREATMENT

PLANT: CITY OF BALTIMORE

32 (29 BUILDABLE)

PATAP5CO

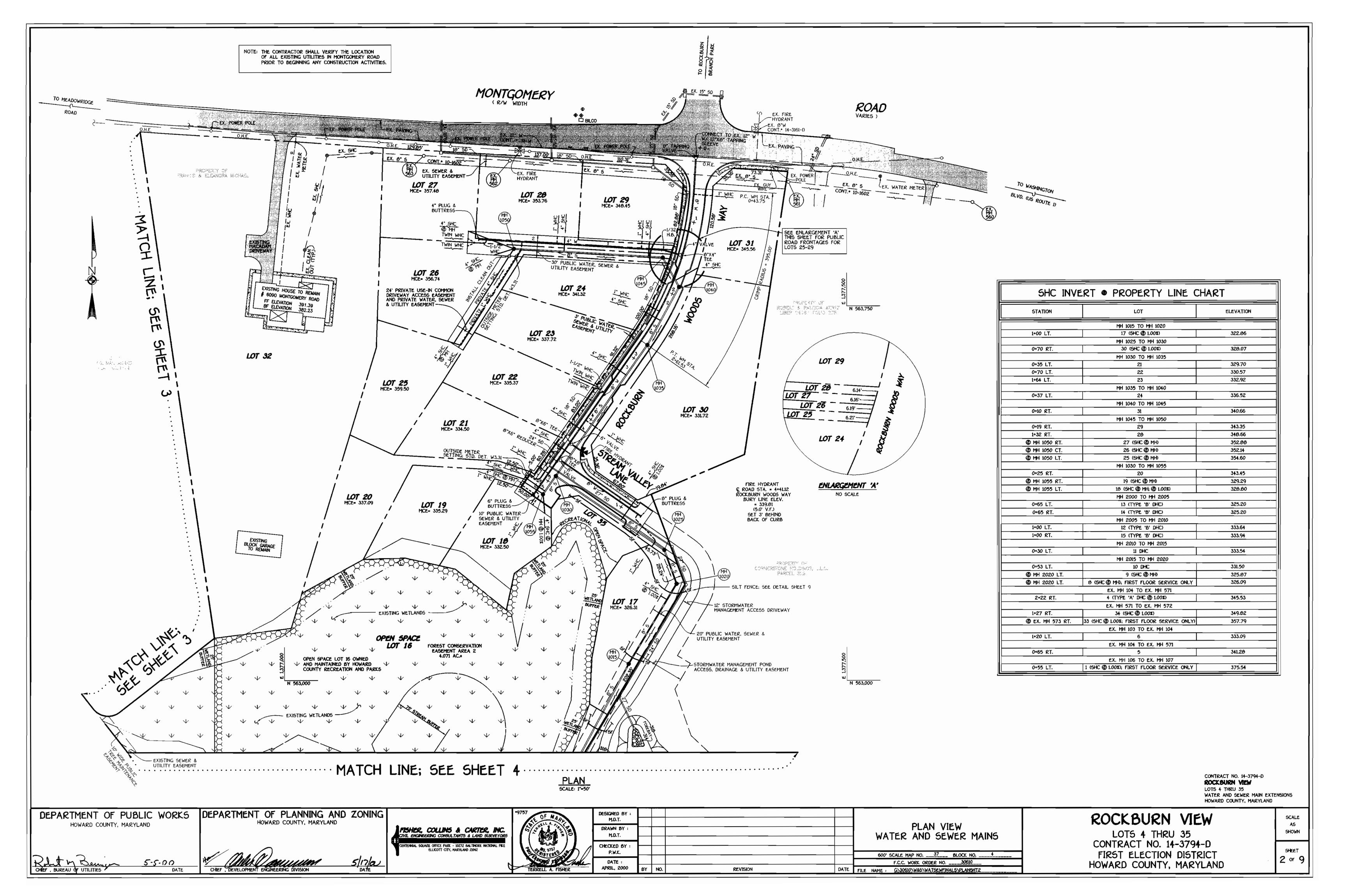
600' SCALE MAP NO. ___37___ BLOCK NO. _

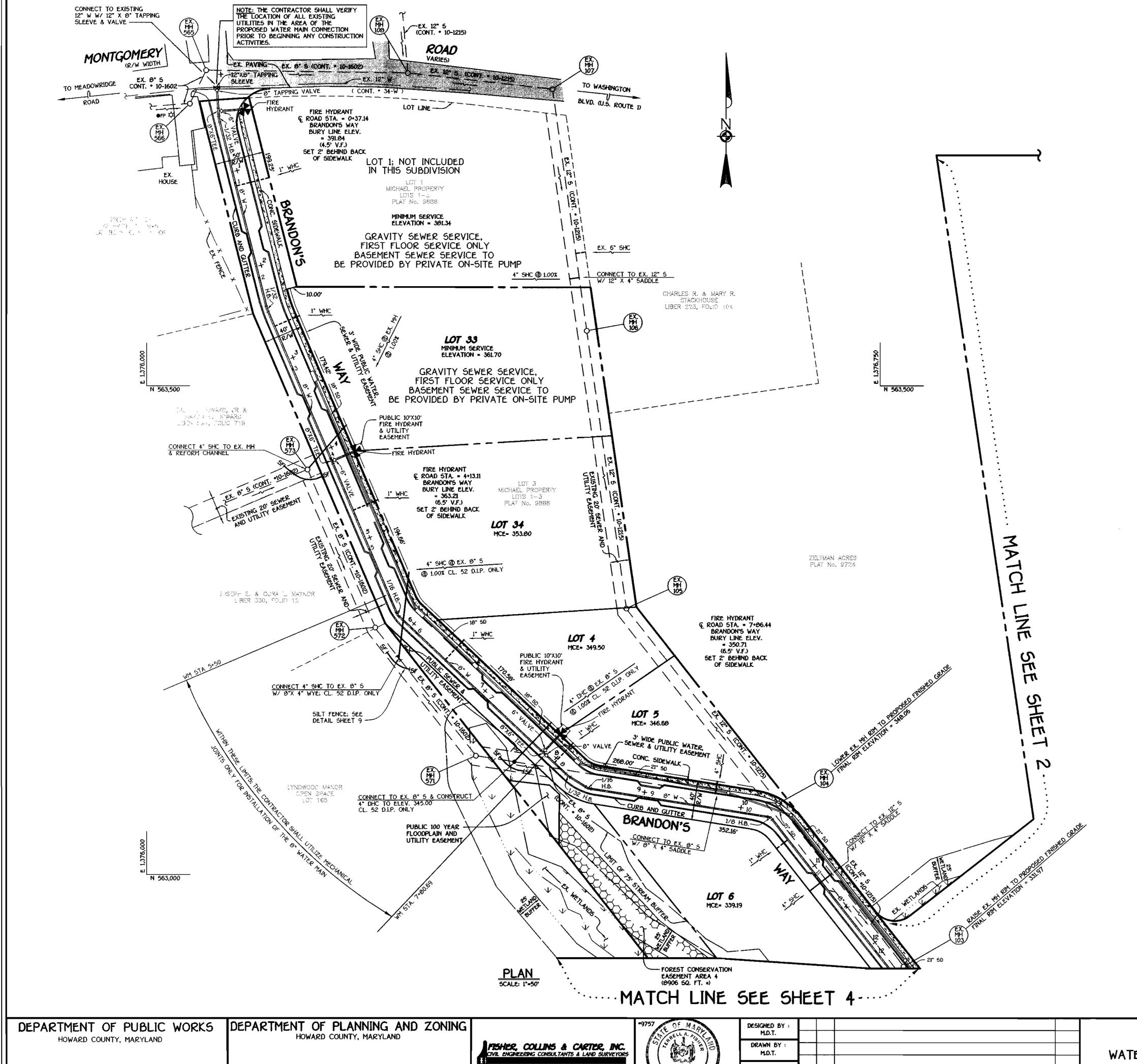
TITLE

F.C.C. WORK ORDER NO. ____30610 FILE NAME : G/30610/W&S/WATSEWFINALS/TITLESHEE

SHEET

HOWARD COUNTY, MARYLAND





WATER MAIN TABULATION CHART					
WM STATION	APPURTENANCE	& ROAD STATION	DISTANCE		
	BRANDON'S WAY				
0+00	12" X 0" TAPPING SLEEVE	0+12.92	5.00° RT		
0+03	6" TAPPING VALVE	0+15.92	5.00' RT		
0+24.47	9" X 6" TEE	0+37.14	5.24° RT		
0+32.55	1/32 H.B.	0+44.98	5.79° RT		
2+32.06	1/32 H.B.	2+44.40	5.56' RT		
4+02.00	8" X 6" TEE	4+13.11	5.00° RT		
5+72.80	1/16 H.B.	5+82.72	6.18° RT.		
7+77.69	8" X 6" TEE	7+86.44	5.00° RT		
7+80.69	8" VALVE	7+8 9.44	. 5.00° RT		
8+12.54	1/32 H.B.	8+21.29	5.00° RT		
Ø+36.97	1/16 H.B.	8+43.54	5.66' RT		
10+25.82	1/0 H.B.	10+32.50	1.67° RT.		
12+44.74	1/16 H.B.	12+53.15	4.48' RT		
12+58.38	P.C. (CRIMP RADIUS=380')	12+69.35	6.00° RT		
13+09.41	P.T. (CRIMP RADIUS=300')	13+19.73	3.90° RT		
13+63.41	1/16 H.B.	13+73.33	5.33' RT		
13+66.41	P.C. (CRIMP RADIUS=380')	13+75.95	4.51° RT.		
14+28.48	P.T. (CRIMP RADIUS=300")	14+36.52	5.00° RT		
15+92.92	9" X 6" TEE	16+00.97	5.00° RT		
16+67.77	1/0 H.B.	16+85.92	23.41' R1		
17+37.67	0" PLUG & BUTTRESS	L.P. STA.	5.79° RT		
	ROCKBURN WOODS WAY	•			
0+00	12" X 6" TAPPING SLEEVE	0+10.88	5.00° RT		
0+03	8" TAPPING VALVE	0+13.00	5.00° RT		
0+43.75	P.C. (CRIMP RADIUS=300')	0+54.64 ⁻	5.00° RT		
1+35.07	8" X 4" TEE	1+47.01	5.00° RT		
2+61.53	P.T. (CRIMP RADIUS=300')	2+75.17	5.00° RT		
4+28.08	8" X 6" TEE	4+41.72	5.00' RT		
4+54.00	8" X 8" TEE	4+67.72	5.00° RT		
4+57.08	8" X 6" REDUCER	4+70.72	5.00° RT		
5+12.46	6° PLUG & BUTTRESS	5+26.10	5.00° RT		
	STREAM VALLEY LANE				
0+00	0" X 0" TEE	-0+05	5.00° LT.		
0+03	8" VALVE	-0+02	5.00° LT		
1+34	6" PLUG & BUTTRESS	1+29	5.00° LT		
	ACCESS DRVE				
0+00	o" x 4" Tee	1+47.01	5.00° RT		
0+03	4" VALVE	1+47.01	8.00° RT		
0+25.48	1/32 H.B.	1+47.01	30.48° R		
2+47.53	4" PLUG & BUTTRESS	***			

	MANHOLE	TABULATION	CHART	
NO.	E ROAD STATION	DISTANCE	5LOPE	RIM ELEVATION
1000				312.00 *
2000				314.59 **
2005	## ## ## ## ## ## ## ## ##			330.00 **
2010	IN CUL-DE-SAC; BRANDON'S WAY		e.u	345.60
2015	IN CUL-DE-SAC; BRANDON'S WAY			342.77
2020	14+89.54; BRANDON'S WAY	5° LT.	+5.12%	332.70
1005				309.00 *
1010	******			312.70 **
1015		871-100-100		325.40 **
1020				338.50 **
1025				337.70 **
1030	4+86.61; ROCKBURN WOODS WAY	5' LT.	+1.28%	339.63
1035	2+75.17; ROCKBURN WOODS WAY	5' LT.	-6.08%	344.65
1040	1+87.86; ROCKBURN WOODS WAY	5' LT.	-9.92%	35L93
1045				352.00 **
1050				362.55 **
1055	5+18.18; ROCKBURN WOODS WAY	5° LT.	+1.20%	340.01
* 5ET RIM	1.5' ABOVE EXISTING GROUND			
** SET RIM	1 FLUSH W/ EXISTING OR PROPOSED	FINISHED GRADE		

CONTRACT NO. 14-3794-D

ROCKBURN VIEW

LOTS 4 THRU 35

WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2255

DATE



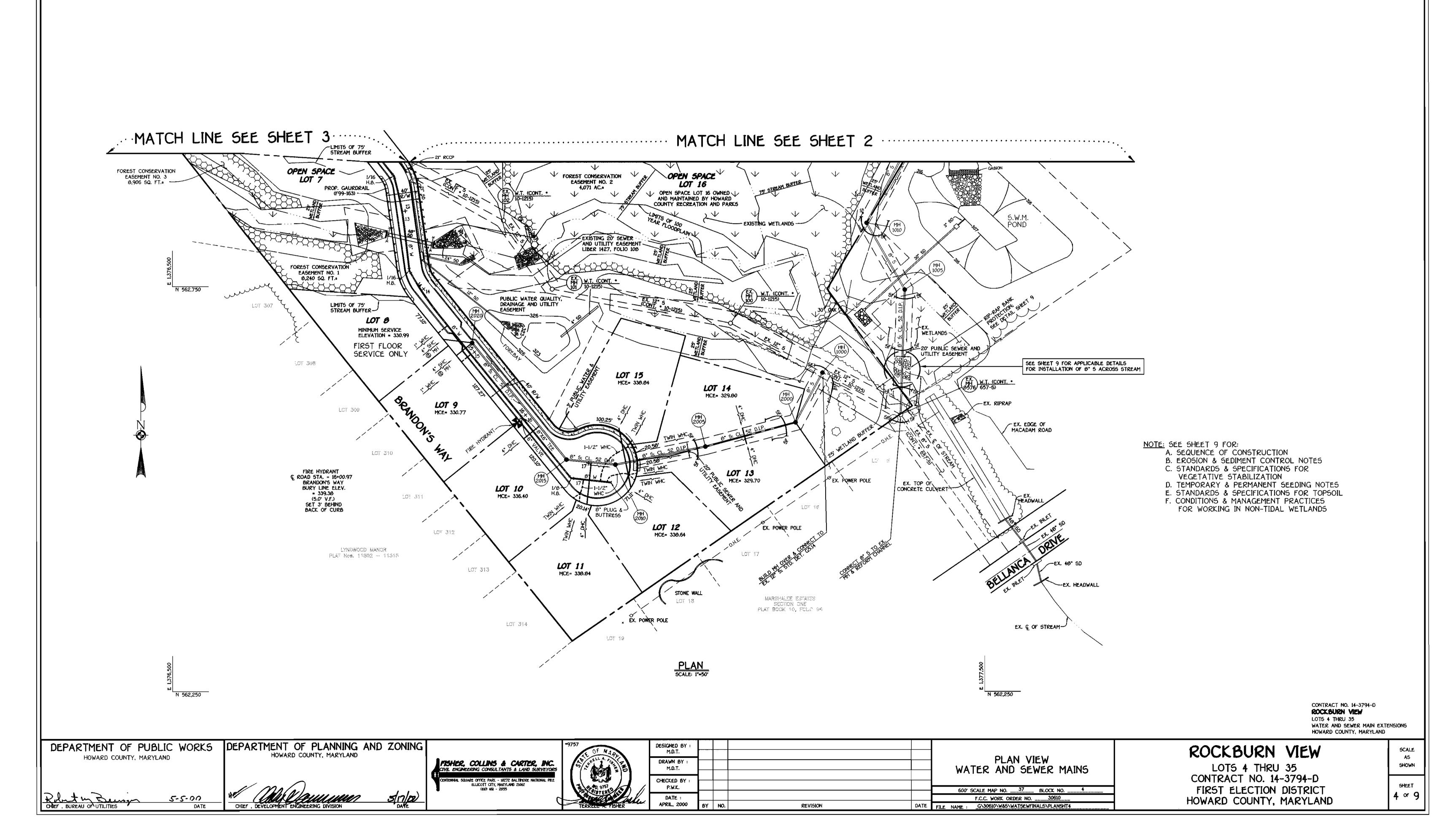
۱ ا	M.D.T.				
	DRAWN BY : M.D.T.				
	CHECKED BY : P.W.K.	<u> </u>			
	DATE :				
	APRIL, 2000	ВΥ	NO.	REVISION	DATE

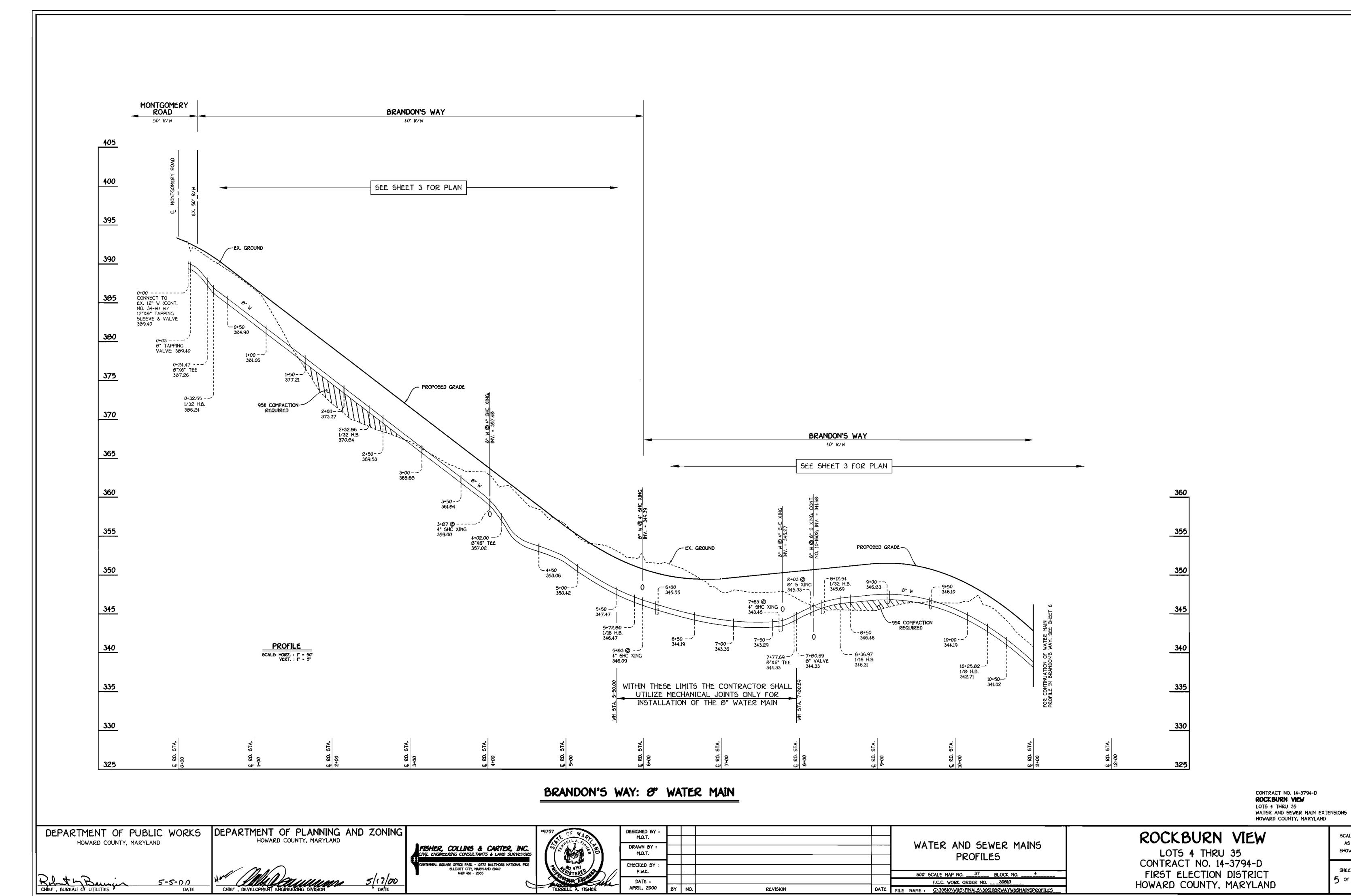
PLAN VIEW
WATER AND SEWER MAINS

ROCKBURN VIEW

LOTS 4 THRU 35
CONTRACT NO. 14-3794-D
FIRST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN



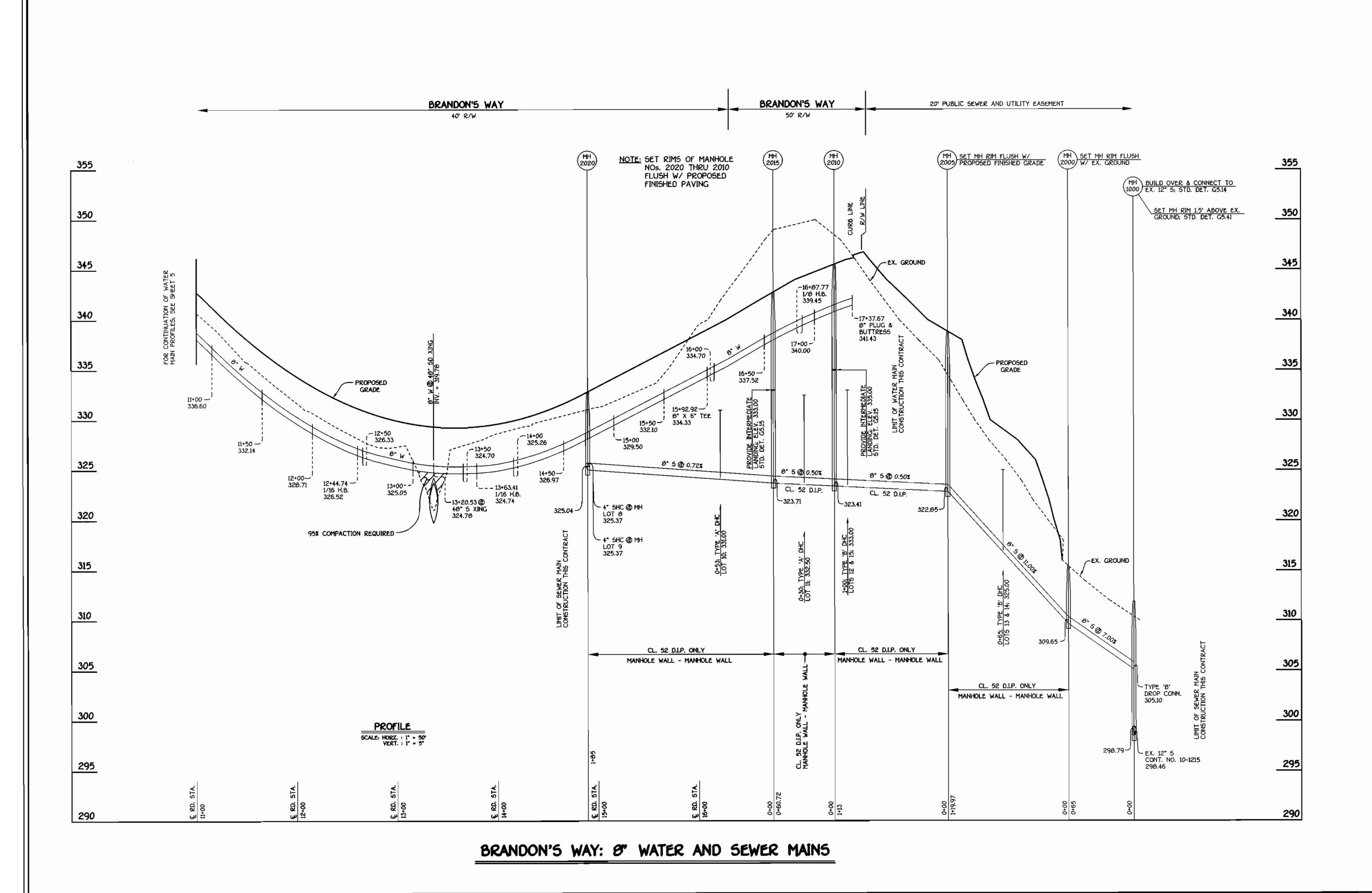


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CONTRACT NO. 14-3769-D

ROCKBURN VIEW

LOTS 4 THRU 35

WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

5-5-00

ZONING

FISHER, COLLINS & CARTER, INC.

CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS

CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL FIKE

ELLICOTT CITY, MARYLAND 21042

(410) 461 - 2055

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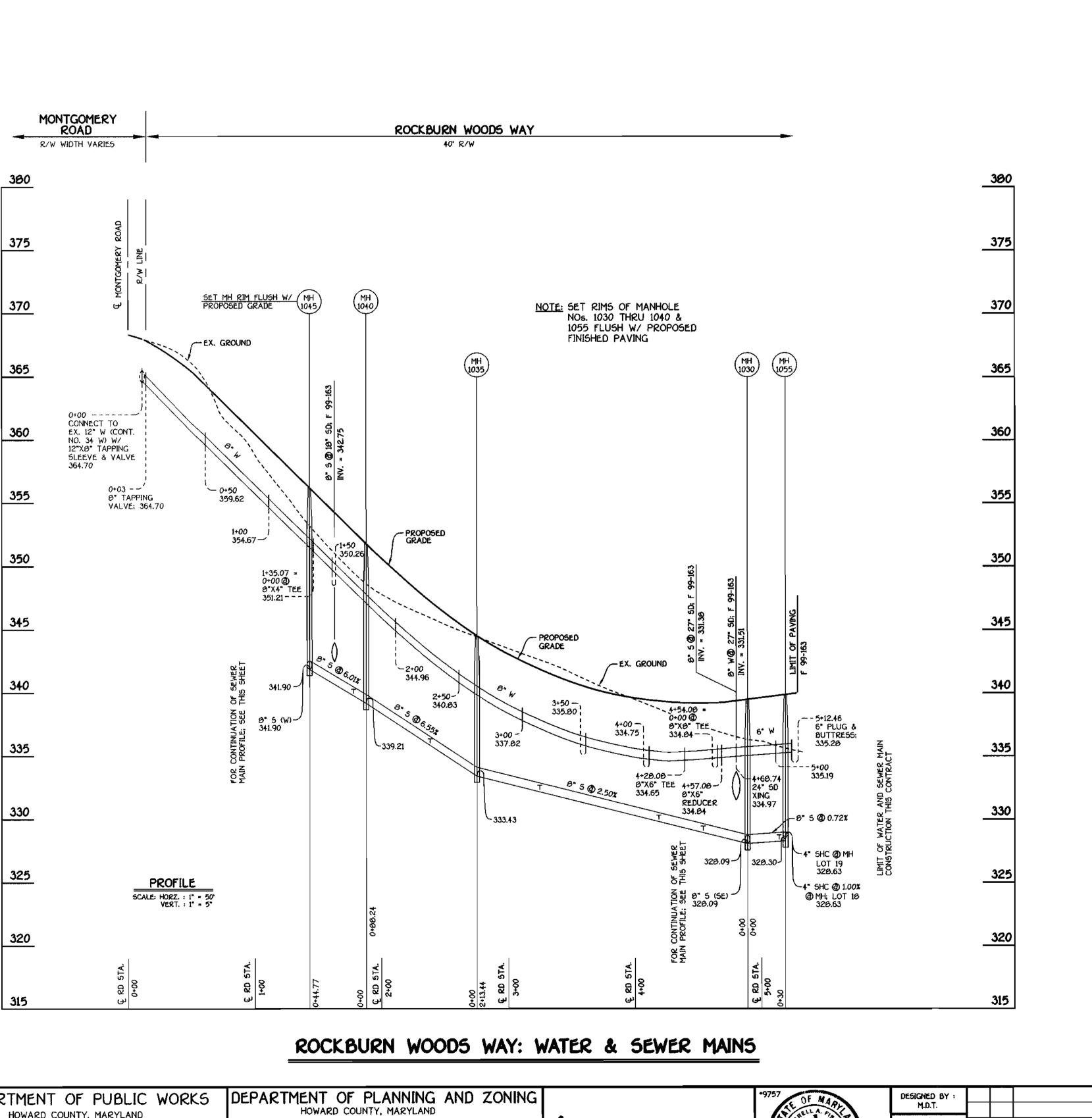
	DESIGNED BY :					
l	M.D.T.					WATER AND GENER MAING
	DRAWN BY :					WATER AND SEWER MAINS
L	M.D.T.					PROFILES PROFILES
	CHECKED BY :					
	P.W.K.					37
//	1 1111111					600' SCALE MAP NO. 37 BLOCK NO. 4
ا_ـــا	DATE :					F.C.C. WORK ORDER NO. 30610
	APRIL, 2000	BY	NO.	REVISION	DATE	FILE NAME: G\30610\W&S\FINAL5\30610BRWAYWATPROFSEWOUTFALL

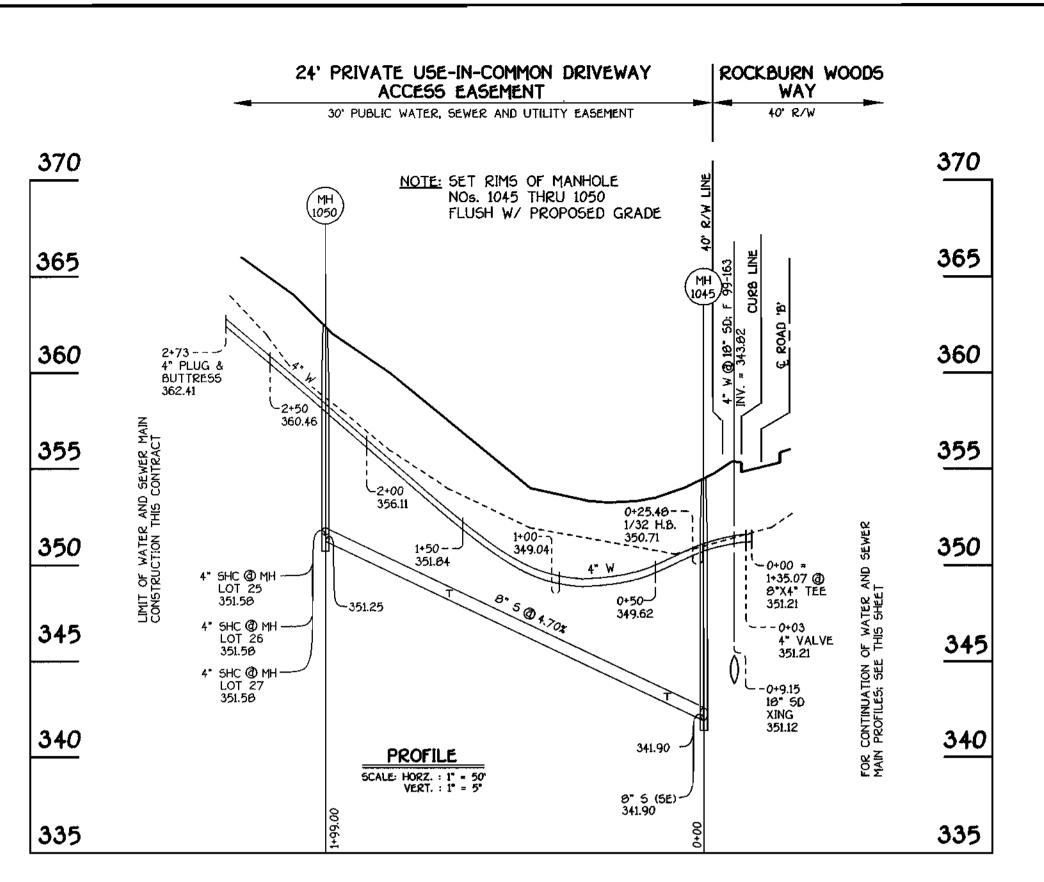
ROCKBURN VIEW

LOTS 4 THRU 35
CONTRACT NO. 14-3794-D
FIRST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

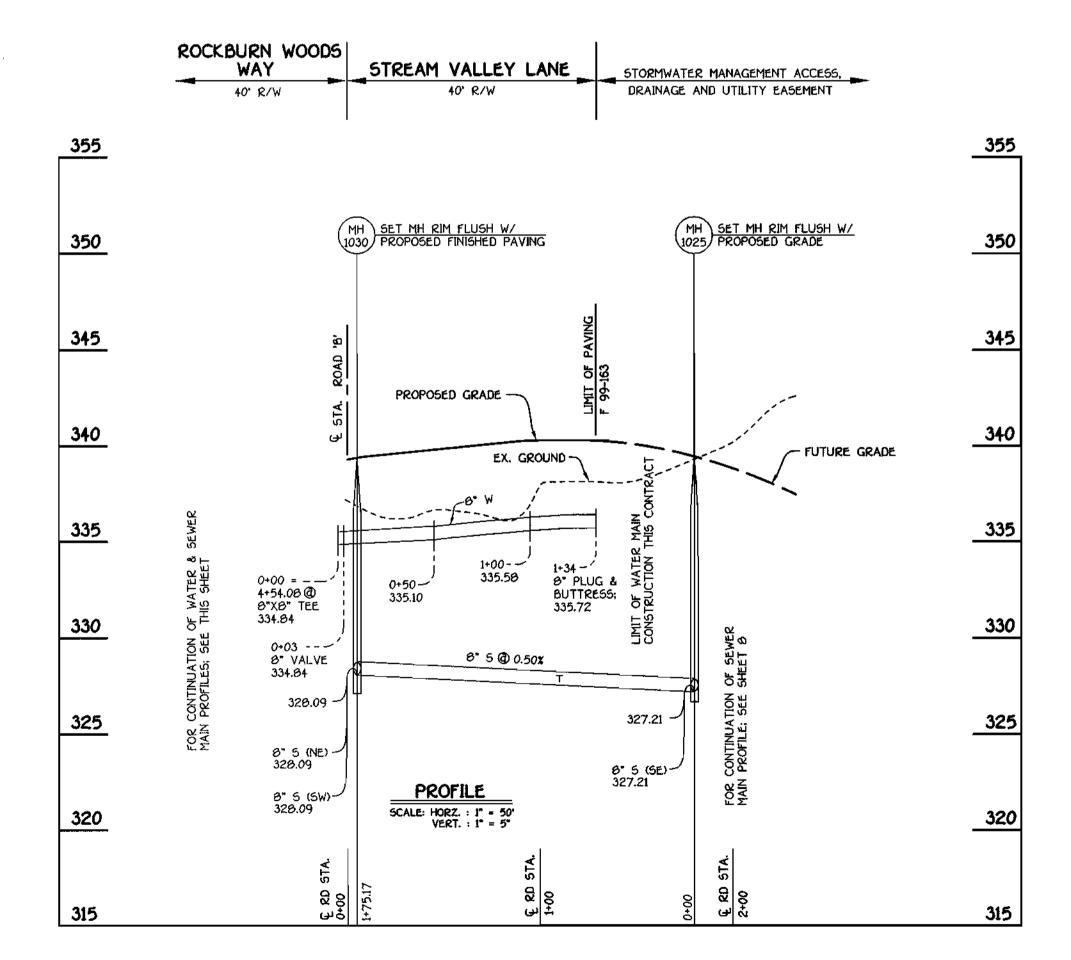
SCALE
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WATER & SEWER MAINS FOR LOTS 25 THRU 29



STREAM VALLEY LANE: WATER & SEWER MAINS

CONTRACT NO. 14-3794-D ROCKBURN VIEW LOTS 4 THRU 35 WATER AND SEWER MAIN EXTENSIONS HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND

5-5-00 DATE

FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MARYLAND 21042 (410) 461 - 2855

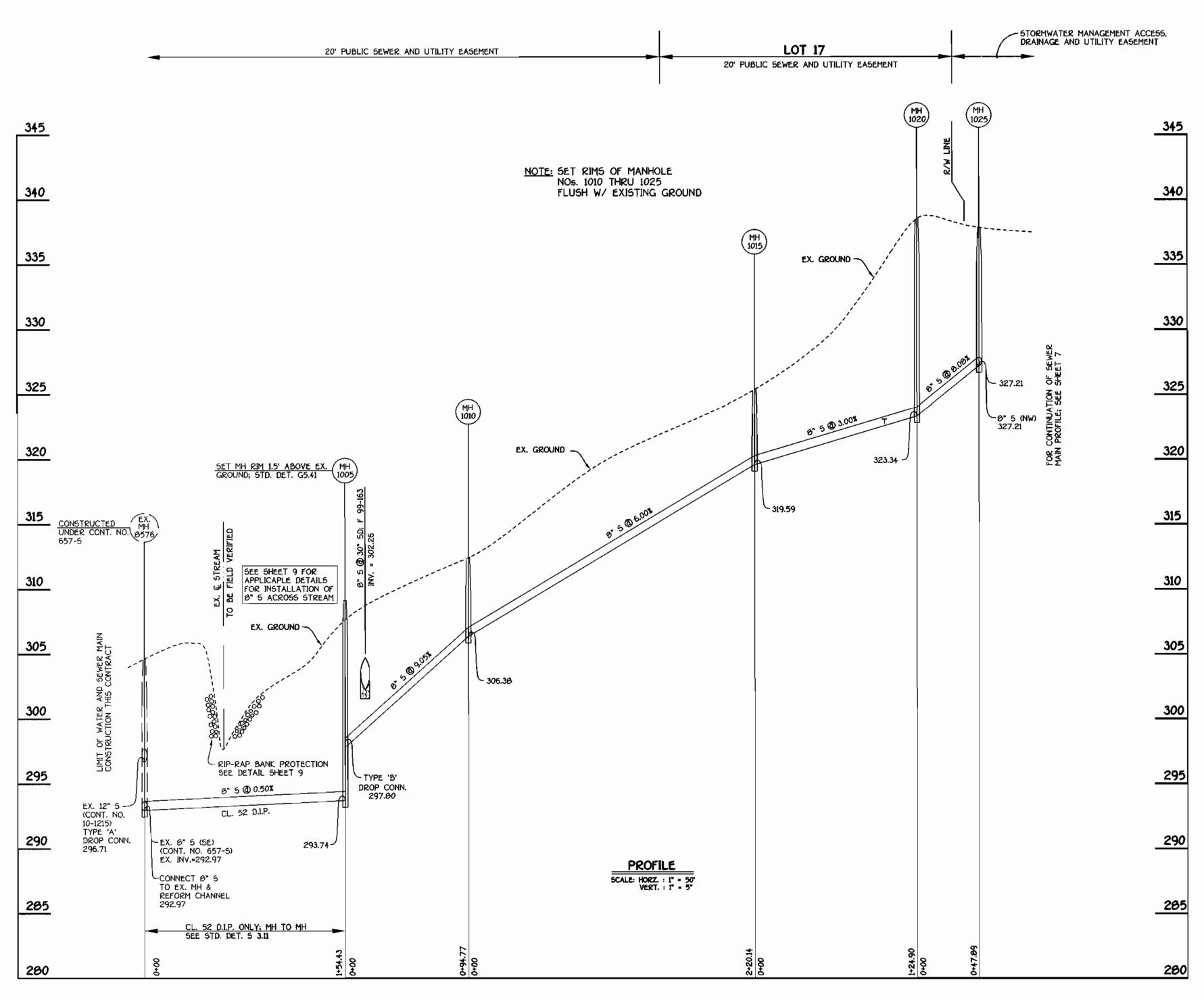


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0.475					
CHECKED BY : P.W.K.					600' SCALE MAP NO. 37 BLOCK NO. 4
					FROILL
DRAWN BY : M.D.T.					WATER AND SEWER MAINS PROFILES
M.D.T.					WATER AND GEWER MAINS
DESIGNED BY :					

ROCKBURN VIEW

LOTS 4 THRU 35 CONTRACT NO. 14-3794-D FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE SHOWN SHEET 7 of 9



8' SEWER MAIN OUTFALL FROM STREAM VALLEY LANE

CONTRACT NO. 14-3794-D

ROCKBURN VIEW

LOTS 4 THRU 35

WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE

FISHER, COLLINS & CARTER, INC.

CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS

CENTENNAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE

ELLICOTT CITY, MARYLAND 21042

(410) 461 - 2835

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KÆ.	32 00 9151 10 7 ERE'S	
0	TERRELL A. FISHER	

٦	DESIGNED BY :					
ı	M.D.T.		·			CEL IEO MAIN
ı	DRAWN BY : M.D.T.					SEWER MAIN
ı						PROFILE5
1	CHECKED BY : P.W.K.					
7	DATE :					600' SCALE MAP NO. 37 BLOCK NO. 4 F.C.C. WORK ORDER NO. 30610
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ROCKBURN VIEW

LOTS 4 THRU 35
CONTRACT NO. 14-3794-D
FIRST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SHEET 8 of 9

SCALE

SHOWN

SECTION 20: STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION Using vegetation as cover for barren soil to protect it from forces that cause erosion. PÚRPOSE. Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and run-off to downstream areas, and improving wildlife habitat and visual resources. CONDITIONS WHERE PRACTICE APPLIES This practice shall be used on denuded areas as specified on the plans and may be used on highly erodible or critically eroding areas. This specification is divided into Temporary Seeding, to quickly establish vegetative cover for short duration (up to one year), and Permanent Seeding, for long term vegetative cover. Examples of applicable areas for Temporary Seeding are temporary soil stockpiles, cleared areas being left idle between construction phases, earth dikes, etc. and for Permanent Seeding are lawns, dams, cut and fill slopes and other areas at final grade, former stockpile and staging areas, etc. EFFECTS ON WATER QUALITY AND QUANTITY

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration evaporation, transpiration, percolation, and groundwater recharge. Vegetation, over time, will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth. Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone.

Sediment control devices must remain in place during grading, seedbed preparation, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters. SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS A. Site Preparation

i. Install crosion and sediment control structures (either temporary of permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins. ii. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.

iii. Schedule required soil tests to determine soil amendment composition and application rates for sites

having disturbed area over 5 acres.

B. Soil Amendments (Fertilizer and Lime Specifications) Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.

ii. Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according o the applicable state fertilizer laws and shall bear the name, trade name or trademark and warrantee of the producer.

iii. Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contain at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a *100 mesh sieve and 90-100% will pass through a *20 mesh sieve.
iv. Incorporate lime and fertilizer into the top 3-5° of soil by discing or other suitable means.

C. Seedbed Preparation Temporary Seeding

a. Seedbed preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth, but left in the roughened condition. Sloped areas (greater than 3:1 should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.

b. Apply fertilizer and time as prescribed on the plans.
c. Incorporate time and fertilizer into the top 3-5" of soil by discing or other suitable means.
ii. Permanent Seeding Minimum soil conditions required for permanent vegetative establishment
1. Soil pH shall be between 6.0 and 7.0.

Soluble salts shall be less than 500 parts per million (ppm). The soil shall contain less than 40% clay, but enough fine grained material (>30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegrass of serecia lespedezas is to be planted, then a sandy soil (30% silverse) plus clay) would be acceptable.

Soil shall contain 1.5% minimum organic matter by weight. Soil must contain sufficient pore space to permit adequate root penetration. If these conditions cannot be met by soils on site, adding topsoil is required

in accordance with Section 21 Standard and Specification for Topsoil.

Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3-5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from

sliding down a slope.

Apply soil amendments as per soil test or as included on the plans.

Mix soil amendments into the top 3-5" of topsoil by discing or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed and application. Where site conditions will not permit normal seedbed preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1-3" of soil should be loose and friable. Seedbed loosening may not be necessary on

D. Seed Specifications All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on this job.

Note: Seed tags shall be made available to the inspector to verify type and rate of seed used ii. Inoculant - The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than the date indicated on the container. Add fresh inoculant as directed on package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 755-80° f. can weaken bacteria and make the inoculant asset effective.

until used. Temperatures above 75°-80° F. can weaken bacteria and make the inoculant E. Methods of Seeding Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeded, or a cultipacker seeder.

or drop seeded, or a cultipacker seeder.

a. If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen; maximum of 100 lbs. per acre total of soluble nitrogen; P205 (phosphorous): 200 lbs/ac; K20 (potassium): 200 lbs/ac.

b. Lime - use only ground agricultural limestone, (Up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.

c. Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.

without interruption.

ii. Dry Seeding: This includes use of conventional drop or broadcast spreaders.

a. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summaries or Tables 265 or 266. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.

b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

Machanized seeders that apply and cover seed with soil.

iii. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.

a. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.

b. Where practical, seed should be applied in two directions perpendicular to each other.

Apply half the seeding rate in each direction. Mulch Specifications (In order of preference)

Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonable bright in color, and shall not be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.

ii. Wood Cellulose Fiber Mulch (WCFM)

a. WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.

WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry. WCFM, including dye, shall contain no germination or growth inhibiting factors. WCFM materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry The mulch material shall form a blotter-like ground cover, on application, having moisture absorption and percolation properties and shall cover, on application, having moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings. WCFM material shall contain no elements or compounds at concentration levels that will be phytol-toxic.

f. WCFM must conform to the following physical requirements: fiber length to approximately 10 mm., diameter approximately 1 mm., pH range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum.

Note: Only sterile straw mulch should be used in areas where one species of grass is desired.

Mulching Seeded Areas - Mulch shall be applied to all seeded areas immediately after seeding.

i. If grading is completed outside of the seeding season, mulch alone shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed in accordance with these specifications.

accordance with these specifications.

ii. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch shall be applied to a uniform loose depth of between 1° and 2°. Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is to be used, the rate should be increased to 2.5 tons/acre.

iii. Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1,500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons of water.

Securing Straw Mulch (Mulch Anchoring): Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon size of area and erosion bazard.

preference), depending upon size of area and erosion hazard:

i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of two (2) inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. It used on sloping land, this practice should be used on the contour if possible.
 ii. Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds/acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

iii. Application of liquid binders should be heavier at the edges where wind catches much, such as in valleys and crest of banks. The remainder of area should be appear uniform after binder application. Synthetic binders - such as Acrylic DLR (Agro-Tack), DCA-70 Petroset, Terra Ta I. Terra Tack AR or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.

<u>5-5-00</u>

iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3,000 feet long.

TEMPORARY SEEDING NOTES APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY

APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER 04 LBS./

ING:

FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST
15 THROUGH NOVEMBER 15, SEED WITH 1.5 BUSHELS PER ACRE OF
ANNUAL RYE (3.2 LBS./ACRE OF WEEPING LOVEGRASS (.07 LBS./
1,000 SQ.FT. FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY
28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL.
ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE

MULCHING:
APPLY 1.5 TO 2 TONS PER ACRE (70 TO 90 LBS./1,000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW INVEDIGITELY AFTER SEEDING. ANCHORING TOOL OR 210 GALLONS PER ACRE (5 GAL,/1,000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT ACRES ON SLOPES & FEET OR HIGHER, USE 340 GALLONS PER ACRE (8 GALL/1,000 SQ.FT.) FOR ANCHORING.

STREAM BED

SHOWN ON THIS DRAWING.

II. MATERIAL SPECIFICATIONS

REQUIREMENTS.

* LESS THAN

THIS WORK SHALL CONSIST OF PROTECTING SLOPES &

IN ACCORDANCE WITH THE PLANS & SPECIFICATIONS

A. BANK RUN GRAVEL SHALL MEET THE FOLLOWING

B. GEOTEXTILE FILTER FABRIC SHALL MEET THE

-SANDBAG/STONE DIVERSION

STREAM WIDTH

SECTION AA

FOLLOWING REQUIREMENTS:

TENSILE STRENGTH

PUNCTURE STRENGTH

MINIMUM LAP LENGTH

(2 FT MIN) H/2+1FT

ELONGATION AT FAILURE

BURST STRENGTH

CHANNELS FROM EROSION COVERINGS OF STONE

REFER TO THE 1988 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT

15

U.S. STANDARD SIEVE SIZE

2 1/2 IN

NO. 10

70 L65.

NO. 40

NO. 200

PERMANENT SEEDING NOTES ALL DISTURBED AREAS SHALL BE STABILIZED AS FOLLOWS:

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.

SOIL AMENDMENTS:

APPLY TWO TONS PER ACRE DOLOMITIC LIMESTONE (92 LB6/1,000 SQ.FT.) AND 800 LB5. PER ACRE 0-20-20 FERTILIZER (14 LB6./1,000 SQ.FT.) BEFORE SEEDING HARROW OR DISC. BNTO UPPER THERE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LB5. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LB5./1,000 SQ.FT.) AND 500 LB5. PER ACRE (IL5 LB5./1,000 SQ.FT.) OF 10-20-20 FERTILIZER.

FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST
1 THROUGH OCTOBER 15, SEED WITH 100 LBS. PER ACRE (2.3
LBS./1,000 50.FT.) OF KENTUCKY 31 TALL FESCUE, FOR THE
PERIOD MAY 1 THROUGH JULY 31, SEED WITH 60 LBS./ACRE
(1.4 LBS./1,000 50.FT.) KENTUCKY 31 TALL FESCUE AND
2 LBS. PER ACRE (0.05 LBS./1,000 50.FT.) OF WEEPING
LOVEGRASS. DURING THE PERIOD OF OCTOBER 15 THROUGH
FEBRUARY 28. PROJECT SITE BY: OPTION (1) - TWO TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING OPTION (2) - USE SODE OPTION (3) - SEED WITH 100 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH TWO TONS/ACRE WELL ANCHORED STRAW. ALL SLOPES SHOULD

MULCHING:

APPLY 1 TO 2 TONS PER ACRE (IO TO 90 LBS./1,000 5Q.FT.)

OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING.

ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING 200

GALLONS PER ACRE (5 GAL./1,000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT ACRES. ON SLOPES & FEET OR HIGHER USE 346 GALLIONS PER ACRE (& GAL/1,000 SQLFT) FOR ANCHORING

MAINTENANCE:
INSPECT ALL SCEDED AREAS AND MAKE NEEDED REPAIRS,
REPLACEMENTS AND RESCEDINGS.

CLASS I RIP-RAP

III. CONSTRUCTION REQUIREMENTS

BUSINESS.

THE CONTRACTOR SHALL INSTALL ALL SEDIMENT &

EROSION CONTROL DEVICES AS A FIRST ORDER OF

2. PROVISIONS MUST BE MADE TO ANCHOR THE RIP-RAP AT THE STREAM BED SO AS TO PROVIDE PROTECTION AGAINST UNDERMINING. IF THIS CANNOT BE

ACCOMPLISHED BY EXTENDING THE TOE TRENCH AS

INDICATED IN CROSS SECTION, AN ALTERNATIVE

METHOD OF PROTECTION MUST RECEIVE PRIOR

WRITTEN APPROVAL OF THE ADMINISTRATION.

REASONABLY CLOSE CONFORMITY WITH THE

RIP-RAP. BEDDING MATERIAL SHALL CONSIST OF

EITHER A BANK RUN GRAVEL OR A GEOTEXTILE

FILTER FABRIC MEETING THE SPECIFICATIONS OF

5. THE PLACEMENT OF RIP-RAP SHALL BEGIN WITH THE

TOE. THE LARGER STONES SHALL BE PLACED IN THE

TOE AND ALONG THE OUTSIDE EDGES OF THE LIMITS

OF THE SLOPE & CHANNEL PROTECTION. THE RIP-RAP SHALL BE PLACED WITH SUITABLE EQUIPMENT IN

MASS OF STONES WITH ZERO DROP HEIGHT. THE

6. ANY EXCAVATION VOIDS EXISTING ALONG THE EDGES

OF THE COMPLETED SLOPE & CHANNEL PROTECTION

PLACING OF STONES THAT CAUSE EXTENSIVE

. ALL DISTURBED AREAS SHALL BE PERMANENTLY

SEDIMENT & EROSION CONTROL PLAN.

STABILIZED IN ACCORDANCE WITH AN APPROVED

SEGREGATION IS NOT ALLOWED.

SHALL BE BACKFILLED.

EXISTING GRADE

RIP-RAP STREAM BANK

PROTECTION DETAIL

W.P.D. 3.1

SANDBAG/STONE STREAM

MINIMUM CHANNEL CROSSECTIONAL AREA SHALL BE 60% OF EXISTING UNLESS

OTHERWISE SPECIFICALLY APPROVED

NO SCALE

SUCH A MANNER AS TO PRODUCE A REASONABLY GRADED

3. EXCAVATION FOR RIP-RAP SHALL BE MADE IN

EXISTING STREAM SLOPE & BED.

4. A FILTER BEDDING IS REQUIRED UNDER ALL

SEDIMENT CONTROL NOTES

D A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).

2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS

CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.

3) FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7

CALENDAR DAYS FOR ALL PERMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERMETER SLOPES AND ALL SLOPES STEEPER THAN 31, b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

4) ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.

5) ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 51), SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50), AND MULICHING (SEC. 52). TEMPORARY STABILIZATION WITH MULICH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.

6) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND APP

6) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT

CONTROL INSPECTOR.
7) SITE ANALYSIS: TOTAL AREA OF SITE AREA DISTURBED 25.404 ACRES** AREA TO BE ROOFED OR PAVED
AREA TO BE VEGETATIVELY STABILIZED 0.500 ACRES

OFFSITE WASTE/BORROW AREA LOCATION: N/A
ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING
ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE

SAME DAY OF DISTURBANCE
ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED
NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR. 10) ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL

BY THE INSPECTION AGENCY IS MADE.

LIMITS OF-

DISTURBANCE

11) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

* INDICATES TOTAL AREA TO BE RECORDED; FROM RECORD PLAT
** INDICATES ONLY THE AREA OF DISTURBANCE CAUSED BY UTILITY
INSTALLATION BEYOND THE STREET R/W LIMITS OF THE ROAD &
STORM DRAIN CONSTRUCTION PLANS; F 99-163.

SECTION 21: STANDARD AND SPECIFICATIONS FOR TOPSOIL

1) DEFINITION: PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.
2) PURPOSE: TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. 3) SPECIFICATIONS: A.TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND.

TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING SUBSOILS. C.TOPSOIL SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1.5" IN DIAMETER.

A.TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4"- 8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4": AVOID SURFACE IRREGULARITIES.

B.PLACE TOPSOIL AND APPLY SOIL AMENDMENTS AS SPECIFIED IN "STANDARDS AND 4) APPLICATION: SPECIFICATIONS FOR VEGETATIVE STABILIZATION. C.TOPSOIL SHALL NOT BE PLACED DURING FROZEN, MUDDY, OR EXCESSIVELY WET

SEQUENCE OF CONSTRUCTION

OBTAIN THE REQUIRED GRADING PERMIT.

NOTIFY MISS UTILITY 40 HOURS BEFORE BEGINNING ANY WORK

(1-800-257-7777). NOTIFY HOWARD COUNTY CONSTRUCTION/INSPECTION

DIVISION 24 HOURS BEFORE STARTING ANY WORK ((4)0313-1670).

INSTALL THE REQUIRED SEDIMENT AND EROSION CONTROL DEVICES

AS INDICATED ON SHEET 2, 3 & 4 OF THIS CONTRACT (I DAY).

CLEAR AND GRUB AS NECESSARY; ONLY AS REQUIRED FOR EXCAVATION

THE DESIGNATED SEWER AND UTILITY EASEMENTS (2 DAYS).

THE DESIGNATED SEWER AND UTILITY EASEMENTS (2 DAYS).

NOTE: THE LENGTH OF OPEN SEWER MAIN TRENCH SHALL BE
LIMITED TO THREE (3) PIPE LENGTHS OR THAT WHICH WILL BE BACKFILLED AND
STABILIZED WITHIN ONE OF WORKING DAY, WHICHEVER IS SHORTER.

CONSTRUCT THE SEWER MAIN AND APPURTENANCES (6 DAYS).
STABILIZE SEED AND MULCH ALL DISTURBED AREAS IN ACCORDANCE

DETAIL 22 - SILT FENCE

36" MINIMUM FENCE POST LENGTH

FLOW

Construction Specifications

ground. Wood posts shall be 11/2" x 11/2" square (minimum) cut. or 13/4" diameter

1. Fence posts shall be a minimum of 36° long driven 16° minimum into the

(minimum) round and shall be of sound quality hardwood. Steel posts will be

standard T or U section weighting not less than 1.00 pond per linear foot

. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements

0.3 gal ft / minute (max.)*

A where ends of geotextile fabric come together, they shall be overlappe

4. Silt Fence shall be inspected after each rainfall event and maintained when

bulges occur or when sediment accumulation reached 50% of the fabric height

SILT FENCE

Silt Fence Design Criteria

5lope Length

60 feet

Note: In areas of less than 2% slope and sandy soils (USDA general classification

system, soil Class A) maximum slope length and silt fence length will be

unlimited. In these areas a silt fence may be the only perimeter control

DEVELOPER'S CERTIFICATION

WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR

EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF

ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING

PROGRAM FOR SEDIMENT AND EROSION CONTROL BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE

HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS

Paul W. Land Dor: Cornerstone Holomes L.LC. 05/03/00

ENGINEER'S CERTIFICATION

"! HEREBY 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

" I/WE HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION

50 bs/in (min)

folded and stapled to prevent sediment bypass

20 ba/in (min.)

embed geotextile class f

PERSPECTIVE VIEW

JOINING TWO ADJACENT SILT

Termile Modulus

Slope Steepness

3:1 to 2:1

ARE DEEMED NECESSARY."

CONSERVATION DISTRICT."

HAT CALLE GIGNATURE OF ENGINEER

Filtering Efficience

FENCE SECTIONS

36" MINIMUM LENGTH FENCE POST

RIVEN A MINIMUM OF 16° INTO

CROSS SECTION

Test: MSMT 509

Test: MSMT 322

Silt Fence Length

-16" MINIMUM HEIGHT O

FENCE POST SECTION

- FENCE POST DRIVEN

WITH THE PERMANENT SEEDING NOTES SHOWN ON THIS SHEET.(I DAY)
FOLLOWING SUCCESSFUL STABILIZATION OF ALL DISTURBED AREAS,
AND AFTER PERMISSION HAS BEEN OBTAINED FROM THE HOWARD
COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL EROSION AND
SEDIMENT CONTROL DEVICES.(I DAY)

SEWER MAIN -FLOW BARRIER

STREAM BANK

_proposed sewer main

3 FT. MIN

PLAN VIEW

STREAM BED-

I. <u>DESCRIPTION</u>

THIS WORK SHALL CONSIST OF INSTALLING EROSION CONTROL DEVICES IN & ADJACENT TO TEMPORARY STREAM CONSTRUCTION SUCH AS UTILITY CROSSINGS.

IL CONSTRUCTION REQUIREMENTS

1. ALL EROSION & SEDIMENT CONTROL DEVICES SHALL BE INSTALLED AS THE FIRST ORDER

2. THE CONTRACTOR SHALL INSURE THAT A CONTINUOUS PERIMETER CONTROL BARRIER

IS IN PLACE 50 AS TO MINIMIZE POLLUTANTS ENTERING THE WATER. 3. EXCAVATED TOPSOIL & SUBSOIL SHALL BE KEPT SEPARATE & REPLACED IN THEIR NATURAL ORDER

4. ALL EXCAVATED MATERIALS SHALL BE PLACED ON

THE UPLAND SIDE OF THE EXCAVATION. 5. ALL CONSTRUCTION SHALL TAKE PLACE DURING STREAM LOW FLOWS. THE LENGTH OF CONSTRUCTION TIME SHALL BE LIMITED TO A MAXIMUM OF 5

DAYS FOR EACH CROSSING. 6. ALL UTILITY CROSSINGS SHALL BE PLACED AT LEAST THREE FEET BENEATH THE STREAM BED UNLESS AN ALTERNATIVE SECTION IS SPECIFICALLY APPROVED BY THE ADMINISTRATION.

7. THE CONTRACTOR MAY ELECT TO CONSTRUCT THE UTILITY CROSSING IN TWO STAGES. IN THIS CASE A WRA APPROVED FLOW BARRIER MAY BE CONSTRUCTED TO KEEP THE CONSTRUCTION AREA DRY.

8. SEDIMENT CONTROL DEVICES ARE TO REMAIN IN PLACE UNTIL ALL DISTURBED AREAS ARE STABILIZED IN ACCORDANCE WITH AN APPROVED SEDIMENT & EROSION CONTROL PLAN & THE INSPECTION AUTHORITY APPROVES THEIR REMOVAL.

UTILITY CROSSING DETAIL

NO SCALE

STREAM BED

3 FT. MINIMUM

SECTION BB

BANK PROTECTION

SECTION AA

-PROPOSED SEWER MAIN

- PROPOSED WATER/

SEWER MAIN

TEX. GROUND

FENCE TO RESTRAIN, IF SLOPE IS GREATER THAN 5 PERCENT. STAKE THROUGH CONSTRUCTION 25' MAX. STAKES CUT OPEN CORNER O BAG AND CLAMP ON DEWATERING HOSE PLAN TO HOLD ON SLOPES CONSTRUCTION FENCE FOR RESTRAINT AND AID IN LIFTING USED BAG O TO 10% SLOPE WATER AND-- FILTER FABRIC SECTION (PHILLIPS FIBERS SUPAC BNP)

W.P.D. 3.1

1. FILTER BAG SHALL BE PLACED ON A SLOPING OR LEVEL, WELL GRADED VEGETATED SITE SUCH THAT WATER WILL FLOW AWAY FROM DEVICE AND ANY WORK AREAS. 2. WITCH AND LENTH SHALL BE AS SHOWN 3. THE FILTER BAG MUST BE STAKED IN PLACE AND SECURED TO THE PUMP DISHARGE LINE.

4. FILTER BAG SHALL NOT BE USED FOR DISCHARGE FLOWS GREATER THAN 300 GPM.

5. DEVICE SHALL BE REMOVED AND DISPOSED OF AFTER BAG IS FILLED WITH SEDIMENT. SCOMENT FROM BAG SHALL BE SPREAD IN AN UPLAND AREA.

AVAILABLE FROM NDIAN VALLEY INDUSTRIES, INC.

A.C.F. ENVIRONMENTAL

1801-A WILLIS ROAD RICHMOND, VIRGINIA 23237 PRICE AND COMPANY, INC. 425 36TH STREET WYOMING, MI. 49548

FILTER BAG DETAIL

NOT TO SCALE

CONTRACT NO. 14-3794-D ROCKBURN VIEW LOTS 4 THRU 35 WATER AND SEWER MAIN EXTENSIONS HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS

HOWARD COUNTY, MARYLAND

Roll & Bunga

CHIEF , BUREAU OF UTILITIES

DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC. ENGINEERING CONSULTANTS & LAND SURVEYOR SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL P ELLICOTT CITY, MARYLAND 21042



DESIGNED BY M.D.T. DRAWN BY M.D.T. CHECKED BY P.W.K. DATE : APRIL, 2000 BY NO. REVISION

SEDIMENT AND EROSION CONTROL NOTES AND DETAILS

F.C.C. WORK ORDER NO. ____30610

DATE FILE NAME : G\30610\W&S\FINALS\30610STREAMXINGDET

ROCKBURN VIEW

LOTS 4 THRU 35 CONTRACT NO. 14-3794-D FIRST ELECTION DISTRICT

SHOWN SHEET 9 of 9

SCALE

A5

SANDBAG/STONE STREAM FLOW DIVERSION DETAIL

600' SCALE MAP NO. ___37___ BLOCK NO. _

HOWARD COUNTY, MARYLAND

QUANTITIES						
item	ESTIMATED		A5-BUILT			
		QUANTITIES	TYPE	SUPPLIER		
8" SEWER	1,303.32 L.F.					
6" SEWER (D.I.P.)	633.12 L.F.					
4° SEWER	1,266 L.F.					
4" SEWER (D.I.P.)	142 L.F.					
MANHOLES	15 EACH					
O" WATER	2,328.75 L.F.					
6" WATER	163.89 L.F.					
4" WATER	273 L.F.					
1-1/2" WATER	134 L.F.					
1" WATER	632 L.F.		_			
FIRE HYDRANTS	5 EACH					
8" × 8" TEE	1 EACH					
0" × 6" TEE	5 £ACH					
8" x 4" Tee	1 EACH					
8" VALVE	2 EACH					
6" VALVE	5 EACH					
4" VALVE	1 EACH					
8"-1/8 H.B.	2 EACH					
8*-1/16 H.B.	4 EACH					
6*-1/32 H.B.	3 EACH					
4*-1/32 H.B.	1 EACH					
Ø" PLUG & BUTTRESS	2 EACH					
6" PLUG & BUTTRESS	1 EACH					
4" PLUG & BUTTRESS	1 EACH					
12" X 8" TAPPING SLEEVE & VALVE	2 EACH					
OUTSIDE METER	2 EACH					
SETTING						

"I/WE HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR SEDIMENT AND EROSION CONTROL BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEFMED NECESSARY."

POULUNE OF DEVELOPER HOLDINGS L.L.C. 05/03/00

ENGINEER'S CERTIFICATION

" I HEREBY 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."

4 Manu



REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

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

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

APPROVED:

HOWAND SOIL CONSERVATION DISTRIC

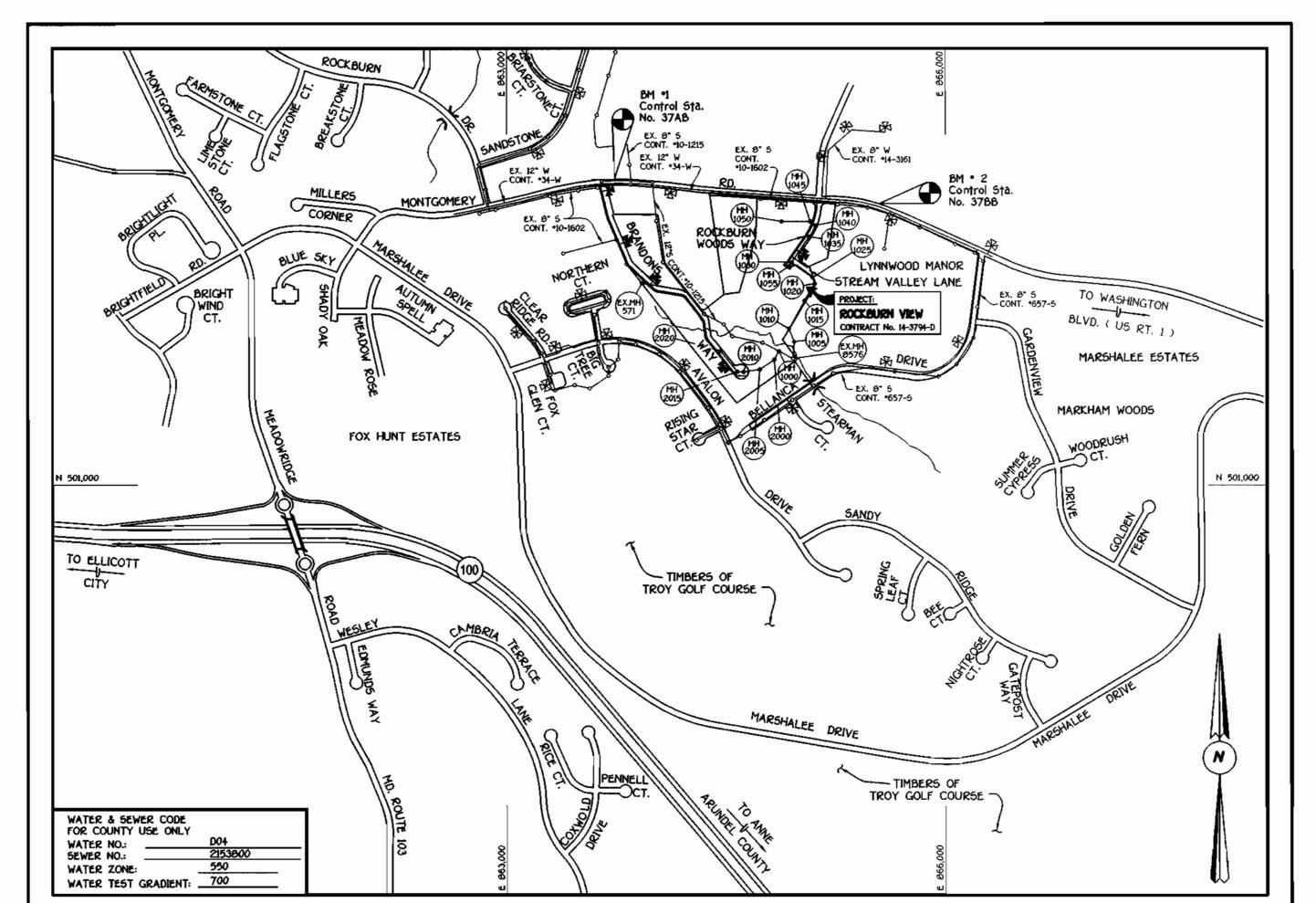
DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AS SHOWN ON THESE PLANS

HOWARD COUNTY, MARYLAND

SIGNATURE OF DEVELOPER DATE

5-5-00



VICINITY MAP

PLAN REFERENCE NUMBERS:

5 97-06, P 90-16, F 99-163

CONTRACT No. 14-3794-D

ROCKBURN VIEW

LOTS 4 THRU 35
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

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 UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY
- TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

 2. ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- 3. ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATUM.
- 4. ALL PIPE ELEVATIONS ARE INVERT ELEVATIONS.
- 5. CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2"-0" MINIMUM.
- 6. FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (1991 AMENDMENTS) THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB SITE.
- 7. 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 VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION. ANY DAMAGE TO EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 6. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

STATE HIGHWAY ADMINISTRATION - (410) 531-5533

BALTIMORE GAS & ELECTRIC CO.. - CONTRACTOR SERVICES - (410) 950-4620

BALTIMORE GAS & ELECTRIC CO.. - UNDER GROUND DAMAGE CONTROL - (410) 707-9060

MISS UTILITY - 1-000-257-7777

COLONIAL PIPELINE CO. - (410) 795-1390

BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - (410) 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

 10. CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- 11. ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.
- 12. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- 13. T.B. DENOTES TEST BORING.
- 14. MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- 15. MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G 5.52.

 16. WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE
- NOTED ON THE PLANS OR IN THE SPECIFICATIONS.

 17. HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.
- 18. ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN
- THE SPECIFICATIONS.

 19. MANHOLES LOCATED WITHIN THE PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAMES AND COVERS,
- 20. WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED AS TO HAVE ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
- 21. ALL WATER MAINS SHALL BE D.I.P., CLASS 52 UNLESS OTHERWISE NOTED.
- 22. TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2' COVER UNLESS OTHERWISE NOTED.
- 23. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- 24. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- 25. FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATION SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS (WI.II AND W2.13). SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
- 26. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- 27. ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATIONS C-153; DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH
- 12-INCH FOR WATER AND OTHER LIQUIDS.

 28. THE CONTRACTOR SHALL NOTIFY THE BURGALL OF HICHMANS HOWARD COUNTY & (410) 212 2450 AT LEAST SING MODERNIC DAYS OF
- 28. THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, (410) 313-2450 AT LEAST FIVE 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.

BENCHMARK INFORMATION

B.M.*1 - HOWARD COUNTY MONUMENT NO. 37AB

ELEV.= 394.74: DESCRIPTION: STAMPED CONC. MONUMENT ◆ SURFACE

APPROX. 9' SOUTH OF EDGE OF E.B.L. OF MONTGOMERY ROAD AND 64'

WEST OF CENTERLINE OF DRIVEWAY FOR HOUSE *6028

B.M.•2 - HOWARD COUNTY MONUMENT NO. 37BB
ELEV.= 373.03; DESCRIPTION: STAMPED CONC. MONUMENT ● SURFACE
BETWEEN BACK OF GUARD RAIL AND SOUTH EDGE OF CONCRETE WALK
FOR ROCKBURN ELEM. SCHOOL. 16.3' FROM AN X-CUT IN THE END POST OF
THE GUARDRAIL AND 10.0' FROM THE END OF THE CHAIN LINK FENCE

CONTRACT NO. 14-3794-D
ROCKBURN VIEW
LOTS 4 THRU 35
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS DEP

RKS DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND

CHIEF , DEVELOPMENT ENGINEERING DIVISION DATE



TYPE OF BUILDING: RESIDENTIAL; SINGLE FAMILY DETACHED

TREATMENT PLANT: PATAPSCO WASTEWATER TREATMENT

PLANT; CITY OF BALTIMORE

PATAP5CO

NUMBER OF LOTS & PARCELS: ____

NO. OF WATER HOUSE CONNECTIONS:

NO. OF SEWER HOUSE CONNECTIONS:

DRAINAGE AREA:



MOT.					
M.D.T.					
DRAWN BY :					
J.E.P./M.D.T.	\Box				
CHECKED BY :					
P.W.K.	\vdash				
DATE :	DAN.		REVISE QUANTITIES DUE TO WHC/SHC ADJUSTMENTS	0814.00	
APRIL, 2000	вγ	NO.	REVISION	DATE	

TITLE SHEET

600' SCALE MAP NO. ___37__ BLOCK NO. ___4___

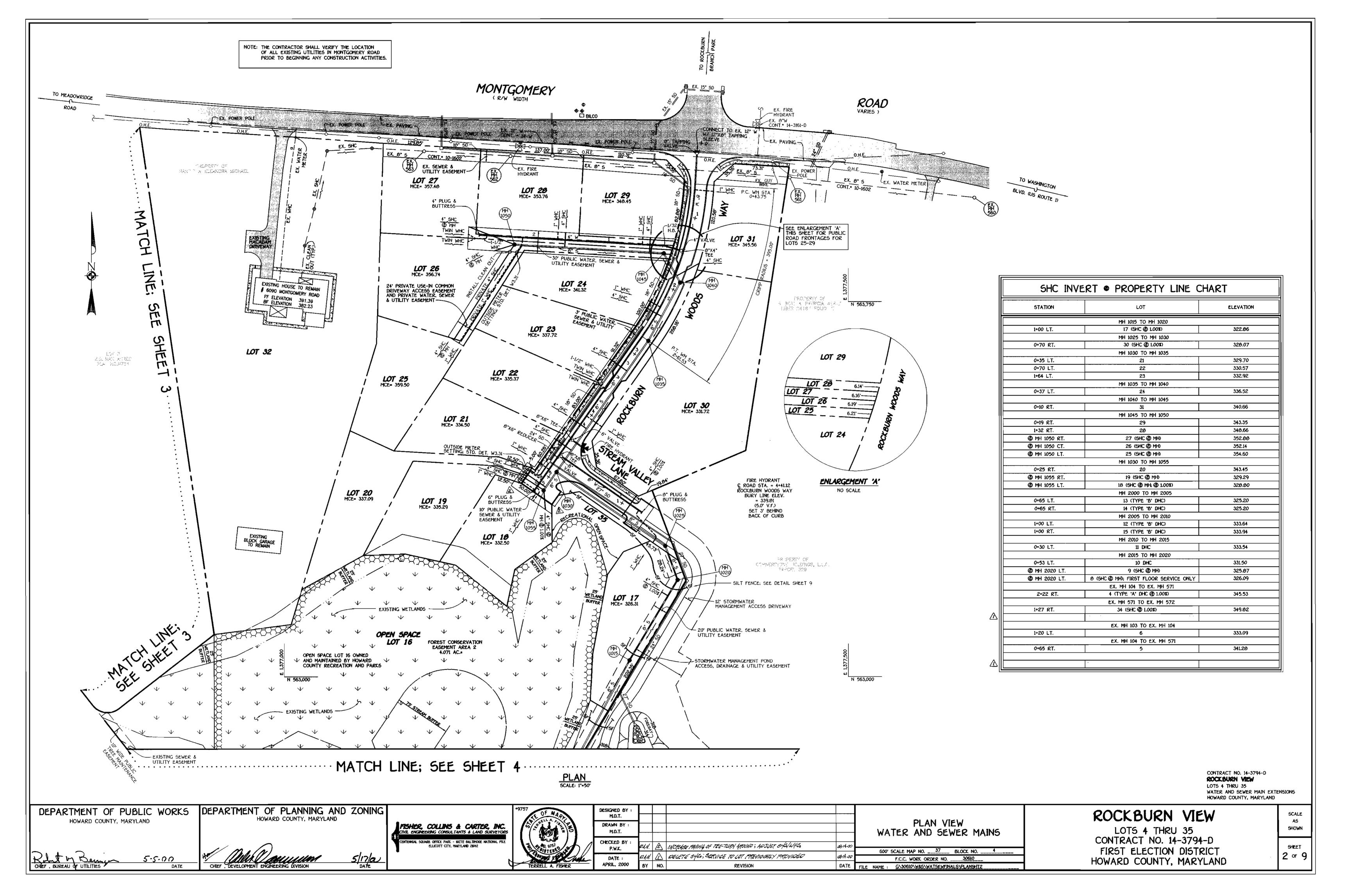
F.C.C. WORK ORDER NO. ___30610____

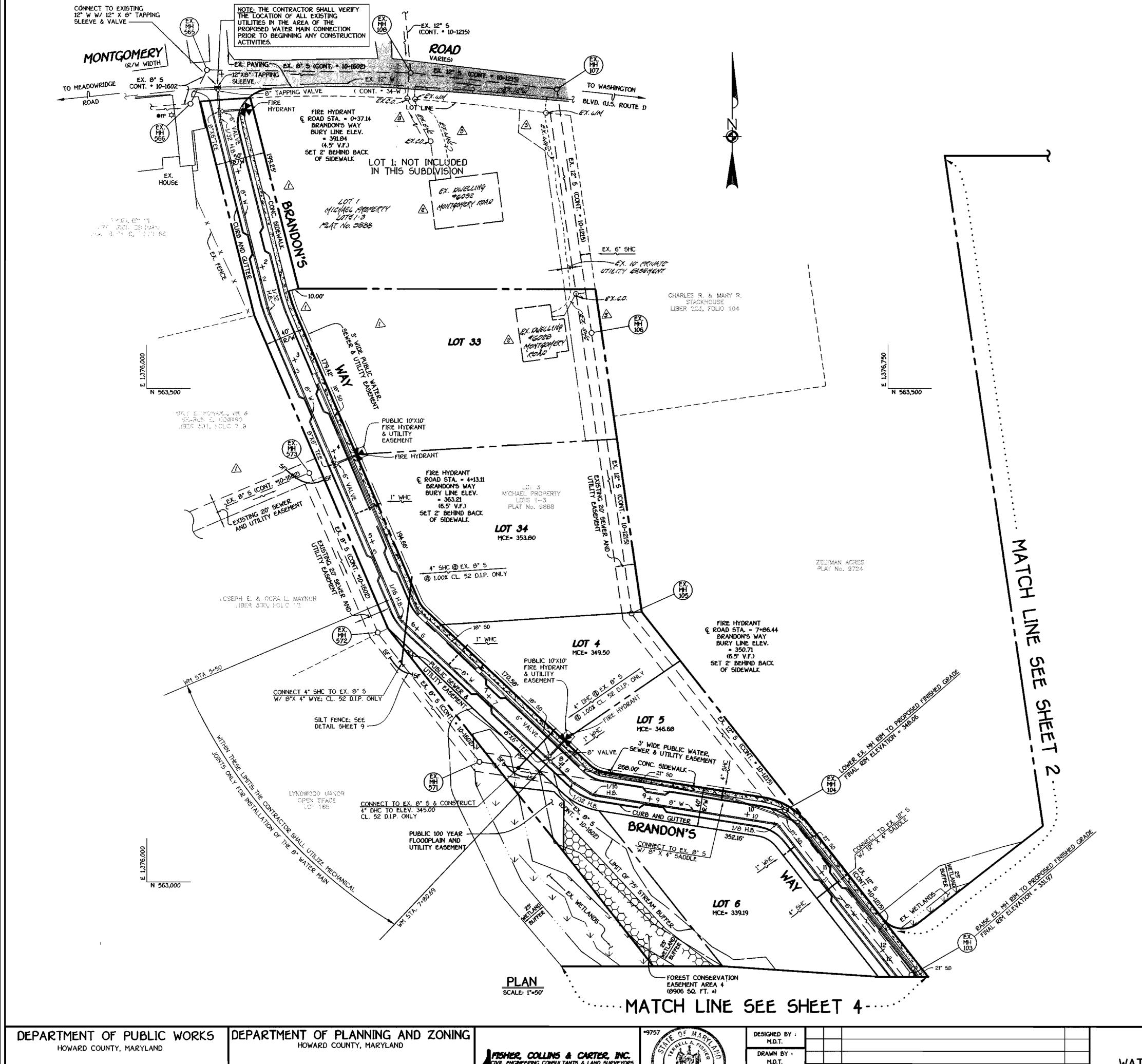
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ROCKBURN VIEW

LOTS 4 THRU 35
CONTRACT NO. 14-3794-D
FIRST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN





M STATION	APPURTENANCE	& ROAD STATION	DISTANO
<u> </u>	BRANDON'S WAY		
0+00	12" X B" TAPPING SLEEVE	0+12.92	5.00° R
0+03	8" TAPPING VALVE	0+15.92	5.00° R
0+24.47	8" X 6" TEE	0+37.14	5.24° R
0+32.55	1/32 H.B.	0+44.98	5.79° ƙ
2+32.96	1/32 H.B.	2+44.40	5.56' &
4+02.00	O" X 6" TEE	4+13.11	5.00' K
5+72.80	1/16 H.B.	5+82.72	6.18' 8
7+77.69	8" X 6" TEE	7+86.44	5.00' ƙ
7+80.69	8" VALVE	7+89.44	. 5.00° R
8+12.54	1/32 H.B.	8+ 21.29	5.00° £
<i>8</i> +36.97	1/16 H.B.	8+43.54	5.66' R
10+25.82	1/0 H.B.	10+32.58	1.67° R
12+44.74	1/16 H.B.	12+53.15	4.48' 8
12+58.38	P.C. (CRIMP RADIUS=300')	12+60.35	6.00° s
13+09.41	P.T. (CRIMP RADIUS=360°)	13+19.73	3.90° £
13+63.41	1/16 H.B.	13+73.33	5.33' R
13+66.41	P.C. (CRIMP RADIUS=380')	13+75.95	4.51' R
14+28.48	P.T. (CRIMP RADIU5=380°)	14+36.52	5.00' 8
15+92.92	8" X 6" TEE	16+00.97	5.00' \$
16+67.77	1/0 H.B.	16+85.92	23.41'
17+37.67	0" PLUG & BUTTRESS .	L.P. STA.	5.79' (
	ROCKBURN WOODS WAY		
0+00	12" X 8" TAPPING SLEEVE	0+10.88	5.00° R
0+03	8" TAPPING VALVE	0+13.00	5.00' 8
0+43.75	P.C. (CRIMP RADIU5=360')	0+54.64	5.00° £
1+35.07	8° X 4° TEE	1+47.01	5.00' (
2+61.53	P.T. (CRIMP RADIUS=300°)	2+75.17	5.00' f
4+28.08	O" X 6" TEE	4+41.72	5.00' (
4+54.08	8" X 8" TEE	4+67.72	5.00° F
4+57.08	9" X 6" REDUCER	4+70.72	5.00' (
5+12.46	6" PLUG & BUTTRESS	5+26.10	5.00' (
	STREAM VALLEY LANE		
0+00	8° X 8° TEE	-0+05	5.00° L
0+03	8" VALVE	-0+02	5.00° L
1+34	9" PLUG & BUTTRESS	1+29	5.00° L
	ACCESS DRVE		
0+00	8° X 4° TEE	1+47.01	5.00' (
0+03	4" VALVE	1+47.01	8.00° 1
0+25.48	1/32 H.B. 4" PLUG & BUTTRESS	1+47.01	30.46

	MANHOLE	TABULATION	CHART	
NO.	9. ROAD STATION	DISTANCE	SLOPE	RIM ELEVATION
1000				312.00 *
2000				314.59 **
2005	all his day all the day and the same also			338.00 **
2010	IN CUL-DE-SAC; BRANDON'S WAY	- m m		345.60
2015	IN CUL-DE-SAC; BRANDON'S WAY			342.77
2020	14+89.54; BRANDON'S WAY	5' LT.	+5.12%	332.70
1005	का व्यापक का का का का वा			309.00 *
1010				312.70 **
1015				325.40 **
1020				336.50 **
1025	# # # # # # # # # # # #			337.70 **
1030	4+88.61; ROCKBURN WOODS WAY	5' LT.	+1.28%	339.63
1035	2+75.17; ROCKBURN WOODS WAY	5' LT.	-6.08%	344.65
1040	1+87.86; ROCKBURN WOODS WAY	5' LT.	-9.92%	351.93
1045				352.00 **
1050	30 St. Co. Co. Co. Co. Co. Co. Co. Co. Co. Co			362.55 **
1055	5+18.16; ROCKBURN WOODS WAY	5' LT.	+1.28X	340.01
* SET RIM	1.5' ABOVE EXISTING GROUND			

CONTRACT NO. 14-3794-D

ROCKBURN VIEW

LOTS 4 THRU 35

WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

HOWARD COUNTY, MARYLAND

FISHER, COLLING & CARTER, INC.

CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORE

CHIEFMAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE

ELLICOTT CITY, MARYLAND 21042

(410) 461 - 2895

CHIEF , BUREAU OF UTILITIES

	ST SELLA OF
es	6
E .	2 AM 9157
	30 40 9757 STERES 40
d	TERRELL A. FISHER

	M.D.T.				
	DRAWN BY : M.D.T.				
		D.A.N.	3	540W EXISTING 546 & WHC. TO 4975 14 33	08-14-90
1	checked by : P.W.K.	P.A.X.	2	SHOW EXISTING PUBLINGS ON LOTS 1433	08-14-0
/ _	DATE :	O.AN	\triangle	DELETE SHES JUNES; SERVICE TO LOTS PREVIOUSLY PROVIDED	B14=22
	APRIL, 2000	вү	NO.	REVISION	DATE
		The second secon			

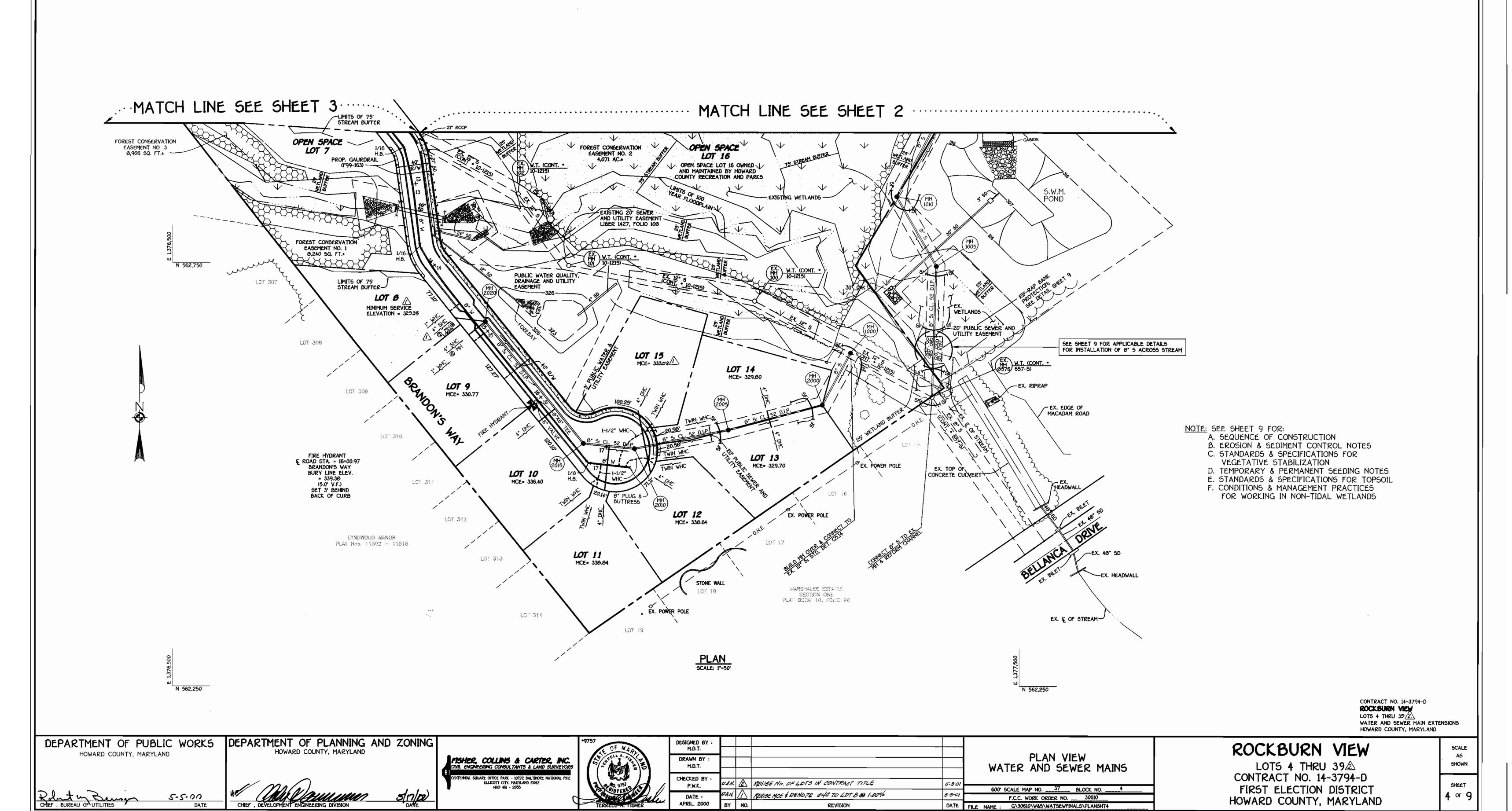
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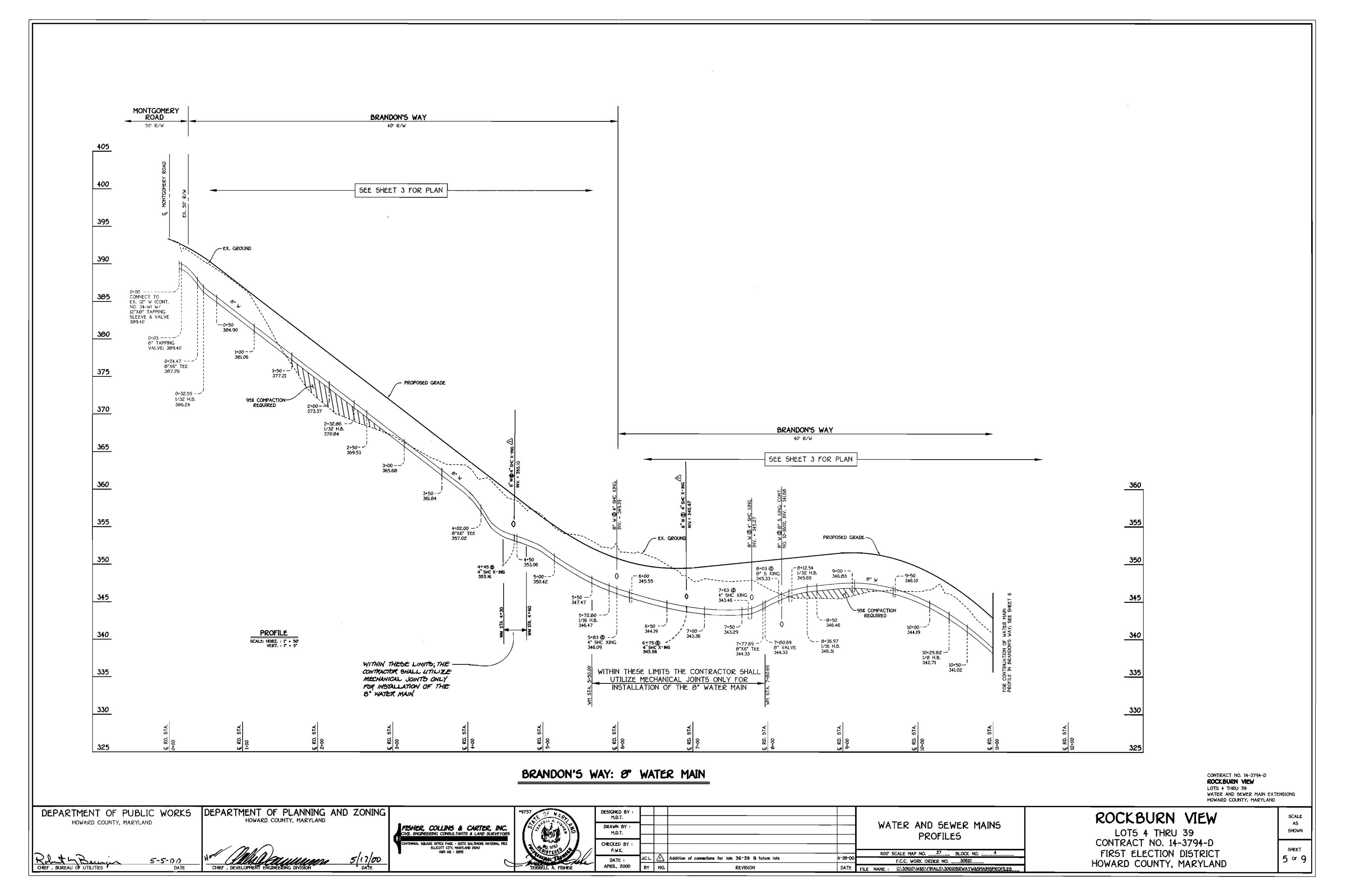
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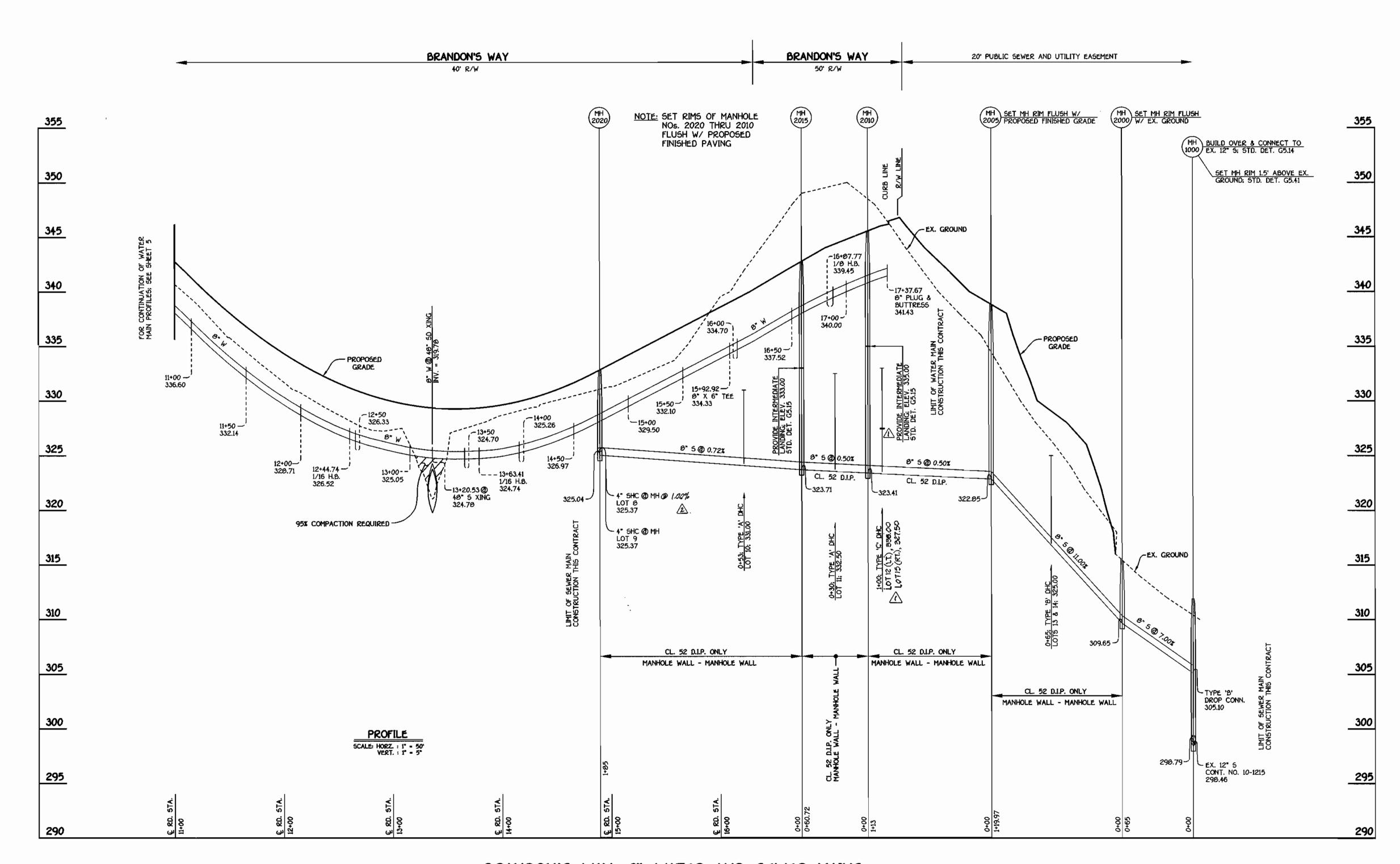
ROCKBURN VIEW

LOTS 4 THRU 35
CONTRACT NO. 14-3794-D
FIRST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN







BRANDON'S WAY: 8" WATER AND SEWER MAINS

CONTRACT NO. 14-3769-D

ROCKBURN VIEW

LOTS 4 THRU 39 (3)

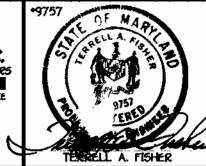
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

5-5-00

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BAILTHORE NATIONAL PIKE
ELLICOTT CITY, HARYLAND 21042
(410) 461 - 2655



/	DATE :	DAN.	\triangle	REVISE ONE ELEVATIONS & REVISE TO TYPE 'C' D.H.C.	5.3-01
	1 . ********				
	P.W.K.	DAN.		DENOTE SHCTO 6018@ 1.00%	5-3-01
	CHECKED BY :	D.A.d.		REVISE No. OF LOTS IN CONTRACT TITLE	5-3-01
	DRAWN BY : M.D.T.				
	M.D.T.				
	DESIGNED BY : M.D.T.				

WATER AND SEWER MAINS PROFILES

600' SCALE MAP NO. 37 BLOCK NO. 4

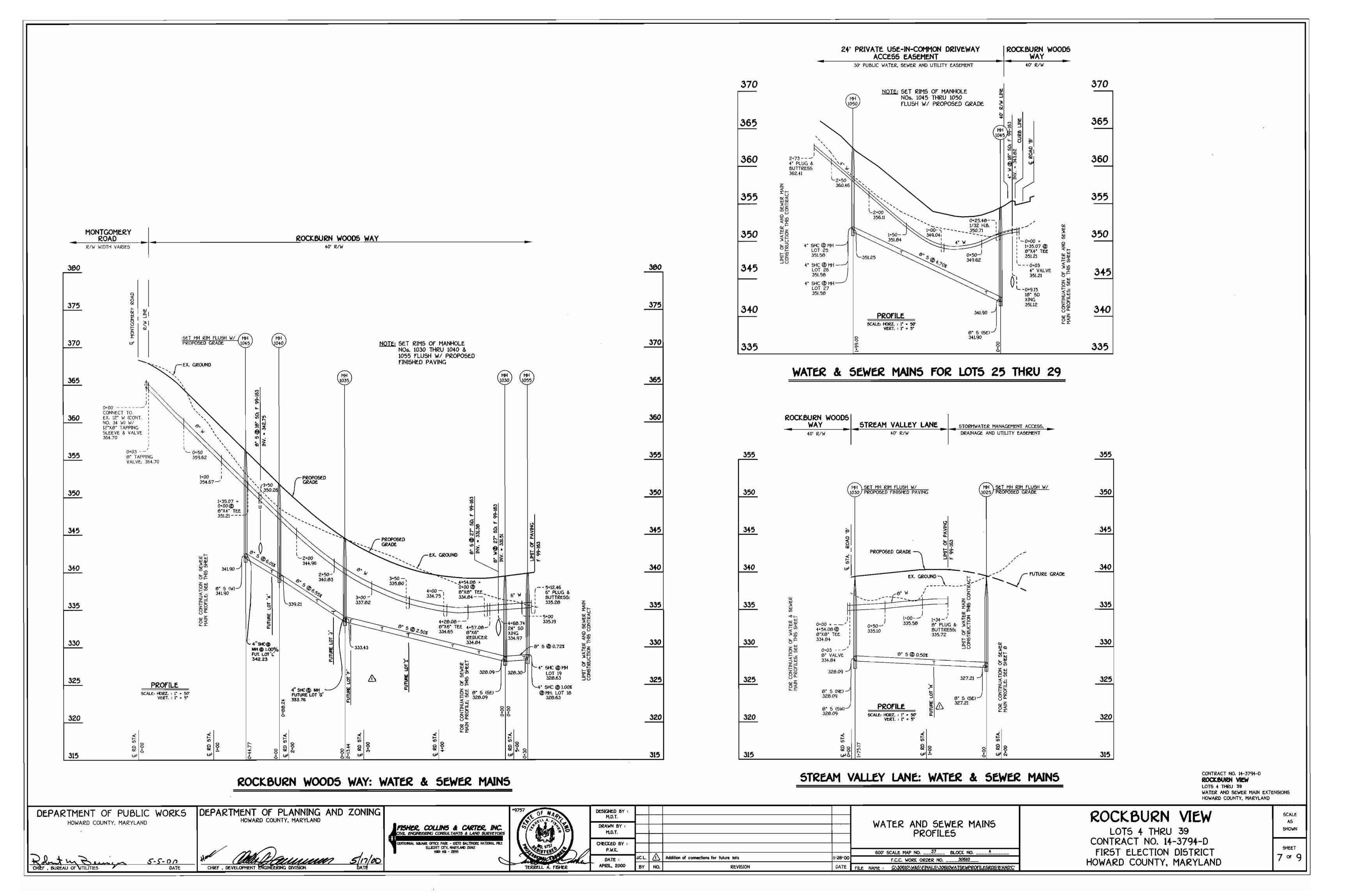
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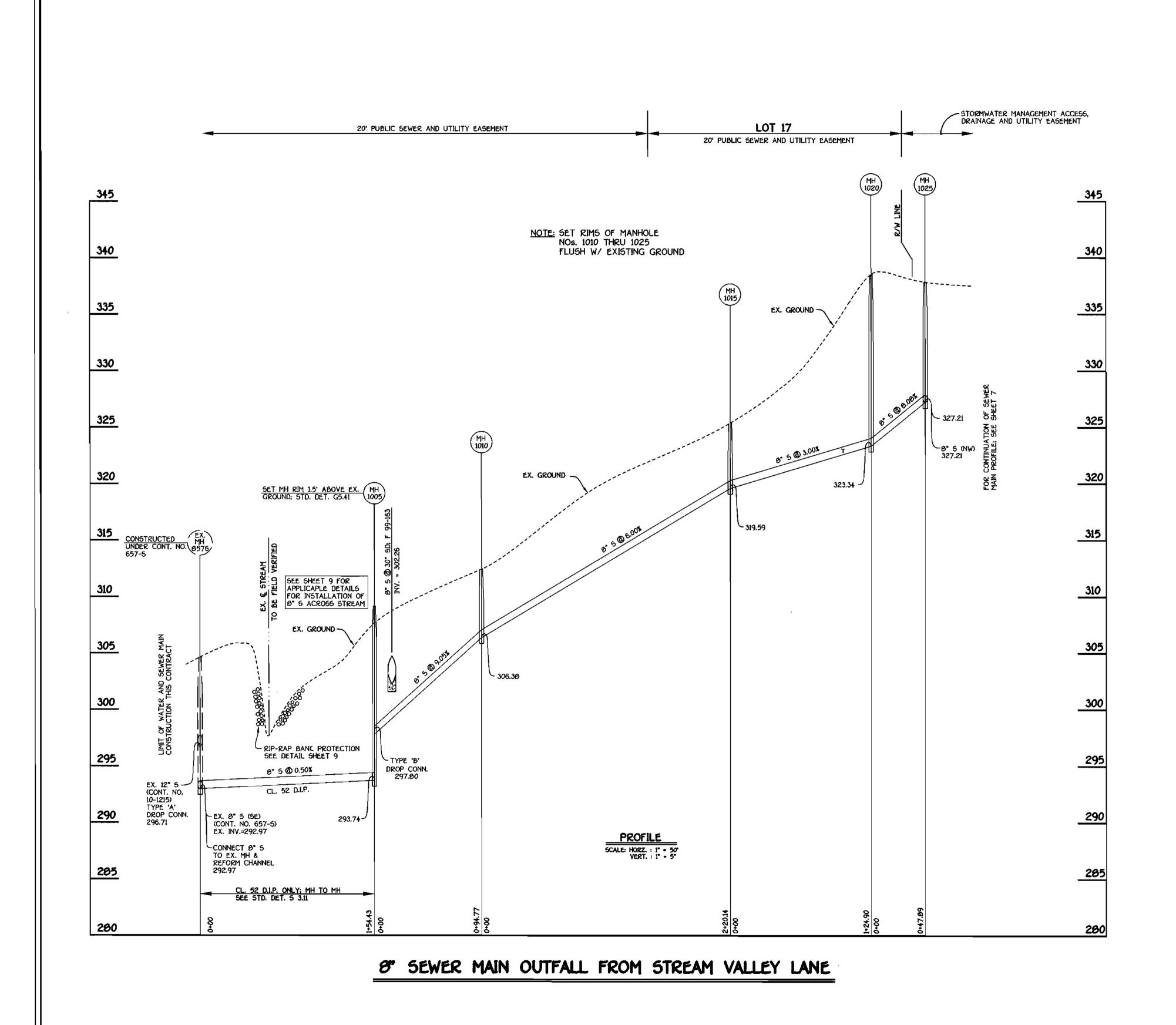
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ROCKBURN VIEW

LOTS 4 THRU 39 DECENTRACT NO. 14-3794-DEFIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SHEET
6 OF 9





DEPARTMENT OF PUBLIC WORKS

HOWARD COUNTY, MARYLAND

CONTRACT NO. 14-3794-D

ROCKBURN VIEW

LOTS 4 THRU 39
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

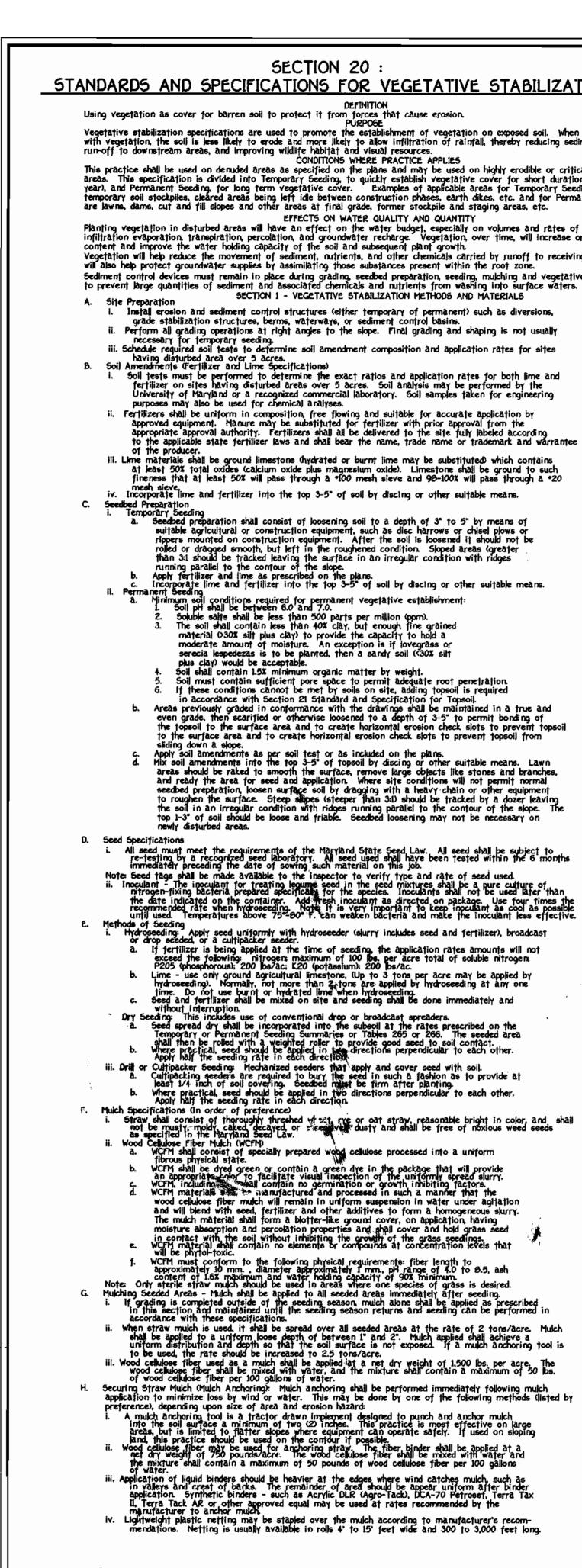
DEPARTMENT OF PLANNING AI HOWARD COUNTY, MARYLAND	ND ZONING		*9757 OF MARK	DESIGNED BY : M.D.T.				
		FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS		DRAWN BY : M.D.T.				SEWER MAIN PROFILES
a maca		CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MARYLAND 21042 (480) 461 - 2855	3 (20) 915 ¹	CHECKED BY : P.W.K.				
W/ Milanum	5/17/00 DATE		District Life	DATE :	DAN A	KEVISE NO. OF LOTE IN CONTRACT TITLE	5-301	600' SCALE MAP NO. 37 BLOCK NO. 4 F.C.C. WORK ORDER NO. 30610
CHIEF, DEVELOPMENT ENGINEERING DIVISION	* DATE		terrell a. Fisher	APRIL, 2000	BY NO.	REVISION	DATE	FILE NAME G\30610\W&S\FINALS\30610SEWOUTFALLRD'C'PROFILE

ROCKBURN VIEW

LOTS 4 THRU 39A CONTRACT NO. 14-3794-D FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SHEET B of 9

A. Site Preparation Seed Specifications





TEMPORARY SEEDING NOTES APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY

APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./ 1,000 SQ.FT.)

SEEDING:

FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST
15 THROUGH NOVEMBER 15, SEED WITH 1.5 BUSHELS PER ACRE OF
ANNUAL RYE (3.2 LBS./ACRE OF WEEPING LOVEGRASS (.07 LBS./
1,000 SQ.FT. FOR THE PERIOD NOVEMBER 15 THRU FEBRUARY
28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL
ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE

MULCHING

APPLY 15 TO 2 TONS PER ACRE (70 TO 90 LBS./1,000 SQ.FT.)

OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING.

ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL./1,000 SQ.FT.)

OF EMILSIFIED ASPHALT ON FLAT ACRES ON SLOPES & FEET OR HIGHER, USE 340 GALLONS PER ACRE (0 GAL./1,000 SQ.FT.) FOR

M BED I

U.S. STANDARD SIEVE SIZE

1/2 IN

.02 CM/SEC.

SECTION AA

A. BANK RUN GRAVEL SHALL MEET THE FOLLOWING

B. GEOTEXTILE FILTER FABRIC SHALL MEET THE

FOLLOWING REQUIREMENTS:

TENSILE STRENGTH

PUNCTURE STRENGTH

MINIMUM LAP LENGTH

ELONGATION AT FAILURE

BURST STRENGTH

(2 FT MIN) H/2+1FT

X LESS THAN

85-100 60-100

REFER TO THE 1986 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT

PERMANENT SEEDING NOTES ALL DISTURBED AREAS SHALL BE STABILIZED AS FOLLOWS:

SPEDSED PREPARATION:
LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.

SOIL AMENDMENTS:

APPLY TWO TONS PER ACRE DOLOMITIC LIMESTONE (92 LB6/1,000 SQ.FT.) AND 600 LB6. PER ACRE 0-20-20 FERTILIZER (4 LB6/1,000 SQ.FT.) BEFORE SEEDING HARROW OR DISC.

INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LB6. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LB6/1,000 SQ.FT.) AND 500 LB6. PER ACRE (11.5 LB5/1,000 SQ.FT.) OF 10-20-20 FERTILIZER.

FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 100 LBS. PER ACRE (2.3 LBS./1,000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE, FOR THE PERIOD MAY 1 THROUGH JULY 31, SEED WITH 60 LBS/ACRE (1.4 LBS./1,000 SQ.FT.) KENTUCKY 31 TALL FESCUE AND 2 LBS. PER ACRE (0.05 LBS./1,000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THROUGH FEBRUARY 20, PROJECT SITE BY: OPTION (1) - TWO TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING OPTION (2) - LISE SOO. OPTION (3) -Possible in the spring option (2) - Use sod; option (3) -seed with 100 lbb./Acre Kentucky 31 tall fescue and mulch ATH TWO TONS/ACRE WELL ANCHORED STRAW. ALL SLOPES SHOULD

APPLY 1 TO 2 TONS PER ACRE (IO TO 90 LBS./1,000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING 200 GALLONG PER ACRE (5 GAL./1,000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT ACRES. ON SLOPES 8 FEET OR HIGHER USE 348 GALLONG PER ACRE (8 GAL./1,000 SQ.FT.) FOR ANCHORING.

MAINTENANCE:
REPECT ALL SCEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS

CLASS I RIP-RAP

III. CONSTRUCTION REQUIREMENTS

Business.

II. 1. B ABOVE.

1. THE CONTRACTOR SHALL INSTALL ALL SEDIMENT & EROSION CONTROL DEVICES AS A FIRST ORDER OF

AGAINST UNDERMINING. IF THIS CANNOT BE

2. PROVISIONS MUST BE MADE TO ANCHOR THE RIP-RAP

ACCOMPLISHED BY EXTENDING THE TOE TRENCH AS

INDICATED IN CROSS SECTION, AN ALTERNATIVE

METHOD OF PROTECTION MUST RECEIVE PRIOR

WRITTEN APPROVAL OF THE ADMINISTRATION.

REASONABLY CLOSE CONFORMITY WITH THE

RIP-RAP. BEDDING MATERIAL SHALL CONSIST OF

EITHER A BANK RUN GRAVEL OR A GEOTEXTILE

FILTER FABRIC MEETING THE SPECIFICATIONS OF

5. THE PLACEMENT OF RIP-RAP SHALL BEGIN WITH THE

TOE. THE LARGER STONES SHALL BE PLACED IN THE

TOE AND ALONG THE OUTSIDE EDGES OF THE LIMITS

OF THE SLOPE & CHANNEL PROTECTION. THE RIP-RAF

SUCH A MANNER AS TO PRODUCE A REASONABLY GRADED

SHALL BE PLACED WITH SUITABLE EQUIPMENT IN

MASS OF STONES WITH ZERO DROP HEIGHT. THE

6. ANY EXCAVATION VOIDS EXISTING ALONG THE EDGES

STABILIZED IN ACCORDANCE WITH AN APPROVED

OF THE COMPLETED SLOPE & CHANNEL PROTECTION

PLACING OF STONES THAT CAUSE EXTENSIVE

7. ALL DISTURBED AREAS SHALL BE PERMANENTLY

SEDIMENT & EROSION CONTROL PLAN.

SEGREGATION IS NOT ALLOWED

SHALL BE BACKFILLED.

LEXISTING GRADE

RIP-RAP STREAM BANK

PROTECTION DETAIL

W.P.D. 3.1

NO SCALE

3. EXCAVATION FOR RIP-RAP SHALL BE MADE IN

EXISTING STREAM SLOPE & BED.

4. A FILTER BEDDING IS REQUIRED UNDER ALL.

AT THE STREAM BED SO AS TO PROVIDE PROTECTION

SEDIMENT CONTROL NOTES

SEDIMENT CONTROL NOTES

3) A MINIMUM OF 46 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).

2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.

3) FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: 3) 7

CALENDAR DAYS FOR ALL PERMETER SEDMENT CONTROL STRUCTURES, DIKES, PERMETER SLOPES AND ALL SLOPES STEEPER THAN 34, b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

4) ALL SEDMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.

5) ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE THE PERIOD SPECIFICATIONS FOR SOIL EROSION AND SEDMENT CONTROL FOR PERMANENT SEEDING (SEC. 50). AND MULCHING (SEC. 52). TEMPORARY SEEDING (SEC. 50), AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMPLENED SEEDING DATES DO NOT ALLOW FOR PROPER GERMENTION AND ESTABLISHMENT OF GRASSES.

6) ALL SEDMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

7) SITE ANALYSIS:

10 TOTAL AREA OF SITE

10 AREA TO BE VEGETATIVELY STABILIZED

10 500 ACRES*

10 500 ACRES*

10 500 ACRES*

10 500 ACRES*

AREA TO BE ROOFED OR PAVED
AREA TO BE VEGETATIVELY STABILIZED
TOTAL CUT: N/A
TOTAL FILL: N/A 0.500 ACRES

OFFSITE WASTE/BORROW AREA LOCATION: N/A
8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING
ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE

ACTIVITY FOR PLACEMENT OF VILLINES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

9) ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

10) ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

II) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER. * INDICATES TOTAL AREA TO BE RECORDED; FROM RECORD PLAT
** INDICATES ONLY THE AREA OF DISTURBANCE CAUSED BY UTILITY
INSTALLATION BEYOND THE STREET R/W LIMITS OF THE ROAD &
STORM DRAIN CONSTRUCTION PLANS; F 99-163.

SECTION 21: STANDARD AND SPECIFICATIONS FOR TOPSOIL

1) DEFINITION: PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

2) PURPOSE: TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH 3) SPECIFICATIONS: A.TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND.

B.TOPSOIL SHALL NOT BE A MEXTURE OF CONTRASTING SUBSOILS.

C.TOPSOIL SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1.5" IN DIAMETER.

A.TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4"- 9" LAYER AND LIGHTLY COMPACTED TO A MINIBUM THICKNESS OF 4"; AVOID SURFACE IRREGULARITIES.

B.PLACE TOPSOIL AND APPLY SOIL AMENDMENTS AS SPECIFIED IN "STANDARDS AND CONTROL AND APPLY SOIL AMENDMENTS AS SPECIFIED IN "STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION".
C.TOPSOIL SHALL NOT BE PLACED DURING FROZEN, MUDDY, OR EXCESSIVELY WET

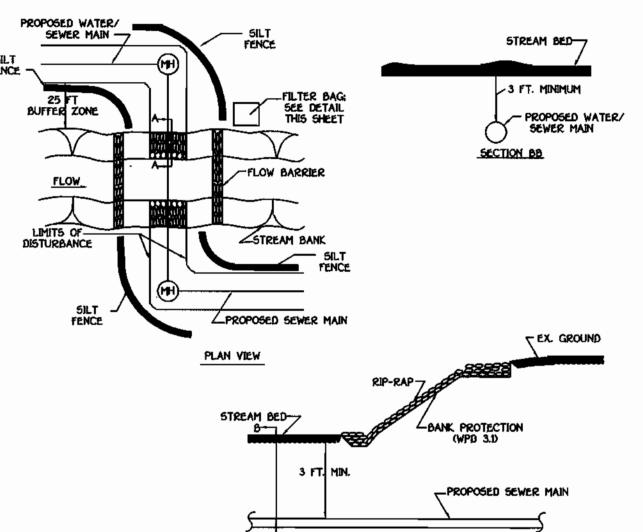
SEQUENCE OF CONSTRUCTION

OBTAIN THE REQUIRED GRADING PERMIT.
 NOTIFY MISS UTILITY 48 HOURS BEFORE BEGINNING ANY WORK (1-800-257-7777). NOTIFY HOWARD COUNTY CONSTRUCTION/INSPECTION DIVISION 24 HOURS BEFORE STARTING ANY WORK (440313-1670).
 INSTALL THE REQUIRED SEDIMENT AND EROSION CONTROL DEVICES AS INDICATED ON SHEET 2, 3 & 4 OF THIS CONTRACT (1 DAY).
 CLEAR AND GRUB AS NECESSARY; ONLY AS REQUIRED FOR EXCAVATION AND INSTALLATION OF THE SEWER MAINS, AND ONLY WITHEN THE DESIGNATED SEWER AND UTILITY EASEMENTS (2 DAYS).
 NOTE: THE LENGTH OF OPEN SEWER MAIN TRENCH SHALL BE

NOTE: THE LENGTH OF OPEN SEWER MAIN TRENCH SHALL BE LIMITED TO THREE (3) PIPE LENGTHS OR THAT WHICH WILL BE BACKFILLED AND STABILIZED WITHIN ONE OD WORKING DAY, WHICHEVER IS SHORTER.

STABILIZED WITHIN ONE OF WORKING DAY, WHICHEVER IS SHORTER.
CONSTRUCT THE SEWER MAIN AND APPURTENANCES (6 DAYS).

STABILIZE SEED AND MULCH ALL DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES SHOWN ON THIS SHEET, I DAYS.
FOLLOWING SUCCESSFUL STABILIZATION OF ALL DISTURBED AREAS, AND AFTER PERMISSION HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL DEVICES, I DAYS
SEDIMENT CONTROL DEVICES, I DAYS



1. DESCRIPTION

THIS WORK SHALL CONSIST OF INSTALLING EROSION CONTROL DEVICES IN & ADJACENT TO TEMPORARY STREAM CONSTRUCTION SUCH AS UTILITY CROSSINGS.

IL CONSTRUCTION REQUIREMENTS

1. ALL EROSION & SEDIMENT CONTROL DEVICES SHALL BE INSTALLED AS THE FIRST ORDER OF WORK.

2. THE CONTRACTOR SHALL INSURE THAT A CONTINUOUS PERIMETER CONTROL BARRIER IS IN PLACE SO AS TO MINIMIZE POLLUTANTS ENTERING THE WATER.

3. EXCAVATED TOPSOIL & SUBSOIL SHALL BE KEPT SEPARATE & REPLACED IN THEIR NATURAL ORDER. 4. ALL EXCAVATED MATERIALS SHALL BE PLACED ON THE UPLAND SIDE OF THE EXCAVATION.

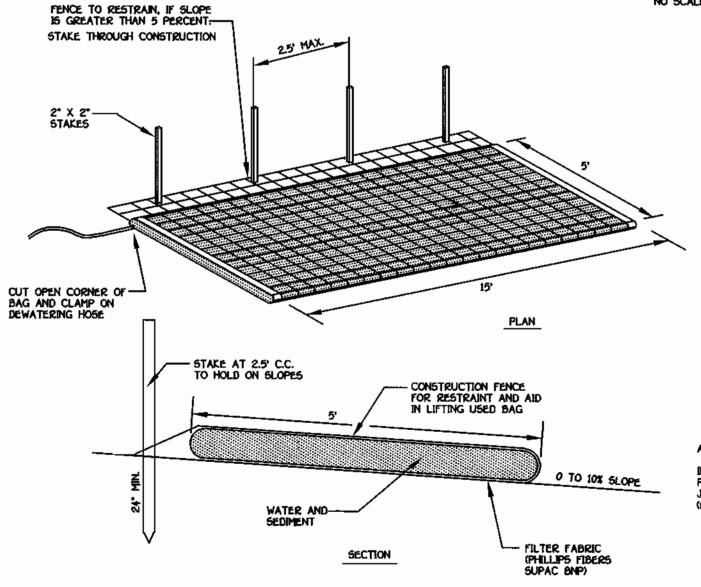
5. ALL CONSTRUCTION SHALL TAKE PLACE DURING STREAM LOW FLOWS. THE LENGTH OF CONSTRUCTION TIME SHALL BE LIMITED TO A MAXIMUM OF 5 DAYS FOR EACH CROSSING.

6. ALL UTILITY CROSSINGS SHALL BE PLACED AT LEAST THREE FEET BENEATH THE STREAM BED UNLESS AN ALTERNATIVE SECTION IS SPECIFICALLY APPROVED BY THE ADMINISTRATION. THE CONTRACTOR MAY ELECT TO CONSTRUCT THE

UTILITY CROSSING IN TWO STAGES. IN THIS CASE A WRA APPROVED FLOW BARRIER MAY BE CONSTRUCTED TO KEEP THE CONSTRUCTION AREA DRY. PLACE UNTIL ALL DISTURBED AREAS ARE STABILIZED

8. SEDIMENT CONTROL DEVICES ARE TO REMAIN IN IN ACCORDANCE WITH AN APPROVED SEDIMENT & EROSION CONTROL PLAN & THE INSPECTION AUTHORITY APPROVES THEIR REMOVAL.

UTILITY CROSSING DETAIL



3. THE FILTER BAG MUST BE STAKED IN PLACE AND SECURED TO THE PUMP DISHARGE LINE 4. FILTER BAG SHALL NOT BE USED FOR DISCHARGE FLOWS GREATER THAN 300 GPM

DEVICE SHALL BE REMOVED AND DISPOSED OF AFTER BAG IS FILLED WITH SEDIMENT. SEDIMENT FROM BAG SHALL BE SPREAD IN AN UPLAND AREA.

FILTER BAG DETAIL

NOT TO SCALE

ROCKBURN VIEW LOTS 4 THRU 35/ WATER AND SEWER MAIN EXTENSIONS HOWARD COUNTY, MARYLAND

5/3/00 BATE

DEPARTMENT OF PUBLIC WORKS DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND HOWARD COUNTY, MARYLAND 5-5-00 CHIEF , BUREAU OF UTILITIES

FISHER, COLLINS & CARTER, INC. CIVIL ENGEMEERING CONSULTANTS & LAND SURVEYORS

SANDBAG/STONE STREAM FLOW DIVERSION DETAIL



MINIMUM CHANNEL CROSSECTIONAL AREA

SHALL BE 60% OF EXISTING UNLESS OTHERWISE SPECIFICALLY APPROVED.

DESIGNED BY :			
M.D.T.			
DRAWN BY : M.D.T.			
CHECKED BY : P.W.K.			
DATE :	PAN.		REVISE NO. OF LOTS IN CONTRACT TITLE
APRIL, 2000	ΒY	NO.	REVISION

SEDIMENT AND EROSION CONTROL NOTES AND DETAILS

600' SCALE MAP NO. 37 BLOCK NO. _ F.C.C. WORK ORDER NO. ____30610 DATE FILE NAME : G\30610\W&5\FINALS\30610STREAMXINGDET ROCKBURN VIEW

LOTS 4 THRU 39 A CONTRACT NO. 14-3794-D FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND **SHOWN** SHEET

SCALE

Q of Q

FILTER BAG SHALL BE PLACED ON A SLOPING OR LEVEL, WELL GRADED VEGETATED SITE SUCH THAT WATER WILL FLOW AWAY FROM DEVICE AND ANY WORK AREAS.

2. WITDH AND LENTH SHALL BE AS SHOWN

AVAILABLE FROM:

JOHNSON CITY, NEW YORK 13790

1801-A WILLIS ROAD RICHMOND, VIRGINIA 23237 TOLL FREE 1-800-448-3636

PRICE AND COMPANY, INC.

CONTRACT NO. 14-3794-D

DETAIL 22 - SILT FENCE

FILTER CLOTH

CROSS SECTION

Test: MSMT 509

Test: MSMT 509

Test: MSMT 322

51H Fence Length

750 feet

FLOW

Construction Specifications

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the

standard T or U section weighting not less than 1.00 pond per linear foot.

Geotextile shall be fastened securely to each fence post with wire ties

or staples at top and mid-section and shall meet the following requirements

0.3 gal ft / minute (max.)*

4. Silt Fence shall be inspected after each rainfall event and maintained when

bulges occur or when sediment accumulation reached 50% of the fabric height.

SILT FENCE

Silt Fence Design Criteria

Stope Length

u**nli**mited

125 feet

100 feet

Note: In areas of less than 2% slope and sandy soils CUSDA general classification

system, soil Class A) maximum slope length and silt fence length will be

unlimited. In these areas a silt fence may be the only perimeter control

DEVELOPER'S CERTIFICATION

" 1/WE HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR

EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL

INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING

PROGRAM FOR SEDIMENT AND EROSION CONTROL BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS

Paul W. Land a POR: CORNERSTONE HOLDINGS L.LC. 05/03/00

ENGINEER'S CERTIFICATION

* 1 HEREBY 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

3. Where ends of geotextile fabric come together, they shall be overlapped,

50 bs/in (min.) 20 be/in (min.)

ground. Wood posts shall be $11/2^{\circ} \times 11/2^{\circ}$ square (minimum) cut, or $13/4^{\circ}$ diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be

EMBED GEOTEXTILE CLASS F

-- 16" MINIMUM HEIGHT C

FENCE POST SECTION
HINDHUH 20" ABOVE
GROUND

TANDARD SYMBOL

10" MAXIMUM CENTER TO

FLOW

SECTION A

PERSPECTIVE VIEW

TOP VIEW

Flow Rate

Slope Steepness

Flatter than 50

50:1 to 10:

10:1 to 5:1

5d to 3d

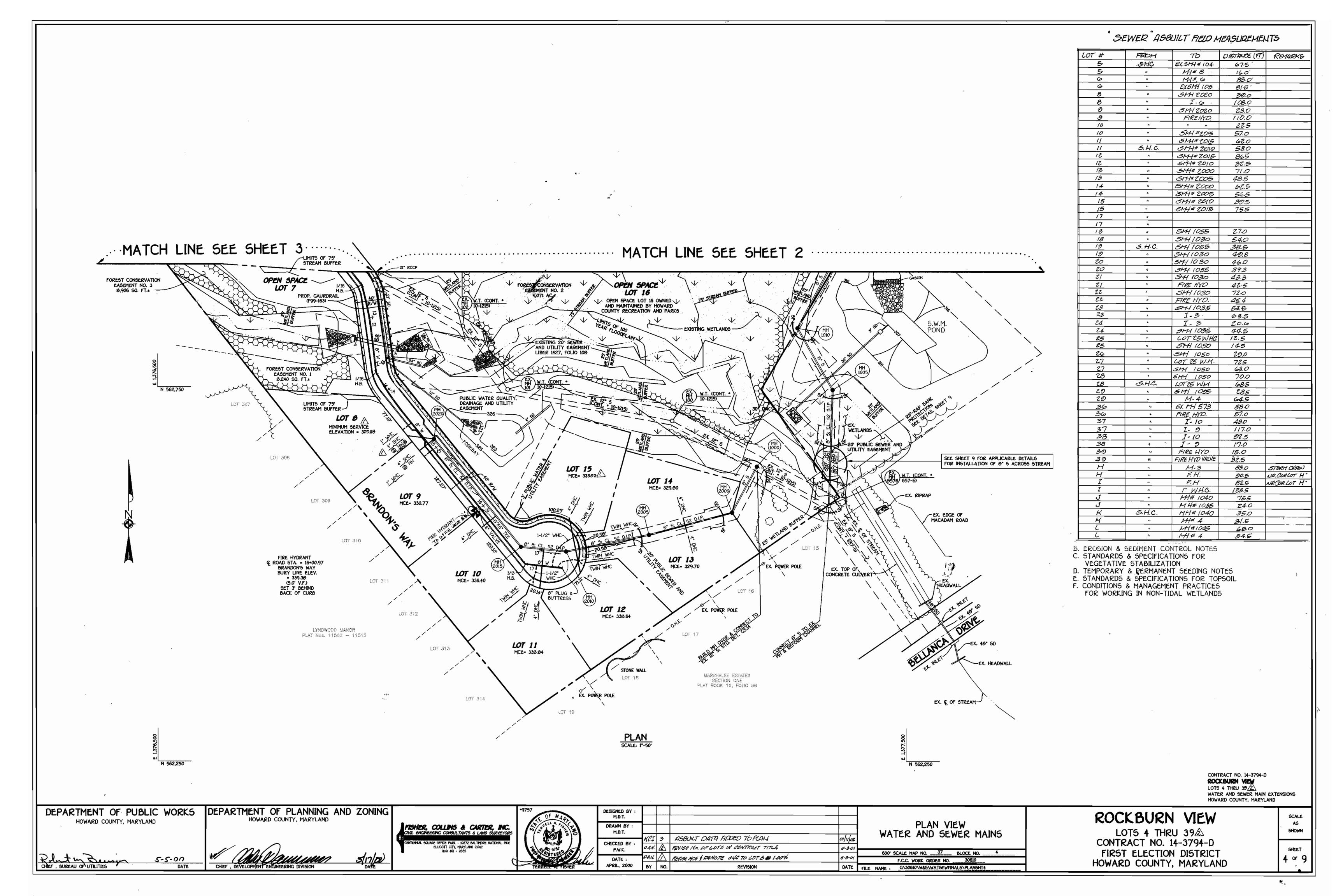
3d to 2d

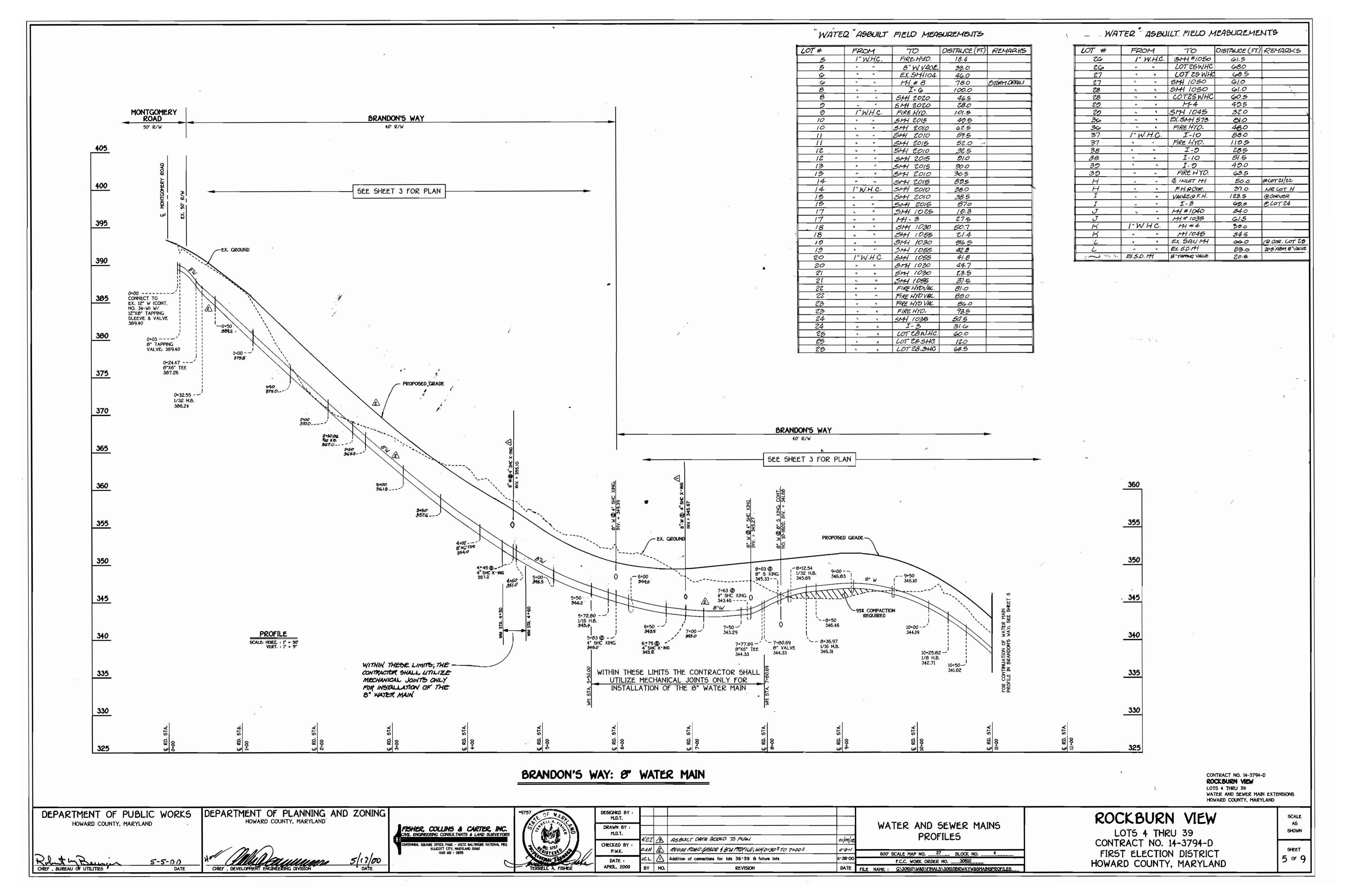
ARE DEEMED NECESSARY."

CONSERVATION DISTRICT."

JOINING TWO ADJACENT SILT

FENCE SECTIONS





F					
		(QUANTIT	IES	
				AS-BUILT	
	item	ESTIMATED	QUANTITIES	TYPE	SUPPLIER
	8" SEWER	1,303.32 L.F.	1,310 L.F.	SDR 35PVC.	J.M. MANUF
	B" SEWER (D.I.P.)	633.12 L.F.	555 L.F.	TYTONIJOINT	GRIFFIN PIPE CO.
	4" SEWER	1,397 L.F.	1,397 L.F.	SOR 35 PVC	J.M.MANUFACT.
	4" SEWER (D.I.P.)	286 L.F.	275 L.F.	TYTON JOINT	CIRIFFIN PIPECO.
- 11	MANHOLES	15 EACH	15EA		
	8" WATER	2,320.75 L.F.	2.309 L.F.	TYTON JOINT	GRIFFIN PIPE CO.
	6" WATER	163.09 L.F.	170 L.F.	å 11	GRIFFIN PIPECO.
	4" WATER	273 L.F.	273L.F.	А ч	GRIFFIN APECO.
, II	1-1/2" WATER	134 L.F.	130 L.F.	TYPE K COPPER	READING TUBE
	1" WATER	813 L.F.	BIOL.F.	TYPE KCOPPER	READING TUBE
	FIRE HYDRANTS	5 EACH	SEA.	M 23CENTURION	MUEUER CO.
	8" x 8" TEE	1 EACH	1 EA	M.J TEE	UNION FOUNDRY
	8" x 6" TEE	5 EACH	5EA	M.J. HYDTEL	UNION FOUNDRY
- 1	8" x 4" TEE	1 EACH	EA	M.J TEE	UNION FOODIORY
	O" VALVE	2 EACH	2 EA	RES WEDGEGAT	MUELLER CO.
	6" VALVE	5 EACH	5 EA	a '4 4	tı (ı
	4" VALVE	1 EACH	1 EA	£1 4 1¢	ts 71
	8"-1/8 H.B.	2 EACH	z EA	M.J. BEHO	UNION FOUNDRY
	8"-1/16 H.B.	4 EACH	4 EA	41 41	, v
3	6°-1/32 H.B.	4 EACH	0	{	{
	4"-1/32 H.B.	1 EACH	0	~	
	Ø" PLUG & BUTTRESS	2 EACH	2 E A	M.J. CAP	UNION FOUNDRY
	6° PLUG & BUTTRESS	1 EACH	1EA	M.J CAP	UNION FOUNDRY
	4" PLUG & BUTTRE55	1 EACH	1ĒA	16	ij ti
	12" X 8" TAPPING SLEEVE & VALVE	2 EACH	ZEA	H 304 STAINLESS STEEL	MUELLER CO
	OUTSIDE METER SETTING	2 EACH	ZEA	1"x3/4"AVG 2.3 1"x3/4" OCHETER	FORD METER CO
	9" X 6" REDUCER	1 EACH	(EA	M.J,	UNION FOUNDRY
	NAME OF UTILITY C	ONTRACTOR: (CAINES INC.		
	SURVEY & DRAFTING	DIVISION AS-B	UILT DATE:		

" I/WE HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR SEDIMENT AND EROSION CONTROL BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS

POULLY FOR: CORNERSTONE HOLDINGS L.L.C. 05/03/00

ENGINEER'S CERTIFICATION

" ! HEREBY 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."

M Manu



REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION

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

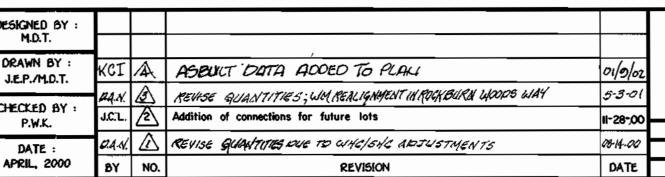
IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AS SHOWN ON THESE PLANS

PORCHILLOUDING FOR: GRUEDSTONE HOLDINGS L.L.C. 05/03/00 SIGNATURE OF DEVELOPER

DEPARTMENT OF PUBLIC WORKS DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND HOWARD COUNTY, MARYLAND







STREAM VALLEY LANE

TROY GOLF COURSE -

TO WASHINGTON

BLVD. (US RT. 1)

MARKHAM WOODS

MARSHALEE ESTATES

PLAN REFERENCE NUMBERS:

5 97-06, P 98-16, F 99-163

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.
- 2. ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATUM.
- 4. ALL PIPE ELEVATIONS ARE INVERT ELEVATIONS.
- 5. CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2"-0" MINIMUM.
- 6. FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (1991 AMENDMENTS) THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB SITE.
- 7. WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL 54 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 VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION. ANY DAMAGE TO EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 6. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

STATE HIGHWAY ADMINISTRATION - (410) 531-5533 BALTEMORE GAS & ELECTRIC CO.. - CONTRACTOR SERVICES - (410) 850-4620 BALTIMORE GAS & ELECTRIC CO., - UNDER GROUND DAMAGE CONTROL - (410) 767-9068 MISS UTILITY - 1-800-257-7777

COLONIAL PIPELINE CO. - (410) 795-1390 BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - (410) 313-4900 9. 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 10. CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE
- INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED. 12. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- 13. T.B. DENOTES TEST BORING.
- 14. MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- 15. MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G 5.52. 16. Where watertight manhole frame and cover is used, set top of frame 1'-6" above finished grade unless otherwise.
- NOTED ON THE PLANS OR IN THE SPECIFICATIONS. 17. HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.
- 18. ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN
- MANHOLES LOCATED WITHIN THE PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAMES AND COVERS,
- 20. WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED AS TO HAVE ONE (1) FOOT SEPARATION FROM THE SEWER
- MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT. 21. ALL WATER MAINS SHALL BE D.I.P., CLASS 52 UNLESS OTHERWISE NOTED.
- 22. TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2' COVER UNLESS OTHERWISE NOTED.
- 23. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- 24. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE
- 25. FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATION SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS (WI.11 AND W2.13). SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
- 26. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- 27. ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATIONS C-153; DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH 12-INCH FOR WATER AND OTHER LIQUIDS.
- 28. THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, (410) 313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE

BENCHMARK INFORMATION

B.M.*1 - HOWARD COUNTY MONUMENT NO. 37AB ELEV.= 394.74; DESCRIPTION: STAMPED CONC. MONUMENT ● SURFACE APPROX. 9' SOUTH OF EDGE OF E.B.L. OF MONTGOMERY ROAD AND 64' WEST OF CENTERLINE OF DRIVEWAY FOR HOUSE *6028

B.M. . 2 - HOWARD COUNTY MONUMENT NO. 3788 ELEV.= 373.83; DESCRIPTION: STAMPED CONC. MONUMENT ◆ SURFACE BETWEEN BACK OF GUARD RAIL AND SOUTH EDGE OF CONCRETE WALK FOR ROCKBURN ELEM. SCHOOL. 16.3' FROM AN X-CUT IN THE END POST OF THE GUARDRAIL AND 18.8' FROM THE END OF THE CHAIN LINK FENCE

CONTRACT No. 14-3794-D

VICINITY MAP

SCALE: 1"-600"

TROY GOLF COURSE -

ROCKBURN VIEW

LOTS 4 THRU 39 WATER AND SEWER MAIN EXTENSIONS HOWARD COUNTY, MARYLAND

> CONTRACT NO. 14-3794-D ROCKBURN VIEW LOTS 4 THRU 39 WATER AND SEWER MAIN EXTENSIONS HOWARD COUNTY, MARYLAND

ROCKBURN VIEW

LOTS 4 THRU 39 **CONTRACT NO. 14-3794-D** FIRST ELECTION DISTRICT

FOX HUNT ESTATES

TO ELLICOTT

FOR COUNTY USE ONLY

NUMBER OF LOTS & PARCELS: ____

NO. OF WATER HOUSE CONNECTIONS:

NO. OF SEWER HOUSE CONNECTIONS:

Drainage area:

TYPE OF BUILDING: RESIDENTIAL; SINGLE FAMILY DETACHED

TREATMENT PLANT: PATAPSCO WASTEWATER TREATMENT

PLANT; CITY OF BALTIMORE

39 (36 BUILDABLE) (7 FUTURE)

36 (7 FUTURE) 2

PATAP5CO

600' SCALE MAP NO. ____37___ BLOCK NO. __

P.W.K.

F.C.C. WORK ORDER NO. 30610

TITLE

SHEET

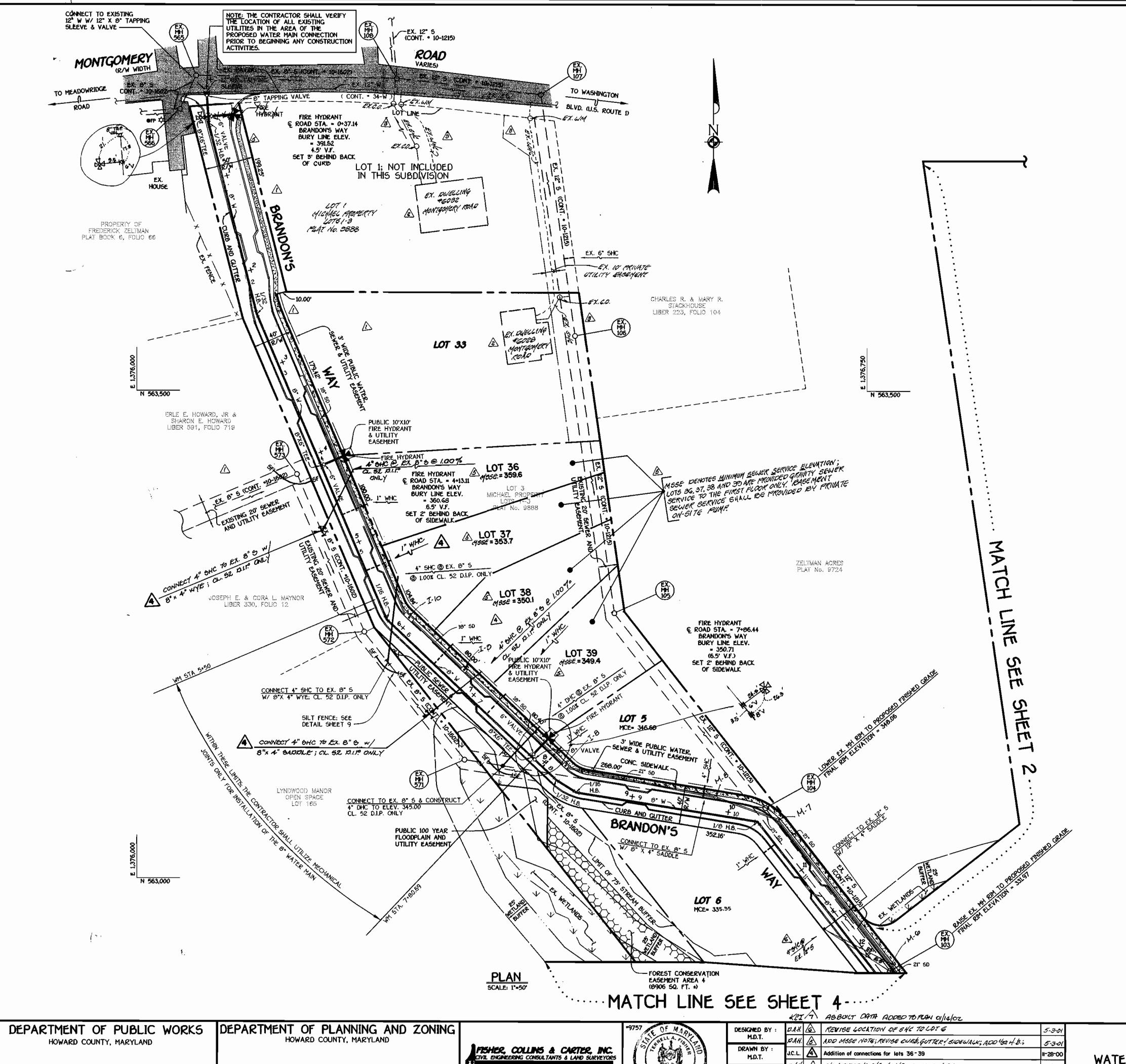
TIF NAME: G/30610/W&S/WATSEWFINALS/TITLESHEE

HOWARD COUNTY, MARYLAND

1 or 9

SCALE

SHOWN



WM STATION	APPURTENANCE	E ROAD STATION	DISTANCE
	BRANDON'S WAY		
0+00	12" X B" TAPPING SLEEVE	0+12.92	5.00° RT.
0+03	6" TAPPING VALVE	0+15.92	5.00' RT.
0+24.47	9° X 6° TEE	0+37.14	5.24° RT.
0+32.55	1/32 H.B.	0+44.98	5.79' RT.
2+32.86	1/32 H.B.	2+44.40	5.56' RT.
4+02.00	8" X 6" TEE	4+13.11	5.00° RT.
5+72.80	1/16 H.B.	5+82.72	6.18' RT.
7+77.69	8* X 6* TEE	7+86.44	5.00° RT.
7+80.69	8" VALVE	7+89.44	5.00° RT.
8+12.54	1/32 H.B.	Ø+21.29	5.00° RT.
8+36.97	1/16 H.B.	Ø+43.54	5.66' RT.
10+25.82	1/6 H.B.	10+32.58	1.67° RT.
12+44.74	1/16 H.B.	12+53.15	4.48' RT.
12+58.38	P.C. (CRIMP RADIU5=300')	12+68.35	6.00° RT.
13+09.41	P.T. (CRIMP RADIUS=360")	13+19.73	3.90° RT.
13+63.41	1/16 H.B.	13+73.33	5.33' RT.
13+66.41	P.C. (CRIMP RADIUS=300')	13+75.95	4.51' RT.
14+28.48	P.T. (CRIMP RADIU5=300")	14+36.52	5.00° RT.
15+92.92	Ø" X 6" TEE	16+00.97	5.00° RT.
16+07.77	1/6 H.B.	16+85.92	23.41° RT.
17+37.67	6" PLUG & BUTTRESS	L.P. STA.	5.79' RT.
	ROCKBURN WOODS WAY	<u>, </u>	
0+00	12" X 6" TAPPING SLEEVE	0+10.88	5.00° RT.
0+03	6" TAPPING VALVE	0+13.98	5.00° RT.
1+35,07	P.C. (CRIMP RADIU5=380')	1+4701	5.00° RT.
1+35.07	8" X 4" TEE	1+47.01	5.00° RT.
2+61.53	P.T. (CRIMP RADIUS=300')	2+75.17	5.00° RT.
4+28.08	8" X 6" TEE	4+41.72	5.00° RT.
4+54.08	9" X 9" TEE	4+67.72	5.00° RT.
4+57.00	6° X 6° REDUCER	4+70.72	5.00' RT.
5+12.46	6" PLUG & BUTTRESS	5+26.10	5.00° RT.
0.00	STREAM VALLEY LANE		T
0+00 0+03	8° X 8° TEE 8° VALVE	-0+05	5.00' LT.
1+34	8" PLUG & BUTTRESS	-0+02	5.00° LT.
1*04		1+29	5.00° LT.
0+00	ACCESS DRVE	1,47.01	T 5.00° OT
0+03	9" X 4" TEE 4" VALVE	1+47.01	5.00° RT. 6.00° RT.
0+25.48	1/32 H.B.	1+47.01	30.40° RT.
2+47.53	4" PLUG & BUTTRESS		30.46 KI.
			<u></u>

	MANHOLE	TABULATION	CHART	
NO.	& road station	DISTANCE	SLOPE	RIM ELEVATION
1000			****	312.00 *
2000		10-11-12		314.59 **
2005				330.00 **
2010	IN CUL-DE-SAC; BRANDON'S WAY		·	345.60
2015	IN CUL-DE-SAC; BRANDON'S WAY	***		342.77
2020	14+89.54; BRANDON'S WAY	5' LT.	+5.12%	332.70
1005				309.00 *
1010				312.70 **
1015				325.40 **
1020				338.50 **
1025	All do let		~~~	337.70 **
1030	4+00.61; ROCKBURN WOODS WAY	が LT.	+1.26%	339.63
1035	2+75.17; ROCKBURN WOODS WAY	5' LT.	-6.06%	344.65
1040	1+87.86; ROCKBURN WOODS WAY	が LT.	-9.92%	351.93
1045			<u> </u>	352.00 **
1050		TEMP	,	362.55 **
1055	5+18.18; ROCKBURN WOODS WAY	<u> </u>	+1.20%	340.01
* SET RIM I	1.5' ABOVE EXISTING GROUND			
** SET RIM	FLUSH W/ EXISTING OR PROPOSED	FINISHED GRADE		

CONTRACT NO. 14-3794-D
ROCKBURN VIEW
LOTS 4 THRU 39
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

HIEF , DEVELOPMENT ENGINEERING DIVISION DATE

5-5-00 DATE

CHIEF , BUREAU OF UTILITIES

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS

CENTENNAL SQUARE OFFICE PARK - 10872 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042

(410) 461 - 2855

AN ARLLA PAR
3 3 3
1510 000 000
TERE
THOUGH A FRANCE

	APRIL, 2000	BY	NO.	REVISION	DATE
lessa -	DATE :	D.AN	\triangle	DELETE SHES JUHCS; SERVICE TO LOTS PREVIOUSLY PROVIDED.	08-14-20
5/	P.W.K.	P.4.X.	<u> </u>	SHOW EXISTING PUNELLINGS ON LOTE 1433	08-14-0
	CHECKED BY :	D.A.N.	æ	SHOW EXISTING SHES & WHES TO GOTS 1 + 33	08-14-04
	DRAWN BY : M.D.T.	J.C.L.	<u> </u>	Addition of connections for lots 36-39	11-28-0
		PAN.		ADD MOSE NOTE; REVISE CURB, GUTTER ! SIDEWALK; ADD 192 4. 8.;	5-30
	M.D.T.	D. A. C.	جعد	TICETOR GOOD TOTAL OF CAR IS CALL	3-3-0

PLAN VIEW WATER AND SEWER MAINS

600' SCALE MAP NO. ___37 BLOCK NO. ___4

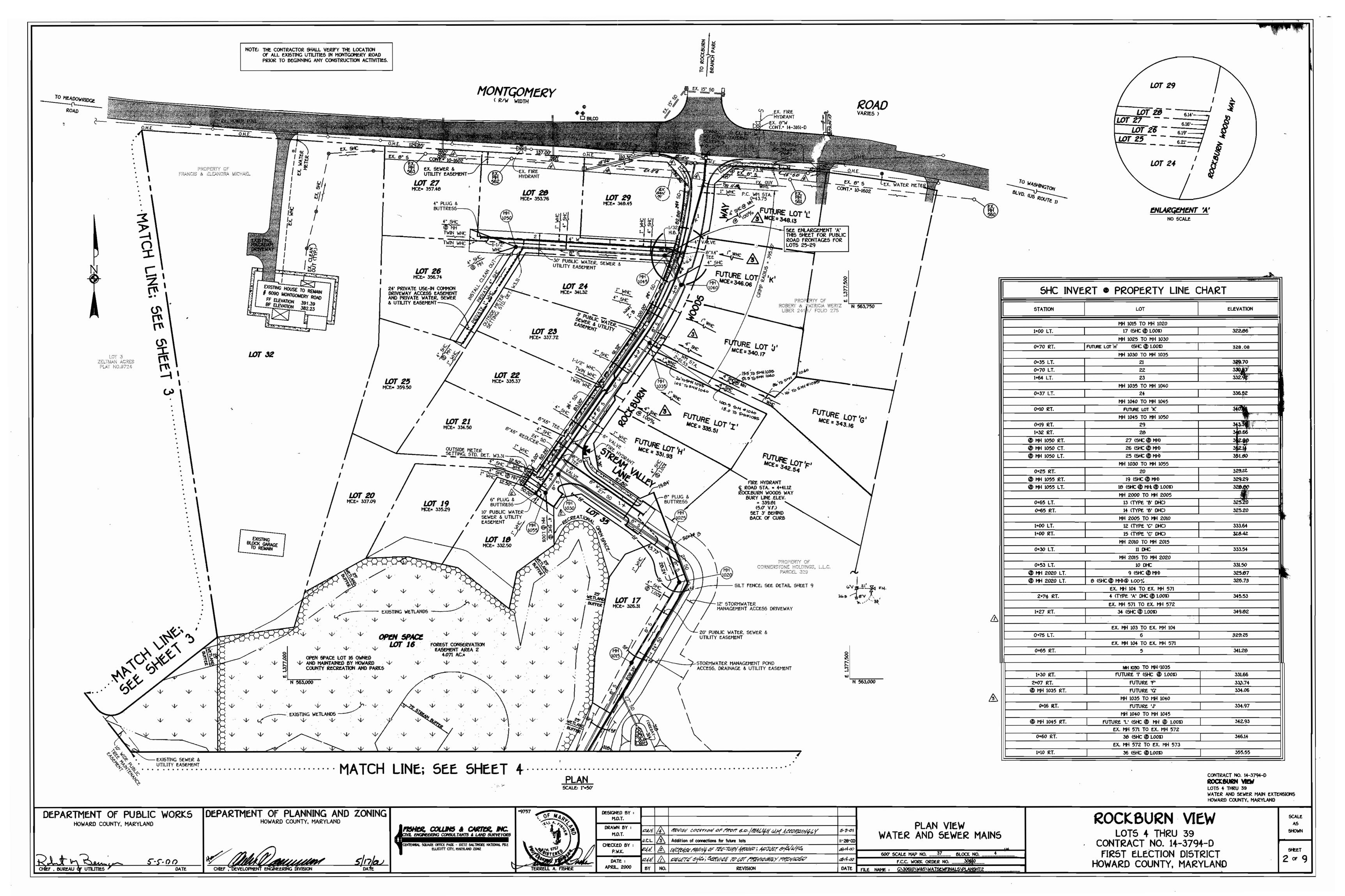
F.C.C. WORK ORDER NO. ___30610

TLE NAME: G\30610\W&\$\WATSEWFINAL5\PLANSHT3

ROCKBURN VIEW

LOTS 4 THRU 39
CONTRACT NO. 14-3794-D
FIRST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE
AS
SHOWN
SHEET
3 OF 9



		QUANTIT:	AS-BUILT	
item	EST!MATED	QUANTITIES	TYPE	SUPPLIER
8" SEWER	1,303.32 L.F.			
B" SEWER (D.I.P.)	633.12 L.F.			
4° SEWER	1,397 L.F.			
4" SEWER (D.I.P.)	286 L.F.			
MANHOLES	15 EACH			
O" WATER	2,328.75 L.F.	_		
6" WATER	163.89 L.F.			
4" WATER	273 L.F.	-		
1-1/2" WATER	134 L.F.	· .		
I" WATER	813 L.F.			
FIRE HYDRANTS	5 EACH			
9" x 9" Tee	1 EACH			
8" x 6" TEE	5 £ACH	•		
8" x 4" TEE	1 EACH			
O" VALVE	2 EACH			
6" VALVE	5 £ACH			
4" VALVE	1 EACH			
8*-1/8 H.B.	2 EACH			
8°-1/16 H.B.	4 EACH			
6"-1/32 H.B.	3 EACH			
4"-1/32 H.B.	1 EACH			
Ø" PLUG & BUTTRÆSS	2 EACH			
6° PLUG & BUTTRESS	1 EACH			
4" PLUG & BUTTRE55	1 EACH			
12" X 0" TAPPING SLEEVE & VALVE	2 EACH			
OUTSIDE METER SETTING	2 £ACH			
8" X 6" REDUCER	1 EACH			

* I/WE HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR SEDIMENT AND EROSION CONTROL BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS

Paul (V. Kindle) FOR: CORNERSTONE HOLDINGS L.L.C. 05/03/00

ENGINEER'S CERTIFICATION

" I HEREBY 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."

IGNATURE OF ENGINEER

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

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

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AS SHOWN ON THESE PLANS

HOWARD COUNTY, MARYLAND

POLLULION FOR: CORNEDSTONE HOLDINGS L.L.C. 05/03/00

SIGNATURE OF DEVELOPER DEPARTMENT OF PUBLIC WORKS

DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND



FOX HUNT ESTATES

TO ELLICOTT

WATER & SEWER CODE

WATER TEST GRADIENT:

NUMBER OF LOTS & PARCELS: _____

NO. OF WATER HOUSE CONNECTIONS:

NO. OF SEWER HOUSE CONNECTIONS:

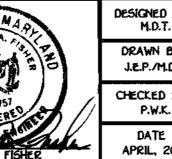
DRAINAGE AREA:

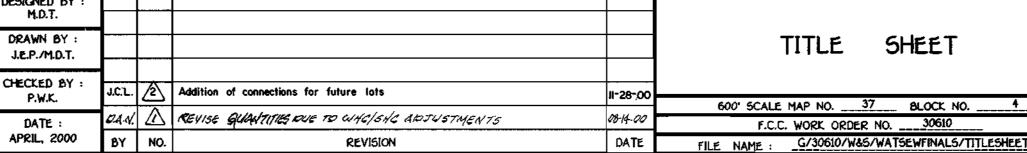
TYPE OF BUILDING: RESIDENTIAL: SINGLE FAMILY DETACHED

TREATMENT PLANT: PATAPSCO WASTEWATER TREATMENT

PLANT: CITY OF BALTIMORE

39. (36 BUILDABLE) (7 FUTURE)





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.
- 2. ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- 3. ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATUM.

4. ALL PIPE ELEVATIONS ARE INVERT ELEVATIONS. 5. CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2"-0" MINIMUM.

- 6. FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (1991 AMENDMENTS) THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB SITE.
- 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 VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION. ANY DAMAGE TO EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 8. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

STATE HIGHWAY ADMINISTRATION - (410) 531-5533 BALTIMORE GAS & ELECTRIC CO.. - CONTRACTOR SERVICES - (410) 850-4620 BALTIMORE GAS & ELECTRIC CO.. - UNDER GROUND DAMAGE CONTROL - (410) 707-9060 MISS UTILITY - 1-800-257-7777

COLONIAL PIPELINE CO. - (410) 795-1390 BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - (410) 313-4900

- 9. 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 10. CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE
- INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN. ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.
- 12. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- T.B. DENOTES TEST BORING.
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- 15. MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G 5.52. 16. WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE
- NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
- 17. HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.
- 18. ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN
- 19. MANHOLES LOCATED WITHIN THE PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAMES AND COVERS,
- 20. WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED AS TO HAVE ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
- 21. ALL WATER MAINS SHALL BE D.I.P., CLASS 52 UNLESS OTHERWISE NOTED. 22. TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2' COVER UNLESS OTHERWISE NOTED.
- 23. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- 24. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- 25. FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATION SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS (WLII AND W2.13). SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
- 26. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- 27. ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATIONS C-153; DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH
- 28. THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, . (410) 313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE

BENCHMARK INFORMATION

B.M.-1 - HOWARD COUNTY MONUMENT NO. 37AB ELEV.= 394.74; DESCRIPTION: STAMPED CONC. MONUMENT • SURFACE APPROX. 9' SOUTH OF EDGE OF E.B.L. OF MONTGOMERY ROAD AND 64' WEST OF CENTERLINE OF DRIVEWAY FOR HOUSE *6028 B.M.+2 - HOWARD COUNTY MONUMENT NO. 37BB

ELEV. = 373.83; DESCRIPTION: STAMPED CONC. MONUMENT . SURFACE BETWEEN BACK OF GUARD RAIL AND SOUTH EDGE OF CONCRETE WALK FOR ROCKBURN ELEM. SCHOOL. 16.3' FROM AN X-CUT IN THE END POST OF THE GUARDRAIL AND 18.8' FROM THE END OF THE CHAIN LINK FENCE

CONTRACT No. 14-3794-D

SCALE: 1"=600"

- TIMBERS OF

TROY GOLF COURSE -

STREAM VALLEY LANE

TROY GOLF COURSE ~

ROCKBURN VIEW

TO WASHINGTON

BLVD. (US RT. 1)

MARKHAM WOODS

MARSHALEE ESTATES

PLAN REFERENCE NUMBERS:

5 97-06, P 90-16, F 99-163

ROCKBURN VIEW

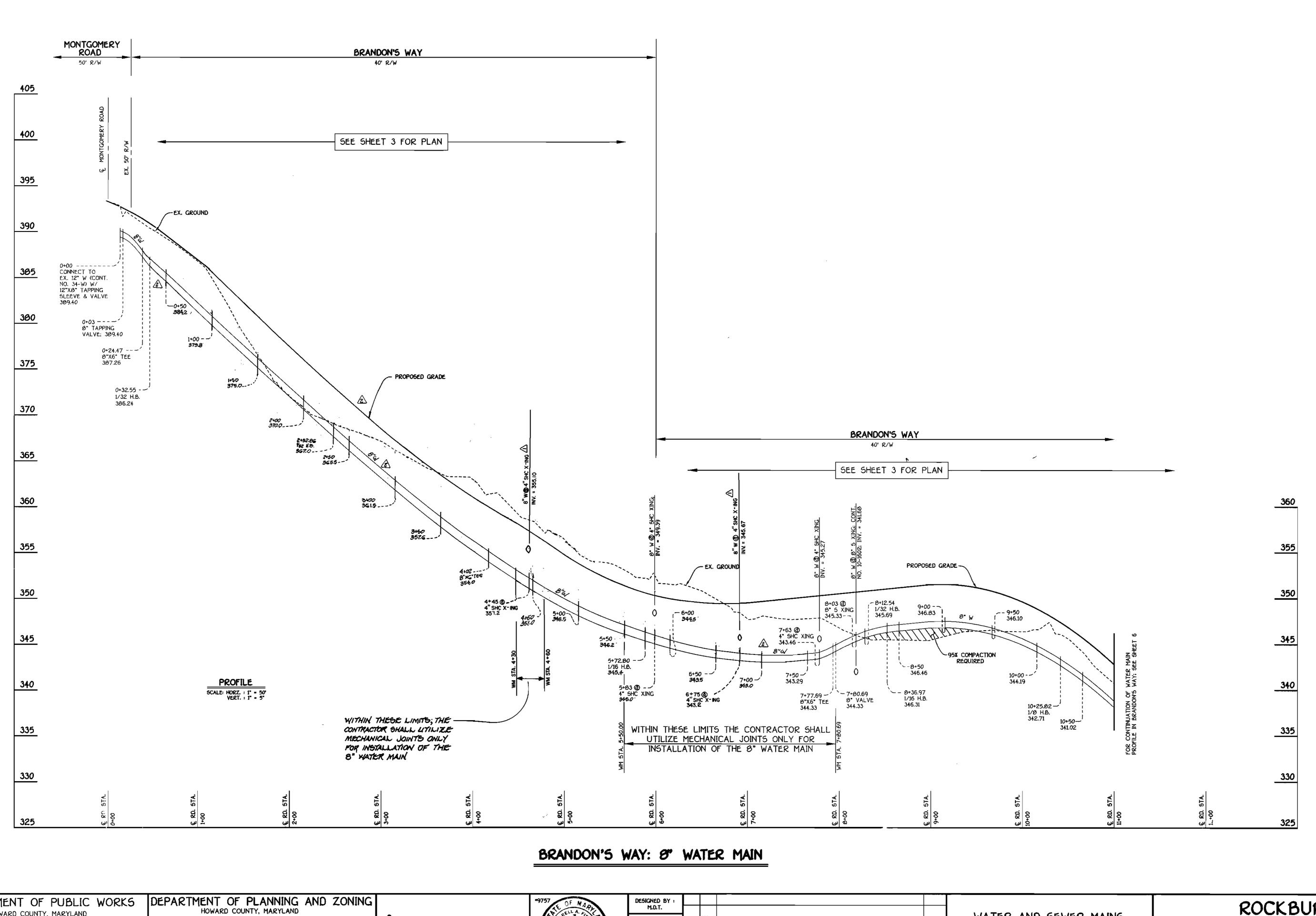
LOTS 4 THRU 39 WATER AND SEWER MAIN EXTENSIONS HOWARD COUNTY, MARYLAND

> CONTRACT NO. 14-3794-D ROCKBURN VIEW LOTS 4 THRU 39 WATER AND SEWER MAIN EXTENSIONS HOWARD COUNTY, MARYLAND

ROCKBURN VIEW

LOTS 4 THRU 39 CONTRACT NO. 14-3794-D FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND SHOWN SHEET

SCALE



DRAWN BY :

CHECKED BY : P.W.K.

DATE : APRIL, 2000

REVISE ROAD GRADE & 8"W PROFILE; WHO+30 \$ TO 7+00 \$

BY NO. Addition of connections for lots 36-39 & future lots

FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS

5/17/00 DATE

SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MARYLAND 21042 (480) 461 - 2055

DEPARTMENT OF PUBLIC WORKS

5-5-00

HOWARD COUNTY, MARYLAND

CHIEF , BUREAU OF UTILITIES

ROCKBURN VIEW

CONTRACT NO. 14-3794-D ROCKBURN VIEW

LOTS 4 THRU 39
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

LOTS 4 THRU 39

WATER AND SEWER MAINS

PROFILES

600' SCALE MAP NO. 37 BLOCK NO. 4

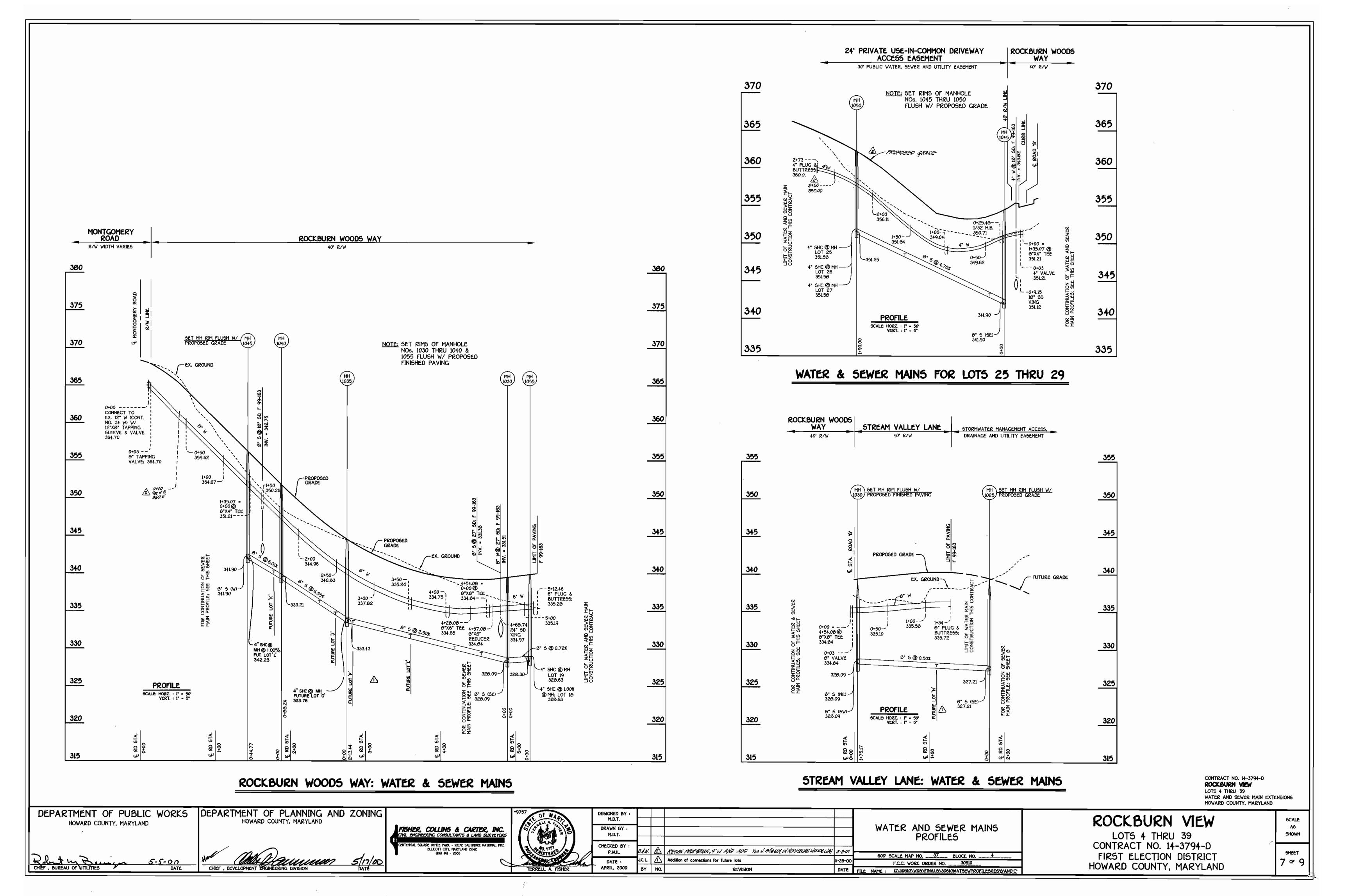
F.C.C. WORK ORDER NO. ____30610_

DATE FILE NAME : G\30610\W&S\FINALS\30610BRWAYW&SMAINSPROFILES

CONTRACT NO. 14-3794-D FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SHEET 5 or 9

5HOWN



QUANTITIES				
item	ESTIMATED		AS-BUILT	
		QUANTITIE5	TYPE	5UPPLIER
0" SEWER	1,303.32 L.F.			
6" SEWER (D.I.P.)	633.12 L.F.			**************************************
4" SEWER	1,397 L.F.			
4" SEWER (D.J.P.)	286 L.F.			
MANHOLES	15 EACH			
0" WATER	2,326.75 L.F.			
6" WATER	163.89 L.F.			
4" WATER	273 L.F.			
1-1/2" WATER	134 L.F.			
1" WATER	813 L.F.			
FIRE HYDRANTS	5 EACH			
0" x 0" TEE	1 EACH	_		
0" x 6" TEE	5 EACH	•		
0" x 4" TEE	1 EACH			
8" VALVE	2 EACH			
6" VALVE	5 EACH	_		
4" VALVE	1 EACH			
8*-1/8 H.B.	2 EACH			
6*-1/16 H.B.	4 EACH			
6"-1/32 H.B.	4 EACH			
4*-1/32 H.B.	1 EACH			
6" PLUG & BUTTRESS	2 EACH			
6" PLUG & BUTTRESS	1 EACH			
4" PLUG & BUTTRESS	1 EACH			
12" X 0" TAPPING SLEEVE & VALVE	2 EACH			
OUTSIDE METER SETTING	2 EACH			
	1 EACH			

" I/WE HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR SEDIMENT AND EROSION CONTROL BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS

POLLU FOR: CORNERSTONE HOLDINGS L.L.C. 05/03/00 SIGNATURE OF DEVELOPER DATE

ENGINEER'S CERTIFICATION

" I HEREBY 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

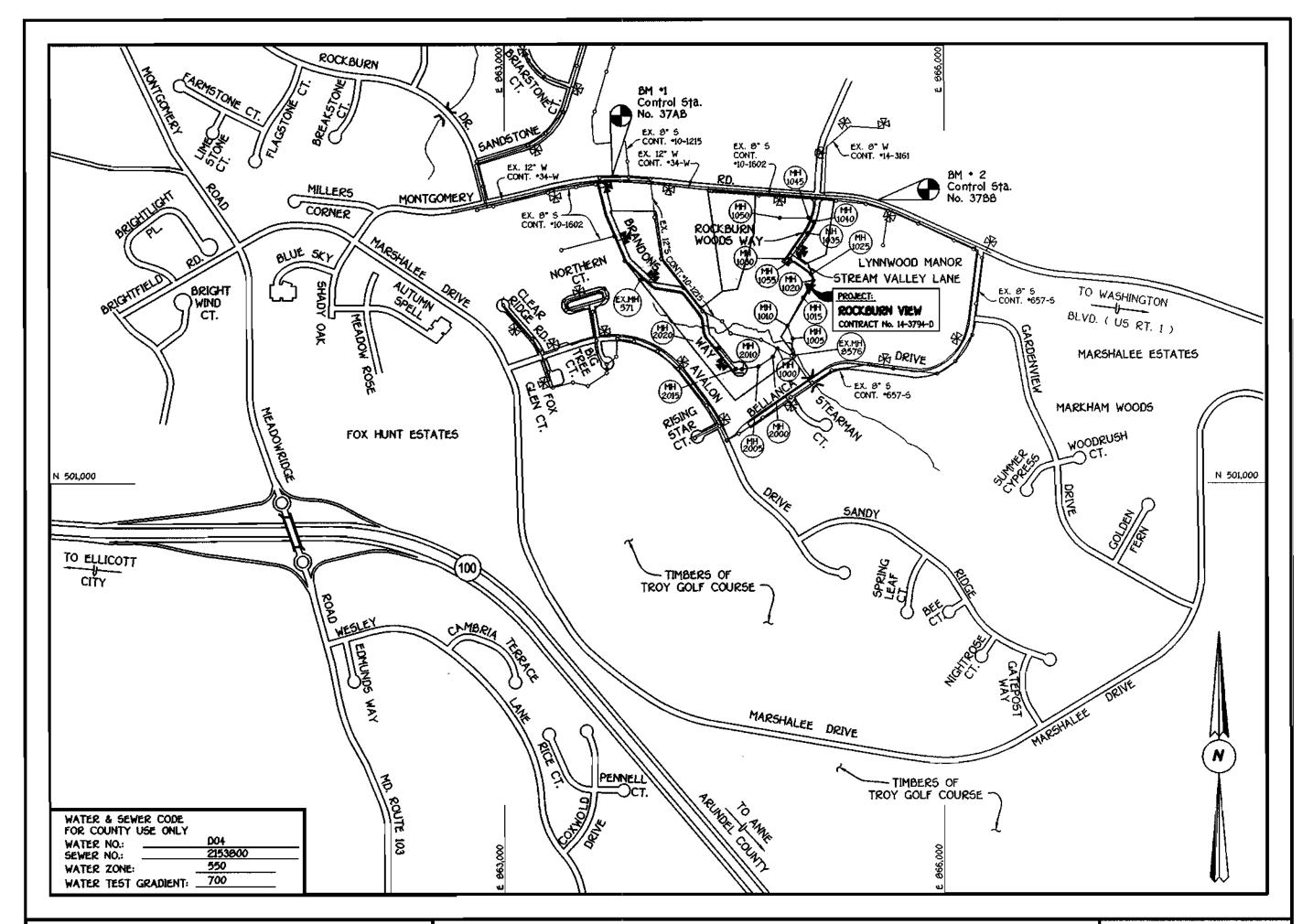
SIGNATURE OF ENGINEER

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION

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

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AS SHOWN ON THESE PLANS

CONCLUDED FOR: CORNEDSTONE HOLDINGS L.L.C. 05/03/00



VICINITY MAP SCALE: 1"-600"

PLAN REFERENCE NUMBERS:

5 97-06, P 90-16, F 99-163

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.
- 2. ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATUM.
- 4. ALL PIPE ELEVATIONS ARE INVERT ELEVATIONS.
- 5. CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM.
- 6. FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV. STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (1991 AMENDMENTS) THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB SITE.
- 7. 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 VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION. ANY DAMAGE TO EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 8. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

STATE HIGHWAY ADMINISTRATION - (410) 531-5533 BALTIMORE GAS & ELECTRIC CO.. - CONTRACTOR SERVICES - (410) 850-4620 BALTIMORE GAS & ELECTRIC CO.. - UNDER GROUND DAMAGE CONTROL - (410) 707-9060 MISS UTILITY - 1-800-257-7777

COLONIAL PIPELINE CO. - (410) 795-1390

- BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS (410) 313-4900 9. 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
- 10. CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED. 12. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- 13. T.B. DENOTES TEST BORING.
- 14. MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- 15. MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G 5.52. 16. WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE
- NOTED ON THE PLANS OR IN THE SPECIFICATIONS. 17. HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.
- 18. ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN
- MANHOLES LOCATED WITHIN THE PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAMES AND COVERS,
- 20. WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED AS TO HAVE ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
- 21. ALL WATER MAINS SHALL BE D.I.P., CLASS 52 UNLESS OTHERWISE NOTED.
- 22. TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2' COVER UNLESS OTHERWISE NOTED.
- 23. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- 24. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE
- 25. FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATION SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS (WLII AND W2.13). SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
- 26. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- 27. ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATIONS C-153; DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH
- 28. THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, . (410) 313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE

BENCHMARK INFORMATION

B.M.*1 - HOWARD COUNTY MONUMENT NO. 37AB ELEV.= 394.74; DESCRIPTION: STAMPED CONC. MONUMENT ● SURFACE APPROX. 9' SOUTH OF EDGE OF E.B.L. OF MONTGOMERY ROAD AND 64' WEST OF CENTERLINE OF DRIVEWAY FOR HOUSE .6028 B.M. • 2 - HOWARD COUNTY MONUMENT NO. 3788

ELEV.= 373.83; DESCRIPTION: STAMPED CONC. MONUMENT ◆ SURFACE BETWEEN BACK OF GUARD RAIL AND SOUTH EDGE OF CONCRETE WALK FOR ROCKBURN ELEM. SCHOOL. 16.3' FROM AN X-CUT IN THE END POST OF THE GUARDRAIL AND 18.8' FROM THE END OF THE CHAIN LINK FENCE

CONTRACT No. 14-3794-D

ROCKBURN VIEW

LOTS 4 THRU 39 WATER AND SEWER MAIN EXTENSIONS HOWARD COUNTY, MARYLAND

> CONTRACT NO. 14-3794-D ROCKBURN VIEW LOTS 4 THRU 39 WATER AND SEWER MAIN EXTENSIONS HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS

DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS

TYPE OF BUILDING: RESIDENTIAL; SINGLE FAMILY DETACHED

TREATMENT PLANT: PATAPSCO WASTEWATER TREATMENT

PLANT: CITY OF BALTIMORE

NUMBER OF LOTS & PARCELS: _____

NO. OF WATER HOUSE CONNECTIONS:

NO. OF SEWER HOUSE CONNECTIONS:

DRAINAGE AREA:

39 (36 BUILDABLE) (7 FUTURE)

36 (7 FUTURE)

PATAPSCO



DESIGNED BY :				
M.D.T.				
DRAWN BY : J.E.P./M.D.T.				
	DAN. 13	<u>A</u>	REVISE QUANTITIES; WIM REALIGNMENT IN ROCK BURN WOODS WAY	5-3-0
CHECKED BY : P.W.K.	J.C.L.	<u></u>	Addition of connections for future lots	11-28-00
DATE :	DAN. L	\triangle	REVISE GUANTITIES DUE TO WHO/SHE ADJUSTMENTS	08-14-00
APRIL, 2000	ву і	NO.	REVISION	DATE
1				

SHEET 600" SCALE MAP NO. 37___ BLOCK NO. _

F.C.C. WORK ORDER NO. 30610

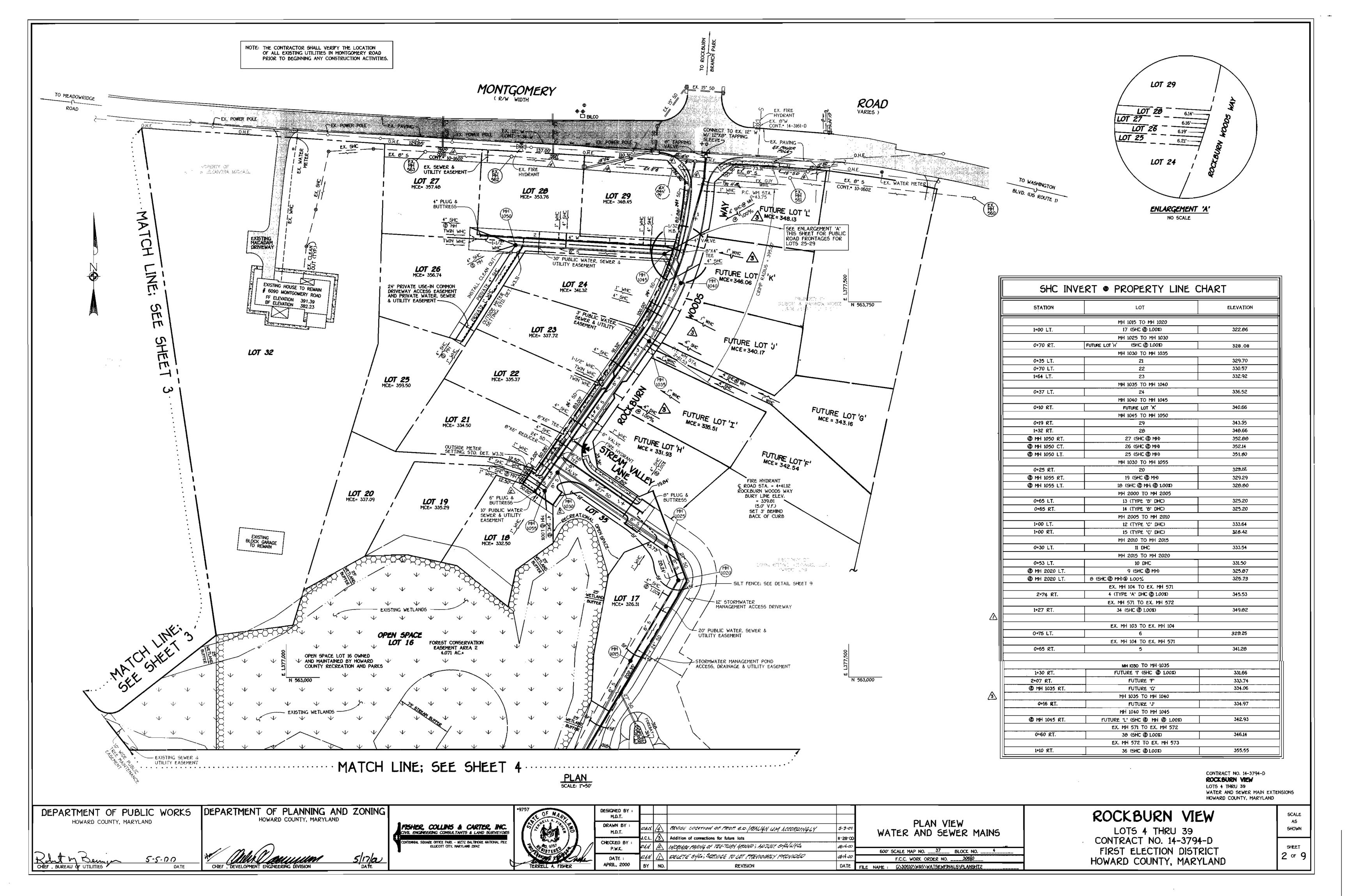
FILE NAME : G/30610/W&5/WATSEWFINALS/TITLESHEET

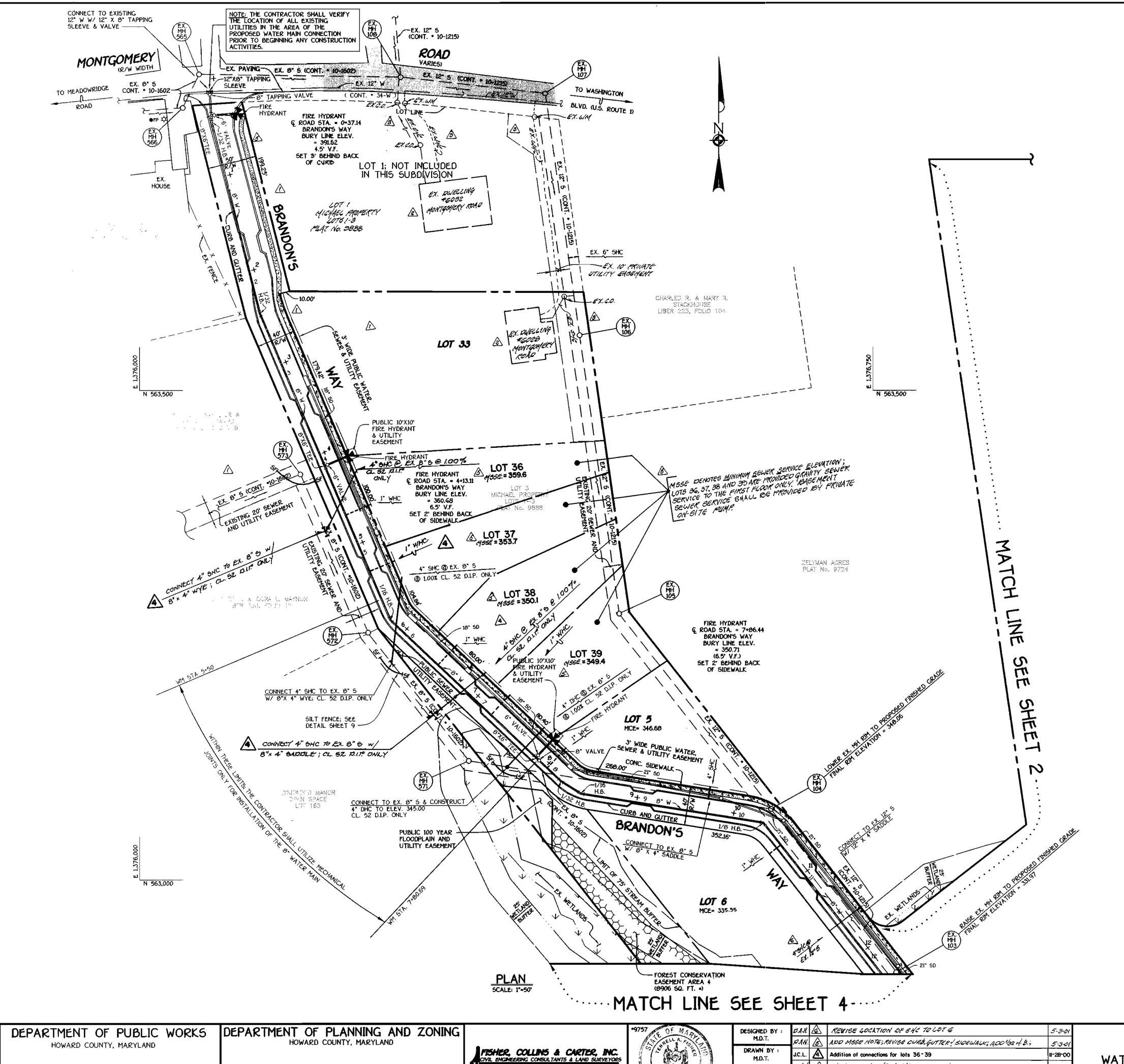
ROCKBURN VIEW

LOTS 4 THRU 39 **CONTRACT NO. 14-3794-D** FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE SHOWN

SHEET 1 or 9





4 STATION	APPURTENANCE	& ROAD STATION	DISTANC	
BRANDON'S WAY				
0+00	12" X 8" TAPPING SLEEVE	0+12.92	5.00° R	
0+03	8" TAPPING VALVE	0+15.92	5.00° R	
0+24.47	Ø* X 6* TEE	0+37.14	5.24' R	
0+32.55	1/32 H.B.	0+44.98	5.79° R	
2+32.66	1/32 H.B.	2+44.40	5.56' R	
4+02.00	0" x 6" Tee	4+13.11	5.00° R	
5+72.80	1/16 H.B.	5+82.72	6.18° R	
7+77.69	Ø" X 6" TEE	7+86.44	5.00° R	
7+80.69	6" VALVE	7+89.44	5.00° R	
8+12.54	1/32 H.B.	Ø+21.29	5.00° R	
Ø+36.97	1/15 H.B.	8+43.54	5.66' R	
10+25.82	1/0 H.B.	10+32.56	1.67' R	
12+44.74	1/16 H.B.	12+53.15	4.48' R	
12+50.30	P.C. (CRIMP RADIUS=380°)	12+68.35	6.00° R	
13+09.41	P.T. (CRIMP RADIUS=360')	13+19.73	3.90° R	
13+63.41	1/16 H.B.	13+73.33	5.33' R	
13+66.41	P.C. (CRIMP RADIUS=380°)	13+75.95	4.51' R'	
14+26.46	P.T. (CRIMP RADIUS=300')	14+36.52	5.00° R	
15+92.92	Ø" X 6" TEE	16+00.97	5.00° R	
16+87.77	1/8 H.B.	16+85.92	23.41° F	
17+37.67	Ø" PLUG & BUTTRESS	L.P. STA.	5.79' R	
	ROCKBURN WOODS WAY			
0+00	12" X 0" TAPPING SLEEVE	0+10.88	5.00° R	
2 0+03	6" TAPPING VALVE	0+13.00	5.00° R	
1+35.07	P.C. (CRIMP RADIU5=380°)	1+47.01	5.00° R	
1+35.07	Ø" X 4" TEE	1+47.01	5.00° R	
2+61.53	P.T. (CRIMP RADIUS=380')	2+75.17	5.00' R	
4+28.08	Ø* X 6* TEE	4+41.72	5.00° R	
4+54.08	8" X 8" TEE	4+67.72	5.00° R	
4+57.08	Ø" X 6" REDUCER	4+70.72	5.00° R	
5+12.46	6" PLUG & BUTTRESS	5+26.10	5.00' R	
	STREAM VALLEY LANE			
0+00	9" X 9" TEE	-0+05	5.00° L	
0+03	B" VÄLVE	-0+02	5.00° L	
1+34	9" PLUG & BUTTRESS	1+29	5.00° L	
	ACCESS DRVE			
0+00	8° X 4° TEE	1+47.01	5.00° R	
0+03	4" VALVE	1+47.01	8.00° R	
0+25.48	1/32 H.B.	1+47.01	30.46*	
2+47.53	4" PLUG & BUTTRESS	**************************************		
	ROCKBURN WOODS WAY	A		
0+40	1/32 H.B.	0+50.88	5.00	

	MANHOLE	TABULATION	CHART				
NO.	& road station	DISTANCE	SLOPE	RIM ELEVATION			
1000			T	312.00 *			
2000				314.59 **			
2005				338.00 **			
2010	IN CUL-DE-SAC; BRANDON'S WAY			345.60			
2015	IN CUL-DE-SAC; BRANDON'S WAY			342.77			
2020	14+89.54; BRANDON'S WAY	5' LT.	+5.12%	332.70			
1005	more an electric de chi de de de			309.00 *			
1010		***		312.70 **			
1015				325.40 **			
1020				338.50 **			
1025				337.70 **			
1030	4+88.61; ROCKBURN WOODS WAY	5' LT.	+1.26%	339.63			
1035	2+75.17; ROCKBURN WOODS WAY	5' LT.	-6.08%	344.65			
1040	1+87.86; ROCKBURN WOODS WAY	5' LT.	-9.92%	351.93			
1045	Clin did allow the side with side and side and side			352.00 **			
1050				362.55 **			
1055	5+16.10; ROCKBURN WOODS WAY	5' LT.	+1.28%	340.01			
* SET RIM	1.5' ABOVE EXISTING GROUND	<u> </u>	I				
** SET RIM	** SET RIM FLUSH W/ EXISTING OR PROPOSED FINISHED GRADE						

CONTRACT NO. 14-3794-D ROCKBURN VIEW LOTS 4 THRU 39
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

5-5-00 DATE

Contract of the second
TERRELL A. FISHER

	Decidied Di .	D. 67 CO	بعت	(100)00 000((10) 00 0)0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1000
A	M.D.T.	PAN.	B	ADD MOSE NOTE; REVISE CURB, GUTTER ! SIDEWALK; ADD 1/32 H. B.;	5.301
	DRAWN BY : M.D.T.	J.C.L.	A	Addition of connections for lots 36-39	11-28-00
Jan		D.A.N.	₽	SHOW EXISTING SHE & WHE TO LOTS 1+ 33	08-14-00
	CHECKED BY : P.W.K.	P.A.N.	æ	SHOW EXISTING DUELLINGS ON 6078 1433	08-14-00
	DATE :	O.AN	\triangle	DELETE SHES JUNES; SERVICE TO LOTS PREVIOUSLY PROVIDED.	181400
	APRIL, 2000	BY	NO.	REVISION	DATE
	'				

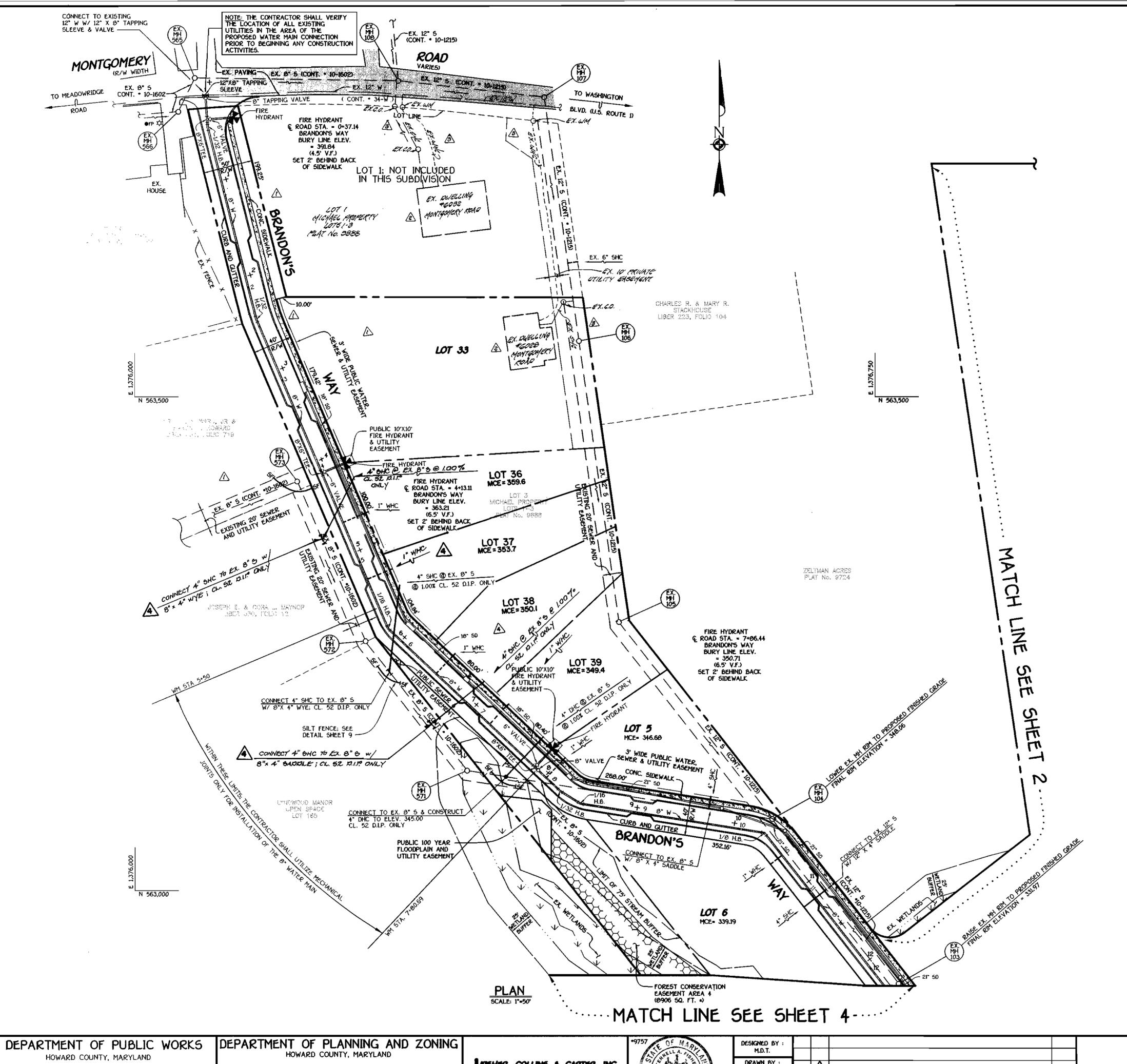
PLAN VIEW WATER AND SEWER MAINS

600' SCALE MAP NO. ______________________BLOCK NO. __________ F.C.C. WORK ORDER NO. _____30610 FILE NAME : G\30610\W&S\WATSEWFINALS\PLANSHT3

ROCKBURN VIEW

LOTS 4 THRU 39 CONTRACT NO. 14-3794-D FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE SHOWN SHEET



		6	
WM STATION	APPURTENANCE	& ROAD STATION	DISTANC
	BRANDON'S WAY		
0+00	12" X 0" TAPPING SLEEVE	0+12.92	5.00° R
0+03	6" TAPPING VALVE	0+15.92	5.00° R
0+24.47	ذ X 6° TEE	0+37.14	5.24° R
0+32.55	1/32 H.B.	0+44.98	5.79° R
2+32.06	1/32 H.B.	2+44.40	5.56° R
4+02.00	Ø" X 6" TEE	4+13.11	5.00° R
5+72.80	1/16 H.B.	5+82.72	6.18' R
7+77.69	0" X 6" TEE	7+86.44	5.00° R
7+80.69	0" VALVE	7+89.44	. 5.00° R
8+12.54	1/32 H.B.	Ø+21.29	5.00° R
&+36.97	1/16 H.B.	Ø+43.54	5.66° R
10+25.82	1/6 H.B.	10+32.56	1.67° R
12+44.74	1/16 H.B.	12+53.15	4.48° R
12+50.38	P.C. (CRIMP RADIUS=380°)	12+68.35	6.00° R
13+09.41	P.T. (CRIMP RADIUS=380')	13+19.73	3.90° R
13+63.41	1/16 H.B.	13+73.33	5.33' R
13+66.41	P.C. (CRIMP RADIU5=300°)	13+75.95	4.51' R
14+28.48	P.T. (CRIMP RADIUS=300')	14+36.52	5.00° R
15+92.92	Ø* X 6* TEE	16+00.97	5.00° R
16+07.77	1/8 H.B.	16+85.92	23.41' (
17+37.67	9" PLUG & BUTTRESS	L.P. STA.	5.79° R
	ROCKBURN WOODS WA	<u>Y</u>	
0+00	12" X 0" TAPPING SLEEVE	0+10.88	5.00° R
0+03	9" TAPPING VALVE	0+13. 00	5.00' R
0+43.75	P.C. (CRIMP RADIUS=380°)	0+54.64	5.00' R
1+35.07	8° X 4° TEE	1+47.01	5.00° R
2+61.53	P.T. (CRIMP RADIUS=360')	2+75.17	5.00' R
4+28.08	0° X 6° TEE	4+41.72	5.00' R
4+54.08	0° X 0° Tee	4+67.72	5.00' R
4+57.08	9" X 6" REDUCER	4+70.72	5.00' R
5+12.46	6° PLUG & BUTTRESS	5+26.10	5.00' R
0+00	STREAM VALLEY LANE	1	T 5 001 1
0+03	0" X 0" TEE 0" VALVE	-0+05	5.00° L
1+34	Ø" PLUG & BUTTRESS	-0+02	5.00° L
1-94	ACCESS DRVE	1+29	5.00' L
0+00	9" X 4" TEE	1+47.01	5.00° R
0+03	4" VALVE	1+47.01	8.00° R
0+25.46	1/32 H.B.	1+47.01	30.48'
2+47.53	4" PLUG & BUTTRESS		

	MANHOLE	TABULATION	CHART	
NO.	4 road station	DISTANCE	SLOPE	RIM ELEVATION
1000				312.00 *
2000				314.59 **
2005	**************************************			338.00 **
2010	IN CUL-DE-SAC; BRANDON'S WAY			345.60
2015	IN CUL-DE-SAC; BRANDON'S WAY			342.77
2020	14+89.54; BRANDON'S WAY	5° LT.	+5.12X	332.70
1005	**************************************			309.00 *
1010				312.70 **
1015				325.40 **
1020				339.50 **
1025	***********			337.70 **
1030	4+88.61; ROCKBURN WOODS WAY	5' LT.	+1.28%	339.63
1035	2+75.17; ROCKBURN WOODS WAY	5' LT.	-6.0 8 %	344.65
1040	1+07.06; ROCKBURN WOODS WAY	5' LT.	-9.92%	351.93
1045				352.00 **
1050				362.55 **
1055	5+10.10; ROCKBURN WOODS WAY	5' LT.	+1.28%	340.01
			<u> </u>	
	1.5' ABOVE EXISTING GROUND 1 FLUSH W/ EXISTING OR PROPOSED			

CONTRACT NO. 14-3794-D

ROCKBURN VIEW

LOTS 4 THRU 39

WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

5-5-00

CHIEF , BUREAU OF UTILITIES

FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS 5/17/00 Date

5	30 9351 0 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
9	TERRELL A. FISHER

L	rj.p. j.					51 444 17714
- [DRAWN BY : M.D.T.	TC.L.	A	Addition of connections for lots 36-39	II-28-00	PLAN VIEW WATER AND SEWER MAI
ŀ	*	D.A.N.	3	SHOW EXISTING SHE & JUHC'S TO LOTS 1 + 33	08-14-00	WATER AND SEMER PIAI
	CHECKED BY : P.W.K.	P.A.N.	₽	540W EXISTING DUELL 114G5 QN 6078 1433	08-14-00	
//		O.AN	Λ	DELETE SHES MACS; SERVICE TO LOTS PREVIOUSLY PROVIDED.	0314200	
اسة	DATE :	C. Sice	<u>~</u>	NELLE 15 374 \$ / 01 105 ; Dec(1104 14 65 1 - 1 110 4 17506 1 7 20 4 170 6 0 .	92.750	F.C.C. WORK ORDER NO. 30610
_	APRIL, 2000	BY	NO.	REVISION	DATE	FILE NAME : G\30610\W&5\WATSEWFINALS\PLANSHT3

PLAN VIEW WATER AND SEWER MAINS 600° SCALE MAP NO. ____37___ BLOCK NO. ____ F.C.C. WORK ORDER NO. _____30610

ROCKBURN VIEW

LOTS 4 THRU 39 CONTRACT NO. 14-3794-D FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SHOWN SHEET 3 of 9

