

PATAPSCO PARK ESTATES

SECTION FOUR

WATER AND SEWER PLANS

CONTRACT N° 14-3153-D

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 THE MARYLAND STATE COORDINATES.
3. ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATUM.
4. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
5. CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. ANY COST INCURRED TO THE CONTRACTOR FOR TUNNELING OR BRACING AT POLES SHALL BE INCLUDED IN UNIT PRICES BID FOR CONSTRUCTION OF THE MAIN.
6. FOR DETAILS NOT SHOWN ON THE DRAWINGS USE HOWARD COUNTY STANDARD DETAILS AND CONSTRUCTION.
7. FOR MATERIALS AND CONSTRUCTION METHODS USE HOWARD COUNTY STANDARD SPECIFICATIONS.
8. CONTRACTOR SHALL LOCATE EXISTING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 - STATE HIGHWAY ADMINISTRATION - 531-5533 OR 333-1200
 - BALTIMORE GAS AND ELECTRIC COMPANY - UNDERGROUND ELECTRIC DISTRIBUTION CUSTOMER SERVICE - 561-5905.
 - BALTIMORE GAS AND ELECTRIC COMPANY - UNDERGROUND GAS DISTRIBUTION CUSTOMER SERVICE - 561-5905.
 - ENGINEERING - "DAMAGE CONTROL" - 234-5621.
 - "MISS UTILITY" - 1-800-257-7777
 - CHESAPEAKE AND POTOMAC (C&P) TELEPHONE COMPANY - 1-301-725-9976
 - AMERICAN TELEPHONE AND TELEGRAPH-CABLE LOCATION DIVISION-(SEE MISS COLONIAL PIPELINE COMPANY - 781-4681.
 - BUREAU OF UTILITIES HOWARD COUNTY - 313-4900.
10. TREES ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
11. CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION AS DIRECTED BY THE ENGINEER. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
12. PLACE REGULATION "MEN WORKING" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS.
13. ALL WATER MAINS SHALL BE D.I.P. CLASS S2 WITH 1/8" CEMENT MORTAR LINING UNLESS OTHERWISE NOTED.
14. TOP OF ALL WATER MAINS SHALL HAVE MINIMUM OF 3-1/2' COVER UNLESS OTHERWISE NOTED.
15. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES. (DETAILS W-2.14 & W-2.1)
16. BLOCK ALL FITTINGS WITH CONCRETE. (DETAILS W-2.21, 22 23 24 & 25)
17. BURY LINE ELEVATIONS ON FIRE HYDRANTS SHALL BE SET TO THE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRE WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS W-1.11 & W-2.13. SOIL AT THE FIRE HYDRANT TO BE COMPACTED IN ACCORDANCE WITH SECTION 1000 & 1005 STANDARD SPECIFICATIONS.
18. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING SYSTEM.
20. ALL WATER HOUSE CONNECTIONS SHALL BE FOR AN INSIDE METER SETTING. (DETAILS W-3.21 & W-3.29).
21. ALL SEWER MAINS AND SEWER HOUSE CONNECTIONS (SHC) SHALL BE DIP, RCP, VCP, CSPX, RCP AND PVC UNLESS OTHERWISE NOTED.
22. THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
23. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER, UNLESS OTHERWISE NOTED. (DETAIL G-5.1)
24. ALL WHC'S SHALL HAVE BALL VALVE CURB STOPS AND CORPORATION COCK ASSEMBLY (DETAIL W-3.21).
25. MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS. STANDARD DETAIL G 5.52.
26. ALL MANHOLE FRAME AND COVERS NOT LOCATED IN PAVED AREAS SHALL BE SET 0.1" ABOVE EXISTING GRADE WHERE SHOWN IN PROFILE. (DETAIL G-5.41)
27. ORIGINAL GROUND OVER WATER AND SEWER WAS TAKEN FROM AERIAL PHOTOGRAPHY PREPARED BY MAPS INC., AND BY FIELD SURVEY IN AUGUST, 1987 BY PURDUM & JESCHKE.
28. ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATION C-153 DUC IRON COMPACT FITTINGS, 3-INCH THROUGH 12-INCH FOR WATER AND OTHER LIQUIDS.
29. NO OCCUPANCY PERMITS WILL BE ISSUED BEFORE COMPLETION OF UTILITIES AND ROAD BASE COAT.
30. ALL SEWER HOUSE CONNECTIONS (SHC) SHALL BE 4" AND AT A 2% SLOPE.
31. ALL WATER HOUSE CONNECTIONS (WHC) SHALL BE 3/4" UNLESS OTHERWISE NOTED.
32. THE CONTRACTOR SHALL MAINTAIN ACCESS TO THE EXISTING PATAPSCO PARK PUMPING STATION AT ALL TIMES.
33. SEDIMENT CONTROL MEASURES TO BE IMPLEMENTED IN ACCORDANCE WITH SECTION 21 OF THE HOWARD COUNTY DESIGN MANUAL AND ROADWAY CONSTRUCTION PLANS F-91-11 SEDIMENT AND EROSION CONTROL DRAWINGS.
34. THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410)313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUN OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIA WITH DPW REQUIREMENTS PER SECTION 18.114(a) OF THE HOWARD COUNTY CODE.
35. THE SEWER HOUSE CONNECTIONS FOR LOTS 90-95 ARE EXISTING AND WERE IN UNDER CONTRACT # 10-1206.

INDEX OF SHEETS

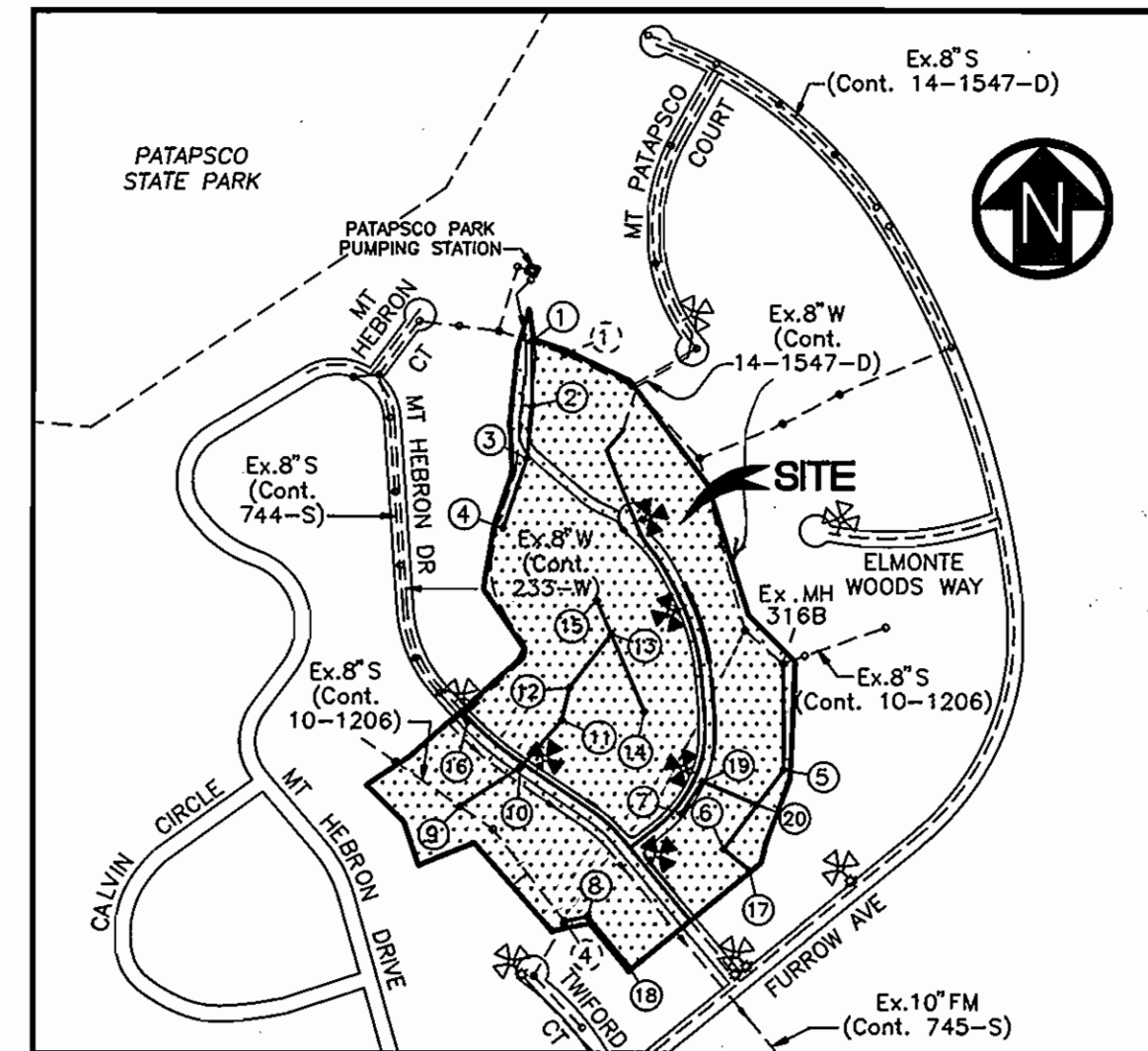
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	WATER & SEWER PLAN - MT. HEBRON DRIVE STA.0+00 TO 14+50 MANHOLE #s 6 THRU 20
3	WATER & SEWER PLAN - ELIZA DORSEY LANE STA.0+50 TO 12+00, MANHOLE #s 1 THRU 5
4	WATER & SEWER PROFILES - MT. HEBRON DRIVE STA.0+00 TO 14+50 MANHOLE #s 9 THRU 16
5	WATER PROFILES - ELIZA DORSEY LANE STA.0+00 TO 15+27.5 SEWER PROFILE - MANHOLE #s 7 & 19
6	SEWER PROFILES - MANHOLE #s 1 THRU 6, 8 & 17 THRU 20

QUANTITIES

ITEMS	QUANTITIES ESTIMATED	AS-BUILT	
		QUANTITIES	TYPE
8" D.I.P. WATER LINE	2324 LF	2324 LF	CLASS S2 GRIFFIN
FIRE HYDRANT	5 EA	5 EA	CLASS B M&H/KENNEDY
8"x8" TEE	1 EA	1 EA	M-J GATE VALVE
8" VALVE	3 EA	3 EA	M-J GATE VALVE
8"x6" TEE	5 EA	5 EA	
6" VALVE	5 EA	5 EA	M-J GATE VALVE M&H/KENNEDY
8" 1/8" BEND	1 EA	1 EA	
8" 1/16" BEND	2 EA	2 EA	
8" D.I.P. SEWER LINE	866 LF	2436 LF	CL S2 GRIFFIN
8" SEWER LINE	2640 LF	2194 LF	SDR-35 ETI
4" DIP SEWER LINE	76 LF	364 LF	CL S2 GRIFFIN
3/4" WATER HOUSE CONN.	640 LF	156 LF	
METER VAULT	4 EA		
BLOW-OFF (8" MAIN)	1 EA	1 EA	
4" STANDARD MANHOLE	13 EA	11 EA	STANDARD ATLANTIC CONC.
4" TERMINAL MANHOLE	6 EA	7 EA	TERMINAL ATLANTIC CONC.
4" WATERTIGHT MANHOLE TYPE "A" DROP	2 EA	1 EA	MH-4 WATERTIGHT MH-13 TYPE A DROP ATLANTIC CONC.
4" SEWER HOUSE CONN.	755 LF	364 LF	PVC SDR-35 E.T.I
1" WATER HOUSE CONN.	257 LF	553 LF	
6" WATER	50 LF	44.7 LF	D.I.P. CL S2 GRIFFIN

NAME OF UTILITY CONTRACTOR: **ANGELAZZI BROS. INC.**
 SURVEY AND DRAFTING DIVISION AS-BUILT DATE: _____

NOTE: ALL WATER & SEWER MAINS ARE 8" UNLESS OTHERWISE NOTED



KEY MAP

SCALE: 1"=600'

WATER CODE : H03
 SEWER CODE : 1455600
 TEST GRADIENT : 780

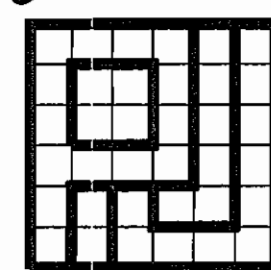
TYPE OF BUILDING - SINGLE FAMILY
 NUMBER OF LOTS - 34
 NUMBER OF WHC'S - 34
 NUMBER OF SHC'S - 34
 DRAINAGE AREA - PATAPSCO TREATMENT PLANT - PATAPSCO

This Development Plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.

Reviewed for Howard Soil Conservation District and meets technical requirements.

John L. Roberts 8/17/92
 Director of Public Works
 Howard Soil Conservation District

Jane M. Shinn 8/17/92
 Director of Public Works
 Soil Conservation Service



PURDUM & JESCHKE
 CONSULTING ENGINEERS
 LAND SURVEYORS
 1029 North Calvert Street
 Baltimore, Maryland 21202
 Tel: (301)837-0194 Fax: (301)837-3431

OWNER/DEVELOPER
PATAPSCO ASSOCIATES LIMITED PARTNERSHIP
 12116 ARBIE ROAD
 SILVER SPRING, MARYLAND 20904

DEPARTMENT OF PUBLIC WORKS

HOWARD COUNTY, MARYLAND

Jane M. Shinn 8/24/92
 Director of Public Works
 Chief, Bureau of Engineering

Robert M. Bunker 8/18/92
 Chief, Bureau of Utilities
 Chief, Land Development Div.

DATE	DESCRIPTION	BY



WATER & SEWER AS BUILT

WATER AND SEWER PLANS-CONTRACT #14-3153-D
 PATAPSCO PARK ESTATES
 SECTION FOUR

TITLE SHEET

TAX MAP NO. 17
 2nd ELECTION DISTRICT
 DATE : JUNE 5, 1992

PARCEL 38
 HOWARD COUNTY, MARYLAND
 SCALE : AS SHOWN

SHEET 1
 DES : GOT
 DRAWN : F
 CHK : RHE

AS-BUILT

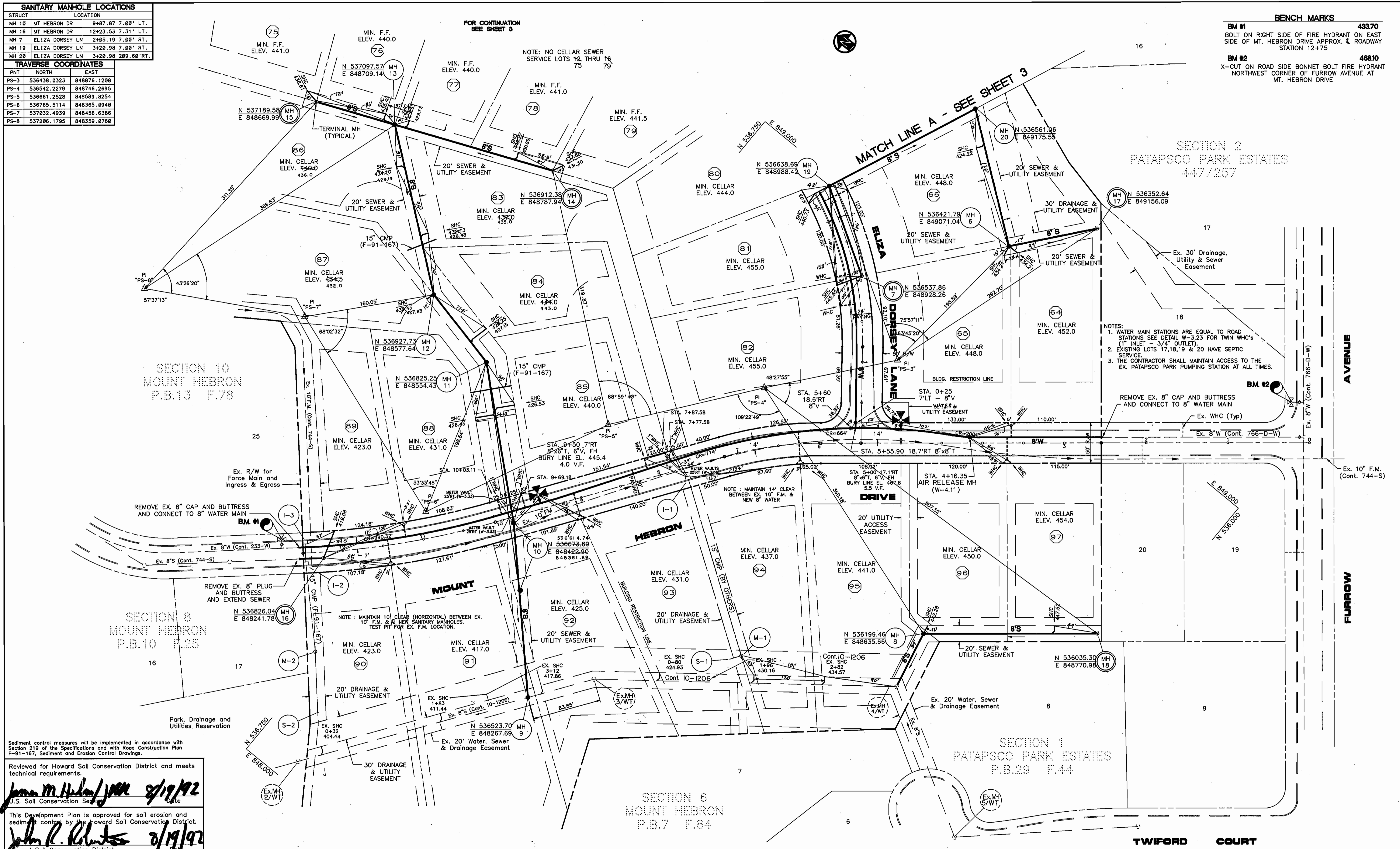
2/18/94

3/53 W/S 1

SANITARY MANHOLE LOCATIONS		
STRUCT	LOCATION	
MH 10	MT HEBRON DR	9+87.87 7.00' LT.
MH 16	MT HEBRON DR	12+23.53 7.31' LT.
MH 7	ELIZA DORSEY LN	2+85.19 7.00' RT.
MH 19	ELIZA DORSEY LN	3+20.98 7.00' RT.
MH 20	ELIZA DORSEY LN	3+20.98 289.60' RT.

TRAVERSE COORDINATES		
PNT	NORTH	EAST
PS-3	536438.0323	848876.1208
PS-4	536542.2279	848746.2695
PS-5	536661.2528	848589.8254
PS-6	536765.5114	848365.0940
PS-7	537032.4939	848456.6386
PS-8	537206.1795	848359.0760

BENCH MARKS	
BM #1	433.70
BOLT ON RIGHT SIDE OF FIRE HYDRANT ON EAST SIDE OF MT. HEBRON DRIVE APPROX. C. ROADWAY STATION 12+75	
BM #2	468.10
X-CUT ON ROAD SIDE BONNET BOLT FIRE HYDRANT NORTHWEST CORNER OF FURROW AVENUE AT MT. HEBRON DRIVE	



- NOTES:
1. WATER MAIN STATIONS ARE EQUAL TO ROAD STATIONS SEE DETAIL W-3.23 FOR TWIN WHC's (1" INLET - 3/4" OUTLET).
 2. EXISTING LOTS 17, 18, 19 & 20 HAVE SEPTIC SERVICE.
 3. THE CONTRACTOR SHALL MAINTAIN ACCESS TO THE EX. PATAPSCO PARK PUMPING STATION AT ALL TIMES.

Sediment control measures will be implemented in accordance with Section 219 of the Specifications and with Road Construction Plan F-91-167, Sediment and Erosion Control Drawings.

Reviewed for Howard Soil Conservation District and meets technical requirements.

James M. Hildebrand 8/19/92
J.S. Soil Conservation District

This Development Plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.

John R. Roberts 8/19/92
Howard Soil Conservation District

PURDUM & JESCHKE
CONSULTING ENGINEERS
LAND SURVEYORS
1029 North Calvert Street
Baltimore, Maryland 21202
Tel: (301)837-0194 Fax: (301)837-3431

OWNER/DEVELOPER
PATAPSCO ASSOCIATES LIMITED PARTNERSHIP
12116 ARBIE ROAD
SILVER SPRING, MARYLAND 20904

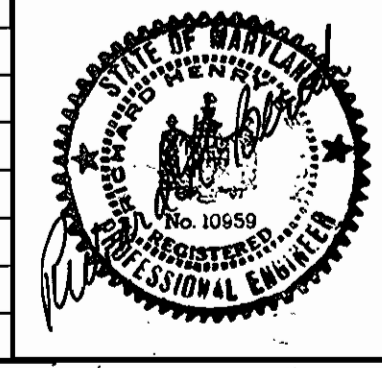
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James M. Hildebrand 8/24/92
DIRECTOR OF PUBLIC WORKS DATE

Robert B. Reinger 8-18-92
CHIEF, BUREAU OF UTILITIES DATE

William J. ... 8-20-92
CHIEF, LAND DEVELOPMENT DIV. DATE

DATE	DESCRIPTION	BY
10-4-93	MOVE MH-10+ LOWER INV. MH-14	SLG
REVISIONS		



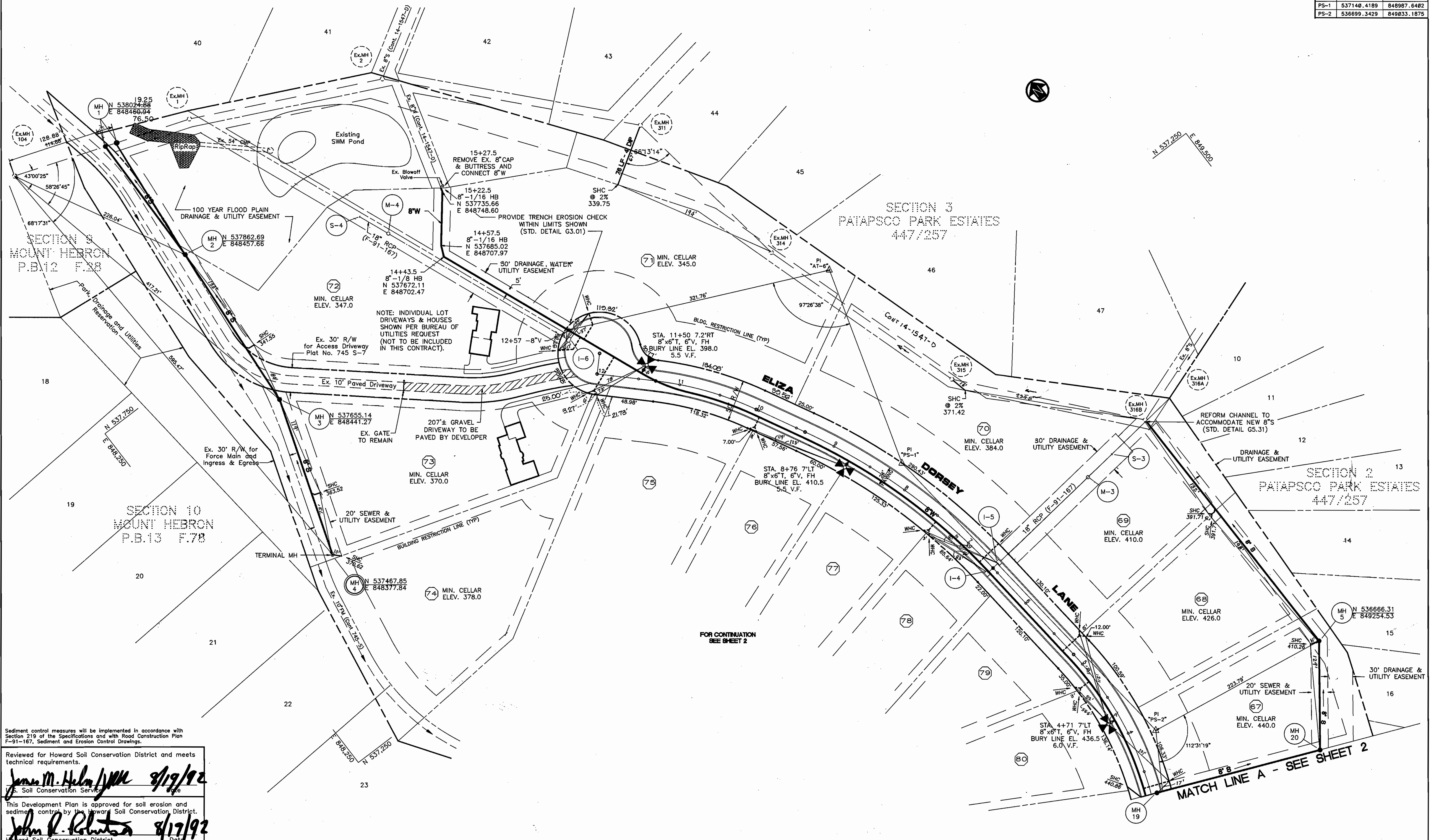
WATER AND SEWER PLANS—CONTRACT #14-3153-D
PATAPSCO PARK ESTATES
SECTION FOUR
WATER & SEWER MAIN PLAN

TAX MAP NO. 17
2nd ELECTION DISTRICT
DATE: JUNE 5, 1992

PARCEL 38
HOWARD COUNTY, MARYLAND
SCALE: 1"=50'

SHEET 2 OF 6
DES: GDT/AHK
DRAWN: REC
CHK: RHB

TRAVERSE COORDINATES		
PNT	NORTH	EAST
AT-6	537378.4940	849060.2140
PS-1	537140.4189	848987.6402
PS-2	536699.3429	849033.1875



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John M. Helms 8/17/92
Soil Conservation Service

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HOWARD COUNTY, MARYLAND

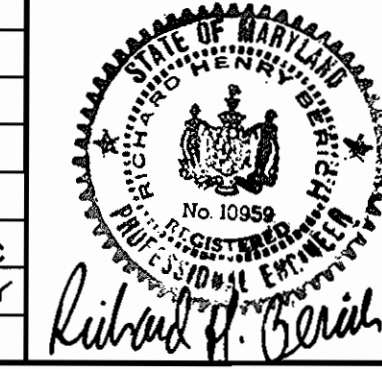
James M. Helms 8/24/92
DIRECTOR OF PUBLIC WORKS DATE

Robert D. Smith 8-18-92
CHIEF, BUREAU OF UTILITIES DATE

Charles J. ... 8-20-92
CHIEF, BUREAU OF ENGINEERING DATE

...
CHIEF, LAND DEVELOPMENT DIV. DATE

DATE	DESCRIPTION	BY
11-3-93	Move prop. sewer main between mh. #1 & mh. #2	SLC

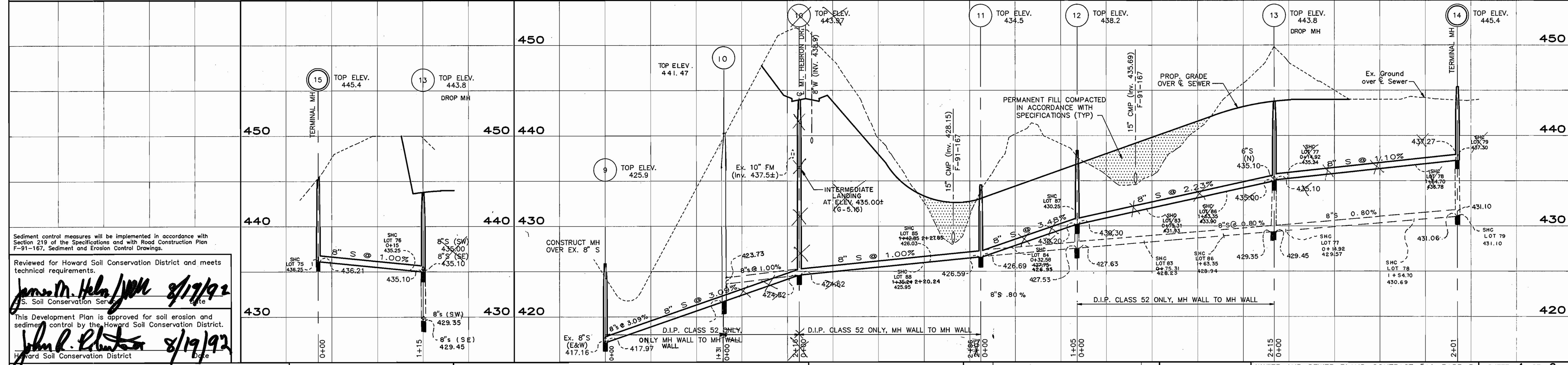
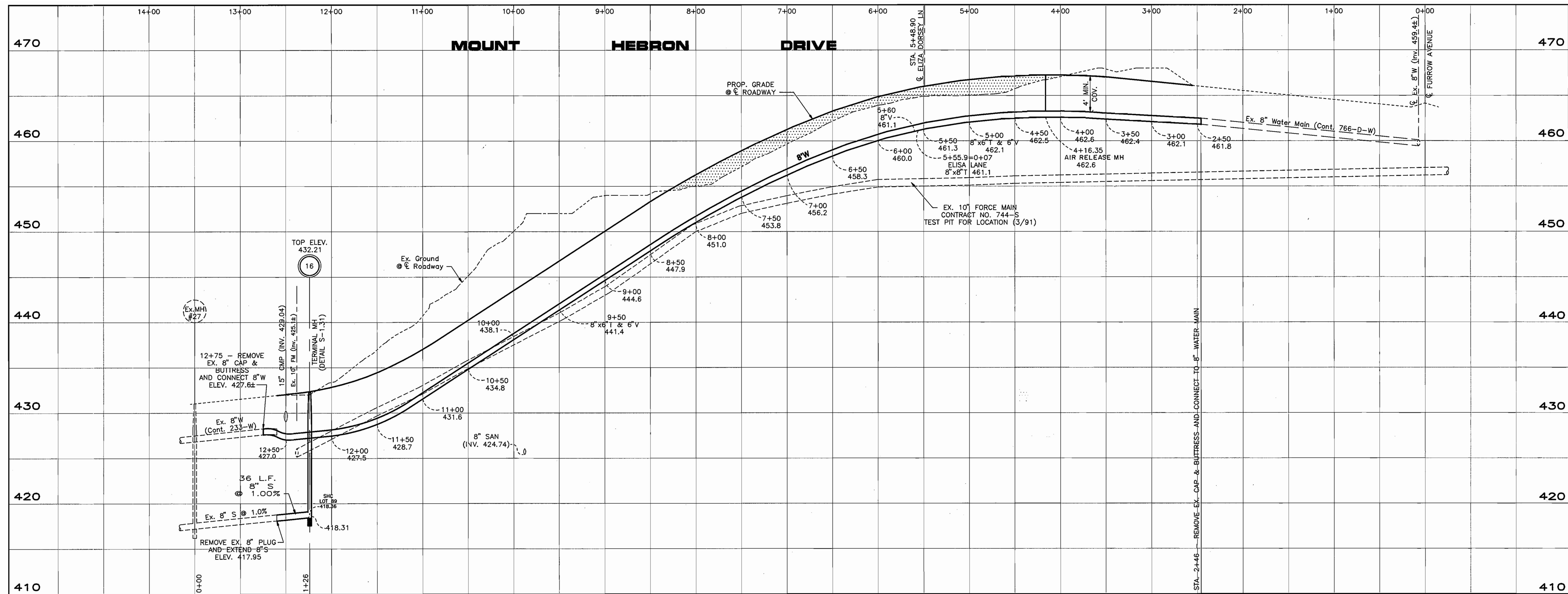


WATER AND SEWER PLANS—CONTRACT #14-3153-D
PATAPSCO PARK ESTATES
SECTION FOUR
WATER & SEWER MAIN PLAN

TAX MAP NO. 17
2nd ELECTION DISTRICT
DATE: JUNE 5, 1992

PARCEL 38
HOWARD COUNTY, MARYLAND
SCALE: 1" = 50'

SHEET 3 OF 6
DES: GDT
DRAWN: REC
CHK: RHB



Sediment control measures will be implemented in accordance with Section 219 of the Specifications and with Road Construction Plan F-91-167, Sediment and Erosion Control Drawings.

Reviewed for Howard Soil Conservation District and meets technical requirements.

James M. Helms 8/19/92
S. Soil Conservation Ser.

This Development Plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.

John R. Blanton 8/19/92
Howard Soil Conservation District

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Baltimore, Maryland 21202
Tel: (301)837-0194 Fax: (301)837-3431

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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James M. Helms 8/24/92
DIRECTOR OF PUBLIC WORKS DATE

Robert Bennett 8-18-92
CHIEF, BUREAU OF UTILITIES DATE

William J. Blanton 8/20/92
CHIEF, LAND DEVELOPMENT DIV. DATE

DATE	DESCRIPTION	BY
10-4-93	MOVE MH-10 + LOWER INV. MH-14	SLC
REVISIONS		



WATER AND SEWER PLANS—CONTRACT #14-3153-D
PATAPSCO PARK ESTATES
SECTION FOUR
WATER & SEWER MAIN PROFILES

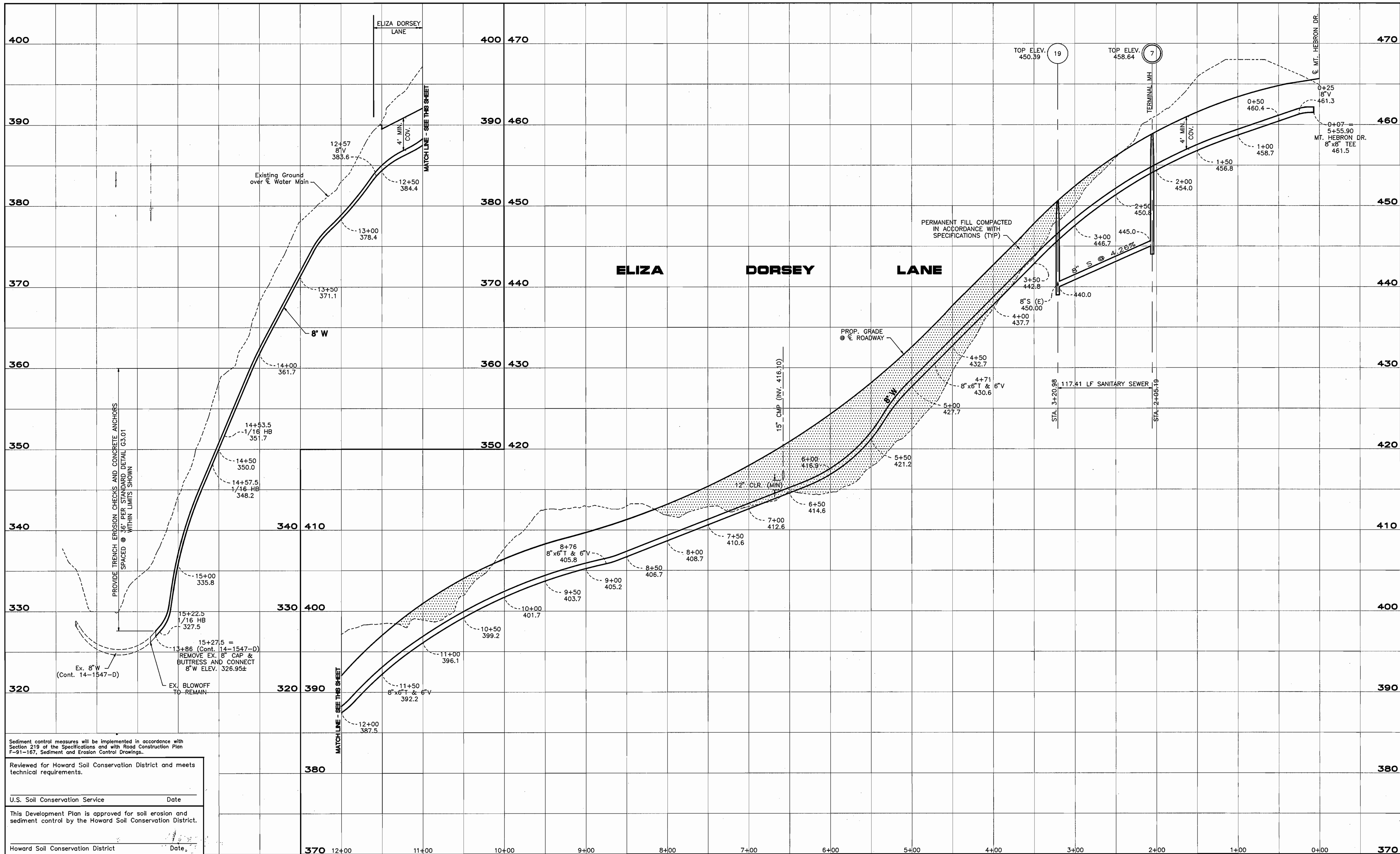
TAX MAP NO. 17
2nd ELECTION DISTRICT
DATE : JUNE 5, 1992

PARCEL 38
HOWARD COUNTY, MARYLAND

SHEET 4 OF 6

DES : GDT/AHK
DRAWN : REC
CHK : RHB

SCALE : HORIZ. 1"=50'
VERT. 1"=5'



Sediment control measures will be implemented in accordance with Section 219 of the Specifications and with Road Construction Plan F-31-157, Sediment and Erosion Control Drawings.

Reviewed for Howard Soil Conservation District and meets technical requirements.

U.S. Soil Conservation Service _____ Date _____

This Development Plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.

Howard Soil Conservation District _____ Date _____

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 CONSULTING ENGINEERS
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 Baltimore, Maryland 21202
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 SILVER SPRING, MARYLAND 20904

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

James M. Brown 8/24/92
 DIRECTOR OF PUBLIC WORKS DATE

Robert M. Brainer 8-18-92
 CHIEF, BUREAU OF UTILITIES DATE

Michael J. ... 8/24/92
 CHIEF, BUREAU OF ENGINEERING DATE

... 8/24/92
 CHIEF, LAND DEVELOPMENT DIV. DATE

DATE	DESCRIPTION	BY



WATER AND SEWER PLANS—CONTRACT #14-3153-D
 SECTION FOUR
WATER & SEWER MAIN PROFILES

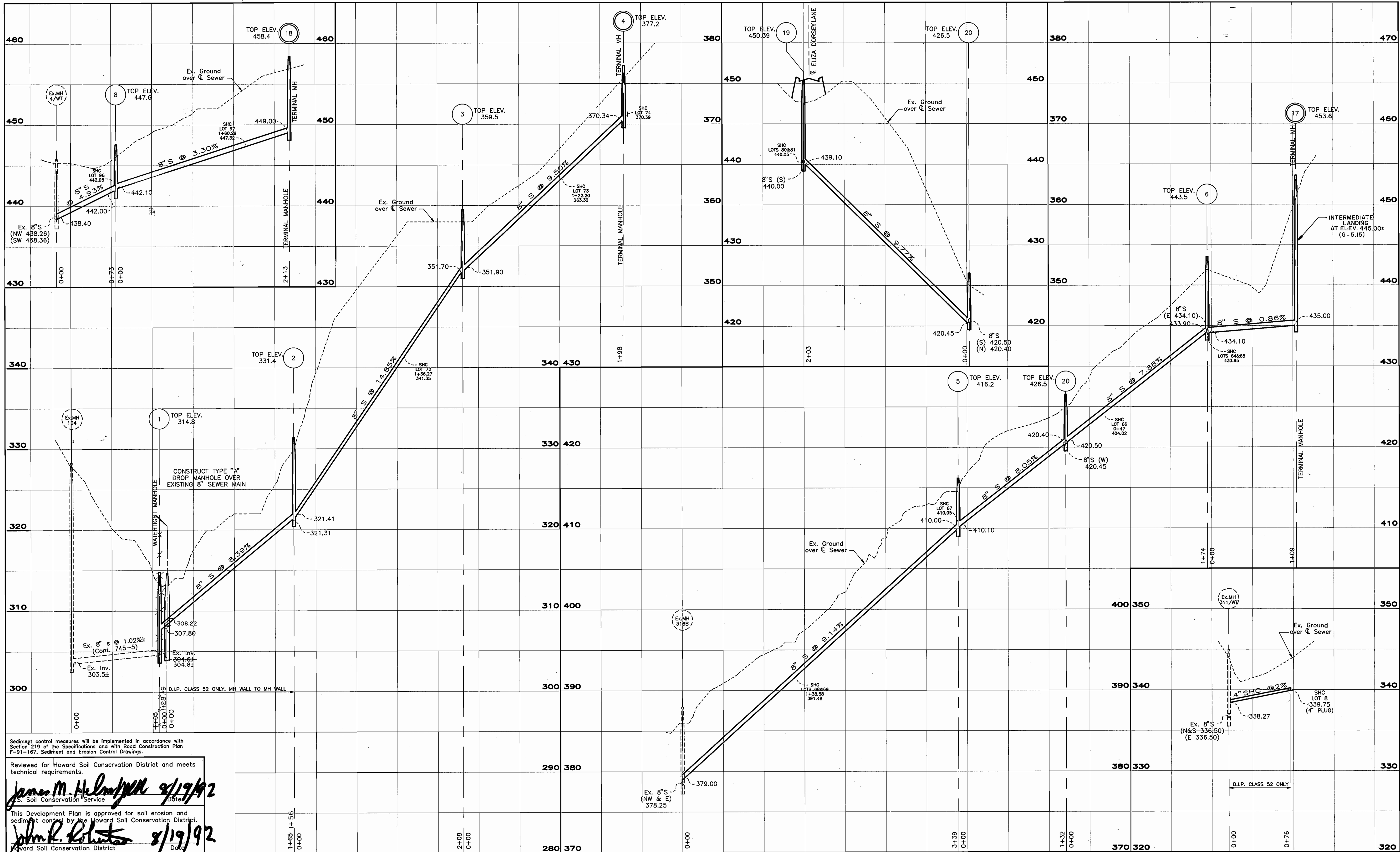
TAX MAP NO. 17
 2nd ELECTION DISTRICT
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PARCEL 38
 HOWARD COUNTY, MARYLAND

SHEET 5 OF 6

DES: GDT/AHK
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SCALE: HORIZ. 1"=50'
 VERT. 1"=5'



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Reviewed for Howard Soil Conservation District and meets technical requirements.

James M. Helms 8/19/92
S. Soil Conservation Service

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John R. Roberts 8/19/92
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HOWARD COUNTY, MARYLAND

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Robert B. Smith 8-18-92
CHIEF, BUREAU OF UTILITIES

John R. Roberts 8/19/92
CHIEF, LAND DEVELOPMENT DIV.

DATE	DESCRIPTION	BY
11-3-93	Move prop. sewer main between mh #1 & mh #2	SLC
REVISIONS		



WATER AND SEWER PLANS-CONTRACT #14-3153-D
PATAPSCO PARK ESTATES
SECTION FOUR
SEWER MAIN PROFILES

TAX MAP NO. 17
2nd ELECTION DISTRICT
DATE: JUNE 5, 1992

PARCEL 38
HOWARD COUNTY, MARYLAND

SHEET 6 OF 6

DES: GDT/AHK
DRAWN: REC
CHK: RHB

SCALE: HORIZ. 1"=50'
VERT. 1"=5'